

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: P938449

Luminaire Tested: SQ4-FB-150U-100D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

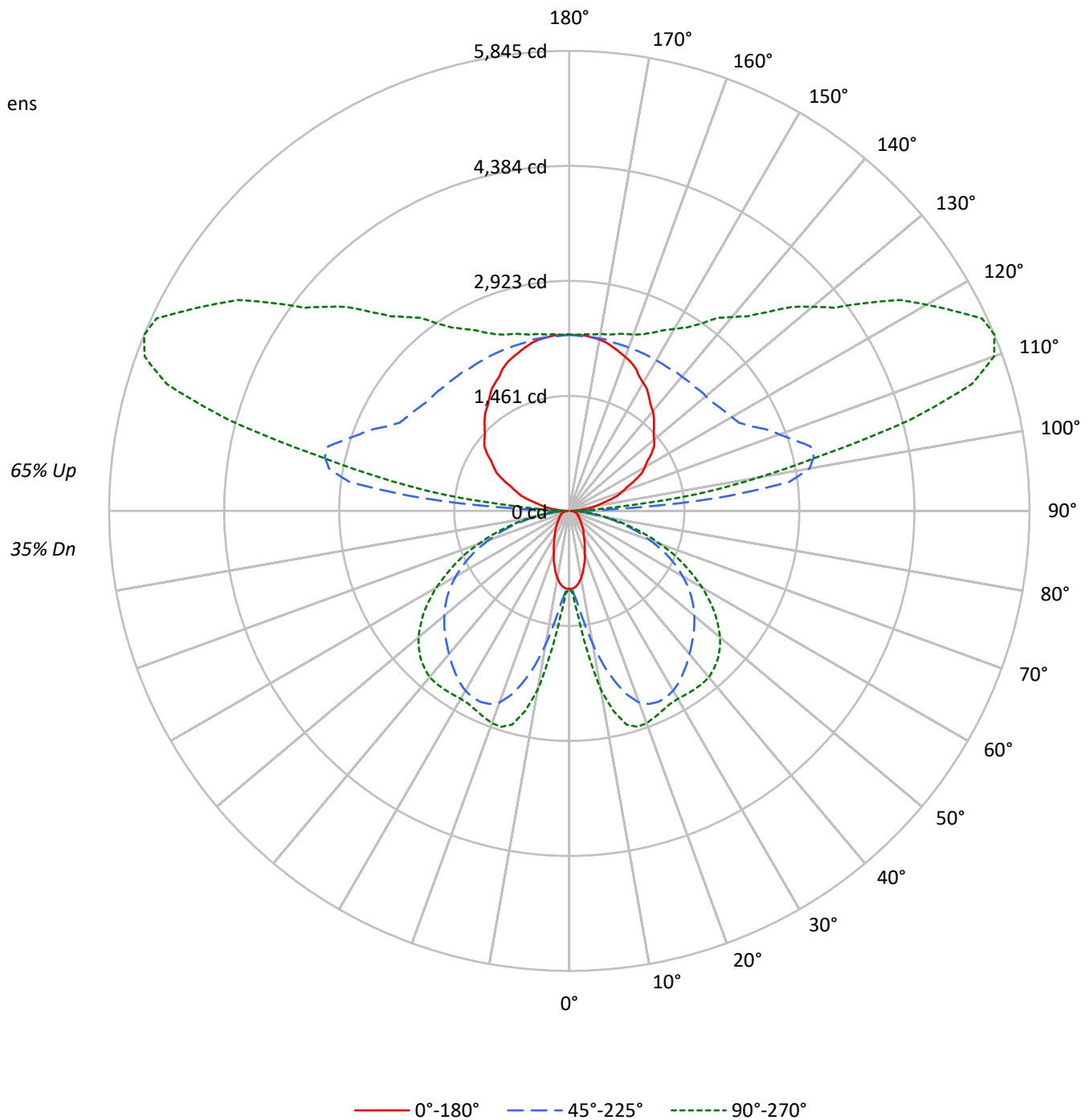
Test Method: LM-79-2019  
Report Number: P938449  
REPORT IS A COMBINATION OF REPORTS P933623 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-100D-930-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22178.9 lumens  
Efficiency: N/A  
Efficacy: 102.1 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): 217.2  
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35				35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28				28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23				23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19				19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16				16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12				12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9				9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8				8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7				7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3062	3062	3062
5°	2992	3540	4115
10°	2715	5161	6823
15°	2308	6744	8238
20°	1880	7817	8396
25°	1569	8182	8225
30°	1324	8236	8210
35°	1171	8102	8422
40°	1021	7926	8641
45°	925	7798	8676
50°	850	7684	8532
55°	814	7515	8154
60°	834	7188	7556
65°	869	6690	6736
70°	928	5838	5691
75°	1033	4764	4441
80°	1136	3309	2992
85°	1030	1759	1532

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8676 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.0	0.6
10°-20°	567.5	2.6
20°-30°	992.6	4.5
30°-40°	1277.8	5.8
40°-50°	1427.2	6.4
50°-60°	1367.0	6.2
60°-70°	1083.3	4.9
70°-80°	637.0	2.9
80°-90°	185.5	0.8
90°-100°	1091.3	4.9
100°-110°	2869.0	12.9
110°-120°	2974.9	13.4
120°-130°	2386.2	10.8
130°-140°	1872.3	8.4
140°-150°	1437.1	6.5
150°-160°	1034.9	4.7
160°-170°	633.2	2.9
170°-180°	213.9	1.0
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0°-30°	1688.1	7.6
0°-40°	2965.9	13.4
0°-60°	5760.1	26.0
0°-90°	7666.0	34.6
90°-120°	6935.2	31.3
90°-150°	12630.8	56.9
90°-180°	14513.0	65.4
0°-180°	22178.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	964	1034	1165	1318	1365	89
15°	722	1334	2247	2724	2810	201
25°	462	1512	2677	2794	2798	213
