

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: P938516

Luminaire Tested: SQ4-FB-150U-125D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938516
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

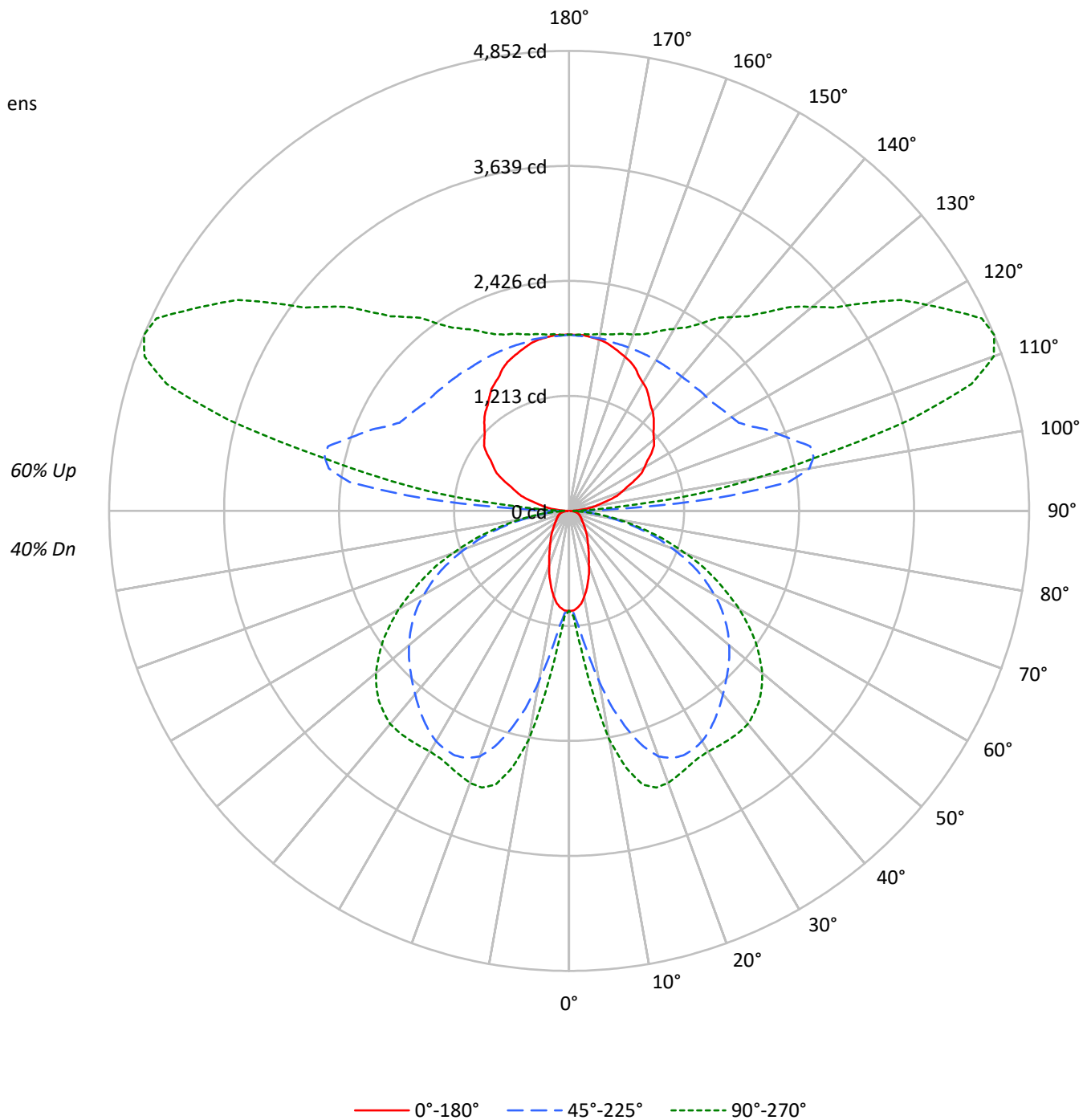
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20199.0 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 166.4
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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4884	4884	4884
5°	4771	5645	6564
10°	4328	8228	10883
15°	3678	10750	13141
20°	2994	12457	13392
25°	2498	13036	13121
30°	2106	13118	13096
35°	1862	12900	13434
40°	1623	12617	13785
45°	1470	12410	13838
50°	1348	12223	13609
55°	1291	11950	13006
60°	1322	11425	12054
65°	1375	10628	10745
70°	1465	9268	9077
75°	1624	7557	7084
80°	1774	5241	4773
85°	1574	2781	2443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	0.7
10°-20°	603.5	3.0
20°-30°	1055.6	5.2
30°-40°	1358.8	6.7
40°-50°	1517.7	7.5
50°-60°	1453.6	7.2
60°-70°	1152.0	5.7
70°-80°	677.4	3.4
80°-90°	195.3	1.0
90°-100°	906.0	4.5
100°-110°	2381.9	11.8
110°-120°	2469.8	12.2
120°-130°	1981.1	9.8
130°-140°	1554.4	7.7
140°-150°	1193.1	5.9
150°-160°	859.2	4.3
160°-170°	525.7	2.6
170°-180°	177.6	0.9
0°-30°	1795.2	8.9
0°-40°	3154.0	15.6
0°-60°	6125.4	30.3
0°-90°	8150.1	40.3
90°-120°	5757.7	28.5
90°-150°	10486.3	51.9
90°-180°	12049.0	59.7
0°-180°	20199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1026	1100	1239	1401	1452	95
15°	768	1418	2390	2897	2989	214
25°	491	1608	2846	2972	2975	226
35°	332	1537	2681	2833	2945	207
45°	227	1225	2369	2714	2836	175
55°	162	778	2010	2335	2400	148
65°	129	413	1493	1679	1702	127
75°	95	254	819	900	904	99
85°	34	78	203	223	227	36
90°	12	35	95	47	47	13
95°	120	469	1560	805	548	133
105°	429	650	2633	3998	3730	455
115°	762	926	2109	4208	4802	753
125°	1060	1189	1918	3242	3825	941
135°	1264	1391	1859	2617	2968	978
145°	1466	1559	1835	2233	2408	918
155°	1657	1703	1835	2015	2073	761
165°	1788	1811	1835	1907	1931	504
175°	1859	1859	1847	1871	1871	176
180°	1859	1859	1859	1859	1859	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1052.6	1052.6	1059.4	1062.8	1069.5	1072.9	1079.7	1086.5	1106.8	1110.2	1116.9
