

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: P938278

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938278  
REPORT IS A COMBINATION OF REPORTS P933621 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

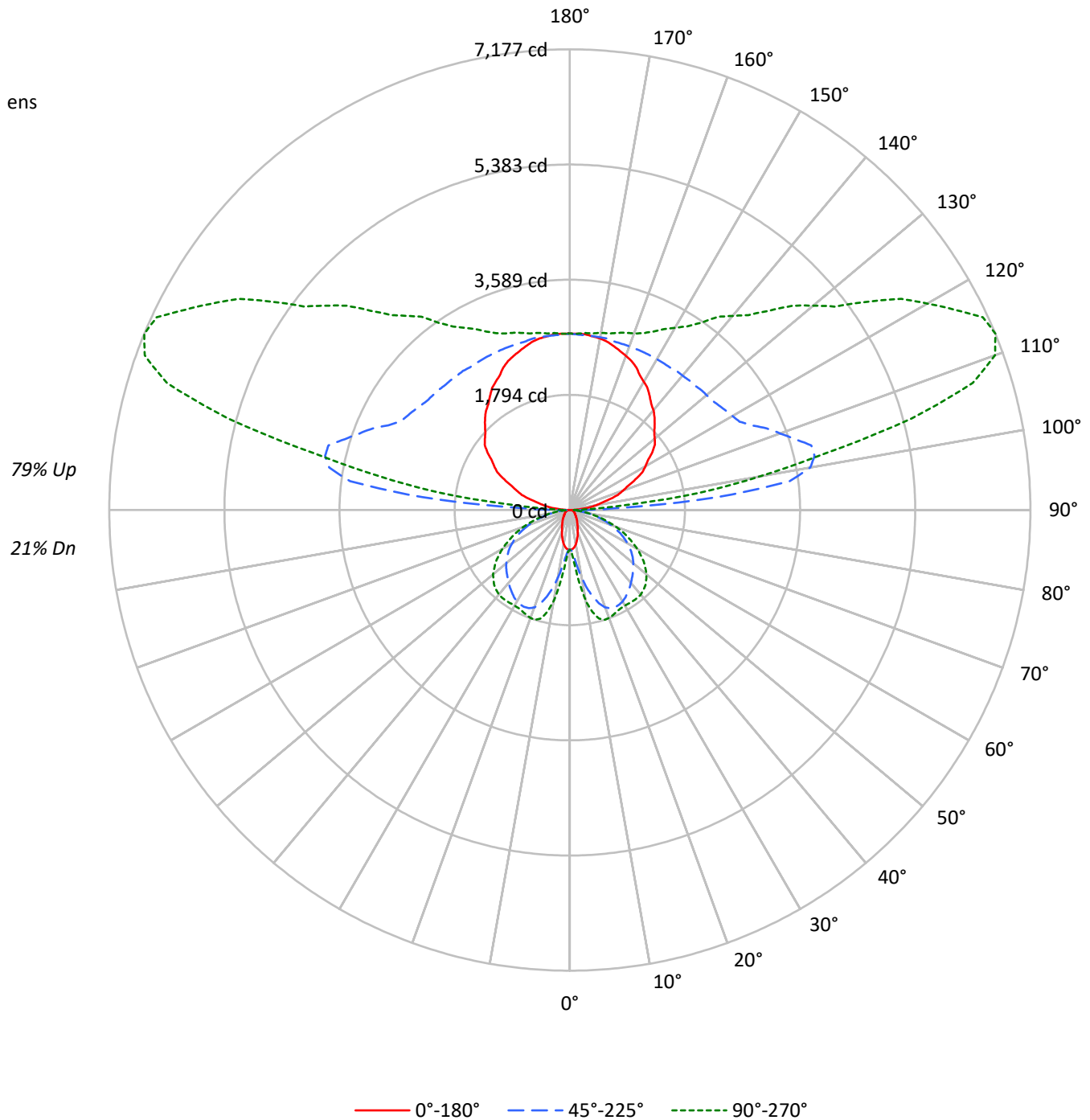
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22604.0 lumens  
Efficiency: N/A  
Efficacy: 135.5 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): 166.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P938278  
CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P938278

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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	0
RCR																		
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	4

