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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Photovoltaic devices –
Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data

Dispositifs photovoltaïques –
Partie 3: Principes de mesure des dispositifs solaires photovoltaïques (PV) à usage terrestre incluant les données de l'éclairement spectral de référence

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PHOTOVOLTAIC DEVICES –

Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data

FOREWORD

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International Standard IEC 60904-3 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

This third edition cancels and replaces the second edition published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the direct beam irradiance corresponding to the global irradiance in Table 1 was included;
b) the term "Global photon irradiance" in Table 1 was changed to "Global photon flux";
c) the titles of some clauses have been changed (others have been added) in accordance with the usual structure of IEC standards.

This publication contains an attached file in the form of an Excel spreadsheet. This file is intended to be used as a complement and does not form an integral part of the publication.

The text of this standard is based on the following documents:

FDIS	Report on voting
82/1071/FDIS	82/1096/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 60904 series, published under the general title *Photovoltaic devices,* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

PHOTOVOLTAIC DEVICES –

Part 3: Measurement principles for terrestrial photovoltaic (PV) solar devices with reference spectral irradiance data

1 Scope and object

This part of IEC 60904 applies to the following photovoltaic devices for terrestrial applications:

– solar cells with or without a protective cover;
– sub-assemblies of solar cells;
– modules; and
– systems.

NOTE The term “test specimen” is used to denote any of these devices.

The principles contained in this standard cover testing in both natural and simulated sunlight.

Photovoltaic conversion is spectrally selective due to the nature of the semiconductor materials used in PV solar cells and modules. To compare the relative performance of different PV devices and materials a reference standard solar spectral distribution is necessary. This standard includes such a reference solar spectral irradiance distribution.

This standard also describes basic measurement principles for determining the electrical output of PV devices. The principles given in this standard are designed to relate the performance rating of PV devices to a common reference terrestrial solar spectral irradiance distribution.

The reference terrestrial solar spectral irradiance distribution is given in this standard in order to classify solar simulators according to the spectral performance requirements contained in IEC 60904-9.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60891, *Photovoltaic devices – Procedures for temperature and irradiance corrections to measured I-V characteristics*

IEC 60904-1, *Photovoltaic devices – Part 1: Measurements of photovoltaic current-voltage characteristics*

IEC 60904-2, *Photovoltaic devices – Part 2: Requirements for photovoltaic reference devices*

IEC 60904-5, *Photovoltaic devices – Part 5: Determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open-circuit voltage method*

IEC 60904-7, *Photovoltaic devices – Part 7: Computation of the spectral mismatch correction for measurements of photovoltaic* devices

IEC 60904-8, *Photovoltaic devices – Part 8: Measurement of spectral responsivity of a photovoltaic (PV) device*

3 Measurement principles

In current practice the photovoltaic performance of a solar cell or module is determined by exposing it at a known temperature to stable sunlight, natural or simulated, and measuring its current-voltage (I-V) characteristic curve while measuring the magnitude of both the incident irradiance and the PV device temperature. Detailed I-V curve measurement procedures are included in IEC 60904-1. The measured performances can then be corrected to standard test conditions (STC) or other desired conditions of irradiance and temperature according to IEC 60891. The corrected power output at the maximum power voltage and STC is commonly referred to as the rated power.

Incident irradiance can be measured by means of a PV reference device (whose spectral responsivity shall be known) or, if measuring under natural sunlight, by means of a thermopile-type irradiance detector (pyranometer). If a PV reference device is used, it shall satisfy the requirements specified in IEC 60904-2. Temperature determination of the PV device under test shall be made according to IEC 60904-1 or IEC 60904-5.

Since a solar cell has a wavelength-dependent response, its performance is significantly affected by the spectral distribution of the incident radiation, which in natural sunlight varies with factors such as location, weather, time of year, time of day, orientation of the receiving surface, etc., and with a simulator varies with its type and conditions of use. Regardless of whether the irradiance is measured with either a thermopile-type radiometer (that is not spectrally selective) or with a reference solar device, the spectral irradiance distribution of the incoming light shall be known in order to use IEC 60904-7 to calculate the spectral mismatch between the measured performance and the predicted performance under the global or direct reference solar spectral distribution defined in this standard.

When the spectral responsivity of the PV device is known as determined according to IEC 60904-8, it is also possible to use IEC 60904-7 to compute the performance of that PV device when exposed to light of any known spectral irradiance distribution.

4 Reference solar spectral irradiance distribution

The reference solar spectral distributions AM1.5 are given in Table 1 and Figure 1. These are

– global distribution (direct + diffuse) of sunlight, corresponding to an integrated irradiance of 1 000 $W \cdot m^{-2}$ incident on a sun-facing plane surface tilted at 37° to the horizontal, and

– the direct distribution of sunlight, corresponding to an integrated irradiance of 900 $W \cdot m^{-2}$ incident on a sun-facing plane surface perpendicular to the incident sunlight,

considering the wavelength-dependent albedo of a light bare soil, under the following atmospheric conditions:

– U.S. standard atmosphere with CO_2 concentration increased to current level (370 ppm), a rural aerosol model, and no pollution;

– precipitable water: 1,416 4 cm;

– ozone content: 0,343 8 atm-cm (or 343,8 DU);

– turbidity (aerosol optical depth): 0,084 at 500 nm;

– pressure: 101,325 kPa (i.e. sea level).

Data contained in Table 1 have been generated using the solar spectral model SMARTS, Version 2.9.2. A general description of this model and its suitability to reproduce actual solar

spectral irradiance distributions can be found in “Proposed Reference Irradiance Spectra for Solar Energy Systems Testing” by C. A. Gueymard, C. Myers and K. Emery[1], and in the references therein. Table 1 can be obtained using the data contained in Annex A as an input to the model SMARTS Version 2.9.2. The resulting output spectral irradiance values have to be multiplied by a normalization factor (0,997 08) in order to get an integrated irradiance of 1 000 $W \cdot m^{-2}$ in the wavelength range 0 to infinity for the global irradiance. This same scaling factor is applied to the direct spectrum giving an integrated irradiance of 900 $W \cdot m^{-2}$ in the wavelength range 0 to infinity.

At the time of publication of this standard the SMARTS Version 2.9.2 spectral model code is available, free of charge, subject to the author's license agreement, at http://www.nrel.gov/rredc/smarts. A copy of the model, not for distribution purposes, is kept under IEC TC 82 control.

The contents of Table 1 are included in an attached file in the form of an Excel spreadsheet.

Table 1 – Reference solar spectral irradiance distribution

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
280,0	4,717E-23	6,649E-5	0,00E+0	2,529E-26	3,564E-8	0,00E+0
280,5	1,227E-21	1,733E-3	3,19E-22	1,089E-24	1,537E-6	2,78E-25
281,0	5,673E-21	8,025E-3	2,04E-21	6,107E-24	8,640E-6	2,08E-24
281,5	1,562E-19	2,213E-1	4,25E-20	2,740E-22	3,883E-4	7,21E-23
282,0	1,191E-18	1,691E+0	3,79E-19	2,826E-21	4,012E-3	8,47E-22
282,5	4,530E-18	6,443E+0	2,53E-18	1,323E-20	1,882E-2	6,87E-21
283,0	1,840E-17	2,621E+1	1,04E-17	6,745E-20	9,609E-2	3,51E-20
283,5	3,526E-17	5,032E+1	2,77E-17	1,457E-19	2,080E-1	1,05E-19
284,0	7,246E-16	1,036E+3	3,06E-16	4,969E-18	7,105E+0	2,00E-18
284,5	2,478E-15	3,550E+3	1,41E-15	2,156E-17	3,088E+1	1,13E-17
285,0	7,991E-15	1,147E+4	4,94E-15	8,974E-17	1,288E+2	4,97E-17
285,5	4,249E-14	6,107E+4	2,26E-14	6,424E-16	9,232E+2	3,10E-16
286,0	1,364E-13	1,964E+5	8,33E-14	2,343E-15	3,374E+3	1,34E-15
286,5	8,358E-13	1,205E+6	4,26E-13	1,840E-14	2,654E+4	8,75E-15
287,0	2,729E-12	3,942E+6	1,64E-12	7,234E-14	1,045E+5	4,02E-14
287,5	1,087E-11	1,573E+7	6,30E-12	3,651E-13	5,284E+5	1,93E-13
288,0	6,216E-11	9,011E+7	3,20E-11	2,798E-12	4,057E+6	1,32E-12
288,5	1,711E-10	2,485E+8	1,10E-10	9,039E-12	1,313E+7	5,37E-12
289,0	5,610E-10	8,162E+8	3,56E-10	3,488E-11	5,074E+7	2,04E-11
289,5	2,069E-9	3,015E+9	1,25E-9	1,532E-10	2,233E+8	8,54E-11
290,0	5,999E-9	8,758E+9	3,95E-9	5,130E-10	7,490E+8	3,12E-10
290,5	1,374E-8	2,010E+10	1,03E-8	1,326E-9	1,940E+9	9,18E-10
291,0	3,495E-8	5,120E+10	2,61E-8	3,885E-9	5,691E+9	2,64E-9
291,5	1,088E-7	1,597E+11	7,40E-8	1,438E-8	2,111E+10	8,84E-9

1 C. A. Gueymard, C. Myers and K. Emery, “Proposed Reference Irradiance Spectra for Solar Energy Systems Testing”, *Solar Energy*, Vol 73, No. 6, pp. 443-467, 2002.

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
292,0	2,675E-7	3,932E+11	1,97E-7	4,067E-8	5,978E+10	2,72E-8
292,5	4,256E-7	6,267E+11	4,10E-7	7,021E-8	1,034E+11	6,19E-8
293,0	8,621E-7	1,272E+12	8,06E-7	1,571E-7	2,318E+11	1,33E-7
293,5	2,264E-6	3,345E+12	1,82E-6	4,696E-7	6,938E+11	3,40E-7
294,0	4,162E-6	6,160E+12	3,84E-6	9,428E-7	1,395E+12	7,91E-7
294,5	6,572E-6	9,743E+12	7,06E-6	1,592E-6	2,360E+12	1,57E-6
295,0	1,225E-5	1,820E+13	1,28E-5	3,215E-6	4,775E+12	3,05E-6
295,5	2,775E-5	4,127E+13	2,54E-5	7,997E-6	1,190E+13	6,65E-6
296,0	4,776E-5	7,117E+13	4,87E-5	1,469E-5	2,190E+13	1,38E-5
296,5	7,114E-5	1,062E+14	8,39E-5	2,324E-5	3,469E+13	2,52E-5
297,0	9,652E-5	1,443E+14	1,32E-4	3,309E-5	4,947E+13	4,15E-5
297,5	1,855E-4	2,779E+14	2,17E-4	6,771E-5	1,014E+14	7,23E-5
298,0	2,890E-4	4,336E+14	3,59E-4	1,110E-4	1,664E+14	1,27E-4
298,5	3,569E-4	5,362E+14	5,42E-4	1,423E-4	2,138E+14	1,99E-4
299,0	4,907E-4	7,386E+14	7,79E-4	2,026E-4	3,050E+14	2,97E-4
299,5	8,582E-4	1,294E+15	1,18E-3	3,728E-4	5,620E+14	4,70E-4
300,0	1,018E-3	1,537E+15	0,00	4,550E-4	6,871E+14	0,00
300,5	1,241E-3	1,878E+15	0,00	5,704E-4	8,629E+14	0,00
301,0	1,924E-3	2,916E+15	0,00	9,166E-4	1,389E+15	0,00
301,5	2,684E-3	4,073E+15	0,00	1,316E-3	1,998E+15	0,00
302,0	2,912E-3	4,428E+15	0,01	1,453E-3	2,209E+15	0,00
302,5	4,272E-3	6,505E+15	0,01	2,185E-3	3,327E+15	0,00
303,0	7,074E-3	1,079E+16	0,01	3,722E-3	5,678E+15	0,01
303,5	8,953E-3	1,368E+16	0,02	4,790E-3	7,319E+15	0,01
304,0	9,443E-3	1,445E+16	0,02	5,082E-3	7,778E+15	0,01
304,5	1,192E-2	1,827E+16	0,03	6,449E-3	9,885E+15	0,01
305,0	1,642E-2	2,520E+16	0,03	8,908E-3	1,368E+16	0,02
305,5	1,866E-2	2,870E+16	0,04	1,016E-2	1,562E+16	0,02
306,0	1,852E-2	2,853E+16	0,05	1,012E-2	1,559E+16	0,03
306,5	2,105E-2	3,247E+16	0,06	1,153E-2	1,780E+16	0,03
307,0	2,777E-2	4,291E+16	0,08	1,520E-2	2,349E+16	0,04
307,5	3,553E-2	5,500E+16	0,09	1,941E-2	3,005E+16	0,05
308,0	3,773E-2	5,850E+16	0,11	2,069E-2	3,208E+16	0,06
308,5	4,131E-2	6,415E+16	0,13	2,268E-2	3,523E+16	0,07
309,0	4,042E-2	6,287E+16	0,16	2,223E-2	3,458E+16	0,08
309,5	4,318E-2	6,728E+16	0,18	2,360E-2	3,678E+16	0,10
310,0	5,079E-2	7,926E+16	0,20	2,775E-2	4,330E+16	0,11
310,5	6,535E-2	1,022E+17	0,23	3,577E-2	5,592E+16	0,13
311,0	8,268E-2	1,294E+17	0,27	4,526E-2	7,086E+16	0,15
311,5	8,384E-2	1,315E+17	0,32	4,602E-2	7,217E+16	0,17
312,0	9,310E-2	1,462E+17	0,36	5,075E-2	7,971E+16	0,20

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
312,5	9,870E-2	1,553E+17	0,41	5,361E-2	8,434E+16	0,23
313,0	1,070E-1	1,686E+17	0,47	5,815E-2	9,163E+16	0,25
313,5	1,073E-1	1,693E+17	0,52	5,883E-2	9,284E+16	0,28
314,0	1,193E-1	1,886E+17	0,58	6,508E-2	1,029E+17	0,32
314,5	1,302E-1	2,062E+17	0,65	7,027E-2	1,113E+17	0,35
315,0	1,359E-1	2,154E+17	0,71	7,347E-2	1,165E+17	0,39
315,5	1,180E-1	1,875E+17	0,78	6,464E-2	1,027E+17	0,42
316,0	1,231E-1	1,959E+17	0,83	6,689E-2	1,064E+17	0,45
316,5	1,499E-1	2,389E+17	0,91	8,088E-2	1,289E+17	0,49
317,0	1,711E-1	2,730E+17	0,99	9,275E-2	1,480E+17	0,54
317,5	1,819E-1	2,908E+17	1,09	9,942E-2	1,589E+17	0,59
318,0	1,754E-1	2,808E+17	1,17	9,554E-2	1,529E+17	0,64
318,5	1,854E-1	2,972E+17	1,27	9,976E-2	1,600E+17	0,69
319,0	2,041E-1	3,278E+17	1,37	1,094E-1	1,757E+17	0,74
319,5	1,953E-1	3,142E+17	1,47	1,066E-1	1,715E+17	0,80
320,0	2,047E-1	3,297E+17	1,57	1,124E-1	1,811E+17	0,85
320,5	2,445E-1	3,945E+17	1,69	1,327E-1	2,140E+17	0,92
321,0	2,495E-1	4,032E+17	1,82	1,338E-1	2,161E+17	0,99
321,5	2,377E-1	3,848E+17	1,94	1,278E-1	2,068E+17	1,05
322,0	2,214E-1	3,589E+17	2,05	1,216E-1	1,972E+17	1,11
322,5	2,165E-1	3,514E+17	2,15	1,194E-1	1,938E+17	1,17
323,0	2,116E-1	3,441E+17	2,26	1,159E-1	1,884E+17	1,23
323,5	2,479E-1	4,037E+17	2,38	1,335E-1	2,175E+17	1,29
324,0	2,746E-1	4,478E+17	2,52	1,481E-1	2,415E+17	1,37
324,5	2,824E-1	4,613E+17	2,66	1,542E-1	2,519E+17	1,45
325,0	2,781E-1	4,550E+17	2,80	1,546E-1	2,529E+17	1,52
325,5	3,234E-1	5,300E+17	2,96	1,788E-1	2,930E+17	1,61
326,0	3,801E-1	6,238E+17	3,15	2,081E-1	3,415E+17	1,71
326,5	4,060E-1	6,674E+17	3,35	2,210E-1	3,632E+17	1,83
327,0	3,969E-1	6,534E+17	3,56	2,177E-1	3,584E+17	1,94
327,5	3,835E-1	6,323E+17	3,75	2,122E-1	3,499E+17	2,04
328,0	3,501E-1	5,781E+17	3,93	1,972E-1	3,255E+17	2,14
328,5	3,706E-1	6,128E+17	4,10	2,062E-1	3,409E+17	2,24
329,0	4,211E-1	6,975E+17	4,31	2,323E-1	3,847E+17	2,36
329,5	4,674E-1	7,753E+17	4,54	2,579E-1	4,278E+17	2,49
330,0	4,700E-1	7,808E+17	4,79	2,612E-1	4,339E+17	2,62
330,5	4,268E-1	7,100E+17	5,00	2,403E-1	3,999E+17	2,74
331,0	4,015E-1	6,689E+17	5,20	2,277E-1	3,794E+17	2,86
331,5	4,168E-1	6,956E+17	5,41	2,357E-1	3,933E+17	2,97
332,0	4,350E-1	7,270E+17	5,62	2,444E-1	4,084E+17	3,09
332,5	4,379E-1	7,330E+17	5,84	2,458E-1	4,115E+17	3,22

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
333,0	4,282E-1	7,178E+17	6,06	2,419E-1	4,056E+17	3,34
333,5	4,061E-1	6,817E+17	6,26	2,320E-1	3,895E+17	3,46
334,0	4,138E-1	6,957E+17	6,47	2,375E-1	3,994E+17	3,57
334,5	4,438E-1	7,473E+17	6,69	2,536E-1	4,270E+17	3,70
335,0	4,625E-1	7,800E+17	6,92	2,640E-1	4,452E+17	3,83
335,5	4,518E-1	7,631E+17	7,15	2,582E-1	4,361E+17	3,96
336,0	4,140E-1	7,002E+17	7,36	2,374E-1	4,016E+17	4,08
336,5	3,810E-1	6,455E+17	7,55	2,204E-1	3,733E+17	4,19
337,0	3,727E-1	6,323E+17	7,73	2,170E-1	3,682E+17	4,30
337,5	3,993E-1	6,785E+17	7,93	2,337E-1	3,970E+17	4,41
338,0	4,328E-1	7,365E+17	8,14	2,525E-1	4,296E+17	4,54
338,5	4,539E-1	7,735E+17	8,37	2,647E-1	4,511E+17	4,67
339,0	4,622E-1	7,888E+17	8,60	2,702E-1	4,611E+17	4,81
339,5	4,731E-1	8,085E+17	8,84	2,777E-1	4,745E+17	4,95
340,0	5,003E-1	8,564E+17	9,09	2,957E-1	5,062E+17	5,09
340,5	4,993E-1	8,558E+17	9,34	2,959E-1	5,072E+17	5,24
341,0	4,700E-1	8,068E+17	9,58	2,785E-1	4,781E+17	5,38
341,5	4,680E-1	8,045E+17	9,81	2,777E-1	4,774E+17	5,52
342,0	4,879E-1	8,400E+17	10,05	2,904E-1	4,999E+17	5,66
342,5	5,062E-1	8,728E+17	10,31	3,021E-1	5,208E+17	5,82
343,0	5,134E-1	8,865E+17	10,56	3,077E-1	5,313E+17	5,97
343,5	4,847E-1	8,381E+17	10,81	2,916E-1	5,043E+17	6,12
344,0	4,172E-1	7,225E+17	11,02	2,528E-1	4,378E+17	6,25
344,5	4,019E-1	6,970E+17	11,22	2,437E-1	4,226E+17	6,37
345,0	4,576E-1	7,948E+17	11,44	2,777E-1	4,824E+17	6,50
345,5	4,879E-1	8,486E+17	11,69	2,967E-1	5,161E+17	6,65
346,0	4,764E-1	8,298E+17	11,93	2,905E-1	5,059E+17	6,80
346,5	4,852E-1	8,463E+17	12,17	2,966E-1	5,174E+17	6,95
347,0	4,926E-1	8,605E+17	12,42	3,023E-1	5,281E+17	7,10
347,5	4,754E-1	8,316E+17	12,66	2,927E-1	5,120E+17	7,24
348,0	4,737E-1	8,299E+17	12,89	2,922E-1	5,119E+17	7,39
348,5	4,820E-1	8,455E+17	13,13	2,980E-1	5,228E+17	7,54
349,0	4,643E-1	8,157E+17	13,37	2,878E-1	5,056E+17	7,68
349,5	4,767E-1	8,386E+17	13,60	2,963E-1	5,214E+17	7,83
350,0	5,264E-1	9,276E+17	13,86	3,282E-1	5,782E+17	7,99
350,5	5,658E-1	9,983E+17	14,14	3,537E-1	6,241E+17	8,17
351,0	5,501E-1	9,720E+17	14,43	3,450E-1	6,096E+17	8,35
351,5	5,287E-1	9,355E+17	14,69	3,329E-1	5,891E+17	8,51
352,0	5,164E-1	9,151E+17	14,95	3,258E-1	5,773E+17	8,67
352,5	4,882E-1	8,663E+17	15,19	3,086E-1	5,477E+17	8,83
353,0	5,189E-1	9,221E+17	15,45	3,288E-1	5,843E+17	8,99

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
353,5	5,706E-1	1,015E+18	15,73	3,625E-1	6,450E+17	9,17
354,0	6,032E-1	1,075E+18	16,03	3,841E-1	6,845E+17	9,36
354,5	6,098E-1	1,088E+18	16,34	3,893E-1	6,947E+17	9,56
355,0	6,096E-1	1,090E+18	16,65	3,903E-1	6,974E+17	9,76
355,5	5,886E-1	1,053E+18	16,94	3,777E-1	6,759E+17	9,95
356,0	5,523E-1	9,897E+17	17,22	3,552E-1	6,366E+17	10,12
356,5	5,179E-1	9,295E+17	17,48	3,340E-1	5,994E+17	10,29
357,0	4,554E-1	8,184E+17	17,71	2,944E-1	5,291E+17	10,44
357,5	4,608E-1	8,293E+17	17,93	2,986E-1	5,374E+17	10,59
358,0	4,288E-1	7,728E+17	18,15	2,786E-1	5,020E+17	10,73
358,5	3,981E-1	7,185E+17	18,35	2,592E-1	4,678E+17	10,86
359,0	4,682E-1	8,461E+17	18,57	3,056E-1	5,523E+17	11,00
359,5	5,638E-1	1,020E+18	18,85	3,691E-1	6,679E+17	11,18
360,0	5,964E-1	1,081E+18	19,16	3,913E-1	7,091E+17	11,38
360,5	5,637E-1	1,023E+18	19,45	3,706E-1	6,725E+17	11,58
361,0	5,187E-1	9,427E+17	19,71	3,418E-1	6,211E+17	11,75
361,5	5,081E-1	9,246E+17	19,96	3,355E-1	6,105E+17	11,91
362,0	5,326E-1	9,707E+17	20,22	3,525E-1	6,423E+17	12,09
362,5	5,834E-1	1,065E+18	20,51	3,869E-1	7,061E+17	12,28
363,0	6,002E-1	1,097E+18	20,81	3,989E-1	7,289E+17	12,48
363,5	5,837E-1	1,068E+18	21,11	3,888E-1	7,115E+17	12,68
364,0	6,045E-1	1,108E+18	21,41	4,035E-1	7,395E+17	12,87
364,5	5,988E-1	1,099E+18	21,71	4,006E-1	7,351E+17	13,08
365,0	6,218E-1	1,143E+18	22,02	4,169E-1	7,660E+17	13,28
365,5	6,843E-1	1,259E+18	22,35	4,598E-1	8,459E+17	13,51
366,0	7,332E-1	1,351E+18	22,72	4,936E-1	9,095E+17	13,76
366,5	7,344E-1	1,355E+18	23,10	4,955E-1	9,142E+17	14,01
367,0	7,207E-1	1,332E+18	23,46	4,873E-1	9,002E+17	14,25
367,5	7,071E-1	1,308E+18	23,81	4,790E-1	8,862E+17	14,49
368,0	6,656E-1	1,233E+18	24,15	4,519E-1	8,371E+17	14,72
368,5	6,612E-1	1,227E+18	24,47	4,497E-1	8,343E+17	14,94
369,0	6,911E-1	1,284E+18	24,81	4,711E-1	8,750E+17	15,18
369,5	7,425E-1	1,381E+18	25,18	5,071E-1	9,432E+17	15,43
370,0	7,529E-1	1,402E+18	25,56	5,152E-1	9,595E+17	15,69
370,5	6,806E-1	1,269E+18	25,92	4,666E-1	8,703E+17	15,93
371,0	6,914E-1	1,291E+18	26,25	4,749E-1	8,869E+17	16,16
371,5	7,184E-1	1,344E+18	26,61	4,944E-1	9,247E+17	16,41
372,0	6,725E-1	1,259E+18	26,95	4,637E-1	8,684E+17	16,64
372,5	6,407E-1	1,201E+18	27,27	4,426E-1	8,300E+17	16,86
373,0	6,171E-1	1,159E+18	27,58	4,271E-1	8,019E+17	17,08
373,5	5,562E-1	1,046E+18	27,86	3,857E-1	7,252E+17	17,27

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
374,0	5,548E-1	1,045E+18	28,13	3,854E-1	7,256E+17	17,46
374,5	5,507E-1	1,038E+18	28,41	3,832E-1	7,225E+17	17,65
375,0	5,876E-1	1,109E+18	28,70	4,097E-1	7,734E+17	17,85
375,5	6,497E-1	1,228E+18	29,02	4,538E-1	8,579E+17	18,08
376,0	6,728E-1	1,274E+18	29,36	4,708E-1	8,912E+17	18,32
376,5	6,620E-1	1,255E+18	29,69	4,640E-1	8,795E+17	18,55
377,0	7,102E-1	1,348E+18	30,04	4,987E-1	9,464E+17	18,80
377,5	7,922E-1	1,506E+18	30,43	5,573E-1	1,059E+18	19,07
378,0	8,535E-1	1,624E+18	30,86	6,014E-1	1,144E+18	19,37
378,5	8,318E-1	1,585E+18	31,29	5,872E-1	1,119E+18	19,68
379,0	7,417E-1	1,415E+18	31,67	5,246E-1	1,001E+18	19,94
379,5	6,649E-1	1,270E+18	32,00	4,712E-1	9,002E+17	20,18
380,0	6,987E-1	1,337E+18	32,34	4,961E-1	9,489E+17	20,42
380,5	7,486E-1	1,434E+18	32,71	5,324E-1	1,020E+18	20,68
381,0	7,616E-1	1,461E+18	33,09	5,427E-1	1,041E+18	20,96
381,5	6,864E-1	1,318E+18	33,45	4,899E-1	9,409E+17	21,21
382,0	5,851E-1	1,125E+18	33,74	4,184E-1	8,045E+17	21,42
382,5	5,061E-1	9,746E+17	33,99	3,626E-1	6,981E+17	21,60
383,0	4,537E-1	8,747E+17	34,22	3,255E-1	6,276E+17	21,76
383,5	4,392E-1	8,479E+17	34,43	3,157E-1	6,094E+17	21,91
384,0	5,082E-1	9,824E+17	34,68	3,658E-1	7,072E+17	22,09
384,5	6,118E-1	1,184E+18	34,98	4,411E-1	8,538E+17	22,31
385,0	6,716E-1	1,302E+18	35,32	4,850E-1	9,399E+17	22,55
385,5	6,418E-1	1,245E+18	35,65	4,641E-1	9,007E+17	22,79
386,0	6,192E-1	1,203E+18	35,96	4,485E-1	8,716E+17	23,02
386,5	6,438E-1	1,253E+18	36,28	4,671E-1	9,089E+17	23,25
387,0	6,496E-1	1,266E+18	36,60	4,721E-1	9,197E+17	23,48
387,5	6,402E-1	1,249E+18	36,92	4,660E-1	9,089E+17	23,72
388,0	6,340E-1	1,238E+18	37,24	4,622E-1	9,027E+17	23,95
388,5	6,295E-1	1,231E+18	37,56	4,596E-1	8,989E+17	24,18
389,0	6,834E-1	1,338E+18	37,89	4,998E-1	9,786E+17	24,42
389,5	7,575E-1	1,485E+18	38,27	5,548E-1	1,088E+18	24,70
390,0	7,947E-1	1,560E+18	38,67	5,829E-1	1,144E+18	24,99
390,5	8,014E-1	1,575E+18	39,07	5,887E-1	1,157E+18	25,29
391,0	8,489E-1	1,671E+18	39,49	6,245E-1	1,229E+18	25,60
391,5	8,609E-1	1,697E+18	39,93	6,343E-1	1,250E+18	25,92
392,0	7,926E-1	1,564E+18	40,33	5,849E-1	1,154E+18	26,22
392,5	6,606E-1	1,305E+18	40,67	4,882E-1	9,646E+17	26,47
393,0	4,784E-1	9,464E+17	40,92	3,540E-1	7,003E+17	26,65
393,5	3,804E-1	7,536E+17	41,10	2,819E-1	5,584E+17	26,78
394,0	4,942E-1	9,803E+17	41,32	3,667E-1	7,274E+17	26,95

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
394,5	6,819E-1	1,354E+18	41,65	5,066E-1	1,006E+18	27,19
395,0	8,054E-1	1,601E+18	42,06	5,992E-1	1,192E+18	27,50
395,5	8,579E-1	1,708E+18	42,50	6,391E-1	1,273E+18	27,83
396,0	7,543E-1	1,504E+18	42,89	5,628E-1	1,122E+18	28,12
396,5	5,486E-1	1,095E+18	43,18	4,098E-1	8,180E+17	28,34
397,0	4,250E-1	8,493E+17	43,38	3,179E-1	6,353E+17	28,49
397,5	6,276E-1	1,256E+18	43,66	4,701E-1	9,408E+17	28,69
398,0	8,500E-1	1,703E+18	44,08	6,376E-1	1,277E+18	29,01
398,5	1,004E+0	2,014E+18	44,59	7,540E-1	1,513E+18	29,39
399,0	1,066E+0	2,142E+18	45,13	8,017E-1	1,610E+18	29,80
399,5	1,099E+0	2,210E+18	45,69	8,274E-1	1,664E+18	30,22
400,0	1,111E+0	2,237E+18	46,24	8,374E-1	1,686E+18	30,64
401,0	1,157E+0	2,335E+18	47,67	8,744E-1	1,765E+18	31,72
402,0	1,203E+0	2,434E+18	48,87	9,112E-1	1,844E+18	32,63
403,0	1,158E+0	2,349E+18	50,05	8,795E-1	1,784E+18	33,52
404,0	1,177E+0	2,393E+18	51,21	8,959E-1	1,822E+18	34,41
405,0	1,148E+0	2,340E+18	52,37	8,759E-1	1,786E+18	35,29
406,0	1,119E+0	2,288E+18	53,49	8,563E-1	1,750E+18	36,15
407,0	1,099E+0	2,253E+18	54,59	8,430E-1	1,727E+18	36,99
408,0	1,148E+0	2,358E+18	55,72	8,823E-1	1,812E+18	37,86
409,0	1,226E+0	2,525E+18	56,94	9,444E-1	1,945E+18	38,80
410,0	1,045E+0	2,158E+18	58,05	8,067E-1	1,665E+18	39,65
411,0	1,170E+0	2,422E+18	59,14	9,051E-1	1,873E+18	40,50
412,0	1,244E+0	2,581E+18	60,40	9,640E-1	2,000E+18	41,47
413,0	1,194E+0	2,482E+18	61,63	9,268E-1	1,927E+18	42,43
414,0	1,181E+0	2,461E+18	62,80	9,187E-1	1,915E+18	43,34
415,0	1,222E+0	2,553E+18	64,01	9,529E-1	1,991E+18	44,28
416,0	1,259E+0	2,636E+18	65,27	9,834E-1	2,059E+18	45,26
417,0	1,228E+0	2,577E+18	66,51	9,611E-1	2,018E+18	46,24
418,0	1,174E+0	2,471E+18	67,69	9,212E-1	1,939E+18	47,16
419,0	1,222E+0	2,578E+18	68,89	9,607E-1	2,027E+18	48,10
420,0	1,120E+0	2,368E+18	70,04	8,821E-1	1,865E+18	49,02
421,0	1,272E+0	2,696E+18	71,25	1,004E+0	2,127E+18	49,97
422,0	1,255E+0	2,665E+18	72,55	9,921E-1	2,108E+18	50,99
423,0	1,215E+0	2,587E+18	73,77	9,625E-1	2,050E+18	51,96
424,0	1,208E+0	2,579E+18	74,97	9,590E-1	2,047E+18	52,91
425,0	1,245E+0	2,664E+18	76,20	9,902E-1	2,119E+18	53,90
426,0	1,210E+0	2,595E+18	77,43	9,639E-1	2,067E+18	54,87
427,0	1,169E+0	2,513E+18	78,60	9,328E-1	2,005E+18	55,81
428,0	1,180E+0	2,543E+18	79,77	9,435E-1	2,033E+18	56,74
429,0	1,093E+0	2,361E+18	80,89	8,751E-1	1,890E+18	57,64

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
430,0	8,721E-1	1,888E+18	81,79	6,993E-1	1,514E+18	58,36
431,0	7,916E-1	1,718E+18	82,55	6,359E-1	1,380E+18	58,97
432,0	1,317E+0	2,864E+18	83,71	1,060E+0	2,305E+18	59,91
433,0	1,225E+0	2,671E+18	85,09	9,876E-1	2,153E+18	61,02
434,0	1,132E+0	2,473E+18	86,23	9,139E-1	1,997E+18	61,93
435,0	1,242E+0	2,719E+18	87,42	1,004E+0	2,199E+18	62,90
436,0	1,362E+0	2,989E+18	88,78	1,103E+0	2,421E+18	64,00
437,0	1,390E+0	3,058E+18	90,19	1,127E+0	2,480E+18	65,14
438,0	1,220E+0	2,691E+18	91,46	9,908E-1	2,185E+18	66,17
439,0	1,174E+0	2,595E+18	92,60	9,547E-1	2,110E+18	67,10
440,0	1,346E+0	2,981E+18	93,89	1,096E+0	2,428E+18	68,16
441,0	1,327E+0	2,947E+18	95,27	1,083E+0	2,404E+18	69,28
442,0	1,421E+0	3,162E+18	96,66	1,161E+0	2,582E+18	70,41
443,0	1,441E+0	3,214E+18	98,12	1,179E+0	2,629E+18	71,61
444,0	1,404E+0	3,139E+18	99,54	1,150E+0	2,571E+18	72,77
445,0	1,458E+0	3,265E+18	100,97	1,196E+0	2,679E+18	73,95
446,0	1,307E+0	2,934E+18	102,33	1,074E+0	2,410E+18	75,06
447,0	1,486E+0	3,344E+18	103,74	1,222E+0	2,750E+18	76,22
448,0	1,504E+0	3,391E+18	105,28	1,239E+0	2,793E+18	77,49
449,0	1,500E+0	3,391E+18	106,79	1,237E+0	2,797E+18	78,73
450,0	1,555E+0	3,523E+18	108,33	1,284E+0	2,910E+18	80,00
451,0	1,613E+0	3,661E+18	109,94	1,334E+0	3,028E+18	81,34
452,0	1,544E+0	3,513E+18	111,51	1,279E+0	2,909E+18	82,64
453,0	1,426E+0	3,251E+18	112,95	1,182E+0	2,695E+18	83,83
454,0	1,529E+0	3,495E+18	114,42	1,269E+0	2,901E+18	85,06
455,0	1,518E+0	3,477E+18	115,97	1,262E+0	2,890E+18	86,34
456,0	1,568E+0	3,599E+18	117,52	1,305E+0	2,996E+18	87,63
457,0	1,581E+0	3,637E+18	119,11	1,317E+0	3,031E+18	88,96
458,0	1,547E+0	3,567E+18	120,67	1,291E+0	2,976E+18	90,26
459,0	1,535E+0	3,546E+18	122,20	1,282E+0	2,963E+18	91,54
460,0	1,525E+0	3,531E+18	123,73	1,275E+0	2,953E+18	92,81
461,0	1,578E+0	3,662E+18	125,29	1,322E+0	3,067E+18	94,12
462,0	1,593E+0	3,705E+18	126,89	1,335E+0	3,106E+18	95,46
463,0	1,598E+0	3,726E+18	128,49	1,341E+0	3,126E+18	96,81
464,0	1,550E+0	3,620E+18	130,05	1,302E+0	3,041E+18	98,12
465,0	1,531E+0	3,583E+18	131,58	1,287E+0	3,012E+18	99,40
466,0	1,563E+0	3,666E+18	133,13	1,315E+0	3,085E+18	100,71
467,0	1,493E+0	3,510E+18	134,65	1,258E+0	2,957E+18	101,98
468,0	1,557E+0	3,669E+18	136,17	1,314E+0	3,096E+18	103,27
469,0	1,564E+0	3,692E+18	137,75	1,321E+0	3,119E+18	104,60
470,0	1,503E+0	3,557E+18	139,27	1,271E+0	3,008E+18	105,89

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
471,0	1,529E+0	3,625E+18	140,78	1,294E+0	3,068E+18	107,16
472,0	1,608E+0	3,821E+18	142,37	1,362E+0	3,237E+18	108,51
473,0	1,545E+0	3,680E+18	143,95	1,311E+0	3,121E+18	109,86
474,0	1,563E+0	3,729E+18	145,49	1,327E+0	3,165E+18	111,16
475,0	1,614E+0	3,859E+18	147,10	1,372E+0	3,280E+18	112,53
476,0	1,559E+0	3,735E+18	148,68	1,326E+0	3,178E+18	113,88
477,0	1,568E+0	3,765E+18	150,24	1,335E+0	3,206E+18	115,20
478,0	1,618E+0	3,894E+18	151,84	1,380E+0	3,320E+18	116,57
479,0	1,587E+0	3,827E+18	153,45	1,355E+0	3,267E+18	117,94
480,0	1,613E+0	3,899E+18	155,05	1,379E+0	3,331E+18	119,31
481,0	1,613E+0	3,906E+18	156,67	1,380E+0	3,341E+18	120,69
482,0	1,619E+0	3,928E+18	158,29	1,386E+0	3,363E+18	122,08
483,0	1,599E+0	3,888E+18	159,89	1,370E+0	3,332E+18	123,45
484,0	1,569E+0	3,822E+18	161,46	1,345E+0	3,278E+18	124,80
485,0	1,564E+0	3,818E+18	163,02	1,342E+0	3,276E+18	126,14
486,0	1,268E+0	3,102E+18	164,36	1,089E+0	2,663E+18	127,29
487,0	1,420E+0	3,481E+18	165,67	1,220E+0	2,991E+18	128,41
488,0	1,537E+0	3,775E+18	167,22	1,321E+0	3,246E+18	129,74
489,0	1,448E+0	3,564E+18	168,71	1,246E+0	3,066E+18	131,03
490,0	1,618E+0	3,990E+18	170,27	1,393E+0	3,436E+18	132,37
491,0	1,555E+0	3,844E+18	171,88	1,340E+0	3,311E+18	133,76
492,0	1,483E+0	3,672E+18	173,37	1,278E+0	3,166E+18	135,04
493,0	1,586E+0	3,935E+18	174,91	1,368E+0	3,395E+18	136,37
494,0	1,548E+0	3,850E+18	176,49	1,336E+0	3,323E+18	137,74
495,0	1,644E+0	4,096E+18	178,10	1,420E+0	3,538E+18	139,13
496,0	1,563E+0	3,903E+18	179,71	1,351E+0	3,373E+18	140,52
497,0	1,590E+0	3,978E+18	181,27	1,375E+0	3,440E+18	141,87
498,0	1,546E+0	3,877E+18	182,83	1,338E+0	3,355E+18	143,22
499,0	1,546E+0	3,884E+18	184,37	1,339E+0	3,364E+18	144,55
500,0	1,541E+0	3,878E+18	185,91	1,335E+0	3,361E+18	145,89
501,0	1,493E+0	3,767E+18	187,42	1,295E+0	3,267E+18	147,19
502,0	1,492E+0	3,771E+18	188,90	1,295E+0	3,273E+18	148,48
503,0	1,561E+0	3,952E+18	190,44	1,356E+0	3,433E+18	149,82
504,0	1,454E+0	3,690E+18	191,94	1,265E+0	3,208E+18	151,12
505,0	1,559E+0	3,963E+18	193,44	1,356E+0	3,447E+18	152,43
506,0	1,622E+0	4,131E+18	195,08	1,411E+0	3,595E+18	153,85
507,0	1,552E+0	3,960E+18	196,66	1,351E+0	3,448E+18	155,23
508,0	1,512E+0	3,867E+18	198,17	1,317E+0	3,368E+18	156,54
509,0	1,585E+0	4,061E+18	199,72	1,381E+0	3,539E+18	157,90
510,0	1,544E+0	3,963E+18	201,29	1,346E+0	3,455E+18	159,27
511,0	1,572E+0	4,045E+18	202,85	1,371E+0	3,528E+18	160,62

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
512,0	1,614E+0	4,160E+18	204,46	1,408E+0	3,630E+18	162,03
513,0	1,516E+0	3,916E+18	206,01	1,324E+0	3,419E+18	163,38
514,0	1,484E+0	3,840E+18	207,48	1,297E+0	3,355E+18	164,66
515,0	1,527E+0	3,959E+18	208,99	1,335E+0	3,460E+18	165,98
516,0	1,541E+0	4,003E+18	210,53	1,348E+0	3,500E+18	167,34
517,0	1,256E+0	3,268E+18	211,87	1,099E+0	2,859E+18	168,50
518,0	1,436E+0	3,745E+18	213,18	1,257E+0	3,277E+18	169,66
519,0	1,392E+0	3,636E+18	214,63	1,219E+0	3,184E+18	170,92
520,0	1,519E+0	3,977E+18	216,11	1,331E+0	3,484E+18	172,22
521,0	1,530E+0	4,013E+18	217,67	1,341E+0	3,518E+18	173,58
522,0	1,564E+0	4,111E+18	219,23	1,372E+0	3,605E+18	174,95
523,0	1,475E+0	3,882E+18	220,73	1,294E+0	3,406E+18	176,27
524,0	1,586E+0	4,183E+18	222,27	1,392E+0	3,672E+18	177,62
525,0	1,574E+0	4,159E+18	223,87	1,382E+0	3,652E+18	179,03
526,0	1,530E+0	4,050E+18	225,41	1,344E+0	3,559E+18	180,38
527,0	1,338E+0	3,549E+18	226,78	1,176E+0	3,120E+18	181,59
528,0	1,531E+0	4,070E+18	228,22	1,347E+0	3,580E+18	182,85
529,0	1,602E+0	4,267E+18	229,85	1,410E+0	3,755E+18	184,29
530,0	1,540E+0	4,109E+18	231,43	1,356E+0	3,618E+18	185,67
531,0	1,624E+0	4,342E+18	233,01	1,431E+0	3,824E+18	187,07
532,0	1,595E+0	4,272E+18	234,64	1,405E+0	3,764E+18	188,50
533,0	1,424E+0	3,822E+18	236,10	1,255E+0	3,368E+18	189,79
534,0	1,526E+0	4,102E+18	237,55	1,345E+0	3,616E+18	191,07
535,0	1,549E+0	4,172E+18	239,12	1,366E+0	3,679E+18	192,46
536,0	1,615E+0	4,358E+18	240,73	1,425E+0	3,845E+18	193,87
537,0	1,495E+0	4,040E+18	242,27	1,319E+0	3,566E+18	195,23
538,0	1,569E+0	4,250E+18	243,79	1,386E+0	3,753E+18	196,57
539,0	1,531E+0	4,153E+18	245,35	1,352E+0	3,668E+18	197,95
540,0	1,478E+0	4,018E+18	246,83	1,306E+0	3,550E+18	199,26
541,0	1,421E+0	3,870E+18	248,25	1,256E+0	3,420E+18	200,52
542,0	1,547E+0	4,220E+18	249,75	1,367E+0	3,731E+18	201,84
543,0	1,521E+0	4,158E+18	251,31	1,345E+0	3,678E+18	203,22
544,0	1,575E+0	4,312E+18	252,87	1,393E+0	3,815E+18	204,60
545,0	1,539E+0	4,222E+18	254,43	1,362E+0	3,736E+18	205,98
546,0	1,525E+0	4,191E+18	255,95	1,350E+0	3,710E+18	207,32
547,0	1,545E+0	4,253E+18	257,48	1,368E+0	3,766E+18	208,68
548,0	1,501E+0	4,140E+18	259,00	1,329E+0	3,667E+18	210,03
549,0	1,548E+0	4,277E+18	260,52	1,371E+0	3,790E+18	211,38
550,0	1,535E+0	4,251E+18	262,07	1,361E+0	3,768E+18	212,75
551,0	1,534E+0	4,254E+18	263,61	1,360E+0	3,772E+18	214,11
552,0	1,565E+0	4,349E+18	265,16	1,388E+0	3,858E+18	215,49

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
553,0	1,521E+0	4,233E+18	266,70	1,349E+0	3,756E+18	216,86
554,0	1,550E+0	4,324E+18	268,23	1,376E+0	3,838E+18	218,22
555,0	1,559E+0	4,355E+18	269,80	1,384E+0	3,868E+18	219,61
556,0	1,532E+0	4,288E+18	271,34	1,361E+0	3,810E+18	220,97
557,0	1,494E+0	4,190E+18	272,84	1,328E+0	3,724E+18	222,31
558,0	1,527E+0	4,288E+18	274,35	1,357E+0	3,813E+18	223,65
559,0	1,444E+0	4,064E+18	275,82	1,285E+0	3,615E+18	224,96
560,0	1,470E+0	4,143E+18	277,26	1,308E+0	3,687E+18	226,24
561,0	1,555E+0	4,391E+18	278,80	1,384E+0	3,910E+18	227,61
562,0	1,480E+0	4,188E+18	280,32	1,319E+0	3,731E+18	228,97
563,0	1,536E+0	4,354E+18	281,82	1,369E+0	3,880E+18	230,31
564,0	1,506E+0	4,276E+18	283,35	1,343E+0	3,812E+18	231,67
565,0	1,516E+0	4,311E+18	284,86	1,352E+0	3,844E+18	233,01
566,0	1,433E+0	4,084E+18	286,31	1,279E+0	3,643E+18	234,31
567,0	1,528E+0	4,360E+18	287,80	1,363E+0	3,891E+18	235,63
568,0	1,514E+0	4,328E+18	289,34	1,351E+0	3,864E+18	237,01
569,0	1,476E+0	4,229E+18	290,82	1,319E+0	3,778E+18	238,33
570,0	1,477E+0	4,239E+18	292,29	1,320E+0	3,788E+18	239,65
571,0	1,429E+0	4,107E+18	293,73	1,277E+0	3,672E+18	240,93
572,0	1,509E+0	4,345E+18	295,21	1,350E+0	3,886E+18	242,25
573,0	1,515E+0	4,371E+18	296,74	1,356E+0	3,910E+18	243,63
574,0	1,508E+0	4,356E+18	298,25	1,349E+0	3,897E+18	244,98
575,0	1,473E+0	4,265E+18	299,73	1,319E+0	3,817E+18	246,30
576,0	1,461E+0	4,237E+18	301,19	1,308E+0	3,793E+18	247,61
577,0	1,498E+0	4,351E+18	302,67	1,341E+0	3,896E+18	248,94
578,0	1,452E+0	4,224E+18	304,14	1,300E+0	3,783E+18	250,26
579,0	1,473E+0	4,293E+18	305,60	1,319E+0	3,845E+18	251,56
580,0	1,498E+0	4,373E+18	307,10	1,342E+0	3,917E+18	252,90
581,0	1,505E+0	4,400E+18	308,61	1,348E+0	3,942E+18	254,25
582,0	1,528E+0	4,475E+18	310,13	1,369E+0	4,011E+18	255,62
583,0	1,543E+0	4,530E+18	311,68	1,383E+0	4,059E+18	257,00
584,0	1,540E+0	4,528E+18	313,22	1,381E+0	4,059E+18	258,39
585,0	1,528E+0	4,500E+18	314,75	1,370E+0	4,034E+18	259,76
586,0	1,491E+0	4,398E+18	316,25	1,337E+0	3,944E+18	261,10
587,0	1,524E+0	4,502E+18	317,75	1,367E+0	4,039E+18	262,45
588,0	1,489E+0	4,408E+18	319,26	1,336E+0	3,956E+18	263,80
589,0	1,286E+0	3,812E+18	320,59	1,155E+0	3,424E+18	265,00
590,0	1,367E+0	4,060E+18	321,88	1,228E+0	3,647E+18	266,16
591,0	1,462E+0	4,350E+18	323,34	1,313E+0	3,907E+18	267,47
592,0	1,431E+0	4,265E+18	324,80	1,286E+0	3,833E+18	268,79
593,0	1,452E+0	4,334E+18	326,24	1,305E+0	3,895E+18	270,08

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
594,0	1,445E+0	4,321E+18	327,70	1,299E+0	3,885E+18	271,38
595,0	1,427E+0	4,273E+18	329,12	1,283E+0	3,844E+18	272,67
596,0	1,470E+0	4,411E+18	330,58	1,322E+0	3,967E+18	273,98
597,0	1,475E+0	4,431E+18	332,06	1,326E+0	3,986E+18	275,31
598,0	1,456E+0	4,385E+18	333,53	1,310E+0	3,945E+18	276,63
599,0	1,456E+0	4,392E+18	334,98	1,311E+0	3,952E+18	277,94
600,0	1,471E+0	4,443E+18	336,44	1,324E+0	3,999E+18	279,26
601,0	1,454E+0	4,398E+18	337,91	1,309E+0	3,959E+18	280,57
602,0	1,432E+0	4,339E+18	339,34	1,289E+0	3,907E+18	281,86
603,0	1,462E+0	4,438E+18	340,79	1,317E+0	3,997E+18	283,17
604,0	1,488E+0	4,524E+18	342,28	1,340E+0	4,074E+18	284,51
605,0	1,485E+0	4,523E+18	343,77	1,338E+0	4,075E+18	285,85
606,0	1,478E+0	4,509E+18	345,25	1,331E+0	4,062E+18	287,18
607,0	1,487E+0	4,543E+18	346,73	1,340E+0	4,093E+18	288,52
608,0	1,482E+0	4,536E+18	348,22	1,335E+0	4,087E+18	289,86
609,0	1,471E+0	4,509E+18	349,69	1,325E+0	4,063E+18	291,19
610,0	1,464E+0	4,497E+18	351,15	1,320E+0	4,053E+18	292,50
611,0	1,457E+0	4,481E+18	352,61	1,313E+0	4,039E+18	293,82
612,0	1,479E+0	4,556E+18	354,08	1,333E+0	4,107E+18	295,14
613,0	1,458E+0	4,499E+18	355,55	1,314E+0	4,056E+18	296,47
614,0	1,414E+0	4,369E+18	356,97	1,275E+0	3,940E+18	297,75
615,0	1,465E+0	4,537E+18	358,41	1,322E+0	4,091E+18	299,05
616,0	1,427E+0	4,425E+18	359,86	1,287E+0	3,991E+18	300,35
617,0	1,409E+0	4,375E+18	361,26	1,271E+0	3,947E+18	301,62
618,0	1,462E+0	4,549E+18	362,71	1,319E+0	4,103E+18	302,92
619,0	1,469E+0	4,578E+18	364,19	1,325E+0	4,130E+18	304,26
620,0	1,470E+0	4,587E+18	365,66	1,326E+0	4,139E+18	305,59
621,0	1,476E+0	4,614E+18	367,13	1,332E+0	4,164E+18	306,92
622,0	1,423E+0	4,455E+18	368,57	1,284E+0	4,022E+18	308,22
623,0	1,412E+0	4,430E+18	369,97	1,276E+0	4,001E+18	309,48
624,0	1,408E+0	4,422E+18	371,38	1,271E+0	3,994E+18	310,75
625,0	1,399E+0	4,400E+18	372,78	1,263E+0	3,974E+18	312,02
626,0	1,397E+0	4,403E+18	374,17	1,262E+0	3,976E+18	313,28
627,0	1,438E+0	4,537E+18	375,60	1,298E+0	4,098E+18	314,56
628,0	1,359E+0	4,297E+18	376,99	1,229E+0	3,886E+18	315,82
629,0	1,407E+0	4,456E+18	378,37	1,272E+0	4,028E+18	317,06
630,0	1,388E+0	4,403E+18	379,77	1,255E+0	3,981E+18	318,33
631,0	1,412E+0	4,485E+18	381,17	1,276E+0	4,054E+18	319,60
632,0	1,360E+0	4,326E+18	382,55	1,229E+0	3,911E+18	320,85
633,0	1,447E+0	4,610E+18	383,96	1,307E+0	4,165E+18	322,12
634,0	1,424E+0	4,546E+18	385,41	1,287E+0	4,107E+18	323,43

