

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: P938053

Luminaire Tested: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938053
REPORT IS A COMBINATION OF REPORTS P933591 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-125U-100D-93050-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

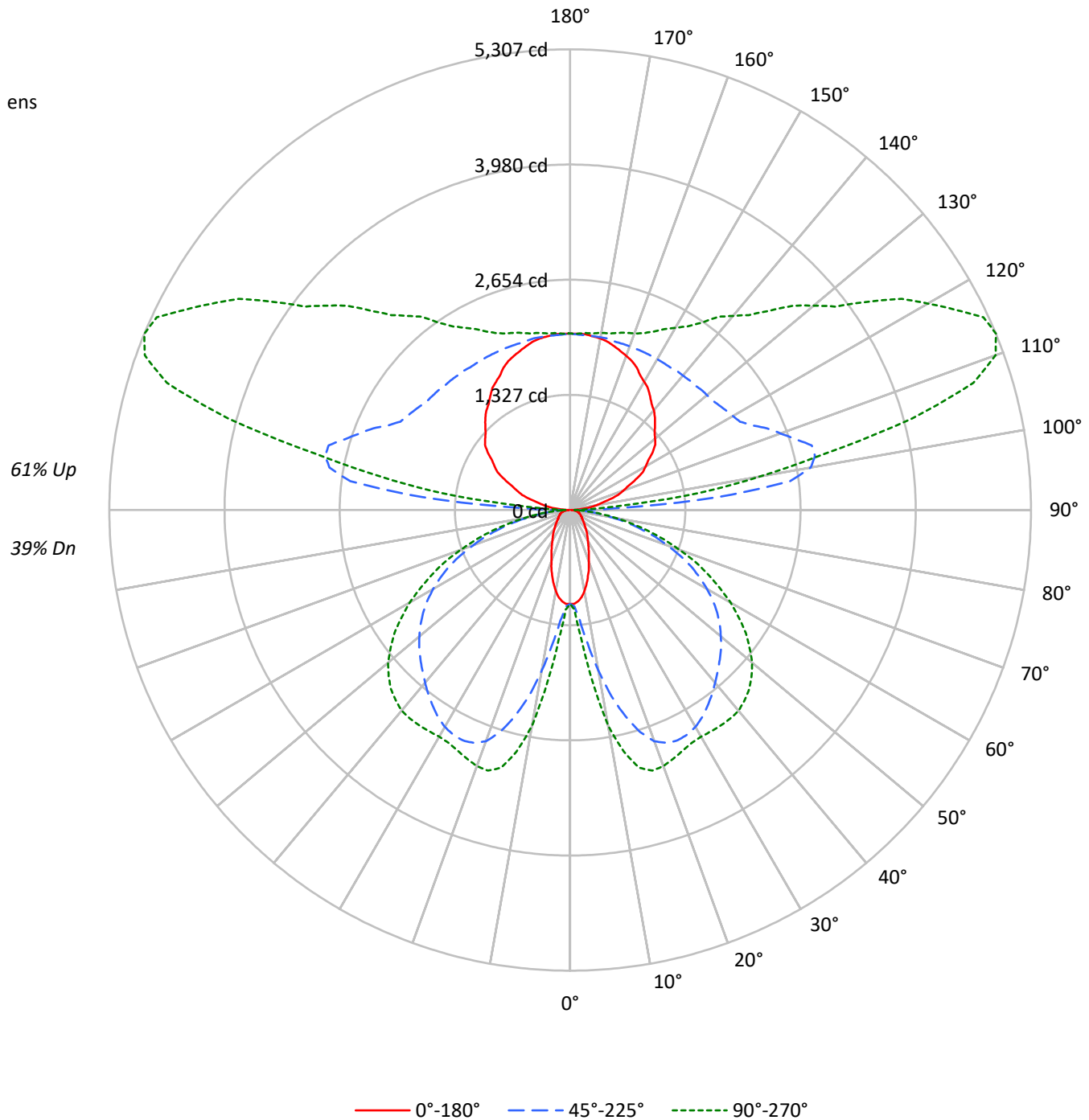
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21560.5 lumens
Efficiency: N/A
Efficacy: 111.6 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): 193.2
Input Voltage (V): NR
Input Current (A_{in}): 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				
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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39			39
1	95	90	86	83	86	82	79	76	67	65	62	53	51	50	40	39	38	32			32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26			26
3	78	68	61	55	71	62	56	51	51	46	42	40	37	34	30	28	26	21			21
4	71	60	52	46	64	55	48	42	45	40	35	35	32	29	27	24	22	18			18
5	65	53	45	39	59	49	41	36	40	34	30	31	27	24	24	21	19	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	43	35	29	50	39	32	27	32	26	23	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	24	20	23	19	16	18	15	13	10			10
9	47	35	27	22	43	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	25	20	40	29	23	18	24	19	16	19	15	13	15	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3349	3349	3349
5°	3273	3872	4501
10°	2970	5645	7462
15°	2525	7376	9011
20°	2056	8551	9183
25°	1716	8950	8997
30°	1448	9008	8980
35°	1281	8862	9212
40°	1117	8669	9452
45°	1012	8529	9489
50°	929	8404	9332
55°	891	8220	8918
60°	913	7862	8265
65°	951	7317	7368
70°	1016	6386	6224
75°	1130	5212	4857
80°	1243	3619	3273
85°	1128	1923	1676

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9489 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.0	0.6
10°-20°	620.7	2.9
20°-30°	1085.7	5.0
30°-40°	1397.6	6.5
40°-50°	1561.1	7.2
50°-60°	1495.1	6.9
60°-70°	1184.9	5.5
70°-80°	696.8	3.2
80°-90°	201.3	0.9
90°-100°	990.8	4.6
100°-110°	2605.0	12.1
110°-120°	2701.1	12.5
120°-130°	2166.6	10.0
130°-140°	1700.0	7.9
140°-150°	1304.8	6.1
150°-160°	939.7	4.4
160°-170°	575.0	2.7
170°-180°	194.2	0.9
0°-30°	1846.4	8.6
0°-40°	3244.0	15.0
0°-60°	6300.2	29.2
0°-90°	8383.2	38.9
90°-120°	6296.9	29.2
90°-150°	11468.4	53.2
90°-180°	13177.0	61.1