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

	0°	45°	90°
0°	1908	1908	1908
5°	1865	2206	2565
10°	1692	3217	4253
15°	1439	4204	5135
20°	1172	4873	5234
25°	978	5100	5127
30°	825	5134	5118
35°	730	5050	5250
40°	636	4941	5387
45°	577	4861	5408
50°	529	4790	5318
55°	507	4685	5082
60°	520	4481	4710
65°	542	4171	4199
70°	579	3640	3547
75°	643	2970	2768
80°	709	2062	1865
85°	642	1096	954

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 6830 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	79.8	0.4
10°-20°	353.7	1.6
20°-30°	618.7	2.7
30°-40°	796.5	3.5
40°-50°	889.7	3.9
50°-60°	852.1	3.8
60°-70°	675.3	3.0
70°-80°	397.1	1.8
80°-90°	120.8	0.5
90°-100°	1340.0	5.9
100°-110°	3522.9	15.6
110°-120°	3652.8	16.2
120°-130°	2930.0	13.0
130°-140°	2299.0	10.2
140°-150°	1764.6	7.8
150°-160°	1270.8	5.6
160°-170°	777.5	3.4
170°-180°	262.7	1.2
0°-30°	1052.3	4.7
0°-40°	1848.8	8.2
0°-60°	3590.5	15.9
0°-90°	4783.7	21.2
90°-120°	8515.7	37.7
90°-150°	15509.3	68.6
90°-180°	17820.0	78.8
0°-180°	22604.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	617	617	617	617	617	
5°	601	645	726	821	851	55
15°	450	831	1401	1698	1752	125
25°	288	942	1668	1742	1744	133
35°	194	901	1571	1661	1726	121
45°	133	718	1389	1591	1663	103
55°	95	456	1178	1369	1407	87
65°	75	242	875	984	998	75
75°	56	149	480	528	530	58
85°	20	46	119	131	133	21
90°	18	52	140	70	70	17
95°	177	694	2308	1190	810	197
105°	635	961	3895	5913	5516	673
115°	1127	1369	3120	6223	7103	1113
125°	1568	1758	2838	4795	5657	1392
135°	1869	2057	2749	3871	4389	1446
145°	2168	2306	2714	3302	3561	1358
155°	2450	2518	2714	2980	3066	1126
165°	2644	2679	2714	2821	2856	746
175°	2749	2749	2732	2767	2767	261
180°	2749	2749	2749	2749	2749	