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
635,0	1,442E+0	4,608E+18	386,85	1,303E+0	4,164E+18	324,73
636,0	1,409E+0	4,510E+18	388,27	1,273E+0	4,076E+18	326,01
637,0	1,457E+0	4,671E+18	389,70	1,317E+0	4,222E+18	327,31
638,0	1,466E+0	4,710E+18	391,18	1,325E+0	4,257E+18	328,64
639,0	1,460E+0	4,698E+18	392,64	1,320E+0	4,246E+18	329,97
640,0	1,430E+0	4,607E+18	394,08	1,292E+0	4,164E+18	331,27
641,0	1,431E+0	4,616E+18	395,50	1,293E+0	4,173E+18	332,55
642,0	1,433E+0	4,633E+18	396,93	1,296E+0	4,188E+18	333,85
643,0	1,448E+0	4,688E+18	398,38	1,309E+0	4,238E+18	335,15
644,0	1,442E+0	4,675E+18	399,83	1,304E+0	4,226E+18	336,46
645,0	1,453E+0	4,716E+18	401,28	1,313E+0	4,264E+18	337,77
646,0	1,411E+0	4,588E+18	402,70	1,276E+0	4,150E+18	339,06
647,0	1,405E+0	4,575E+18	404,10	1,271E+0	4,139E+18	340,32
648,0	1,391E+0	4,538E+18	405,49	1,259E+0	4,106E+18	341,58
649,0	1,348E+0	4,404E+18	406,84	1,220E+0	3,985E+18	342,81
650,0	1,355E+0	4,435E+18	408,19	1,226E+0	4,013E+18	344,02
651,0	1,441E+0	4,721E+18	409,61	1,303E+0	4,271E+18	345,31
652,0	1,383E+0	4,540E+18	411,03	1,252E+0	4,110E+18	346,59
653,0	1,427E+0	4,691E+18	412,43	1,291E+0	4,245E+18	347,86
654,0	1,411E+0	4,646E+18	413,85	1,277E+0	4,204E+18	349,15
655,0	1,346E+0	4,438E+18	415,21	1,218E+0	4,018E+18	350,38
656,0	1,182E+0	3,902E+18	416,42	1,070E+0	3,532E+18	351,47
657,0	1,236E+0	4,087E+18	417,60	1,119E+0	3,699E+18	352,54
658,0	1,382E+0	4,576E+18	418,96	1,250E+0	4,142E+18	353,77
659,0	1,386E+0	4,600E+18	420,38	1,255E+0	4,163E+18	355,06
660,0	1,395E+0	4,635E+18	421,77	1,263E+0	4,197E+18	356,32
661,0	1,389E+0	4,623E+18	423,17	1,258E+0	4,187E+18	357,58
662,0	1,378E+0	4,592E+18	424,55	1,248E+0	4,160E+18	358,83
663,0	1,380E+0	4,607E+18	425,92	1,250E+0	4,173E+18	360,08
664,0	1,393E+0	4,655E+18	427,31	1,261E+0	4,215E+18	361,34
665,0	1,417E+0	4,745E+18	428,73	1,283E+0	4,296E+18	362,62
666,0	1,416E+0	4,748E+18	430,15	1,282E+0	4,299E+18	363,91
667,0	1,406E+0	4,721E+18	431,56	1,273E+0	4,274E+18	365,18
668,0	1,411E+0	4,745E+18	432,97	1,277E+0	4,295E+18	366,46
669,0	1,435E+0	4,834E+18	434,40	1,299E+0	4,376E+18	367,75
670,0	1,416E+0	4,774E+18	435,82	1,282E+0	4,323E+18	369,04
671,0	1,413E+0	4,772E+18	437,23	1,279E+0	4,321E+18	370,32
672,0	1,393E+0	4,713E+18	438,63	1,261E+0	4,267E+18	371,58
673,0	1,405E+0	4,761E+18	440,03	1,272E+0	4,310E+18	372,85
674,0	1,403E+0	4,761E+18	441,43	1,271E+0	4,311E+18	374,12
675,0	1,392E+0	4,729E+18	442,83	1,260E+0	4,282E+18	375,38

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
676,0	1,408E+0	4,791E+18	444,23	1,275E+0	4,339E+18	376,65
677,0	1,395E+0	4,754E+18	445,63	1,263E+0	4,305E+18	377,92
678,0	1,403E+0	4,787E+18	447,03	1,270E+0	4,335E+18	379,19
679,0	1,391E+0	4,753E+18	448,42	1,259E+0	4,304E+18	380,45
680,0	1,393E+0	4,768E+18	449,81	1,261E+0	4,318E+18	381,71
681,0	1,387E+0	4,757E+18	451,20	1,256E+0	4,307E+18	382,97
682,0	1,394E+0	4,786E+18	452,59	1,263E+0	4,335E+18	384,23
683,0	1,379E+0	4,741E+18	453,98	1,249E+0	4,294E+18	385,48
684,0	1,370E+0	4,717E+18	455,34	1,241E+0	4,273E+18	386,72
685,0	1,371E+0	4,727E+18	456,71	1,242E+0	4,282E+18	387,96
686,0	1,340E+0	4,627E+18	458,06	1,214E+0	4,192E+18	389,18
687,0	9,654E-1	3,339E+18	459,11	8,803E-1	3,044E+18	390,14
688,0	1,117E+0	3,870E+18	460,10	1,017E+0	3,521E+18	391,04
689,0	1,125E+0	3,900E+18	461,26	1,023E+0	3,548E+18	392,09
690,0	1,179E+0	4,094E+18	462,43	1,072E+0	3,722E+18	393,15
691,0	1,230E+0	4,278E+18	463,66	1,117E+0	3,885E+18	394,27
692,0	1,265E+0	4,408E+18	464,93	1,148E+0	4,000E+18	395,42
693,0	1,257E+0	4,386E+18	466,19	1,141E+0	3,982E+18	396,57
694,0	1,243E+0	4,342E+18	467,44	1,129E+0	3,943E+18	397,70
695,0	1,268E+0	4,435E+18	468,70	1,150E+0	4,025E+18	398,85
696,0	1,265E+0	4,431E+18	469,97	1,148E+0	4,022E+18	400,00
697,0	1,336E+0	4,689E+18	471,28	1,212E+0	4,251E+18	401,20
698,0	1,315E+0	4,622E+18	472,62	1,193E+0	4,191E+18	402,41
699,0	1,288E+0	4,532E+18	473,91	1,169E+0	4,112E+18	403,58
700,0	1,279E+0	4,506E+18	475,19	1,160E+0	4,088E+18	404,73
701,0	1,262E+0	4,454E+18	476,45	1,146E+0	4,043E+18	405,88
702,0	1,264E+0	4,466E+18	477,71	1,147E+0	4,052E+18	407,02
703,0	1,271E+0	4,498E+18	478,98	1,153E+0	4,082E+18	408,18
704,0	1,304E+0	4,621E+18	480,28	1,183E+0	4,192E+18	409,35
705,0	1,318E+0	4,676E+18	481,60	1,195E+0	4,243E+18	410,55
706,0	1,311E+0	4,658E+18	482,92	1,189E+0	4,226E+18	411,75
707,0	1,305E+0	4,645E+18	484,22	1,184E+0	4,214E+18	412,93
708,0	1,301E+0	4,637E+18	485,52	1,180E+0	4,207E+18	414,11
709,0	1,306E+0	4,660E+18	486,82	1,185E+0	4,228E+18	415,29
710,0	1,314E+0	4,695E+18	488,14	1,192E+0	4,260E+18	416,48
711,0	1,312E+0	4,695E+18	489,45	1,190E+0	4,259E+18	417,68
712,0	1,303E+0	4,671E+18	490,76	1,182E+0	4,237E+18	418,86
713,0	1,288E+0	4,623E+18	492,05	1,169E+0	4,194E+18	420,03
714,0	1,299E+0	4,669E+18	493,34	1,179E+0	4,237E+18	421,20
715,0	1,255E+0	4,517E+18	494,61	1,140E+0	4,101E+18	422,36
716,0	1,268E+0	4,570E+18	495,86	1,151E+0	4,150E+18	423,49

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
717,0	1,104E+0	3,984E+18	497,01	1,005E+0	3,628E+18	424,54
718,0	1,027E+0	3,711E+18	498,01	9,360E-1	3,383E+18	425,46
719,0	9,205E-1	3,332E+18	498,94	8,403E-1	3,041E+18	426,30
720,0	9,826E-1	3,562E+18	499,88	8,968E-1	3,250E+18	427,16
721,0	1,083E+0	3,931E+18	500,96	9,868E-1	3,582E+18	428,14
722,0	1,237E+0	4,496E+18	502,18	1,125E+0	4,088E+18	429,25
723,0	1,141E+0	4,153E+18	503,38	1,039E+0	3,783E+18	430,35
724,0	1,052E+0	3,836E+18	504,43	9,602E-1	3,500E+18	431,31
725,0	1,035E+0	3,777E+18	505,45	9,447E-1	3,448E+18	432,23
726,0	1,078E+0	3,940E+18	506,51	9,835E-1	3,595E+18	433,20
727,0	1,082E+0	3,959E+18	507,61	9,870E-1	3,612E+18	434,20
728,0	1,037E+0	3,800E+18	508,65	9,469E-1	3,470E+18	435,16
729,0	1,044E+0	3,830E+18	509,69	9,522E-1	3,495E+18	436,10
730,0	1,125E+0	4,135E+18	510,79	1,026E+0	3,772E+18	437,11
731,0	1,067E+0	3,927E+18	511,89	9,742E-1	3,585E+18	438,11
732,0	1,150E+0	4,238E+18	513,01	1,049E+0	3,865E+18	439,13
733,0	1,193E+0	4,401E+18	514,21	1,087E+0	4,011E+18	440,23
734,0	1,232E+0	4,553E+18	515,44	1,123E+0	4,149E+18	441,35
735,0	1,214E+0	4,493E+18	516,67	1,107E+0	4,096E+18	442,47
736,0	1,202E+0	4,455E+18	517,87	1,096E+0	4,062E+18	443,57
737,0	1,200E+0	4,454E+18	519,07	1,095E+0	4,061E+18	444,66
738,0	1,223E+0	4,545E+18	520,29	1,115E+0	4,143E+18	445,77
739,0	1,187E+0	4,416E+18	521,49	1,082E+0	4,027E+18	446,86
740,0	1,216E+0	4,530E+18	522,69	1,109E+0	4,130E+18	447,96
741,0	1,211E+0	4,518E+18	523,91	1,105E+0	4,120E+18	449,07
742,0	1,212E+0	4,526E+18	525,12	1,105E+0	4,128E+18	450,17
743,0	1,237E+0	4,626E+18	526,35	1,128E+0	4,220E+18	451,30
744,0	1,247E+0	4,669E+18	527,60	1,138E+0	4,260E+18	452,44
745,0	1,246E+0	4,673E+18	528,85	1,137E+0	4,265E+18	453,58
746,0	1,243E+0	4,669E+18	530,09	1,135E+0	4,262E+18	454,71
747,0	1,244E+0	4,678E+18	531,34	1,136E+0	4,270E+18	455,85
748,0	1,237E+0	4,656E+18	532,58	1,129E+0	4,251E+18	456,98
749,0	1,232E+0	4,646E+18	533,81	1,125E+0	4,243E+18	458,10
750,0	1,231E+0	4,646E+18	535,04	1,124E+0	4,244E+18	459,23
751,0	1,225E+0	4,631E+18	536,26	1,119E+0	4,231E+18	460,35
752,0	1,229E+0	4,654E+18	537,49	1,123E+0	4,252E+18	461,47
753,0	1,223E+0	4,636E+18	538,72	1,118E+0	4,237E+18	462,59
754,0	1,238E+0	4,701E+18	539,95	1,132E+0	4,297E+18	463,71
755,0	1,235E+0	4,693E+18	541,19	1,129E+0	4,290E+18	464,85
756,0	1,220E+0	4,642E+18	542,41	1,115E+0	4,244E+18	465,96
757,0	1,219E+0	4,644E+18	543,63	1,114E+0	4,247E+18	467,08

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
758,0	1,226E+0	4,678E+18	544,85	1,121E+0	4,279E+18	468,19
759,0	1,191E+0	4,551E+18	546,05	1,090E+0	4,165E+18	469,29
760,0	2,653E-1	1,015E+18	546,54	2,464E-1	9,429E+17	469,74
761,0	1,535E-1	5,881E+17	546,49	1,429E-1	5,473E+17	469,70
762,0	6,857E-1	2,630E+18	547,01	6,331E-1	2,428E+18	470,19
763,0	3,784E-1	1,454E+18	547,60	3,511E-1	1,349E+18	470,73
764,0	5,372E-1	2,066E+18	548,02	4,974E-1	1,913E+18	471,12
765,0	6,840E-1	2,634E+18	548,71	6,319E-1	2,434E+18	471,76
766,0	8,122E-1	3,132E+18	549,53	7,486E-1	2,887E+18	472,51
767,0	9,713E-1	3,751E+18	550,49	8,931E-1	3,449E+18	473,39
768,0	1,111E+0	4,294E+18	551,61	1,019E+0	3,941E+18	474,42
769,0	1,125E+0	4,353E+18	552,76	1,032E+0	3,994E+18	475,48
770,0	1,157E+0	4,486E+18	553,91	1,062E+0	4,115E+18	476,54
771,0	1,165E+0	4,523E+18	555,09	1,069E+0	4,147E+18	477,61
772,0	1,174E+0	4,564E+18	556,26	1,077E+0	4,186E+18	478,69
773,0	1,174E+0	4,567E+18	557,44	1,077E+0	4,189E+18	479,77
774,0	1,174E+0	4,573E+18	558,61	1,077E+0	4,196E+18	480,84
775,0	1,174E+0	4,579E+18	559,78	1,077E+0	4,202E+18	481,92
776,0	1,176E+0	4,595E+18	560,96	1,080E+0	4,217E+18	483,00
777,0	1,169E+0	4,574E+18	562,13	1,073E+0	4,198E+18	484,07
778,0	1,168E+0	4,574E+18	563,30	1,072E+0	4,200E+18	485,14
779,0	1,173E+0	4,600E+18	564,47	1,077E+0	4,224E+18	486,22
780,0	1,160E+0	4,556E+18	565,63	1,066E+0	4,184E+18	487,29
781,0	1,157E+0	4,550E+18	566,79	1,063E+0	4,180E+18	488,35
782,0	1,163E+0	4,578E+18	567,95	1,068E+0	4,206E+18	489,42
783,0	1,158E+0	4,565E+18	569,11	1,064E+0	4,194E+18	490,48
784,0	1,150E+0	4,540E+18	570,26	1,057E+0	4,172E+18	491,54
785,0	1,155E+0	4,565E+18	571,41	1,062E+0	4,196E+18	492,60
786,0	1,156E+0	4,573E+18	572,57	1,063E+0	4,204E+18	493,66
787,0	1,142E+0	4,523E+18	573,71	1,050E+0	4,160E+18	494,72
788,0	1,127E+0	4,472E+18	574,84	1,037E+0	4,113E+18	495,75
789,0	1,122E+0	4,458E+18	575,96	1,033E+0	4,103E+18	496,78
790,0	1,088E+0	4,326E+18	577,06	1,002E+0	3,983E+18	497,79
791,0	1,103E+0	4,390E+18	578,15	1,015E+0	4,041E+18	498,80
792,0	1,092E+0	4,354E+18	579,25	1,006E+0	4,009E+18	499,81
793,0	1,084E+0	4,329E+18	580,33	9,986E-1	3,986E+18	500,81
794,0	1,094E+0	4,373E+18	581,42	1,007E+0	4,026E+18	501,81
795,0	1,090E+0	4,362E+18	582,51	1,004E+0	4,017E+18	502,82
796,0	1,071E+0	4,292E+18	583,59	9,870E-1	3,955E+18	503,81
797,0	1,088E+0	4,366E+18	584,67	1,003E+0	4,023E+18	504,80
798,0	1,109E+0	4,455E+18	585,77	1,022E+0	4,104E+18	505,82

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
799,0	1,087E+0	4,374E+18	586,87	1,002E+0	4,030E+18	506,83
800,0	1,069E+0	4,307E+18	587,94	9,857E-1	3,970E+18	507,82
801,0	1,081E+0	4,360E+18	589,01	9,969E-1	4,020E+18	508,81
802,0	1,082E+0	4,370E+18	590,10	9,982E-1	4,030E+18	509,81
803,0	1,063E+0	4,295E+18	591,17	9,800E-1	3,962E+18	510,79
804,0	1,075E+0	4,351E+18	592,23	9,916E-1	4,014E+18	511,78
805,0	1,051E+0	4,261E+18	593,29	9,699E-1	3,930E+18	512,76
806,0	1,094E+0	4,440E+18	594,37	1,009E+0	4,095E+18	513,75
807,0	1,083E+0	4,399E+18	595,47	9,989E-1	4,058E+18	514,76
808,0	1,079E+0	4,389E+18	596,55	9,955E-1	4,049E+18	515,75
809,0	1,052E+0	4,283E+18	597,60	9,707E-1	3,953E+18	516,73
810,0	1,053E+0	4,293E+18	598,65	9,720E-1	3,964E+18	517,70
811,0	1,050E+0	4,288E+18	599,70	9,699E-1	3,960E+18	518,67
812,0	1,024E+0	4,185E+18	600,73	9,461E-1	3,867E+18	519,62
813,0	1,006E+0	4,116E+18	601,73	9,296E-1	3,805E+18	520,55
814,0	9,009E-1	3,692E+18	602,66	8,344E-1	3,419E+18	521,40
815,0	8,926E-1	3,662E+18	603,52	8,269E-1	3,392E+18	522,21
816,0	8,297E-1	3,408E+18	604,37	7,695E-1	3,161E+18	522,99
817,0	8,494E-1	3,493E+18	605,20	7,875E-1	3,239E+18	523,76
818,0	8,202E-1	3,378E+18	606,03	7,608E-1	3,133E+18	524,53
819,0	9,026E-1	3,721E+18	606,90	8,360E-1	3,447E+18	525,34
820,0	8,594E-1	3,547E+18	607,79	7,967E-1	3,289E+18	526,16
821,0	9,947E-1	4,111E+18	608,74	9,202E-1	3,803E+18	527,04
822,0	9,488E-1	3,926E+18	609,74	8,782E-1	3,634E+18	527,96
823,0	6,708E-1	2,779E+18	610,47	6,239E-1	2,585E+18	528,64
824,0	9,323E-1	3,867E+18	611,26	8,637E-1	3,583E+18	529,38
825,0	9,665E-1	4,014E+18	612,29	8,949E-1	3,717E+18	530,33
826,0	9,311E-1	3,872E+18	613,24	8,628E-1	3,588E+18	531,21
827,0	9,818E-1	4,087E+18	614,20	9,091E-1	3,785E+18	532,10
828,0	8,473E-1	3,532E+18	615,09	7,864E-1	3,278E+18	532,92
829,0	9,266E-1	3,867E+18	615,96	8,588E-1	3,584E+18	533,73
830,0	9,133E-1	3,816E+18	616,90	8,468E-1	3,538E+18	534,60
831,0	9,212E-1	3,854E+18	617,82	8,542E-1	3,573E+18	535,45
832,0	8,917E-1	3,735E+18	618,72	8,272E-1	3,465E+18	536,29
833,0	9,537E-1	3,999E+18	619,65	8,836E-1	3,706E+18	537,15
834,0	9,314E-1	3,910E+18	620,60	8,636E-1	3,626E+18	538,03
835,0	1,000E+0	4,205E+18	621,58	9,265E-1	3,894E+18	538,94
836,0	9,695E-1	4,080E+18	622,57	8,987E-1	3,782E+18	539,86
837,0	1,006E+0	4,240E+18	623,56	9,322E-1	3,928E+18	540,78
838,0	9,961E-1	4,202E+18	624,57	9,232E-1	3,894E+18	541,71
839,0	9,984E-1	4,217E+18	625,56	9,251E-1	3,907E+18	542,63

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
840,0	1,013E+0	4,283E+18	626,57	9,385E-1	3,969E+18	543,57
841,0	1,007E+0	4,264E+18	627,59	9,335E-1	3,952E+18	544,51
842,0	9,941E-1	4,214E+18	628,58	9,214E-1	3,906E+18	545,43
843,0	1,002E+0	4,254E+18	629,58	9,290E-1	3,942E+18	546,35
844,0	9,834E-1	4,178E+18	630,57	9,117E-1	3,874E+18	547,27
845,0	1,014E+0	4,311E+18	631,57	9,395E-1	3,997E+18	548,20
846,0	1,016E+0	4,326E+18	632,59	9,417E-1	4,011E+18	549,15
847,0	9,888E-1	4,216E+18	633,59	9,168E-1	3,909E+18	550,07
848,0	9,893E-1	4,223E+18	634,57	9,174E-1	3,916E+18	550,98
849,0	9,831E-1	4,202E+18	635,56	9,118E-1	3,897E+18	551,90
850,0	8,911E-1	3,813E+18	636,47	8,266E-1	3,537E+18	552,74
851,0	9,721E-1	4,164E+18	637,40	9,019E-1	3,864E+18	553,60
852,0	9,664E-1	4,145E+18	638,39	8,968E-1	3,846E+18	554,52
853,0	9,621E-1	4,131E+18	639,35	8,928E-1	3,834E+18	555,41
854,0	8,486E-1	3,648E+18	640,22	7,877E-1	3,386E+18	556,23
855,0	9,103E-1	3,918E+18	641,09	8,450E-1	3,637E+18	557,03
856,0	9,703E-1	4,181E+18	642,06	9,008E-1	3,882E+18	557,93
857,0	9,888E-1	4,266E+18	643,06	9,179E-1	3,960E+18	558,86
858,0	9,891E-1	4,272E+18	644,05	9,183E-1	3,966E+18	559,78
859,0	9,888E-1	4,276E+18	645,04	9,181E-1	3,970E+18	560,70
860,0	9,853E-1	4,266E+18	646,03	9,150E-1	3,961E+18	561,62
861,0	9,839E-1	4,265E+18	647,01	9,138E-1	3,961E+18	562,53
862,0	9,916E-1	4,303E+18	648,00	9,210E-1	3,997E+18	563,45
863,0	9,976E-1	4,334E+18	649,00	9,266E-1	4,026E+18	564,38
864,0	9,763E-1	4,246E+18	649,98	9,069E-1	3,945E+18	565,29
865,0	9,604E-1	4,182E+18	650,94	8,923E-1	3,885E+18	566,18
866,0	8,465E-1	3,691E+18	651,81	7,865E-1	3,429E+18	566,99
867,0	9,128E-1	3,984E+18	652,68	8,482E-1	3,702E+18	567,80
868,0	9,564E-1	4,179E+18	653,64	8,888E-1	3,884E+18	568,69
869,0	9,468E-1	4,142E+18	654,60	8,800E-1	3,850E+18	569,58
870,0	9,647E-1	4,225E+18	655,56	8,967E-1	3,927E+18	570,47
871,0	9,511E-1	4,170E+18	656,52	8,841E-1	3,877E+18	571,36
872,0	9,640E-1	4,232E+18	657,48	8,963E-1	3,934E+18	572,25
873,0	9,544E-1	4,195E+18	658,44	8,874E-1	3,900E+18	573,15
874,0	9,377E-1	4,126E+18	659,38	8,720E-1	3,837E+18	574,02
875,0	9,242E-1	4,071E+18	660,30	8,595E-1	3,786E+18	574,88
876,0	9,500E-1	4,189E+18	661,24	8,837E-1	3,897E+18	575,75
877,0	9,534E-1	4,209E+18	662,20	8,869E-1	3,916E+18	576,64
878,0	9,496E-1	4,197E+18	663,15	8,835E-1	3,905E+18	577,53
879,0	9,338E-1	4,132E+18	664,09	8,689E-1	3,845E+18	578,40
880,0	9,368E-1	4,150E+18	665,02	8,718E-1	3,862E+18	579,27

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
881,0	9,060E-1	4,018E+18	665,93	8,432E-1	3,740E+18	580,12
882,0	9,297E-1	4,128E+18	666,85	8,653E-1	3,842E+18	580,97
883,0	9,266E-1	4,119E+18	667,78	8,624E-1	3,834E+18	581,84
884,0	9,303E-1	4,140E+18	668,71	8,661E-1	3,854E+18	582,71
885,0	9,415E-1	4,195E+18	669,65	8,766E-1	3,905E+18	583,58
886,0	9,049E-1	4,036E+18	670,57	8,427E-1	3,759E+18	584,43
887,0	9,080E-1	4,054E+18	671,47	8,455E-1	3,776E+18	585,27
888,0	9,196E-1	4,111E+18	672,38	8,565E-1	3,829E+18	586,13
889,0	9,318E-1	4,170E+18	673,32	8,679E-1	3,884E+18	586,99
890,0	9,212E-1	4,128E+18	674,24	8,583E-1	3,845E+18	587,86
891,0	9,231E-1	4,141E+18	675,16	8,600E-1	3,858E+18	588,71
892,0	9,062E-1	4,069E+18	676,07	8,444E-1	3,792E+18	589,56
893,0	8,707E-1	3,914E+18	676,95	8,118E-1	3,649E+18	590,38
894,0	8,488E-1	3,820E+18	677,79	7,918E-1	3,564E+18	591,17
895,0	8,112E-1	3,655E+18	678,61	7,573E-1	3,412E+18	591,93
896,0	7,603E-1	3,429E+18	679,37	7,106E-1	3,205E+18	592,64
897,0	6,637E-1	2,997E+18	680,05	6,213E-1	2,806E+18	593,27
898,0	7,157E-1	3,235E+18	680,73	6,694E-1	3,026E+18	593,91
899,0	5,471E-1	2,476E+18	681,33	5,131E-1	2,322E+18	594,47
900,0	7,404E-1	3,355E+18	681,98	6,923E-1	3,136E+18	595,08
901,0	5,976E-1	2,711E+18	682,66	5,600E-1	2,540E+18	595,72
902,0	6,660E-1	3,024E+18	683,27	6,232E-1	2,830E+18	596,29
903,0	6,869E-1	3,122E+18	683,97	6,430E-1	2,923E+18	596,95
904,0	8,421E-1	3,832E+18	684,78	7,863E-1	3,578E+18	597,70
905,0	8,147E-1	3,712E+18	685,64	7,611E-1	3,468E+18	598,51
906,0	7,733E-1	3,527E+18	686,42	7,229E-1	3,297E+18	599,23
907,0	6,367E-1	2,907E+18	687,08	5,966E-1	2,724E+18	599,85
908,0	6,503E-1	2,972E+18	687,69	6,091E-1	2,784E+18	600,43
909,0	7,023E-1	3,214E+18	688,38	6,572E-1	3,007E+18	601,07
910,0	6,229E-1	2,853E+18	689,04	5,838E-1	2,675E+18	601,69
911,0	6,661E-1	3,055E+18	689,67	6,240E-1	2,862E+18	602,28
912,0	6,869E-1	3,154E+18	690,37	6,432E-1	2,953E+18	602,93
913,0	6,265E-1	2,880E+18	691,01	5,873E-1	2,700E+18	603,54
914,0	6,247E-1	2,874E+18	691,62	5,857E-1	2,695E+18	604,11
915,0	6,764E-1	3,116E+18	692,29	6,337E-1	2,919E+18	604,73
916,0	5,748E-1	2,650E+18	692,90	5,394E-1	2,487E+18	605,31
917,0	7,280E-1	3,361E+18	693,56	6,815E-1	3,146E+18	605,93
918,0	5,910E-1	2,731E+18	694,23	5,545E-1	2,563E+18	606,55
919,0	7,366E-1	3,408E+18	694,89	6,896E-1	3,190E+18	607,17
920,0	7,420E-1	3,436E+18	695,67	6,945E-1	3,217E+18	607,90
921,0	7,782E-1	3,608E+18	696,44	7,279E-1	3,375E+18	608,62

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
922,0	6,982E-1	3,241E+18	697,17	6,539E-1	3,035E+18	609,30
923,0	7,429E-1	3,452E+18	697,88	6,950E-1	3,229E+18	609,97
924,0	7,194E-1	3,346E+18	698,62	6,737E-1	3,134E+18	610,66
925,0	7,090E-1	3,302E+18	699,32	6,643E-1	3,093E+18	611,32
926,0	7,013E-1	3,269E+18	700,02	6,568E-1	3,062E+18	611,98
927,0	7,851E-1	3,664E+18	700,79	7,347E-1	3,429E+18	612,69
928,0	5,880E-1	2,747E+18	701,44	5,520E-1	2,579E+18	613,31
929,0	5,497E-1	2,571E+18	701,95	5,164E-1	2,415E+18	613,79
930,0	4,308E-1	2,017E+18	702,40	4,056E-1	1,899E+18	614,21
931,0	4,080E-1	1,912E+18	702,79	3,843E-1	1,801E+18	614,57
932,0	3,000E-1	1,408E+18	703,11	2,830E-1	1,328E+18	614,88
933,0	2,477E-1	1,163E+18	703,34	2,339E-1	1,099E+18	615,10
934,0	1,434E-1	6,742E+17	703,50	1,356E-1	6,378E+17	615,24
935,0	2,501E-1	1,177E+18	703,70	2,362E-1	1,112E+18	615,43
936,0	1,610E-1	7,584E+17	703,91	1,522E-1	7,173E+17	615,63
937,0	1,629E-1	7,684E+17	704,05	1,541E-1	7,268E+17	615,76
938,0	2,000E-1	9,444E+17	704,24	1,891E-1	8,928E+17	615,94
939,0	3,977E-1	1,880E+18	704,60	3,748E-1	1,772E+18	616,28
940,0	4,704E-1	2,226E+18	705,10	4,428E-1	2,095E+18	616,75
941,0	3,709E-1	1,757E+18	705,51	3,497E-1	1,657E+18	617,14
942,0	4,041E-1	1,917E+18	705,88	3,808E-1	1,806E+18	617,49
943,0	2,775E-1	1,318E+18	706,20	2,621E-1	1,244E+18	617,79
944,0	2,850E-1	1,354E+18	706,45	2,691E-1	1,279E+18	618,03
945,0	3,671E-1	1,747E+18	706,80	3,463E-1	1,647E+18	618,36
946,0	1,940E-1	9,241E+17	707,06	1,836E-1	8,741E+17	618,60
947,0	3,700E-1	1,764E+18	707,34	3,491E-1	1,664E+18	618,87
948,0	2,734E-1	1,305E+18	707,68	2,584E-1	1,233E+18	619,19
949,0	4,925E-1	2,353E+18	708,10	4,638E-1	2,216E+18	619,58
950,0	1,468E-1	7,022E+17	708,38	1,390E-1	6,649E+17	619,85
951,0	4,824E-1	2,309E+18	708,70	4,543E-1	2,175E+18	620,15
952,0	2,681E-1	1,285E+18	709,10	2,534E-1	1,215E+18	620,53
953,0	3,426E-1	1,644E+18	709,37	3,235E-1	1,552E+18	620,78
954,0	4,229E-1	2,031E+18	709,79	3,987E-1	1,915E+18	621,18
955,0	3,402E-1	1,635E+18	710,17	3,211E-1	1,544E+18	621,54
956,0	3,273E-1	1,575E+18	710,48	3,091E-1	1,487E+18	621,83
957,0	2,699E-1	1,300E+18	710,77	2,552E-1	1,229E+18	622,10
958,0	4,597E-1	2,217E+18	711,16	4,333E-1	2,090E+18	622,48
959,0	3,728E-1	1,800E+18	711,61	3,519E-1	1,699E+18	622,89
960,0	4,194E-1	2,027E+18	711,99	3,957E-1	1,912E+18	623,26
961,0	4,599E-1	2,225E+18	712,45	4,335E-1	2,097E+18	623,69
962,0	4,405E-1	2,133E+18	712,91	4,154E-1	2,012E+18	624,12

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
963,0	5,036E-1	2,441E+18	713,39	4,745E-1	2,300E+18	624,58
964,0	4,573E-1	2,219E+18	713,88	4,312E-1	2,092E+18	625,03
965,0	5,023E-1	2,440E+18	714,36	4,733E-1	2,299E+18	625,48
966,0	5,013E-1	2,438E+18	714,87	4,724E-1	2,297E+18	625,97
967,0	5,009E-1	2,439E+18	715,37	4,722E-1	2,298E+18	626,44
968,0	6,502E-1	3,168E+18	715,98	6,112E-1	2,979E+18	627,02
969,0	6,842E-1	3,338E+18	716,69	6,429E-1	3,136E+18	627,69
970,0	6,328E-1	3,090E+18	717,35	5,952E-1	2,906E+18	628,30
971,0	7,119E-1	3,480E+18	718,03	6,686E-1	3,268E+18	628,94
972,0	6,856E-1	3,355E+18	718,74	6,444E-1	3,153E+18	629,61
973,0	6,047E-1	2,962E+18	719,36	5,691E-1	2,788E+18	630,19
974,0	5,736E-1	2,813E+18	719,92	5,401E-1	2,648E+18	630,72
975,0	5,882E-1	2,887E+18	720,50	5,537E-1	2,718E+18	631,26
976,0	5,702E-1	2,802E+18	721,07	5,372E-1	2,639E+18	631,81
977,0	6,368E-1	3,132E+18	721,69	5,991E-1	2,947E+18	632,39
978,0	6,133E-1	3,020E+18	722,33	5,773E-1	2,843E+18	632,98
979,0	6,363E-1	3,136E+18	722,95	5,987E-1	2,951E+18	633,57
980,0	6,029E-1	2,974E+18	723,57	5,678E-1	2,801E+18	634,15
981,0	7,113E-1	3,513E+18	724,24	6,686E-1	3,302E+18	634,79
982,0	6,902E-1	3,412E+18	724,97	6,491E-1	3,209E+18	635,47
983,0	6,667E-1	3,299E+18	725,63	6,273E-1	3,104E+18	636,10
984,0	7,352E-1	3,642E+18	726,35	6,909E-1	3,422E+18	636,76
985,0	6,862E-1	3,402E+18	727,06	6,455E-1	3,201E+18	637,44
986,0	7,486E-1	3,716E+18	727,78	7,035E-1	3,492E+18	638,12
987,0	7,371E-1	3,663E+18	728,54	6,929E-1	3,443E+18	638,83
988,0	7,325E-1	3,643E+18	729,27	6,886E-1	3,425E+18	639,51
989,0	7,469E-1	3,719E+18	730,01	7,019E-1	3,494E+18	640,21
990,0	7,301E-1	3,639E+18	730,75	6,864E-1	3,421E+18	640,90
991,0	7,514E-1	3,749E+18	731,49	7,063E-1	3,523E+18	641,60
992,0	7,488E-1	3,740E+18	732,24	7,039E-1	3,515E+18	642,31
993,0	7,351E-1	3,675E+18	732,98	6,912E-1	3,455E+18	643,00
994,0	7,519E-1	3,762E+18	733,73	7,068E-1	3,537E+18	643,70
995,0	7,496E-1	3,755E+18	734,48	7,047E-1	3,530E+18	644,41
996,0	7,467E-1	3,744E+18	735,23	7,020E-1	3,520E+18	645,12
997,0	7,376E-1	3,702E+18	735,97	6,935E-1	3,481E+18	645,81
998,0	7,367E-1	3,701E+18	736,70	6,928E-1	3,481E+18	646,50
999,0	7,364E-1	3,704E+18	737,44	6,925E-1	3,483E+18	647,19
1000,0	7,332E-1	3,691E+18	738,17	6,896E-1	3,471E+18	647,88
1001,0	7,423E-1	3,740E+18	738,91	6,981E-1	3,518E+18	648,58
1002,0	7,259E-1	3,662E+18	739,64	6,830E-1	3,445E+18	649,27
1003,0	7,323E-1	3,697E+18	740,37	6,888E-1	3,478E+18	649,95

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1004,0	7,213E-1	3,645E+18	741,10	6,786E-1	3,430E+18	650,63
1005,0	6,798E-1	3,439E+18	741,78	6,395E-1	3,236E+18	651,28
1006,0	7,104E-1	3,598E+18	742,48	6,685E-1	3,386E+18	651,93
1007,0	7,254E-1	3,677E+18	743,20	6,826E-1	3,461E+18	652,62
1008,0	7,247E-1	3,678E+18	743,93	6,821E-1	3,461E+18	653,30
1009,0	7,176E-1	3,645E+18	744,65	6,754E-1	3,431E+18	653,98
1010,0	7,170E-1	3,646E+18	745,37	6,750E-1	3,432E+18	654,65
1011,0	7,207E-1	3,668E+18	746,09	6,784E-1	3,453E+18	655,33
1012,0	7,167E-1	3,651E+18	746,81	6,747E-1	3,437E+18	656,01
1013,0	7,155E-1	3,649E+18	747,52	6,736E-1	3,435E+18	656,68
1014,0	7,186E-1	3,668E+18	748,24	6,765E-1	3,453E+18	657,36
1015,0	7,061E-1	3,608E+18	748,95	6,648E-1	3,397E+18	658,03
1016,0	7,092E-1	3,627E+18	749,65	6,678E-1	3,416E+18	658,69
1017,0	7,013E-1	3,591E+18	750,36	6,604E-1	3,381E+18	659,35
1018,0	7,121E-1	3,650E+18	751,07	6,707E-1	3,437E+18	660,02
1019,0	6,868E-1	3,523E+18	751,76	6,469E-1	3,319E+18	660,67
1020,0	6,969E-1	3,579E+18	752,45	6,565E-1	3,371E+18	661,32
1021,0	6,997E-1	3,596E+18	753,15	6,591E-1	3,388E+18	661,98
1022,0	6,877E-1	3,538E+18	753,84	6,479E-1	3,333E+18	662,63
1023,0	6,931E-1	3,569E+18	754,53	6,530E-1	3,363E+18	663,28
1024,0	6,886E-1	3,550E+18	755,22	6,489E-1	3,345E+18	663,93
1025,0	6,955E-1	3,589E+18	755,91	6,554E-1	3,382E+18	664,59
1026,0	6,943E-1	3,586E+18	756,61	6,543E-1	3,380E+18	665,24
1027,0	6,910E-1	3,573E+18	757,30	6,513E-1	3,367E+18	665,90
1028,0	6,918E-1	3,580E+18	757,99	6,521E-1	3,375E+18	666,55
1029,0	6,843E-1	3,545E+18	758,68	6,450E-1	3,341E+18	667,19
1030,0	6,885E-1	3,570E+18	759,37	6,490E-1	3,365E+18	667,84
1031,0	6,854E-1	3,557E+18	760,05	6,461E-1	3,353E+18	668,49
1032,0	6,859E-1	3,563E+18	760,74	6,466E-1	3,359E+18	669,13
1033,0	6,742E-1	3,506E+18	761,41	6,357E-1	3,306E+18	669,77
1034,0	6,782E-1	3,530E+18	762,09	6,395E-1	3,329E+18	670,41
1035,0	6,804E-1	3,545E+18	762,77	6,416E-1	3,343E+18	671,05
1036,0	6,800E-1	3,547E+18	763,45	6,414E-1	3,345E+18	671,69
1037,0	6,730E-1	3,513E+18	764,13	6,348E-1	3,314E+18	672,33
1038,0	6,698E-1	3,500E+18	764,79	6,318E-1	3,301E+18	672,96
1039,0	6,744E-1	3,527E+18	765,47	6,362E-1	3,327E+18	673,59
1040,0	6,697E-1	3,506E+18	766,14	6,318E-1	3,308E+18	674,23
1041,0	6,698E-1	3,510E+18	766,81	6,319E-1	3,312E+18	674,86
1042,0	6,700E-1	3,515E+18	767,48	6,322E-1	3,316E+18	675,49
1043,0	6,633E-1	3,483E+18	768,14	6,259E-1	3,286E+18	676,12
1044,0	6,664E-1	3,502E+18	768,81	6,288E-1	3,305E+18	676,74

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1045,0	6,626E-1	3,486E+18	769,47	6,253E-1	3,289E+18	677,37
1046,0	6,453E-1	3,398E+18	770,12	6,090E-1	3,207E+18	677,98
1047,0	6,550E-1	3,452E+18	770,77	6,183E-1	3,259E+18	678,60
1048,0	6,608E-1	3,486E+18	771,43	6,238E-1	3,291E+18	679,22
1049,0	6,570E-1	3,470E+18	772,09	6,203E-1	3,275E+18	679,84
1050,0	6,527E-1	3,450E+18	772,74	6,162E-1	3,257E+18	680,46
1051,0	6,533E-1	3,457E+18	773,39	6,168E-1	3,264E+18	681,07
1052,0	6,493E-1	3,439E+18	774,04	6,131E-1	3,247E+18	681,69
1053,0	6,473E-1	3,431E+18	774,69	6,112E-1	3,240E+18	682,30
1054,0	6,446E-1	3,420E+18	775,34	6,087E-1	3,230E+18	682,91
1055,0	6,466E-1	3,434E+18	775,98	6,106E-1	3,243E+18	683,52
1056,0	6,445E-1	3,426E+18	776,63	6,088E-1	3,236E+18	684,13
1057,0	6,429E-1	3,421E+18	777,27	6,073E-1	3,232E+18	684,73
1058,0	6,363E-1	3,389E+18	777,91	6,011E-1	3,202E+18	685,34
1059,0	6,170E-1	3,289E+18	778,53	5,828E-1	3,107E+18	685,92
1060,0	6,340E-1	3,383E+18	779,15	5,990E-1	3,196E+18	686,51
1061,0	6,194E-1	3,308E+18	779,78	5,852E-1	3,126E+18	687,11
1062,0	6,308E-1	3,373E+18	780,40	5,961E-1	3,187E+18	687,70
1063,0	6,206E-1	3,321E+18	781,03	5,864E-1	3,138E+18	688,29
1064,0	6,301E-1	3,375E+18	781,65	5,955E-1	3,190E+18	688,88
1065,0	6,273E-1	3,363E+18	782,28	5,929E-1	3,179E+18	689,47
1066,0	6,153E-1	3,302E+18	782,90	5,816E-1	3,121E+18	690,06
1067,0	6,185E-1	3,322E+18	783,52	5,847E-1	3,140E+18	690,64
1068,0	6,176E-1	3,321E+18	784,14	5,839E-1	3,139E+18	691,22
1069,0	5,846E-1	3,146E+18	784,73	5,527E-1	2,974E+18	691,78
1070,0	6,029E-1	3,248E+18	785,32	5,701E-1	3,071E+18	692,34
1071,0	6,148E-1	3,315E+18	785,93	5,813E-1	3,134E+18	692,92
1072,0	6,136E-1	3,311E+18	786,55	5,802E-1	3,131E+18	693,51
1073,0	6,019E-1	3,251E+18	787,16	5,692E-1	3,075E+18	694,08
1074,0	6,198E-1	3,351E+18	787,77	5,861E-1	3,169E+18	694,66
1075,0	5,908E-1	3,197E+18	788,37	5,589E-1	3,025E+18	695,23
1076,0	6,129E-1	3,320E+18	788,97	5,797E-1	3,140E+18	695,80
1077,0	6,026E-1	3,267E+18	789,58	5,701E-1	3,091E+18	696,37
1078,0	6,015E-1	3,264E+18	790,18	5,691E-1	3,088E+18	696,94
1079,0	6,030E-1	3,275E+18	790,78	5,704E-1	3,099E+18	697,51
1080,0	5,955E-1	3,238E+18	791,38	5,635E-1	3,064E+18	698,08
1081,0	5,791E-1	3,152E+18	791,96	5,481E-1	2,983E+18	698,63
1082,0	5,877E-1	3,201E+18	792,54	5,561E-1	3,029E+18	699,18
1083,0	5,964E-1	3,252E+18	793,14	5,644E-1	3,077E+18	699,74
1084,0	5,768E-1	3,148E+18	793,72	5,462E-1	2,980E+18	700,29
1085,0	5,916E-1	3,231E+18	794,31	5,600E-1	3,059E+18	700,85

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1086,0	5,525E-1	3,021E+18	794,87	5,234E-1	2,862E+18	701,38
1087,0	5,653E-1	3,094E+18	795,43	5,353E-1	2,929E+18	701,91
1088,0	5,914E-1	3,239E+18	796,01	5,600E-1	3,067E+18	702,46
1089,0	5,775E-1	3,166E+18	796,60	5,470E-1	2,999E+18	703,02
1090,0	5,541E-1	3,041E+18	797,16	5,250E-1	2,881E+18	703,55
1091,0	5,866E-1	3,222E+18	797,73	5,556E-1	3,051E+18	704,09
1092,0	5,795E-1	3,186E+18	798,32	5,489E-1	3,017E+18	704,65
1093,0	5,091E-1	2,801E+18	798,84	4,828E-1	2,656E+18	705,14
1094,0	5,381E-1	2,963E+18	799,36	5,097E-1	2,807E+18	705,63
1095,0	5,192E-1	2,862E+18	799,89	4,922E-1	2,713E+18	706,13
1096,0	5,018E-1	2,768E+18	800,39	4,759E-1	2,626E+18	706,61
1097,0	5,768E-1	3,186E+18	800,94	5,465E-1	3,018E+18	707,13
1098,0	5,014E-1	2,772E+18	801,48	4,757E-1	2,629E+18	707,65
1099,0	5,062E-1	2,801E+18	801,97	4,802E-1	2,657E+18	708,11
1100,0	4,844E-1	2,682E+18	802,46	4,598E-1	2,546E+18	708,57
1101,0	4,955E-1	2,746E+18	802,95	4,703E-1	2,607E+18	709,04
1102,0	4,675E-1	2,593E+18	803,42	4,438E-1	2,462E+18	709,49
1103,0	4,650E-1	2,582E+18	803,88	4,416E-1	2,452E+18	709,92
1104,0	4,663E-1	2,592E+18	804,35	4,428E-1	2,461E+18	710,37
1105,0	5,050E-1	2,809E+18	804,84	4,793E-1	2,666E+18	710,84
1106,0	3,968E-1	2,209E+18	805,28	3,773E-1	2,101E+18	711,25
1107,0	4,816E-1	2,684E+18	805,71	4,573E-1	2,549E+18	711,66
1108,0	4,144E-1	2,312E+18	806,16	3,940E-1	2,198E+18	712,09
1109,0	4,116E-1	2,298E+18	806,56	3,914E-1	2,185E+18	712,47
1110,0	4,776E-1	2,669E+18	807,02	4,536E-1	2,535E+18	712,90
1111,0	3,306E-1	1,849E+18	807,40	3,148E-1	1,761E+18	713,27
1112,0	4,124E-1	2,308E+18	807,76	3,922E-1	2,195E+18	713,61
1113,0	2,677E-1	1,500E+18	808,08	2,552E-1	1,430E+18	713,92
1114,0	2,990E-1	1,677E+18	808,34	2,849E-1	1,598E+18	714,16
1115,0	2,491E-1	1,398E+18	808,61	2,376E-1	1,334E+18	714,42
1116,0	2,008E-1	1,128E+18	808,81	1,917E-1	1,077E+18	714,61
1117,0	7,939E-2	4,464E+17	808,91	7,594E-2	4,270E+17	714,70
1118,0	2,169E-1	1,221E+18	809,06	2,070E-1	1,165E+18	714,85
1119,0	1,128E-1	6,357E+17	809,23	1,079E-1	6,078E+17	715,01
1120,0	1,415E-1	7,977E+17	809,34	1,352E-1	7,624E+17	715,11
1121,0	1,853E-1	1,046E+18	809,52	1,770E-1	9,989E+17	715,29
1122,0	8,145E-2	4,600E+17	809,64	7,793E-2	4,402E+17	715,40
1123,0	1,278E-1	7,225E+17	809,73	1,222E-1	6,908E+17	715,49
1124,0	1,084E-1	6,133E+17	809,85	1,037E-1	5,866E+17	715,61
1125,0	1,439E-1	8,147E+17	809,98	1,375E-1	7,789E+17	715,73
1126,0	5,144E-2	2,916E+17	810,07	4,925E-2	2,792E+17	715,81

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1127,0	1,568E-1	8,896E+17	810,17	1,499E-1	8,504E+17	715,91
1128,0	9,894E-2	5,618E+17	810,31	9,467E-2	5,376E+17	716,05
1129,0	1,056E-1	6,002E+17	810,40	1,010E-1	5,742E+17	716,13
1130,0	7,037E-2	4,003E+17	810,48	6,737E-2	3,832E+17	716,21
1131,0	2,947E-1	1,678E+18	810,71	2,812E-1	1,601E+18	716,43
1132,0	2,334E-1	1,330E+18	811,02	2,229E-1	1,270E+18	716,72
1133,0	1,529E-1	8,719E+17	811,18	1,462E-1	8,338E+17	716,87
1134,0	4,162E-2	2,376E+17	811,23	3,987E-2	2,276E+17	716,92
1135,0	1,542E-2	8,809E+16	811,22	1,478E-2	8,443E+16	716,91
1136,0	1,284E-1	7,342E+17	811,31	1,228E-1	7,025E+17	717,00
1137,0	2,870E-1	1,643E+18	811,59	2,739E-1	1,568E+18	717,27
1138,0	2,027E-1	1,161E+18	811,85	1,937E-1	1,110E+18	717,52
1139,0	2,976E-1	1,707E+18	812,11	2,840E-1	1,629E+18	717,76
1140,0	2,552E-1	1,465E+18	812,40	2,438E-1	1,399E+18	718,04
1141,0	1,928E-1	1,108E+18	812,59	1,843E-1	1,059E+18	718,22
1142,0	2,241E-1	1,289E+18	812,79	2,142E-1	1,231E+18	718,42
1143,0	3,109E-1	1,789E+18	813,09	2,967E-1	1,707E+18	718,70
1144,0	1,129E-1	6,504E+17	813,28	1,081E-1	6,226E+17	718,88
1145,0	1,456E-1	8,393E+17	813,36	1,394E-1	8,032E+17	718,96
1146,0	1,572E-1	9,068E+17	813,53	1,504E-1	8,677E+17	719,12
1147,0	5,900E-2	3,407E+17	813,61	5,655E-2	3,265E+17	719,20
1148,0	2,703E-1	1,562E+18	813,81	2,582E-1	1,492E+18	719,38
1149,0	2,179E-1	1,260E+18	814,09	2,083E-1	1,205E+18	719,65
1150,0	1,213E-1	7,022E+17	814,22	1,161E-1	6,724E+17	719,78
1151,0	2,028E-1	1,175E+18	814,38	1,940E-1	1,124E+18	719,93
1152,0	2,469E-1	1,432E+18	814,64	2,360E-1	1,369E+18	720,18
1153,0	2,374E-1	1,378E+18	814,89	2,270E-1	1,317E+18	720,42
1154,0	1,421E-1	8,253E+17	815,05	1,360E-1	7,903E+17	720,57
1155,0	3,123E-1	1,816E+18	815,30	2,982E-1	1,734E+18	720,81
1156,0	2,801E-1	1,630E+18	815,63	2,676E-1	1,557E+18	721,12
1157,0	3,137E-1	1,827E+18	815,92	2,995E-1	1,745E+18	721,41
1158,0	3,108E-1	1,812E+18	816,24	2,968E-1	1,730E+18	721,71
1159,0	3,360E-1	1,960E+18	816,57	3,207E-1	1,871E+18	722,03
1160,0	2,856E-1	1,668E+18	816,88	2,729E-1	1,594E+18	722,32
1161,0	3,465E-1	2,025E+18	817,20	3,307E-1	1,933E+18	722,62
1162,0	3,490E-1	2,042E+18	817,56	3,332E-1	1,949E+18	722,97
1163,0	4,672E-1	2,735E+18	818,00	4,451E-1	2,606E+18	723,39
1164,0	4,007E-1	2,348E+18	818,44	3,822E-1	2,240E+18	723,81
1165,0	3,875E-1	2,272E+18	818,82	3,697E-1	2,168E+18	724,17
1166,0	3,739E-1	2,194E+18	819,19	3,568E-1	2,094E+18	724,53
1167,0	4,088E-1	2,401E+18	819,59	3,899E-1	2,291E+18	724,91