0°-180°	21560.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1083	1083	1083	1083	1083	
5°	1055	1131	1274	1441	1494	97
15°	790	1459	2458	2980	3074	220
25°	505	1654	2928	3056	3060	233
35°	341	1580	2757	2914	3029	213
45°	233	1260	2437	2792	2917	180
55°	167	801	2068	2402	2468	152
65°	132	425	1535	1727	1751	131
75°	98	261	842	926	930	102
85°	35	80	209	230	233	37
90°	14	38	104	52	52	14
95°	131	513	1707	880	599	145
105°	469	711	2880	4372	4079	498
115°	834	1012	2307	4602	5252	823
125°	1160	1300	2098	3546	4183	1030
135°	1382	1521	2033	2862	3246	1069
145°	1603	1705	2007	2442	2633	1004
155°	1812	1862	2007	2203	2267	832
165°	1955	1981	2007	2086	2112	552
175°	2033	2033	2020	2046	2046	193
180°	2033	2033	2033	2033	2033	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7	1082.7
2.5°	1082.7	1082.7	1089.6	1093.1	1100.1	1103.6	1110.5	1117.5	1138.4	1141.9	1148.8
5°	1054.8	1068.7	1114.0	1131.4	1180.2	1246.3	1274.2	1319.4	1413.4	1441.2	1458.6
7.5°	1013.0	1044.4	1155.8	1183.6	1305.4	1479.5	1552.7	1650.1	1799.8	1872.9	1932.1
10°	946.9	1013.0	1211.4	1277.6	1476.1	1740.6	1876.4	2012.2	2238.4	2339.4	2377.6
12.5°	873.8	981.7	1270.6	1361.2	1646.6	2033.0	2196.6	2346.4	2604.0	2739.8	2760.6
15°	790.2	936.4	1326.3	1458.6	1827.7	2276.7	2457.7	2642.3	2882.5	2979.9	3004.3
17.5°	717.1	901.7	1378.6	1517.8	1966.9	2496.0	2680.6	2833.8	3028.6	3094.8	3112.3
20°	626.6	846.0	1413.4	1594.4	2113.1	2656.2	2833.8	2952.1	3084.3	3126.1	3133.1
22.5°	560.4	786.8	1434.3	1622.2	2210.6	2753.6	2903.3	2997.4	3087.8	3101.8	3105.2
25°	504.8	720.6	1430.8	1653.6	2294.1	2812.8	2927.7	2997.4	3049.5	3056.5	3056.5
27.5°	452.6	647.5	1416.9	1660.5	2356.8	2826.7	2917.3	2966.0	2990.4	3004.3	3004.3
30°	407.3	577.9	1382.0	1646.6	2384.7	2812.8	2885.9	2910.3	2934.7	2955.6	2966.0
32.5°	372.5	511.7	1329.8	1618.8	2388.1	2778.1	2830.2	2844.2	2879.0	2927.7	2945.1
35°	341.1	445.6	1270.6	1580.5	2367.2	2722.3	2757.2	2771.0	2840.7	2913.8	2938.2
37.5°	309.9	396.9	1194.1	1514.4	2335.9	2656.2	2680.6	2704.9	2812.8	2899.9	2927.7
40°	278.5	355.1	1103.6	1441.2	2287.2	2576.1	2597.0	2635.3	2778.1	2879.0	2906.8
42.5°	254.1	320.3	1006.1	1364.6	2224.5	2485.6	2516.9	2572.6	2736.3	2844.2	2875.5
45°	233.3	285.4	901.7	1260.2	2144.5	2391.6	2436.8	2513.4	2687.5	2791.9	2819.8
47.5°	212.4	261.1	793.7	1152.3	2057.4	2297.6	2356.8	2443.8	2621.4	2722.3	2746.7
50°	195.0	236.7	685.8	1037.4	1963.4	2196.6	2266.3	2356.8	2537.9	2631.8	2663.2