35°	312	1445	2521	2664	2769	195
45°	213	1152	2228	2553	2667	165
55°	153	732	1891	2196	2257	139
65°	121	388	1404	1579	1601	120
75°	89	239	770	847	850	93
85°	32	73	191	210	213	34
90°	15	42	114	57	57	15
95°	144	565	1880	969	660	160
105°	517	783	3172	4816	4492	548
115°	918	1115	2541	5068	5785	907
125°	1277	1432	2311	3905	4607	1134
135°	1522	1675	2239	3152	3574	1178
145°	1766	1878	2210	2690	2900	1106
155°	1995	2051	2210	2427	2497	917
165°	2153	2182	2210	2297	2326	608
175°	2239	2239	2225	2254	2254	213
180°	2239	2239	2239	2239	2239	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9
2.5°	989.9	989.9	996.2	999.4	1005.8	1009.0	1015.3	1021.7	1040.8	1044.0	1050.3
5°	964.4	977.1	1018.5	1034.4	1079.0	1139.5	1164.9	1206.3	1292.2	1317.6	1333.5
7.5°	926.2	954.8	1056.7	1082.1	1193.5	1352.7	1419.5	1508.6	1645.5	1712.3	1766.4
10°	865.7	926.2	1107.6	1168.0	1349.5	1591.4	1715.5	1839.7	2046.5	2138.8	2173.8
12.5°	798.9	897.5	1161.7	1244.5	1505.5	1858.7	2008.3	2145.2	2380.7	2504.9	2523.9
15°	722.5	856.2	1212.6	1333.5	1671.0	2081.5	2247.0	2415.7	2635.4	2724.4	2746.7
17.5°	655.6	824.4	1260.4	1387.7	1798.2	2282.0	2450.8	2590.8	2769.0	2829.5	2845.4
20°	572.9	773.4	1292.2	1457.7	1931.9	2428.4	2590.8	2699.0	2819.9	2858.1	2864.5
22.5°	512.4	719.3	1311.3	1483.1	2021.1	2517.6	2654.4	2740.4	2823.1	2835.9	2839.0
25°	461.5	658.9	1308.1	1511.8	2097.4	2571.7	2676.7	2740.4	2788.1	2794.4	2794.4
27.5°	413.8	592.0	1295.4	1518.2	2154.8	2584.4	2667.2	2711.7	2734.0	2746.7	2746.7
30°	372.4	528.4	1263.5	1505.5	2180.2	2571.7	2638.5	2660.8	2683.1	2702.2	2711.7
32.5°	340.6	467.8	1215.8	1480.0	2183.4	2539.9	2587.6	2600.4	2632.2	2676.7	2692.6
35°	311.9	407.4	1161.7	1445.0	2164.2	2488.9	2520.8	2533.5	2597.1	2664.0	2686.3
37.5°	283.3	362.9	1091.7	1384.5	2135.7	2428.4	2450.8	2473.0	2571.7	2651.3	2676.7
40°	254.6	324.7	1009.0	1317.6	2091.1	2355.3	2374.3	2409.3	2539.9	2632.2	2657.6
42.5°	232.3	292.9	919.8	1247.6	2033.8	2272.5	2301.2	2352.1	2501.7	2600.4	2628.9
45°	213.3	261.0	824.4	1152.1	1960.6	2186.6	2227.9	2297.9	2457.1	2552.6	2578.0
47.5°	194.2	238.7	725.7	1053.5	1881.0	2100.6	2154.8	2234.3	2396.6	2488.9	2511.2
50°	178.3	216.4	627.0	948.5	1795.1	2008.3	2072.0	2154.8	2320.3	2406.2	2434.9
52.5°	165.5	197.3	534.7	843.5	1696.4	1912.8	1986.1	2072.0	2227.9	2310.7	2329.8