TEST NUMBER: P938278  
 CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
2.5°	617.0	617.0	621.0	623.0	626.9	628.9	632.9	636.9	648.8	650.8	654.7
5°	601.2	609.1	634.9	644.7	672.6	710.2	726.1	751.9	805.5	821.3	831.3
7.5°	577.3	595.1	658.6	674.5	744.0	843.2	884.8	940.4	1025.7	1067.3	1101.1
10°	539.6	577.3	690.4	728.2	841.2	992.0	1069.3	1146.7	1275.7	1333.3	1355.1
12.5°	497.9	559.5	724.1	775.7	938.4	1158.6	1251.9	1337.2	1484.0	1561.4	1573.3
15°	450.4	533.7	755.9	831.3	1041.6	1297.5	1400.7	1505.8	1642.8	1698.3	1712.2
17.5°	408.7	513.8	785.6	865.0	1121.0	1422.5	1527.6	1615.0	1726.1	1763.8	1773.7
20°	357.1	482.2	805.5	908.7	1204.3	1513.8	1615.0	1682.4	1757.8	1781.6	1785.5
22.5°	319.5	448.3	817.4	924.6	1259.8	1569.3	1654.6	1708.2	1759.8	1767.7	1769.7
25°	287.7	410.7	815.4	942.4	1307.4	1603.0	1668.5	1708.2	1737.9	1742.0	1742.0
27.5°	257.9	369.1	807.4	946.4	1343.1	1611.0	1662.6	1690.3	1704.2	1712.2	1712.2
30°	232.1	329.3	787.6	938.4	1359.0	1603.0	1644.7	1658.6	1672.5	1684.4	1690.3
32.5°	212.3	291.7	757.8	922.5	1361.0	1583.2	1613.0	1620.9	1640.7	1668.5	1678.5
35°	194.4	254.0	724.1	900.7	1349.1	1551.5	1571.3	1579.3	1618.9	1660.6	1674.4
37.5°	176.6	226.2	680.5	863.0	1331.2	1513.8	1527.6	1541.5	1603.0	1652.6	1668.5
40°	158.7	202.3	628.9	821.3	1303.5	1468.2	1480.1	1501.9	1583.2	1640.7	1656.6
42.5°	144.8	182.5	573.4	777.8	1267.8	1416.6	1434.4	1466.2	1559.4	1620.9	1638.7
45°	132.9	162.7	513.8	718.2	1222.1	1362.9	1388.8	1432.5	1531.7	1591.1	1607.0
47.5°	121.0	148.8	452.4	656.7	1172.6	1309.4	1343.1	1392.7	1493.9	1551.5	1565.4
50°	111.1	134.9	390.9	591.2	1118.9	1251.9	1291.6	1343.1	1446.4	1499.9	1517.7
52.5°	103.1	123.1	333.3	525.7	1057.5	1192.4	1238.0	1291.6	1388.8	1440.3	1452.3
55°	95.2	113.1	283.7	456.3	994.0	1128.9	1178.5	1230.0	1325.3	1369.0	1376.9
57.5°	91.3	105.1	242.1	390.9	926.5	1057.5	1113.0	1160.6	1249.9	1283.7	1291.6
60°	85.3	99.2	210.3	335.3	853.1	990.0	1037.7	1085.2	1160.6	1188.4	1194.3
62.5°	79.4	95.2	186.5	281.7	777.8	910.7	958.3	1001.9	1065.4	1085.2	1093.2
65°	75.4	91.3	168.6	242.1	700.4	827.4	875.0	912.6	964.2	984.0	988.0
67.5°	71.4	87.3	154.7	208.3	623.0	744.0	779.7	815.4	855.1	875.0	876.9
70°	65.5	83.3	142.9	184.5	543.6	648.8	678.6	716.2	748.0	757.8	763.9
72.5°	61.5	77.4	134.9	166.6	462.2	557.5	585.3	607.1	634.9	644.7	644.7
75°	55.5	69.4	127.0	148.8	378.9	456.3	480.1	502.0	523.8	527.7	521.8
77.5°	49.6	61.5	109.2	125.0	295.6	361.1	380.9	392.8	410.7	414.6	416.6
80°	41.7	53.5	85.3	97.2	214.3	265.8	279.7	289.7	305.6	305.6	309.5
82.5°	31.7	41.7	61.5	69.4	144.8	182.5	194.4	200.4	210.3	210.3	210.3
85°	19.8	25.8	39.6	45.7	87.3	111.1	119.0	121.0	129.0	130.9	130.9
87.5°	10.0	13.9	25.8	27.8	45.7	57.6	57.6	61.5	61.5	59.6	57.6
90°	18.4	33.2	48.0	51.7	81.1	120.5	140.2	124.6	93.5	70.1	70.1
92.5°	73.8	199.2	324.7	356.0	500.6	693.3	789.6	692.0	496.8	350.5	336.6
95°	177.1	406.6	636.3	693.7	1231.8	1949.3	2308.0	2059.6	1562.7	1190.0	1147.8
97.5°	306.3	508.8	711.3	762.0	1659.2	2855.6	3453.7	3296.7	2982.6	2747.1	2666.7
100°	405.8	589.5	773.2	819.2	1814.8	3142.3	3806.1	3817.5	3840.5	3857.7	3762.0
102.5°	490.7	662.1	833.5	876.4	1886.1	3232.5	3905.7	4105.8	4505.9	4806.1	4724.0
105°	634.7	779.8	925.0	961.3	1939.1	3242.8	3894.6	4343.1	5240.2	5912.9	5868.9
107.5°	782.3	917.6	1052.9	1086.7	1948.8	3098.4	3673.2	4298.9	5550.1	6488.6	6499.2
110°	881.9	1004.0	1126.2	1156.8	1934.1	2970.5	3488.8	4188.2	5587.1	6636.2	6682.1



