

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: P938378

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938378
REPORT IS A COMBINATION OF REPORTS P933622 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-B2750-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

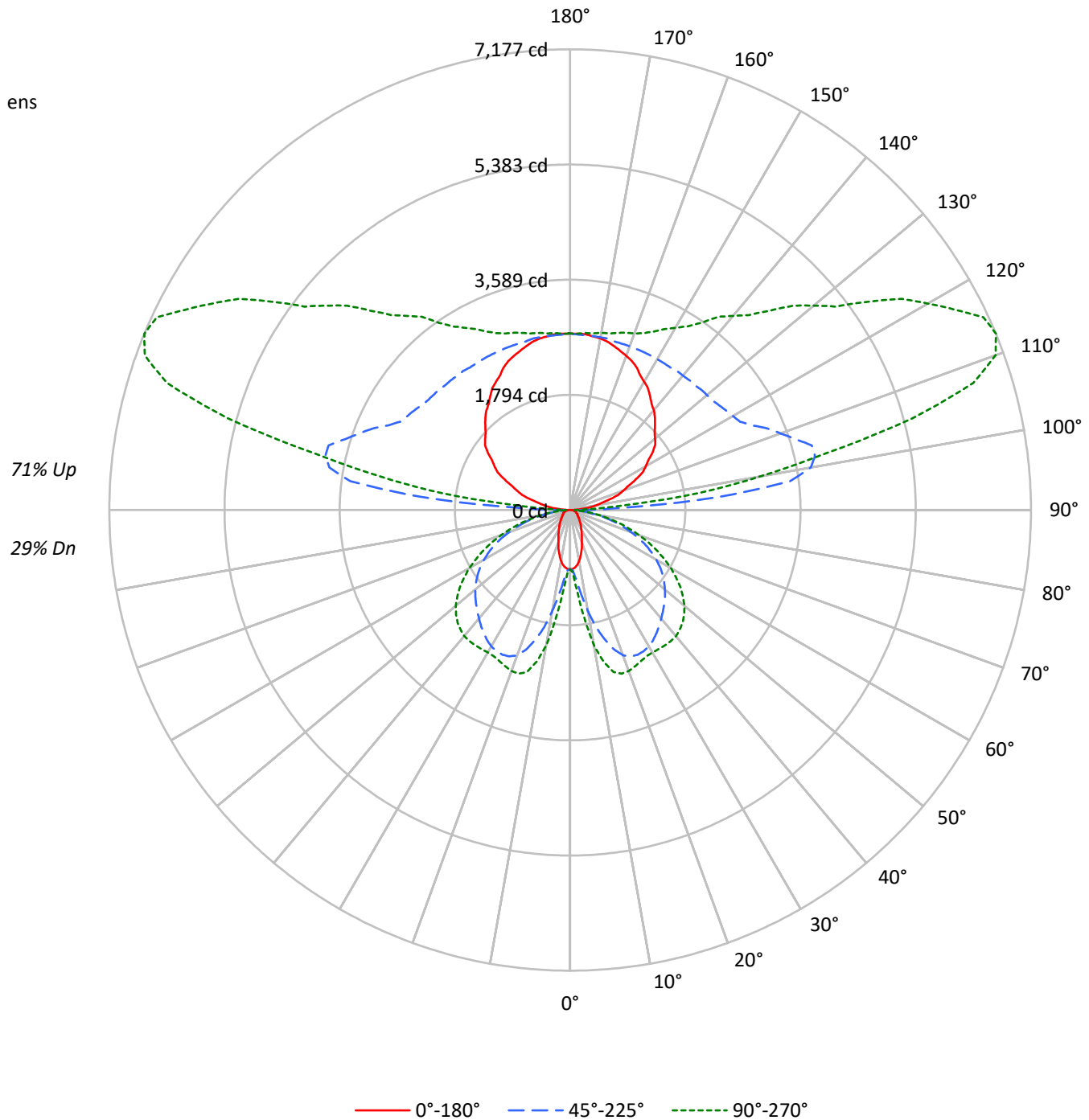
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24947.7 lumens
Efficiency: N/A
Efficacy: 130.8 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): 190.8
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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29			
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23			
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19			
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16			
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13			
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11			
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10			
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8			
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7			
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6			
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2845	2845	2845
5°	2781	3289	3825
10°	2523	4797	6341
15°	2145	6268	7657
20°	1747	7265	7803
25°	1458	7605	7645
30°	1230	7655	7630
35°	1088	7530	7828
40°	949	7367	8032
45°	860	7248	8063
50°	789	7142	7930
55°	757	6985	7578
60°	776	6681	7023
65°	808	6218	6261
70°	863	5426	5289
75°	960	4428	4127
80°	1056	3075	2781
85°	959	1634	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8063 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	0.5
10°-20°	527.4	2.1
20°-30°	922.5	3.7
30°-40°	1187.6	4.8
40°-50°	1326.5	5.3
50°-60°	1270.5	5.1
60°-70°	1006.9	4.0
70°-80°	592.0	2.4
80°-90°	175.0	0.7
90°-100°	1340.0	5.4
100°-110°	3522.9	14.1
110°-120°	3652.8	14.6
120°-130°	2930.0	11.7
130°-140°	2299.0	9.2
140°-150°	1764.6	7.1
150°-160°	1270.8	5.1
160°-170°	777.5	3.1
170°-180°	262.7	1.1
0°-30°	1569.0	6.3
0°-40°	2756.6	11.0
0°-60°	5353.6	21.5
0°-90°	7127.4	28.6
90°-120°	8515.7	34.1
90°-150°	15509.3	62.2
90°-180°	17820.0	71.4
0°-180°	24947.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	896	961	1083	1225	1269	83
15°	672	1240	2088	2532	2612	187
25°	429	1405	2488	2597	2600	198
35°	290	1343	2343	2476	2574	181
45°	198	1071	2071	2372	2479	153
55°	142	680	1757	2041	2097	129
65°	112	361	1305	1467	1488	111
75°	83	222	716	787	790	87
