

Table 16.2 Standard direct and global reference spectra adapted with permission from the annual book of ASTM standards, Copyright ASTM [10, 11]. The global spectrum integrates to 1000.0 Wm^{-2} and the direct spectrum integrates to 768.3 Wm^{-2}

Wavelength [nm]	Global [Wm^{-2} μm^{-1}]	Direct [Wm^{-2} μm^{-1}]	Wavelength [nm]	Global [Wm^{-2} μm^{-1}]	Direct [Wm^{-2} μm^{-1}]	Wavelength [nm]	Global [Wm^{-2} μm^{-1}]	Direct [Wm^{-2} μm^{-1}]
305	9.5	3.4	740	1211.2	971.0	1520	262.6	239.3
310	42.3	15.6	753	1193.9	956.3	1539	274.2	248.8
315	107.8	41.1	758	1175.5	942.2	1558	275.0	249.3
320	181.0	71.2	763	643.1	524.8	1578	244.6	222.3
325	246.8	100.2	768	1030.7	830.7	1592	247.4	227.3
330	395.3	152.4	780	1131.1	908.9	1610	228.7	210.5
335	390.1	155.6	800	1081.6	873.4	1630	244.5	224.7
340	435.3	179.4	816	849.2	712.0	1646	234.8	215.9
345	438.9	186.7	824	785.0	660.2	1678	220.5	202.8
350	483.7	212.0	832	916.4	765.5	1740	171.5	158.2
360	520.3	240.5	840	959.9	799.8	1800	30.7	28.6
370	666.2	324.0	860	978.9	815.2	1860	2.0	1.8
380	712.5	362.4	880	933.2	778.3	1920	1.2	1.1
390	720.7	381.7	905	748.5	630.4	1960	21.2	19.7
400	1013.1	556.0	915	667.5	565.2	1985	91.1	84.9
410	1158.2	656.3	925	690.3	586.4	2005	26.8	25.0
420	1184.0	690.8	930	403.6	348.1	2035	99.5	92.5
430	1071.9	641.9	937	258.3	224.2	2065	60.4	56.3
440	1302.0	798.5	948	313.6	271.4	2100	89.1	82.7
450	1526.0	956.6	965	526.8	451.2	2148	82.2	76.2
460	1599.6	990.8	980	646.4	549.7	2198	71.5	66.4
470	1581.0	998.0	993	746.8	630.1	2270	70.2	65.0
480	1628.3	1046.1	1040	690.5	582.9	2360	62.0	57.6
490	1539.2	1005.1	1070	637.5	539.7	2450	21.2	19.8
500	1548.7	1026.7	1100	412.6	366.2	2494	18.5	17.0
510	1586.5	1066.7	1120	108.9	98.1	2537	3.2	3.0
520	1484.9	1011.5	1130	189.1	169.5	2941	4.4	4.0
530	1572.4	1084.9	1137	132.2	118.7	2973	7.6	7.0
540	1550.7	1082.4	1161	339.0	301.9	3005	6.5	6.0
550	1561.5	1102.2	1180	460.0	406.8	3056	3.2	3.0
570	1501.5	1087.4	1200	423.6	375.2	3132	5.4	5.0
590	1395.5	1024.3	1235	480.5	423.6	3156	19.4	18.0
610	1485.3	1088.8	1290	413.1	365.7	3204	1.3	1.2
630	1434.1	1062.1	1320	250.2	223.4	3245	3.2	3.0
650	1419.9	1061.7	1350	32.5	30.1	3317	13.1	12.0
670	1392.3	1046.2	1395	1.6	1.4	3344	3.2	3.0
690	1130.0	859.2	1443	55.7	51.6	3450	13.3	12.2
710	1316.7	1002.4	1463	105.1	97.0	3573	11.9	11.0
718	1010.3	816.9	1477	105.5	97.3	3765	9.8	9.0
724	1043.2	842.8	1497	182.1	167.1	4045	7.5	6.9