55°	152.8	181.4	455.1	732.0	1594.6	1811.0	1890.6	1973.3	2126.1	2196.1	2208.8
57.5°	146.4	168.7	388.3	627.0	1486.4	1696.4	1785.6	1861.9	2005.2	2059.2	2072.0
60°	136.8	159.2	337.3	537.8	1368.6	1588.2	1664.6	1741.0	1861.9	1906.5	1916.0
62.5°	127.3	152.8	299.2	451.9	1247.6	1460.9	1537.3	1607.3	1709.2	1741.0	1753.7
65°	120.9	146.4	270.5	388.3	1123.6	1327.2	1403.6	1464.1	1546.8	1578.6	1585.0
67.5°	114.6	140.0	248.3	334.2	999.4	1193.5	1250.8	1308.1	1371.8	1403.6	1406.8
70°	105.0	133.7	229.2	296.0	872.1	1040.8	1088.5	1149.0	1199.9	1215.8	1225.4
72.5°	98.7	124.1	216.4	267.3	741.6	894.4	938.9	974.0	1018.5	1034.4	1034.4
75°	89.1	111.4	203.7	238.7	607.9	732.0	770.2	805.2	840.3	846.6	837.0
77.5°	79.6	98.7	175.1	200.5	474.3	579.3	611.1	630.2	658.9	665.2	668.4
80°	66.8	85.9	136.8	155.9	343.8	426.5	448.8	464.7	490.2	490.2	496.5
82.5°	50.9	66.8	98.7	111.4	232.3	292.9	311.9	321.4	337.3	337.3	337.3
85°	31.8	41.4	63.7	73.2	140.0	178.3	191.0	194.2	206.9	210.1	210.1
87.5°	15.9	22.2	41.4	44.6	73.2	92.3	92.3	98.7	98.7	95.5	92.3
90°	15.0	27.1	39.1	42.1	66.1	98.1	114.2	101.5	76.1	57.1	57.1
92.5°	60.1	162.2	264.4	290.0	407.7	564.6	643.0	563.5	404.6	285.5	274.1
95°	144.2	331.2	518.2	564.9	1003.2	1587.5	1879.7	1677.3	1272.7	969.1	934.8
97.5°	249.4	414.3	579.3	620.6	1351.3	2325.6	2812.7	2684.8	2429.1	2237.2	2171.8
100°	330.5	480.1	629.7	667.1	1478.0	2559.1	3099.7	3109.0	3127.7	3141.7	3063.8
102.5°	399.7	539.2	678.8	713.7	1536.1	2632.6	3180.8	3343.8	3669.6	3914.1	3847.3
105°	516.9	635.1	753.3	782.8	1579.2	2640.9	3171.8	3537.1	4267.6	4815.5	4779.6
107.5°	637.1	747.3	857.4	885.0	1587.1	2523.3	2991.5	3501.0	4520.0	5284.3	5293.0
110°	718.2	817.7	917.2	942.1	1575.2	2419.2	2841.3	3410.9	4550.1	5404.5	5441.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	797.9	892.7	987.5	1011.2	1575.6	2328.2	2704.5	3287.5	4453.4	5327.9	5385.3
115°	918.1	1005.5	1093.0	1114.9	1590.2	2223.9	2540.8	3102.4	4225.5	5068.0	5147.6
117.5°	1036.8	1116.2	1195.7	1215.5	1619.7	2158.5	2428.0	2934.9	3948.6	4708.9	4797.2
120°	1105.8	1180.7	1255.4	1274.1	1643.7	2136.5	2383.0	2846.1	3772.3	4466.9	4552.8
122.5°	1173.4	1248.9	1324.4	1343.3	1678.4	2125.1	2348.5	2765.5	3599.5	4225.1	4309.7
125°	1277.2	1345.9	1414.7	1431.9	1724.9	2115.6	2310.9	2665.2	3373.6	3905.0	3983.0
127.5°	1361.2	1430.7	1500.2	1517.5	1771.4	2110.0	2279.3	2583.5	3191.8	3648.1	3713.9