5°	1025.5	1039.1	1083.1	1100.0	1147.4	1211.7	1238.8	1282.8	1374.1	1401.2	1418.1
7.5°	984.9	1015.4	1123.7	1150.8	1269.2	1438.5	1509.5	1604.3	1749.8	1820.9	1878.5
10°	920.6	984.9	1177.8	1242.1	1435.1	1692.3	1824.3	1956.3	2176.3	2274.5	2311.7
12.5°	849.5	954.5	1235.4	1323.4	1600.9	1976.6	2135.7	2281.2	2531.7	2663.7	2684.0
15°	768.3	910.5	1289.5	1418.1	1776.9	2213.5	2389.5	2568.9	2802.5	2897.2	2920.9
17.5°	697.2	876.6	1340.3	1475.7	1912.3	2426.8	2606.1	2755.1	2944.6	3008.9	3025.8
20°	609.2	822.5	1374.1	1550.1	2054.5	2582.5	2755.1	2870.1	2998.8	3039.4	3046.1
22.5°	544.9	764.9	1394.5	1577.2	2149.2	2677.2	2822.8	2914.1	3002.1	3015.7	3019.1
25°	490.8	700.6	1391.1	1607.7	2230.5	2734.8	2846.5	2914.1	2964.9	2971.7	2971.7
27.5°	440.0	629.5	1377.5	1614.5	2291.4	2748.3	2836.3	2883.7	2907.4	2920.9	2920.9
30°	396.0	561.8	1343.7	1600.9	2318.5	2734.8	2805.8	2829.5	2853.2	2873.5	2883.7
32.5°	362.2	497.5	1292.9	1573.8	2321.8	2700.9	2751.7	2765.2	2799.1	2846.5	2863.4
35°	331.7	433.2	1235.4	1536.6	2301.5	2646.8	2680.6	2694.1	2761.8	2832.9	2856.6
37.5°	301.2	385.8	1160.9	1472.3	2271.1	2582.5	2606.1	2629.8	2734.8	2819.4	2846.5
40°	270.8	345.2	1072.9	1401.2	2223.7	2504.6	2524.9	2562.1	2700.9	2799.1	2826.1
42.5°	247.1	311.4	978.2	1326.8	2162.8	2416.6	2447.1	2501.2	2660.3	2765.2	2795.7
45°	226.8	277.5	876.6	1225.2	2084.9	2325.2	2369.2	2443.7	2612.9	2714.5	2741.5
47.5°	206.5	253.8	771.7	1120.3	2000.3	2233.8	2291.4	2376.0	2548.6	2646.8	2670.5
50°	189.5	230.2	666.8	1008.6	1908.9	2135.7	2203.4	2291.4	2467.4	2558.8	2589.2
52.5°	176.0	209.8	568.6	896.9	1804.0	2034.1	2112.0	2203.4	2369.2	2457.2	2477.5
55°	162.5	192.9	484.0	778.5	1695.7	1925.8	2010.5	2098.5	2260.9	2335.4	2348.9
57.5°	155.7	179.4	412.9	666.8	1580.6	1804.0	1898.8	1980.0	2132.3	2189.8	2203.4
60°	145.5	169.2	358.8	572.0	1455.4	1688.9	1770.1	1851.4	1980.0	2027.4	2037.5
62.5°	135.4	162.5	318.2	480.6	1326.8	1553.5	1634.8	1709.2	1817.5	1851.4	1864.9
65°	128.6	155.7	287.7	412.9	1194.8	1411.4	1492.6	1556.9	1644.9	1678.8	1685.5
67.5°	121.8	148.9	264.0	355.4	1062.8	1269.2	1330.1	1391.1	1458.8	1492.6	1496.0