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1168,0	4,183E-1	2,460E+18	820,01	3,990E-1	2,346E+18	725,31
1169,0	4,219E-1	2,483E+18	820,44	4,023E-1	2,368E+18	725,71
1170,0	4,574E-1	2,694E+18	820,89	4,360E-1	2,568E+18	726,14
1171,0	4,470E-1	2,635E+18	821,35	4,263E-1	2,513E+18	726,58
1172,0	4,535E-1	2,676E+18	821,79	4,324E-1	2,551E+18	727,01
1173,0	4,551E-1	2,687E+18	822,25	4,340E-1	2,563E+18	727,44
1174,0	3,359E-1	1,985E+18	822,62	3,210E-1	1,897E+18	727,79
1175,0	4,511E-1	2,668E+18	823,01	4,302E-1	2,544E+18	728,17
1176,0	4,754E-1	2,814E+18	823,51	4,531E-1	2,683E+18	728,64
1177,0	4,710E-1	2,791E+18	823,99	4,491E-1	2,661E+18	729,10
1178,0	3,590E-1	2,129E+18	824,37	3,429E-1	2,034E+18	729,47
1179,0	4,823E-1	2,863E+18	824,80	4,598E-1	2,729E+18	729,87
1180,0	4,394E-1	2,610E+18	825,28	4,193E-1	2,491E+18	730,33
1181,0	4,538E-1	2,698E+18	825,72	4,330E-1	2,574E+18	730,75
1182,0	3,222E-1	1,917E+18	826,07	3,081E-1	1,834E+18	731,09
1183,0	4,374E-1	2,605E+18	826,45	4,173E-1	2,485E+18	731,45
1184,0	4,186E-1	2,495E+18	826,90	3,997E-1	2,382E+18	731,88
1185,0	4,062E-1	2,423E+18	827,31	3,880E-1	2,314E+18	732,27
1186,0	4,758E-1	2,841E+18	827,76	4,539E-1	2,710E+18	732,70
1187,0	4,544E-1	2,715E+18	828,24	4,337E-1	2,591E+18	733,16
1188,0	3,341E-1	1,998E+18	828,60	3,195E-1	1,911E+18	733,50
1189,0	4,145E-1	2,481E+18	828,96	3,957E-1	2,368E+18	733,85
1190,0	4,610E-1	2,762E+18	829,43	4,400E-1	2,636E+18	734,30
1191,0	4,453E-1	2,670E+18	829,89	4,251E-1	2,549E+18	734,74
1192,0	4,720E-1	2,832E+18	830,35	4,504E-1	2,703E+18	735,18
1193,0	4,530E-1	2,721E+18	830,82	4,324E-1	2,597E+18	735,62
1194,0	4,675E-1	2,810E+18	831,28	4,462E-1	2,682E+18	736,06
1195,0	4,457E-1	2,681E+18	831,73	4,255E-1	2,560E+18	736,49
1196,0	4,301E-1	2,589E+18	832,16	4,107E-1	2,473E+18	736,90
1197,0	4,758E-1	2,867E+18	832,62	4,539E-1	2,735E+18	737,34
1198,0	4,327E-1	2,609E+18	833,08	4,131E-1	2,491E+18	737,78
1199,0	3,638E-1	2,196E+18	833,45	3,477E-1	2,099E+18	738,13
1200,0	4,469E-1	2,700E+18	833,86	4,266E-1	2,577E+18	738,52
1201,0	4,358E-1	2,635E+18	834,31	4,161E-1	2,516E+18	738,96
1202,0	4,359E-1	2,638E+18	834,75	4,162E-1	2,519E+18	739,37
1203,0	4,328E-1	2,621E+18	835,18	4,132E-1	2,502E+18	739,79
1204,0	3,614E-1	2,191E+18	835,56	3,454E-1	2,094E+18	740,15
1205,0	4,357E-1	2,643E+18	835,96	4,159E-1	2,523E+18	740,53
1206,0	4,795E-1	2,911E+18	836,45	4,574E-1	2,777E+18	740,99
1207,0	4,286E-1	2,604E+18	836,90	4,092E-1	2,487E+18	741,42
1208,0	4,322E-1	2,628E+18	837,32	4,126E-1	2,509E+18	741,82

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1209,0	4,131E-1	2,514E+18	837,74	3,943E-1	2,400E+18	742,22
1210,0	4,520E-1	2,754E+18	838,17	4,314E-1	2,628E+18	742,64
1211,0	4,211E-1	2,567E+18	838,61	4,020E-1	2,451E+18	743,06
1212,0	4,237E-1	2,585E+18	839,03	4,045E-1	2,468E+18	743,46
1213,0	4,682E-1	2,859E+18	839,49	4,467E-1	2,728E+18	743,89
1214,0	4,328E-1	2,645E+18	839,94	4,132E-1	2,525E+18	744,33
1215,0	4,266E-1	2,609E+18	840,36	4,073E-1	2,491E+18	744,73
1216,0	4,650E-1	2,847E+18	840,81	4,438E-1	2,717E+18	745,16
1217,0	4,540E-1	2,781E+18	841,28	4,333E-1	2,655E+18	745,60
1218,0	4,580E-1	2,808E+18	841,73	4,371E-1	2,680E+18	746,04
1219,0	4,453E-1	2,733E+18	842,18	4,252E-1	2,609E+18	746,47
1220,0	4,567E-1	2,805E+18	842,63	4,360E-1	2,678E+18	746,90
1221,0	4,640E-1	2,852E+18	843,10	4,428E-1	2,722E+18	747,34
1222,0	4,501E-1	2,769E+18	843,55	4,297E-1	2,643E+18	747,78
1223,0	4,428E-1	2,726E+18	843,99	4,228E-1	2,603E+18	748,20
1224,0	4,468E-1	2,753E+18	844,44	4,266E-1	2,629E+18	748,62
1225,0	4,610E-1	2,843E+18	844,90	4,401E-1	2,714E+18	749,06
1226,0	4,668E-1	2,881E+18	845,36	4,457E-1	2,751E+18	749,51
1227,0	4,318E-1	2,667E+18	845,81	4,124E-1	2,547E+18	749,93
1228,0	4,652E-1	2,876E+18	846,25	4,441E-1	2,746E+18	750,36
1229,0	4,659E-1	2,882E+18	846,73	4,448E-1	2,752E+18	750,81
1230,0	4,587E-1	2,840E+18	847,19	4,380E-1	2,712E+18	751,25
1231,0	4,707E-1	2,917E+18	847,66	4,494E-1	2,785E+18	751,69
1232,0	4,650E-1	2,884E+18	848,12	4,440E-1	2,753E+18	752,14
1233,0	4,527E-1	2,810E+18	848,58	4,323E-1	2,684E+18	752,58
1234,0	4,688E-1	2,912E+18	849,04	4,476E-1	2,781E+18	753,02
1235,0	4,637E-1	2,883E+18	849,51	4,428E-1	2,753E+18	753,46
1236,0	4,677E-1	2,910E+18	849,98	4,466E-1	2,779E+18	753,91
1237,0	4,620E-1	2,877E+18	850,44	4,413E-1	2,748E+18	754,35
1238,0	4,666E-1	2,908E+18	850,90	4,456E-1	2,777E+18	754,80
1239,0	4,614E-1	2,878E+18	851,37	4,407E-1	2,749E+18	755,24
1240,0	4,594E-1	2,868E+18	851,83	4,388E-1	2,739E+18	755,68
1241,0	4,606E-1	2,878E+18	852,29	4,400E-1	2,749E+18	756,12
1242,0	4,611E-1	2,883E+18	852,75	4,405E-1	2,754E+18	756,56
1243,0	4,562E-1	2,855E+18	853,20	4,358E-1	2,727E+18	756,99
1244,0	4,540E-1	2,843E+18	853,66	4,337E-1	2,716E+18	757,43
1245,0	4,552E-1	2,853E+18	854,11	4,350E-1	2,726E+18	757,86
1246,0	4,581E-1	2,874E+18	854,57	4,377E-1	2,746E+18	758,30
1247,0	4,561E-1	2,863E+18	855,03	4,359E-1	2,736E+18	758,74
1248,0	4,573E-1	2,873E+18	855,48	4,370E-1	2,746E+18	759,17
1249,0	4,583E-1	2,882E+18	855,94	4,380E-1	2,754E+18	759,61

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1250,0	4,557E-1	2,868E+18	856,40	4,356E-1	2,741E+18	760,05
1251,0	4,513E-1	2,842E+18	856,85	4,313E-1	2,716E+18	760,48
1252,0	4,497E-1	2,834E+18	857,30	4,298E-1	2,709E+18	760,91
1253,0	4,464E-1	2,816E+18	857,75	4,268E-1	2,692E+18	761,33
1254,0	4,423E-1	2,792E+18	858,19	4,229E-1	2,670E+18	761,76
1255,0	4,494E-1	2,839E+18	858,64	4,296E-1	2,714E+18	762,18
1256,0	4,390E-1	2,775E+18	859,08	4,197E-1	2,654E+18	762,61
1257,0	4,341E-1	2,747E+18	859,51	4,151E-1	2,627E+18	763,02
1258,0	4,437E-1	2,810E+18	859,95	4,243E-1	2,687E+18	763,44
1259,0	4,260E-1	2,700E+18	860,38	4,075E-1	2,583E+18	763,86
1260,0	4,298E-1	2,727E+18	860,81	4,112E-1	2,608E+18	764,26
1261,0	4,103E-1	2,604E+18	861,22	3,926E-1	2,492E+18	764,66
1262,0	3,945E-1	2,506E+18	861,62	3,776E-1	2,399E+18	765,04
1263,0	3,990E-1	2,537E+18	862,01	3,819E-1	2,428E+18	765,41
1264,0	3,704E-1	2,357E+18	862,39	3,546E-1	2,257E+18	765,78
1265,0	3,946E-1	2,513E+18	862,77	3,776E-1	2,405E+18	766,14
1266,0	3,842E-1	2,448E+18	863,17	3,677E-1	2,344E+18	766,52
1267,0	3,871E-1	2,469E+18	863,55	3,705E-1	2,363E+18	766,89
1268,0	3,694E-1	2,358E+18	863,92	3,537E-1	2,258E+18	767,24
1269,0	2,458E-1	1,570E+18	864,20	2,359E-1	1,507E+18	767,51
1270,0	3,863E-1	2,470E+18	864,52	3,698E-1	2,364E+18	767,81
1271,0	4,071E-1	2,605E+18	864,95	3,895E-1	2,492E+18	768,23
1272,0	4,076E-1	2,610E+18	865,37	3,900E-1	2,497E+18	768,63
1273,0	4,051E-1	2,596E+18	865,77	3,876E-1	2,484E+18	769,01
1274,0	4,050E-1	2,597E+18	866,18	3,875E-1	2,485E+18	769,40
1275,0	4,111E-1	2,639E+18	866,59	3,934E-1	2,525E+18	769,79
1276,0	4,157E-1	2,670E+18	867,00	3,978E-1	2,555E+18	770,19
1277,0	4,188E-1	2,692E+18	867,42	4,007E-1	2,576E+18	770,59
1278,0	4,264E-1	2,743E+18	867,85	4,080E-1	2,625E+18	771,00
1279,0	4,233E-1	2,726E+18	868,27	4,051E-1	2,608E+18	771,41
1280,0	4,208E-1	2,712E+18	868,69	4,027E-1	2,595E+18	771,81
1281,0	4,121E-1	2,658E+18	869,11	3,944E-1	2,543E+18	772,20
1282,0	3,720E-1	2,401E+18	869,49	3,559E-1	2,297E+18	772,57
1283,0	4,061E-1	2,623E+18	869,87	3,886E-1	2,510E+18	772,94
1284,0	4,196E-1	2,712E+18	870,30	4,015E-1	2,595E+18	773,35
1285,0	4,228E-1	2,735E+18	870,72	4,046E-1	2,617E+18	773,75
1286,0	4,259E-1	2,757E+18	871,15	4,076E-1	2,639E+18	774,16
1287,0	4,209E-1	2,727E+18	871,57	4,029E-1	2,610E+18	774,56
1288,0	4,187E-1	2,715E+18	871,99	4,008E-1	2,598E+18	774,96
1289,0	4,082E-1	2,649E+18	872,40	3,908E-1	2,536E+18	775,36
1290,0	4,117E-1	2,673E+18	872,81	3,941E-1	2,559E+18	775,75

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1291,0	4,166E-1	2,708E+18	873,23	3,989E-1	2,592E+18	776,15
1292,0	3,950E-1	2,569E+18	873,63	3,784E-1	2,461E+18	776,53
1293,0	4,114E-1	2,678E+18	874,03	3,939E-1	2,564E+18	776,92
1294,0	4,030E-1	2,625E+18	874,44	3,860E-1	2,514E+18	777,31
1295,0	4,040E-1	2,634E+18	874,84	3,869E-1	2,522E+18	777,69
1296,0	3,884E-1	2,534E+18	875,23	3,721E-1	2,428E+18	778,07
1297,0	3,702E-1	2,417E+18	875,60	3,548E-1	2,317E+18	778,42
1298,0	3,907E-1	2,553E+18	875,98	3,743E-1	2,446E+18	778,79
1299,0	4,073E-1	2,664E+18	876,39	3,901E-1	2,551E+18	779,18
1300,0	3,521E-1	2,304E+18	876,76	3,376E-1	2,209E+18	779,54
1301,0	3,612E-1	2,366E+18	877,11	3,463E-1	2,268E+18	779,87
1302,0	3,907E-1	2,561E+18	877,49	3,743E-1	2,453E+18	780,24
1303,0	3,452E-1	2,264E+18	877,86	3,310E-1	2,171E+18	780,58
1304,0	2,997E-1	1,968E+18	878,16	2,877E-1	1,888E+18	780,87
1305,0	3,827E-1	2,514E+18	878,51	3,668E-1	2,409E+18	781,21
1306,0	3,834E-1	2,521E+18	878,91	3,675E-1	2,416E+18	781,60
1307,0	3,051E-1	2,007E+18	879,24	2,928E-1	1,926E+18	781,91
1308,0	3,460E-1	2,278E+18	879,55	3,318E-1	2,185E+18	782,21
1309,0	3,830E-1	2,524E+18	879,94	3,672E-1	2,419E+18	782,58
1310,0	3,003E-1	1,980E+18	880,27	2,882E-1	1,901E+18	782,89
1311,0	3,327E-1	2,196E+18	880,57	3,192E-1	2,107E+18	783,19
1312,0	3,324E-1	2,195E+18	880,91	3,189E-1	2,106E+18	783,51
1313,0	3,126E-1	2,066E+18	881,23	3,000E-1	1,983E+18	783,82
1314,0	2,875E-1	1,902E+18	881,52	2,761E-1	1,826E+18	784,10
1315,0	2,850E-1	1,887E+18	881,80	2,737E-1	1,812E+18	784,36
1316,0	3,232E-1	2,142E+18	882,11	3,102E-1	2,055E+18	784,66
1317,0	3,113E-1	2,064E+18	882,43	2,988E-1	1,981E+18	784,98
1318,0	3,323E-1	2,205E+18	882,76	3,189E-1	2,116E+18	785,29
1319,0	2,678E-1	1,778E+18	883,05	2,573E-1	1,708E+18	785,56
1320,0	2,580E-1	1,714E+18	883,29	2,479E-1	1,647E+18	785,80
1321,0	2,978E-1	1,980E+18	883,58	2,860E-1	1,902E+18	786,07
1322,0	3,013E-1	2,005E+18	883,89	2,894E-1	1,926E+18	786,37
1323,0	2,321E-1	1,546E+18	884,14	2,232E-1	1,487E+18	786,61
1324,0	2,617E-1	1,744E+18	884,37	2,516E-1	1,677E+18	786,84
1325,0	3,213E-1	2,143E+18	884,69	3,085E-1	2,058E+18	787,14
1326,0	2,797E-1	1,867E+18	884,99	2,688E-1	1,794E+18	787,43
1327,0	2,655E-1	1,773E+18	885,25	2,552E-1	1,705E+18	787,68
1328,0	2,338E-1	1,563E+18	885,49	2,249E-1	1,504E+18	787,91
1329,0	1,771E-1	1,185E+18	885,67	1,705E-1	1,141E+18	788,09
1330,0	2,286E-1	1,530E+18	885,87	2,199E-1	1,472E+18	788,28
1331,0	1,444E-1	9,674E+17	886,05	1,391E-1	9,321E+17	788,45

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1332,0	1,454E-1	9,747E+17	886,18	1,401E-1	9,391E+17	788,57
1333,0	2,025E-1	1,359E+18	886,37	1,949E-1	1,308E+18	788,75
1334,0	1,688E-1	1,133E+18	886,56	1,625E-1	1,092E+18	788,94
1335,0	2,305E-1	1,549E+18	886,76	2,218E-1	1,491E+18	789,14
1336,0	1,829E-1	1,230E+18	886,97	1,762E-1	1,185E+18	789,34
1337,0	1,641E-1	1,104E+18	887,13	1,581E-1	1,064E+18	789,49
1338,0	1,775E-1	1,196E+18	887,30	1,710E-1	1,152E+18	789,65
1339,0	1,763E-1	1,188E+18	887,48	1,698E-1	1,145E+18	789,83
1340,0	1,678E-1	1,132E+18	887,65	1,617E-1	1,091E+18	789,99
1341,0	1,699E-1	1,147E+18	887,82	1,637E-1	1,105E+18	790,15
1342,0	1,775E-1	1,199E+18	887,99	1,710E-1	1,155E+18	790,32
1343,0	1,267E-1	8,569E+17	888,13	1,222E-1	8,264E+17	790,46
1344,0	7,542E-2	5,103E+17	888,21	7,281E-2	4,926E+17	790,53
1345,0	1,087E-1	7,361E+17	888,30	1,049E-1	7,103E+17	790,62
1346,0	5,802E-2	3,931E+17	888,38	5,603E-2	3,796E+17	790,69
1347,0	5,994E-2	4,065E+17	888,42	5,789E-2	3,925E+17	790,74
1348,0	4,731E-3	3,211E+16	888,44	4,573E-3	3,103E+16	790,76
1349,0	1,611E-2	1,094E+17	888,44	1,557E-2	1,058E+17	790,76
1350,0	1,598E-2	1,086E+17	888,46	1,544E-2	1,050E+17	790,77
1351,0	4,616E-3	3,140E+16	888,47	4,463E-3	3,035E+16	790,78
1352,0	1,512E-3	1,029E+16	888,47	1,462E-3	9,949E+15	790,78
1353,0	9,582E-5	6,526E+14	888,47	9,265E-5	6,310E+14	790,78
1354,0	2,892E-4	1,972E+15	888,47	2,797E-4	1,906E+15	790,78
1355,0	3,593E-6	2,451E+13	888,47	3,475E-6	2,370E+13	790,78
1356,0	4,793E-5	3,272E+14	888,47	4,635E-5	3,164E+14	790,78
1357,0	7,158E-5	4,890E+14	888,47	6,923E-5	4,729E+14	790,78
1358,0	4,183E-6	2,859E+13	888,47	4,046E-6	2,766E+13	790,78
1359,0	7,323E-7	5,010E+12	888,47	7,083E-7	4,846E+12	790,78
1360,0	2,134E-6	1,461E+13	888,47	2,065E-6	1,414E+13	790,78
1361,0	4,799E-9	3,288E+10	888,47	4,643E-9	3,181E+10	790,78
1362,0	1,802E-11	1,236E+8	888,47	1,744E-11	1,196E+8	790,78
1363,0	3,147E-6	2,159E+13	888,47	3,045E-6	2,089E+13	790,78
1364,0	1,355E-6	9,304E+12	888,47	1,311E-6	9,003E+12	790,78
1365,0	9,050E-12	6,219E+7	888,47	8,758E-12	6,018E+7	790,78
1366,0	1,275E-5	8,770E+13	888,47	1,234E-5	8,488E+13	790,78
1367,0	4,962E-6	3,415E+13	888,47	4,802E-6	3,305E+13	790,78
1368,0	1,477E-13	1,017E+6	888,47	1,427E-13	9,827E+5	790,78
1369,0	5,152E-7	3,550E+12	888,47	4,986E-7	3,436E+12	790,78
1370,0	2,912E-7	2,008E+12	888,47	2,818E-7	1,944E+12	790,78
1371,0	1,967E-8	1,358E+11	888,47	1,905E-8	1,315E+11	790,78
1372,0	2,742E-6	1,894E+13	888,47	2,655E-6	1,833E+13	790,78

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1373,0	4,427E-5	3,060E+14	888,47	4,287E-5	2,963E+14	790,78
1374,0	1,787E-4	1,236E+15	888,47	1,730E-4	1,197E+15	790,78
1375,0	3,224E-4	2,232E+15	888,47	3,122E-4	2,161E+15	790,78
1376,0	2,567E-4	1,778E+15	888,47	2,486E-4	1,722E+15	790,78
1377,0	1,223E-4	8,481E+14	888,47	1,185E-4	8,213E+14	790,78
1378,0	1,106E-3	7,670E+15	888,47	1,071E-3	7,429E+15	790,78
1379,0	5,201E-5	3,611E+14	888,47	5,039E-5	3,498E+14	790,78
1380,0	8,135E-5	5,651E+14	888,47	7,881E-5	5,475E+14	790,78
1381,0	2,365E-6	1,644E+13	888,47	2,291E-6	1,593E+13	790,78
1382,0	2,560E-6	1,781E+13	888,47	2,480E-6	1,726E+13	790,78
1383,0	4,389E-8	3,056E+11	888,47	4,253E-8	2,961E+11	790,78
1384,0	6,151E-7	4,286E+12	888,47	5,961E-7	4,153E+12	790,78
1385,0	2,084E-6	1,453E+13	888,47	2,020E-6	1,408E+13	790,78
1386,0	2,514E-6	1,754E+13	888,47	2,437E-6	1,700E+13	790,78
1387,0	1,984E-4	1,385E+15	888,47	1,923E-4	1,343E+15	790,78
1388,0	4,015E-6	2,805E+13	888,47	3,892E-6	2,720E+13	790,78
1389,0	5,793E-4	4,051E+15	888,47	5,617E-4	3,928E+15	790,78
1390,0	4,918E-4	3,442E+15	888,47	4,770E-4	3,338E+15	790,78
1391,0	3,428E-4	2,401E+15	888,47	3,325E-4	2,328E+15	790,78
1392,0	2,371E-5	1,662E+14	888,47	2,300E-5	1,612E+14	790,78
1393,0	1,155E-4	8,101E+14	888,47	1,121E-4	7,858E+14	790,78
1394,0	7,531E-5	5,285E+14	888,47	7,305E-5	5,127E+14	790,78
1395,0	6,694E-7	4,701E+12	888,47	6,495E-7	4,561E+12	790,78
1396,0	6,303E-9	4,430E+10	888,47	6,116E-9	4,298E+10	790,78
1397,0	4,891E-5	3,440E+14	888,47	4,747E-5	3,338E+14	790,78
1398,0	1,267E-3	8,915E+15	888,47	1,229E-3	8,652E+15	790,78
1399,0	8,099E-4	5,704E+15	888,47	7,861E-4	5,536E+15	790,79
1400,0	3,237E-9	2,282E+10	888,47	3,142E-9	2,215E+10	790,79
1401,0	1,050E-8	7,404E+10	888,47	1,019E-8	7,186E+10	790,79
1402,0	1,830E-3	1,292E+16	888,47	1,777E-3	1,254E+16	790,79
1403,0	2,373E-3	1,676E+16	888,48	2,304E-3	1,627E+16	790,79
1404,0	7,368E-4	5,207E+15	888,48	7,155E-4	5,057E+15	790,79
1405,0	3,634E-7	2,570E+12	888,48	3,529E-7	2,496E+12	790,79
1406,0	2,039E-3	1,443E+16	888,48	1,980E-3	1,402E+16	790,79
1407,0	1,741E-4	1,233E+15	888,48	1,691E-4	1,198E+15	790,79
1408,0	1,645E-3	1,166E+16	888,48	1,598E-3	1,132E+16	790,79
1409,0	6,174E-4	4,379E+15	888,48	5,998E-4	4,255E+15	790,80
1410,0	4,652E-4	3,302E+15	888,48	4,520E-4	3,208E+15	790,80
1411,0	2,108E-3	1,497E+16	888,48	2,048E-3	1,455E+16	790,80
1412,0	2,632E-3	1,871E+16	888,49	2,558E-3	1,818E+16	790,80
1413,0	2,329E-2	1,656E+17	888,51	2,262E-2	1,609E+17	790,82

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1414,0	3,627E-4	2,582E+15	888,52	3,526E-4	2,510E+15	790,83
1415,0	1,831E-4	1,304E+15	888,51	1,780E-4	1,268E+15	790,82
1416,0	3,546E-2	2,528E+17	888,54	3,446E-2	2,456E+17	790,85
1417,0	1,173E-2	8,364E+16	888,56	1,140E-2	8,130E+16	790,87
1418,0	1,352E-2	9,651E+16	888,57	1,314E-2	9,382E+16	790,88
1419,0	2,138E-3	1,527E+16	888,58	2,079E-3	1,485E+16	790,89
1420,0	8,248E-3	5,896E+16	888,58	8,020E-3	5,733E+16	790,89
1421,0	9,137E-3	6,536E+16	888,59	8,886E-3	6,356E+16	790,90
1422,0	4,618E-2	3,306E+17	888,63	4,489E-2	3,214E+17	790,94
1423,0	9,193E-3	6,585E+16	888,66	8,941E-3	6,405E+16	790,96
1424,0	1,693E-2	1,213E+17	888,66	1,646E-2	1,180E+17	790,97
1425,0	2,578E-2	1,849E+17	888,69	2,507E-2	1,798E+17	790,99
1426,0	2,771E-2	1,989E+17	888,72	2,695E-2	1,935E+17	791,02
1427,0	4,940E-2	3,549E+17	888,76	4,804E-2	3,451E+17	791,07
1428,0	4,546E-3	3,268E+16	888,78	4,423E-3	3,180E+16	791,09
1429,0	3,791E-2	2,727E+17	888,80	3,688E-2	2,653E+17	791,10
1430,0	6,142E-2	4,422E+17	888,87	5,974E-2	4,300E+17	791,17
1431,0	5,001E-2	3,603E+17	888,92	4,865E-2	3,505E+17	791,22
1432,0	2,512E-3	1,811E+16	888,94	2,445E-3	1,763E+16	791,24
1433,0	3,573E-2	2,578E+17	888,95	3,477E-2	2,508E+17	791,25
1434,0	2,090E-2	1,509E+17	888,98	2,034E-2	1,469E+17	791,28
1435,0	2,135E-2	1,543E+17	889,00	2,079E-2	1,502E+17	791,30
1436,0	3,824E-2	2,764E+17	889,04	3,722E-2	2,690E+17	791,33
1437,0	2,979E-2	2,155E+17	889,07	2,900E-2	2,098E+17	791,37
1438,0	1,322E-2	9,573E+16	889,09	1,288E-2	9,321E+16	791,38
1439,0	5,089E-2	3,687E+17	889,12	4,953E-2	3,588E+17	791,42
1440,0	3,949E-2	2,862E+17	889,18	3,844E-2	2,786E+17	791,47
1441,0	3,171E-2	2,300E+17	889,21	3,087E-2	2,239E+17	791,50
1442,0	3,621E-2	2,629E+17	889,24	3,525E-2	2,559E+17	791,53
1443,0	4,493E-2	3,264E+17	889,28	4,374E-2	3,177E+17	791,57
1444,0	6,161E-2	4,479E+17	889,34	5,997E-2	4,359E+17	791,63
1445,0	4,961E-2	3,609E+17	889,40	4,829E-2	3,513E+17	791,69
1446,0	2,303E-2	1,676E+17	889,43	2,243E-2	1,633E+17	791,71
1447,0	3,611E-2	2,630E+17	889,45	3,516E-2	2,561E+17	791,74
1448,0	1,154E-1	8,409E+17	889,55	1,122E-1	8,180E+17	791,84
1449,0	1,018E-1	7,428E+17	889,68	9,908E-2	7,228E+17	791,96
1450,0	2,733E-2	1,995E+17	889,72	2,662E-2	1,943E+17	792,00
1451,0	1,124E-2	8,209E+16	889,72	1,095E-2	7,997E+16	792,00
1452,0	6,218E-2	4,545E+17	889,76	6,054E-2	4,425E+17	792,04
1453,0	8,174E-2	5,979E+17	889,85	7,957E-2	5,820E+17	792,13
1454,0	1,372E-1	1,004E+18	889,98	1,335E-1	9,768E+17	792,25

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1455,0	6,596E-2	4,831E+17	890,08	6,422E-2	4,704E+17	792,35
1456,0	8,825E-2	6,469E+17	890,14	8,591E-2	6,297E+17	792,41
1457,0	1,167E-1	8,557E+17	890,26	1,135E-1	8,327E+17	792,52
1458,0	1,360E-1	9,984E+17	890,40	1,323E-1	9,714E+17	792,66
1459,0	1,626E-1	1,194E+18	890,56	1,581E-1	1,162E+18	792,81
1460,0	8,517E-2	6,260E+17	890,67	8,292E-2	6,094E+17	792,92
1461,0	9,001E-2	6,620E+17	890,74	8,763E-2	6,445E+17	792,99
1462,0	1,302E-1	9,584E+17	890,86	1,267E-1	9,326E+17	793,11
1463,0	4,310E-2	3,174E+17	890,93	4,198E-2	3,092E+17	793,18
1464,0	1,514E-1	1,116E+18	891,04	1,473E-1	1,085E+18	793,28
1465,0	9,311E-2	6,867E+17	891,17	9,065E-2	6,685E+17	793,41
1466,0	6,501E-2	4,798E+17	891,23	6,331E-2	4,673E+17	793,47
1467,0	3,595E-2	2,655E+17	891,26	3,503E-2	2,587E+17	793,50
1468,0	7,672E-2	5,670E+17	891,32	7,471E-2	5,521E+17	793,56
1469,0	9,457E-2	6,993E+17	891,42	9,208E-2	6,809E+17	793,66
1470,0	4,953E-2	3,666E+17	891,49	4,826E-2	3,571E+17	793,72
1471,0	1,780E-2	1,318E+17	891,50	1,734E-2	1,284E+17	793,73
1472,0	4,664E-2	3,456E+17	891,53	4,543E-2	3,367E+17	793,77
1473,0	6,999E-2	5,190E+17	891,61	6,817E-2	5,055E+17	793,83
1474,0	9,706E-2	7,202E+17	891,70	9,449E-2	7,011E+17	793,93
1475,0	1,841E-1	1,367E+18	891,87	1,790E-1	1,329E+18	794,09
1476,0	6,858E-2	5,096E+17	891,99	6,679E-2	4,963E+17	794,21
1477,0	6,953E-2	5,170E+17	892,03	6,772E-2	5,035E+17	794,25
1478,0	6,330E-2	4,709E+17	892,10	6,165E-2	4,587E+17	794,31
1479,0	1,197E-1	8,909E+17	892,20	1,165E-1	8,671E+17	794,41
1480,0	6,046E-2	4,505E+17	892,29	5,889E-2	4,388E+17	794,50
1481,0	1,150E-1	8,570E+17	892,38	1,119E-1	8,341E+17	794,58
1482,0	5,832E-2	4,351E+17	892,46	5,680E-2	4,238E+17	794,67
1483,0	1,482E-1	1,106E+18	892,57	1,441E-1	1,076E+18	794,78
1484,0	1,371E-1	1,024E+18	892,74	1,334E-1	9,963E+17	794,93
1485,0	1,247E-1	9,320E+17	892,86	1,213E-1	9,070E+17	795,06
1486,0	1,230E-1	9,204E+17	892,98	1,197E-1	8,957E+17	795,17
1487,0	6,045E-2	4,525E+17	893,06	5,887E-2	4,407E+17	795,25
1488,0	9,391E-2	7,034E+17	893,13	9,139E-2	6,846E+17	795,31
1489,0	1,892E-1	1,418E+18	893,30	1,839E-1	1,378E+18	795,48
1490,0	1,743E-1	1,307E+18	893,50	1,694E-1	1,271E+18	795,68
1491,0	1,972E-1	1,480E+18	893,69	1,917E-1	1,439E+18	795,86
1492,0	1,639E-1	1,231E+18	893,87	1,594E-1	1,197E+18	796,04
1493,0	1,810E-1	1,361E+18	894,04	1,760E-1	1,323E+18	796,20
1494,0	2,031E-1	1,527E+18	894,24	1,974E-1	1,484E+18	796,40
1495,0	1,820E-1	1,370E+18	894,43	1,769E-1	1,332E+18	796,58

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1496,0	1,680E-1	1,265E+18	894,60	1,634E-1	1,230E+18	796,74
1497,0	2,278E-1	1,717E+18	894,81	2,213E-1	1,668E+18	796,95
1498,0	1,891E-1	1,426E+18	895,02	1,838E-1	1,386E+18	797,16
1499,0	2,170E-1	1,637E+18	895,22	2,108E-1	1,591E+18	797,35
1500,0	2,499E-1	1,887E+18	895,47	2,427E-1	1,833E+18	797,59
1501,0	2,648E-1	2,001E+18	895,74	2,571E-1	1,943E+18	797,85
1502,0	2,329E-1	1,761E+18	895,98	2,262E-1	1,711E+18	798,09
1503,0	1,844E-1	1,395E+18	896,17	1,792E-1	1,356E+18	798,27
1504,0	1,598E-1	1,210E+18	896,33	1,554E-1	1,177E+18	798,42
1505,0	1,835E-1	1,390E+18	896,50	1,783E-1	1,351E+18	798,59
1506,0	2,570E-1	1,948E+18	896,74	2,495E-1	1,892E+18	798,83
1507,0	2,544E-1	1,930E+18	897,01	2,471E-1	1,874E+18	799,09
1508,0	2,423E-1	1,840E+18	897,26	2,354E-1	1,787E+18	799,33
1509,0	1,864E-1	1,416E+18	897,46	1,812E-1	1,376E+18	799,52
1510,0	2,697E-1	2,050E+18	897,69	2,619E-1	1,991E+18	799,75
1511,0	2,640E-1	2,008E+18	897,98	2,564E-1	1,950E+18	800,03
1512,0	2,599E-1	1,978E+18	898,24	2,524E-1	1,921E+18	800,28
1513,0	2,417E-1	1,841E+18	898,48	2,348E-1	1,788E+18	800,52
1514,0	2,251E-1	1,715E+18	898,71	2,187E-1	1,667E+18	800,74
1515,0	2,650E-1	2,021E+18	898,96	2,573E-1	1,962E+18	800,98
1516,0	2,561E-1	1,954E+18	899,23	2,487E-1	1,898E+18	801,24
1517,0	2,486E-1	1,898E+18	899,47	2,414E-1	1,844E+18	801,48
1518,0	2,514E-1	1,921E+18	899,72	2,442E-1	1,866E+18	801,72
1519,0	2,437E-1	1,863E+18	899,97	2,367E-1	1,810E+18	801,96
1520,0	2,637E-1	2,018E+18	900,23	2,561E-1	1,960E+18	802,21
1521,0	2,743E-1	2,100E+18	900,50	2,663E-1	2,039E+18	802,48
1522,0	2,630E-1	2,015E+18	900,77	2,554E-1	1,957E+18	802,74
1523,0	2,792E-1	2,141E+18	901,04	2,711E-1	2,079E+18	803,01
1524,0	2,746E-1	2,107E+18	901,32	2,667E-1	2,046E+18	803,28
1525,0	2,581E-1	1,981E+18	901,59	2,507E-1	1,924E+18	803,53
1526,0	2,667E-1	2,049E+18	901,85	2,590E-1	1,990E+18	803,78
1527,0	2,614E-1	2,010E+18	902,11	2,539E-1	1,952E+18	804,04
1528,0	2,785E-1	2,142E+18	902,38	2,704E-1	2,080E+18	804,31
1529,0	2,717E-1	2,091E+18	902,66	2,638E-1	2,031E+18	804,58
1530,0	2,545E-1	1,960E+18	902,92	2,472E-1	1,904E+18	804,83
1531,0	2,689E-1	2,073E+18	903,18	2,612E-1	2,013E+18	805,08
1532,0	2,776E-1	2,141E+18	903,46	2,696E-1	2,079E+18	805,35
1533,0	2,763E-1	2,133E+18	903,74	2,684E-1	2,071E+18	805,62
1534,0	2,681E-1	2,071E+18	904,01	2,605E-1	2,011E+18	805,88
1535,0	2,661E-1	2,056E+18	904,27	2,585E-1	1,997E+18	806,14
1536,0	2,738E-1	2,117E+18	904,54	2,660E-1	2,057E+18	806,40

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1537,0	2,726E-1	2,109E+18	904,82	2,648E-1	2,049E+18	806,67
1538,0	2,712E-1	2,100E+18	905,09	2,635E-1	2,040E+18	806,93
1539,0	2,722E-1	2,109E+18	905,36	2,644E-1	2,049E+18	807,20
1540,0	2,641E-1	2,048E+18	905,63	2,566E-1	1,990E+18	807,46
1541,0	2,683E-1	2,081E+18	905,89	2,607E-1	2,022E+18	807,72
1542,0	2,685E-1	2,084E+18	906,16	2,609E-1	2,025E+18	807,98
1543,0	2,713E-1	2,107E+18	906,43	2,636E-1	2,048E+18	808,24
1544,0	2,713E-1	2,109E+18	906,70	2,637E-1	2,049E+18	808,50
1545,0	2,762E-1	2,149E+18	906,98	2,684E-1	2,088E+18	808,77
1546,0	2,740E-1	2,133E+18	907,25	2,663E-1	2,072E+18	809,04
1547,0	2,723E-1	2,121E+18	907,53	2,646E-1	2,061E+18	809,30
1548,0	2,660E-1	2,073E+18	907,79	2,584E-1	2,014E+18	809,56
1549,0	2,726E-1	2,126E+18	908,06	2,649E-1	2,066E+18	809,83
1550,0	2,691E-1	2,100E+18	908,34	2,615E-1	2,040E+18	810,09
1551,0	2,698E-1	2,107E+18	908,60	2,622E-1	2,047E+18	810,35
1552,0	2,710E-1	2,118E+18	908,87	2,634E-1	2,058E+18	810,61
1553,0	2,705E-1	2,115E+18	909,15	2,629E-1	2,055E+18	810,88
1554,0	2,640E-1	2,065E+18	909,41	2,565E-1	2,007E+18	811,13
1555,0	2,668E-1	2,089E+18	909,68	2,593E-1	2,030E+18	811,39
1556,0	2,623E-1	2,055E+18	909,94	2,549E-1	1,997E+18	811,65
1557,0	2,698E-1	2,115E+18	910,21	2,622E-1	2,056E+18	811,91
1558,0	2,677E-1	2,100E+18	910,48	2,602E-1	2,041E+18	812,17
1559,0	2,673E-1	2,098E+18	910,74	2,598E-1	2,039E+18	812,43
1560,0	2,649E-1	2,080E+18	911,01	2,575E-1	2,022E+18	812,69
1561,0	2,692E-1	2,116E+18	911,28	2,617E-1	2,056E+18	812,95
1562,0	2,668E-1	2,098E+18	911,54	2,593E-1	2,039E+18	813,21
1563,0	2,659E-1	2,092E+18	911,81	2,584E-1	2,033E+18	813,47
1564,0	2,619E-1	2,062E+18	912,07	2,545E-1	2,004E+18	813,72
1565,0	2,665E-1	2,100E+18	912,34	2,590E-1	2,040E+18	813,98
1566,0	2,617E-1	2,063E+18	912,60	2,543E-1	2,005E+18	814,24
1567,0	2,623E-1	2,069E+18	912,86	2,549E-1	2,011E+18	814,49
1568,0	2,565E-1	2,024E+18	913,12	2,492E-1	1,967E+18	814,74
1569,0	2,538E-1	2,005E+18	913,37	2,466E-1	1,948E+18	814,99
1570,0	2,410E-1	1,905E+18	913,62	2,343E-1	1,852E+18	815,22
1571,0	2,344E-1	1,854E+18	913,85	2,278E-1	1,802E+18	815,45
1572,0	2,371E-1	1,876E+18	914,08	2,304E-1	1,823E+18	815,68
1573,0	2,334E-1	1,848E+18	914,32	2,268E-1	1,796E+18	815,91
1574,0	2,408E-1	1,908E+18	914,56	2,340E-1	1,854E+18	816,14
1575,0	2,390E-1	1,895E+18	914,80	2,323E-1	1,842E+18	816,37
1576,0	2,461E-1	1,952E+18	915,04	2,391E-1	1,897E+18	816,61
1577,0	2,154E-1	1,710E+18	915,27	2,093E-1	1,662E+18	816,83

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1578,0	2,345E-1	1,863E+18	915,49	2,279E-1	1,810E+18	817,04
1579,0	2,360E-1	1,876E+18	915,73	2,294E-1	1,823E+18	817,28
1580,0	2,439E-1	1,940E+18	915,97	2,370E-1	1,885E+18	817,51
1581,0	2,480E-1	1,974E+18	916,22	2,410E-1	1,918E+18	817,75
1582,0	2,412E-1	1,921E+18	916,47	2,344E-1	1,867E+18	817,99
1583,0	2,468E-1	1,967E+18	916,71	2,398E-1	1,911E+18	818,23
1584,0	2,483E-1	1,980E+18	916,96	2,412E-1	1,924E+18	818,47
1585,0	2,580E-1	2,059E+18	917,21	2,506E-1	2,000E+18	818,72
1586,0	2,549E-1	2,036E+18	917,47	2,477E-1	1,977E+18	818,97
1587,0	2,523E-1	2,016E+18	917,72	2,451E-1	1,958E+18	819,21
1588,0	2,503E-1	2,001E+18	917,97	2,432E-1	1,944E+18	819,46
1589,0	2,317E-1	1,853E+18	918,21	2,250E-1	1,800E+18	819,69
1590,0	2,411E-1	1,930E+18	918,44	2,342E-1	1,874E+18	819,91
1591,0	2,413E-1	1,932E+18	918,69	2,343E-1	1,877E+18	820,15
1592,0	2,515E-1	2,016E+18	918,94	2,443E-1	1,958E+18	820,39
1593,0	2,576E-1	2,066E+18	919,20	2,502E-1	2,006E+18	820,64
1594,0	2,555E-1	2,050E+18	919,45	2,482E-1	1,991E+18	820,89
1595,0	2,575E-1	2,067E+18	919,71	2,501E-1	2,008E+18	821,14
1596,0	2,438E-1	1,959E+18	919,96	2,368E-1	1,903E+18	821,38
1597,0	2,462E-1	1,979E+18	920,20	2,392E-1	1,923E+18	821,62
1598,0	2,535E-1	2,039E+18	920,45	2,462E-1	1,981E+18	821,86
1599,0	2,413E-1	1,943E+18	920,70	2,344E-1	1,887E+18	822,10
1600,0	2,374E-1	1,912E+18	920,93	2,307E-1	1,858E+18	822,33
1601,0	2,226E-1	1,794E+18	921,16	2,163E-1	1,743E+18	822,55
1602,0	2,235E-1	1,802E+18	921,38	2,172E-1	1,751E+18	822,76
1603,0	2,233E-1	1,802E+18	921,60	2,170E-1	1,751E+18	822,98
1604,0	2,278E-1	1,839E+18	921,83	2,213E-1	1,787E+18	823,20
1605,0	2,361E-1	1,908E+18	922,06	2,294E-1	1,854E+18	823,43
1606,0	2,407E-1	1,946E+18	922,31	2,339E-1	1,891E+18	823,66
1607,0	2,323E-1	1,879E+18	922,54	2,257E-1	1,826E+18	823,89
1608,0	2,292E-1	1,856E+18	922,77	2,228E-1	1,803E+18	824,11
1609,0	2,266E-1	1,836E+18	923,00	2,202E-1	1,784E+18	824,33
1610,0	2,170E-1	1,759E+18	923,21	2,108E-1	1,709E+18	824,55
1611,0	2,261E-1	1,834E+18	923,44	2,198E-1	1,782E+18	824,76
1612,0	2,301E-1	1,867E+18	923,67	2,236E-1	1,814E+18	824,99
1613,0	2,365E-1	1,920E+18	923,90	2,298E-1	1,866E+18	825,22
1614,0	2,377E-1	1,931E+18	924,14	2,309E-1	1,876E+18	825,45
1615,0	2,403E-1	1,954E+18	924,38	2,335E-1	1,899E+18	825,68
1616,0	2,298E-1	1,870E+18	924,61	2,233E-1	1,817E+18	825,91
1617,0	2,340E-1	1,905E+18	924,85	2,273E-1	1,850E+18	826,13
1618,0	2,428E-1	1,978E+18	925,09	2,359E-1	1,922E+18	826,37

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1619,0	2,403E-1	1,959E+18	925,33	2,335E-1	1,903E+18	826,60
1620,0	2,338E-1	1,907E+18	925,56	2,272E-1	1,853E+18	826,83
1621,0	2,336E-1	1,906E+18	925,80	2,270E-1	1,852E+18	827,06
1622,0	2,369E-1	1,934E+18	926,03	2,301E-1	1,879E+18	827,29
1623,0	2,418E-1	1,975E+18	926,27	2,349E-1	1,919E+18	827,52
1624,0	2,420E-1	1,978E+18	926,52	2,351E-1	1,922E+18	827,76
1625,0	2,371E-1	1,940E+18	926,76	2,304E-1	1,885E+18	827,99
1626,0	2,390E-1	1,956E+18	926,99	2,323E-1	1,901E+18	828,22
1627,0	2,401E-1	1,966E+18	927,23	2,333E-1	1,911E+18	828,45
1628,0	2,406E-1	1,972E+18	927,47	2,338E-1	1,916E+18	828,69
1629,0	2,407E-1	1,974E+18	927,71	2,339E-1	1,918E+18	828,92
1630,0	2,358E-1	1,935E+18	927,95	2,292E-1	1,881E+18	829,15
1631,0	2,374E-1	1,949E+18	928,19	2,307E-1	1,894E+18	829,38
1632,0	2,375E-1	1,951E+18	928,43	2,308E-1	1,897E+18	829,61
1633,0	2,320E-1	1,907E+18	928,66	2,255E-1	1,854E+18	829,84
1634,0	2,321E-1	1,910E+18	928,89	2,256E-1	1,856E+18	830,06
1635,0	2,330E-1	1,918E+18	929,12	2,265E-1	1,864E+18	830,29
1636,0	2,347E-1	1,933E+18	929,36	2,281E-1	1,879E+18	830,52
1637,0	2,263E-1	1,865E+18	929,59	2,200E-1	1,813E+18	830,74
1638,0	2,194E-1	1,809E+18	929,80	2,133E-1	1,759E+18	830,95
1639,0	2,196E-1	1,812E+18	930,02	2,135E-1	1,761E+18	831,16
1640,0	2,145E-1	1,771E+18	930,24	2,085E-1	1,722E+18	831,37
1641,0	2,190E-1	1,809E+18	930,45	2,129E-1	1,758E+18	831,58
1642,0	2,202E-1	1,820E+18	930,68	2,140E-1	1,769E+18	831,80
1643,0	2,147E-1	1,776E+18	930,89	2,088E-1	1,727E+18	832,01
1644,0	2,229E-1	1,845E+18	931,11	2,167E-1	1,793E+18	832,22
1645,0	2,176E-1	1,802E+18	931,33	2,115E-1	1,752E+18	832,44
1646,0	2,169E-1	1,797E+18	931,55	2,109E-1	1,747E+18	832,65
1647,0	2,270E-1	1,882E+18	931,77	2,207E-1	1,830E+18	832,86
1648,0	2,159E-1	1,791E+18	931,99	2,100E-1	1,742E+18	833,08
1649,0	2,180E-1	1,810E+18	932,21	2,120E-1	1,760E+18	833,29
1650,0	2,246E-1	1,866E+18	932,43	2,184E-1	1,814E+18	833,51
1651,0	2,079E-1	1,728E+18	932,65	2,022E-1	1,681E+18	833,71
1652,0	2,231E-1	1,855E+18	932,86	2,169E-1	1,804E+18	833,92
1653,0	2,221E-1	1,848E+18	933,09	2,160E-1	1,797E+18	834,14
1654,0	2,152E-1	1,792E+18	933,30	2,093E-1	1,743E+18	834,35
1655,0	2,217E-1	1,847E+18	933,52	2,156E-1	1,796E+18	834,57
1656,0	2,204E-1	1,837E+18	933,74	2,143E-1	1,787E+18	834,78
1657,0	2,216E-1	1,848E+18	933,97	2,155E-1	1,798E+18	835,00
1658,0	2,242E-1	1,871E+18	934,19	2,181E-1	1,820E+18	835,21
1659,0	2,206E-1	1,842E+18	934,41	2,145E-1	1,792E+18	835,43

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1660,0	2,227E-1	1,861E+18	934,63	2,166E-1	1,810E+18	835,65
1661,0	2,232E-1	1,866E+18	934,86	2,171E-1	1,815E+18	835,86
1662,0	2,184E-1	1,828E+18	935,08	2,125E-1	1,778E+18	836,08
1663,0	2,217E-1	1,856E+18	935,30	2,157E-1	1,806E+18	836,29
1664,0	2,203E-1	1,846E+18	935,52	2,144E-1	1,796E+18	836,51
1665,0	2,112E-1	1,770E+18	935,73	2,055E-1	1,722E+18	836,71
1666,0	1,783E-1	1,496E+18	935,91	1,736E-1	1,456E+18	836,89
1667,0	2,101E-1	1,763E+18	936,11	2,044E-1	1,716E+18	837,08
1668,0	2,140E-1	1,797E+18	936,33	2,082E-1	1,748E+18	837,30
1669,0	2,145E-1	1,803E+18	936,54	2,088E-1	1,754E+18	837,51
1670,0	2,210E-1	1,858E+18	936,76	2,151E-1	1,808E+18	837,72
1671,0	2,182E-1	1,835E+18	936,98	2,123E-1	1,786E+18	837,93
1672,0	2,109E-1	1,775E+18	937,20	2,052E-1	1,727E+18	838,14
1673,0	2,157E-1	1,816E+18	937,41	2,099E-1	1,768E+18	838,35
1674,0	2,151E-1	1,813E+18	937,63	2,094E-1	1,765E+18	838,56
1675,0	2,130E-1	1,796E+18	937,84	2,073E-1	1,748E+18	838,77
1676,0	2,108E-1	1,779E+18	938,05	2,052E-1	1,732E+18	838,97
1677,0	2,117E-1	1,787E+18	938,26	2,061E-1	1,740E+18	839,18
1678,0	2,085E-1	1,762E+18	938,47	2,031E-1	1,715E+18	839,38
1679,0	2,124E-1	1,795E+18	938,68	2,068E-1	1,748E+18	839,59
1680,0	2,050E-1	1,734E+18	938,89	1,996E-1	1,688E+18	839,79
1681,0	1,939E-1	1,641E+18	939,08	1,888E-1	1,598E+18	839,98
1682,0	2,031E-1	1,719E+18	939,28	1,977E-1	1,674E+18	840,17
1683,0	2,085E-1	1,766E+18	939,49	2,030E-1	1,720E+18	840,37
1684,0	1,974E-1	1,673E+18	939,69	1,923E-1	1,630E+18	840,57
1685,0	2,126E-1	1,803E+18	939,90	2,070E-1	1,756E+18	840,77
1686,0	2,097E-1	1,779E+18	940,11	2,042E-1	1,733E+18	840,98
1687,0	2,042E-1	1,735E+18	940,32	1,989E-1	1,689E+18	841,18
1688,0	2,095E-1	1,780E+18	940,52	2,041E-1	1,734E+18	841,38
1689,0	2,066E-1	1,756E+18	940,73	2,012E-1	1,711E+18	841,58
1690,0	2,046E-1	1,741E+18	940,94	1,993E-1	1,696E+18	841,78
1691,0	1,925E-1	1,638E+18	941,13	1,875E-1	1,596E+18	841,97
1692,0	2,065E-1	1,759E+18	941,33	2,012E-1	1,713E+18	842,17
1693,0	2,107E-1	1,796E+18	941,55	2,053E-1	1,750E+18	842,38
1694,0	2,042E-1	1,741E+18	941,75	1,989E-1	1,696E+18	842,58
1695,0	2,091E-1	1,784E+18	941,96	2,037E-1	1,738E+18	842,78
1696,0	2,086E-1	1,781E+18	942,17	2,032E-1	1,735E+18	842,98
1697,0	1,805E-1	1,542E+18	942,36	1,760E-1	1,503E+18	843,17
1698,0	2,068E-1	1,768E+18	942,55	2,015E-1	1,722E+18	843,35
1699,0	2,049E-1	1,753E+18	942,76	1,997E-1	1,708E+18	843,56
1700,0	1,992E-1	1,705E+18	942,96	1,941E-1	1,661E+18	843,76

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1702,0	2,034E-1	1,742E+18	943,46	1,982E-1	1,698E+18	844,25
1705,0	1,972E-1	1,693E+18	944,16	1,922E-1	1,650E+18	844,93
1710,0	1,874E-1	1,613E+18	945,31	1,826E-1	1,572E+18	846,04
1715,0	1,891E-1	1,633E+18	946,24	1,844E-1	1,592E+18	846,95
1720,0	1,864E-1	1,614E+18	947,17	1,818E-1	1,574E+18	847,86
1725,0	1,776E-1	1,542E+18	948,07	1,732E-1	1,504E+18	848,74
1730,0	1,736E-1	1,512E+18	948,93	1,693E-1	1,474E+18	849,58
1735,0	1,611E-1	1,407E+18	949,75	1,571E-1	1,372E+18	850,37
1740,0	1,677E-1	1,469E+18	950,56	1,636E-1	1,433E+18	851,17
1745,0	1,544E-1	1,356E+18	951,36	1,506E-1	1,323E+18	851,94
1750,0	1,652E-1	1,455E+18	952,15	1,612E-1	1,420E+18	852,72
1755,0	1,526E-1	1,348E+18	952,95	1,489E-1	1,315E+18	853,49
1760,0	1,595E-1	1,413E+18	953,72	1,556E-1	1,379E+18	854,25
1765,0	1,325E-1	1,177E+18	954,42	1,293E-1	1,149E+18	854,94
1770,0	1,413E-1	1,259E+18	955,09	1,379E-1	1,229E+18	855,58
1775,0	1,145E-1	1,023E+18	955,70	1,118E-1	9,990E+17	856,18
1780,0	1,002E-1	8,979E+17	956,19	9,786E-2	8,769E+17	856,66
1785,0	7,676E-2	6,897E+17	956,58	7,498E-2	6,738E+17	857,04
1790,0	8,865E-2	7,988E+17	956,98	8,658E-2	7,802E+17	857,43
1795,0	4,679E-2	4,228E+17	957,28	4,573E-2	4,132E+17	857,73
1800,0	3,174E-2	2,876E+17	957,41	3,102E-2	2,811E+17	857,85
1805,0	1,477E-2	1,342E+17	957,49	1,444E-2	1,312E+17	857,92
1810,0	9,663E-3	8,805E+16	957,52	9,449E-3	8,609E+16	857,96
1815,0	3,272E-3	2,990E+16	957,54	3,200E-3	2,924E+16	857,98
1820,0	9,847E-4	9,022E+15	957,54	9,630E-4	8,823E+15	857,97
1825,0	1,271E-3	1,167E+16	957,54	1,243E-3	1,142E+16	857,98
1830,0	5,189E-6	4,780E+13	957,54	5,075E-6	4,675E+13	857,98
1835,0	6,400E-6	5,912E+13	957,54	6,260E-6	5,783E+13	857,98
1840,0	6,252E-8	5,791E+11	957,54	6,116E-8	5,665E+11	857,98
1845,0	6,248E-6	5,803E+13	957,54	6,112E-6	5,677E+13	857,98
1850,0	2,991E-6	2,785E+13	957,54	2,926E-6	2,725E+13	857,98
1855,0	2,831E-7	2,644E+12	957,54	2,771E-7	2,588E+12	857,98
1860,0	1,112E-5	1,041E+14	957,54	1,089E-5	1,020E+14	857,98
1865,0	1,693E-5	1,590E+14	957,54	1,660E-5	1,558E+14	857,98
1870,0	2,658E-10	2,503E+9	957,54	2,607E-10	2,454E+9	857,98
1875,0	4,500E-10	4,247E+9	957,54	4,417E-10	4,169E+9	857,98
1880,0	7,728E-5	7,314E+14	957,54	7,590E-5	7,183E+14	857,98
1885,0	4,376E-5	4,153E+14	957,54	4,300E-5	4,081E+14	857,98
1890,0	2,227E-4	2,119E+15	957,54	2,189E-4	2,083E+15	857,98
1895,0	1,291E-4	1,232E+15	957,54	1,271E-4	1,212E+15	857,98
1900,0	8,597E-7	8,223E+12	957,54	8,467E-7	8,098E+12	857,98