85°	30	68	178	195	198	31
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	919.9	919.9	925.9	928.8	934.7	937.7	943.6	949.5	967.3	970.2	976.1
5°	896.3	908.1	946.6	961.4	1002.8	1059.0	1082.6	1121.2	1201.0	1224.7	1239.5
7.5°	860.8	887.4	982.1	1005.7	1109.2	1257.2	1319.4	1402.2	1529.4	1591.5	1641.8
10°	804.6	860.8	1029.4	1085.6	1254.3	1479.1	1594.5	1709.8	1902.1	1987.9	2020.4
12.5°	742.5	834.2	1079.7	1156.7	1399.2	1727.6	1866.6	1993.8	2212.7	2328.0	2345.8
15°	671.5	795.7	1127.1	1239.5	1553.0	1934.6	2088.4	2245.2	2449.3	2532.1	2552.9
17.5°	609.3	766.1	1171.5	1289.8	1671.4	2121.0	2277.8	2407.9	2573.6	2629.8	2644.6
20°	532.4	718.8	1201.0	1354.9	1795.6	2257.1	2407.9	2508.5	2620.9	2656.4	2662.3
22.5°	476.2	668.5	1218.8	1378.5	1878.4	2339.9	2467.1	2546.9	2623.8	2635.7	2638.6
25°	428.9	612.3	1215.8	1405.1	1949.4	2390.2	2487.8	2546.9	2591.3	2597.2	2597.2
27.5°	384.5	550.2	1204.0	1411.1	2002.7	2402.0	2478.9	2520.3	2541.0	2552.9	2552.9
30°	346.1	491.0	1174.4	1399.2	2026.3	2390.2	2452.3	2473.0	2493.7	2511.4	2520.3
32.5°	316.5	434.8	1130.1	1375.6	2029.3	2360.6	2405.0	2416.8	2446.4	2487.8	2502.6
35°	289.9	378.6	1079.7	1343.0	2011.5	2313.3	2342.8	2354.7	2413.8	2475.9	2496.7
37.5°	263.3	337.2	1014.6	1286.8	1984.9	2257.1	2277.8	2298.5	2390.2	2464.1	2487.8
40°	236.6	301.7	937.7	1224.7	1943.5	2189.0	2206.8	2239.3	2360.6	2446.4	2470.0
42.5°	215.9	272.1	854.9	1159.6	1890.3	2112.1	2138.7	2186.1	2325.1	2416.8	2443.4
45°	198.2	242.6	766.1	1070.8	1822.2	2032.2	2070.7	2135.8	2283.7	2372.4	2396.1
47.5°	180.4	221.8	674.4	979.1	1748.3	1952.4	2002.7	2076.6	2227.5	2313.3	2334.0
50°	165.6	201.1	582.7	881.5	1668.4	1866.6	1925.8	2002.7	2156.5	2236.3	2263.0
52.5°	153.8	183.4	496.9	783.9	1576.7	1777.9	1845.9	1925.8	2070.7	2147.6	2165.4
55°	142.0	168.6	423.0	680.3	1482.1	1683.2	1757.2	1834.1	1976.0	2041.1	2053.0
57.5°	136.1	156.8	360.9	582.7	1381.5	1576.7	1659.5	1730.5	1863.6	1913.9	1925.8
60°	127.2	147.9	313.5	499.9	1272.0	1476.1	1547.1	1618.1	1730.5	1771.9	1780.8
62.5°	118.3	142.0	278.1	420.0	1159.6	1357.8	1428.8	1493.9	1588.5	1618.1	1630.0
65°	112.4	136.1	251.4	360.9	1044.2	1233.6	1304.6	1360.8	1437.7	1467.3	1473.2
67.5°	106.5	130.2	230.7	310.6	928.8	1109.2	1162.6	1215.8	1275.0	1304.6	1307.5
70°	97.6	124.2	213.0	275.1	810.5	967.3	1011.6	1067.8	1115.2	1130.1	1138.9
72.5°	91.7	115.4	201.1	248.5	689.2	831.2	872.6	905.1	946.6	961.4	961.4
75°	82.8	103.5	189.3	221.8	565.0	680.3	715.8	748.4	780.9	786.8	778.0