70°	111.7	142.2	243.7	314.8	927.4	1106.8	1157.5	1221.8	1276.0	1292.9	1303.1
72.5°	104.9	132.0	230.2	284.3	788.6	951.1	998.5	1035.7	1083.1	1100.0	1100.0
75°	94.8	118.5	216.6	253.8	646.5	778.5	819.1	856.3	893.5	900.3	890.2
77.5°	84.6	104.9	186.2	213.2	504.3	616.0	649.8	670.2	700.6	707.4	710.8
80°	71.1	91.4	145.5	165.8	365.5	453.5	477.2	494.2	521.2	521.2	528.0
82.5°	54.2	71.1	104.9	118.5	247.1	311.4	331.7	341.8	358.8	358.8	358.8
85°	33.8	44.0	67.7	77.8	148.9	189.5	203.1	206.5	220.0	223.4	223.4
87.5°	16.9	23.7	44.0	47.4	77.8	98.2	98.2	104.9	104.9	101.5	98.2
90°	12.5	22.5	32.4	34.9	54.9	81.5	94.8	84.3	63.2	47.4	47.4
92.5°	49.9	134.7	219.6	240.8	338.5	468.8	533.9	467.9	336.0	237.0	227.6
95°	119.8	275.0	430.2	469.0	832.8	1317.9	1560.5	1392.5	1056.6	804.6	776.0
97.5°	207.1	344.0	481.0	515.2	1121.9	1930.8	2335.2	2229.0	2016.7	1857.4	1803.1
100°	274.4	398.6	522.8	553.9	1227.1	2124.6	2573.4	2581.2	2596.7	2608.3	2543.6
102.5°	331.8	447.7	563.5	592.5	1275.3	2185.6	2640.8	2776.1	3046.6	3249.5	3194.1
105°	429.1	527.2	625.4	649.9	1311.0	2192.5	2633.3	2936.6	3543.1	3998.0	3968.2
107.5°	528.9	620.4	711.8	734.7	1317.7	2095.0	2483.6	2906.6	3752.7	4387.2	4394.4
110°	596.3	678.9	761.5	782.1	1307.7	2008.5	2358.9	2831.8	3777.6	4487.0	4518.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.4	741.1	819.8	839.5	1308.1	1932.9	2245.3	2729.3	3697.3	4423.3	4471.0
115°	762.2	834.8	907.4	925.6	1320.2	1846.3	2109.4	2575.6	3508.1	4207.5	4273.6
117.5°	860.7	926.7	992.7	1009.2	1344.7	1792.1	2015.8	2436.6	3278.2	3909.4	3982.7
120°	918.1	980.2	1042.3	1057.8	1364.7	1773.8	1978.4	2362.9	3131.9	3708.6	3779.8
122.5°	974.2	1036.9	1099.5	1115.2	1393.4	1764.3	1949.7	2295.9	2988.4	3507.7	3578.0
125°	1060.3	1117.4	1174.5	1188.8	1432.0	1756.3	1918.5	2212.6	2800.8	3242.0	3306.7
127.5°	1130.2	1187.8	1245.5	1259.9	1470.7	1751.8	1892.3	2144.8	2649.9	3028.7	3083.3
130°	1167.6	1229.7	1291.8	1307.3	1499.0	1754.5	1882.3	2107.1	2556.8	2894.0	2944.5
132.5°	1206.3	1268.4	1330.5	1346.0	1521.9	1756.4	1873.6	2074.8	2477.3	2779.2	2824.4
135°	1263.6	1320.2	1376.8	1390.9	1546.8	1754.7	1858.6	2027.2	2364.3	2617.1	2656.0