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
1905,0	5,650E-7	5,419E+12	957,54	5,564E-7	5,335E+12	857,98
1910,0	2,298E-5	2,209E+14	957,54	2,266E-5	2,179E+14	857,98
1915,0	1,989E-5	1,917E+14	957,54	1,962E-5	1,891E+14	857,98
1920,0	4,494E-4	4,343E+15	957,55	4,432E-4	4,284E+15	857,98
1925,0	9,334E-4	9,046E+15	957,55	9,206E-4	8,921E+15	857,99
1930,0	5,508E-4	5,352E+15	957,55	5,432E-4	5,277E+15	857,99
1935,0	3,583E-3	3,490E+16	957,57	3,533E-3	3,441E+16	858,00
1940,0	3,273E-3	3,196E+16	957,59	3,226E-3	3,151E+16	858,02
1945,0	1,083E-2	1,061E+17	957,63	1,068E-2	1,045E+17	858,07
1950,0	1,668E-2	1,637E+17	957,72	1,643E-2	1,613E+17	858,15
1955,0	1,001E-2	9,848E+16	957,78	9,857E-3	9,701E+16	858,22
1960,0	2,184E-2	2,155E+17	957,87	2,151E-2	2,122E+17	858,30
1965,0	2,848E-2	2,817E+17	958,02	2,803E-2	2,773E+17	858,45
1970,0	4,871E-2	4,830E+17	958,24	4,792E-2	4,752E+17	858,67
1975,0	6,766E-2	6,727E+17	958,58	6,654E-2	6,615E+17	859,01
1980,0	7,529E-2	7,505E+17	958,98	7,402E-2	7,378E+17	859,39
1985,0	8,282E-2	8,276E+17	959,39	8,139E-2	8,133E+17	859,80
1990,0	8,536E-2	8,552E+17	959,82	8,388E-2	8,403E+17	860,22
1995,0	8,095E-2	8,130E+17	960,24	7,955E-2	7,990E+17	860,63
2000,0	3,805E-2	3,830E+17	960,47	3,738E-2	3,764E+17	860,86
2005,0	1,496E-2	1,510E+17	960,52	1,470E-2	1,484E+17	860,91
2010,0	3,963E-2	4,010E+17	960,66	3,896E-2	3,942E+17	861,05
2015,0	2,657E-2	2,695E+17	960,84	2,613E-2	2,651E+17	861,23
2020,0	4,485E-2	4,561E+17	961,03	4,411E-2	4,486E+17	861,41
2025,0	7,379E-2	7,523E+17	961,38	7,257E-2	7,398E+17	861,76
2030,0	8,461E-2	8,646E+17	961,83	8,322E-2	8,504E+17	862,20
2035,0	9,611E-2	9,845E+17	962,31	9,453E-2	9,684E+17	862,67
2040,0	8,952E-2	9,193E+17	962,78	8,809E-2	9,046E+17	863,13
2045,0	9,081E-2	9,349E+17	963,22	8,938E-2	9,201E+17	863,57
2050,0	6,773E-2	6,990E+17	963,59	6,670E-2	6,883E+17	863,93
2055,0	5,475E-2	5,664E+17	963,85	5,393E-2	5,579E+17	864,19
2060,0	6,899E-2	7,155E+17	964,16	6,796E-2	7,048E+17	864,49
2065,0	6,170E-2	6,413E+17	964,50	6,078E-2	6,319E+17	864,82
2070,0	6,548E-2	6,824E+17	964,81	6,453E-2	6,724E+17	865,13
2075,0	7,722E-2	8,066E+17	965,19	7,608E-2	7,947E+17	865,50
2080,0	8,656E-2	9,064E+17	965,63	8,528E-2	8,930E+17	865,93
2085,0	8,485E-2	8,906E+17	966,06	8,360E-2	8,775E+17	866,37
2090,0	8,884E-2	9,347E+17	966,50	8,752E-2	9,209E+17	866,80
2095,0	8,949E-2	9,438E+17	966,95	8,816E-2	9,298E+17	867,24
2100,0	8,588E-2	9,079E+17	967,39	8,462E-2	8,946E+17	867,67
2105,0	9,288E-2	9,843E+17	967,84	9,150E-2	9,696E+17	868,11

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
2110,0	8,939E-2	9,495E+17	968,30	8,806E-2	9,354E+17	868,57
2115,0	9,141E-2	9,732E+17	968,75	9,005E-2	9,587E+17	869,01
2120,0	8,733E-2	9,320E+17	969,19	8,603E-2	9,181E+17	869,45
2125,0	8,837E-2	9,454E+17	969,63	8,705E-2	9,312E+17	869,88
2130,0	8,951E-2	9,598E+17	970,08	8,816E-2	9,454E+17	870,32
2135,0	8,978E-2	9,650E+17	970,53	8,842E-2	9,503E+17	870,76
2140,0	9,050E-2	9,750E+17	970,98	8,913E-2	9,602E+17	871,21
2145,0	8,923E-2	9,635E+17	971,43	8,788E-2	9,489E+17	871,65
2150,0	8,439E-2	9,134E+17	971,85	8,313E-2	8,997E+17	872,07
2155,0	8,459E-2	9,177E+17	972,27	8,332E-2	9,039E+17	872,48
2160,0	8,392E-2	9,126E+17	972,69	8,267E-2	8,989E+17	872,89
2165,0	7,609E-2	8,293E+17	973,08	7,496E-2	8,169E+17	873,28
2170,0	8,176E-2	8,931E+17	973,47	8,054E-2	8,798E+17	873,66
2175,0	8,021E-2	8,783E+17	973,88	7,903E-2	8,653E+17	874,07
2180,0	8,157E-2	8,952E+17	974,29	8,036E-2	8,819E+17	874,46
2185,0	7,433E-2	8,176E+17	974,67	7,324E-2	8,057E+17	874,84
2190,0	7,884E-2	8,692E+17	975,05	7,768E-2	8,564E+17	875,22
2195,0	7,876E-2	8,703E+17	975,45	7,761E-2	8,575E+17	875,61
2200,0	7,099E-2	7,863E+17	975,81	6,997E-2	7,749E+17	875,97
2205,0	7,379E-2	8,191E+17	976,17	7,273E-2	8,074E+17	876,32
2210,0	7,908E-2	8,798E+17	976,56	7,795E-2	8,672E+17	876,71
2215,0	7,605E-2	8,480E+17	976,95	7,497E-2	8,360E+17	877,09
2220,0	7,750E-2	8,662E+17	977,33	7,641E-2	8,539E+17	877,47
2225,0	7,523E-2	8,427E+17	977,71	7,418E-2	8,309E+17	877,84
2230,0	7,555E-2	8,482E+17	978,09	7,451E-2	8,364E+17	878,21
2235,0	7,408E-2	8,335E+17	978,46	7,308E-2	8,222E+17	878,58
2240,0	7,291E-2	8,221E+17	978,82	7,193E-2	8,111E+17	878,94
2245,0	7,063E-2	7,983E+17	979,18	6,971E-2	7,878E+17	879,29
2250,0	7,173E-2	8,124E+17	979,53	7,083E-2	8,022E+17	879,64
2255,0	6,749E-2	7,662E+17	979,88	6,667E-2	7,568E+17	879,98
2260,0	6,673E-2	7,592E+17	980,21	6,595E-2	7,503E+17	880,30
2265,0	6,794E-2	7,747E+17	980,54	6,716E-2	7,658E+17	880,64
2270,0	6,468E-2	7,391E+17	980,87	6,395E-2	7,308E+17	880,96
2275,0	6,383E-2	7,311E+17	981,19	6,312E-2	7,229E+17	881,28
2280,0	6,610E-2	7,586E+17	981,52	6,536E-2	7,502E+17	881,60
2285,0	6,290E-2	7,235E+17	981,84	6,221E-2	7,156E+17	881,92
2290,0	6,304E-2	7,267E+17	982,15	6,235E-2	7,188E+17	882,22
2295,0	6,109E-2	7,058E+17	982,46	6,043E-2	6,981E+17	882,53
2300,0	5,865E-2	6,791E+17	982,75	5,802E-2	6,718E+17	882,82
2305,0	5,900E-2	6,846E+17	983,04	5,837E-2	6,773E+17	883,11
2310,0	6,368E-2	7,406E+17	983,35	6,301E-2	7,327E+17	883,42

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
2315,0	5,797E-2	6,756E+17	983,66	5,736E-2	6,685E+17	883,72
2320,0	5,188E-2	6,059E+17	983,92	5,134E-2	5,996E+17	883,97
2325,0	5,605E-2	6,560E+17	984,18	5,546E-2	6,492E+17	884,24
2330,0	5,666E-2	6,646E+17	984,47	5,607E-2	6,576E+17	884,52
2335,0	5,780E-2	6,794E+17	984,76	5,720E-2	6,723E+17	884,81
2340,0	4,570E-2	5,384E+17	985,01	4,523E-2	5,329E+17	885,05
2345,0	5,125E-2	6,050E+17	985,24	5,072E-2	5,988E+17	885,28
2350,0	4,142E-2	4,899E+17	985,47	4,100E-2	4,850E+17	885,51
2355,0	4,734E-2	5,612E+17	985,68	4,685E-2	5,554E+17	885,72
2360,0	5,009E-2	5,951E+17	985,94	4,958E-2	5,890E+17	885,97
2365,0	4,927E-2	5,865E+17	986,19	4,877E-2	5,806E+17	886,22
2370,0	3,073E-2	3,666E+17	986,36	3,043E-2	3,630E+17	886,40
2375,0	4,402E-2	5,263E+17	986,54	4,358E-2	5,210E+17	886,57
2380,0	4,243E-2	5,083E+17	986,78	4,201E-2	5,033E+17	886,80
2385,0	3,074E-2	3,690E+17	986,94	3,044E-2	3,654E+17	886,97
2390,0	3,700E-2	4,452E+17	987,10	3,664E-2	4,409E+17	887,13
2395,0	4,048E-2	4,880E+17	987,31	4,008E-2	4,833E+17	887,33
2400,0	4,402E-2	5,319E+17	987,53	4,360E-2	5,268E+17	887,55
2405,0	3,350E-2	4,056E+17	987,71	3,319E-2	4,018E+17	887,73
2410,0	3,371E-2	4,090E+17	987,87	3,341E-2	4,053E+17	887,89
2415,0	2,722E-2	3,309E+17	988,01	2,698E-2	3,280E+17	888,03
2420,0	2,651E-2	3,230E+17	988,14	2,628E-2	3,202E+17	888,15
2425,0	3,298E-2	4,026E+17	988,30	3,271E-2	3,993E+17	888,31
2430,0	4,497E-2	5,501E+17	988,51	4,460E-2	5,455E+17	888,53
2435,0	1,484E-2	1,818E+17	988,64	1,472E-2	1,805E+17	888,65
2440,0	4,312E-2	5,297E+17	988,78	4,280E-2	5,257E+17	888,79
2445,0	2,074E-2	2,552E+17	988,95	2,060E-2	2,535E+17	888,96
2450,0	1,357E-2	1,674E+17	989,00	1,348E-2	1,663E+17	889,01
2455,0	2,478E-2	3,063E+17	989,10	2,462E-2	3,043E+17	889,11
2460,0	3,327E-2	4,120E+17	989,27	3,306E-2	4,094E+17	889,28
2465,0	2,408E-2	2,988E+17	989,41	2,394E-2	2,971E+17	889,42
2470,0	1,668E-2	2,074E+17	989,49	1,659E-2	2,062E+17	889,50
2475,0	1,641E-2	2,044E+17	989,57	1,632E-2	2,033E+17	889,57
2480,0	8,016E-3	1,001E+17	989,62	7,976E-3	9,958E+16	889,62
2485,0	5,594E-3	6,998E+16	989,64	5,568E-3	6,965E+16	889,64
2490,0	3,501E-3	4,389E+16	989,65	3,486E-3	4,369E+16	889,66
2495,0	2,869E-3	3,603E+16	989,67	2,856E-3	3,588E+16	889,67
2500,0	7,044E-3	8,865E+16	989,70	7,012E-3	8,825E+16	889,70
2505,0	1,515E-3	1,910E+16	989,72	1,508E-3	1,902E+16	889,72
2510,0	2,210E-3	2,792E+16	989,72	2,200E-3	2,780E+16	889,72
2515,0	5,173E-4	6,549E+15	989,72	5,149E-4	6,520E+15	889,73

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
2520,0	3,695E-4	4,687E+15	989,72	3,677E-4	4,665E+15	889,73
2525,0	4,127E-5	5,246E+14	989,72	4,107E-5	5,221E+14	889,73
2530,0	6,341E-7	8,076E+12	989,72	6,309E-7	8,036E+12	889,73
2535,0	1,745E-7	2,227E+12	989,72	1,736E-7	2,216E+12	889,73
2540,0	3,761E-7	4,809E+12	989,72	3,741E-7	4,784E+12	889,73
2545,0	5,360E-11	6,867E+8	989,72	5,331E-11	6,830E+8	889,73
2550,0	2,814E-13	3,612E+6	989,72	2,798E-13	3,592E+6	889,73
2555,0	1,041E-9	1,338E+10	989,72	1,035E-9	1,331E+10	889,73
2560,0	3,093E-11	3,986E+8	989,72	3,075E-11	3,963E+8	889,73
2565,0	1,591E-14	2,054E+5	989,72	1,580E-14	2,040E+5	889,73
2570,0	1,521E-18	1,968E+1	989,72	1,511E-18	1,955E+1	889,73
2575,0	1,076E-27	1,394E-8	989,72	1,068E-27	1,384E-8	889,73
2580,0	3,810E-22	4,949E-3	989,72	3,782E-22	4,912E-3	889,73
2585,0	1,714E-34	2,231E-15	989,72	1,701E-34	2,214E-15	889,73
2590,0	5,463E-31	7,123E-12	989,72	5,421E-31	7,068E-12	889,73
2595,0	2,277E-33	2,975E-14	989,72	2,260E-33	2,952E-14	889,73
2600,0	4,478E-28	5,861E-9	989,72	4,443E-28	5,815E-9	889,73
2605,0	5,788E-35	7,591E-16	989,72	5,742E-35	7,531E-16	889,73
2610,0	5,927E-34	7,788E-15	989,72	5,880E-34	7,726E-15	889,73
2615,0	1,116E-37	1,470E-18	989,72	1,107E-37	1,458E-18	889,73
2620,0	5,634E-29	7,431E-10	989,72	5,589E-29	7,372E-10	889,73
2625,0	3,857E-28	5,097E-9	989,72	3,827E-28	5,057E-9	889,73
2630,0	2,794E-45	3,700E-26	989,72	2,794E-45	3,700E-26	889,73
2635,0	3,891E-16	5,162E+3	989,72	3,861E-16	5,121E+3	889,73
2640,0	1,172E-16	1,557E+3	989,72	1,162E-16	1,545E+3	889,73
2645,0	8,973E-19	1,195E+1	989,72	8,903E-19	1,186E+1	889,73
2650,0	1,425E-19	1,901E+0	989,72	1,415E-19	1,887E+0	889,73
2655,0	1,310E-27	1,750E-8	989,72	1,300E-27	1,737E-8	889,73
2660,0	2,599E-25	3,481E-6	989,72	2,581E-25	3,455E-6	889,73
2665,0	1,109E-37	1,488E-18	989,72	1,101E-37	1,478E-18	889,73
2670,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2675,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2680,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2685,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2690,0	1,020E-29	1,381E-10	989,72	1,015E-29	1,374E-10	889,73
2695,0	7,108E-33	9,643E-14	989,72	7,081E-33	9,606E-14	889,73
2700,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2705,0	2,923E-42	3,980E-23	989,72	2,919E-42	3,975E-23	889,73
2710,0	1,122E-35	1,530E-16	989,72	1,121E-35	1,529E-16	889,73
2715,0	3,845E-26	5,255E-7	989,72	3,844E-26	5,253E-7	889,73
2720,0	5,589E-45	7,653E-26	989,72	5,589E-45	7,653E-26	889,73

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
2725,0	7,272E-22	9,976E-3	989,72	7,288E-22	9,998E-3	889,73
2730,0	6,056E-19	8,322E+0	989,72	6,075E-19	8,349E+0	889,73
2735,0	5,473E-21	7,535E-2	989,72	5,496E-21	7,567E-2	889,73
2740,0	2,325E-27	3,206E-8	989,72	2,337E-27	3,223E-8	889,73
2745,0	1,311E-23	1,811E-4	989,72	1,319E-23	1,822E-4	889,73
2750,0	1,660E-28	2,298E-9	989,72	1,671E-28	2,313E-9	889,73
2755,0	6,707E-44	9,301E-25	989,72	6,707E-44	9,301E-25	889,73
2760,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2765,0	2,670E-27	3,716E-8	989,72	2,692E-27	3,747E-8	889,73
2770,0	8,355E-24	1,165E-4	989,72	8,428E-24	1,175E-4	889,73
2775,0	3,987E-38	5,570E-19	989,72	4,024E-38	5,622E-19	889,73
2780,0	4,793E-34	6,707E-15	989,72	4,839E-34	6,772E-15	889,73
2785,0	3,875E-27	5,433E-8	989,72	3,914E-27	5,488E-8	889,73
2790,0	1,214E-16	1,704E+3	989,72	1,226E-16	1,722E+3	889,73
2795,0	3,610E-16	5,079E+3	989,72	3,648E-16	5,134E+3	889,73
2800,0	1,644E-12	2,317E+7	989,72	1,662E-12	2,342E+7	889,73
2805,0	6,728E-14	9,501E+5	989,72	6,803E-14	9,606E+5	889,73
2810,0	4,012E-10	5,675E+9	989,72	4,058E-10	5,740E+9	889,73
2815,0	2,860E-10	4,053E+9	989,72	2,893E-10	4,100E+9	889,73
2820,0	2,049E-11	2,909E+8	989,72	2,073E-11	2,943E+8	889,73
2825,0	1,755E-7	2,496E+12	989,72	1,776E-7	2,526E+12	889,73
2830,0	3,889E-6	5,541E+13	989,72	3,936E-6	5,607E+13	889,73
2835,0	2,121E-10	3,028E+9	989,72	2,147E-10	3,064E+9	889,73
2840,0	1,955E-7	2,795E+12	989,72	1,979E-7	2,830E+12	889,73
2845,0	4,046E-5	5,794E+14	989,72	4,095E-5	5,866E+14	889,73
2850,0	1,153E-6	1,655E+13	989,72	1,167E-6	1,675E+13	889,73
2855,0	4,474E-7	6,430E+12	989,72	4,529E-7	6,510E+12	889,73
2860,0	2,528E-5	3,640E+14	989,72	2,560E-5	3,685E+14	889,73
2865,0	1,671E-4	2,411E+15	989,73	1,692E-4	2,441E+15	889,73
2870,0	6,295E-6	9,094E+13	989,73	6,374E-6	9,209E+13	889,73
2875,0	3,906E-4	5,653E+15	989,73	3,955E-4	5,724E+15	889,73
2880,0	2,465E-4	3,574E+15	989,73	2,496E-4	3,619E+15	889,73
2885,0	4,520E-4	6,565E+15	989,73	4,577E-4	6,648E+15	889,74
2890,0	1,857E-4	2,702E+15	989,73	1,881E-4	2,736E+15	889,74
2895,0	2,657E-3	3,872E+16	989,74	2,690E-3	3,921E+16	889,75
2900,0	8,092E-4	1,181E+16	989,75	8,194E-4	1,196E+16	889,76
2905,0	1,106E-4	1,618E+15	989,75	1,120E-4	1,639E+15	889,76
2910,0	2,714E-3	3,976E+16	989,76	2,749E-3	4,026E+16	889,76
2915,0	1,254E-3	1,841E+16	989,77	1,271E-3	1,864E+16	889,78
2920,0	2,886E-3	4,243E+16	989,78	2,923E-3	4,297E+16	889,79
2925,0	1,080E-3	1,591E+16	989,79	1,094E-3	1,611E+16	889,80

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
2930,0	5,869E-3	8,656E+16	989,81	5,943E-3	8,766E+16	889,82
2935,0	6,471E-3	9,562E+16	989,85	6,553E-3	9,683E+16	889,86
2940,0	1,623E-3	2,401E+16	989,87	1,643E-3	2,432E+16	889,87
2945,0	1,445E-3	2,142E+16	989,87	1,463E-3	2,169E+16	889,87
2950,0	5,212E-3	7,741E+16	989,89	5,278E-3	7,838E+16	889,89
2955,0	2,329E-3	3,465E+16	989,91	2,359E-3	3,509E+16	889,91
2960,0	4,584E-3	6,830E+16	989,92	4,641E-3	6,916E+16	889,93
2965,0	7,416E-3	1,107E+17	989,96	7,509E-3	1,121E+17	889,97
2970,0	3,513E-4	5,252E+15	989,98	3,557E-4	5,319E+15	889,98
2975,0	8,518E-4	1,276E+16	989,97	8,625E-4	1,292E+16	889,98
2980,0	1,334E-3	2,002E+16	989,98	1,351E-3	2,027E+16	889,98
2985,0	6,943E-3	1,043E+17	990,00	7,029E-3	1,056E+17	890,01
2990,0	1,025E-2	1,543E+17	990,06	1,038E-2	1,562E+17	890,07
2995,0	4,263E-3	6,427E+16	990,09	4,316E-3	6,507E+16	890,10
3000,0	7,824E-3	1,182E+17	990,12	7,921E-3	1,196E+17	890,13
3005,0	2,882E-3	4,360E+16	990,14	2,918E-3	4,414E+16	890,15
3010,0	6,828E-3	1,035E+17	990,17	6,912E-3	1,047E+17	890,18
3015,0	5,539E-3	8,407E+16	990,20	5,607E-3	8,510E+16	890,21
3020,0	6,318E-4	9,606E+15	990,21	6,396E-4	9,723E+15	890,22
3025,0	7,481E-3	1,139E+17	990,23	7,573E-3	1,153E+17	890,24
3030,0	6,058E-3	9,240E+16	990,27	6,131E-3	9,352E+16	890,28
3035,0	2,491E-3	3,806E+16	990,29	2,522E-3	3,853E+16	890,30
3040,0	2,018E-3	3,089E+16	990,29	2,043E-3	3,126E+16	890,31
3045,0	4,197E-3	6,433E+16	990,31	4,248E-3	6,511E+16	890,32
3050,0	1,029E-3	1,580E+16	990,32	1,042E-3	1,599E+16	890,33
3055,0	2,886E-4	4,439E+15	990,32	2,921E-4	4,492E+15	890,33
3060,0	6,283E-3	9,678E+16	990,34	6,358E-3	9,793E+16	890,36
3065,0	2,903E-3	4,479E+16	990,37	2,937E-3	4,532E+16	890,38
3070,0	1,744E-3	2,696E+16	990,38	1,765E-3	2,727E+16	890,39
3075,0	6,005E-3	9,295E+16	990,40	6,075E-3	9,404E+16	890,41
3080,0	3,612E-3	5,600E+16	990,43	3,654E-3	5,665E+16	890,44
3085,0	1,762E-3	2,736E+16	990,43	1,782E-3	2,768E+16	890,45
3090,0	2,374E-3	3,692E+16	990,44	2,401E-3	3,735E+16	890,46
3095,0	6,532E-4	1,018E+16	990,45	6,607E-4	1,030E+16	890,46
3100,0	4,388E-3	6,848E+16	990,46	4,438E-3	6,926E+16	890,48
3105,0	9,189E-4	1,436E+16	990,48	9,293E-4	1,453E+16	890,49
3110,0	8,432E-4	1,320E+16	990,48	8,528E-4	1,335E+16	890,49
3115,0	2,261E-3	3,546E+16	990,49	2,287E-3	3,586E+16	890,50
3120,0	9,791E-3	1,538E+17	990,53	9,900E-3	1,555E+17	890,54
3125,0	3,020E-3	4,751E+16	990,56	3,054E-3	4,804E+16	890,58
3130,0	5,745E-3	9,052E+16	990,58	5,808E-3	9,151E+16	890,59

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
3135,0	1,141E-2	1,801E+17	990,63	1,154E-2	1,821E+17	890,65
3140,0	3,314E-3	5,239E+16	990,67	3,351E-3	5,296E+16	890,68
3145,0	3,242E-3	5,133E+16	990,67	3,277E-3	5,189E+16	890,69
3150,0	6,655E-3	1,055E+17	990,70	6,726E-3	1,067E+17	890,72
3155,0	5,620E-3	8,926E+16	990,73	5,680E-3	9,021E+16	890,75
3160,0	9,205E-3	1,464E+17	990,77	9,302E-3	1,480E+17	890,79
3165,0	1,398E-2	2,227E+17	990,84	1,412E-2	2,250E+17	890,86
3170,0	1,248E-2	1,992E+17	990,91	1,261E-2	2,012E+17	890,93
3175,0	9,203E-3	1,471E+17	990,96	9,298E-3	1,486E+17	890,98
3180,0	1,059E-2	1,695E+17	991,01	1,070E-2	1,713E+17	891,03
3185,0	8,059E-3	1,292E+17	991,05	8,141E-3	1,305E+17	891,07
3190,0	4,226E-3	6,787E+16	991,08	4,269E-3	6,856E+16	891,10
3195,0	2,685E-3	4,318E+16	991,09	2,712E-3	4,362E+16	891,11
3200,0	4,372E-4	7,042E+15	991,09	4,415E-4	7,112E+15	891,11
3205,0	3,088E-4	4,983E+15	991,09	3,119E-4	5,032E+15	891,11
3210,0	1,359E-4	2,197E+15	991,09	1,373E-4	2,218E+15	891,11
3215,0	4,961E-4	8,029E+15	991,09	5,009E-4	8,107E+15	891,11
3220,0	1,604E-3	2,600E+16	991,10	1,620E-3	2,626E+16	891,12
3225,0	1,982E-4	3,217E+15	991,10	2,001E-4	3,248E+15	891,12
3230,0	3,398E-4	5,525E+15	991,10	3,430E-4	5,578E+15	891,12
3235,0	7,273E-3	1,184E+17	991,13	7,341E-3	1,196E+17	891,15
3240,0	3,736E-3	6,093E+16	991,16	3,771E-3	6,150E+16	891,18
3245,0	7,320E-4	1,196E+16	991,17	7,388E-4	1,207E+16	891,19
3250,0	2,599E-3	4,252E+16	991,17	2,623E-3	4,292E+16	891,19
3255,0	9,909E-3	1,624E+17	991,22	10,000E-3	1,639E+17	891,24
3260,0	1,221E-3	2,004E+16	991,24	1,232E-3	2,023E+16	891,26
3265,0	2,439E-3	4,009E+16	991,24	2,461E-3	4,046E+16	891,26
3270,0	1,215E-3	2,000E+16	991,25	1,226E-3	2,018E+16	891,27
3275,0	5,909E-3	9,742E+16	991,27	5,958E-3	9,823E+16	891,29
3280,0	2,856E-3	4,716E+16	991,30	2,881E-3	4,756E+16	891,32
3285,0	1,110E-2	1,835E+17	991,34	1,119E-2	1,851E+17	891,36
3290,0	8,732E-3	1,446E+17	991,39	8,805E-3	1,458E+17	891,42
3295,0	1,220E-3	2,023E+16	991,41	1,230E-3	2,040E+16	891,43
3300,0	1,774E-3	2,947E+16	991,41	1,789E-3	2,972E+16	891,43
3305,0	3,930E-3	6,539E+16	991,42	3,963E-3	6,594E+16	891,45
3310,0	3,912E-3	6,519E+16	991,45	3,945E-3	6,574E+16	891,47
3315,0	1,609E-5	2,684E+14	991,45	1,622E-5	2,707E+14	891,47
3320,0	5,981E-5	9,997E+14	991,45	6,032E-5	1,008E+15	891,47
3325,0	3,508E-3	5,873E+16	991,46	3,538E-3	5,923E+16	891,48
3330,0	4,648E-3	7,792E+16	991,49	4,688E-3	7,858E+16	891,51
3335,0	9,043E-3	1,518E+17	991,53	9,120E-3	1,531E+17	891,55

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
3340,0	3,450E-3	5,801E+16	991,56	3,480E-3	5,852E+16	891,58
3345,0	3,531E-3	5,945E+16	991,57	3,562E-3	5,998E+16	891,59
3350,0	8,004E-3	1,350E+17	991,60	8,076E-3	1,362E+17	891,63
3355,0	3,620E-3	6,114E+16	991,63	3,654E-3	6,171E+16	891,66
3360,0	5,225E-3	8,838E+16	991,65	5,274E-3	8,920E+16	891,67
3365,0	7,170E-3	1,215E+17	991,68	7,238E-3	1,226E+17	891,71
3370,0	3,927E-3	6,663E+16	991,71	3,965E-3	6,727E+16	891,74
3375,0	8,431E-3	1,433E+17	991,74	8,514E-3	1,447E+17	891,77
3380,0	5,097E-3	8,672E+16	991,78	5,147E-3	8,758E+16	891,80
3385,0	7,468E-3	1,273E+17	991,81	7,543E-3	1,285E+17	891,84
3390,0	9,827E-3	1,677E+17	991,86	9,926E-3	1,694E+17	891,89
3395,0	9,519E-3	1,627E+17	991,91	9,617E-3	1,644E+17	891,94
3400,0	1,247E-2	2,135E+17	991,97	1,260E-2	2,157E+17	892,00
3405,0	4,446E-3	7,622E+16	992,00	4,493E-3	7,702E+16	892,03
3410,0	7,060E-3	1,212E+17	992,03	7,134E-3	1,225E+17	892,05
3415,0	7,256E-3	1,247E+17	992,06	7,333E-3	1,261E+17	892,09
3420,0	1,313E-2	2,260E+17	992,12	1,327E-2	2,284E+17	892,15
3425,0	9,977E-3	1,720E+17	992,18	1,008E-2	1,738E+17	892,21
3430,0	8,664E-3	1,496E+17	992,23	8,755E-3	1,512E+17	892,26
3435,0	1,152E-2	1,992E+17	992,28	1,164E-2	2,013E+17	892,31
3440,0	8,011E-3	1,387E+17	992,33	8,094E-3	1,402E+17	892,36
3445,0	1,129E-2	1,957E+17	992,37	1,140E-2	1,977E+17	892,41
3450,0	1,112E-2	1,931E+17	992,43	1,123E-2	1,951E+17	892,47
3455,0	8,285E-3	1,441E+17	992,48	8,369E-3	1,456E+17	892,51
3460,0	1,249E-2	2,176E+17	992,53	1,262E-2	2,198E+17	892,57
3465,0	9,789E-3	1,708E+17	992,59	9,887E-3	1,725E+17	892,62
3470,0	1,223E-2	2,136E+17	992,64	1,235E-2	2,157E+17	892,68
3475,0	1,091E-2	1,909E+17	992,70	1,102E-2	1,928E+17	892,74
3480,0	1,119E-2	1,961E+17	992,76	1,130E-2	1,980E+17	892,79
3485,0	1,206E-2	2,116E+17	992,82	1,218E-2	2,136E+17	892,85
3490,0	1,039E-2	1,825E+17	992,87	1,049E-2	1,843E+17	892,91
3495,0	1,223E-2	2,152E+17	992,93	1,235E-2	2,172E+17	892,97
3500,0	1,188E-2	2,094E+17	992,99	1,200E-2	2,114E+17	893,03
3505,0	1,178E-2	2,078E+17	993,05	1,189E-2	2,098E+17	893,09
3510,0	1,193E-2	2,108E+17	993,11	1,204E-2	2,128E+17	893,15
3515,0	1,146E-2	2,028E+17	993,17	1,156E-2	2,046E+17	893,21
3520,0	1,209E-2	2,142E+17	993,23	1,219E-2	2,160E+17	893,27
3525,0	1,140E-2	2,022E+17	993,28	1,149E-2	2,039E+17	893,33
3530,0	1,110E-2	1,972E+17	993,34	1,118E-2	1,988E+17	893,38
3535,0	9,428E-3	1,678E+17	993,39	9,503E-3	1,691E+17	893,43
3540,0	9,005E-3	1,605E+17	993,43	9,075E-3	1,617E+17	893,47

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
3545,0	9,515E-3	1,698E+17	993,48	9,587E-3	1,711E+17	893,52
3550,0	1,051E-2	1,878E+17	993,53	1,059E-2	1,892E+17	893,57
3555,0	9,032E-3	1,616E+17	993,58	9,098E-3	1,628E+17	893,62
3560,0	1,076E-2	1,929E+17	993,63	1,084E-2	1,943E+17	893,67
3565,0	1,082E-2	1,942E+17	993,68	1,090E-2	1,956E+17	893,73
3570,0	8,313E-3	1,494E+17	993,73	8,371E-3	1,504E+17	893,77
3575,0	8,619E-3	1,551E+17	993,77	8,677E-3	1,562E+17	893,81
3580,0	1,016E-2	1,831E+17	993,82	1,023E-2	1,843E+17	893,86
3585,0	9,140E-3	1,650E+17	993,87	9,201E-3	1,661E+17	893,91
3590,0	9,425E-3	1,703E+17	993,91	9,487E-3	1,715E+17	893,96
3595,0	9,642E-3	1,745E+17	993,96	9,705E-3	1,756E+17	894,01
3600,0	1,023E-2	1,854E+17	994,01	1,030E-2	1,866E+17	894,06
3605,0	1,033E-2	1,875E+17	994,06	1,040E-2	1,886E+17	894,11
3610,0	9,451E-3	1,718E+17	994,11	9,511E-3	1,728E+17	894,16
3615,0	9,445E-3	1,719E+17	994,16	9,504E-3	1,730E+17	894,21
3620,0	1,158E-2	2,110E+17	994,21	1,165E-2	2,123E+17	894,26
3625,0	1,021E-2	1,863E+17	994,27	1,027E-2	1,875E+17	894,32
3630,0	9,926E-3	1,814E+17	994,32	9,987E-3	1,825E+17	894,37
3635,0	1,027E-2	1,879E+17	994,37	1,033E-2	1,891E+17	894,42
3640,0	1,145E-2	2,098E+17	994,42	1,152E-2	2,110E+17	894,47
3645,0	1,057E-2	1,939E+17	994,48	1,063E-2	1,951E+17	894,53
3650,0	1,009E-2	1,855E+17	994,53	1,015E-2	1,866E+17	894,58
3655,0	1,095E-2	2,014E+17	994,58	1,101E-2	2,026E+17	894,63
3660,0	1,088E-2	2,005E+17	994,64	1,095E-2	2,017E+17	894,69
3665,0	1,022E-2	1,886E+17	994,69	1,028E-2	1,897E+17	894,74
3670,0	7,877E-3	1,455E+17	994,73	7,923E-3	1,464E+17	894,78
3675,0	4,815E-3	8,907E+16	994,76	4,843E-3	8,959E+16	894,81
3680,0	8,307E-3	1,539E+17	994,79	8,355E-3	1,548E+17	894,84
3685,0	9,411E-3	1,746E+17	994,84	9,463E-3	1,755E+17	894,89
3690,0	9,664E-3	1,795E+17	994,89	9,717E-3	1,805E+17	894,94
3695,0	1,010E-2	1,879E+17	994,94	1,016E-2	1,890E+17	894,99
3700,0	1,085E-2	2,020E+17	994,99	1,091E-2	2,031E+17	895,05
3705,0	1,074E-2	2,003E+17	995,05	1,080E-2	2,014E+17	895,10
3710,0	9,337E-3	1,744E+17	995,10	9,386E-3	1,753E+17	895,15
3715,0	9,199E-3	1,720E+17	995,14	9,246E-3	1,729E+17	895,19
3720,0	1,035E-2	1,937E+17	995,19	1,040E-2	1,947E+17	895,24
3725,0	1,067E-2	2,000E+17	995,25	1,072E-2	2,010E+17	895,30
3730,0	9,244E-3	1,736E+17	995,29	9,290E-3	1,744E+17	895,35
3735,0	8,559E-3	1,609E+17	995,34	8,601E-3	1,617E+17	895,39
3740,0	8,824E-3	1,661E+17	995,38	8,866E-3	1,669E+17	895,43
3745,0	1,030E-2	1,942E+17	995,43	1,035E-2	1,951E+17	895,48

Wave-length (nm)	Global spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Global photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative global integrated irradiance ($W \cdot m^{-2}$)	Direct spectral irradiance ($W \cdot m^{-2} \cdot nm^{-1}$)	Direct photon flux ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Cumulative direct integrated irradiance ($W \cdot m^{-2}$)
3750,0	9,263E-3	1,749E+17	995,48	9,307E-3	1,757E+17	895,53
3755,0	8,966E-3	1,695E+17	995,52	9,007E-3	1,703E+17	895,58
3760,0	8,837E-3	1,673E+17	995,57	8,878E-3	1,681E+17	895,62
3765,0	8,525E-3	1,616E+17	995,61	8,564E-3	1,623E+17	895,66
3770,0	9,098E-3	1,727E+17	995,65	9,138E-3	1,734E+17	895,71
3775,0	9,026E-3	1,715E+17	995,70	9,065E-3	1,723E+17	895,75
3780,0	9,547E-3	1,817E+17	995,75	9,588E-3	1,824E+17	895,80
3785,0	8,787E-3	1,674E+17	995,79	8,824E-3	1,681E+17	895,85
3790,0	7,734E-3	1,476E+17	995,83	7,766E-3	1,482E+17	895,89
3795,0	8,843E-3	1,690E+17	995,87	8,880E-3	1,696E+17	895,93
3800,0	9,830E-3	1,881E+17	995,92	9,870E-3	1,888E+17	895,98
3805,0	9,278E-3	1,777E+17	995,97	9,314E-3	1,784E+17	896,03
3810,0	8,221E-3	1,577E+17	996,01	8,253E-3	1,583E+17	896,07
3815,0	7,734E-3	1,485E+17	996,05	7,764E-3	1,491E+17	896,11
3820,0	9,627E-3	1,851E+17	996,09	9,663E-3	1,858E+17	896,15
3825,0	9,478E-3	1,825E+17	996,14	9,512E-3	1,832E+17	896,20
3830,0	9,565E-3	1,844E+17	996,19	9,599E-3	1,851E+17	896,25
3835,0	7,669E-3	1,481E+17	996,23	7,697E-3	1,486E+17	896,29
3840,0	8,949E-3	1,730E+17	996,27	8,980E-3	1,736E+17	896,33
3845,0	8,755E-3	1,695E+17	996,32	8,784E-3	1,700E+17	896,38
3850,0	8,802E-3	1,706E+17	996,36	8,831E-3	1,712E+17	896,42
3855,0	8,484E-3	1,646E+17	996,41	8,512E-3	1,652E+17	896,46
3860,0	7,971E-3	1,549E+17	996,45	7,996E-3	1,554E+17	896,50
3865,0	8,075E-3	1,571E+17	996,49	8,101E-3	1,576E+17	896,54
3870,0	7,339E-3	1,430E+17	996,52	7,362E-3	1,434E+17	896,58
3875,0	6,742E-3	1,315E+17	996,56	6,763E-3	1,319E+17	896,62
3880,0	6,515E-3	1,273E+17	996,59	6,535E-3	1,277E+17	896,65
3885,0	6,752E-3	1,321E+17	996,62	6,773E-3	1,325E+17	896,68
3890,0	6,862E-3	1,344E+17	996,66	6,883E-3	1,348E+17	896,72
3895,0	7,454E-3	1,462E+17	996,69	7,476E-3	1,466E+17	896,75
3900,0	7,902E-3	1,552E+17	996,73	7,926E-3	1,556E+17	896,79
3905,0	7,904E-3	1,554E+17	996,77	7,927E-3	1,558E+17	896,83
3910,0	7,115E-3	1,400E+17	996,81	7,135E-3	1,404E+17	896,87
3915,0	6,966E-3	1,373E+17	996,84	6,987E-3	1,377E+17	896,90
3920,0	6,926E-3	1,367E+17	996,88	6,946E-3	1,371E+17	896,94
3925,0	6,832E-3	1,350E+17	996,91	6,851E-3	1,354E+17	896,97
3930,0	7,030E-3	1,391E+17	996,95	7,049E-3	1,395E+17	897,01
3935,0	7,333E-3	1,453E+17	996,98	7,353E-3	1,457E+17	897,04
3940,0	7,381E-3	1,464E+17	997,02	7,401E-3	1,468E+17	897,08
3945,0	7,519E-3	1,493E+17	997,06	7,539E-3	1,497E+17	897,12
3950,0	7,605E-3	1,512E+17	997,10	7,625E-3	1,516E+17	897,16

Wave-length (nm)	**Global spectral irradiance** ($W \cdot m^{-2} \cdot nm^{-1}$)	**Global photon flux** ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	**Cumulative global integrated irradiance** ($W \cdot m^{-2}$)	**Direct spectral irradiance** ($W \cdot m^{-2} \cdot nm^{-1}$)	**Direct photon flux** ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	**Cumulative direct integrated irradiance** ($W \cdot m^{-2}$)
3955,0	7,697E-3	1,533E+17	997,13	7,717E-3	1,537E+17	897,20
3960,0	7,726E-3	1,540E+17	997,17	7,745E-3	1,544E+17	897,23
3965,0	7,783E-3	1,554E+17	997,21	7,803E-3	1,557E+17	897,27
3970,0	7,658E-3	1,531E+17	997,25	7,677E-3	1,534E+17	897,31
3975,0	7,488E-3	1,498E+17	997,29	7,506E-3	1,502E+17	897,35
3980,0	7,366E-3	1,476E+17	997,33	7,383E-3	1,479E+17	897,39
3985,0	7,411E-3	1,487E+17	997,36	7,429E-3	1,490E+17	897,42
3990,0	7,351E-3	1,477E+17	997,40	7,368E-3	1,480E+17	897,46
3995,0	7,189E-3	1,446E+17	997,44	7,205E-3	1,449E+17	897,50
4000,0	7,084E-3	1,4264E+17	997,47	7,099E-3	1,430E+17	897,53
∞			1000			900

NOTE 1 The cumulative integrated irradiance values were obtained by means of the modified trapezoidal integration technique.

NOTE 2 In the calculation of global and direct photon fluxes the following values have been considered:

$c = 2{,}997\ 92 \cdot 10^{8}\ m \cdot s^{-1}$

$h = 6{,}626\ 07 \cdot 10^{-34}\ J \cdot s$

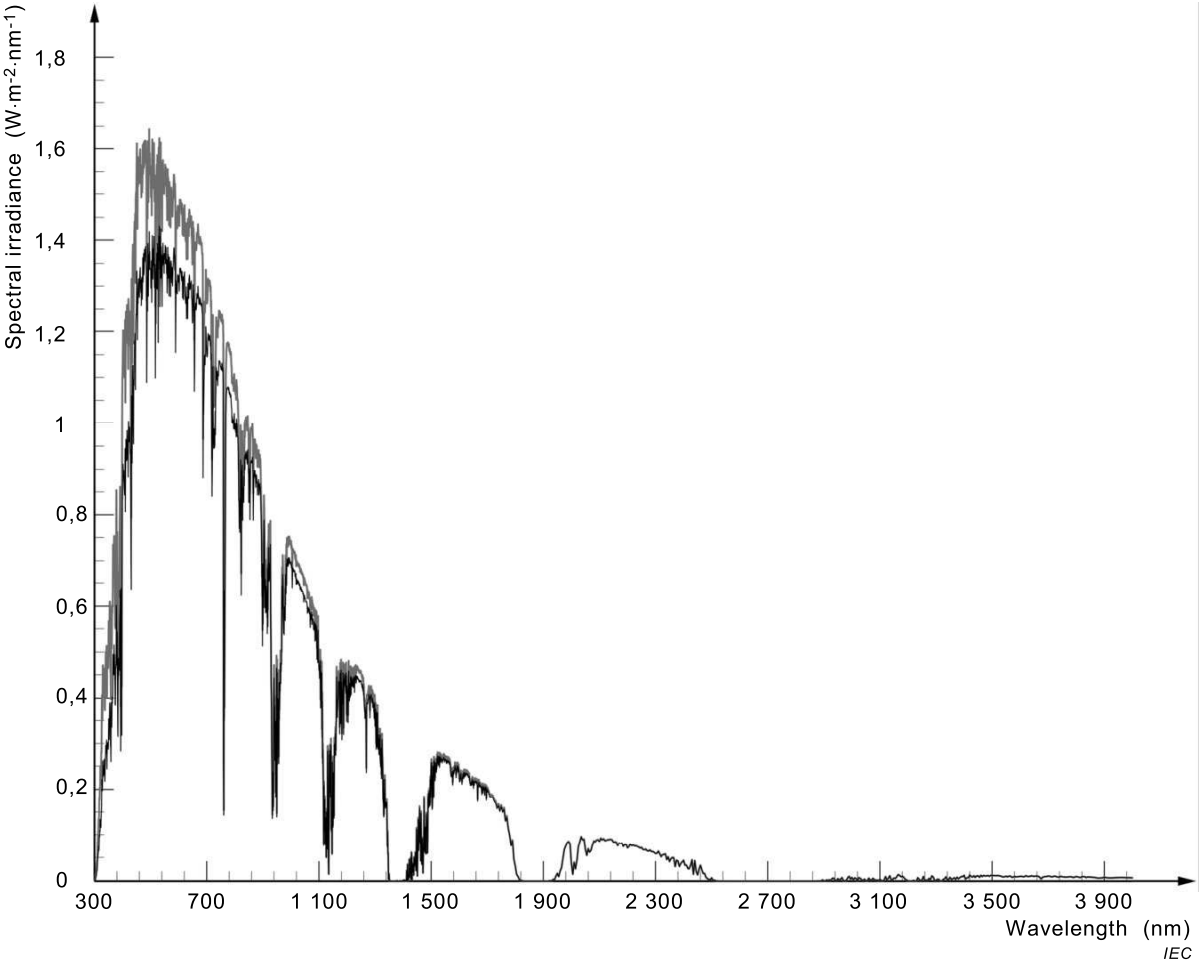

Figure 1 – Global and direct reference solar spectral irradiance distribution listed in Table 1

Annex A
(informative)

Use of SMARTS

The following input data (see Table A.1) to the SMARTS Version 2.9.2 model are required to generate the reference solar spectral irradiance distributions included in this standard. The resulting output direct and global spectral irradiance values have been multiplied by a normalization factor (0, 997 08) in order to reproduce the data contained in Table 1. The only difference for generating the two spectral irradiance distributions is the choice of output in field 12c.

Table A.1 – Input data for generation of reference solar spectral irradiance distribution

Card ID	Value	Parameter/Description/Variable name
1	IEC 60904-3:2016	Header
2	1	Pressure input mode (1 = pressure and altitude): ISPR
2a	1013.25 0.	Station pressure (mb) and altitude (km): SPR, ALT
3	1	Standard atmosphere profile selection (1 = use default atmosphere): IATM1
3a	'USSA'	Default standard atmosphere profile: ATM
4	1	Water vapor input (1 = default from atmosphere profile): IH2O
5	1	Ozone calculation (1 = default from atmosphere profile): IO3
6	1	Pollution level mode (1 = standard conditions/no pollution): IGAS
7	370	Carbon dioxide volume mixing ratio (ppm): qCO2
7a	1	Extraterrestrial spectrum (1 = SMARTS/Gueymard): ISPCTR
8	'S&F_RURAL'	Aerosol profile to use: AEROS
9	0	Specification for aerosol optical depth/turbidity input (0 = AOD at 500 nm): ITURB
9a	0.084	Aerosol optical depth at 500 nm: TAU5
10	38	Far field spectral Albedo file to use (38 = light sandy soil): IALBDX
10b	1	Specify tilt calculation (1 = yes): ITILT
10c	38 37 180	Albedo and tilt variables-Albedo file to use for near field, tilt, and azimuth: IALBDG, TILT, WAZIM
11	280 4000 1.0 1367.0	Wavelength range-start, stop, mean radius vector correction, integrated solar spectrum irradiance: WLMN, WLMX, SUNCOR, SOLARC
12	2	Separate spectral output file print mode (2 = yes): IPRT
12a	280 4000 0.5	Output file wavelength-Print limits, start, stop, minimum step size: WPMN, WPMX, INTVL
12b	1	Number of output variables to print: IOTOT
12c	8 or 2	Code relating output variables to print (8 = Global tilted irradiance, 2 = Direct normal irradiance): OUT
13	1	Circumsolar calculation mode (1 = yes): ICIRC
13a	0 2.9 0	Receiver geometry-Slope, view, limit half angles: SLOPE, APERT, LIMIT
14	0	Smooth function mode (0 = none): ISCAN
15	0	Illuminance calculation mode (0 = none): ILLUM
16	0	UV calculation mode (0 = none): IUV
17	2	Solar geometry mode (2 = Air mass): IMASS
17a	1.5	Air mass value: AMASS

Bibliography

IEC 60904-9, *Photovoltaic devices – Part 9: Solar simulator performance requirements*

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Figure 1 – Distribution spectrale de l'éclairement solaire global et direct de référence donnée dans le Tableau 1 115

Tableau 1 – Distribution spectrale de l'éclairement solaire de référence 65
Tableau A.1 – Données d'entrée pour générer la distribution spectrale de l'éclairement solaire de référence 116

COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

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DISPOSITIFS PHOTOVOLTAÏQUES –

Partie 3: Principes de mesure des dispositifs solaires photovoltaïques (PV) à usage terrestre incluant les données de l'éclairement spectral de référence

AVANT-PROPOS

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8) L'attention est attirée sur les références normatives citées dans cette publication. L'utilisation de publications référencées est obligatoire pour une application correcte de la présente publication.
9) L'attention est attirée sur le fait que certains des éléments de la présente Publication de l'IEC peuvent faire l'objet de droits de brevet. L'IEC ne saurait être tenue pour responsable de ne pas avoir identifié de tels droits de brevets et de ne pas avoir signalé leur existence.

La Norme internationale IEC 60904-3 a été établie par le comité d'études 82 de l'IEC: Systèmes de conversion photovoltaïque de l'énergie solaire.

Cette troisième édition annule et remplace la deuxième édition parue en 2008. Cette édition constitue une révision technique.

Cette édition inclut les modifications techniques majeures suivantes par rapport à l'édition précédente:

a) l'éclairement de faisceau direct correspondant à l'éclairement global dans le Tableau 1 a été inclus;

b) le terme “Éclairement photonique global” dans le Tableau 1 a été modifié en “Flux photonique global”;

c) les titres de certains articles ont été modifiés (d’autres ont été ajoutés) conformément à la structure habituelle des normes de l’IEC.

La présente publication contient un fichier joint de type Excel. Ce fichier est destiné à être utilisé comme complément et ne fait pas partie intégrante de la publication

Le texte de cette norme est issu des documents suivants:

FDIS	Rapport de vote
82/1071/FDIS	82/1096/RVD

Le rapport de vote indiqué dans le tableau ci-dessus donne toute information sur le vote ayant abouti à l'approbation de cette norme.

Cette publication a été rédigée selon les Directives ISO/IEC, Partie 2.

Une liste de toutes les parties de la série IEC 60904, publiées sous le titre général *Dispositifs photovoltaïques,* peut être consultée sur le site web de l’IEC.

Le comité a décidé que le contenu de cette publication ne sera pas modifié avant la date de stabilité indiquée sur le site web de l’IEC sous "http://webstore.iec.ch" dans les données relatives à la publication recherchée. À cette date, la publication sera

- reconduite,
- supprimée,
- remplacée par une édition révisée, ou
- amendée.

