

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P937577

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937577
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

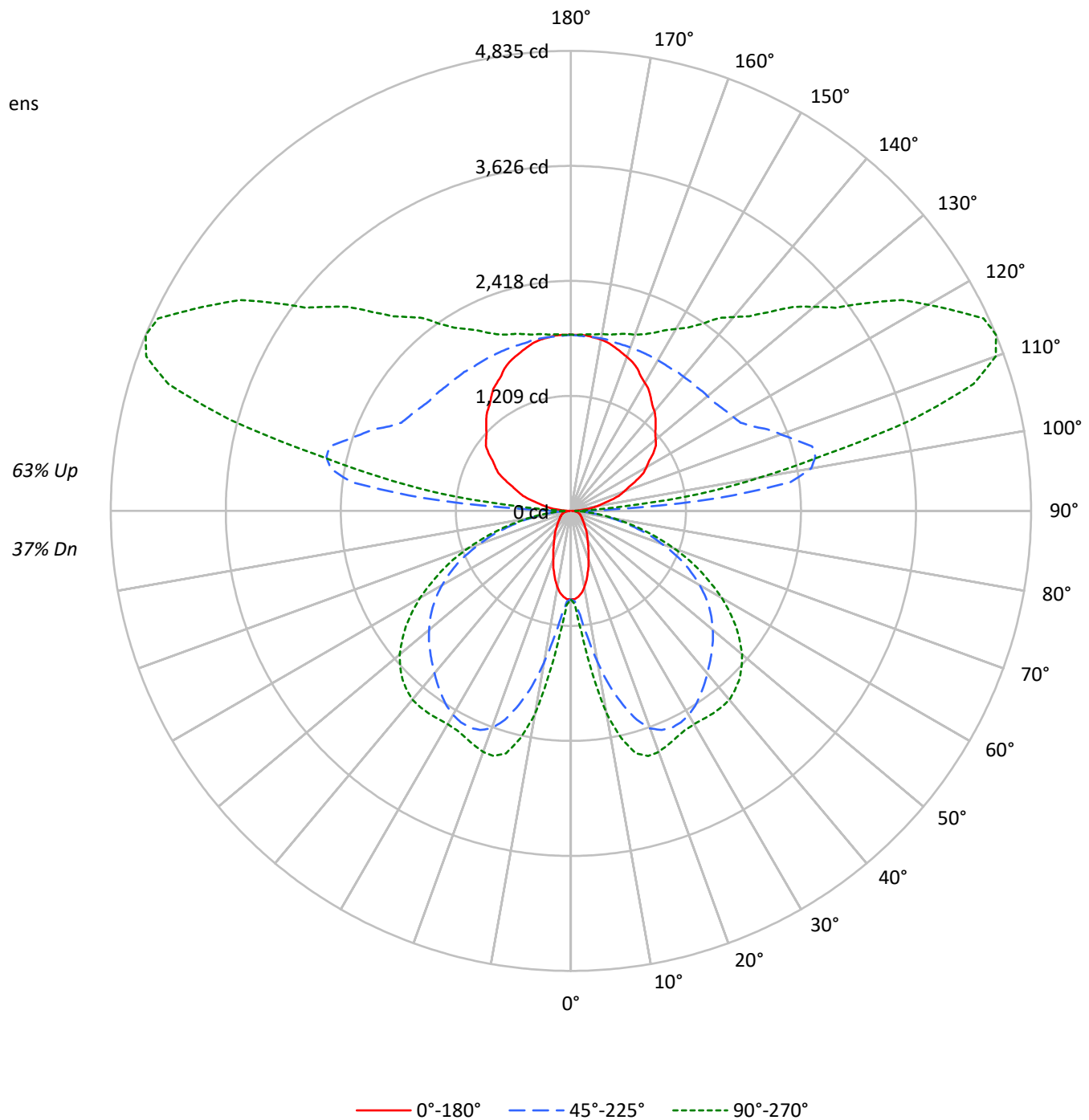
Lumens per Lamp: N/A
Luminaire Lumens: 19200.9 lumens
Efficiency: N/A
Efficacy: 130.1 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 147.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P937577

CATALOG NUMBER: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-12-2700K

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2874	2874	2874
5°	2809	3323	3864
10°	2549	4845	6405
15°	2167	6332	7734
20°	1765	7339	7883
25°	1473	7682	7722
30°	1243	7733	7708
35°	1099	7606	7907
40°	958	7441	8113
45°	868	7321	8145
50°	797	7214	8010
55°	764	7056	7655
60°	784	6749	7094
65°	816	6281	6324
70°	872	5481	5343
75°	970	4473	4169
80°	1066	3106	2809
85°	969	1651	1438

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8145 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.2	0.6
10°-20°	532.8	2.8
20°-30°	931.9	4.9
30°-40°	1199.6	6.2
40°-50°	1339.9	7.0
50°-60°	1283.4	6.7
60°-70°	1017.1	5.3
70°-80°	598.0	3.1
80°-90°	173.2	0.9
90°-100°	902.7	4.7
100°-110°	2373.2	12.4
110°-120°	2460.7	12.8
120°-130°	1973.8	10.3
130°-140°	1548.7	8.1
140°-150°	1188.7	6.2
150°-160°	856.1	4.5
160°-170°	523.8	2.7
170°-180°	177.0	0.9
0°-30°	1584.9	8.3
0°-40°	2784.5	14.5
0°-60°	5407.8	28.2
0°-90°	7196.2	37.5
90°-120°	5736.6	29.9
90°-150°	10447.9	54.4
90°-180°	12005.0	62.5
0°-180°	19200.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	905	971	1094	1237	1282	84
15°	678	1252	2110	2558	2638	189
25°	433	1419	2513	2624	2627	200
35°	293	1357	2367	2501	2600	183
45°	200	1082	2092	2396	2504	155
55°	143	687	1775	2062	2119	131
65°	114	364	1318	1482	1503	113
75°	84	224	723	795	798	88
85°	30	69	179	197	200	32
90°	12	35	94	47	47	12
95°	119	467	1555	802	546	132
105°	428	648	2624	3983	3716	453
115°	759	922	2102	4192	4785	750
125°	1056	1184	1912	3230	3810	938
135°	1259	1386	1852	2607	2957	974
145°	1460	1554	1828	2225	2399	915
155°	1650	1696	1828	2007	2066	758
165°	1781	1805	1828	1900	1924	503