137.5°	1322.3	1378.3	1434.2	1448.2	1584.2	1765.5	1856.2	1998.7	2283.6	2497.3	2529.2
140°	1370.9	1422.5	1474.0	1486.9	1607.1	1767.3	1847.4	1970.5	2216.7	2401.3	2431.1
142.5°	1408.3	1456.0	1503.7	1515.6	1626.2	1773.7	1847.4	1955.5	2171.7	2333.9	2359.5
145°	1465.7	1507.3	1548.9	1559.3	1651.2	1773.7	1834.9	1923.3	2100.2	2232.9	2252.3
147.5°	1523.1	1563.6	1604.1	1614.2	1687.8	1785.9	1834.9	1904.5	2043.6	2148.0	2164.1
150°	1560.5	1597.1	1633.7	1642.8	1706.8	1792.2	1834.9	1893.7	2011.2	2099.4	2112.4
152.5°	1599.2	1626.9	1654.7	1661.6	1719.4	1796.4	1834.9	1885.1	1985.4	2060.7	2070.5
155°	1656.6	1677.1	1697.6	1702.7	1746.8	1805.5	1834.9	1874.8	1954.7	2014.6	2021.1
157.5°	1699.0	1719.0	1738.9	1743.9	1774.2	1814.7	1834.9	1866.0	1928.1	1974.7	1979.3
160°	1727.7	1743.2	1758.7	1762.6	1786.7	1818.8	1834.9	1861.5	1914.8	1954.7	1957.3
162.5°	1756.4	1768.0	1779.7	1782.6	1800.0	1823.3	1834.9	1857.4	1902.3	1936.0	1938.5
165°	1787.5	1798.0	1808.6	1811.2	1819.1	1829.6	1834.9	1851.0	1883.2	1907.3	1909.9
167.5°	1816.2	1821.2	1826.2	1827.5	1834.1	1843.0	1847.4	1857.9	1879.0	1894.8	1895.9
170°	1834.9	1839.9	1844.9	1846.2	1846.6	1847.1	1847.4	1857.9	1879.0	1894.8	1894.8
172.5°	1844.9	1846.0	1847.1	1847.4	1847.4	1847.4	1847.4	1855.7	1872.3	1884.8	1883.8
175°	1858.6	1858.6	1858.6	1858.6	1854.9	1849.9	1847.4	1852.7	1863.2	1871.1	1871.1
177.5°	1858.6	1858.6	1858.6	1858.6	1855.7	1851.8	1849.9	1854.1	1862.4	1868.6	1867.5
180°	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6	1858.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1052.6	1052.6
2.5°	1123.7	1116.9
5°	1445.2	1452.0
7.5°	1946.1	1942.8
10°	2420.0	2450.5
12.5°	2765.2	2772.0
15°	2975.1	2988.6
17.5°	3056.3	3059.7
20°	3059.7	3052.9
22.5°	3022.5	3015.7
25°	2978.5	2975.1
27.5°	2937.8	2941.2
30°	2920.9	2931.1
32.5°	2920.9	2937.8
35°	2927.7	2944.6
37.5°	2924.3	2944.6
40°	2910.8	2934.5
42.5°	2873.5	2890.5
45°	2816.0	2836.3
47.5°	2741.5	2755.1
50°	2646.8	2660.3
52.5°	2528.3	2531.7
55°	2386.1	2399.7
57.5°	2233.8	2237.2
60°	2064.6	2074.8
62.5°	1885.2	1885.2
65°	1695.7	1702.5
67.5°	1499.4	1516.3
70°	1299.7	1303.1
72.5°	1103.4	1103.4
75°	900.3	903.7
77.5°	707.4	707.4
80°	524.6	528.0