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CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	979.7	1096.1	1212.6	1241.7	1934.7	2858.8	3320.8	4036.7	5468.4	6542.1	6612.6
115°	1127.3	1234.7	1342.1	1369.0	1952.6	2730.7	3119.8	3809.4	5188.5	6222.9	6320.8
117.5°	1273.0	1370.5	1468.2	1492.5	1988.8	2650.5	2981.4	3603.7	4848.5	5782.0	5890.5
120°	1357.8	1449.7	1541.5	1564.5	2018.3	2623.5	2926.1	3494.7	4631.9	5484.9	5590.3
122.5°	1440.8	1533.5	1626.2	1649.4	2060.8	2609.4	2883.7	3395.7	4419.8	5187.9	5291.9
125°	1568.2	1652.6	1737.1	1758.2	2118.0	2597.7	2837.5	3272.5	4142.5	4794.9	4890.7
127.5°	1671.5	1756.8	1842.0	1863.3	2175.1	2590.9	2798.8	3172.3	3919.3	4479.5	4560.2
130°	1726.9	1818.7	1910.5	1933.4	2216.9	2595.0	2784.0	3116.5	3781.5	4280.2	4354.9
132.5°	1784.1	1875.9	1967.7	1990.6	2250.7	2597.6	2771.1	3068.7	3664.1	4110.5	4177.4
135°	1868.9	1952.5	2036.2	2057.1	2287.7	2595.3	2749.0	2998.2	3496.8	3870.6	3928.2
137.5°	1955.6	2038.5	2121.3	2142.0	2343.0	2611.1	2745.2	2955.9	3377.4	3693.6	3740.7
140°	2027.6	2103.8	2180.1	2199.2	2376.9	2613.8	2732.3	2914.3	3278.4	3551.5	3595.5
142.5°	2082.9	2153.4	2223.9	2241.6	2405.1	2623.3	2732.3	2892.2	3212.0	3451.9	3489.8
145°	2167.8	2229.3	2290.8	2306.2	2442.0	2623.3	2713.9	2844.6	3106.2	3302.4	3331.1
147.5°	2252.6	2312.5	2372.3	2387.3	2496.2	2641.3	2713.9	2816.8	3022.6	3177.0	3200.8
150°	2308.0	2362.2	2416.3	2429.8	2524.5	2650.8	2713.9	2800.8	2974.7	3105.0	3124.2
152.5°	2365.2	2406.2	2447.2	2457.4	2542.9	2656.9	2713.9	2788.1	2936.5	3047.8	3062.4
155°	2450.1	2480.5	2510.8	2518.3	2583.5	2670.4	2713.9	2772.9	2891.1	2979.6	2989.3
157.5°	2512.8	2542.3	2571.8	2579.2	2624.0	2683.9	2713.9	2759.8	2851.6	2920.5	2927.3
160°	2555.2	2578.2	2601.2	2606.9	2642.6	2690.1	2713.9	2753.2	2831.9	2891.0	2894.9
162.5°	2597.6	2614.9	2632.0	2636.4	2662.2	2696.6	2713.9	2747.1	2813.6	2863.3	2867.0
165°	2643.8	2659.3	2674.9	2678.9	2690.5	2706.1	2713.9	2737.6	2785.2	2820.8	2824.8
167.5°	2686.3	2693.7	2700.9	2702.8	2712.7	2725.8	2732.3	2747.9	2779.0	2802.4	2804.1
170°	2713.9	2721.3	2728.7	2730.5	2731.1	2731.9	2732.3	2747.9	2779.0	2802.4	2802.4
172.5°	2728.7	2730.2	2731.9	2732.3	2732.3	2732.3	2732.3	2744.6	2769.3	2787.7	2786.2
175°	2749.0	2749.0	2749.0	2749.0	2743.4	2736.1	2732.3	2740.1	2755.7	2767.4	2767.4
177.5°	2749.0	2749.0	2749.0	2749.0	2744.6	2738.9	2736.1	2742.2	2754.5	2763.7	2762.0
180°	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0	2749.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	617.0	617.0
2.5°	658.6	654.7
5°	847.2	851.1
7.5°	1140.8	1138.8
10°	1418.6	1436.4
12.5°	1620.9	1624.8
15°	1743.9	1751.8
17.5°	1791.6	1793.5
20°	1793.5	1789.6
22.5°	1771.6	1767.7
25°	1745.9	1743.9
27.5°	1722.0	1724.1
30°	1712.2	1718.1
32.5°	1712.2	1722.0
35°	1716.1	1726.1
37.5°	1714.2	1726.1
40°	1706.2	1720.1
42.5°	1684.4	1694.3
45°	1650.7	1662.6
47.5°	1607.0	1615.0
50°	1551.5	1559.4
52.5°	1482.1	1484.0
55°	1398.7	1406.6
57.5°	1309.4	1311.4
60°	1210.2	1216.1
62.5°	1105.1	1105.1
65°	994.0	997.9
67.5°	878.9	888.8
70°	761.9	763.9
72.5°	646.8	646.8
75°	527.7	529.7
77.5°	414.6	414.6
80°	307.5	309.5
82.5°	212.3	216.2
85°	132.9	132.9
87.5°	61.5	55.5
90°	70.1	70.1
92.5°	280.8	225.1
95°	978.8	809.9
97.5°	2345.3	2023.9
100°	3379.1	2996.2
102.5°	4396.1	4068.0
105°	5692.7	5516.4
107.5°	6541.9	6584.5
110°	6865.8	7049.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6894.7	7176.8
115°	6711.8	7102.9
117.5°	6324.2	6757.9
120°	6011.7	6433.3
122.5°	5707.7	6123.4
125°	5273.6	5656.6
127.5°	4883.4	5206.4
130°	4653.3	4951.8
132.5°	4444.6	4711.9
135°	4158.7	4389.1
137.5°	3929.3	4117.8
140°	3771.8	3948.1
142.5°	3641.5	3793.1
145°	3446.0	3560.7
147.5°	3295.9	3391.0
150°	3201.3	3278.4
152.5°	3120.6	3178.8
155°	3027.7	3066.3
157.5°	2954.4	2981.4
160°	2910.5	2926.1
162.5°	2881.8	2896.6
165°	2840.4	2855.9
167.5°	2810.6	2817.2
170°	2802.4	2802.4
172.5°	2780.5	2774.8
175°	2767.4	2767.4
177.5°	2755.5	2749.0
180°	2749.0	2749.0