175°	1852	1852	1841	1864	1864	176
180°	1852	1852	1852	1852	1852	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3	929.3
2.5°	929.3	929.3	935.2	938.2	944.2	947.2	953.2	959.1	977.1	980.1	986.0
5°	905.4	917.3	956.2	971.1	1012.9	1069.7	1093.6	1132.6	1213.2	1237.1	1252.1
7.5°	869.5	896.4	992.0	1015.9	1120.5	1270.0	1332.7	1416.4	1544.9	1607.6	1658.4
10°	812.7	869.5	1039.8	1096.6	1267.0	1494.1	1610.6	1727.2	1921.4	2008.0	2040.9
12.5°	750.0	842.6	1090.6	1168.4	1413.4	1745.1	1885.5	2014.0	2235.1	2351.7	2369.6
15°	678.3	803.8	1138.5	1252.1	1568.8	1954.3	2109.6	2268.0	2474.2	2557.8	2578.7
17.5°	615.5	773.9	1183.3	1302.9	1688.3	2142.5	2300.9	2432.3	2599.7	2656.4	2671.4
20°	537.8	726.1	1213.2	1368.6	1813.8	2279.9	2432.3	2533.9	2647.5	2683.3	2689.3
22.5°	481.1	675.3	1231.2	1392.5	1897.5	2363.6	2492.1	2572.8	2650.5	2662.4	2665.4
25°	433.3	618.5	1228.2	1419.4	1969.2	2414.4	2513.0	2572.8	2617.6	2623.6	2623.6
27.5°	388.4	555.8	1216.2	1425.4	2023.0	2426.4	2504.0	2545.9	2566.8	2578.7	2578.7
30°	349.6	496.0	1186.3	1413.4	2046.9	2414.4	2477.2	2498.1	2519.0	2536.9	2545.9
32.5°	319.7	439.2	1141.5	1389.5	2049.9	2384.5	2429.3	2441.3	2471.2	2513.0	2527.9
35°	292.8	382.5	1090.6	1356.7	2031.9	2336.7	2366.6	2378.5	2438.3	2501.1	2522.0
37.5°	265.9	340.6	1024.9	1299.9	2005.0	2279.9	2300.9	2321.8	2414.4	2489.1	2513.0
40°	239.0	304.8	947.2	1237.1	1963.2	2211.2	2229.1	2262.0	2384.5	2471.2	2495.1
42.5°	218.1	274.9	863.5	1171.4	1909.4	2133.5	2160.4	2208.2	2348.7	2441.3	2468.2
45°	200.2	245.0	773.9	1081.7	1840.7	2052.9	2091.7	2157.4	2306.8	2396.5	2420.4
47.5°	182.3	224.1	681.3	989.0	1766.0	1972.2	2023.0	2097.7	2250.1	2336.7	2357.6
50°	167.3	203.2	588.6	890.4	1685.3	1885.5	1945.3	2023.0	2178.4	2259.0	2285.9
52.5°	155.4	185.3	502.0	791.8	1592.7	1795.9	1864.6	1945.3	2091.7	2169.4	2187.3
55°	143.4	170.3	427.3	687.2	1497.1	1700.3	1775.0	1852.7	1996.1	2061.8	2073.8
57.5°	137.4	158.4	364.5	588.6	1395.5	1592.7	1676.4	1748.1	1882.5	1933.3	1945.3
60°	128.5	149.4	316.7	505.0	1284.9	1491.1	1562.8	1634.5	1748.1	1789.9	1798.9
62.5°	119.5	143.4	280.9	424.3	1171.4	1371.6	1443.3	1509.0	1604.7	1634.5	1646.5