DISPOSITIFS PHOTOVOLTAÏQUES –

Partie 3: Principes de mesure des dispositifs solaires photovoltaïques (PV) à usage terrestre incluant les données de l'éclairement spectral de référence

1 Domaine d'application et objet

La présente partie de l'IEC 60904 s'applique aux dispositifs photovoltaïques suivants pour les applications terrestres:

– cellules solaires avec ou sans protecteur;

– assemblages de cellules solaires;

– modules; et

– systèmes.

NOTE Le terme "éprouvette" est utilisé pour désigner chacun de ces dispositifs.

Les principes contenus dans la présente norme comprennent les essais réalisés sous une lumière solaire naturelle ou simulée.

La conversion photovoltaïque est spectralement sélective en raison de la nature des matériaux à semiconducteurs utilisés dans les cellules et modules solaires PV. Pour comparer la performance relative de différents dispositifs et matériaux PV, une distribution spectrale de l'éclairement solaire normalisée de référence est nécessaire. La présente norme inclut une telle distribution spectrale de l'éclairement solaire de référence.

La présente norme décrit également des principes de mesure de base pour la détermination de la sortie électrique des dispositifs PV. Les principes indiqués dans la présente norme sont prévus pour relier les caractéristiques assignées de performance des dispositifs PV à une distribution spectrale de l'éclairement solaire terrestre de référence commune.

La distribution spectrale de l'éclairement solaire terrestre de référence est indiquée dans la présente norme pour classifier les simulateurs solaires selon les exigences pour le fonctionnement spectral contenues dans l'IEC 60904-9.

2 Références normatives

Les documents suivants sont cités en référence de manière normative, en intégralité ou en partie, dans le présent document et sont indispensables pour son application. Pour les références datées, seule l'édition citée s'applique. Pour les références non datées, la dernière édition du document de référence s'applique (y compris les éventuels amendements).

IEC 60891, *Dispositifs photovoltaïques – Procédures pour les corrections en fonction de la température et de l'éclairement à appliquer aux caractéristiques I-V mesurées*

IEC 60904-1, *Dispositifs photovoltaïques – Partie 1: Mesures des caractéristiques courant-tension des dispositifs photovoltaïques*

IEC 60904-2, *Dispositifs photovoltaïques – Partie 2: Exigences applicables aux dispositifs photovoltaïques de référence*

IEC 60904-5, *Dispositifs photovoltaïques – Partie 5: Détermination de la température de cellule équivalente (ECT) des dispositifs photovoltaïques (PV) par la méthode de la tension en circuit ouvert*

IEC 60904-7, *Dispositifs photovoltaïques – Partie 7: Calcul de la correction de désadaptation des réponses spectrales dans les mesures de dispositifs photovoltaïques*

IEC 60904-8, *Dispositifs photovoltaïques – Partie 8: Mesure de la sensibilité spectrale d'un dispositif photovoltaïque (PV)*

3 Principes de mesure

Dans la pratique actuelle, les performances photovoltaïques d'une cellule ou d'un module solaire sont obtenues en l'exposant, sa température étant connue, à une lumière solaire stable, naturelle ou simulée, et en mesurant sa courbe caractéristique courant-tension (I-V), ainsi que l'amplitude de l'éclairement incident et de la température du dispositif PV. Les procédures détaillées de mesure de la courbe I-V sont incluses dans l'IEC 60904-1. Les performances mesurées peuvent alors être ramenées aux conditions normales d'essai (STC)[1] ou à d'autres conditions souhaitées d'éclairement et de température conformément à l'IEC 60891. La puissance de sortie corrigée à la tension à la puissance maximale et aux STC est généralement désignée comme la puissance assignée.

L'éclairement incident peut être mesuré à l'aide d'un dispositif PV de référence (dont la réponse spectrale doit être connue) ou, si les mesures sont réalisées sous une lumière solaire naturelle, à l'aide d'un détecteur d'éclairement de type thermopile (pyranomètre). Si un dispositif PV de référence est utilisé, il doit satisfaire aux exigences spécifiées dans l'IEC 60904-2. La détermination de la température du dispositif PV à l'essai doit être réalisée conformément à l'IEC 60904-1 ou à l'IEC 60904-5.

Comme la réponse d'une cellule solaire est liée à la longueur d'onde, ses performances sont influencées de manière significative par la distribution spectrale du rayonnement incident, qui, dans le cas d'une lumière solaire naturelle, varie selon des facteurs tels que l'emplacement, le temps, le moment de l'année ou du jour, l'orientation de la surface de réception, etc., et qui, avec un simulateur, varie selon son type et les conditions d'utilisation. Indépendamment du fait que l'éclairement est mesuré avec un radiomètre à thermopile (qui n'est pas spectralement sélectif) ou avec un dispositif solaire de référence, la distribution spectrale de l'éclairement de la lumière entrante doit être connue de façon à utiliser l'IEC 60904-7 pour calculer la désadaptation spectrale entre les performances mesurées et les performances prévues dans le cadre de la distribution spectrale de l'éclairement solaire global ou direct de référence définie dans la présente norme.

Lorsque la réponse spectrale du dispositif PV est connue telle que déterminée conformément à l'IEC 60904-8, il est également possible d'utiliser l'IEC 60904-7 pour calculer les performances de ce dispositif PV sous un éclairement de toute distribution spectrale connue.

4 Distribution spectrale de l'éclairement solaire de référence

Les distributions spectrales de l'éclairement solaire de référence AM1.5 sont données dans le Tableau 1 et la Figure 1. Il s'agit:

– d'une distribution de la lumière solaire (directe + diffuse), correspondant à un éclairement intégré de 1 000 $W \cdot m^{-2}$ sur une surface plane exposée au soleil inclinée de 37° par rapport à l'horizontale, et

– d'une distribution directe de lumière solaire, correspondant à un éclairement intégré de 900 $W \cdot m^{-2}$ sur une surface plane exposée perpendiculaire à la lumière incidente,

[1] STC = *Standard test conditions*

en considérant l'albédo dépendant de la longueur d'onde d'un sol nu éclairé, dans les conditions atmosphériques suivantes:

– atmosphère type des États-Unis avec une concentration en CO_2 s'élevant jusqu'au niveau courant (370 ppm), un modèle d'aérosol rural, et sans pollution;
– eau précipitable: 1,416 4 cm;
– teneur en ozone: 0,343 8 atm-cm (ou 343,8 DU);
– turbidité (profondeur optique de l'aérosol): 0,084 à 500 nm;
– pression: 101,325 kPa (c'est-à-dire, le niveau de la mer).

Les données contenues dans le Tableau 1 ont été générées en utilisant le modèle spectral solaire SMARTS, Version 2.9.2. Une description générale de ce modèle et de son aptitude à reproduire les distributions spectrales de l'éclairement solaire réel peut être consultée dans le document "Proposed Reference Irradiance Spectra for Solar Energy Systems Testing" par C. A. Gueymard, C. Myers and K. Emery[2], et dans les références citées. Le Tableau 1 peut être obtenu en utilisant les données contenues dans l'Annexe A comme une entrée du modèle SMARTS Version 2.9.2. Les valeurs de l'éclairement spectral de sortie obtenues doivent être multipliées par un facteur normalisé (0,997 08) de façon à avoir un éclairement intégré de 1 000 $W \cdot m^{-2}$ dans la plage de longueurs d'onde 0 à l'infini pour l'éclairement global. Ce même facteur d'échelle est appliqué au spectre direct donnant un éclairement intégré de 900 $W \cdot m^{-2}$ dans la plage de longueurs d'onde 0 à l'infini.

Au moment de la publication de la présente norme, le code du modèle spectral SMARTS Version 2.9.2 est disponible, gratuitement, et soumis au contrat de licence de l'auteur, à l'adresse http://www.nrel.gov/rredc/smarts. Une copie du modèle est conservée sous le contrôle du CE 82 de l'IEC, à des fins non commerciales.

Le contenu du Tableau 1 est inclus dans un fichier séparé sous la forme d'un tableau Excel.

Tableau 1 – Distribution spectrale de l'éclairement solaire de référence

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
280,0	4,717E-23	6,649E-5	0,00E+0	2,529E-26	3,564E-8	0,00E+0
280,5	1,227E-21	1,733E-3	3,19E-22	1,089E-24	1,537E-6	2,78E-25
281,0	5,673E-21	8,025E-3	2,04E-21	6,107E-24	8,640E-6	2,08E-24
281,5	1,562E-19	2,213E-1	4,25E-20	2,740E-22	3,883E-4	7,21E-23
282,0	1,191E-18	1,691E+0	3,79E-19	2,826E-21	4,012E-3	8,47E-22
282,5	4,530E-18	6,443E+0	2,53E-18	1,323E-20	1,882E-2	6,87E-21
283,0	1,840E-17	2,621E+1	1,04E-17	6,745E-20	9,609E-2	3,51E-20
283,5	3,526E-17	5,032E+1	2,77E-17	1,457E-19	2,080E-1	1,05E-19
284,0	7,246E-16	1,036E+3	3,06E-16	4,969E-18	7,105E+0	2,00E-18
284,5	2,478E-15	3,550E+3	1,41E-15	2,156E-17	3,088E+1	1,13E-17
285,0	7,991E-15	1,147E+4	4,94E-15	8,974E-17	1,288E+2	4,97E-17
285,5	4,249E-14	6,107E+4	2,26E-14	6,424E-16	9,232E+2	3,10E-16
286,0	1,364E-13	1,964E+5	8,33E-14	2,343E-15	3,374E+3	1,34E-15
286,5	8,358E-13	1,205E+6	4,26E-13	1,840E-14	2,654E+4	8,75E-15

2 C. A. Gueymard, C. Myers and K. Emery, "Proposed Reference Irradiance Spectra for Solar Energy Systems Testing", *Solar Energy*, Vol 73, No. 6, pp. 443-467, 2002.

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
287,0	2,729E-12	3,942E+6	1,64E-12	7,234E-14	1,045E+5	4,02E-14
287,5	1,087E-11	1,573E+7	6,30E-12	3,651E-13	5,284E+5	1,93E-13
288,0	6,216E-11	9,011E+7	3,20E-11	2,798E-12	4,057E+6	1,32E-12
288,5	1,711E-10	2,485E+8	1,10E-10	9,039E-12	1,313E+7	5,37E-12
289,0	5,610E-10	8,162E+8	3,56E-10	3,488E-11	5,074E+7	2,04E-11
289,5	2,069E-9	3,015E+9	1,25E-9	1,532E-10	2,233E+8	8,54E-11
290,0	5,999E-9	8,758E+9	3,95E-9	5,130E-10	7,490E+8	3,12E-10
290,5	1,374E-8	2,010E+10	1,03E-8	1,326E-9	1,940E+9	9,18E-10
291,0	3,495E-8	5,120E+10	2,61E-8	3,885E-9	5,691E+9	2,64E-9
291,5	1,088E-7	1,597E+11	7,40E-8	1,438E-8	2,111E+10	8,84E-9
292,0	2,675E-7	3,932E+11	1,97E-7	4,067E-8	5,978E+10	2,72E-8
292,5	4,256E-7	6,267E+11	4,10E-7	7,021E-8	1,034E+11	6,19E-8
293,0	8,621E-7	1,272E+12	8,06E-7	1,571E-7	2,318E+11	1,33E-7
293,5	2,264E-6	3,345E+12	1,82E-6	4,696E-7	6,938E+11	3,40E-7
294,0	4,162E-6	6,160E+12	3,84E-6	9,428E-7	1,395E+12	7,91E-7
294,5	6,572E-6	9,743E+12	7,06E-6	1,592E-6	2,360E+12	1,57E-6
295,0	1,225E-5	1,820E+13	1,28E-5	3,215E-6	4,775E+12	3,05E-6
295,5	2,775E-5	4,127E+13	2,54E-5	7,997E-6	1,190E+13	6,65E-6
296,0	4,776E-5	7,117E+13	4,87E-5	1,469E-5	2,190E+13	1,38E-5
296,5	7,114E-5	1,062E+14	8,39E-5	2,324E-5	3,469E+13	2,52E-5
297,0	9,652E-5	1,443E+14	1,32E-4	3,309E-5	4,947E+13	4,15E-5
297,5	1,855E-4	2,779E+14	2,17E-4	6,771E-5	1,014E+14	7,23E-5
298,0	2,890E-4	4,336E+14	3,59E-4	1,110E-4	1,664E+14	1,27E-4
298,5	3,569E-4	5,362E+14	5,42E-4	1,423E-4	2,138E+14	1,99E-4
299,0	4,907E-4	7,386E+14	7,79E-4	2,026E-4	3,050E+14	2,97E-4
299,5	8,582E-4	1,294E+15	1,18E-3	3,728E-4	5,620E+14	4,70E-4
300,0	1,018E-3	1,537E+15	0,00	4,550E-4	6,871E+14	0,00
300,5	1,241E-3	1,878E+15	0,00	5,704E-4	8,629E+14	0,00
301,0	1,924E-3	2,916E+15	0,00	9,166E-4	1,389E+15	0,00
301,5	2,684E-3	4,073E+15	0,00	1,316E-3	1,998E+15	0,00
302,0	2,912E-3	4,428E+15	0,01	1,453E-3	2,209E+15	0,00
302,5	4,272E-3	6,505E+15	0,01	2,185E-3	3,327E+15	0,00
303,0	7,074E-3	1,079E+16	0,01	3,722E-3	5,678E+15	0,01
303,5	8,953E-3	1,368E+16	0,02	4,790E-3	7,319E+15	0,01
304,0	9,443E-3	1,445E+16	0,02	5,082E-3	7,778E+15	0,01
304,5	1,192E-2	1,827E+16	0,03	6,449E-3	9,885E+15	0,01
305,0	1,642E-2	2,520E+16	0,03	8,908E-3	1,368E+16	0,02
305,5	1,866E-2	2,870E+16	0,04	1,016E-2	1,562E+16	0,02
306,0	1,852E-2	2,853E+16	0,05	1,012E-2	1,559E+16	0,03
306,5	2,105E-2	3,247E+16	0,06	1,153E-2	1,780E+16	0,03
307,0	2,777E-2	4,291E+16	0,08	1,520E-2	2,349E+16	0,04

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
307,5	3,553E-2	5,500E+16	0,09	1,941E-2	3,005E+16	0,05
308,0	3,773E-2	5,850E+16	0,11	2,069E-2	3,208E+16	0,06
308,5	4,131E-2	6,415E+16	0,13	2,268E-2	3,523E+16	0,07
309,0	4,042E-2	6,287E+16	0,16	2,223E-2	3,458E+16	0,08
309,5	4,318E-2	6,728E+16	0,18	2,360E-2	3,678E+16	0,10
310,0	5,079E-2	7,926E+16	0,20	2,775E-2	4,330E+16	0,11
310,5	6,535E-2	1,022E+17	0,23	3,577E-2	5,592E+16	0,13
311,0	8,268E-2	1,294E+17	0,27	4,526E-2	7,086E+16	0,15
311,5	8,384E-2	1,315E+17	0,32	4,602E-2	7,217E+16	0,17
312,0	9,310E-2	1,462E+17	0,36	5,075E-2	7,971E+16	0,20
312,5	9,870E-2	1,553E+17	0,41	5,361E-2	8,434E+16	0,23
313,0	1,070E-1	1,686E+17	0,47	5,815E-2	9,163E+16	0,25
313,5	1,073E-1	1,693E+17	0,52	5,883E-2	9,284E+16	0,28
314,0	1,193E-1	1,886E+17	0,58	6,508E-2	1,029E+17	0,32
314,5	1,302E-1	2,062E+17	0,65	7,027E-2	1,113E+17	0,35
315,0	1,359E-1	2,154E+17	0,71	7,347E-2	1,165E+17	0,39
315,5	1,180E-1	1,875E+17	0,78	6,464E-2	1,027E+17	0,42
316,0	1,231E-1	1,959E+17	0,83	6,689E-2	1,064E+17	0,45
316,5	1,499E-1	2,389E+17	0,91	8,088E-2	1,289E+17	0,49
317,0	1,711E-1	2,730E+17	0,99	9,275E-2	1,480E+17	0,54
317,5	1,819E-1	2,908E+17	1,09	9,942E-2	1,589E+17	0,59
318,0	1,754E-1	2,808E+17	1,17	9,554E-2	1,529E+17	0,64
318,5	1,854E-1	2,972E+17	1,27	9,976E-2	1,600E+17	0,69
319,0	2,041E-1	3,278E+17	1,37	1,094E-1	1,757E+17	0,74
319,5	1,953E-1	3,142E+17	1,47	1,066E-1	1,715E+17	0,80
320,0	2,047E-1	3,297E+17	1,57	1,124E-1	1,811E+17	0,85
320,5	2,445E-1	3,945E+17	1,69	1,327E-1	2,140E+17	0,92
321,0	2,495E-1	4,032E+17	1,82	1,338E-1	2,161E+17	0,99
321,5	2,377E-1	3,848E+17	1,94	1,278E-1	2,068E+17	1,05
322,0	2,214E-1	3,589E+17	2,05	1,216E-1	1,972E+17	1,11
322,5	2,165E-1	3,514E+17	2,15	1,194E-1	1,938E+17	1,17
323,0	2,116E-1	3,441E+17	2,26	1,159E-1	1,884E+17	1,23
323,5	2,479E-1	4,037E+17	2,38	1,335E-1	2,175E+17	1,29
324,0	2,746E-1	4,478E+17	2,52	1,481E-1	2,415E+17	1,37
324,5	2,824E-1	4,613E+17	2,66	1,542E-1	2,519E+17	1,45
325,0	2,781E-1	4,550E+17	2,80	1,546E-1	2,529E+17	1,52
325,5	3,234E-1	5,300E+17	2,96	1,788E-1	2,930E+17	1,61
326,0	3,801E-1	6,238E+17	3,15	2,081E-1	3,415E+17	1,71
326,5	4,060E-1	6,674E+17	3,35	2,210E-1	3,632E+17	1,83
327,0	3,969E-1	6,534E+17	3,56	2,177E-1	3,584E+17	1,94
327,5	3,835E-1	6,323E+17	3,75	2,122E-1	3,499E+17	2,04

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
328,0	3,501E-1	5,781E+17	3,93	1,972E-1	3,255E+17	2,14
328,5	3,706E-1	6,128E+17	4,10	2,062E-1	3,409E+17	2,24
329,0	4,211E-1	6,975E+17	4,31	2,323E-1	3,847E+17	2,36
329,5	4,674E-1	7,753E+17	4,54	2,579E-1	4,278E+17	2,49
330,0	4,700E-1	7,808E+17	4,79	2,612E-1	4,339E+17	2,62
330,5	4,268E-1	7,100E+17	5,00	2,403E-1	3,999E+17	2,74
331,0	4,015E-1	6,689E+17	5,20	2,277E-1	3,794E+17	2,86
331,5	4,168E-1	6,956E+17	5,41	2,357E-1	3,933E+17	2,97
332,0	4,350E-1	7,270E+17	5,62	2,444E-1	4,084E+17	3,09
332,5	4,379E-1	7,330E+17	5,84	2,458E-1	4,115E+17	3,22
333,0	4,282E-1	7,178E+17	6,06	2,419E-1	4,056E+17	3,34
333,5	4,061E-1	6,817E+17	6,26	2,320E-1	3,895E+17	3,46
334,0	4,138E-1	6,957E+17	6,47	2,375E-1	3,994E+17	3,57
334,5	4,438E-1	7,473E+17	6,69	2,536E-1	4,270E+17	3,70
335,0	4,625E-1	7,800E+17	6,92	2,640E-1	4,452E+17	3,83
335,5	4,518E-1	7,631E+17	7,15	2,582E-1	4,361E+17	3,96
336,0	4,140E-1	7,002E+17	7,36	2,374E-1	4,016E+17	4,08
336,5	3,810E-1	6,455E+17	7,55	2,204E-1	3,733E+17	4,19
337,0	3,727E-1	6,323E+17	7,73	2,170E-1	3,682E+17	4,30
337,5	3,993E-1	6,785E+17	7,93	2,337E-1	3,970E+17	4,41
338,0	4,328E-1	7,365E+17	8,14	2,525E-1	4,296E+17	4,54
338,5	4,539E-1	7,735E+17	8,37	2,647E-1	4,511E+17	4,67
339,0	4,622E-1	7,888E+17	8,60	2,702E-1	4,611E+17	4,81
339,5	4,731E-1	8,085E+17	8,84	2,777E-1	4,745E+17	4,95
340,0	5,003E-1	8,564E+17	9,09	2,957E-1	5,062E+17	5,09
340,5	4,993E-1	8,558E+17	9,34	2,959E-1	5,072E+17	5,24
341,0	4,700E-1	8,068E+17	9,58	2,785E-1	4,781E+17	5,38
341,5	4,680E-1	8,045E+17	9,81	2,777E-1	4,774E+17	5,52
342,0	4,879E-1	8,400E+17	10,05	2,904E-1	4,999E+17	5,66
342,5	5,062E-1	8,728E+17	10,31	3,021E-1	5,208E+17	5,82
343,0	5,134E-1	8,865E+17	10,56	3,077E-1	5,313E+17	5,97
343,5	4,847E-1	8,381E+17	10,81	2,916E-1	5,043E+17	6,12
344,0	4,172E-1	7,225E+17	11,02	2,528E-1	4,378E+17	6,25
344,5	4,019E-1	6,970E+17	11,22	2,437E-1	4,226E+17	6,37
345,0	4,576E-1	7,948E+17	11,44	2,777E-1	4,824E+17	6,50
345,5	4,879E-1	8,486E+17	11,69	2,967E-1	5,161E+17	6,65
346,0	4,764E-1	8,298E+17	11,93	2,905E-1	5,059E+17	6,80
346,5	4,852E-1	8,463E+17	12,17	2,966E-1	5,174E+17	6,95
347,0	4,926E-1	8,605E+17	12,42	3,023E-1	5,281E+17	7,10
347,5	4,754E-1	8,316E+17	12,66	2,927E-1	5,120E+17	7,24
348,0	4,737E-1	8,299E+17	12,89	2,922E-1	5,119E+17	7,39

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
348,5	4,820E-1	8,455E+17	13,13	2,980E-1	5,228E+17	7,54
349,0	4,643E-1	8,157E+17	13,37	2,878E-1	5,056E+17	7,68
349,5	4,767E-1	8,386E+17	13,60	2,963E-1	5,214E+17	7,83
350,0	5,264E-1	9,276E+17	13,86	3,282E-1	5,782E+17	7,99
350,5	5,658E-1	9,983E+17	14,14	3,537E-1	6,241E+17	8,17
351,0	5,501E-1	9,720E+17	14,43	3,450E-1	6,096E+17	8,35
351,5	5,287E-1	9,355E+17	14,69	3,329E-1	5,891E+17	8,51
352,0	5,164E-1	9,151E+17	14,95	3,258E-1	5,773E+17	8,67
352,5	4,882E-1	8,663E+17	15,19	3,086E-1	5,477E+17	8,83
353,0	5,189E-1	9,221E+17	15,45	3,288E-1	5,843E+17	8,99
353,5	5,706E-1	1,015E+18	15,73	3,625E-1	6,450E+17	9,17
354,0	6,032E-1	1,075E+18	16,03	3,841E-1	6,845E+17	9,36
354,5	6,098E-1	1,088E+18	16,34	3,893E-1	6,947E+17	9,56
355,0	6,096E-1	1,090E+18	16,65	3,903E-1	6,974E+17	9,76
355,5	5,886E-1	1,053E+18	16,94	3,777E-1	6,759E+17	9,95
356,0	5,523E-1	9,897E+17	17,22	3,552E-1	6,366E+17	10,12
356,5	5,179E-1	9,295E+17	17,48	3,340E-1	5,994E+17	10,29
357,0	4,554E-1	8,184E+17	17,71	2,944E-1	5,291E+17	10,44
357,5	4,608E-1	8,293E+17	17,93	2,986E-1	5,374E+17	10,59
358,0	4,288E-1	7,728E+17	18,15	2,786E-1	5,020E+17	10,73
358,5	3,981E-1	7,185E+17	18,35	2,592E-1	4,678E+17	10,86
359,0	4,682E-1	8,461E+17	18,57	3,056E-1	5,523E+17	11,00
359,5	5,638E-1	1,020E+18	18,85	3,691E-1	6,679E+17	11,18
360,0	5,964E-1	1,081E+18	19,16	3,913E-1	7,091E+17	11,38
360,5	5,637E-1	1,023E+18	19,45	3,706E-1	6,725E+17	11,58
361,0	5,187E-1	9,427E+17	19,71	3,418E-1	6,211E+17	11,75
361,5	5,081E-1	9,246E+17	19,96	3,355E-1	6,105E+17	11,91
362,0	5,326E-1	9,707E+17	20,22	3,525E-1	6,423E+17	12,09
362,5	5,834E-1	1,065E+18	20,51	3,869E-1	7,061E+17	12,28
363,0	6,002E-1	1,097E+18	20,81	3,989E-1	7,289E+17	12,48
363,5	5,837E-1	1,068E+18	21,11	3,888E-1	7,115E+17	12,68
364,0	6,045E-1	1,108E+18	21,41	4,035E-1	7,395E+17	12,87
364,5	5,988E-1	1,099E+18	21,71	4,006E-1	7,351E+17	13,08
365,0	6,218E-1	1,143E+18	22,02	4,169E-1	7,660E+17	13,28
365,5	6,843E-1	1,259E+18	22,35	4,598E-1	8,459E+17	13,51
366,0	7,332E-1	1,351E+18	22,72	4,936E-1	9,095E+17	13,76
366,5	7,344E-1	1,355E+18	23,10	4,955E-1	9,142E+17	14,01
367,0	7,207E-1	1,332E+18	23,46	4,873E-1	9,002E+17	14,25
367,5	7,071E-1	1,308E+18	23,81	4,790E-1	8,862E+17	14,49
368,0	6,656E-1	1,233E+18	24,15	4,519E-1	8,371E+17	14,72
368,5	6,612E-1	1,227E+18	24,47	4,497E-1	8,343E+17	14,94

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
369,0	6,911E-1	1,284E+18	24,81	4,711E-1	8,750E+17	15,18
369,5	7,425E-1	1,381E+18	25,18	5,071E-1	9,432E+17	15,43
370,0	7,529E-1	1,402E+18	25,56	5,152E-1	9,595E+17	15,69
370,5	6,806E-1	1,269E+18	25,92	4,666E-1	8,703E+17	15,93
371,0	6,914E-1	1,291E+18	26,25	4,749E-1	8,869E+17	16,16
371,5	7,184E-1	1,344E+18	26,61	4,944E-1	9,247E+17	16,41
372,0	6,725E-1	1,259E+18	26,95	4,637E-1	8,684E+17	16,64
372,5	6,407E-1	1,201E+18	27,27	4,426E-1	8,300E+17	16,86
373,0	6,171E-1	1,159E+18	27,58	4,271E-1	8,019E+17	17,08
373,5	5,562E-1	1,046E+18	27,86	3,857E-1	7,252E+17	17,27
374,0	5,548E-1	1,045E+18	28,13	3,854E-1	7,256E+17	17,46
374,5	5,507E-1	1,038E+18	28,41	3,832E-1	7,225E+17	17,65
375,0	5,876E-1	1,109E+18	28,70	4,097E-1	7,734E+17	17,85
375,5	6,497E-1	1,228E+18	29,02	4,538E-1	8,579E+17	18,08
376,0	6,728E-1	1,274E+18	29,36	4,708E-1	8,912E+17	18,32
376,5	6,620E-1	1,255E+18	29,69	4,640E-1	8,795E+17	18,55
377,0	7,102E-1	1,348E+18	30,04	4,987E-1	9,464E+17	18,80
377,5	7,922E-1	1,506E+18	30,43	5,573E-1	1,059E+18	19,07
378,0	8,535E-1	1,624E+18	30,86	6,014E-1	1,144E+18	19,37
378,5	8,318E-1	1,585E+18	31,29	5,872E-1	1,119E+18	19,68
379,0	7,417E-1	1,415E+18	31,67	5,246E-1	1,001E+18	19,94
379,5	6,649E-1	1,270E+18	32,00	4,712E-1	9,002E+17	20,18
380,0	6,987E-1	1,337E+18	32,34	4,961E-1	9,489E+17	20,42
380,5	7,486E-1	1,434E+18	32,71	5,324E-1	1,020E+18	20,68
381,0	7,616E-1	1,461E+18	33,09	5,427E-1	1,041E+18	20,96
381,5	6,864E-1	1,318E+18	33,45	4,899E-1	9,409E+17	21,21
382,0	5,851E-1	1,125E+18	33,74	4,184E-1	8,045E+17	21,42
382,5	5,061E-1	9,746E+17	33,99	3,626E-1	6,981E+17	21,60
383,0	4,537E-1	8,747E+17	34,22	3,255E-1	6,276E+17	21,76
383,5	4,392E-1	8,479E+17	34,43	3,157E-1	6,094E+17	21,91
384,0	5,082E-1	9,824E+17	34,68	3,658E-1	7,072E+17	22,09
384,5	6,118E-1	1,184E+18	34,98	4,411E-1	8,538E+17	22,31
385,0	6,716E-1	1,302E+18	35,32	4,850E-1	9,399E+17	22,55
385,5	6,418E-1	1,245E+18	35,65	4,641E-1	9,007E+17	22,79
386,0	6,192E-1	1,203E+18	35,96	4,485E-1	8,716E+17	23,02
386,5	6,438E-1	1,253E+18	36,28	4,671E-1	9,089E+17	23,25
387,0	6,496E-1	1,266E+18	36,60	4,721E-1	9,197E+17	23,48
387,5	6,402E-1	1,249E+18	36,92	4,660E-1	9,089E+17	23,72
388,0	6,340E-1	1,238E+18	37,24	4,622E-1	9,027E+17	23,95
388,5	6,295E-1	1,231E+18	37,56	4,596E-1	8,989E+17	24,18
389,0	6,834E-1	1,338E+18	37,89	4,998E-1	9,786E+17	24,42

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
389,5	7,575E-1	1,485E+18	38,27	5,548E-1	1,088E+18	24,70
390,0	7,947E-1	1,560E+18	38,67	5,829E-1	1,144E+18	24,99
390,5	8,014E-1	1,575E+18	39,07	5,887E-1	1,157E+18	25,29
391,0	8,489E-1	1,671E+18	39,49	6,245E-1	1,229E+18	25,60
391,5	8,609E-1	1,697E+18	39,93	6,343E-1	1,250E+18	25,92
392,0	7,926E-1	1,564E+18	40,33	5,849E-1	1,154E+18	26,22
392,5	6,606E-1	1,305E+18	40,67	4,882E-1	9,646E+17	26,47
393,0	4,784E-1	9,464E+17	40,92	3,540E-1	7,003E+17	26,65
393,5	3,804E-1	7,536E+17	41,10	2,819E-1	5,584E+17	26,78
394,0	4,942E-1	9,803E+17	41,32	3,667E-1	7,274E+17	26,95
394,5	6,819E-1	1,354E+18	41,65	5,066E-1	1,006E+18	27,19
395,0	8,054E-1	1,601E+18	42,06	5,992E-1	1,192E+18	27,50
395,5	8,579E-1	1,708E+18	42,50	6,391E-1	1,273E+18	27,83
396,0	7,543E-1	1,504E+18	42,89	5,628E-1	1,122E+18	28,12
396,5	5,486E-1	1,095E+18	43,18	4,098E-1	8,180E+17	28,34
397,0	4,250E-1	8,493E+17	43,38	3,179E-1	6,353E+17	28,49
397,5	6,276E-1	1,256E+18	43,66	4,701E-1	9,408E+17	28,69
398,0	8,500E-1	1,703E+18	44,08	6,376E-1	1,277E+18	29,01
398,5	1,004E+0	2,014E+18	44,59	7,540E-1	1,513E+18	29,39
399,0	1,066E+0	2,142E+18	45,13	8,017E-1	1,610E+18	29,80
399,5	1,099E+0	2,210E+18	45,69	8,274E-1	1,664E+18	30,22
400,0	1,111E+0	2,237E+18	46,24	8,374E-1	1,686E+18	30,64
401,0	1,157E+0	2,335E+18	47,67	8,744E-1	1,765E+18	31,72
402,0	1,203E+0	2,434E+18	48,87	9,112E-1	1,844E+18	32,63
403,0	1,158E+0	2,349E+18	50,05	8,795E-1	1,784E+18	33,52
404,0	1,177E+0	2,393E+18	51,21	8,959E-1	1,822E+18	34,41
405,0	1,148E+0	2,340E+18	52,37	8,759E-1	1,786E+18	35,29
406,0	1,119E+0	2,288E+18	53,49	8,563E-1	1,750E+18	36,15
407,0	1,099E+0	2,253E+18	54,59	8,430E-1	1,727E+18	36,99
408,0	1,148E+0	2,358E+18	55,72	8,823E-1	1,812E+18	37,86
409,0	1,226E+0	2,525E+18	56,94	9,444E-1	1,945E+18	38,80
410,0	1,045E+0	2,158E+18	58,05	8,067E-1	1,665E+18	39,65
411,0	1,170E+0	2,422E+18	59,14	9,051E-1	1,873E+18	40,50
412,0	1,244E+0	2,581E+18	60,40	9,640E-1	2,000E+18	41,47
413,0	1,194E+0	2,482E+18	61,63	9,268E-1	1,927E+18	42,43
414,0	1,181E+0	2,461E+18	62,80	9,187E-1	1,915E+18	43,34
415,0	1,222E+0	2,553E+18	64,01	9,529E-1	1,991E+18	44,28
416,0	1,259E+0	2,636E+18	65,27	9,834E-1	2,059E+18	45,26
417,0	1,228E+0	2,577E+18	66,51	9,611E-1	2,018E+18	46,24
418,0	1,174E+0	2,471E+18	67,69	9,212E-1	1,939E+18	47,16
419,0	1,222E+0	2,578E+18	68,89	9,607E-1	2,027E+18	48,10

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
420,0	1,120E+0	2,368E+18	70,04	8,821E-1	1,865E+18	49,02
421,0	1,272E+0	2,696E+18	71,25	1,004E+0	2,127E+18	49,97
422,0	1,255E+0	2,665E+18	72,55	9,921E-1	2,108E+18	50,99
423,0	1,215E+0	2,587E+18	73,77	9,625E-1	2,050E+18	51,96
424,0	1,208E+0	2,579E+18	74,97	9,590E-1	2,047E+18	52,91
425,0	1,245E+0	2,664E+18	76,20	9,902E-1	2,119E+18	53,90
426,0	1,210E+0	2,595E+18	77,43	9,639E-1	2,067E+18	54,87
427,0	1,169E+0	2,513E+18	78,60	9,328E-1	2,005E+18	55,81
428,0	1,180E+0	2,543E+18	79,77	9,435E-1	2,033E+18	56,74
429,0	1,093E+0	2,361E+18	80,89	8,751E-1	1,890E+18	57,64
430,0	8,721E-1	1,888E+18	81,79	6,993E-1	1,514E+18	58,36
431,0	7,916E-1	1,718E+18	82,55	6,359E-1	1,380E+18	58,97
432,0	1,317E+0	2,864E+18	83,71	1,060E+0	2,305E+18	59,91
433,0	1,225E+0	2,671E+18	85,09	9,876E-1	2,153E+18	61,02
434,0	1,132E+0	2,473E+18	86,23	9,139E-1	1,997E+18	61,93
435,0	1,242E+0	2,719E+18	87,42	1,004E+0	2,199E+18	62,90
436,0	1,362E+0	2,989E+18	88,78	1,103E+0	2,421E+18	64,00
437,0	1,390E+0	3,058E+18	90,19	1,127E+0	2,480E+18	65,14
438,0	1,220E+0	2,691E+18	91,46	9,908E-1	2,185E+18	66,17
439,0	1,174E+0	2,595E+18	92,60	9,547E-1	2,110E+18	67,10
440,0	1,346E+0	2,981E+18	93,89	1,096E+0	2,428E+18	68,16
441,0	1,327E+0	2,947E+18	95,27	1,083E+0	2,404E+18	69,28
442,0	1,421E+0	3,162E+18	96,66	1,161E+0	2,582E+18	70,41
443,0	1,441E+0	3,214E+18	98,12	1,179E+0	2,629E+18	71,61
444,0	1,404E+0	3,139E+18	99,54	1,150E+0	2,571E+18	72,77
445,0	1,458E+0	3,265E+18	100,97	1,196E+0	2,679E+18	73,95
446,0	1,307E+0	2,934E+18	102,33	1,074E+0	2,410E+18	75,06
447,0	1,486E+0	3,344E+18	103,74	1,222E+0	2,750E+18	76,22
448,0	1,504E+0	3,391E+18	105,28	1,239E+0	2,793E+18	77,49
449,0	1,500E+0	3,391E+18	106,79	1,237E+0	2,797E+18	78,73
450,0	1,555E+0	3,523E+18	108,33	1,284E+0	2,910E+18	80,00
451,0	1,613E+0	3,661E+18	109,94	1,334E+0	3,028E+18	81,34
452,0	1,544E+0	3,513E+18	111,51	1,279E+0	2,909E+18	82,64
453,0	1,426E+0	3,251E+18	112,95	1,182E+0	2,695E+18	83,83
454,0	1,529E+0	3,495E+18	114,42	1,269E+0	2,901E+18	85,06
455,0	1,518E+0	3,477E+18	115,97	1,262E+0	2,890E+18	86,34
456,0	1,568E+0	3,599E+18	117,52	1,305E+0	2,996E+18	87,63
457,0	1,581E+0	3,637E+18	119,11	1,317E+0	3,031E+18	88,96
458,0	1,547E+0	3,567E+18	120,67	1,291E+0	2,976E+18	90,26
459,0	1,535E+0	3,546E+18	122,20	1,282E+0	2,963E+18	91,54
460,0	1,525E+0	3,531E+18	123,73	1,275E+0	2,953E+18	92,81

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
461,0	1,578E+0	3,662E+18	125,29	1,322E+0	3,067E+18	94,12
462,0	1,593E+0	3,705E+18	126,89	1,335E+0	3,106E+18	95,46
463,0	1,598E+0	3,726E+18	128,49	1,341E+0	3,126E+18	96,81
464,0	1,550E+0	3,620E+18	130,05	1,302E+0	3,041E+18	98,12
465,0	1,531E+0	3,583E+18	131,58	1,287E+0	3,012E+18	99,40
466,0	1,563E+0	3,666E+18	133,13	1,315E+0	3,085E+18	100,71
467,0	1,493E+0	3,510E+18	134,65	1,258E+0	2,957E+18	101,98
468,0	1,557E+0	3,669E+18	136,17	1,314E+0	3,096E+18	103,27
469,0	1,564E+0	3,692E+18	137,75	1,321E+0	3,119E+18	104,60
470,0	1,503E+0	3,557E+18	139,27	1,271E+0	3,008E+18	105,89
471,0	1,529E+0	3,625E+18	140,78	1,294E+0	3,068E+18	107,16
472,0	1,608E+0	3,821E+18	142,37	1,362E+0	3,237E+18	108,51
473,0	1,545E+0	3,680E+18	143,95	1,311E+0	3,121E+18	109,86
474,0	1,563E+0	3,729E+18	145,49	1,327E+0	3,165E+18	111,16
475,0	1,614E+0	3,859E+18	147,10	1,372E+0	3,280E+18	112,53
476,0	1,559E+0	3,735E+18	148,68	1,326E+0	3,178E+18	113,88
477,0	1,568E+0	3,765E+18	150,24	1,335E+0	3,206E+18	115,20
478,0	1,618E+0	3,894E+18	151,84	1,380E+0	3,320E+18	116,57
479,0	1,587E+0	3,827E+18	153,45	1,355E+0	3,267E+18	117,94
480,0	1,613E+0	3,899E+18	155,05	1,379E+0	3,331E+18	119,31
481,0	1,613E+0	3,906E+18	156,67	1,380E+0	3,341E+18	120,69
482,0	1,619E+0	3,928E+18	158,29	1,386E+0	3,363E+18	122,08
483,0	1,599E+0	3,888E+18	159,89	1,370E+0	3,332E+18	123,45
484,0	1,569E+0	3,822E+18	161,46	1,345E+0	3,278E+18	124,80
485,0	1,564E+0	3,818E+18	163,02	1,342E+0	3,276E+18	126,14
486,0	1,268E+0	3,102E+18	164,36	1,089E+0	2,663E+18	127,29
487,0	1,420E+0	3,481E+18	165,67	1,220E+0	2,991E+18	128,41
488,0	1,537E+0	3,775E+18	167,22	1,321E+0	3,246E+18	129,74
489,0	1,448E+0	3,564E+18	168,71	1,246E+0	3,066E+18	131,03
490,0	1,618E+0	3,990E+18	170,27	1,393E+0	3,436E+18	132,37
491,0	1,555E+0	3,844E+18	171,88	1,340E+0	3,311E+18	133,76
492,0	1,483E+0	3,672E+18	173,37	1,278E+0	3,166E+18	135,04
493,0	1,586E+0	3,935E+18	174,91	1,368E+0	3,395E+18	136,37
494,0	1,548E+0	3,850E+18	176,49	1,336E+0	3,323E+18	137,74
495,0	1,644E+0	4,096E+18	178,10	1,420E+0	3,538E+18	139,13
496,0	1,563E+0	3,903E+18	179,71	1,351E+0	3,373E+18	140,52
497,0	1,590E+0	3,978E+18	181,27	1,375E+0	3,440E+18	141,87
498,0	1,546E+0	3,877E+18	182,83	1,338E+0	3,355E+18	143,22
499,0	1,546E+0	3,884E+18	184,37	1,339E+0	3,364E+18	144,55
500,0	1,541E+0	3,878E+18	185,91	1,335E+0	3,361E+18	145,89
501,0	1,493E+0	3,767E+18	187,42	1,295E+0	3,267E+18	147,19

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
502,0	1,492E+0	3,771E+18	188,90	1,295E+0	3,273E+18	148,48
503,0	1,561E+0	3,952E+18	190,44	1,356E+0	3,433E+18	149,82
504,0	1,454E+0	3,690E+18	191,94	1,265E+0	3,208E+18	151,12
505,0	1,559E+0	3,963E+18	193,44	1,356E+0	3,447E+18	152,43
506,0	1,622E+0	4,131E+18	195,08	1,411E+0	3,595E+18	153,85
507,0	1,552E+0	3,960E+18	196,66	1,351E+0	3,448E+18	155,23
508,0	1,512E+0	3,867E+18	198,17	1,317E+0	3,368E+18	156,54
509,0	1,585E+0	4,061E+18	199,72	1,381E+0	3,539E+18	157,90
510,0	1,544E+0	3,963E+18	201,29	1,346E+0	3,455E+18	159,27
511,0	1,572E+0	4,045E+18	202,85	1,371E+0	3,528E+18	160,62
512,0	1,614E+0	4,160E+18	204,46	1,408E+0	3,630E+18	162,03
513,0	1,516E+0	3,916E+18	206,01	1,324E+0	3,419E+18	163,38
514,0	1,484E+0	3,840E+18	207,48	1,297E+0	3,355E+18	164,66
515,0	1,527E+0	3,959E+18	208,99	1,335E+0	3,460E+18	165,98
516,0	1,541E+0	4,003E+18	210,53	1,348E+0	3,500E+18	167,34
517,0	1,256E+0	3,268E+18	211,87	1,099E+0	2,859E+18	168,50
518,0	1,436E+0	3,745E+18	213,18	1,257E+0	3,277E+18	169,66
519,0	1,392E+0	3,636E+18	214,63	1,219E+0	3,184E+18	170,92
520,0	1,519E+0	3,977E+18	216,11	1,331E+0	3,484E+18	172,22
521,0	1,530E+0	4,013E+18	217,67	1,341E+0	3,518E+18	173,58
522,0	1,564E+0	4,111E+18	219,23	1,372E+0	3,605E+18	174,95
523,0	1,475E+0	3,882E+18	220,73	1,294E+0	3,406E+18	176,27
524,0	1,586E+0	4,183E+18	222,27	1,392E+0	3,672E+18	177,62
525,0	1,574E+0	4,159E+18	223,87	1,382E+0	3,652E+18	179,03
526,0	1,530E+0	4,050E+18	225,41	1,344E+0	3,559E+18	180,38
527,0	1,338E+0	3,549E+18	226,78	1,176E+0	3,120E+18	181,59
528,0	1,531E+0	4,070E+18	228,22	1,347E+0	3,580E+18	182,85
529,0	1,602E+0	4,267E+18	229,85	1,410E+0	3,755E+18	184,29
530,0	1,540E+0	4,109E+18	231,43	1,356E+0	3,618E+18	185,67
531,0	1,624E+0	4,342E+18	233,01	1,431E+0	3,824E+18	187,07
532,0	1,595E+0	4,272E+18	234,64	1,405E+0	3,764E+18	188,50
533,0	1,424E+0	3,822E+18	236,10	1,255E+0	3,368E+18	189,79
534,0	1,526E+0	4,102E+18	237,55	1,345E+0	3,616E+18	191,07
535,0	1,549E+0	4,172E+18	239,12	1,366E+0	3,679E+18	192,46
536,0	1,615E+0	4,358E+18	240,73	1,425E+0	3,845E+18	193,87
537,0	1,495E+0	4,040E+18	242,27	1,319E+0	3,566E+18	195,23
538,0	1,569E+0	4,250E+18	243,79	1,386E+0	3,753E+18	196,57
539,0	1,531E+0	4,153E+18	245,35	1,352E+0	3,668E+18	197,95
540,0	1,478E+0	4,018E+18	246,83	1,306E+0	3,550E+18	199,26
541,0	1,421E+0	3,870E+18	248,25	1,256E+0	3,420E+18	200,52
542,0	1,547E+0	4,220E+18	249,75	1,367E+0	3,731E+18	201,84

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
543,0	1,521E+0	4,158E+18	251,31	1,345E+0	3,678E+18	203,22
544,0	1,575E+0	4,312E+18	252,87	1,393E+0	3,815E+18	204,60
545,0	1,539E+0	4,222E+18	254,43	1,362E+0	3,736E+18	205,98
546,0	1,525E+0	4,191E+18	255,95	1,350E+0	3,710E+18	207,32
547,0	1,545E+0	4,253E+18	257,48	1,368E+0	3,766E+18	208,68
548,0	1,501E+0	4,140E+18	259,00	1,329E+0	3,667E+18	210,03
549,0	1,548E+0	4,277E+18	260,52	1,371E+0	3,790E+18	211,38
550,0	1,535E+0	4,251E+18	262,07	1,361E+0	3,768E+18	212,75
551,0	1,534E+0	4,254E+18	263,61	1,360E+0	3,772E+18	214,11
552,0	1,565E+0	4,349E+18	265,16	1,388E+0	3,858E+18	215,49
553,0	1,521E+0	4,233E+18	266,70	1,349E+0	3,756E+18	216,86
554,0	1,550E+0	4,324E+18	268,23	1,376E+0	3,838E+18	218,22
555,0	1,559E+0	4,355E+18	269,80	1,384E+0	3,868E+18	219,61
556,0	1,532E+0	4,288E+18	271,34	1,361E+0	3,810E+18	220,97
557,0	1,494E+0	4,190E+18	272,84	1,328E+0	3,724E+18	222,31
558,0	1,527E+0	4,288E+18	274,35	1,357E+0	3,813E+18	223,65
559,0	1,444E+0	4,064E+18	275,82	1,285E+0	3,615E+18	224,96
560,0	1,470E+0	4,143E+18	277,26	1,308E+0	3,687E+18	226,24
561,0	1,555E+0	4,391E+18	278,80	1,384E+0	3,910E+18	227,61
562,0	1,480E+0	4,188E+18	280,32	1,319E+0	3,731E+18	228,97
563,0	1,536E+0	4,354E+18	281,82	1,369E+0	3,880E+18	230,31
564,0	1,506E+0	4,276E+18	283,35	1,343E+0	3,812E+18	231,67
565,0	1,516E+0	4,311E+18	284,86	1,352E+0	3,844E+18	233,01
566,0	1,433E+0	4,084E+18	286,31	1,279E+0	3,643E+18	234,31
567,0	1,528E+0	4,360E+18	287,80	1,363E+0	3,891E+18	235,63
568,0	1,514E+0	4,328E+18	289,34	1,351E+0	3,864E+18	237,01
569,0	1,476E+0	4,229E+18	290,82	1,319E+0	3,778E+18	238,33
570,0	1,477E+0	4,239E+18	292,29	1,320E+0	3,788E+18	239,65
571,0	1,429E+0	4,107E+18	293,73	1,277E+0	3,672E+18	240,93
572,0	1,509E+0	4,345E+18	295,21	1,350E+0	3,886E+18	242,25
573,0	1,515E+0	4,371E+18	296,74	1,356E+0	3,910E+18	243,63
574,0	1,508E+0	4,356E+18	298,25	1,349E+0	3,897E+18	244,98
575,0	1,473E+0	4,265E+18	299,73	1,319E+0	3,817E+18	246,30
576,0	1,461E+0	4,237E+18	301,19	1,308E+0	3,793E+18	247,61
577,0	1,498E+0	4,351E+18	302,67	1,341E+0	3,896E+18	248,94
578,0	1,452E+0	4,224E+18	304,14	1,300E+0	3,783E+18	250,26
579,0	1,473E+0	4,293E+18	305,60	1,319E+0	3,845E+18	251,56
580,0	1,498E+0	4,373E+18	307,10	1,342E+0	3,917E+18	252,90
581,0	1,505E+0	4,400E+18	308,61	1,348E+0	3,942E+18	254,25
582,0	1,528E+0	4,475E+18	310,13	1,369E+0	4,011E+18	255,62
583,0	1,543E+0	4,530E+18	311,68	1,383E+0	4,059E+18	257,00

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
584,0	1,540E+0	4,528E+18	313,22	1,381E+0	4,059E+18	258,39
585,0	1,528E+0	4,500E+18	314,75	1,370E+0	4,034E+18	259,76
586,0	1,491E+0	4,398E+18	316,25	1,337E+0	3,944E+18	261,10
587,0	1,524E+0	4,502E+18	317,75	1,367E+0	4,039E+18	262,45
588,0	1,489E+0	4,408E+18	319,26	1,336E+0	3,956E+18	263,80
589,0	1,286E+0	3,812E+18	320,59	1,155E+0	3,424E+18	265,00
590,0	1,367E+0	4,060E+18	321,88	1,228E+0	3,647E+18	266,16
591,0	1,462E+0	4,350E+18	323,34	1,313E+0	3,907E+18	267,47
592,0	1,431E+0	4,265E+18	324,80	1,286E+0	3,833E+18	268,79
593,0	1,452E+0	4,334E+18	326,24	1,305E+0	3,895E+18	270,08
594,0	1,445E+0	4,321E+18	327,70	1,299E+0	3,885E+18	271,38
595,0	1,427E+0	4,273E+18	329,12	1,283E+0	3,844E+18	272,67
596,0	1,470E+0	4,411E+18	330,58	1,322E+0	3,967E+18	273,98
597,0	1,475E+0	4,431E+18	332,06	1,326E+0	3,986E+18	275,31
598,0	1,456E+0	4,385E+18	333,53	1,310E+0	3,945E+18	276,63
599,0	1,456E+0	4,392E+18	334,98	1,311E+0	3,952E+18	277,94
600,0	1,471E+0	4,443E+18	336,44	1,324E+0	3,999E+18	279,26
601,0	1,454E+0	4,398E+18	337,91	1,309E+0	3,959E+18	280,57
602,0	1,432E+0	4,339E+18	339,34	1,289E+0	3,907E+18	281,86
603,0	1,462E+0	4,438E+18	340,79	1,317E+0	3,997E+18	283,17
604,0	1,488E+0	4,524E+18	342,28	1,340E+0	4,074E+18	284,51
605,0	1,485E+0	4,523E+18	343,77	1,338E+0	4,075E+18	285,85
606,0	1,478E+0	4,509E+18	345,25	1,331E+0	4,062E+18	287,18
607,0	1,487E+0	4,543E+18	346,73	1,340E+0	4,093E+18	288,52
608,0	1,482E+0	4,536E+18	348,22	1,335E+0	4,087E+18	289,86
609,0	1,471E+0	4,509E+18	349,69	1,325E+0	4,063E+18	291,19
610,0	1,464E+0	4,497E+18	351,15	1,320E+0	4,053E+18	292,50
611,0	1,457E+0	4,481E+18	352,61	1,313E+0	4,039E+18	293,82
612,0	1,479E+0	4,556E+18	354,08	1,333E+0	4,107E+18	295,14
613,0	1,458E+0	4,499E+18	355,55	1,314E+0	4,056E+18	296,47
614,0	1,414E+0	4,369E+18	356,97	1,275E+0	3,940E+18	297,75
615,0	1,465E+0	4,537E+18	358,41	1,322E+0	4,091E+18	299,05
616,0	1,427E+0	4,425E+18	359,86	1,287E+0	3,991E+18	300,35
617,0	1,409E+0	4,375E+18	361,26	1,271E+0	3,947E+18	301,62
618,0	1,462E+0	4,549E+18	362,71	1,319E+0	4,103E+18	302,92
619,0	1,469E+0	4,578E+18	364,19	1,325E+0	4,130E+18	304,26
620,0	1,470E+0	4,587E+18	365,66	1,326E+0	4,139E+18	305,59
621,0	1,476E+0	4,614E+18	367,13	1,332E+0	4,164E+18	306,92
622,0	1,423E+0	4,455E+18	368,57	1,284E+0	4,022E+18	308,22
623,0	1,412E+0	4,430E+18	369,97	1,276E+0	4,001E+18	309,48
624,0	1,408E+0	4,422E+18	371,38	1,271E+0	3,994E+18	310,75