130°	1406.4	1481.1	1555.9	1574.6	1805.5	2113.3	2267.3	2538.0	3079.7	3485.8	3546.6
132.5°	1452.9	1527.7	1602.5	1621.2	1833.0	2115.5	2256.8	2499.2	2984.0	3347.6	3402.1
135°	1522.0	1590.1	1658.3	1675.3	1863.1	2113.6	2238.8	2441.8	2847.8	3152.3	3199.2
137.5°	1592.7	1660.1	1727.6	1744.4	1908.2	2126.5	2235.7	2407.3	2750.6	3008.0	3046.4
140°	1651.3	1713.4	1775.5	1791.0	1935.7	2128.7	2225.2	2373.4	2670.0	2892.3	2928.2
142.5°	1696.3	1753.8	1811.2	1825.5	1958.8	2136.4	2225.2	2355.4	2615.9	2811.2	2842.1
145°	1765.5	1815.6	1865.6	1878.1	1988.8	2136.4	2210.2	2316.7	2529.7	2689.5	2712.9
147.5°	1834.5	1883.3	1932.0	1944.2	2032.9	2151.1	2210.2	2294.0	2461.6	2587.3	2606.7
150°	1879.7	1923.7	1967.8	1978.8	2055.9	2158.8	2210.2	2281.0	2422.6	2528.7	2544.4
152.5°	1926.2	1959.6	1993.0	2001.3	2070.9	2163.8	2210.2	2270.6	2391.5	2482.2	2494.0
155°	1995.4	2020.1	2044.8	2050.9	2104.0	2174.8	2210.2	2258.3	2354.5	2426.6	2434.5
157.5°	2046.4	2070.5	2094.5	2100.5	2137.0	2185.8	2210.2	2247.6	2322.4	2378.5	2384.0
160°	2081.0	2099.7	2118.4	2123.1	2152.1	2190.8	2210.2	2242.2	2306.3	2354.4	2357.6
162.5°	2115.5	2129.6	2143.5	2147.1	2168.1	2196.1	2210.2	2237.2	2291.4	2331.9	2334.9
165°	2153.1	2165.8	2178.5	2181.7	2191.1	2203.8	2210.2	2229.5	2268.2	2297.3	2300.5
167.5°	2187.7	2193.7	2199.7	2201.2	2209.2	2219.9	2225.2	2237.9	2263.3	2282.3	2283.7
170°	2210.2	2216.2	2222.2	2223.7	2224.2	2224.9	2225.2	2237.9	2263.3	2282.3	2282.3
172.5°	2222.2	2223.5	2224.9	2225.2	2225.2	2225.2	2225.2	2235.2	2255.3	2270.3	2269.1
175°	2238.8	2238.8	2238.8	2238.8	2234.3	2228.2	2225.2	2231.5	2244.2	2253.8	2253.8
177.5°	2238.8	2238.8	2238.8	2238.8	2235.2	2230.6	2228.2	2233.2	2243.3	2250.7	2249.4
180°	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8	2238.8



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	989.9	989.9
2.5°	1056.7	1050.3
5°	1359.1	1365.4
7.5°	1830.1	1826.9
10°	2275.7	2304.3
12.5°	2600.4	2606.7
15°	2797.7	2810.4
17.5°	2874.0	2877.2
20°	2877.2	2870.9
22.5°	2842.2	2835.9
25°	2800.9	2797.7
27.5°	2762.6	2765.9
30°	2746.7	2756.3
32.5°	2746.7	2762.6
35°	2753.1	2769.0
37.5°	2749.9	2769.0
40°	2737.2	2759.4
42.5°	2702.2	2718.1
45°	2648.1	2667.2
47.5°	2578.0	2590.8
50°	2488.9	2501.7
52.5°	2377.5	2380.7
55°	2243.8	2256.6
57.5°	2100.6	2103.8
60°	1941.5	1951.0