65°	113.5	137.4	254.0	364.5	1054.8	1246.1	1317.8	1374.6	1452.3	1482.1	1488.1
67.5°	107.6	131.5	233.1	313.7	938.2	1120.5	1174.4	1228.2	1287.9	1317.8	1320.8
70°	98.6	125.5	215.1	277.9	818.7	977.1	1021.9	1078.7	1126.5	1141.5	1150.5
72.5°	92.6	116.5	203.2	251.0	696.2	839.6	881.5	914.3	956.2	971.1	971.1
75°	83.7	104.6	191.2	224.1	570.7	687.2	723.1	756.0	788.8	794.8	785.8
77.5°	74.7	92.6	164.3	188.2	445.2	543.8	573.7	591.6	618.5	624.5	627.5
80°	62.7	80.7	128.5	146.4	322.7	400.4	421.3	436.2	460.2	460.2	466.1
82.5°	47.8	62.7	92.6	104.6	218.1	274.9	292.8	301.8	316.7	316.7	316.7
85°	29.9	38.8	59.8	68.7	131.5	167.3	179.3	182.3	194.2	197.2	197.2
87.5°	14.9	20.9	38.8	41.8	68.7	86.7	86.7	92.6	92.6	89.6	86.7
90°	12.4	22.4	32.3	34.8	54.7	81.2	94.4	84.0	62.9	47.2	47.2
92.5°	49.7	134.2	218.7	239.8	337.2	467.0	532.0	466.2	334.8	236.2	226.8
95°	119.3	274.0	428.7	467.3	829.8	1313.1	1554.8	1387.4	1052.7	801.6	773.1
97.5°	206.3	342.7	479.2	513.3	1117.7	1923.6	2326.6	2220.8	2009.2	1850.6	1796.5
100°	273.4	397.1	520.8	551.8	1222.5	2116.8	2564.0	2571.8	2587.2	2598.8	2534.3
102.5°	330.6	446.0	561.4	590.3	1270.6	2177.7	2631.1	2765.9	3035.4	3237.6	3182.3
105°	427.6	525.3	623.1	647.5	1306.3	2184.5	2623.7	2925.8	3530.1	3983.3	3953.6
107.5°	527.0	618.1	709.3	732.1	1312.8	2087.2	2474.5	2896.0	3738.9	4371.0	4378.2
110°	594.1	676.4	758.7	779.3	1302.9	2001.1	2350.2	2821.4	3763.7	4470.4	4501.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	659.9	738.4	816.8	836.4	1303.4	1925.9	2237.1	2719.4	3683.8	4407.1	4454.6
115°	759.4	831.8	904.1	922.2	1315.3	1839.5	2101.7	2566.2	3495.3	4192.1	4257.9
117.5°	857.6	923.3	989.0	1005.5	1339.8	1785.5	2008.4	2427.7	3266.2	3895.1	3968.1
120°	914.7	976.6	1038.5	1054.0	1359.7	1767.4	1971.2	2354.2	3120.4	3695.0	3766.0
122.5°	970.7	1033.2	1095.5	1111.1	1388.3	1757.8	1942.6	2287.5	2977.4	3494.9	3564.9
125°	1056.5	1113.3	1170.2	1184.4	1426.8	1750.0	1911.5	2204.5	2790.6	3230.1	3294.6
127.5°	1126.0	1183.4	1240.9	1255.3	1465.3	1745.4	1885.4	2137.0	2640.2	3017.6	3072.0
130°	1163.3	1225.2	1287.0	1302.5	1493.5	1748.2	1875.5	2099.5	2547.5	2883.4	2933.7
132.5°	1201.9	1263.7	1325.6	1341.0	1516.2	1749.9	1866.7	2067.2	2468.3	2769.1	2814.1