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
625,0	1,399E+0	4,400E+18	372,78	1,263E+0	3,974E+18	312,02
626,0	1,397E+0	4,403E+18	374,17	1,262E+0	3,976E+18	313,28
627,0	1,438E+0	4,537E+18	375,60	1,298E+0	4,098E+18	314,56
628,0	1,359E+0	4,297E+18	376,99	1,229E+0	3,886E+18	315,82
629,0	1,407E+0	4,456E+18	378,37	1,272E+0	4,028E+18	317,06
630,0	1,388E+0	4,403E+18	379,77	1,255E+0	3,981E+18	318,33
631,0	1,412E+0	4,485E+18	381,17	1,276E+0	4,054E+18	319,60
632,0	1,360E+0	4,326E+18	382,55	1,229E+0	3,911E+18	320,85
633,0	1,447E+0	4,610E+18	383,96	1,307E+0	4,165E+18	322,12
634,0	1,424E+0	4,546E+18	385,41	1,287E+0	4,107E+18	323,43
635,0	1,442E+0	4,608E+18	386,85	1,303E+0	4,164E+18	324,73
636,0	1,409E+0	4,510E+18	388,27	1,273E+0	4,076E+18	326,01
637,0	1,457E+0	4,671E+18	389,70	1,317E+0	4,222E+18	327,31
638,0	1,466E+0	4,710E+18	391,18	1,325E+0	4,257E+18	328,64
639,0	1,460E+0	4,698E+18	392,64	1,320E+0	4,246E+18	329,97
640,0	1,430E+0	4,607E+18	394,08	1,292E+0	4,164E+18	331,27
641,0	1,431E+0	4,616E+18	395,50	1,293E+0	4,173E+18	332,55
642,0	1,433E+0	4,633E+18	396,93	1,296E+0	4,188E+18	333,85
643,0	1,448E+0	4,688E+18	398,38	1,309E+0	4,238E+18	335,15
644,0	1,442E+0	4,675E+18	399,83	1,304E+0	4,226E+18	336,46
645,0	1,453E+0	4,716E+18	401,28	1,313E+0	4,264E+18	337,77
646,0	1,411E+0	4,588E+18	402,70	1,276E+0	4,150E+18	339,06
647,0	1,405E+0	4,575E+18	404,10	1,271E+0	4,139E+18	340,32
648,0	1,391E+0	4,538E+18	405,49	1,259E+0	4,106E+18	341,58
649,0	1,348E+0	4,404E+18	406,84	1,220E+0	3,985E+18	342,81
650,0	1,355E+0	4,435E+18	408,19	1,226E+0	4,013E+18	344,02
651,0	1,441E+0	4,721E+18	409,61	1,303E+0	4,271E+18	345,31
652,0	1,383E+0	4,540E+18	411,03	1,252E+0	4,110E+18	346,59
653,0	1,427E+0	4,691E+18	412,43	1,291E+0	4,245E+18	347,86
654,0	1,411E+0	4,646E+18	413,85	1,277E+0	4,204E+18	349,15
655,0	1,346E+0	4,438E+18	415,21	1,218E+0	4,018E+18	350,38
656,0	1,182E+0	3,902E+18	416,42	1,070E+0	3,532E+18	351,47
657,0	1,236E+0	4,087E+18	417,60	1,119E+0	3,699E+18	352,54
658,0	1,382E+0	4,576E+18	418,96	1,250E+0	4,142E+18	353,77
659,0	1,386E+0	4,600E+18	420,38	1,255E+0	4,163E+18	355,06
660,0	1,395E+0	4,635E+18	421,77	1,263E+0	4,197E+18	356,32
661,0	1,389E+0	4,623E+18	423,17	1,258E+0	4,187E+18	357,58
662,0	1,378E+0	4,592E+18	424,55	1,248E+0	4,160E+18	358,83
663,0	1,380E+0	4,607E+18	425,92	1,250E+0	4,173E+18	360,08
664,0	1,393E+0	4,655E+18	427,31	1,261E+0	4,215E+18	361,34
665,0	1,417E+0	4,745E+18	428,73	1,283E+0	4,296E+18	362,62

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
666,0	1,416E+0	4,748E+18	430,15	1,282E+0	4,299E+18	363,91
667,0	1,406E+0	4,721E+18	431,56	1,273E+0	4,274E+18	365,18
668,0	1,411E+0	4,745E+18	432,97	1,277E+0	4,295E+18	366,46
669,0	1,435E+0	4,834E+18	434,40	1,299E+0	4,376E+18	367,75
670,0	1,416E+0	4,774E+18	435,82	1,282E+0	4,323E+18	369,04
671,0	1,413E+0	4,772E+18	437,23	1,279E+0	4,321E+18	370,32
672,0	1,393E+0	4,713E+18	438,63	1,261E+0	4,267E+18	371,58
673,0	1,405E+0	4,761E+18	440,03	1,272E+0	4,310E+18	372,85
674,0	1,403E+0	4,761E+18	441,43	1,271E+0	4,311E+18	374,12
675,0	1,392E+0	4,729E+18	442,83	1,260E+0	4,282E+18	375,38
676,0	1,408E+0	4,791E+18	444,23	1,275E+0	4,339E+18	376,65
677,0	1,395E+0	4,754E+18	445,63	1,263E+0	4,305E+18	377,92
678,0	1,403E+0	4,787E+18	447,03	1,270E+0	4,335E+18	379,19
679,0	1,391E+0	4,753E+18	448,42	1,259E+0	4,304E+18	380,45
680,0	1,393E+0	4,768E+18	449,81	1,261E+0	4,318E+18	381,71
681,0	1,387E+0	4,757E+18	451,20	1,256E+0	4,307E+18	382,97
682,0	1,394E+0	4,786E+18	452,59	1,263E+0	4,335E+18	384,23
683,0	1,379E+0	4,741E+18	453,98	1,249E+0	4,294E+18	385,48
684,0	1,370E+0	4,717E+18	455,34	1,241E+0	4,273E+18	386,72
685,0	1,371E+0	4,727E+18	456,71	1,242E+0	4,282E+18	387,96
686,0	1,340E+0	4,627E+18	458,06	1,214E+0	4,192E+18	389,18
687,0	9,654E-1	3,339E+18	459,11	8,803E-1	3,044E+18	390,14
688,0	1,117E+0	3,870E+18	460,10	1,017E+0	3,521E+18	391,04
689,0	1,125E+0	3,900E+18	461,26	1,023E+0	3,548E+18	392,09
690,0	1,179E+0	4,094E+18	462,43	1,072E+0	3,722E+18	393,15
691,0	1,230E+0	4,278E+18	463,66	1,117E+0	3,885E+18	394,27
692,0	1,265E+0	4,408E+18	464,93	1,148E+0	4,000E+18	395,42
693,0	1,257E+0	4,386E+18	466,19	1,141E+0	3,982E+18	396,57
694,0	1,243E+0	4,342E+18	467,44	1,129E+0	3,943E+18	397,70
695,0	1,268E+0	4,435E+18	468,70	1,150E+0	4,025E+18	398,85
696,0	1,265E+0	4,431E+18	469,97	1,148E+0	4,022E+18	400,00
697,0	1,336E+0	4,689E+18	471,28	1,212E+0	4,251E+18	401,20
698,0	1,315E+0	4,622E+18	472,62	1,193E+0	4,191E+18	402,41
699,0	1,288E+0	4,532E+18	473,91	1,169E+0	4,112E+18	403,58
700,0	1,279E+0	4,506E+18	475,19	1,160E+0	4,088E+18	404,73
701,0	1,262E+0	4,454E+18	476,45	1,146E+0	4,043E+18	405,88
702,0	1,264E+0	4,466E+18	477,71	1,147E+0	4,052E+18	407,02
703,0	1,271E+0	4,498E+18	478,98	1,153E+0	4,082E+18	408,18
704,0	1,304E+0	4,621E+18	480,28	1,183E+0	4,192E+18	409,35
705,0	1,318E+0	4,676E+18	481,60	1,195E+0	4,243E+18	410,55
706,0	1,311E+0	4,658E+18	482,92	1,189E+0	4,226E+18	411,75

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
707,0	1,305E+0	4,645E+18	484,22	1,184E+0	4,214E+18	412,93
708,0	1,301E+0	4,637E+18	485,52	1,180E+0	4,207E+18	414,11
709,0	1,306E+0	4,660E+18	486,82	1,185E+0	4,228E+18	415,29
710,0	1,314E+0	4,695E+18	488,14	1,192E+0	4,260E+18	416,48
711,0	1,312E+0	4,695E+18	489,45	1,190E+0	4,259E+18	417,68
712,0	1,303E+0	4,671E+18	490,76	1,182E+0	4,237E+18	418,86
713,0	1,288E+0	4,623E+18	492,05	1,169E+0	4,194E+18	420,03
714,0	1,299E+0	4,669E+18	493,34	1,179E+0	4,237E+18	421,20
715,0	1,255E+0	4,517E+18	494,61	1,140E+0	4,101E+18	422,36
716,0	1,268E+0	4,570E+18	495,86	1,151E+0	4,150E+18	423,49
717,0	1,104E+0	3,984E+18	497,01	1,005E+0	3,628E+18	424,54
718,0	1,027E+0	3,711E+18	498,01	9,360E-1	3,383E+18	425,46
719,0	9,205E-1	3,332E+18	498,94	8,403E-1	3,041E+18	426,30
720,0	9,826E-1	3,562E+18	499,88	8,968E-1	3,250E+18	427,16
721,0	1,083E+0	3,931E+18	500,96	9,868E-1	3,582E+18	428,14
722,0	1,237E+0	4,496E+18	502,18	1,125E+0	4,088E+18	429,25
723,0	1,141E+0	4,153E+18	503,38	1,039E+0	3,783E+18	430,35
724,0	1,052E+0	3,836E+18	504,43	9,602E-1	3,500E+18	431,31
725,0	1,035E+0	3,777E+18	505,45	9,447E-1	3,448E+18	432,23
726,0	1,078E+0	3,940E+18	506,51	9,835E-1	3,595E+18	433,20
727,0	1,082E+0	3,959E+18	507,61	9,870E-1	3,612E+18	434,20
728,0	1,037E+0	3,800E+18	508,65	9,469E-1	3,470E+18	435,16
729,0	1,044E+0	3,830E+18	509,69	9,522E-1	3,495E+18	436,10
730,0	1,125E+0	4,135E+18	510,79	1,026E+0	3,772E+18	437,11
731,0	1,067E+0	3,927E+18	511,89	9,742E-1	3,585E+18	438,11
732,0	1,150E+0	4,238E+18	513,01	1,049E+0	3,865E+18	439,13
733,0	1,193E+0	4,401E+18	514,21	1,087E+0	4,011E+18	440,23
734,0	1,232E+0	4,553E+18	515,44	1,123E+0	4,149E+18	441,35
735,0	1,214E+0	4,493E+18	516,67	1,107E+0	4,096E+18	442,47
736,0	1,202E+0	4,455E+18	517,87	1,096E+0	4,062E+18	443,57
737,0	1,200E+0	4,454E+18	519,07	1,095E+0	4,061E+18	444,66
738,0	1,223E+0	4,545E+18	520,29	1,115E+0	4,143E+18	445,77
739,0	1,187E+0	4,416E+18	521,49	1,082E+0	4,027E+18	446,86
740,0	1,216E+0	4,530E+18	522,69	1,109E+0	4,130E+18	447,96
741,0	1,211E+0	4,518E+18	523,91	1,105E+0	4,120E+18	449,07
742,0	1,212E+0	4,526E+18	525,12	1,105E+0	4,128E+18	450,17
743,0	1,237E+0	4,626E+18	526,35	1,128E+0	4,220E+18	451,30
744,0	1,247E+0	4,669E+18	527,60	1,138E+0	4,260E+18	452,44
745,0	1,246E+0	4,673E+18	528,85	1,137E+0	4,265E+18	453,58
746,0	1,243E+0	4,669E+18	530,09	1,135E+0	4,262E+18	454,71
747,0	1,244E+0	4,678E+18	531,34	1,136E+0	4,270E+18	455,85

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
748,0	1,237E+0	4,656E+18	532,58	1,129E+0	4,251E+18	456,98
749,0	1,232E+0	4,646E+18	533,81	1,125E+0	4,243E+18	458,10
750,0	1,231E+0	4,646E+18	535,04	1,124E+0	4,244E+18	459,23
751,0	1,225E+0	4,631E+18	536,26	1,119E+0	4,231E+18	460,35
752,0	1,229E+0	4,654E+18	537,49	1,123E+0	4,252E+18	461,47
753,0	1,223E+0	4,636E+18	538,72	1,118E+0	4,237E+18	462,59
754,0	1,238E+0	4,701E+18	539,95	1,132E+0	4,297E+18	463,71
755,0	1,235E+0	4,693E+18	541,19	1,129E+0	4,290E+18	464,85
756,0	1,220E+0	4,642E+18	542,41	1,115E+0	4,244E+18	465,96
757,0	1,219E+0	4,644E+18	543,63	1,114E+0	4,247E+18	467,08
758,0	1,226E+0	4,678E+18	544,85	1,121E+0	4,279E+18	468,19
759,0	1,191E+0	4,551E+18	546,05	1,090E+0	4,165E+18	469,29
760,0	2,653E-1	1,015E+18	546,54	2,464E-1	9,429E+17	469,74
761,0	1,535E-1	5,881E+17	546,49	1,429E-1	5,473E+17	469,70
762,0	6,857E-1	2,630E+18	547,01	6,331E-1	2,428E+18	470,19
763,0	3,784E-1	1,454E+18	547,60	3,511E-1	1,349E+18	470,73
764,0	5,372E-1	2,066E+18	548,02	4,974E-1	1,913E+18	471,12
765,0	6,840E-1	2,634E+18	548,71	6,319E-1	2,434E+18	471,76
766,0	8,122E-1	3,132E+18	549,53	7,486E-1	2,887E+18	472,51
767,0	9,713E-1	3,751E+18	550,49	8,931E-1	3,449E+18	473,39
768,0	1,111E+0	4,294E+18	551,61	1,019E+0	3,941E+18	474,42
769,0	1,125E+0	4,353E+18	552,76	1,032E+0	3,994E+18	475,48
770,0	1,157E+0	4,486E+18	553,91	1,062E+0	4,115E+18	476,54
771,0	1,165E+0	4,523E+18	555,09	1,069E+0	4,147E+18	477,61
772,0	1,174E+0	4,564E+18	556,26	1,077E+0	4,186E+18	478,69
773,0	1,174E+0	4,567E+18	557,44	1,077E+0	4,189E+18	479,77
774,0	1,174E+0	4,573E+18	558,61	1,077E+0	4,196E+18	480,84
775,0	1,174E+0	4,579E+18	559,78	1,077E+0	4,202E+18	481,92
776,0	1,176E+0	4,595E+18	560,96	1,080E+0	4,217E+18	483,00
777,0	1,169E+0	4,574E+18	562,13	1,073E+0	4,198E+18	484,07
778,0	1,168E+0	4,574E+18	563,30	1,072E+0	4,200E+18	485,14
779,0	1,173E+0	4,600E+18	564,47	1,077E+0	4,224E+18	486,22
780,0	1,160E+0	4,556E+18	565,63	1,066E+0	4,184E+18	487,29
781,0	1,157E+0	4,550E+18	566,79	1,063E+0	4,180E+18	488,35
782,0	1,163E+0	4,578E+18	567,95	1,068E+0	4,206E+18	489,42
783,0	1,158E+0	4,565E+18	569,11	1,064E+0	4,194E+18	490,48
784,0	1,150E+0	4,540E+18	570,26	1,057E+0	4,172E+18	491,54
785,0	1,155E+0	4,565E+18	571,41	1,062E+0	4,196E+18	492,60
786,0	1,156E+0	4,573E+18	572,57	1,063E+0	4,204E+18	493,66
787,0	1,142E+0	4,523E+18	573,71	1,050E+0	4,160E+18	494,72
788,0	1,127E+0	4,472E+18	574,84	1,037E+0	4,113E+18	495,75

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
789,0	1,122E+0	4,458E+18	575,96	1,033E+0	4,103E+18	496,78
790,0	1,088E+0	4,326E+18	577,06	1,002E+0	3,983E+18	497,79
791,0	1,103E+0	4,390E+18	578,15	1,015E+0	4,041E+18	498,80
792,0	1,092E+0	4,354E+18	579,25	1,006E+0	4,009E+18	499,81
793,0	1,084E+0	4,329E+18	580,33	9,986E-1	3,986E+18	500,81
794,0	1,094E+0	4,373E+18	581,42	1,007E+0	4,026E+18	501,81
795,0	1,090E+0	4,362E+18	582,51	1,004E+0	4,017E+18	502,82
796,0	1,071E+0	4,292E+18	583,59	9,870E-1	3,955E+18	503,81
797,0	1,088E+0	4,366E+18	584,67	1,003E+0	4,023E+18	504,80
798,0	1,109E+0	4,455E+18	585,77	1,022E+0	4,104E+18	505,82
799,0	1,087E+0	4,374E+18	586,87	1,002E+0	4,030E+18	506,83
800,0	1,069E+0	4,307E+18	587,94	9,857E-1	3,970E+18	507,82
801,0	1,081E+0	4,360E+18	589,01	9,969E-1	4,020E+18	508,81
802,0	1,082E+0	4,370E+18	590,10	9,982E-1	4,030E+18	509,81
803,0	1,063E+0	4,295E+18	591,17	9,800E-1	3,962E+18	510,79
804,0	1,075E+0	4,351E+18	592,23	9,916E-1	4,014E+18	511,78
805,0	1,051E+0	4,261E+18	593,29	9,699E-1	3,930E+18	512,76
806,0	1,094E+0	4,440E+18	594,37	1,009E+0	4,095E+18	513,75
807,0	1,083E+0	4,399E+18	595,47	9,989E-1	4,058E+18	514,76
808,0	1,079E+0	4,389E+18	596,55	9,955E-1	4,049E+18	515,75
809,0	1,052E+0	4,283E+18	597,60	9,707E-1	3,953E+18	516,73
810,0	1,053E+0	4,293E+18	598,65	9,720E-1	3,964E+18	517,70
811,0	1,050E+0	4,288E+18	599,70	9,699E-1	3,960E+18	518,67
812,0	1,024E+0	4,185E+18	600,73	9,461E-1	3,867E+18	519,62
813,0	1,006E+0	4,116E+18	601,73	9,296E-1	3,805E+18	520,55
814,0	9,009E-1	3,692E+18	602,66	8,344E-1	3,419E+18	521,40
815,0	8,926E-1	3,662E+18	603,52	8,269E-1	3,392E+18	522,21
816,0	8,297E-1	3,408E+18	604,37	7,695E-1	3,161E+18	522,99
817,0	8,494E-1	3,493E+18	605,20	7,875E-1	3,239E+18	523,76
818,0	8,202E-1	3,378E+18	606,03	7,608E-1	3,133E+18	524,53
819,0	9,026E-1	3,721E+18	606,90	8,360E-1	3,447E+18	525,34
820,0	8,594E-1	3,547E+18	607,79	7,967E-1	3,289E+18	526,16
821,0	9,947E-1	4,111E+18	608,74	9,202E-1	3,803E+18	527,04
822,0	9,488E-1	3,926E+18	609,74	8,782E-1	3,634E+18	527,96
823,0	6,708E-1	2,779E+18	610,47	6,239E-1	2,585E+18	528,64
824,0	9,323E-1	3,867E+18	611,26	8,637E-1	3,583E+18	529,38
825,0	9,665E-1	4,014E+18	612,29	8,949E-1	3,717E+18	530,33
826,0	9,311E-1	3,872E+18	613,24	8,628E-1	3,588E+18	531,21
827,0	9,818E-1	4,087E+18	614,20	9,091E-1	3,785E+18	532,10
828,0	8,473E-1	3,532E+18	615,09	7,864E-1	3,278E+18	532,92
829,0	9,266E-1	3,867E+18	615,96	8,588E-1	3,584E+18	533,73

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
830,0	9,133E-1	3,816E+18	616,90	8,468E-1	3,538E+18	534,60
831,0	9,212E-1	3,854E+18	617,82	8,542E-1	3,573E+18	535,45
832,0	8,917E-1	3,735E+18	618,72	8,272E-1	3,465E+18	536,29
833,0	9,537E-1	3,999E+18	619,65	8,836E-1	3,706E+18	537,15
834,0	9,314E-1	3,910E+18	620,60	8,636E-1	3,626E+18	538,03
835,0	1,000E+0	4,205E+18	621,58	9,265E-1	3,894E+18	538,94
836,0	9,695E-1	4,080E+18	622,57	8,987E-1	3,782E+18	539,86
837,0	1,006E+0	4,240E+18	623,56	9,322E-1	3,928E+18	540,78
838,0	9,961E-1	4,202E+18	624,57	9,232E-1	3,894E+18	541,71
839,0	9,984E-1	4,217E+18	625,56	9,251E-1	3,907E+18	542,63
840,0	1,013E+0	4,283E+18	626,57	9,385E-1	3,969E+18	543,57
841,0	1,007E+0	4,264E+18	627,59	9,335E-1	3,952E+18	544,51
842,0	9,941E-1	4,214E+18	628,58	9,214E-1	3,906E+18	545,43
843,0	1,002E+0	4,254E+18	629,58	9,290E-1	3,942E+18	546,35
844,0	9,834E-1	4,178E+18	630,57	9,117E-1	3,874E+18	547,27
845,0	1,014E+0	4,311E+18	631,57	9,395E-1	3,997E+18	548,20
846,0	1,016E+0	4,326E+18	632,59	9,417E-1	4,011E+18	549,15
847,0	9,888E-1	4,216E+18	633,59	9,168E-1	3,909E+18	550,07
848,0	9,893E-1	4,223E+18	634,57	9,174E-1	3,916E+18	550,98
849,0	9,831E-1	4,202E+18	635,56	9,118E-1	3,897E+18	551,90
850,0	8,911E-1	3,813E+18	636,47	8,266E-1	3,537E+18	552,74
851,0	9,721E-1	4,164E+18	637,40	9,019E-1	3,864E+18	553,60
852,0	9,664E-1	4,145E+18	638,39	8,968E-1	3,846E+18	554,52
853,0	9,621E-1	4,131E+18	639,35	8,928E-1	3,834E+18	555,41
854,0	8,486E-1	3,648E+18	640,22	7,877E-1	3,386E+18	556,23
855,0	9,103E-1	3,918E+18	641,09	8,450E-1	3,637E+18	557,03
856,0	9,703E-1	4,181E+18	642,06	9,008E-1	3,882E+18	557,93
857,0	9,888E-1	4,266E+18	643,06	9,179E-1	3,960E+18	558,86
858,0	9,891E-1	4,272E+18	644,05	9,183E-1	3,966E+18	559,78
859,0	9,888E-1	4,276E+18	645,04	9,181E-1	3,970E+18	560,70
860,0	9,853E-1	4,266E+18	646,03	9,150E-1	3,961E+18	561,62
861,0	9,839E-1	4,265E+18	647,01	9,138E-1	3,961E+18	562,53
862,0	9,916E-1	4,303E+18	648,00	9,210E-1	3,997E+18	563,45
863,0	9,976E-1	4,334E+18	649,00	9,266E-1	4,026E+18	564,38
864,0	9,763E-1	4,246E+18	649,98	9,069E-1	3,945E+18	565,29
865,0	9,604E-1	4,182E+18	650,94	8,923E-1	3,885E+18	566,18
866,0	8,465E-1	3,691E+18	651,81	7,865E-1	3,429E+18	566,99
867,0	9,128E-1	3,984E+18	652,68	8,482E-1	3,702E+18	567,80
868,0	9,564E-1	4,179E+18	653,64	8,888E-1	3,884E+18	568,69
869,0	9,468E-1	4,142E+18	654,60	8,800E-1	3,850E+18	569,58
870,0	9,647E-1	4,225E+18	655,56	8,967E-1	3,927E+18	570,47

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
871,0	9,511E-1	4,170E+18	656,52	8,841E-1	3,877E+18	571,36
872,0	9,640E-1	4,232E+18	657,48	8,963E-1	3,934E+18	572,25
873,0	9,544E-1	4,195E+18	658,44	8,874E-1	3,900E+18	573,15
874,0	9,377E-1	4,126E+18	659,38	8,720E-1	3,837E+18	574,02
875,0	9,242E-1	4,071E+18	660,30	8,595E-1	3,786E+18	574,88
876,0	9,500E-1	4,189E+18	661,24	8,837E-1	3,897E+18	575,75
877,0	9,534E-1	4,209E+18	662,20	8,869E-1	3,916E+18	576,64
878,0	9,496E-1	4,197E+18	663,15	8,835E-1	3,905E+18	577,53
879,0	9,338E-1	4,132E+18	664,09	8,689E-1	3,845E+18	578,40
880,0	9,368E-1	4,150E+18	665,02	8,718E-1	3,862E+18	579,27
881,0	9,060E-1	4,018E+18	665,93	8,432E-1	3,740E+18	580,12
882,0	9,297E-1	4,128E+18	666,85	8,653E-1	3,842E+18	580,97
883,0	9,266E-1	4,119E+18	667,78	8,624E-1	3,834E+18	581,84
884,0	9,303E-1	4,140E+18	668,71	8,661E-1	3,854E+18	582,71
885,0	9,415E-1	4,195E+18	669,65	8,766E-1	3,905E+18	583,58
886,0	9,049E-1	4,036E+18	670,57	8,427E-1	3,759E+18	584,43
887,0	9,080E-1	4,054E+18	671,47	8,455E-1	3,776E+18	585,27
888,0	9,196E-1	4,111E+18	672,38	8,565E-1	3,829E+18	586,13
889,0	9,318E-1	4,170E+18	673,32	8,679E-1	3,884E+18	586,99
890,0	9,212E-1	4,128E+18	674,24	8,583E-1	3,845E+18	587,86
891,0	9,231E-1	4,141E+18	675,16	8,600E-1	3,858E+18	588,71
892,0	9,062E-1	4,069E+18	676,07	8,444E-1	3,792E+18	589,56
893,0	8,707E-1	3,914E+18	676,95	8,118E-1	3,649E+18	590,38
894,0	8,488E-1	3,820E+18	677,79	7,918E-1	3,564E+18	591,17
895,0	8,112E-1	3,655E+18	678,61	7,573E-1	3,412E+18	591,93
896,0	7,603E-1	3,429E+18	679,37	7,106E-1	3,205E+18	592,64
897,0	6,637E-1	2,997E+18	680,05	6,213E-1	2,806E+18	593,27
898,0	7,157E-1	3,235E+18	680,73	6,694E-1	3,026E+18	593,91
899,0	5,471E-1	2,476E+18	681,33	5,131E-1	2,322E+18	594,47
900,0	7,404E-1	3,355E+18	681,98	6,923E-1	3,136E+18	595,08
901,0	5,976E-1	2,711E+18	682,66	5,600E-1	2,540E+18	595,72
902,0	6,660E-1	3,024E+18	683,27	6,232E-1	2,830E+18	596,29
903,0	6,869E-1	3,122E+18	683,97	6,430E-1	2,923E+18	596,95
904,0	8,421E-1	3,832E+18	684,78	7,863E-1	3,578E+18	597,70
905,0	8,147E-1	3,712E+18	685,64	7,611E-1	3,468E+18	598,51
906,0	7,733E-1	3,527E+18	686,42	7,229E-1	3,297E+18	599,23
907,0	6,367E-1	2,907E+18	687,08	5,966E-1	2,724E+18	599,85
908,0	6,503E-1	2,972E+18	687,69	6,091E-1	2,784E+18	600,43
909,0	7,023E-1	3,214E+18	688,38	6,572E-1	3,007E+18	601,07
910,0	6,229E-1	2,853E+18	689,04	5,838E-1	2,675E+18	601,69
911,0	6,661E-1	3,055E+18	689,67	6,240E-1	2,862E+18	602,28

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
912,0	6,869E-1	3,154E+18	690,37	6,432E-1	2,953E+18	602,93
913,0	6,265E-1	2,880E+18	691,01	5,873E-1	2,700E+18	603,54
914,0	6,247E-1	2,874E+18	691,62	5,857E-1	2,695E+18	604,11
915,0	6,764E-1	3,116E+18	692,29	6,337E-1	2,919E+18	604,73
916,0	5,748E-1	2,650E+18	692,90	5,394E-1	2,487E+18	605,31
917,0	7,280E-1	3,361E+18	693,56	6,815E-1	3,146E+18	605,93
918,0	5,910E-1	2,731E+18	694,23	5,545E-1	2,563E+18	606,55
919,0	7,366E-1	3,408E+18	694,89	6,896E-1	3,190E+18	607,17
920,0	7,420E-1	3,436E+18	695,67	6,945E-1	3,217E+18	607,90
921,0	7,782E-1	3,608E+18	696,44	7,279E-1	3,375E+18	608,62
922,0	6,982E-1	3,241E+18	697,17	6,539E-1	3,035E+18	609,30
923,0	7,429E-1	3,452E+18	697,88	6,950E-1	3,229E+18	609,97
924,0	7,194E-1	3,346E+18	698,62	6,737E-1	3,134E+18	610,66
925,0	7,090E-1	3,302E+18	699,32	6,643E-1	3,093E+18	611,32
926,0	7,013E-1	3,269E+18	700,02	6,568E-1	3,062E+18	611,98
927,0	7,851E-1	3,664E+18	700,79	7,347E-1	3,429E+18	612,69
928,0	5,880E-1	2,747E+18	701,44	5,520E-1	2,579E+18	613,31
929,0	5,497E-1	2,571E+18	701,95	5,164E-1	2,415E+18	613,79
930,0	4,308E-1	2,017E+18	702,40	4,056E-1	1,899E+18	614,21
931,0	4,080E-1	1,912E+18	702,79	3,843E-1	1,801E+18	614,57
932,0	3,000E-1	1,408E+18	703,11	2,830E-1	1,328E+18	614,88
933,0	2,477E-1	1,163E+18	703,34	2,339E-1	1,099E+18	615,10
934,0	1,434E-1	6,742E+17	703,50	1,356E-1	6,378E+17	615,24
935,0	2,501E-1	1,177E+18	703,70	2,362E-1	1,112E+18	615,43
936,0	1,610E-1	7,584E+17	703,91	1,522E-1	7,173E+17	615,63
937,0	1,629E-1	7,684E+17	704,05	1,541E-1	7,268E+17	615,76
938,0	2,000E-1	9,444E+17	704,24	1,891E-1	8,928E+17	615,94
939,0	3,977E-1	1,880E+18	704,60	3,748E-1	1,772E+18	616,28
940,0	4,704E-1	2,226E+18	705,10	4,428E-1	2,095E+18	616,75
941,0	3,709E-1	1,757E+18	705,51	3,497E-1	1,657E+18	617,14
942,0	4,041E-1	1,917E+18	705,88	3,808E-1	1,806E+18	617,49
943,0	2,775E-1	1,318E+18	706,20	2,621E-1	1,244E+18	617,79
944,0	2,850E-1	1,354E+18	706,45	2,691E-1	1,279E+18	618,03
945,0	3,671E-1	1,747E+18	706,80	3,463E-1	1,647E+18	618,36
946,0	1,940E-1	9,241E+17	707,06	1,836E-1	8,741E+17	618,60
947,0	3,700E-1	1,764E+18	707,34	3,491E-1	1,664E+18	618,87
948,0	2,734E-1	1,305E+18	707,68	2,584E-1	1,233E+18	619,19
949,0	4,925E-1	2,353E+18	708,10	4,638E-1	2,216E+18	619,58
950,0	1,468E-1	7,022E+17	708,38	1,390E-1	6,649E+17	619,85
951,0	4,824E-1	2,309E+18	708,70	4,543E-1	2,175E+18	620,15
952,0	2,681E-1	1,285E+18	709,10	2,534E-1	1,215E+18	620,53

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
953,0	3,426E-1	1,644E+18	709,37	3,235E-1	1,552E+18	620,78
954,0	4,229E-1	2,031E+18	709,79	3,987E-1	1,915E+18	621,18
955,0	3,402E-1	1,635E+18	710,17	3,211E-1	1,544E+18	621,54
956,0	3,273E-1	1,575E+18	710,48	3,091E-1	1,487E+18	621,83
957,0	2,699E-1	1,300E+18	710,77	2,552E-1	1,229E+18	622,10
958,0	4,597E-1	2,217E+18	711,16	4,333E-1	2,090E+18	622,48
959,0	3,728E-1	1,800E+18	711,61	3,519E-1	1,699E+18	622,89
960,0	4,194E-1	2,027E+18	711,99	3,957E-1	1,912E+18	623,26
961,0	4,599E-1	2,225E+18	712,45	4,335E-1	2,097E+18	623,69
962,0	4,405E-1	2,133E+18	712,91	4,154E-1	2,012E+18	624,12
963,0	5,036E-1	2,441E+18	713,39	4,745E-1	2,300E+18	624,58
964,0	4,573E-1	2,219E+18	713,88	4,312E-1	2,092E+18	625,03
965,0	5,023E-1	2,440E+18	714,36	4,733E-1	2,299E+18	625,48
966,0	5,013E-1	2,438E+18	714,87	4,724E-1	2,297E+18	625,97
967,0	5,009E-1	2,439E+18	715,37	4,722E-1	2,298E+18	626,44
968,0	6,502E-1	3,168E+18	715,98	6,112E-1	2,979E+18	627,02
969,0	6,842E-1	3,338E+18	716,69	6,429E-1	3,136E+18	627,69
970,0	6,328E-1	3,090E+18	717,35	5,952E-1	2,906E+18	628,30
971,0	7,119E-1	3,480E+18	718,03	6,686E-1	3,268E+18	628,94
972,0	6,856E-1	3,355E+18	718,74	6,444E-1	3,153E+18	629,61
973,0	6,047E-1	2,962E+18	719,36	5,691E-1	2,788E+18	630,19
974,0	5,736E-1	2,813E+18	719,92	5,401E-1	2,648E+18	630,72
975,0	5,882E-1	2,887E+18	720,50	5,537E-1	2,718E+18	631,26
976,0	5,702E-1	2,802E+18	721,07	5,372E-1	2,639E+18	631,81
977,0	6,368E-1	3,132E+18	721,69	5,991E-1	2,947E+18	632,39
978,0	6,133E-1	3,020E+18	722,33	5,773E-1	2,843E+18	632,98
979,0	6,363E-1	3,136E+18	722,95	5,987E-1	2,951E+18	633,57
980,0	6,029E-1	2,974E+18	723,57	5,678E-1	2,801E+18	634,15
981,0	7,113E-1	3,513E+18	724,24	6,686E-1	3,302E+18	634,79
982,0	6,902E-1	3,412E+18	724,97	6,491E-1	3,209E+18	635,47
983,0	6,667E-1	3,299E+18	725,63	6,273E-1	3,104E+18	636,10
984,0	7,352E-1	3,642E+18	726,35	6,909E-1	3,422E+18	636,76
985,0	6,862E-1	3,402E+18	727,06	6,455E-1	3,201E+18	637,44
986,0	7,486E-1	3,716E+18	727,78	7,035E-1	3,492E+18	638,12
987,0	7,371E-1	3,663E+18	728,54	6,929E-1	3,443E+18	638,83
988,0	7,325E-1	3,643E+18	729,27	6,886E-1	3,425E+18	639,51
989,0	7,469E-1	3,719E+18	730,01	7,019E-1	3,494E+18	640,21
990,0	7,301E-1	3,639E+18	730,75	6,864E-1	3,421E+18	640,90
991,0	7,514E-1	3,749E+18	731,49	7,063E-1	3,523E+18	641,60
992,0	7,488E-1	3,740E+18	732,24	7,039E-1	3,515E+18	642,31
993,0	7,351E-1	3,675E+18	732,98	6,912E-1	3,455E+18	643,00

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
994,0	7,519E-1	3,762E+18	733,73	7,068E-1	3,537E+18	643,70
995,0	7,496E-1	3,755E+18	734,48	7,047E-1	3,530E+18	644,41
996,0	7,467E-1	3,744E+18	735,23	7,020E-1	3,520E+18	645,12
997,0	7,376E-1	3,702E+18	735,97	6,935E-1	3,481E+18	645,81
998,0	7,367E-1	3,701E+18	736,70	6,928E-1	3,481E+18	646,50
999,0	7,364E-1	3,704E+18	737,44	6,925E-1	3,483E+18	647,19
1000,0	7,332E-1	3,691E+18	738,17	6,896E-1	3,471E+18	647,88
1001,0	7,423E-1	3,740E+18	738,91	6,981E-1	3,518E+18	648,58
1002,0	7,259E-1	3,662E+18	739,64	6,830E-1	3,445E+18	649,27
1003,0	7,323E-1	3,697E+18	740,37	6,888E-1	3,478E+18	649,95
1004,0	7,213E-1	3,645E+18	741,10	6,786E-1	3,430E+18	650,63
1005,0	6,798E-1	3,439E+18	741,78	6,395E-1	3,236E+18	651,28
1006,0	7,104E-1	3,598E+18	742,48	6,685E-1	3,386E+18	651,93
1007,0	7,254E-1	3,677E+18	743,20	6,826E-1	3,461E+18	652,62
1008,0	7,247E-1	3,678E+18	743,93	6,821E-1	3,461E+18	653,30
1009,0	7,176E-1	3,645E+18	744,65	6,754E-1	3,431E+18	653,98
1010,0	7,170E-1	3,646E+18	745,37	6,750E-1	3,432E+18	654,65
1011,0	7,207E-1	3,668E+18	746,09	6,784E-1	3,453E+18	655,33
1012,0	7,167E-1	3,651E+18	746,81	6,747E-1	3,437E+18	656,01
1013,0	7,155E-1	3,649E+18	747,52	6,736E-1	3,435E+18	656,68
1014,0	7,186E-1	3,668E+18	748,24	6,765E-1	3,453E+18	657,36
1015,0	7,061E-1	3,608E+18	748,95	6,648E-1	3,397E+18	658,03
1016,0	7,092E-1	3,627E+18	749,65	6,678E-1	3,416E+18	658,69
1017,0	7,013E-1	3,591E+18	750,36	6,604E-1	3,381E+18	659,35
1018,0	7,121E-1	3,650E+18	751,07	6,707E-1	3,437E+18	660,02
1019,0	6,868E-1	3,523E+18	751,76	6,469E-1	3,319E+18	660,67
1020,0	6,969E-1	3,579E+18	752,45	6,565E-1	3,371E+18	661,32
1021,0	6,997E-1	3,596E+18	753,15	6,591E-1	3,388E+18	661,98
1022,0	6,877E-1	3,538E+18	753,84	6,479E-1	3,333E+18	662,63
1023,0	6,931E-1	3,569E+18	754,53	6,530E-1	3,363E+18	663,28
1024,0	6,886E-1	3,550E+18	755,22	6,489E-1	3,345E+18	663,93
1025,0	6,955E-1	3,589E+18	755,91	6,554E-1	3,382E+18	664,59
1026,0	6,943E-1	3,586E+18	756,61	6,543E-1	3,380E+18	665,24
1027,0	6,910E-1	3,573E+18	757,30	6,513E-1	3,367E+18	665,90
1028,0	6,918E-1	3,580E+18	757,99	6,521E-1	3,375E+18	666,55
1029,0	6,843E-1	3,545E+18	758,68	6,450E-1	3,341E+18	667,19
1030,0	6,885E-1	3,570E+18	759,37	6,490E-1	3,365E+18	667,84
1031,0	6,854E-1	3,557E+18	760,05	6,461E-1	3,353E+18	668,49
1032,0	6,859E-1	3,563E+18	760,74	6,466E-1	3,359E+18	669,13
1033,0	6,742E-1	3,506E+18	761,41	6,357E-1	3,306E+18	669,77
1034,0	6,782E-1	3,530E+18	762,09	6,395E-1	3,329E+18	670,41

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1035,0	6,804E-1	3,545E+18	762,77	6,416E-1	3,343E+18	671,05
1036,0	6,800E-1	3,547E+18	763,45	6,414E-1	3,345E+18	671,69
1037,0	6,730E-1	3,513E+18	764,13	6,348E-1	3,314E+18	672,33
1038,0	6,698E-1	3,500E+18	764,79	6,318E-1	3,301E+18	672,96
1039,0	6,744E-1	3,527E+18	765,47	6,362E-1	3,327E+18	673,59
1040,0	6,697E-1	3,506E+18	766,14	6,318E-1	3,308E+18	674,23
1041,0	6,698E-1	3,510E+18	766,81	6,319E-1	3,312E+18	674,86
1042,0	6,700E-1	3,515E+18	767,48	6,322E-1	3,316E+18	675,49
1043,0	6,633E-1	3,483E+18	768,14	6,259E-1	3,286E+18	676,12
1044,0	6,664E-1	3,502E+18	768,81	6,288E-1	3,305E+18	676,74
1045,0	6,626E-1	3,486E+18	769,47	6,253E-1	3,289E+18	677,37
1046,0	6,453E-1	3,398E+18	770,12	6,090E-1	3,207E+18	677,98
1047,0	6,550E-1	3,452E+18	770,77	6,183E-1	3,259E+18	678,60
1048,0	6,608E-1	3,486E+18	771,43	6,238E-1	3,291E+18	679,22
1049,0	6,570E-1	3,470E+18	772,09	6,203E-1	3,275E+18	679,84
1050,0	6,527E-1	3,450E+18	772,74	6,162E-1	3,257E+18	680,46
1051,0	6,533E-1	3,457E+18	773,39	6,168E-1	3,264E+18	681,07
1052,0	6,493E-1	3,439E+18	774,04	6,131E-1	3,247E+18	681,69
1053,0	6,473E-1	3,431E+18	774,69	6,112E-1	3,240E+18	682,30
1054,0	6,446E-1	3,420E+18	775,34	6,087E-1	3,230E+18	682,91
1055,0	6,466E-1	3,434E+18	775,98	6,106E-1	3,243E+18	683,52
1056,0	6,445E-1	3,426E+18	776,63	6,088E-1	3,236E+18	684,13
1057,0	6,429E-1	3,421E+18	777,27	6,073E-1	3,232E+18	684,73
1058,0	6,363E-1	3,389E+18	777,91	6,011E-1	3,202E+18	685,34
1059,0	6,170E-1	3,289E+18	778,53	5,828E-1	3,107E+18	685,92
1060,0	6,340E-1	3,383E+18	779,15	5,990E-1	3,196E+18	686,51
1061,0	6,194E-1	3,308E+18	779,78	5,852E-1	3,126E+18	687,11
1062,0	6,308E-1	3,373E+18	780,40	5,961E-1	3,187E+18	687,70
1063,0	6,206E-1	3,321E+18	781,03	5,864E-1	3,138E+18	688,29
1064,0	6,301E-1	3,375E+18	781,65	5,955E-1	3,190E+18	688,88
1065,0	6,273E-1	3,363E+18	782,28	5,929E-1	3,179E+18	689,47
1066,0	6,153E-1	3,302E+18	782,90	5,816E-1	3,121E+18	690,06
1067,0	6,185E-1	3,322E+18	783,52	5,847E-1	3,140E+18	690,64
1068,0	6,176E-1	3,321E+18	784,14	5,839E-1	3,139E+18	691,22
1069,0	5,846E-1	3,146E+18	784,73	5,527E-1	2,974E+18	691,78
1070,0	6,029E-1	3,248E+18	785,32	5,701E-1	3,071E+18	692,34
1071,0	6,148E-1	3,315E+18	785,93	5,813E-1	3,134E+18	692,92
1072,0	6,136E-1	3,311E+18	786,55	5,802E-1	3,131E+18	693,51
1073,0	6,019E-1	3,251E+18	787,16	5,692E-1	3,075E+18	694,08
1074,0	6,198E-1	3,351E+18	787,77	5,861E-1	3,169E+18	694,66
1075,0	5,908E-1	3,197E+18	788,37	5,589E-1	3,025E+18	695,23

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1076,0	6,129E-1	3,320E+18	788,97	5,797E-1	3,140E+18	695,80
1077,0	6,026E-1	3,267E+18	789,58	5,701E-1	3,091E+18	696,37
1078,0	6,015E-1	3,264E+18	790,18	5,691E-1	3,088E+18	696,94
1079,0	6,030E-1	3,275E+18	790,78	5,704E-1	3,099E+18	697,51
1080,0	5,955E-1	3,238E+18	791,38	5,635E-1	3,064E+18	698,08
1081,0	5,791E-1	3,152E+18	791,96	5,481E-1	2,983E+18	698,63
1082,0	5,877E-1	3,201E+18	792,54	5,561E-1	3,029E+18	699,18
1083,0	5,964E-1	3,252E+18	793,14	5,644E-1	3,077E+18	699,74
1084,0	5,768E-1	3,148E+18	793,72	5,462E-1	2,980E+18	700,29
1085,0	5,916E-1	3,231E+18	794,31	5,600E-1	3,059E+18	700,85
1086,0	5,525E-1	3,021E+18	794,87	5,234E-1	2,862E+18	701,38
1087,0	5,653E-1	3,094E+18	795,43	5,353E-1	2,929E+18	701,91
1088,0	5,914E-1	3,239E+18	796,01	5,600E-1	3,067E+18	702,46
1089,0	5,775E-1	3,166E+18	796,60	5,470E-1	2,999E+18	703,02
1090,0	5,541E-1	3,041E+18	797,16	5,250E-1	2,881E+18	703,55
1091,0	5,866E-1	3,222E+18	797,73	5,556E-1	3,051E+18	704,09
1092,0	5,795E-1	3,186E+18	798,32	5,489E-1	3,017E+18	704,65
1093,0	5,091E-1	2,801E+18	798,84	4,828E-1	2,656E+18	705,14
1094,0	5,381E-1	2,963E+18	799,36	5,097E-1	2,807E+18	705,63
1095,0	5,192E-1	2,862E+18	799,89	4,922E-1	2,713E+18	706,13
1096,0	5,018E-1	2,768E+18	800,39	4,759E-1	2,626E+18	706,61
1097,0	5,768E-1	3,186E+18	800,94	5,465E-1	3,018E+18	707,13
1098,0	5,014E-1	2,772E+18	801,48	4,757E-1	2,629E+18	707,65
1099,0	5,062E-1	2,801E+18	801,97	4,802E-1	2,657E+18	708,11
1100,0	4,844E-1	2,682E+18	802,46	4,598E-1	2,546E+18	708,57
1101,0	4,955E-1	2,746E+18	802,95	4,703E-1	2,607E+18	709,04
1102,0	4,675E-1	2,593E+18	803,42	4,438E-1	2,462E+18	709,49
1103,0	4,650E-1	2,582E+18	803,88	4,416E-1	2,452E+18	709,92
1104,0	4,663E-1	2,592E+18	804,35	4,428E-1	2,461E+18	710,37
1105,0	5,050E-1	2,809E+18	804,84	4,793E-1	2,666E+18	710,84
1106,0	3,968E-1	2,209E+18	805,28	3,773E-1	2,101E+18	711,25
1107,0	4,816E-1	2,684E+18	805,71	4,573E-1	2,549E+18	711,66
1108,0	4,144E-1	2,312E+18	806,16	3,940E-1	2,198E+18	712,09
1109,0	4,116E-1	2,298E+18	806,56	3,914E-1	2,185E+18	712,47
1110,0	4,776E-1	2,669E+18	807,02	4,536E-1	2,535E+18	712,90
1111,0	3,306E-1	1,849E+18	807,40	3,148E-1	1,761E+18	713,27
1112,0	4,124E-1	2,308E+18	807,76	3,922E-1	2,195E+18	713,61
1113,0	2,677E-1	1,500E+18	808,08	2,552E-1	1,430E+18	713,92
1114,0	2,990E-1	1,677E+18	808,34	2,849E-1	1,598E+18	714,16
1115,0	2,491E-1	1,398E+18	808,61	2,376E-1	1,334E+18	714,42
1116,0	2,008E-1	1,128E+18	808,81	1,917E-1	1,077E+18	714,61

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1117,0	7,939E-2	4,464E+17	808,91	7,594E-2	4,270E+17	714,70
1118,0	2,169E-1	1,221E+18	809,06	2,070E-1	1,165E+18	714,85
1119,0	1,128E-1	6,357E+17	809,23	1,079E-1	6,078E+17	715,01
1120,0	1,415E-1	7,977E+17	809,34	1,352E-1	7,624E+17	715,11
1121,0	1,853E-1	1,046E+18	809,52	1,770E-1	9,989E+17	715,29
1122,0	8,145E-2	4,600E+17	809,64	7,793E-2	4,402E+17	715,40
1123,0	1,278E-1	7,225E+17	809,73	1,222E-1	6,908E+17	715,49
1124,0	1,084E-1	6,133E+17	809,85	1,037E-1	5,866E+17	715,61
1125,0	1,439E-1	8,147E+17	809,98	1,375E-1	7,789E+17	715,73
1126,0	5,144E-2	2,916E+17	810,07	4,925E-2	2,792E+17	715,81
1127,0	1,568E-1	8,896E+17	810,17	1,499E-1	8,504E+17	715,91
1128,0	9,894E-2	5,618E+17	810,31	9,467E-2	5,376E+17	716,05
1129,0	1,056E-1	6,002E+17	810,40	1,010E-1	5,742E+17	716,13
1130,0	7,037E-2	4,003E+17	810,48	6,737E-2	3,832E+17	716,21
1131,0	2,947E-1	1,678E+18	810,71	2,812E-1	1,601E+18	716,43
1132,0	2,334E-1	1,330E+18	811,02	2,229E-1	1,270E+18	716,72
1133,0	1,529E-1	8,719E+17	811,18	1,462E-1	8,338E+17	716,87
1134,0	4,162E-2	2,376E+17	811,23	3,987E-2	2,276E+17	716,92
1135,0	1,542E-2	8,809E+16	811,22	1,478E-2	8,443E+16	716,91
1136,0	1,284E-1	7,342E+17	811,31	1,228E-1	7,025E+17	717,00
1137,0	2,870E-1	1,643E+18	811,59	2,739E-1	1,568E+18	717,27
1138,0	2,027E-1	1,161E+18	811,85	1,937E-1	1,110E+18	717,52
1139,0	2,976E-1	1,707E+18	812,11	2,840E-1	1,629E+18	717,76
1140,0	2,552E-1	1,465E+18	812,40	2,438E-1	1,399E+18	718,04
1141,0	1,928E-1	1,108E+18	812,59	1,843E-1	1,059E+18	718,22
1142,0	2,241E-1	1,289E+18	812,79	2,142E-1	1,231E+18	718,42
1143,0	3,109E-1	1,789E+18	813,09	2,967E-1	1,707E+18	718,70
1144,0	1,129E-1	6,504E+17	813,28	1,081E-1	6,226E+17	718,88
1145,0	1,456E-1	8,393E+17	813,36	1,394E-1	8,032E+17	718,96
1146,0	1,572E-1	9,068E+17	813,53	1,504E-1	8,677E+17	719,12
1147,0	5,900E-2	3,407E+17	813,61	5,655E-2	3,265E+17	719,20
1148,0	2,703E-1	1,562E+18	813,81	2,582E-1	1,492E+18	719,38
1149,0	2,179E-1	1,260E+18	814,09	2,083E-1	1,205E+18	719,65
1150,0	1,213E-1	7,022E+17	814,22	1,161E-1	6,724E+17	719,78
1151,0	2,028E-1	1,175E+18	814,38	1,940E-1	1,124E+18	719,93
1152,0	2,469E-1	1,432E+18	814,64	2,360E-1	1,369E+18	720,18
1153,0	2,374E-1	1,378E+18	814,89	2,270E-1	1,317E+18	720,42
1154,0	1,421E-1	8,253E+17	815,05	1,360E-1	7,903E+17	720,57
1155,0	3,123E-1	1,816E+18	815,30	2,982E-1	1,734E+18	720,81
1156,0	2,801E-1	1,630E+18	815,63	2,676E-1	1,557E+18	721,12
1157,0	3,137E-1	1,827E+18	815,92	2,995E-1	1,745E+18	721,41