77.5°	74.0	91.7	162.7	186.4	440.7	538.4	567.9	585.7	612.3	618.2	621.2
80°	62.1	79.9	127.2	144.9	319.5	396.4	417.1	431.9	455.5	455.5	461.4
82.5°	47.3	62.1	91.7	103.5	215.9	272.1	289.9	298.8	313.5	313.5	313.5
85°	29.6	38.5	59.2	68.0	130.2	165.6	177.5	180.4	192.3	195.2	195.2
87.5°	14.8	20.7	38.5	41.4	68.0	85.8	85.8	91.7	91.7	88.7	85.8
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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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°	919.9	919.9
2.5°	982.1	976.1
5°	1263.2	1269.1
7.5°	1700.9	1698.0
10°	2115.1	2141.7
12.5°	2416.8	2422.7
15°	2600.2	2612.0
17.5°	2671.2	2674.1
20°	2674.1	2668.2
22.5°	2641.6	2635.7
25°	2603.1	2600.2
27.5°	2567.6	2570.6
30°	2552.9	2561.7
32.5°	2552.9	2567.6
35°	2558.8	2573.6
37.5°	2555.8	2573.6
40°	2544.0	2564.7
42.5°	2511.4	2526.2
45°	2461.2	2478.9
47.5°	2396.1	2407.9
50°	2313.3	2325.1
52.5°	2209.7	2212.7
55°	2085.5	2097.3
57.5°	1952.4	1955.3
60°	1804.5	1813.4
62.5°	1647.7	1647.7
65°	1482.1	1488.0
67.5°	1310.5	1325.3
70°	1136.0	1138.9
72.5°	964.3	964.3
75°	786.8	789.8
77.5°	618.2	618.2
80°	458.5	461.4
82.5°	316.5	322.4
85°	198.2	198.2
87.5°	91.7	82.8
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	2.25	2.97	3.37	4.08	5.63	15.45	16.16	16.56	17.28	18.82
	3H	2.95	3.59	4.07	4.71	6.27	17.28	17.92	18.40	19.04	20.61
	4H	3.24	3.85	4.37	4.97	6.54	17.92	18.53	19.06	19.66	21.22
	6H	3.48	4.04	4.62	5.17	6.75	18.35	18.91	19.49	20.04	21.61
	8H	3.55	4.08	4.69	5.22	6.79	18.47	19.00	19.61	20.14	21.71
	12H	3.56	4.07	4.71	5.20	6.80	18.53	19.04	19.68	20.18	21.77
4H	2H	9.46	10.07	10.60	11.19	12.76	15.70	16.31	16.84	17.44	19.00
	3H	11.01	11.52	12.16	12.67	14.25	17.74	18.25	18.89	19.40	20.98
	4H	11.10	11.57	12.25	12.71	14.31	18.50	18.97	19.65	20.11	21.71
	6H	11.10	11.51	12.26	12.67	14.26	19.04	19.44	20.19	20.60	22.19
	8H	11.08	11.45	12.23	12.60	14.21	19.20	19.57	20.35	20.73	22.33
	12H	11.02	11.37	12.20	12.53	14.14	19.29	19.63	20.46	20.79	22.40
8H	4H	12.54	12.91	13.69	14.06	15.67	18.55	18.93	19.71	20.08	21.69
	6H	12.77	13.08	13.95	14.28	15.88	19.18	19.49	20.35	20.68	22.29
	8H	12.79	13.06	13.97	14.23	15.85	19.40	19.67	20.58	20.84	22.46
	12H	12.75	12.99	13.93	14.16	15.81	19.54	19.78	20.72	20.95	22.60
12H	4H	12.67	13.02	13.85	14.18	15.79	18.50	18.84	19.67	20.00	21.61
	6H	13.03	13.30	14.21	14.47	16.10	19.16	19.43	20.34	20.60	22.23
	8H	13.09	13.33	14.28	14.50	16.16	19.38	19.62	20.57	20.79	22.45