135°	1259.0	1315.3	1371.7	1385.7	1541.1	1748.3	1851.9	2019.8	2355.5	2607.4	2646.3
137.5°	1317.4	1373.2	1429.0	1442.9	1578.4	1759.0	1849.4	1991.3	2275.3	2488.2	2520.0
140°	1365.9	1417.3	1468.6	1481.5	1601.2	1760.8	1840.6	1963.2	2208.5	2392.5	2422.2
142.5°	1403.2	1450.7	1498.2	1510.0	1620.2	1767.1	1840.6	1948.4	2163.8	2325.4	2350.9
145°	1460.3	1501.8	1543.2	1553.6	1645.1	1767.2	1828.3	1916.3	2092.5	2224.7	2244.0
147.5°	1517.5	1557.8	1598.2	1608.2	1681.5	1779.4	1828.3	1897.6	2036.2	2140.2	2156.2
150°	1554.8	1591.2	1627.7	1636.8	1700.7	1785.7	1828.3	1886.8	2003.9	2091.7	2104.6
152.5°	1593.3	1620.9	1648.6	1655.5	1713.0	1789.8	1828.3	1878.3	1978.2	2053.2	2062.9
155°	1650.5	1670.9	1691.4	1696.5	1740.4	1799.0	1828.3	1868.0	1947.5	2007.1	2013.6
157.5°	1692.7	1712.6	1732.5	1737.5	1767.8	1808.1	1828.3	1859.1	1921.0	1967.4	1972.0
160°	1721.3	1736.8	1752.3	1756.1	1780.2	1812.2	1828.3	1854.8	1907.7	1947.5	1950.1
162.5°	1749.9	1761.4	1773.1	1776.0	1793.4	1816.6	1828.3	1850.6	1895.3	1928.9	1931.3
165°	1780.9	1791.4	1802.0	1804.6	1812.4	1823.0	1828.3	1844.3	1876.3	1900.3	1902.9
167.5°	1809.5	1814.5	1819.5	1820.8	1827.4	1836.2	1840.6	1851.2	1872.2	1887.9	1889.0
170°	1828.3	1833.2	1838.2	1839.4	1839.8	1840.3	1840.6	1851.2	1872.2	1887.9	1887.9
172.5°	1838.1	1839.2	1840.3	1840.6	1840.6	1840.6	1840.6	1848.9	1865.5	1878.0	1877.0
175°	1851.9	1851.9	1851.9	1851.9	1848.1	1843.1	1840.6	1845.9	1856.3	1864.2	1864.2
177.5°	1851.9	1851.9	1851.9	1851.9	1849.0	1845.1	1843.1	1847.3	1855.5	1861.7	1860.6
180°	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	929.3	929.3
2.5°	992.0	986.0
5°	1276.0	1282.0
7.5°	1718.2	1715.2
10°	2136.5	2163.4
12.5°	2441.3	2447.3
15°	2626.6	2638.5
17.5°	2698.3	2701.3
20°	2701.3	2695.3
22.5°	2668.4	2662.4
25°	2629.5	2626.6
27.5°	2593.7	2596.7
30°	2578.7	2587.7
32.5°	2578.7	2593.7
35°	2584.7	2599.7
37.5°	2581.7	2599.7
40°	2569.8	2590.7
42.5°	2536.9	2551.9
45°	2486.1	2504.0
47.5°	2420.4	2432.3
50°	2336.7	2348.7
52.5°	2232.1	2235.1
55°	2106.6	2118.6
57.5°	1972.2	1975.2
60°	1822.8	1831.7
62.5°	1664.4	1664.4
65°	1497.1	1503.1
67.5°	1323.8	1338.7
70°	1147.5	1150.5
72.5°	974.1	974.1