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1158,0	3,108E-1	1,812E+18	816,24	2,968E-1	1,730E+18	721,71
1159,0	3,360E-1	1,960E+18	816,57	3,207E-1	1,871E+18	722,03
1160,0	2,856E-1	1,668E+18	816,88	2,729E-1	1,594E+18	722,32
1161,0	3,465E-1	2,025E+18	817,20	3,307E-1	1,933E+18	722,62
1162,0	3,490E-1	2,042E+18	817,56	3,332E-1	1,949E+18	722,97
1163,0	4,672E-1	2,735E+18	818,00	4,451E-1	2,606E+18	723,39
1164,0	4,007E-1	2,348E+18	818,44	3,822E-1	2,240E+18	723,81
1165,0	3,875E-1	2,272E+18	818,82	3,697E-1	2,168E+18	724,17
1166,0	3,739E-1	2,194E+18	819,19	3,568E-1	2,094E+18	724,53
1167,0	4,088E-1	2,401E+18	819,59	3,899E-1	2,291E+18	724,91
1168,0	4,183E-1	2,460E+18	820,01	3,990E-1	2,346E+18	725,31
1169,0	4,219E-1	2,483E+18	820,44	4,023E-1	2,368E+18	725,71
1170,0	4,574E-1	2,694E+18	820,89	4,360E-1	2,568E+18	726,14
1171,0	4,470E-1	2,635E+18	821,35	4,263E-1	2,513E+18	726,58
1172,0	4,535E-1	2,676E+18	821,79	4,324E-1	2,551E+18	727,01
1173,0	4,551E-1	2,687E+18	822,25	4,340E-1	2,563E+18	727,44
1174,0	3,359E-1	1,985E+18	822,62	3,210E-1	1,897E+18	727,79
1175,0	4,511E-1	2,668E+18	823,01	4,302E-1	2,544E+18	728,17
1176,0	4,754E-1	2,814E+18	823,51	4,531E-1	2,683E+18	728,64
1177,0	4,710E-1	2,791E+18	823,99	4,491E-1	2,661E+18	729,10
1178,0	3,590E-1	2,129E+18	824,37	3,429E-1	2,034E+18	729,47
1179,0	4,823E-1	2,863E+18	824,80	4,598E-1	2,729E+18	729,87
1180,0	4,394E-1	2,610E+18	825,28	4,193E-1	2,491E+18	730,33
1181,0	4,538E-1	2,698E+18	825,72	4,330E-1	2,574E+18	730,75
1182,0	3,222E-1	1,917E+18	826,07	3,081E-1	1,834E+18	731,09
1183,0	4,374E-1	2,605E+18	826,45	4,173E-1	2,485E+18	731,45
1184,0	4,186E-1	2,495E+18	826,90	3,997E-1	2,382E+18	731,88
1185,0	4,062E-1	2,423E+18	827,31	3,880E-1	2,314E+18	732,27
1186,0	4,758E-1	2,841E+18	827,76	4,539E-1	2,710E+18	732,70
1187,0	4,544E-1	2,715E+18	828,24	4,337E-1	2,591E+18	733,16
1188,0	3,341E-1	1,998E+18	828,60	3,195E-1	1,911E+18	733,50
1189,0	4,145E-1	2,481E+18	828,96	3,957E-1	2,368E+18	733,85
1190,0	4,610E-1	2,762E+18	829,43	4,400E-1	2,636E+18	734,30
1191,0	4,453E-1	2,670E+18	829,89	4,251E-1	2,549E+18	734,74
1192,0	4,720E-1	2,832E+18	830,35	4,504E-1	2,703E+18	735,18
1193,0	4,530E-1	2,721E+18	830,82	4,324E-1	2,597E+18	735,62
1194,0	4,675E-1	2,810E+18	831,28	4,462E-1	2,682E+18	736,06
1195,0	4,457E-1	2,681E+18	831,73	4,255E-1	2,560E+18	736,49
1196,0	4,301E-1	2,589E+18	832,16	4,107E-1	2,473E+18	736,90
1197,0	4,758E-1	2,867E+18	832,62	4,539E-1	2,735E+18	737,34
1198,0	4,327E-1	2,609E+18	833,08	4,131E-1	2,491E+18	737,78

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1199,0	3,638E-1	2,196E+18	833,45	3,477E-1	2,099E+18	738,13
1200,0	4,469E-1	2,700E+18	833,86	4,266E-1	2,577E+18	738,52
1201,0	4,358E-1	2,635E+18	834,31	4,161E-1	2,516E+18	738,96
1202,0	4,359E-1	2,638E+18	834,75	4,162E-1	2,519E+18	739,37
1203,0	4,328E-1	2,621E+18	835,18	4,132E-1	2,502E+18	739,79
1204,0	3,614E-1	2,191E+18	835,56	3,454E-1	2,094E+18	740,15
1205,0	4,357E-1	2,643E+18	835,96	4,159E-1	2,523E+18	740,53
1206,0	4,795E-1	2,911E+18	836,45	4,574E-1	2,777E+18	740,99
1207,0	4,286E-1	2,604E+18	836,90	4,092E-1	2,487E+18	741,42
1208,0	4,322E-1	2,628E+18	837,32	4,126E-1	2,509E+18	741,82
1209,0	4,131E-1	2,514E+18	837,74	3,943E-1	2,400E+18	742,22
1210,0	4,520E-1	2,754E+18	838,17	4,314E-1	2,628E+18	742,64
1211,0	4,211E-1	2,567E+18	838,61	4,020E-1	2,451E+18	743,06
1212,0	4,237E-1	2,585E+18	839,03	4,045E-1	2,468E+18	743,46
1213,0	4,682E-1	2,859E+18	839,49	4,467E-1	2,728E+18	743,89
1214,0	4,328E-1	2,645E+18	839,94	4,132E-1	2,525E+18	744,33
1215,0	4,266E-1	2,609E+18	840,36	4,073E-1	2,491E+18	744,73
1216,0	4,650E-1	2,847E+18	840,81	4,438E-1	2,717E+18	745,16
1217,0	4,540E-1	2,781E+18	841,28	4,333E-1	2,655E+18	745,60
1218,0	4,580E-1	2,808E+18	841,73	4,371E-1	2,680E+18	746,04
1219,0	4,453E-1	2,733E+18	842,18	4,252E-1	2,609E+18	746,47
1220,0	4,567E-1	2,805E+18	842,63	4,360E-1	2,678E+18	746,90
1221,0	4,640E-1	2,852E+18	843,10	4,428E-1	2,722E+18	747,34
1222,0	4,501E-1	2,769E+18	843,55	4,297E-1	2,643E+18	747,78
1223,0	4,428E-1	2,726E+18	843,99	4,228E-1	2,603E+18	748,20
1224,0	4,468E-1	2,753E+18	844,44	4,266E-1	2,629E+18	748,62
1225,0	4,610E-1	2,843E+18	844,90	4,401E-1	2,714E+18	749,06
1226,0	4,668E-1	2,881E+18	845,36	4,457E-1	2,751E+18	749,51
1227,0	4,318E-1	2,667E+18	845,81	4,124E-1	2,547E+18	749,93
1228,0	4,652E-1	2,876E+18	846,25	4,441E-1	2,746E+18	750,36
1229,0	4,659E-1	2,882E+18	846,73	4,448E-1	2,752E+18	750,81
1230,0	4,587E-1	2,840E+18	847,19	4,380E-1	2,712E+18	751,25
1231,0	4,707E-1	2,917E+18	847,66	4,494E-1	2,785E+18	751,69
1232,0	4,650E-1	2,884E+18	848,12	4,440E-1	2,753E+18	752,14
1233,0	4,527E-1	2,810E+18	848,58	4,323E-1	2,684E+18	752,58
1234,0	4,688E-1	2,912E+18	849,04	4,476E-1	2,781E+18	753,02
1235,0	4,637E-1	2,883E+18	849,51	4,428E-1	2,753E+18	753,46
1236,0	4,677E-1	2,910E+18	849,98	4,466E-1	2,779E+18	753,91
1237,0	4,620E-1	2,877E+18	850,44	4,413E-1	2,748E+18	754,35
1238,0	4,666E-1	2,908E+18	850,90	4,456E-1	2,777E+18	754,80
1239,0	4,614E-1	2,878E+18	851,37	4,407E-1	2,749E+18	755,24

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1240,0	4,594E-1	2,868E+18	851,83	4,388E-1	2,739E+18	755,68
1241,0	4,606E-1	2,878E+18	852,29	4,400E-1	2,749E+18	756,12
1242,0	4,611E-1	2,883E+18	852,75	4,405E-1	2,754E+18	756,56
1243,0	4,562E-1	2,855E+18	853,20	4,358E-1	2,727E+18	756,99
1244,0	4,540E-1	2,843E+18	853,66	4,337E-1	2,716E+18	757,43
1245,0	4,552E-1	2,853E+18	854,11	4,350E-1	2,726E+18	757,86
1246,0	4,581E-1	2,874E+18	854,57	4,377E-1	2,746E+18	758,30
1247,0	4,561E-1	2,863E+18	855,03	4,359E-1	2,736E+18	758,74
1248,0	4,573E-1	2,873E+18	855,48	4,370E-1	2,746E+18	759,17
1249,0	4,583E-1	2,882E+18	855,94	4,380E-1	2,754E+18	759,61
1250,0	4,557E-1	2,868E+18	856,40	4,356E-1	2,741E+18	760,05
1251,0	4,513E-1	2,842E+18	856,85	4,313E-1	2,716E+18	760,48
1252,0	4,497E-1	2,834E+18	857,30	4,298E-1	2,709E+18	760,91
1253,0	4,464E-1	2,816E+18	857,75	4,268E-1	2,692E+18	761,33
1254,0	4,423E-1	2,792E+18	858,19	4,229E-1	2,670E+18	761,76
1255,0	4,494E-1	2,839E+18	858,64	4,296E-1	2,714E+18	762,18
1256,0	4,390E-1	2,775E+18	859,08	4,197E-1	2,654E+18	762,61
1257,0	4,341E-1	2,747E+18	859,51	4,151E-1	2,627E+18	763,02
1258,0	4,437E-1	2,810E+18	859,95	4,243E-1	2,687E+18	763,44
1259,0	4,260E-1	2,700E+18	860,38	4,075E-1	2,583E+18	763,86
1260,0	4,298E-1	2,727E+18	860,81	4,112E-1	2,608E+18	764,26
1261,0	4,103E-1	2,604E+18	861,22	3,926E-1	2,492E+18	764,66
1262,0	3,945E-1	2,506E+18	861,62	3,776E-1	2,399E+18	765,04
1263,0	3,990E-1	2,537E+18	862,01	3,819E-1	2,428E+18	765,41
1264,0	3,704E-1	2,357E+18	862,39	3,546E-1	2,257E+18	765,78
1265,0	3,946E-1	2,513E+18	862,77	3,776E-1	2,405E+18	766,14
1266,0	3,842E-1	2,448E+18	863,17	3,677E-1	2,344E+18	766,52
1267,0	3,871E-1	2,469E+18	863,55	3,705E-1	2,363E+18	766,89
1268,0	3,694E-1	2,358E+18	863,92	3,537E-1	2,258E+18	767,24
1269,0	2,458E-1	1,570E+18	864,20	2,359E-1	1,507E+18	767,51
1270,0	3,863E-1	2,470E+18	864,52	3,698E-1	2,364E+18	767,81
1271,0	4,071E-1	2,605E+18	864,95	3,895E-1	2,492E+18	768,23
1272,0	4,076E-1	2,610E+18	865,37	3,900E-1	2,497E+18	768,63
1273,0	4,051E-1	2,596E+18	865,77	3,876E-1	2,484E+18	769,01
1274,0	4,050E-1	2,597E+18	866,18	3,875E-1	2,485E+18	769,40
1275,0	4,111E-1	2,639E+18	866,59	3,934E-1	2,525E+18	769,79
1276,0	4,157E-1	2,670E+18	867,00	3,978E-1	2,555E+18	770,19
1277,0	4,188E-1	2,692E+18	867,42	4,007E-1	2,576E+18	770,59
1278,0	4,264E-1	2,743E+18	867,85	4,080E-1	2,625E+18	771,00
1279,0	4,233E-1	2,726E+18	868,27	4,051E-1	2,608E+18	771,41
1280,0	4,208E-1	2,712E+18	868,69	4,027E-1	2,595E+18	771,81

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1281,0	4,121E-1	2,658E+18	869,11	3,944E-1	2,543E+18	772,20
1282,0	3,720E-1	2,401E+18	869,49	3,559E-1	2,297E+18	772,57
1283,0	4,061E-1	2,623E+18	869,87	3,886E-1	2,510E+18	772,94
1284,0	4,196E-1	2,712E+18	870,30	4,015E-1	2,595E+18	773,35
1285,0	4,228E-1	2,735E+18	870,72	4,046E-1	2,617E+18	773,75
1286,0	4,259E-1	2,757E+18	871,15	4,076E-1	2,639E+18	774,16
1287,0	4,209E-1	2,727E+18	871,57	4,029E-1	2,610E+18	774,56
1288,0	4,187E-1	2,715E+18	871,99	4,008E-1	2,598E+18	774,96
1289,0	4,082E-1	2,649E+18	872,40	3,908E-1	2,536E+18	775,36
1290,0	4,117E-1	2,673E+18	872,81	3,941E-1	2,559E+18	775,75
1291,0	4,166E-1	2,708E+18	873,23	3,989E-1	2,592E+18	776,15
1292,0	3,950E-1	2,569E+18	873,63	3,784E-1	2,461E+18	776,53
1293,0	4,114E-1	2,678E+18	874,03	3,939E-1	2,564E+18	776,92
1294,0	4,030E-1	2,625E+18	874,44	3,860E-1	2,514E+18	777,31
1295,0	4,040E-1	2,634E+18	874,84	3,869E-1	2,522E+18	777,69
1296,0	3,884E-1	2,534E+18	875,23	3,721E-1	2,428E+18	778,07
1297,0	3,702E-1	2,417E+18	875,60	3,548E-1	2,317E+18	778,42
1298,0	3,907E-1	2,553E+18	875,98	3,743E-1	2,446E+18	778,79
1299,0	4,073E-1	2,664E+18	876,39	3,901E-1	2,551E+18	779,18
1300,0	3,521E-1	2,304E+18	876,76	3,376E-1	2,209E+18	779,54
1301,0	3,612E-1	2,366E+18	877,11	3,463E-1	2,268E+18	779,87
1302,0	3,907E-1	2,561E+18	877,49	3,743E-1	2,453E+18	780,24
1303,0	3,452E-1	2,264E+18	877,86	3,310E-1	2,171E+18	780,58
1304,0	2,997E-1	1,968E+18	878,16	2,877E-1	1,888E+18	780,87
1305,0	3,827E-1	2,514E+18	878,51	3,668E-1	2,409E+18	781,21
1306,0	3,834E-1	2,521E+18	878,91	3,675E-1	2,416E+18	781,60
1307,0	3,051E-1	2,007E+18	879,24	2,928E-1	1,926E+18	781,91
1308,0	3,460E-1	2,278E+18	879,55	3,318E-1	2,185E+18	782,21
1309,0	3,830E-1	2,524E+18	879,94	3,672E-1	2,419E+18	782,58
1310,0	3,003E-1	1,980E+18	880,27	2,882E-1	1,901E+18	782,89
1311,0	3,327E-1	2,196E+18	880,57	3,192E-1	2,107E+18	783,19
1312,0	3,324E-1	2,195E+18	880,91	3,189E-1	2,106E+18	783,51
1313,0	3,126E-1	2,066E+18	881,23	3,000E-1	1,983E+18	783,82
1314,0	2,875E-1	1,902E+18	881,52	2,761E-1	1,826E+18	784,10
1315,0	2,850E-1	1,887E+18	881,80	2,737E-1	1,812E+18	784,36
1316,0	3,232E-1	2,142E+18	882,11	3,102E-1	2,055E+18	784,66
1317,0	3,113E-1	2,064E+18	882,43	2,988E-1	1,981E+18	784,98
1318,0	3,323E-1	2,205E+18	882,76	3,189E-1	2,116E+18	785,29
1319,0	2,678E-1	1,778E+18	883,05	2,573E-1	1,708E+18	785,56
1320,0	2,580E-1	1,714E+18	883,29	2,479E-1	1,647E+18	785,80
1321,0	2,978E-1	1,980E+18	883,58	2,860E-1	1,902E+18	786,07

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1322,0	3,013E-1	2,005E+18	883,89	2,894E-1	1,926E+18	786,37
1323,0	2,321E-1	1,546E+18	884,14	2,232E-1	1,487E+18	786,61
1324,0	2,617E-1	1,744E+18	884,37	2,516E-1	1,677E+18	786,84
1325,0	3,213E-1	2,143E+18	884,69	3,085E-1	2,058E+18	787,14
1326,0	2,797E-1	1,867E+18	884,99	2,688E-1	1,794E+18	787,43
1327,0	2,655E-1	1,773E+18	885,25	2,552E-1	1,705E+18	787,68
1328,0	2,338E-1	1,563E+18	885,49	2,249E-1	1,504E+18	787,91
1329,0	1,771E-1	1,185E+18	885,67	1,705E-1	1,141E+18	788,09
1330,0	2,286E-1	1,530E+18	885,87	2,199E-1	1,472E+18	788,28
1331,0	1,444E-1	9,674E+17	886,05	1,391E-1	9,321E+17	788,45
1332,0	1,454E-1	9,747E+17	886,18	1,401E-1	9,391E+17	788,57
1333,0	2,025E-1	1,359E+18	886,37	1,949E-1	1,308E+18	788,75
1334,0	1,688E-1	1,133E+18	886,56	1,625E-1	1,092E+18	788,94
1335,0	2,305E-1	1,549E+18	886,76	2,218E-1	1,491E+18	789,14
1336,0	1,829E-1	1,230E+18	886,97	1,762E-1	1,185E+18	789,34
1337,0	1,641E-1	1,104E+18	887,13	1,581E-1	1,064E+18	789,49
1338,0	1,775E-1	1,196E+18	887,30	1,710E-1	1,152E+18	789,65
1339,0	1,763E-1	1,188E+18	887,48	1,698E-1	1,145E+18	789,83
1340,0	1,678E-1	1,132E+18	887,65	1,617E-1	1,091E+18	789,99
1341,0	1,699E-1	1,147E+18	887,82	1,637E-1	1,105E+18	790,15
1342,0	1,775E-1	1,199E+18	887,99	1,710E-1	1,155E+18	790,32
1343,0	1,267E-1	8,569E+17	888,13	1,222E-1	8,264E+17	790,46
1344,0	7,542E-2	5,103E+17	888,21	7,281E-2	4,926E+17	790,53
1345,0	1,087E-1	7,361E+17	888,30	1,049E-1	7,103E+17	790,62
1346,0	5,802E-2	3,931E+17	888,38	5,603E-2	3,796E+17	790,69
1347,0	5,994E-2	4,065E+17	888,42	5,789E-2	3,925E+17	790,74
1348,0	4,731E-3	3,211E+16	888,44	4,573E-3	3,103E+16	790,76
1349,0	1,611E-2	1,094E+17	888,44	1,557E-2	1,058E+17	790,76
1350,0	1,598E-2	1,086E+17	888,46	1,544E-2	1,050E+17	790,77
1351,0	4,616E-3	3,140E+16	888,47	4,463E-3	3,035E+16	790,78
1352,0	1,512E-3	1,029E+16	888,47	1,462E-3	9,949E+15	790,78
1353,0	9,582E-5	6,526E+14	888,47	9,265E-5	6,310E+14	790,78
1354,0	2,892E-4	1,972E+15	888,47	2,797E-4	1,906E+15	790,78
1355,0	3,593E-6	2,451E+13	888,47	3,475E-6	2,370E+13	790,78
1356,0	4,793E-5	3,272E+14	888,47	4,635E-5	3,164E+14	790,78
1357,0	7,158E-5	4,890E+14	888,47	6,923E-5	4,729E+14	790,78
1358,0	4,183E-6	2,859E+13	888,47	4,046E-6	2,766E+13	790,78
1359,0	7,323E-7	5,010E+12	888,47	7,083E-7	4,846E+12	790,78
1360,0	2,134E-6	1,461E+13	888,47	2,065E-6	1,414E+13	790,78
1361,0	4,799E-9	3,288E+10	888,47	4,643E-9	3,181E+10	790,78
1362,0	1,802E-11	1,236E+8	888,47	1,744E-11	1,196E+8	790,78

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1363,0	3,147E-6	2,159E+13	888,47	3,045E-6	2,089E+13	790,78
1364,0	1,355E-6	9,304E+12	888,47	1,311E-6	9,003E+12	790,78
1365,0	9,050E-12	6,219E+7	888,47	8,758E-12	6,018E+7	790,78
1366,0	1,275E-5	8,770E+13	888,47	1,234E-5	8,488E+13	790,78
1367,0	4,962E-6	3,415E+13	888,47	4,802E-6	3,305E+13	790,78
1368,0	1,477E-13	1,017E+6	888,47	1,427E-13	9,827E+5	790,78
1369,0	5,152E-7	3,550E+12	888,47	4,986E-7	3,436E+12	790,78
1370,0	2,912E-7	2,008E+12	888,47	2,818E-7	1,944E+12	790,78
1371,0	1,967E-8	1,358E+11	888,47	1,905E-8	1,315E+11	790,78
1372,0	2,742E-6	1,894E+13	888,47	2,655E-6	1,833E+13	790,78
1373,0	4,427E-5	3,060E+14	888,47	4,287E-5	2,963E+14	790,78
1374,0	1,787E-4	1,236E+15	888,47	1,730E-4	1,197E+15	790,78
1375,0	3,224E-4	2,232E+15	888,47	3,122E-4	2,161E+15	790,78
1376,0	2,567E-4	1,778E+15	888,47	2,486E-4	1,722E+15	790,78
1377,0	1,223E-4	8,481E+14	888,47	1,185E-4	8,213E+14	790,78
1378,0	1,106E-3	7,670E+15	888,47	1,071E-3	7,429E+15	790,78
1379,0	5,201E-5	3,611E+14	888,47	5,039E-5	3,498E+14	790,78
1380,0	8,135E-5	5,651E+14	888,47	7,881E-5	5,475E+14	790,78
1381,0	2,365E-6	1,644E+13	888,47	2,291E-6	1,593E+13	790,78
1382,0	2,560E-6	1,781E+13	888,47	2,480E-6	1,726E+13	790,78
1383,0	4,389E-8	3,056E+11	888,47	4,253E-8	2,961E+11	790,78
1384,0	6,151E-7	4,286E+12	888,47	5,961E-7	4,153E+12	790,78
1385,0	2,084E-6	1,453E+13	888,47	2,020E-6	1,408E+13	790,78
1386,0	2,514E-6	1,754E+13	888,47	2,437E-6	1,700E+13	790,78
1387,0	1,984E-4	1,385E+15	888,47	1,923E-4	1,343E+15	790,78
1388,0	4,015E-6	2,805E+13	888,47	3,892E-6	2,720E+13	790,78
1389,0	5,793E-4	4,051E+15	888,47	5,617E-4	3,928E+15	790,78
1390,0	4,918E-4	3,442E+15	888,47	4,770E-4	3,338E+15	790,78
1391,0	3,428E-4	2,401E+15	888,47	3,325E-4	2,328E+15	790,78
1392,0	2,371E-5	1,662E+14	888,47	2,300E-5	1,612E+14	790,78
1393,0	1,155E-4	8,101E+14	888,47	1,121E-4	7,858E+14	790,78
1394,0	7,531E-5	5,285E+14	888,47	7,305E-5	5,127E+14	790,78
1395,0	6,694E-7	4,701E+12	888,47	6,495E-7	4,561E+12	790,78
1396,0	6,303E-9	4,430E+10	888,47	6,116E-9	4,298E+10	790,78
1397,0	4,891E-5	3,440E+14	888,47	4,747E-5	3,338E+14	790,78
1398,0	1,267E-3	8,915E+15	888,47	1,229E-3	8,652E+15	790,78
1399,0	8,099E-4	5,704E+15	888,47	7,861E-4	5,536E+15	790,79
1400,0	3,237E-9	2,282E+10	888,47	3,142E-9	2,215E+10	790,79
1401,0	1,050E-8	7,404E+10	888,47	1,019E-8	7,186E+10	790,79
1402,0	1,830E-3	1,292E+16	888,47	1,777E-3	1,254E+16	790,79
1403,0	2,373E-3	1,676E+16	888,48	2,304E-3	1,627E+16	790,79

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1404,0	7,368E-4	5,207E+15	888,48	7,155E-4	5,057E+15	790,79
1405,0	3,634E-7	2,570E+12	888,48	3,529E-7	2,496E+12	790,79
1406,0	2,039E-3	1,443E+16	888,48	1,980E-3	1,402E+16	790,79
1407,0	1,741E-4	1,233E+15	888,48	1,691E-4	1,198E+15	790,79
1408,0	1,645E-3	1,166E+16	888,48	1,598E-3	1,132E+16	790,79
1409,0	6,174E-4	4,379E+15	888,48	5,998E-4	4,255E+15	790,80
1410,0	4,652E-4	3,302E+15	888,48	4,520E-4	3,208E+15	790,80
1411,0	2,108E-3	1,497E+16	888,48	2,048E-3	1,455E+16	790,80
1412,0	2,632E-3	1,871E+16	888,49	2,558E-3	1,818E+16	790,80
1413,0	2,329E-2	1,656E+17	888,51	2,262E-2	1,609E+17	790,82
1414,0	3,627E-4	2,582E+15	888,52	3,526E-4	2,510E+15	790,83
1415,0	1,831E-4	1,304E+15	888,51	1,780E-4	1,268E+15	790,82
1416,0	3,546E-2	2,528E+17	888,54	3,446E-2	2,456E+17	790,85
1417,0	1,173E-2	8,364E+16	888,56	1,140E-2	8,130E+16	790,87
1418,0	1,352E-2	9,651E+16	888,57	1,314E-2	9,382E+16	790,88
1419,0	2,138E-3	1,527E+16	888,58	2,079E-3	1,485E+16	790,89
1420,0	8,248E-3	5,896E+16	888,58	8,020E-3	5,733E+16	790,89
1421,0	9,137E-3	6,536E+16	888,59	8,886E-3	6,356E+16	790,90
1422,0	4,618E-2	3,306E+17	888,63	4,489E-2	3,214E+17	790,94
1423,0	9,193E-3	6,585E+16	888,66	8,941E-3	6,405E+16	790,96
1424,0	1,693E-2	1,213E+17	888,66	1,646E-2	1,180E+17	790,97
1425,0	2,578E-2	1,849E+17	888,69	2,507E-2	1,798E+17	790,99
1426,0	2,771E-2	1,989E+17	888,72	2,695E-2	1,935E+17	791,02
1427,0	4,940E-2	3,549E+17	888,76	4,804E-2	3,451E+17	791,07
1428,0	4,546E-3	3,268E+16	888,78	4,423E-3	3,180E+16	791,09
1429,0	3,791E-2	2,727E+17	888,80	3,688E-2	2,653E+17	791,10
1430,0	6,142E-2	4,422E+17	888,87	5,974E-2	4,300E+17	791,17
1431,0	5,001E-2	3,603E+17	888,92	4,865E-2	3,505E+17	791,22
1432,0	2,512E-3	1,811E+16	888,94	2,445E-3	1,763E+16	791,24
1433,0	3,573E-2	2,578E+17	888,95	3,477E-2	2,508E+17	791,25
1434,0	2,090E-2	1,509E+17	888,98	2,034E-2	1,469E+17	791,28
1435,0	2,135E-2	1,543E+17	889,00	2,079E-2	1,502E+17	791,30
1436,0	3,824E-2	2,764E+17	889,04	3,722E-2	2,690E+17	791,33
1437,0	2,979E-2	2,155E+17	889,07	2,900E-2	2,098E+17	791,37
1438,0	1,322E-2	9,573E+16	889,09	1,288E-2	9,321E+16	791,38
1439,0	5,089E-2	3,687E+17	889,12	4,953E-2	3,588E+17	791,42
1440,0	3,949E-2	2,862E+17	889,18	3,844E-2	2,786E+17	791,47
1441,0	3,171E-2	2,300E+17	889,21	3,087E-2	2,239E+17	791,50
1442,0	3,621E-2	2,629E+17	889,24	3,525E-2	2,559E+17	791,53
1443,0	4,493E-2	3,264E+17	889,28	4,374E-2	3,177E+17	791,57
1444,0	6,161E-2	4,479E+17	889,34	5,997E-2	4,359E+17	791,63

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1445,0	4,961E-2	3,609E+17	889,40	4,829E-2	3,513E+17	791,69
1446,0	2,303E-2	1,676E+17	889,43	2,243E-2	1,633E+17	791,71
1447,0	3,611E-2	2,630E+17	889,45	3,516E-2	2,561E+17	791,74
1448,0	1,154E-1	8,409E+17	889,55	1,122E-1	8,180E+17	791,84
1449,0	1,018E-1	7,428E+17	889,68	9,908E-2	7,228E+17	791,96
1450,0	2,733E-2	1,995E+17	889,72	2,662E-2	1,943E+17	792,00
1451,0	1,124E-2	8,209E+16	889,72	1,095E-2	7,997E+16	792,00
1452,0	6,218E-2	4,545E+17	889,76	6,054E-2	4,425E+17	792,04
1453,0	8,174E-2	5,979E+17	889,85	7,957E-2	5,820E+17	792,13
1454,0	1,372E-1	1,004E+18	889,98	1,335E-1	9,768E+17	792,25
1455,0	6,596E-2	4,831E+17	890,08	6,422E-2	4,704E+17	792,35
1456,0	8,825E-2	6,469E+17	890,14	8,591E-2	6,297E+17	792,41
1457,0	1,167E-1	8,557E+17	890,26	1,135E-1	8,327E+17	792,52
1458,0	1,360E-1	9,984E+17	890,40	1,323E-1	9,714E+17	792,66
1459,0	1,626E-1	1,194E+18	890,56	1,581E-1	1,162E+18	792,81
1460,0	8,517E-2	6,260E+17	890,67	8,292E-2	6,094E+17	792,92
1461,0	9,001E-2	6,620E+17	890,74	8,763E-2	6,445E+17	792,99
1462,0	1,302E-1	9,584E+17	890,86	1,267E-1	9,326E+17	793,11
1463,0	4,310E-2	3,174E+17	890,93	4,198E-2	3,092E+17	793,18
1464,0	1,514E-1	1,116E+18	891,04	1,473E-1	1,085E+18	793,28
1465,0	9,311E-2	6,867E+17	891,17	9,065E-2	6,685E+17	793,41
1466,0	6,501E-2	4,798E+17	891,23	6,331E-2	4,673E+17	793,47
1467,0	3,595E-2	2,655E+17	891,26	3,503E-2	2,587E+17	793,50
1468,0	7,672E-2	5,670E+17	891,32	7,471E-2	5,521E+17	793,56
1469,0	9,457E-2	6,993E+17	891,42	9,208E-2	6,809E+17	793,66
1470,0	4,953E-2	3,666E+17	891,49	4,826E-2	3,571E+17	793,72
1471,0	1,780E-2	1,318E+17	891,50	1,734E-2	1,284E+17	793,73
1472,0	4,664E-2	3,456E+17	891,53	4,543E-2	3,367E+17	793,77
1473,0	6,999E-2	5,190E+17	891,61	6,817E-2	5,055E+17	793,83
1474,0	9,706E-2	7,202E+17	891,70	9,449E-2	7,011E+17	793,93
1475,0	1,841E-1	1,367E+18	891,87	1,790E-1	1,329E+18	794,09
1476,0	6,858E-2	5,096E+17	891,99	6,679E-2	4,963E+17	794,21
1477,0	6,953E-2	5,170E+17	892,03	6,772E-2	5,035E+17	794,25
1478,0	6,330E-2	4,709E+17	892,10	6,165E-2	4,587E+17	794,31
1479,0	1,197E-1	8,909E+17	892,20	1,165E-1	8,671E+17	794,41
1480,0	6,046E-2	4,505E+17	892,29	5,889E-2	4,388E+17	794,50
1481,0	1,150E-1	8,570E+17	892,38	1,119E-1	8,341E+17	794,58
1482,0	5,832E-2	4,351E+17	892,46	5,680E-2	4,238E+17	794,67
1483,0	1,482E-1	1,106E+18	892,57	1,441E-1	1,076E+18	794,78
1484,0	1,371E-1	1,024E+18	892,74	1,334E-1	9,963E+17	794,93
1485,0	1,247E-1	9,320E+17	892,86	1,213E-1	9,070E+17	795,06

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1486,0	1,230E-1	9,204E+17	892,98	1,197E-1	8,957E+17	795,17
1487,0	6,045E-2	4,525E+17	893,06	5,887E-2	4,407E+17	795,25
1488,0	9,391E-2	7,034E+17	893,13	9,139E-2	6,846E+17	795,31
1489,0	1,892E-1	1,418E+18	893,30	1,839E-1	1,378E+18	795,48
1490,0	1,743E-1	1,307E+18	893,50	1,694E-1	1,271E+18	795,68
1491,0	1,972E-1	1,480E+18	893,69	1,917E-1	1,439E+18	795,86
1492,0	1,639E-1	1,231E+18	893,87	1,594E-1	1,197E+18	796,04
1493,0	1,810E-1	1,361E+18	894,04	1,760E-1	1,323E+18	796,20
1494,0	2,031E-1	1,527E+18	894,24	1,974E-1	1,484E+18	796,40
1495,0	1,820E-1	1,370E+18	894,43	1,769E-1	1,332E+18	796,58
1496,0	1,680E-1	1,265E+18	894,60	1,634E-1	1,230E+18	796,74
1497,0	2,278E-1	1,717E+18	894,81	2,213E-1	1,668E+18	796,95
1498,0	1,891E-1	1,426E+18	895,02	1,838E-1	1,386E+18	797,16
1499,0	2,170E-1	1,637E+18	895,22	2,108E-1	1,591E+18	797,35
1500,0	2,499E-1	1,887E+18	895,47	2,427E-1	1,833E+18	797,59
1501,0	2,648E-1	2,001E+18	895,74	2,571E-1	1,943E+18	797,85
1502,0	2,329E-1	1,761E+18	895,98	2,262E-1	1,711E+18	798,09
1503,0	1,844E-1	1,395E+18	896,17	1,792E-1	1,356E+18	798,27
1504,0	1,598E-1	1,210E+18	896,33	1,554E-1	1,177E+18	798,42
1505,0	1,835E-1	1,390E+18	896,50	1,783E-1	1,351E+18	798,59
1506,0	2,570E-1	1,948E+18	896,74	2,495E-1	1,892E+18	798,83
1507,0	2,544E-1	1,930E+18	897,01	2,471E-1	1,874E+18	799,09
1508,0	2,423E-1	1,840E+18	897,26	2,354E-1	1,787E+18	799,33
1509,0	1,864E-1	1,416E+18	897,46	1,812E-1	1,376E+18	799,52
1510,0	2,697E-1	2,050E+18	897,69	2,619E-1	1,991E+18	799,75
1511,0	2,640E-1	2,008E+18	897,98	2,564E-1	1,950E+18	800,03
1512,0	2,599E-1	1,978E+18	898,24	2,524E-1	1,921E+18	800,28
1513,0	2,417E-1	1,841E+18	898,48	2,348E-1	1,788E+18	800,52
1514,0	2,251E-1	1,715E+18	898,71	2,187E-1	1,667E+18	800,74
1515,0	2,650E-1	2,021E+18	898,96	2,573E-1	1,962E+18	800,98
1516,0	2,561E-1	1,954E+18	899,23	2,487E-1	1,898E+18	801,24
1517,0	2,486E-1	1,898E+18	899,47	2,414E-1	1,844E+18	801,48
1518,0	2,514E-1	1,921E+18	899,72	2,442E-1	1,866E+18	801,72
1519,0	2,437E-1	1,863E+18	899,97	2,367E-1	1,810E+18	801,96
1520,0	2,637E-1	2,018E+18	900,23	2,561E-1	1,960E+18	802,21
1521,0	2,743E-1	2,100E+18	900,50	2,663E-1	2,039E+18	802,48
1522,0	2,630E-1	2,015E+18	900,77	2,554E-1	1,957E+18	802,74
1523,0	2,792E-1	2,141E+18	901,04	2,711E-1	2,079E+18	803,01
1524,0	2,746E-1	2,107E+18	901,32	2,667E-1	2,046E+18	803,28
1525,0	2,581E-1	1,981E+18	901,59	2,507E-1	1,924E+18	803,53
1526,0	2,667E-1	2,049E+18	901,85	2,590E-1	1,990E+18	803,78

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1527,0	2,614E-1	2,010E+18	902,11	2,539E-1	1,952E+18	804,04
1528,0	2,785E-1	2,142E+18	902,38	2,704E-1	2,080E+18	804,31
1529,0	2,717E-1	2,091E+18	902,66	2,638E-1	2,031E+18	804,58
1530,0	2,545E-1	1,960E+18	902,92	2,472E-1	1,904E+18	804,83
1531,0	2,689E-1	2,073E+18	903,18	2,612E-1	2,013E+18	805,08
1532,0	2,776E-1	2,141E+18	903,46	2,696E-1	2,079E+18	805,35
1533,0	2,763E-1	2,133E+18	903,74	2,684E-1	2,071E+18	805,62
1534,0	2,681E-1	2,071E+18	904,01	2,605E-1	2,011E+18	805,88
1535,0	2,661E-1	2,056E+18	904,27	2,585E-1	1,997E+18	806,14
1536,0	2,738E-1	2,117E+18	904,54	2,660E-1	2,057E+18	806,40
1537,0	2,726E-1	2,109E+18	904,82	2,648E-1	2,049E+18	806,67
1538,0	2,712E-1	2,100E+18	905,09	2,635E-1	2,040E+18	806,93
1539,0	2,722E-1	2,109E+18	905,36	2,644E-1	2,049E+18	807,20
1540,0	2,641E-1	2,048E+18	905,63	2,566E-1	1,990E+18	807,46
1541,0	2,683E-1	2,081E+18	905,89	2,607E-1	2,022E+18	807,72
1542,0	2,685E-1	2,084E+18	906,16	2,609E-1	2,025E+18	807,98
1543,0	2,713E-1	2,107E+18	906,43	2,636E-1	2,048E+18	808,24
1544,0	2,713E-1	2,109E+18	906,70	2,637E-1	2,049E+18	808,50
1545,0	2,762E-1	2,149E+18	906,98	2,684E-1	2,088E+18	808,77
1546,0	2,740E-1	2,133E+18	907,25	2,663E-1	2,072E+18	809,04
1547,0	2,723E-1	2,121E+18	907,53	2,646E-1	2,061E+18	809,30
1548,0	2,660E-1	2,073E+18	907,79	2,584E-1	2,014E+18	809,56
1549,0	2,726E-1	2,126E+18	908,06	2,649E-1	2,066E+18	809,83
1550,0	2,691E-1	2,100E+18	908,34	2,615E-1	2,040E+18	810,09
1551,0	2,698E-1	2,107E+18	908,60	2,622E-1	2,047E+18	810,35
1552,0	2,710E-1	2,118E+18	908,87	2,634E-1	2,058E+18	810,61
1553,0	2,705E-1	2,115E+18	909,15	2,629E-1	2,055E+18	810,88
1554,0	2,640E-1	2,065E+18	909,41	2,565E-1	2,007E+18	811,13
1555,0	2,668E-1	2,089E+18	909,68	2,593E-1	2,030E+18	811,39
1556,0	2,623E-1	2,055E+18	909,94	2,549E-1	1,997E+18	811,65
1557,0	2,698E-1	2,115E+18	910,21	2,622E-1	2,056E+18	811,91
1558,0	2,677E-1	2,100E+18	910,48	2,602E-1	2,041E+18	812,17
1559,0	2,673E-1	2,098E+18	910,74	2,598E-1	2,039E+18	812,43
1560,0	2,649E-1	2,080E+18	911,01	2,575E-1	2,022E+18	812,69
1561,0	2,692E-1	2,116E+18	911,28	2,617E-1	2,056E+18	812,95
1562,0	2,668E-1	2,098E+18	911,54	2,593E-1	2,039E+18	813,21
1563,0	2,659E-1	2,092E+18	911,81	2,584E-1	2,033E+18	813,47
1564,0	2,619E-1	2,062E+18	912,07	2,545E-1	2,004E+18	813,72
1565,0	2,665E-1	2,100E+18	912,34	2,590E-1	2,040E+18	813,98
1566,0	2,617E-1	2,063E+18	912,60	2,543E-1	2,005E+18	814,24
1567,0	2,623E-1	2,069E+18	912,86	2,549E-1	2,011E+18	814,49

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1568,0	2,565E-1	2,024E+18	913,12	2,492E-1	1,967E+18	814,74
1569,0	2,538E-1	2,005E+18	913,37	2,466E-1	1,948E+18	814,99
1570,0	2,410E-1	1,905E+18	913,62	2,343E-1	1,852E+18	815,22
1571,0	2,344E-1	1,854E+18	913,85	2,278E-1	1,802E+18	815,45
1572,0	2,371E-1	1,876E+18	914,08	2,304E-1	1,823E+18	815,68
1573,0	2,334E-1	1,848E+18	914,32	2,268E-1	1,796E+18	815,91
1574,0	2,408E-1	1,908E+18	914,56	2,340E-1	1,854E+18	816,14
1575,0	2,390E-1	1,895E+18	914,80	2,323E-1	1,842E+18	816,37
1576,0	2,461E-1	1,952E+18	915,04	2,391E-1	1,897E+18	816,61
1577,0	2,154E-1	1,710E+18	915,27	2,093E-1	1,662E+18	816,83
1578,0	2,345E-1	1,863E+18	915,49	2,279E-1	1,810E+18	817,04
1579,0	2,360E-1	1,876E+18	915,73	2,294E-1	1,823E+18	817,28
1580,0	2,439E-1	1,940E+18	915,97	2,370E-1	1,885E+18	817,51
1581,0	2,480E-1	1,974E+18	916,22	2,410E-1	1,918E+18	817,75
1582,0	2,412E-1	1,921E+18	916,47	2,344E-1	1,867E+18	817,99
1583,0	2,468E-1	1,967E+18	916,71	2,398E-1	1,911E+18	818,23
1584,0	2,483E-1	1,980E+18	916,96	2,412E-1	1,924E+18	818,47
1585,0	2,580E-1	2,059E+18	917,21	2,506E-1	2,000E+18	818,72
1586,0	2,549E-1	2,036E+18	917,47	2,477E-1	1,977E+18	818,97
1587,0	2,523E-1	2,016E+18	917,72	2,451E-1	1,958E+18	819,21
1588,0	2,503E-1	2,001E+18	917,97	2,432E-1	1,944E+18	819,46
1589,0	2,317E-1	1,853E+18	918,21	2,250E-1	1,800E+18	819,69
1590,0	2,411E-1	1,930E+18	918,44	2,342E-1	1,874E+18	819,91
1591,0	2,413E-1	1,932E+18	918,69	2,343E-1	1,877E+18	820,15
1592,0	2,515E-1	2,016E+18	918,94	2,443E-1	1,958E+18	820,39
1593,0	2,576E-1	2,066E+18	919,20	2,502E-1	2,006E+18	820,64
1594,0	2,555E-1	2,050E+18	919,45	2,482E-1	1,991E+18	820,89
1595,0	2,575E-1	2,067E+18	919,71	2,501E-1	2,008E+18	821,14
1596,0	2,438E-1	1,959E+18	919,96	2,368E-1	1,903E+18	821,38
1597,0	2,462E-1	1,979E+18	920,20	2,392E-1	1,923E+18	821,62
1598,0	2,535E-1	2,039E+18	920,45	2,462E-1	1,981E+18	821,86
1599,0	2,413E-1	1,943E+18	920,70	2,344E-1	1,887E+18	822,10
1600,0	2,374E-1	1,912E+18	920,93	2,307E-1	1,858E+18	822,33
1601,0	2,226E-1	1,794E+18	921,16	2,163E-1	1,743E+18	822,55
1602,0	2,235E-1	1,802E+18	921,38	2,172E-1	1,751E+18	822,76
1603,0	2,233E-1	1,802E+18	921,60	2,170E-1	1,751E+18	822,98
1604,0	2,278E-1	1,839E+18	921,83	2,213E-1	1,787E+18	823,20
1605,0	2,361E-1	1,908E+18	922,06	2,294E-1	1,854E+18	823,43
1606,0	2,407E-1	1,946E+18	922,31	2,339E-1	1,891E+18	823,66
1607,0	2,323E-1	1,879E+18	922,54	2,257E-1	1,826E+18	823,89
1608,0	2,292E-1	1,856E+18	922,77	2,228E-1	1,803E+18	824,11

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1609,0	2,266E-1	1,836E+18	923,00	2,202E-1	1,784E+18	824,33
1610,0	2,170E-1	1,759E+18	923,21	2,108E-1	1,709E+18	824,55
1611,0	2,261E-1	1,834E+18	923,44	2,198E-1	1,782E+18	824,76
1612,0	2,301E-1	1,867E+18	923,67	2,236E-1	1,814E+18	824,99
1613,0	2,365E-1	1,920E+18	923,90	2,298E-1	1,866E+18	825,22
1614,0	2,377E-1	1,931E+18	924,14	2,309E-1	1,876E+18	825,45
1615,0	2,403E-1	1,954E+18	924,38	2,335E-1	1,899E+18	825,68
1616,0	2,298E-1	1,870E+18	924,61	2,233E-1	1,817E+18	825,91
1617,0	2,340E-1	1,905E+18	924,85	2,273E-1	1,850E+18	826,13
1618,0	2,428E-1	1,978E+18	925,09	2,359E-1	1,922E+18	826,37
1619,0	2,403E-1	1,959E+18	925,33	2,335E-1	1,903E+18	826,60
1620,0	2,338E-1	1,907E+18	925,56	2,272E-1	1,853E+18	826,83
1621,0	2,336E-1	1,906E+18	925,80	2,270E-1	1,852E+18	827,06
1622,0	2,369E-1	1,934E+18	926,03	2,301E-1	1,879E+18	827,29
1623,0	2,418E-1	1,975E+18	926,27	2,349E-1	1,919E+18	827,52
1624,0	2,420E-1	1,978E+18	926,52	2,351E-1	1,922E+18	827,76
1625,0	2,371E-1	1,940E+18	926,76	2,304E-1	1,885E+18	827,99
1626,0	2,390E-1	1,956E+18	926,99	2,323E-1	1,901E+18	828,22
1627,0	2,401E-1	1,966E+18	927,23	2,333E-1	1,911E+18	828,45
1628,0	2,406E-1	1,972E+18	927,47	2,338E-1	1,916E+18	828,69
1629,0	2,407E-1	1,974E+18	927,71	2,339E-1	1,918E+18	828,92
1630,0	2,358E-1	1,935E+18	927,95	2,292E-1	1,881E+18	829,15
1631,0	2,374E-1	1,949E+18	928,19	2,307E-1	1,894E+18	829,38
1632,0	2,375E-1	1,951E+18	928,43	2,308E-1	1,897E+18	829,61
1633,0	2,320E-1	1,907E+18	928,66	2,255E-1	1,854E+18	829,84
1634,0	2,321E-1	1,910E+18	928,89	2,256E-1	1,856E+18	830,06
1635,0	2,330E-1	1,918E+18	929,12	2,265E-1	1,864E+18	830,29
1636,0	2,347E-1	1,933E+18	929,36	2,281E-1	1,879E+18	830,52
1637,0	2,263E-1	1,865E+18	929,59	2,200E-1	1,813E+18	830,74
1638,0	2,194E-1	1,809E+18	929,80	2,133E-1	1,759E+18	830,95
1639,0	2,196E-1	1,812E+18	930,02	2,135E-1	1,761E+18	831,16
1640,0	2,145E-1	1,771E+18	930,24	2,085E-1	1,722E+18	831,37
1641,0	2,190E-1	1,809E+18	930,45	2,129E-1	1,758E+18	831,58
1642,0	2,202E-1	1,820E+18	930,68	2,140E-1	1,769E+18	831,80
1643,0	2,147E-1	1,776E+18	930,89	2,088E-1	1,727E+18	832,01
1644,0	2,229E-1	1,845E+18	931,11	2,167E-1	1,793E+18	832,22
1645,0	2,176E-1	1,802E+18	931,33	2,115E-1	1,752E+18	832,44
1646,0	2,169E-1	1,797E+18	931,55	2,109E-1	1,747E+18	832,65
1647,0	2,270E-1	1,882E+18	931,77	2,207E-1	1,830E+18	832,86
1648,0	2,159E-1	1,791E+18	931,99	2,100E-1	1,742E+18	833,08
1649,0	2,180E-1	1,810E+18	932,21	2,120E-1	1,760E+18	833,29

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1650,0	2,246E-1	1,866E+18	932,43	2,184E-1	1,814E+18	833,51
1651,0	2,079E-1	1,728E+18	932,65	2,022E-1	1,681E+18	833,71
1652,0	2,231E-1	1,855E+18	932,86	2,169E-1	1,804E+18	833,92
1653,0	2,221E-1	1,848E+18	933,09	2,160E-1	1,797E+18	834,14
1654,0	2,152E-1	1,792E+18	933,30	2,093E-1	1,743E+18	834,35
1655,0	2,217E-1	1,847E+18	933,52	2,156E-1	1,796E+18	834,57
1656,0	2,204E-1	1,837E+18	933,74	2,143E-1	1,787E+18	834,78
1657,0	2,216E-1	1,848E+18	933,97	2,155E-1	1,798E+18	835,00
1658,0	2,242E-1	1,871E+18	934,19	2,181E-1	1,820E+18	835,21
1659,0	2,206E-1	1,842E+18	934,41	2,145E-1	1,792E+18	835,43
1660,0	2,227E-1	1,861E+18	934,63	2,166E-1	1,810E+18	835,65
1661,0	2,232E-1	1,866E+18	934,86	2,171E-1	1,815E+18	835,86
1662,0	2,184E-1	1,828E+18	935,08	2,125E-1	1,778E+18	836,08
1663,0	2,217E-1	1,856E+18	935,30	2,157E-1	1,806E+18	836,29
1664,0	2,203E-1	1,846E+18	935,52	2,144E-1	1,796E+18	836,51
1665,0	2,112E-1	1,770E+18	935,73	2,055E-1	1,722E+18	836,71
1666,0	1,783E-1	1,496E+18	935,91	1,736E-1	1,456E+18	836,89
1667,0	2,101E-1	1,763E+18	936,11	2,044E-1	1,716E+18	837,08
1668,0	2,140E-1	1,797E+18	936,33	2,082E-1	1,748E+18	837,30
1669,0	2,145E-1	1,803E+18	936,54	2,088E-1	1,754E+18	837,51
1670,0	2,210E-1	1,858E+18	936,76	2,151E-1	1,808E+18	837,72
1671,0	2,182E-1	1,835E+18	936,98	2,123E-1	1,786E+18	837,93
1672,0	2,109E-1	1,775E+18	937,20	2,052E-1	1,727E+18	838,14
1673,0	2,157E-1	1,816E+18	937,41	2,099E-1	1,768E+18	838,35
1674,0	2,151E-1	1,813E+18	937,63	2,094E-1	1,765E+18	838,56
1675,0	2,130E-1	1,796E+18	937,84	2,073E-1	1,748E+18	838,77
1676,0	2,108E-1	1,779E+18	938,05	2,052E-1	1,732E+18	838,97
1677,0	2,117E-1	1,787E+18	938,26	2,061E-1	1,740E+18	839,18
1678,0	2,085E-1	1,762E+18	938,47	2,031E-1	1,715E+18	839,38
1679,0	2,124E-1	1,795E+18	938,68	2,068E-1	1,748E+18	839,59
1680,0	2,050E-1	1,734E+18	938,89	1,996E-1	1,688E+18	839,79
1681,0	1,939E-1	1,641E+18	939,08	1,888E-1	1,598E+18	839,98
1682,0	2,031E-1	1,719E+18	939,28	1,977E-1	1,674E+18	840,17
1683,0	2,085E-1	1,766E+18	939,49	2,030E-1	1,720E+18	840,37
1684,0	1,974E-1	1,673E+18	939,69	1,923E-1	1,630E+18	840,57
1685,0	2,126E-1	1,803E+18	939,90	2,070E-1	1,756E+18	840,77
1686,0	2,097E-1	1,779E+18	940,11	2,042E-1	1,733E+18	840,98
1687,0	2,042E-1	1,735E+18	940,32	1,989E-1	1,689E+18	841,18
1688,0	2,095E-1	1,780E+18	940,52	2,041E-1	1,734E+18	841,38
1689,0	2,066E-1	1,756E+18	940,73	2,012E-1	1,711E+18	841,58
1690,0	2,046E-1	1,741E+18	940,94	1,993E-1	1,696E+18	841,78