52.5°	181.0	215.8	584.9	922.6	1855.5	2092.2	2172.3	2266.3	2436.8	2527.4	2548.3
55°	167.1	198.4	497.8	800.7	1744.1	1980.8	2067.9	2158.3	2325.5	2402.1	2415.9
57.5°	160.1	184.5	424.7	685.8	1625.7	1855.5	1953.0	2036.5	2193.2	2252.3	2266.3
60°	149.7	174.1	369.0	588.3	1496.9	1737.1	1820.7	1904.2	2036.5	2085.3	2095.7
62.5°	139.2	167.1	327.3	494.3	1364.6	1597.9	1681.4	1758.0	1869.5	1904.2	1918.1
65°	132.3	160.1	295.9	424.7	1228.9	1451.7	1535.2	1601.4	1691.9	1726.7	1733.7
67.5°	125.3	153.2	271.6	365.5	1093.1	1305.4	1368.1	1430.8	1500.4	1535.2	1538.7
70°	114.9	146.2	250.7	323.7	953.8	1138.4	1190.6	1256.8	1312.4	1329.8	1340.3
72.5°	107.9	135.8	236.7	292.4	811.1	978.3	1027.0	1065.3	1114.0	1131.4	1131.4
75°	97.5	121.8	222.8	261.1	664.9	800.7	842.5	880.8	919.1	926.0	915.5
77.5°	87.0	107.9	191.5	219.3	518.7	633.6	668.4	689.3	720.6	727.6	731.1
80°	73.1	94.0	149.7	170.6	376.0	466.5	490.9	508.3	536.1	536.1	543.1
82.5°	55.7	73.1	107.9	121.8	254.1	320.3	341.1	351.6	369.0	369.0	369.0
85°	34.8	45.2	69.6	80.1	153.2	195.0	208.9	212.4	226.3	229.8	229.8
87.5°	17.4	24.3	45.2	48.7	80.1	100.9	100.9	107.9	107.9	104.4	100.9
90°	13.6	24.5	35.5	38.2	60.0	89.1	103.6	92.1	69.1	51.8	51.8
92.5°	54.5	147.3	240.1	263.3	370.2	512.7	583.9	511.7	367.4	259.2	248.9
95°	131.0	300.7	470.5	512.9	910.8	1441.4	1706.6	1522.9	1155.5	880.0	848.7
97.5°	226.4	376.2	526.0	563.4	1226.9	2111.5	2553.8	2437.7	2205.5	2031.3	1971.9
100°	300.1	436.0	571.8	605.8	1342.0	2323.6	2814.4	2822.9	2839.9	2852.6	2781.8
102.5°	362.9	489.7	616.3	648.0	1394.7	2390.3	2888.1	3036.0	3331.9	3553.9	3493.3
105°	469.3	576.6	683.9	710.8	1433.8	2397.8	2879.9	3211.5	3874.9	4372.4	4339.8
107.5°	578.4	678.5	778.5	803.6	1441.1	2291.2	2716.2	3178.8	4104.0	4798.0	4805.9
110°	652.1	742.4	832.8	855.4	1430.1	2196.5	2579.7	3097.0	4131.4	4907.2	4941.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	724.4	810.5	896.6	918.1	1430.6	2114.0	2455.6	2985.0	4043.6	4837.6	4889.8
115°	833.5	912.9	992.4	1012.2	1443.8	2019.2	2306.9	2816.9	3836.7	4601.6	4673.9
117.5°	941.4	1013.5	1085.7	1103.7	1470.6	1959.9	2204.6	2664.9	3585.2	4275.5	4355.7
120°	1004.1	1072.0	1139.9	1156.9	1492.5	1940.0	2163.7	2584.2	3425.2	4055.9	4133.8
122.5°	1065.5	1134.0	1202.5	1219.6	1523.9	1929.5	2132.3	2511.0	3268.2	3836.2	3913.1
125°	1159.6	1222.1	1284.5	1300.1	1566.2	1920.8	2098.2	2419.8	3063.2	3545.6	3616.4