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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	0.00	0.35	0.85	1.50	3.13	12.87	13.54	14.04	14.69	16.32
	3H	0.37	0.97	1.55	2.13	3.77	14.70	15.30	15.88	16.46	18.10
	4H	0.66	1.23	1.84	2.39	4.04	15.34	15.91	16.52	17.07	18.72
	6H	0.90	1.42	2.09	2.58	4.24	15.77	16.29	16.96	17.45	19.11
	8H	0.96	1.46	2.15	2.64	4.29	15.88	16.38	17.07	17.56	19.21
	12H	0.97	1.44	2.17	2.61	4.29	15.95	16.42	17.14	17.59	19.26
4H	2H	6.88	7.45	8.07	8.61	10.26	13.12	13.69	14.31	14.85	16.50
	3H	8.43	8.90	9.62	10.09	11.75	15.15	15.63	16.35	16.81	18.47
	4H	8.51	8.95	9.71	10.12	11.80	15.92	16.35	17.11	17.53	19.20
	6H	8.51	8.89	9.71	10.08	11.75	16.45	16.82	17.65	18.02	19.68
	8H	8.48	8.83	9.68	10.02	11.71	16.61	16.96	17.80	18.14	19.83
	12H	8.43	8.75	9.64	9.95	11.63	16.69	17.01	17.91	18.21	19.90
8H	4H	9.94	10.29	11.14	11.48	13.17	15.96	16.31	17.16	17.50	19.18
	6H	10.18	10.46	11.39	11.70	13.38	16.58	16.87	17.80	18.10	19.78
	8H	10.19	10.44	11.41	11.65	13.35	16.80	17.05	18.02	18.26	19.96
	12H	10.15	10.37	11.38	11.58	13.31	16.94	17.16	18.17	18.37	20.10
12H	4H	10.08	10.40	11.29	11.59	13.28	15.90	16.22	17.11	17.42	19.11
	6H	10.43	10.69	11.66	11.89	13.59	16.56	16.81	17.79	18.02	19.72
	8H	10.49	10.71	11.72	11.92	13.65	16.79	17.01	18.01	18.21	19.94