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1691,0	1,925E-1	1,638E+18	941,13	1,875E-1	1,596E+18	841,97
1692,0	2,065E-1	1,759E+18	941,33	2,012E-1	1,713E+18	842,17
1693,0	2,107E-1	1,796E+18	941,55	2,053E-1	1,750E+18	842,38
1694,0	2,042E-1	1,741E+18	941,75	1,989E-1	1,696E+18	842,58
1695,0	2,091E-1	1,784E+18	941,96	2,037E-1	1,738E+18	842,78
1696,0	2,086E-1	1,781E+18	942,17	2,032E-1	1,735E+18	842,98
1697,0	1,805E-1	1,542E+18	942,36	1,760E-1	1,503E+18	843,17
1698,0	2,068E-1	1,768E+18	942,55	2,015E-1	1,722E+18	843,35
1699,0	2,049E-1	1,753E+18	942,76	1,997E-1	1,708E+18	843,56
1700,0	1,992E-1	1,705E+18	942,96	1,941E-1	1,661E+18	843,76
1702,0	2,034E-1	1,742E+18	943,46	1,982E-1	1,698E+18	844,25
1705,0	1,972E-1	1,693E+18	944,16	1,922E-1	1,650E+18	844,93
1710,0	1,874E-1	1,613E+18	945,31	1,826E-1	1,572E+18	846,04
1715,0	1,891E-1	1,633E+18	946,24	1,844E-1	1,592E+18	846,95
1720,0	1,864E-1	1,614E+18	947,17	1,818E-1	1,574E+18	847,86
1725,0	1,776E-1	1,542E+18	948,07	1,732E-1	1,504E+18	848,74
1730,0	1,736E-1	1,512E+18	948,93	1,693E-1	1,474E+18	849,58
1735,0	1,611E-1	1,407E+18	949,75	1,571E-1	1,372E+18	850,37
1740,0	1,677E-1	1,469E+18	950,56	1,636E-1	1,433E+18	851,17
1745,0	1,544E-1	1,356E+18	951,36	1,506E-1	1,323E+18	851,94
1750,0	1,652E-1	1,455E+18	952,15	1,612E-1	1,420E+18	852,72
1755,0	1,526E-1	1,348E+18	952,95	1,489E-1	1,315E+18	853,49
1760,0	1,595E-1	1,413E+18	953,72	1,556E-1	1,379E+18	854,25
1765,0	1,325E-1	1,177E+18	954,42	1,293E-1	1,149E+18	854,94
1770,0	1,413E-1	1,259E+18	955,09	1,379E-1	1,229E+18	855,58
1775,0	1,145E-1	1,023E+18	955,70	1,118E-1	9,990E+17	856,18
1780,0	1,002E-1	8,979E+17	956,19	9,786E-2	8,769E+17	856,66
1785,0	7,676E-2	6,897E+17	956,58	7,498E-2	6,738E+17	857,04
1790,0	8,865E-2	7,988E+17	956,98	8,658E-2	7,802E+17	857,43
1795,0	4,679E-2	4,228E+17	957,28	4,573E-2	4,132E+17	857,73
1800,0	3,174E-2	2,876E+17	957,41	3,102E-2	2,811E+17	857,85
1805,0	1,477E-2	1,342E+17	957,49	1,444E-2	1,312E+17	857,92
1810,0	9,663E-3	8,805E+16	957,52	9,449E-3	8,609E+16	857,96
1815,0	3,272E-3	2,990E+16	957,54	3,200E-3	2,924E+16	857,98
1820,0	9,847E-4	9,022E+15	957,54	9,630E-4	8,823E+15	857,97
1825,0	1,271E-3	1,167E+16	957,54	1,243E-3	1,142E+16	857,98
1830,0	5,189E-6	4,780E+13	957,54	5,075E-6	4,675E+13	857,98
1835,0	6,400E-6	5,912E+13	957,54	6,260E-6	5,783E+13	857,98
1840,0	6,252E-8	5,791E+11	957,54	6,116E-8	5,665E+11	857,98
1845,0	6,248E-6	5,803E+13	957,54	6,112E-6	5,677E+13	857,98
1850,0	2,991E-6	2,785E+13	957,54	2,926E-6	2,725E+13	857,98

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
1855,0	2,831E-7	2,644E+12	957,54	2,771E-7	2,588E+12	857,98
1860,0	1,112E-5	1,041E+14	957,54	1,089E-5	1,020E+14	857,98
1865,0	1,693E-5	1,590E+14	957,54	1,660E-5	1,558E+14	857,98
1870,0	2,658E-10	2,503E+9	957,54	2,607E-10	2,454E+9	857,98
1875,0	4,500E-10	4,247E+9	957,54	4,417E-10	4,169E+9	857,98
1880,0	7,728E-5	7,314E+14	957,54	7,590E-5	7,183E+14	857,98
1885,0	4,376E-5	4,153E+14	957,54	4,300E-5	4,081E+14	857,98
1890,0	2,227E-4	2,119E+15	957,54	2,189E-4	2,083E+15	857,98
1895,0	1,291E-4	1,232E+15	957,54	1,271E-4	1,212E+15	857,98
1900,0	8,597E-7	8,223E+12	957,54	8,467E-7	8,098E+12	857,98
1905,0	5,650E-7	5,419E+12	957,54	5,564E-7	5,335E+12	857,98
1910,0	2,298E-5	2,209E+14	957,54	2,266E-5	2,179E+14	857,98
1915,0	1,989E-5	1,917E+14	957,54	1,962E-5	1,891E+14	857,98
1920,0	4,494E-4	4,343E+15	957,55	4,432E-4	4,284E+15	857,98
1925,0	9,334E-4	9,046E+15	957,55	9,206E-4	8,921E+15	857,99
1930,0	5,508E-4	5,352E+15	957,55	5,432E-4	5,277E+15	857,99
1935,0	3,583E-3	3,490E+16	957,57	3,533E-3	3,441E+16	858,00
1940,0	3,273E-3	3,196E+16	957,59	3,226E-3	3,151E+16	858,02
1945,0	1,083E-2	1,061E+17	957,63	1,068E-2	1,045E+17	858,07
1950,0	1,668E-2	1,637E+17	957,72	1,643E-2	1,613E+17	858,15
1955,0	1,001E-2	9,848E+16	957,78	9,857E-3	9,701E+16	858,22
1960,0	2,184E-2	2,155E+17	957,87	2,151E-2	2,122E+17	858,30
1965,0	2,848E-2	2,817E+17	958,02	2,803E-2	2,773E+17	858,45
1970,0	4,871E-2	4,830E+17	958,24	4,792E-2	4,752E+17	858,67
1975,0	6,766E-2	6,727E+17	958,58	6,654E-2	6,615E+17	859,01
1980,0	7,529E-2	7,505E+17	958,98	7,402E-2	7,378E+17	859,39
1985,0	8,282E-2	8,276E+17	959,39	8,139E-2	8,133E+17	859,80
1990,0	8,536E-2	8,552E+17	959,82	8,388E-2	8,403E+17	860,22
1995,0	8,095E-2	8,130E+17	960,24	7,955E-2	7,990E+17	860,63
2000,0	3,805E-2	3,830E+17	960,47	3,738E-2	3,764E+17	860,86
2005,0	1,496E-2	1,510E+17	960,52	1,470E-2	1,484E+17	860,91
2010,0	3,963E-2	4,010E+17	960,66	3,896E-2	3,942E+17	861,05
2015,0	2,657E-2	2,695E+17	960,84	2,613E-2	2,651E+17	861,23
2020,0	4,485E-2	4,561E+17	961,03	4,411E-2	4,486E+17	861,41
2025,0	7,379E-2	7,523E+17	961,38	7,257E-2	7,398E+17	861,76
2030,0	8,461E-2	8,646E+17	961,83	8,322E-2	8,504E+17	862,20
2035,0	9,611E-2	9,845E+17	962,31	9,453E-2	9,684E+17	862,67
2040,0	8,952E-2	9,193E+17	962,78	8,809E-2	9,046E+17	863,13
2045,0	9,081E-2	9,349E+17	963,22	8,938E-2	9,201E+17	863,57
2050,0	6,773E-2	6,990E+17	963,59	6,670E-2	6,883E+17	863,93
2055,0	5,475E-2	5,664E+17	963,85	5,393E-2	5,579E+17	864,19

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
2060,0	6,899E-2	7,155E+17	964,16	6,796E-2	7,048E+17	864,49
2065,0	6,170E-2	6,413E+17	964,50	6,078E-2	6,319E+17	864,82
2070,0	6,548E-2	6,824E+17	964,81	6,453E-2	6,724E+17	865,13
2075,0	7,722E-2	8,066E+17	965,19	7,608E-2	7,947E+17	865,50
2080,0	8,656E-2	9,064E+17	965,63	8,528E-2	8,930E+17	865,93
2085,0	8,485E-2	8,906E+17	966,06	8,360E-2	8,775E+17	866,37
2090,0	8,884E-2	9,347E+17	966,50	8,752E-2	9,209E+17	866,80
2095,0	8,949E-2	9,438E+17	966,95	8,816E-2	9,298E+17	867,24
2100,0	8,588E-2	9,079E+17	967,39	8,462E-2	8,946E+17	867,67
2105,0	9,288E-2	9,843E+17	967,84	9,150E-2	9,696E+17	868,11
2110,0	8,939E-2	9,495E+17	968,30	8,806E-2	9,354E+17	868,57
2115,0	9,141E-2	9,732E+17	968,75	9,005E-2	9,587E+17	869,01
2120,0	8,733E-2	9,320E+17	969,19	8,603E-2	9,181E+17	869,45
2125,0	8,837E-2	9,454E+17	969,63	8,705E-2	9,312E+17	869,88
2130,0	8,951E-2	9,598E+17	970,08	8,816E-2	9,454E+17	870,32
2135,0	8,978E-2	9,650E+17	970,53	8,842E-2	9,503E+17	870,76
2140,0	9,050E-2	9,750E+17	970,98	8,913E-2	9,602E+17	871,21
2145,0	8,923E-2	9,635E+17	971,43	8,788E-2	9,489E+17	871,65
2150,0	8,439E-2	9,134E+17	971,85	8,313E-2	8,997E+17	872,07
2155,0	8,459E-2	9,177E+17	972,27	8,332E-2	9,039E+17	872,48
2160,0	8,392E-2	9,126E+17	972,69	8,267E-2	8,989E+17	872,89
2165,0	7,609E-2	8,293E+17	973,08	7,496E-2	8,169E+17	873,28
2170,0	8,176E-2	8,931E+17	973,47	8,054E-2	8,798E+17	873,66
2175,0	8,021E-2	8,783E+17	973,88	7,903E-2	8,653E+17	874,07
2180,0	8,157E-2	8,952E+17	974,29	8,036E-2	8,819E+17	874,46
2185,0	7,433E-2	8,176E+17	974,67	7,324E-2	8,057E+17	874,84
2190,0	7,884E-2	8,692E+17	975,05	7,768E-2	8,564E+17	875,22
2195,0	7,876E-2	8,703E+17	975,45	7,761E-2	8,575E+17	875,61
2200,0	7,099E-2	7,863E+17	975,81	6,997E-2	7,749E+17	875,97
2205,0	7,379E-2	8,191E+17	976,17	7,273E-2	8,074E+17	876,32
2210,0	7,908E-2	8,798E+17	976,56	7,795E-2	8,672E+17	876,71
2215,0	7,605E-2	8,480E+17	976,95	7,497E-2	8,360E+17	877,09
2220,0	7,750E-2	8,662E+17	977,33	7,641E-2	8,539E+17	877,47
2225,0	7,523E-2	8,427E+17	977,71	7,418E-2	8,309E+17	877,84
2230,0	7,555E-2	8,482E+17	978,09	7,451E-2	8,364E+17	878,21
2235,0	7,408E-2	8,335E+17	978,46	7,308E-2	8,222E+17	878,58
2240,0	7,291E-2	8,221E+17	978,82	7,193E-2	8,111E+17	878,94
2245,0	7,063E-2	7,983E+17	979,18	6,971E-2	7,878E+17	879,29
2250,0	7,173E-2	8,124E+17	979,53	7,083E-2	8,022E+17	879,64
2255,0	6,749E-2	7,662E+17	979,88	6,667E-2	7,568E+17	879,98
2260,0	6,673E-2	7,592E+17	980,21	6,595E-2	7,503E+17	880,30

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
2265,0	6,794E-2	7,747E+17	980,54	6,716E-2	7,658E+17	880,64
2270,0	6,468E-2	7,391E+17	980,87	6,395E-2	7,308E+17	880,96
2275,0	6,383E-2	7,311E+17	981,19	6,312E-2	7,229E+17	881,28
2280,0	6,610E-2	7,586E+17	981,52	6,536E-2	7,502E+17	881,60
2285,0	6,290E-2	7,235E+17	981,84	6,221E-2	7,156E+17	881,92
2290,0	6,304E-2	7,267E+17	982,15	6,235E-2	7,188E+17	882,22
2295,0	6,109E-2	7,058E+17	982,46	6,043E-2	6,981E+17	882,53
2300,0	5,865E-2	6,791E+17	982,75	5,802E-2	6,718E+17	882,82
2305,0	5,900E-2	6,846E+17	983,04	5,837E-2	6,773E+17	883,11
2310,0	6,368E-2	7,406E+17	983,35	6,301E-2	7,327E+17	883,42
2315,0	5,797E-2	6,756E+17	983,66	5,736E-2	6,685E+17	883,72
2320,0	5,188E-2	6,059E+17	983,92	5,134E-2	5,996E+17	883,97
2325,0	5,605E-2	6,560E+17	984,18	5,546E-2	6,492E+17	884,24
2330,0	5,666E-2	6,646E+17	984,47	5,607E-2	6,576E+17	884,52
2335,0	5,780E-2	6,794E+17	984,76	5,720E-2	6,723E+17	884,81
2340,0	4,570E-2	5,384E+17	985,01	4,523E-2	5,329E+17	885,05
2345,0	5,125E-2	6,050E+17	985,24	5,072E-2	5,988E+17	885,28
2350,0	4,142E-2	4,899E+17	985,47	4,100E-2	4,850E+17	885,51
2355,0	4,734E-2	5,612E+17	985,68	4,685E-2	5,554E+17	885,72
2360,0	5,009E-2	5,951E+17	985,94	4,958E-2	5,890E+17	885,97
2365,0	4,927E-2	5,865E+17	986,19	4,877E-2	5,806E+17	886,22
2370,0	3,073E-2	3,666E+17	986,36	3,043E-2	3,630E+17	886,40
2375,0	4,402E-2	5,263E+17	986,54	4,358E-2	5,210E+17	886,57
2380,0	4,243E-2	5,083E+17	986,78	4,201E-2	5,033E+17	886,80
2385,0	3,074E-2	3,690E+17	986,94	3,044E-2	3,654E+17	886,97
2390,0	3,700E-2	4,452E+17	987,10	3,664E-2	4,409E+17	887,13
2395,0	4,048E-2	4,880E+17	987,31	4,008E-2	4,833E+17	887,33
2400,0	4,402E-2	5,319E+17	987,53	4,360E-2	5,268E+17	887,55
2405,0	3,350E-2	4,056E+17	987,71	3,319E-2	4,018E+17	887,73
2410,0	3,371E-2	4,090E+17	987,87	3,341E-2	4,053E+17	887,89
2415,0	2,722E-2	3,309E+17	988,01	2,698E-2	3,280E+17	888,03
2420,0	2,651E-2	3,230E+17	988,14	2,628E-2	3,202E+17	888,15
2425,0	3,298E-2	4,026E+17	988,30	3,271E-2	3,993E+17	888,31
2430,0	4,497E-2	5,501E+17	988,51	4,460E-2	5,455E+17	888,53
2435,0	1,484E-2	1,818E+17	988,64	1,472E-2	1,805E+17	888,65
2440,0	4,312E-2	5,297E+17	988,78	4,280E-2	5,257E+17	888,79
2445,0	2,074E-2	2,552E+17	988,95	2,060E-2	2,535E+17	888,96
2450,0	1,357E-2	1,674E+17	989,00	1,348E-2	1,663E+17	889,01
2455,0	2,478E-2	3,063E+17	989,10	2,462E-2	3,043E+17	889,11
2460,0	3,327E-2	4,120E+17	989,27	3,306E-2	4,094E+17	889,28
2465,0	2,408E-2	2,988E+17	989,41	2,394E-2	2,971E+17	889,42

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
2470,0	1,668E-2	2,074E+17	989,49	1,659E-2	2,062E+17	889,50
2475,0	1,641E-2	2,044E+17	989,57	1,632E-2	2,033E+17	889,57
2480,0	8,016E-3	1,001E+17	989,62	7,976E-3	9,958E+16	889,62
2485,0	5,594E-3	6,998E+16	989,64	5,568E-3	6,965E+16	889,64
2490,0	3,501E-3	4,389E+16	989,65	3,486E-3	4,369E+16	889,66
2495,0	2,869E-3	3,603E+16	989,67	2,856E-3	3,588E+16	889,67
2500,0	7,044E-3	8,865E+16	989,70	7,012E-3	8,825E+16	889,70
2505,0	1,515E-3	1,910E+16	989,72	1,508E-3	1,902E+16	889,72
2510,0	2,210E-3	2,792E+16	989,72	2,200E-3	2,780E+16	889,72
2515,0	5,173E-4	6,549E+15	989,72	5,149E-4	6,520E+15	889,73
2520,0	3,695E-4	4,687E+15	989,72	3,677E-4	4,665E+15	889,73
2525,0	4,127E-5	5,246E+14	989,72	4,107E-5	5,221E+14	889,73
2530,0	6,341E-7	8,076E+12	989,72	6,309E-7	8,036E+12	889,73
2535,0	1,745E-7	2,227E+12	989,72	1,736E-7	2,216E+12	889,73
2540,0	3,761E-7	4,809E+12	989,72	3,741E-7	4,784E+12	889,73
2545,0	5,360E-11	6,867E+8	989,72	5,331E-11	6,830E+8	889,73
2550,0	2,814E-13	3,612E+6	989,72	2,798E-13	3,592E+6	889,73
2555,0	1,041E-9	1,338E+10	989,72	1,035E-9	1,331E+10	889,73
2560,0	3,093E-11	3,986E+8	989,72	3,075E-11	3,963E+8	889,73
2565,0	1,591E-14	2,054E+5	989,72	1,580E-14	2,040E+5	889,73
2570,0	1,521E-18	1,968E+1	989,72	1,511E-18	1,955E+1	889,73
2575,0	1,076E-27	1,394E-8	989,72	1,068E-27	1,384E-8	889,73
2580,0	3,810E-22	4,949E-3	989,72	3,782E-22	4,912E-3	889,73
2585,0	1,714E-34	2,231E-15	989,72	1,701E-34	2,214E-15	889,73
2590,0	5,463E-31	7,123E-12	989,72	5,421E-31	7,068E-12	889,73
2595,0	2,277E-33	2,975E-14	989,72	2,260E-33	2,952E-14	889,73
2600,0	4,478E-28	5,861E-9	989,72	4,443E-28	5,815E-9	889,73
2605,0	5,788E-35	7,591E-16	989,72	5,742E-35	7,531E-16	889,73
2610,0	5,927E-34	7,788E-15	989,72	5,880E-34	7,726E-15	889,73
2615,0	1,116E-37	1,470E-18	989,72	1,107E-37	1,458E-18	889,73
2620,0	5,634E-29	7,431E-10	989,72	5,589E-29	7,372E-10	889,73
2625,0	3,857E-28	5,097E-9	989,72	3,827E-28	5,057E-9	889,73
2630,0	2,794E-45	3,700E-26	989,72	2,794E-45	3,700E-26	889,73
2635,0	3,891E-16	5,162E+3	989,72	3,861E-16	5,121E+3	889,73
2640,0	1,172E-16	1,557E+3	989,72	1,162E-16	1,545E+3	889,73
2645,0	8,973E-19	1,195E+1	989,72	8,903E-19	1,186E+1	889,73
2650,0	1,425E-19	1,901E+0	989,72	1,415E-19	1,887E+0	889,73
2655,0	1,310E-27	1,750E-8	989,72	1,300E-27	1,737E-8	889,73
2660,0	2,599E-25	3,481E-6	989,72	2,581E-25	3,455E-6	889,73
2665,0	1,109E-37	1,488E-18	989,72	1,101E-37	1,478E-18	889,73
2670,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
2675,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2680,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2685,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2690,0	1,020E-29	1,381E-10	989,72	1,015E-29	1,374E-10	889,73
2695,0	7,108E-33	9,643E-14	989,72	7,081E-33	9,606E-14	889,73
2700,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2705,0	2,923E-42	3,980E-23	989,72	2,919E-42	3,975E-23	889,73
2710,0	1,122E-35	1,530E-16	989,72	1,121E-35	1,529E-16	889,73
2715,0	3,845E-26	5,255E-7	989,72	3,844E-26	5,253E-7	889,73
2720,0	5,589E-45	7,653E-26	989,72	5,589E-45	7,653E-26	889,73
2725,0	7,272E-22	9,976E-3	989,72	7,288E-22	9,998E-3	889,73
2730,0	6,056E-19	8,322E+0	989,72	6,075E-19	8,349E+0	889,73
2735,0	5,473E-21	7,535E-2	989,72	5,496E-21	7,567E-2	889,73
2740,0	2,325E-27	3,206E-8	989,72	2,337E-27	3,223E-8	889,73
2745,0	1,311E-23	1,811E-4	989,72	1,319E-23	1,822E-4	889,73
2750,0	1,660E-28	2,298E-9	989,72	1,671E-28	2,313E-9	889,73
2755,0	6,707E-44	9,301E-25	989,72	6,707E-44	9,301E-25	889,73
2760,0	0,000E+0	0,000E+0	989,72	0,000E+0	0,000E+0	889,73
2765,0	2,670E-27	3,716E-8	989,72	2,692E-27	3,747E-8	889,73
2770,0	8,355E-24	1,165E-4	989,72	8,428E-24	1,175E-4	889,73
2775,0	3,987E-38	5,570E-19	989,72	4,024E-38	5,622E-19	889,73
2780,0	4,793E-34	6,707E-15	989,72	4,839E-34	6,772E-15	889,73
2785,0	3,875E-27	5,433E-8	989,72	3,914E-27	5,488E-8	889,73
2790,0	1,214E-16	1,704E+3	989,72	1,226E-16	1,722E+3	889,73
2795,0	3,610E-16	5,079E+3	989,72	3,648E-16	5,134E+3	889,73
2800,0	1,644E-12	2,317E+7	989,72	1,662E-12	2,342E+7	889,73
2805,0	6,728E-14	9,501E+5	989,72	6,803E-14	9,606E+5	889,73
2810,0	4,012E-10	5,675E+9	989,72	4,058E-10	5,740E+9	889,73
2815,0	2,860E-10	4,053E+9	989,72	2,893E-10	4,100E+9	889,73
2820,0	2,049E-11	2,909E+8	989,72	2,073E-11	2,943E+8	889,73
2825,0	1,755E-7	2,496E+12	989,72	1,776E-7	2,526E+12	889,73
2830,0	3,889E-6	5,541E+13	989,72	3,936E-6	5,607E+13	889,73
2835,0	2,121E-10	3,028E+9	989,72	2,147E-10	3,064E+9	889,73
2840,0	1,955E-7	2,795E+12	989,72	1,979E-7	2,830E+12	889,73
2845,0	4,046E-5	5,794E+14	989,72	4,095E-5	5,866E+14	889,73
2850,0	1,153E-6	1,655E+13	989,72	1,167E-6	1,675E+13	889,73
2855,0	4,474E-7	6,430E+12	989,72	4,529E-7	6,510E+12	889,73
2860,0	2,528E-5	3,640E+14	989,72	2,560E-5	3,685E+14	889,73
2865,0	1,671E-4	2,411E+15	989,73	1,692E-4	2,441E+15	889,73
2870,0	6,295E-6	9,094E+13	989,73	6,374E-6	9,209E+13	889,73
2875,0	3,906E-4	5,653E+15	989,73	3,955E-4	5,724E+15	889,73

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
2880,0	2,465E-4	3,574E+15	989,73	2,496E-4	3,619E+15	889,73
2885,0	4,520E-4	6,565E+15	989,73	4,577E-4	6,648E+15	889,74
2890,0	1,857E-4	2,702E+15	989,73	1,881E-4	2,736E+15	889,74
2895,0	2,657E-3	3,872E+16	989,74	2,690E-3	3,921E+16	889,75
2900,0	8,092E-4	1,181E+16	989,75	8,194E-4	1,196E+16	889,76
2905,0	1,106E-4	1,618E+15	989,75	1,120E-4	1,639E+15	889,76
2910,0	2,714E-3	3,976E+16	989,76	2,749E-3	4,026E+16	889,76
2915,0	1,254E-3	1,841E+16	989,77	1,271E-3	1,864E+16	889,78
2920,0	2,886E-3	4,243E+16	989,78	2,923E-3	4,297E+16	889,79
2925,0	1,080E-3	1,591E+16	989,79	1,094E-3	1,611E+16	889,80
2930,0	5,869E-3	8,656E+16	989,81	5,943E-3	8,766E+16	889,82
2935,0	6,471E-3	9,562E+16	989,85	6,553E-3	9,683E+16	889,86
2940,0	1,623E-3	2,401E+16	989,87	1,643E-3	2,432E+16	889,87
2945,0	1,445E-3	2,142E+16	989,87	1,463E-3	2,169E+16	889,87
2950,0	5,212E-3	7,741E+16	989,89	5,278E-3	7,838E+16	889,89
2955,0	2,329E-3	3,465E+16	989,91	2,359E-3	3,509E+16	889,91
2960,0	4,584E-3	6,830E+16	989,92	4,641E-3	6,916E+16	889,93
2965,0	7,416E-3	1,107E+17	989,96	7,509E-3	1,121E+17	889,97
2970,0	3,513E-4	5,252E+15	989,98	3,557E-4	5,319E+15	889,98
2975,0	8,518E-4	1,276E+16	989,97	8,625E-4	1,292E+16	889,98
2980,0	1,334E-3	2,002E+16	989,98	1,351E-3	2,027E+16	889,98
2985,0	6,943E-3	1,043E+17	990,00	7,029E-3	1,056E+17	890,01
2990,0	1,025E-2	1,543E+17	990,06	1,038E-2	1,562E+17	890,07
2995,0	4,263E-3	6,427E+16	990,09	4,316E-3	6,507E+16	890,10
3000,0	7,824E-3	1,182E+17	990,12	7,921E-3	1,196E+17	890,13
3005,0	2,882E-3	4,360E+16	990,14	2,918E-3	4,414E+16	890,15
3010,0	6,828E-3	1,035E+17	990,17	6,912E-3	1,047E+17	890,18
3015,0	5,539E-3	8,407E+16	990,20	5,607E-3	8,510E+16	890,21
3020,0	6,318E-4	9,606E+15	990,21	6,396E-4	9,723E+15	890,22
3025,0	7,481E-3	1,139E+17	990,23	7,573E-3	1,153E+17	890,24
3030,0	6,058E-3	9,240E+16	990,27	6,131E-3	9,352E+16	890,28
3035,0	2,491E-3	3,806E+16	990,29	2,522E-3	3,853E+16	890,30
3040,0	2,018E-3	3,089E+16	990,29	2,043E-3	3,126E+16	890,31
3045,0	4,197E-3	6,433E+16	990,31	4,248E-3	6,511E+16	890,32
3050,0	1,029E-3	1,580E+16	990,32	1,042E-3	1,599E+16	890,33
3055,0	2,886E-4	4,439E+15	990,32	2,921E-4	4,492E+15	890,33
3060,0	6,283E-3	9,678E+16	990,34	6,358E-3	9,793E+16	890,36
3065,0	2,903E-3	4,479E+16	990,37	2,937E-3	4,532E+16	890,38
3070,0	1,744E-3	2,696E+16	990,38	1,765E-3	2,727E+16	890,39
3075,0	6,005E-3	9,295E+16	990,40	6,075E-3	9,404E+16	890,41
3080,0	3,612E-3	5,600E+16	990,43	3,654E-3	5,665E+16	890,44

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
3085,0	1,762E-3	2,736E+16	990,43	1,782E-3	2,768E+16	890,45
3090,0	2,374E-3	3,692E+16	990,44	2,401E-3	3,735E+16	890,46
3095,0	6,532E-4	1,018E+16	990,45	6,607E-4	1,030E+16	890,46
3100,0	4,388E-3	6,848E+16	990,46	4,438E-3	6,926E+16	890,48
3105,0	9,189E-4	1,436E+16	990,48	9,293E-4	1,453E+16	890,49
3110,0	8,432E-4	1,320E+16	990,48	8,528E-4	1,335E+16	890,49
3115,0	2,261E-3	3,546E+16	990,49	2,287E-3	3,586E+16	890,50
3120,0	9,791E-3	1,538E+17	990,53	9,900E-3	1,555E+17	890,54
3125,0	3,020E-3	4,751E+16	990,56	3,054E-3	4,804E+16	890,58
3130,0	5,745E-3	9,052E+16	990,58	5,808E-3	9,151E+16	890,59
3135,0	1,141E-2	1,801E+17	990,63	1,154E-2	1,821E+17	890,65
3140,0	3,314E-3	5,239E+16	990,67	3,351E-3	5,296E+16	890,68
3145,0	3,242E-3	5,133E+16	990,67	3,277E-3	5,189E+16	890,69
3150,0	6,655E-3	1,055E+17	990,70	6,726E-3	1,067E+17	890,72
3155,0	5,620E-3	8,926E+16	990,73	5,680E-3	9,021E+16	890,75
3160,0	9,205E-3	1,464E+17	990,77	9,302E-3	1,480E+17	890,79
3165,0	1,398E-2	2,227E+17	990,84	1,412E-2	2,250E+17	890,86
3170,0	1,248E-2	1,992E+17	990,91	1,261E-2	2,012E+17	890,93
3175,0	9,203E-3	1,471E+17	990,96	9,298E-3	1,486E+17	890,98
3180,0	1,059E-2	1,695E+17	991,01	1,070E-2	1,713E+17	891,03
3185,0	8,059E-3	1,292E+17	991,05	8,141E-3	1,305E+17	891,07
3190,0	4,226E-3	6,787E+16	991,08	4,269E-3	6,856E+16	891,10
3195,0	2,685E-3	4,318E+16	991,09	2,712E-3	4,362E+16	891,11
3200,0	4,372E-4	7,042E+15	991,09	4,415E-4	7,112E+15	891,11
3205,0	3,088E-4	4,983E+15	991,09	3,119E-4	5,032E+15	891,11
3210,0	1,359E-4	2,197E+15	991,09	1,373E-4	2,218E+15	891,11
3215,0	4,961E-4	8,029E+15	991,09	5,009E-4	8,107E+15	891,11
3220,0	1,604E-3	2,600E+16	991,10	1,620E-3	2,626E+16	891,12
3225,0	1,982E-4	3,217E+15	991,10	2,001E-4	3,248E+15	891,12
3230,0	3,398E-4	5,525E+15	991,10	3,430E-4	5,578E+15	891,12
3235,0	7,273E-3	1,184E+17	991,13	7,341E-3	1,196E+17	891,15
3240,0	3,736E-3	6,093E+16	991,16	3,771E-3	6,150E+16	891,18
3245,0	7,320E-4	1,196E+16	991,17	7,388E-4	1,207E+16	891,19
3250,0	2,599E-3	4,252E+16	991,17	2,623E-3	4,292E+16	891,19
3255,0	9,909E-3	1,624E+17	991,22	10,000E-3	1,639E+17	891,24
3260,0	1,221E-3	2,004E+16	991,24	1,232E-3	2,023E+16	891,26
3265,0	2,439E-3	4,009E+16	991,24	2,461E-3	4,046E+16	891,26
3270,0	1,215E-3	2,000E+16	991,25	1,226E-3	2,018E+16	891,27
3275,0	5,909E-3	9,742E+16	991,27	5,958E-3	9,823E+16	891,29
3280,0	2,856E-3	4,716E+16	991,30	2,881E-3	4,756E+16	891,32
3285,0	1,110E-2	1,835E+17	991,34	1,119E-2	1,851E+17	891,36

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
3290,0	8,732E-3	1,446E+17	991,39	8,805E-3	1,458E+17	891,42
3295,0	1,220E-3	2,023E+16	991,41	1,230E-3	2,040E+16	891,43
3300,0	1,774E-3	2,947E+16	991,41	1,789E-3	2,972E+16	891,43
3305,0	3,930E-3	6,539E+16	991,42	3,963E-3	6,594E+16	891,45
3310,0	3,912E-3	6,519E+16	991,45	3,945E-3	6,574E+16	891,47
3315,0	1,609E-5	2,684E+14	991,45	1,622E-5	2,707E+14	891,47
3320,0	5,981E-5	9,997E+14	991,45	6,032E-5	1,008E+15	891,47
3325,0	3,508E-3	5,873E+16	991,46	3,538E-3	5,923E+16	891,48
3330,0	4,648E-3	7,792E+16	991,49	4,688E-3	7,858E+16	891,51
3335,0	9,043E-3	1,518E+17	991,53	9,120E-3	1,531E+17	891,55
3340,0	3,450E-3	5,801E+16	991,56	3,480E-3	5,852E+16	891,58
3345,0	3,531E-3	5,945E+16	991,57	3,562E-3	5,998E+16	891,59
3350,0	8,004E-3	1,350E+17	991,60	8,076E-3	1,362E+17	891,63
3355,0	3,620E-3	6,114E+16	991,63	3,654E-3	6,171E+16	891,66
3360,0	5,225E-3	8,838E+16	991,65	5,274E-3	8,920E+16	891,67
3365,0	7,170E-3	1,215E+17	991,68	7,238E-3	1,226E+17	891,71
3370,0	3,927E-3	6,663E+16	991,71	3,965E-3	6,727E+16	891,74
3375,0	8,431E-3	1,433E+17	991,74	8,514E-3	1,447E+17	891,77
3380,0	5,097E-3	8,672E+16	991,78	5,147E-3	8,758E+16	891,80
3385,0	7,468E-3	1,273E+17	991,81	7,543E-3	1,285E+17	891,84
3390,0	9,827E-3	1,677E+17	991,86	9,926E-3	1,694E+17	891,89
3395,0	9,519E-3	1,627E+17	991,91	9,617E-3	1,644E+17	891,94
3400,0	1,247E-2	2,135E+17	991,97	1,260E-2	2,157E+17	892,00
3405,0	4,446E-3	7,622E+16	992,00	4,493E-3	7,702E+16	892,03
3410,0	7,060E-3	1,212E+17	992,03	7,134E-3	1,225E+17	892,05
3415,0	7,256E-3	1,247E+17	992,06	7,333E-3	1,261E+17	892,09
3420,0	1,313E-2	2,260E+17	992,12	1,327E-2	2,284E+17	892,15
3425,0	9,977E-3	1,720E+17	992,18	1,008E-2	1,738E+17	892,21
3430,0	8,664E-3	1,496E+17	992,23	8,755E-3	1,512E+17	892,26
3435,0	1,152E-2	1,992E+17	992,28	1,164E-2	2,013E+17	892,31
3440,0	8,011E-3	1,387E+17	992,33	8,094E-3	1,402E+17	892,36
3445,0	1,129E-2	1,957E+17	992,37	1,140E-2	1,977E+17	892,41
3450,0	1,112E-2	1,931E+17	992,43	1,123E-2	1,951E+17	892,47
3455,0	8,285E-3	1,441E+17	992,48	8,369E-3	1,456E+17	892,51
3460,0	1,249E-2	2,176E+17	992,53	1,262E-2	2,198E+17	892,57
3465,0	9,789E-3	1,708E+17	992,59	9,887E-3	1,725E+17	892,62
3470,0	1,223E-2	2,136E+17	992,64	1,235E-2	2,157E+17	892,68
3475,0	1,091E-2	1,909E+17	992,70	1,102E-2	1,928E+17	892,74
3480,0	1,119E-2	1,961E+17	992,76	1,130E-2	1,980E+17	892,79
3485,0	1,206E-2	2,116E+17	992,82	1,218E-2	2,136E+17	892,85
3490,0	1,039E-2	1,825E+17	992,87	1,049E-2	1,843E+17	892,91

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
3495,0	1,223E-2	2,152E+17	992,93	1,235E-2	2,172E+17	892,97
3500,0	1,188E-2	2,094E+17	992,99	1,200E-2	2,114E+17	893,03
3505,0	1,178E-2	2,078E+17	993,05	1,189E-2	2,098E+17	893,09
3510,0	1,193E-2	2,108E+17	993,11	1,204E-2	2,128E+17	893,15
3515,0	1,146E-2	2,028E+17	993,17	1,156E-2	2,046E+17	893,21
3520,0	1,209E-2	2,142E+17	993,23	1,219E-2	2,160E+17	893,27
3525,0	1,140E-2	2,022E+17	993,28	1,149E-2	2,039E+17	893,33
3530,0	1,110E-2	1,972E+17	993,34	1,118E-2	1,988E+17	893,38
3535,0	9,428E-3	1,678E+17	993,39	9,503E-3	1,691E+17	893,43
3540,0	9,005E-3	1,605E+17	993,43	9,075E-3	1,617E+17	893,47
3545,0	9,515E-3	1,698E+17	993,48	9,587E-3	1,711E+17	893,52
3550,0	1,051E-2	1,878E+17	993,53	1,059E-2	1,892E+17	893,57
3555,0	9,032E-3	1,616E+17	993,58	9,098E-3	1,628E+17	893,62
3560,0	1,076E-2	1,929E+17	993,63	1,084E-2	1,943E+17	893,67
3565,0	1,082E-2	1,942E+17	993,68	1,090E-2	1,956E+17	893,73
3570,0	8,313E-3	1,494E+17	993,73	8,371E-3	1,504E+17	893,77
3575,0	8,619E-3	1,551E+17	993,77	8,677E-3	1,562E+17	893,81
3580,0	1,016E-2	1,831E+17	993,82	1,023E-2	1,843E+17	893,86
3585,0	9,140E-3	1,650E+17	993,87	9,201E-3	1,661E+17	893,91
3590,0	9,425E-3	1,703E+17	993,91	9,487E-3	1,715E+17	893,96
3595,0	9,642E-3	1,745E+17	993,96	9,705E-3	1,756E+17	894,01
3600,0	1,023E-2	1,854E+17	994,01	1,030E-2	1,866E+17	894,06
3605,0	1,033E-2	1,875E+17	994,06	1,040E-2	1,886E+17	894,11
3610,0	9,451E-3	1,718E+17	994,11	9,511E-3	1,728E+17	894,16
3615,0	9,445E-3	1,719E+17	994,16	9,504E-3	1,730E+17	894,21
3620,0	1,158E-2	2,110E+17	994,21	1,165E-2	2,123E+17	894,26
3625,0	1,021E-2	1,863E+17	994,27	1,027E-2	1,875E+17	894,32
3630,0	9,926E-3	1,814E+17	994,32	9,987E-3	1,825E+17	894,37
3635,0	1,027E-2	1,879E+17	994,37	1,033E-2	1,891E+17	894,42
3640,0	1,145E-2	2,098E+17	994,42	1,152E-2	2,110E+17	894,47
3645,0	1,057E-2	1,939E+17	994,48	1,063E-2	1,951E+17	894,53
3650,0	1,009E-2	1,855E+17	994,53	1,015E-2	1,866E+17	894,58
3655,0	1,095E-2	2,014E+17	994,58	1,101E-2	2,026E+17	894,63
3660,0	1,088E-2	2,005E+17	994,64	1,095E-2	2,017E+17	894,69
3665,0	1,022E-2	1,886E+17	994,69	1,028E-2	1,897E+17	894,74
3670,0	7,877E-3	1,455E+17	994,73	7,923E-3	1,464E+17	894,78
3675,0	4,815E-3	8,907E+16	994,76	4,843E-3	8,959E+16	894,81
3680,0	8,307E-3	1,539E+17	994,79	8,355E-3	1,548E+17	894,84
3685,0	9,411E-3	1,746E+17	994,84	9,463E-3	1,755E+17	894,89
3690,0	9,664E-3	1,795E+17	994,89	9,717E-3	1,805E+17	894,94
3695,0	1,010E-2	1,879E+17	994,94	1,016E-2	1,890E+17	894,99

Longueur d'onde (nm)	Éclairement spectral global ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique global ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé global ($W \cdot m^{-2}$)	Éclairement spectral direct ($W \cdot m^{-2} \cdot nm^{-1}$)	Flux photonique direct ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	Éclairement intégré cumulé direct ($W \cdot m^{-2}$)
3700,0	1,085E-2	2,020E+17	994,99	1,091E-2	2,031E+17	895,05
3705,0	1,074E-2	2,003E+17	995,05	1,080E-2	2,014E+17	895,10
3710,0	9,337E-3	1,744E+17	995,10	9,386E-3	1,753E+17	895,15
3715,0	9,199E-3	1,720E+17	995,14	9,246E-3	1,729E+17	895,19
3720,0	1,035E-2	1,937E+17	995,19	1,040E-2	1,947E+17	895,24
3725,0	1,067E-2	2,000E+17	995,25	1,072E-2	2,010E+17	895,30
3730,0	9,244E-3	1,736E+17	995,29	9,290E-3	1,744E+17	895,35
3735,0	8,559E-3	1,609E+17	995,34	8,601E-3	1,617E+17	895,39
3740,0	8,824E-3	1,661E+17	995,38	8,866E-3	1,669E+17	895,43
3745,0	1,030E-2	1,942E+17	995,43	1,035E-2	1,951E+17	895,48
3750,0	9,263E-3	1,749E+17	995,48	9,307E-3	1,757E+17	895,53
3755,0	8,966E-3	1,695E+17	995,52	9,007E-3	1,703E+17	895,58
3760,0	8,837E-3	1,673E+17	995,57	8,878E-3	1,681E+17	895,62
3765,0	8,525E-3	1,616E+17	995,61	8,564E-3	1,623E+17	895,66
3770,0	9,098E-3	1,727E+17	995,65	9,138E-3	1,734E+17	895,71
3775,0	9,026E-3	1,715E+17	995,70	9,065E-3	1,723E+17	895,75
3780,0	9,547E-3	1,817E+17	995,75	9,588E-3	1,824E+17	895,80
3785,0	8,787E-3	1,674E+17	995,79	8,824E-3	1,681E+17	895,85
3790,0	7,734E-3	1,476E+17	995,83	7,766E-3	1,482E+17	895,89
3795,0	8,843E-3	1,690E+17	995,87	8,880E-3	1,696E+17	895,93
3800,0	9,830E-3	1,881E+17	995,92	9,870E-3	1,888E+17	895,98
3805,0	9,278E-3	1,777E+17	995,97	9,314E-3	1,784E+17	896,03
3810,0	8,221E-3	1,577E+17	996,01	8,253E-3	1,583E+17	896,07
3815,0	7,734E-3	1,485E+17	996,05	7,764E-3	1,491E+17	896,11
3820,0	9,627E-3	1,851E+17	996,09	9,663E-3	1,858E+17	896,15
3825,0	9,478E-3	1,825E+17	996,14	9,512E-3	1,832E+17	896,20
3830,0	9,565E-3	1,844E+17	996,19	9,599E-3	1,851E+17	896,25
3835,0	7,669E-3	1,481E+17	996,23	7,697E-3	1,486E+17	896,29
3840,0	8,949E-3	1,730E+17	996,27	8,980E-3	1,736E+17	896,33
3845,0	8,755E-3	1,695E+17	996,32	8,784E-3	1,700E+17	896,38
3850,0	8,802E-3	1,706E+17	996,36	8,831E-3	1,712E+17	896,42
3855,0	8,484E-3	1,646E+17	996,41	8,512E-3	1,652E+17	896,46
3860,0	7,971E-3	1,549E+17	996,45	7,996E-3	1,554E+17	896,50
3865,0	8,075E-3	1,571E+17	996,49	8,101E-3	1,576E+17	896,54
3870,0	7,339E-3	1,430E+17	996,52	7,362E-3	1,434E+17	896,58
3875,0	6,742E-3	1,315E+17	996,56	6,763E-3	1,319E+17	896,62
3880,0	6,515E-3	1,273E+17	996,59	6,535E-3	1,277E+17	896,65
3885,0	6,752E-3	1,321E+17	996,62	6,773E-3	1,325E+17	896,68
3890,0	6,862E-3	1,344E+17	996,66	6,883E-3	1,348E+17	896,72
3895,0	7,454E-3	1,462E+17	996,69	7,476E-3	1,466E+17	896,75
3900,0	7,902E-3	1,552E+17	996,73	7,926E-3	1,556E+17	896,79

Longueur d'onde (nm)	**Éclairement spectral global** ($W \cdot m^{-2} \cdot nm^{-1}$)	**Flux photonique global** ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	**Éclairement intégré cumulé global** ($W \cdot m^{-2}$)	**Éclairement spectral direct** ($W \cdot m^{-2} \cdot nm^{-1}$)	**Flux photonique direct** ($m^{-2} \cdot s^{-1} \cdot nm^{-1}$)	**Éclairement intégré cumulé direct** ($W \cdot m^{-2}$)
3905,0	7,904E-3	1,554E+17	996,77	7,927E-3	1,558E+17	896,83
3910,0	7,115E-3	1,400E+17	996,81	7,135E-3	1,404E+17	896,87
3915,0	6,966E-3	1,373E+17	996,84	6,987E-3	1,377E+17	896,90
3920,0	6,926E-3	1,367E+17	996,88	6,946E-3	1,371E+17	896,94
3925,0	6,832E-3	1,350E+17	996,91	6,851E-3	1,354E+17	896,97
3930,0	7,030E-3	1,391E+17	996,95	7,049E-3	1,395E+17	897,01
3935,0	7,333E-3	1,453E+17	996,98	7,353E-3	1,457E+17	897,04
3940,0	7,381E-3	1,464E+17	997,02	7,401E-3	1,468E+17	897,08
3945,0	7,519E-3	1,493E+17	997,06	7,539E-3	1,497E+17	897,12
3950,0	7,605E-3	1,512E+17	997,10	7,625E-3	1,516E+17	897,16
3955,0	7,697E-3	1,533E+17	997,13	7,717E-3	1,537E+17	897,20
3960,0	7,726E-3	1,540E+17	997,17	7,745E-3	1,544E+17	897,23
3965,0	7,783E-3	1,554E+17	997,21	7,803E-3	1,557E+17	897,27
3970,0	7,658E-3	1,531E+17	997,25	7,677E-3	1,534E+17	897,31
3975,0	7,488E-3	1,498E+17	997,29	7,506E-3	1,502E+17	897,35
3980,0	7,366E-3	1,476E+17	997,33	7,383E-3	1,479E+17	897,39
3985,0	7,411E-3	1,487E+17	997,36	7,429E-3	1,490E+17	897,42
3990,0	7,351E-3	1,477E+17	997,40	7,368E-3	1,480E+17	897,46
3995,0	7,189E-3	1,446E+17	997,44	7,205E-3	1,449E+17	897,50
4000,0	7,084E-3	1,4264E+17	997,47	7,099E-3	1,430E+17	897,53
∞			1000			900

NOTE 1 Les valeurs de l'éclairement intégré cumulé ont été obtenues à l'aide de la technique d'intégration trapézoïdale modifiée.

NOTE 2 Les valeurs suivantes ont été prises en considération dans le calcul des flux photoniques global et direct:

$c = 2{,}997\ 92 \cdot 10^{8}\ m \cdot s^{-1}$

$h = 6{,}626\ 07 \cdot 10^{-34}\ J \cdot s$

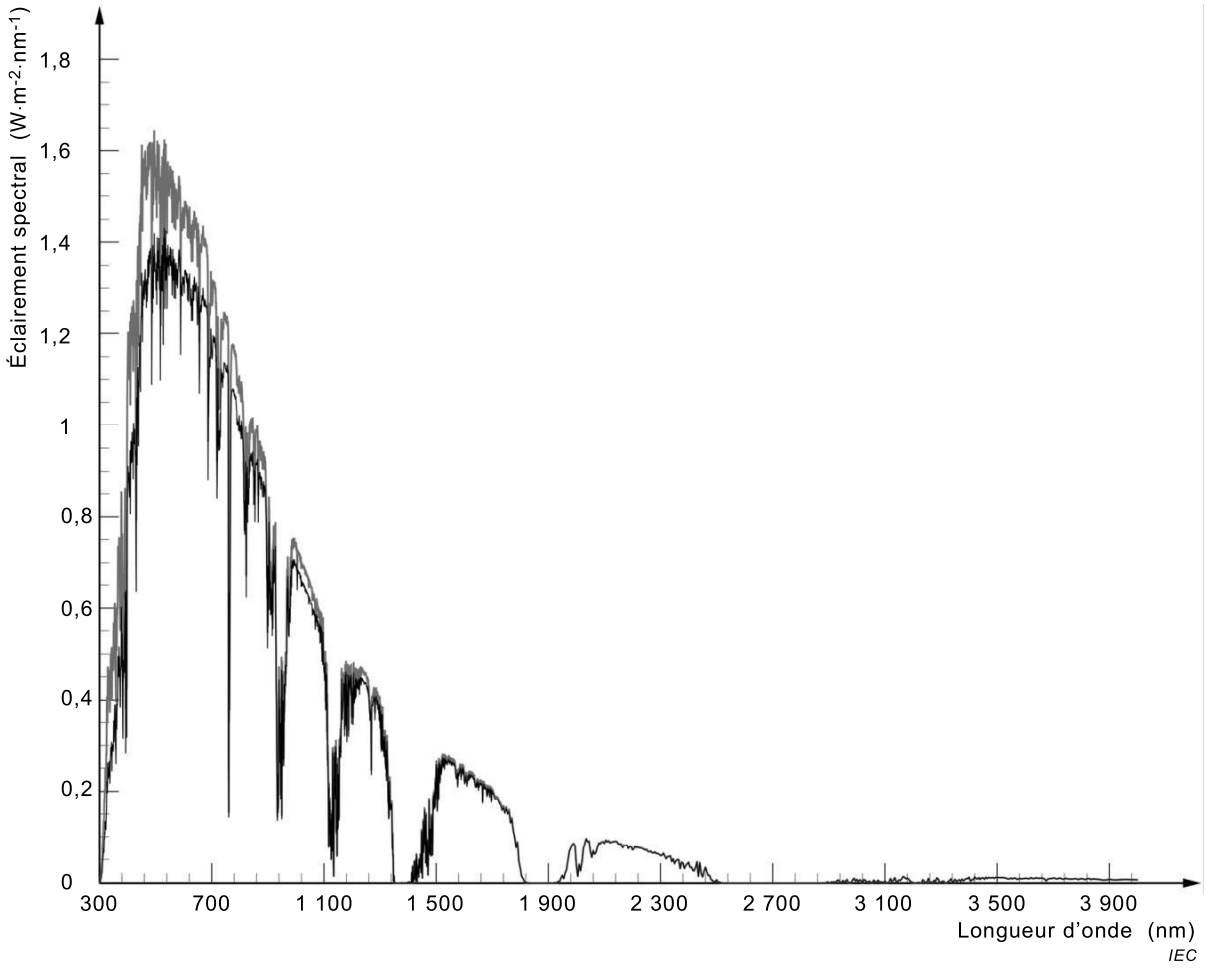

Figure 1 – Distribution spectrale de l'éclairement solaire global et direct de référence donnée dans le Tableau 1

Annexe A
(informative)

Utilisation de SMARTS

Les données d'entrée suivantes (voir Tableau A.1) du modèle SMARTS Version 2.9.2 sont exigées pour générer les distributions spectrales de l'éclairement solaire de référence incluse dans la présente norme. Les valeurs de l'éclairement spectral direct et global de sortie obtenues ont été multipliées par un facteur normalisé (0,997 08) de façon à reproduire les données contenues dans le Tableau 1. La seule différence pour générer les deux distributions spectrales de l'éclairement est le choix de sortie dans le champ 12c.

Tableau A.1 – Données d'entrée pour générer la distribution spectrale de l'éclairement solaire de référence

Identificateur de carte	Valeur	Paramètre/Description/Nom de variable
1	IEC 60904-3:2016	Référence
2	1	Mode d'entrée de pression (1 = pression et altitude): ISPR
2a	1013.25 0.	Pression (mb) et altitude (km) de la station: SPR, ALT
3	1	Sélection du profil d'atmosphère type (1 = atmosphère par défaut utilisée): IATM1
3a	'USSA'	Profil d'atmosphère type par défaut: ATM
4	1	Entrée de vapeur d'eau (1 = par défaut du profil d'atmosphère): IH2O
5	1	Calcul d'ozone (1 = par défaut du profil d'atmosphère): IO3
6	1	Mode du niveau de pollution (1 = conditions normalisées/sans pollution): IGAS
7	370	Rapport du mélange de volume de dioxyde de carbone (ppm): qCO2
7a	1	Spectre extraterrestre (1 = SMARTS/Gueymard): ISPCTR
8	'S&F_RURAL'	Profil d'aérosol à utiliser: AEROS
9	0	Spécification pour la profondeur optique de l'aérosol/la turbidité en entrée (0 = AOD à 500 nm): ITURB
9a	0.084	Profondeur optique de l'aérosol à 500 nm: TAU5
10	38	Données de l'albédo spectral de champ lointain à utiliser (38 = sol sablonneux éclairé): IALBDX
10b	1	Spécification du calcul de l'inclinaison (1 = oui): ITILT
10c	38 37 180	Albédo et variables d'inclinaison – données de l'albédo à utiliser pour le champ proche, avec inclinaison, et à l'azimut: IALBDG, TILT, WAZIM
11	280 4000 1.0 1367.0	Plage de longueurs d'onde au départ, à l'arrêt, correction vectorielle du rayon moyen, éclairement du spectre solaire intégré: WLMN, WLMX, SUNCOR, SOLARC
12	2	Mode d'impression des données de sortie spectrales séparées (2 = oui): IPRT
12a	280 4000 0.5	Limites d'impression des longueurs d'onde des données de sortie, départ, arrêt, taille minimum du pas: WPMN, WPMX, INTVL
12b	1	Nombre de variables de sortie à imprimer: IOTOT
12c	8 ou 2	Code relatif aux variables de sortie à imprimer (8 = éclairement incliné global, 2 = éclairement normal direct): OUT
13	1	Mode de calcul circumsolaire (1 = oui): ICIRC
13a	0 2.9 0	Fuite géométrique du récepteur, vision, demi-angles limites: SLOPE, APERT, LIMIT
14	0	Mode de fonction de lissage (0 = aucun): ISCAN

Identificateur de carte	Valeur	Paramètre/Description/Nom de variable
15	0	Mode de calcul de l'éclairement lumineux (0 = aucun): ILLUM
16	0	Mode de calcul UV (0 = aucun): IUV
17	2	Mode de géométrie solaire (2 = masse d'air): IMASS
17a	1.5	Valeur de la masse d'air: AMASS

Bibliographie

IEC 60904-9, *Dispositifs photovoltaïques – Partie 9: Exigences pour le fonctionnement des simulateurs solaires*

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