62.5°	1772.8	1772.8
65°	1594.6	1600.9
67.5°	1410.0	1425.9
70°	1222.2	1225.4
72.5°	1037.6	1037.6
75°	846.6	849.8
77.5°	665.2	665.2
80°	493.4	496.5
82.5°	340.6	346.9
85°	213.3	213.3
87.5°	98.7	89.1
90°	57.1	57.1
92.5°	228.7	183.3
95°	797.1	659.6
97.5°	1910.0	1648.2
100°	2752.0	2440.1
102.5°	3580.2	3313.0
105°	4636.1	4492.5
107.5°	5327.7	5362.4
110°	5591.5	5741.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5615.1	5844.8
115°	5466.1	5784.7
117.5°	5150.4	5503.7
120°	4896.0	5239.3
122.5°	4648.3	4986.9
125°	4294.8	4606.7
127.5°	3977.0	4240.1
130°	3789.7	4032.7
132.5°	3619.7	3837.4
135°	3386.8	3574.5
137.5°	3200.0	3353.6
140°	3071.8	3215.4
142.5°	2965.6	3089.1
145°	2806.4	2899.9
147.5°	2684.2	2761.6
150°	2607.2	2670.0
152.5°	2541.4	2588.8
155°	2465.8	2497.2
157.5°	2406.0	2428.0
160°	2370.3	2383.0
162.5°	2346.9	2359.0
165°	2313.2	2325.9
167.5°	2289.0	2294.3
170°	2282.3	2282.3
172.5°	2264.5	2259.8
175°	2253.8	2253.8
177.5°	2244.1	2238.8
180°	2238.8	2238.8



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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	3.29	4.05	4.36	5.13	6.60	16.48	17.24	17.55	18.32	19.80
	3H	3.99	4.67	5.07	5.76	7.25	18.32	19.00	19.40	20.09	21.58
	4H	4.28	4.93	5.37	6.02	7.52	18.96	19.61	20.06	20.70	22.20
	6H	4.53	5.12	5.63	6.22	7.72	19.39	19.99	20.49	21.08	22.59
	8H	4.59	5.16	5.70	6.27	7.77	19.51	20.08	20.62	21.19	22.69
	12H	4.60	5.15	5.72	6.25	7.77	19.58	20.12	20.69	21.22	22.75
4H	2H	10.50	11.15	11.60	12.24	13.74	16.74	17.39	17.84	18.48	19.98
	3H	12.06	12.60	13.17	13.72	15.23	18.78	19.33	19.89	20.44	21.95
	4H	12.15	12.65	13.26	13.75	15.28	19.55	20.05	20.66	21.15	22.68
	6H	12.15	12.58	13.27	13.71	15.23	20.09	20.52	21.21	21.65	23.17
	8H	12.13	12.53	13.25	13.65	15.19	20.25	20.65	21.37	21.77	23.31
	12H	12.08	12.44	13.22	13.57	15.12	20.34	20.70	21.48	21.84	23.38
8H	4H	13.59	13.99	14.71	15.11	16.65	19.60	20.00	20.72	21.12	22.66
	6H	13.83	14.16	14.97	15.32	16.85	20.23	20.56	21.37	21.72	23.26
	8H	13.84	14.13	14.99	15.27	16.83	20.45	20.74	21.60	21.88	23.44
	12H	13.81	14.06	14.96	15.20	16.79	20.60	20.85	21.75	21.99	23.58
12H	4H	13.73	14.09	14.86	15.22	16.77	19.55	19.91	20.69	21.04	22.59
	6H	14.08	14.37	15.23	15.52	17.07	20.21	20.50	21.36	21.65	23.20
	8H	14.15	14.40	15.30	15.54	17.13	20.44	20.70	21.59	21.83	23.43