75°	794.8	797.8
77.5°	624.5	624.5
80°	463.1	466.1
82.5°	319.7	325.7
85°	200.2	200.2
87.5°	92.6	83.7
90°	47.2	47.2
92.5°	189.1	151.6
95°	659.4	545.6
97.5°	1580.0	1363.4
100°	2276.4	2018.4
102.5°	2961.4	2740.5
105°	3834.8	3716.1
107.5°	4407.0	4435.7
110°	4625.1	4748.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4644.6	4834.7
115°	4521.4	4784.9
117.5°	4260.3	4552.5
120°	4049.8	4333.8
122.5°	3844.9	4124.9
125°	3552.5	3810.5
127.5°	3289.7	3507.3
130°	3134.7	3335.8
132.5°	2994.2	3174.3
135°	2801.4	2956.7
137.5°	2647.0	2774.1
140°	2541.0	2659.7
142.5°	2453.0	2555.2
145°	2321.4	2398.7
147.5°	2220.3	2284.3
150°	2156.6	2208.5
152.5°	2102.2	2141.4
155°	2039.6	2065.6
157.5°	1990.2	2008.4
160°	1960.6	1971.2
162.5°	1941.3	1951.3
165°	1913.4	1923.9
167.5°	1893.4	1897.8
170°	1887.9	1887.9
172.5°	1873.1	1869.2
175°	1864.2	1864.2
177.5°	1856.2	1851.9
180°	1851.9	1851.9

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	3.41	4.20	4.46	5.26	6.69	16.60	17.39	17.65	18.45	19.89
	3H	4.11	4.82	5.17	5.88	7.34	18.44	19.15	19.50	20.22	21.67
	4H	4.40	5.07	5.48	6.14	7.61	19.09	19.76	20.16	20.83	22.29
	6H	4.65	5.27	5.73	6.34	7.82	19.52	20.13	20.60	21.21	22.68
	8H	4.72	5.30	5.80	6.39	7.86	19.64	20.23	20.72	21.32	22.79
	12H	4.73	5.29	5.82	6.37	7.87	19.71	20.27	20.80	21.35	22.84
4H	2H	10.63	11.29	11.70	12.37	13.83	16.87	17.54	17.95	18.61	20.07
	3H	12.18	12.75	13.27	13.84	15.32	18.91	19.47	20.00	20.57	22.04
	4H	12.28	12.79	13.37	13.88	15.37	19.68	20.19	20.77	21.28	22.78
	6H	12.28	12.72	13.38	13.84	15.32	20.22	20.66	21.32	21.77	23.26
	8H	12.26	12.67	13.36	13.77	15.28	20.38	20.79	21.48	21.90	23.40
	12H	12.21	12.58	13.33	13.70	15.21	20.47	20.85	21.59	21.96	23.47
8H	4H	13.72	14.13	14.82	15.23	16.74	19.73	20.14	20.83	21.25	22.75
	6H	13.96	14.30	15.08	15.44	16.95	20.36	20.70	21.48	21.85	23.35
	8H	13.97	14.27	15.10	15.40	16.92	20.58	20.88	21.71	22.01	23.53
	12H	13.94	14.20	15.07	15.32	16.88	20.73	20.99	21.86	22.11	23.67
12H	4H	13.86	14.23	14.98	15.35	16.86	19.68	20.06	20.80	21.17	22.68
	6H	14.22	14.52	15.34	15.64	17.16	20.34	20.64	21.47	21.77	23.29
	8H	14.28	14.54	15.41	15.67	17.23	20.57	20.84	21.71	21.96	23.52