82.5°	362.2	368.9
85°	226.8	226.8
87.5°	104.9	94.8
90°	47.4	47.4
92.5°	189.9	152.2
95°	661.8	547.6
97.5°	1585.7	1368.4
100°	2284.7	2025.8
102.5°	2972.3	2750.6
105°	3849.0	3729.8
107.5°	4423.2	4452.0
110°	4642.2	4766.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4661.7	4852.4
115°	4538.1	4802.5
117.5°	4276.0	4569.3
120°	4064.8	4349.7
122.5°	3859.1	4140.2
125°	3565.7	3824.6
127.5°	3301.8	3520.2
130°	3146.3	3348.1
132.5°	3005.1	3185.9
135°	2811.8	2967.6
137.5°	2656.7	2784.2
140°	2550.3	2669.5
142.5°	2462.1	2564.7
145°	2329.9	2407.5
147.5°	2228.4	2292.7
150°	2164.6	2216.7
152.5°	2109.9	2149.3
155°	2047.2	2073.2
157.5°	1997.5	2015.8
160°	1967.9	1978.4
162.5°	1948.4	1958.4
165°	1920.5	1931.0
167.5°	1900.4	1904.8
170°	1894.8	1894.8
172.5°	1880.0	1876.1
175°	1871.1	1871.1
177.5°	1863.0	1858.6
180°	1858.6	1858.6



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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	5.56	6.37	6.59	7.41	8.81	18.74	19.55	19.77	20.59	21.99
	3H	6.27	6.99	7.30	8.04	9.46	20.58	21.31	21.62	22.35	23.77
	4H	6.56	7.25	7.61	8.30	9.73	21.22	21.91	22.27	22.96	24.39
	6H	6.81	7.44	7.87	8.50	9.94	21.65	22.28	22.71	23.34	24.78
	8H	6.88	7.48	7.94	8.55	9.99	21.77	22.37	22.83	23.45	24.88
	12H	6.89	7.47	7.96	8.53	9.99	21.83	22.41	22.90	23.48	24.93
4H	2H	12.77	13.46	13.83	14.51	15.94	19.01	19.70	20.07	20.75	22.18
	3H	14.34	14.91	15.40	15.99	17.43	21.05	21.63	22.12	22.71	24.15
	4H	14.43	14.96	15.50	16.03	17.49	21.82	22.35	22.89	23.42	24.88
	6H	14.44	14.89	15.52	15.99	17.44	22.35	22.81	23.43	23.90	25.36
	8H	14.41	14.84	15.49	15.92	17.39	22.51	22.94	23.59	24.02	25.50
	12H	14.36	14.75	15.46	15.85	17.33	22.60	22.99	23.70	24.09	25.57
8H	4H	15.87	16.29	16.95	17.38	18.85	21.87	22.30	22.95	23.38	24.85
	6H	16.11	16.46	17.21	17.59	19.06	22.50	22.85	23.60	23.98	25.45
	8H	16.13	16.44	17.24	17.54	19.03	22.72	23.03	23.83	24.14	25.62
	12H	16.09	16.36	17.21	17.47	19.00	22.86	23.13	23.98	24.24	25.76
12H	4H	16.01	16.40	17.11	17.49	18.97	21.82	22.21	22.92	23.31	24.78
	6H	16.37	16.68	17.48	17.79	19.27	22.48	22.79	23.59	23.90	25.39
	8H	16.43	16.71	17.55	17.81	19.34	22.71	22.98	23.82	24.09	25.61