127.5°	1236.0	1299.1	1362.2	1377.9	1608.4	1915.8	2069.5	2345.7	2898.0	3312.3	3372.1
130°	1277.0	1344.9	1412.7	1429.7	1639.3	1918.9	2058.6	2304.5	2796.2	3165.0	3220.2
132.5°	1319.2	1387.1	1455.1	1472.0	1664.4	1920.8	2049.1	2269.2	2709.4	3039.5	3089.0
135°	1382.0	1443.8	1505.7	1521.1	1691.7	1919.1	2032.7	2217.1	2585.7	2862.2	2904.8
137.5°	1446.1	1507.3	1568.6	1583.8	1732.5	1930.9	2030.0	2185.8	2497.4	2731.2	2766.0
140°	1499.3	1555.6	1612.0	1626.2	1757.6	1932.8	2020.4	2155.0	2424.2	2626.1	2658.7
142.5°	1540.2	1592.4	1644.5	1657.5	1778.5	1939.8	2020.4	2138.7	2375.2	2552.5	2580.5
145°	1603.0	1648.5	1694.0	1705.3	1805.8	1939.8	2006.8	2103.5	2296.9	2441.9	2463.2
147.5°	1665.7	1710.0	1754.2	1765.3	1845.8	1953.2	2006.8	2082.9	2235.1	2349.2	2366.8
150°	1706.6	1746.7	1786.7	1796.7	1866.7	1960.1	2006.8	2071.1	2199.6	2296.0	2310.2
152.5°	1749.0	1779.3	1809.7	1817.2	1880.4	1964.7	2006.8	2061.7	2171.4	2253.7	2264.5
155°	1811.7	1834.2	1856.6	1862.2	1910.4	1974.7	2006.8	2050.5	2137.8	2203.2	2210.3
157.5°	1858.1	1879.9	1901.8	1907.2	1940.4	1984.7	2006.8	2040.7	2108.6	2159.6	2164.6
160°	1889.5	1906.4	1923.5	1927.7	1954.0	1989.3	2006.8	2035.9	2094.1	2137.8	2140.7
162.5°	1920.8	1933.6	1946.3	1949.5	1968.6	1994.1	2006.8	2031.4	2080.5	2117.3	2120.0
165°	1954.9	1966.4	1977.9	1980.8	1989.5	2001.0	2006.8	2024.4	2059.5	2085.9	2088.8
167.5°	1986.4	1991.8	1997.3	1998.6	2005.9	2015.6	2020.4	2031.9	2055.0	2072.3	2073.5
170°	2006.8	2012.3	2017.7	2019.0	2019.5	2020.1	2020.4	2031.9	2055.0	2072.3	2072.3
172.5°	2017.7	2019.0	2020.2	2020.4	2020.4	2020.4	2020.4	2029.6	2047.8	2061.4	2060.3
175°	2032.7	2032.7	2032.7	2032.7	2028.6	2023.2	2020.4	2026.2	2037.7	2046.4	2046.4
177.5°	2032.7	2032.7	2032.7	2032.7	2029.6	2025.3	2023.2	2027.7	2036.8	2043.6	2042.4
180°	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7	2032.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1082.7	1082.7
2.5°	1155.8	1148.8
5°	1486.5	1493.5
7.5°	2001.7	1998.2
10°	2489.1	2520.4
12.5°	2844.2	2851.1
15°	3060.0	3074.0
17.5°	3143.5	3147.0
20°	3147.0	3140.1
22.5°	3108.7	3101.8
25°	3063.5	3060.0
27.5°	3021.7	3025.2
30°	3004.3	3014.8
32.5°	3004.3	3021.7
35°	3011.3	3028.6
37.5°	3007.7	3028.6
40°	2993.9	3018.2
42.5°	2955.6	2973.0
45°	2896.4	2917.3
47.5°	2819.8	2833.8
50°	2722.3	2736.3
52.5°	2600.5	2604.0
55°	2454.2	2468.2
57.5°	2297.6	2301.1
60°	2123.6	2134.0
62.5°	1939.0	1939.0
65°	1744.1	1751.1
67.5°	1542.2	1559.6
70°	1336.8	1340.3
72.5°	1134.9	1134.9
75°	926.0	929.5
77.5°	727.6	727.6
80°	539.6	543.1
82.5°	372.5	379.4
85°	233.3	233.3
87.5°	107.9	97.5
90°	51.8	51.8
92.5°	207.6	166.4
95°	723.8	598.9
97.5°	1734.2	1496.5
100°	2498.7	2215.5
102.5°	3250.7	3008.2
105°	4209.4	4079.1
107.5°	4837.4	4868.9
110°	5076.9	5212.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5098.3	5306.9
115°	4963.1	5252.3
117.5°	4676.4	4997.2
120°	4445.4	4757.1
122.5°	4220.5	4527.9
125°	3899.6	4182.7
127.5°	3611.0	3849.9
130°	3440.9	3661.6
132.5°	3286.6	3484.2
135°	3075.1	3245.5
137.5°	2905.5	3045.0
140°	2789.1	2919.5
142.5°	2692.7	2804.9
145°	2548.0	2633.0
147.5°	2437.1	2507.5
150°	2367.3	2424.3
152.5°	2307.6	2350.6
155°	2238.9	2267.3
157.5°	2184.6	2204.6
160°	2152.2	2163.7
162.5°	2130.9	2141.8
165°	2100.3	2111.9
167.5°	2078.3	2083.2
170°	2072.3	2072.3
172.5°	2056.0	2051.8
175°	2046.4	2046.4
177.5°	2037.6	2032.7
180°	2032.7	2032.7



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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	4.10	4.90	5.14	5.95	7.37	17.29	18.09	18.33	19.14	20.56
	3H	4.80	5.51	5.85	6.57	8.01	19.13	19.85	20.18	20.91	22.34
	4H	5.09	5.77	6.16	6.83	8.28	19.78	20.46	20.84	21.52	22.96
	6H	5.34	5.97	6.41	7.03	8.49	20.21	20.83	21.28	21.90	23.36
	8H	5.41	6.00	6.48	7.08	8.54	20.33	20.93	21.40	22.01	23.46
	12H	5.42	5.99	6.50	7.06	8.54	20.40	20.96	21.48	22.04	23.52
4H	2H	11.31	11.99	12.38	13.05	14.50	17.56	18.24	18.62	19.30	20.74
	3H	12.87	13.44	13.95	14.53	15.99	19.60	20.17	20.68	21.26	22.72
	4H	12.97	13.49	14.05	14.57	16.05	20.37	20.89	21.45	21.97	23.45
	6H	12.97	13.42	14.06	14.52	16.00	20.91	21.36	22.00	22.46	23.93
	8H	12.95	13.37	14.04	14.46	15.95	21.07	21.49	22.16	22.59	24.07
	12H	12.90	13.28	14.01	14.39	15.88	21.16	21.54	22.27	22.65	24.15
8H	4H	14.41	14.83	15.50	15.92	17.41	20.42	20.84	21.51	21.94	23.43
	6H	14.65	15.00	15.76	16.13	17.62	21.05	21.40	22.17	22.54	24.02
	8H	14.67	14.97	15.79	16.09	17.59	21.28	21.58	22.40	22.70	24.20
	12H	14.63	14.90	15.76	16.01	17.56	21.42	21.69	22.55	22.80	24.35
12H	4H	14.55	14.93	15.66	16.04	17.53	20.37	20.75	21.48	21.86	23.35
	6H	14.91	15.21	16.03	16.33	17.84	21.04	21.34	22.16	22.46	23.96
	8H	14.97	15.24	16.10	16.36	17.90	21.27	21.53	22.39	22.65	24.19