

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: P938527

Luminaire Tested: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938527
REPORT IS A COMBINATION OF REPORTS P933624 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

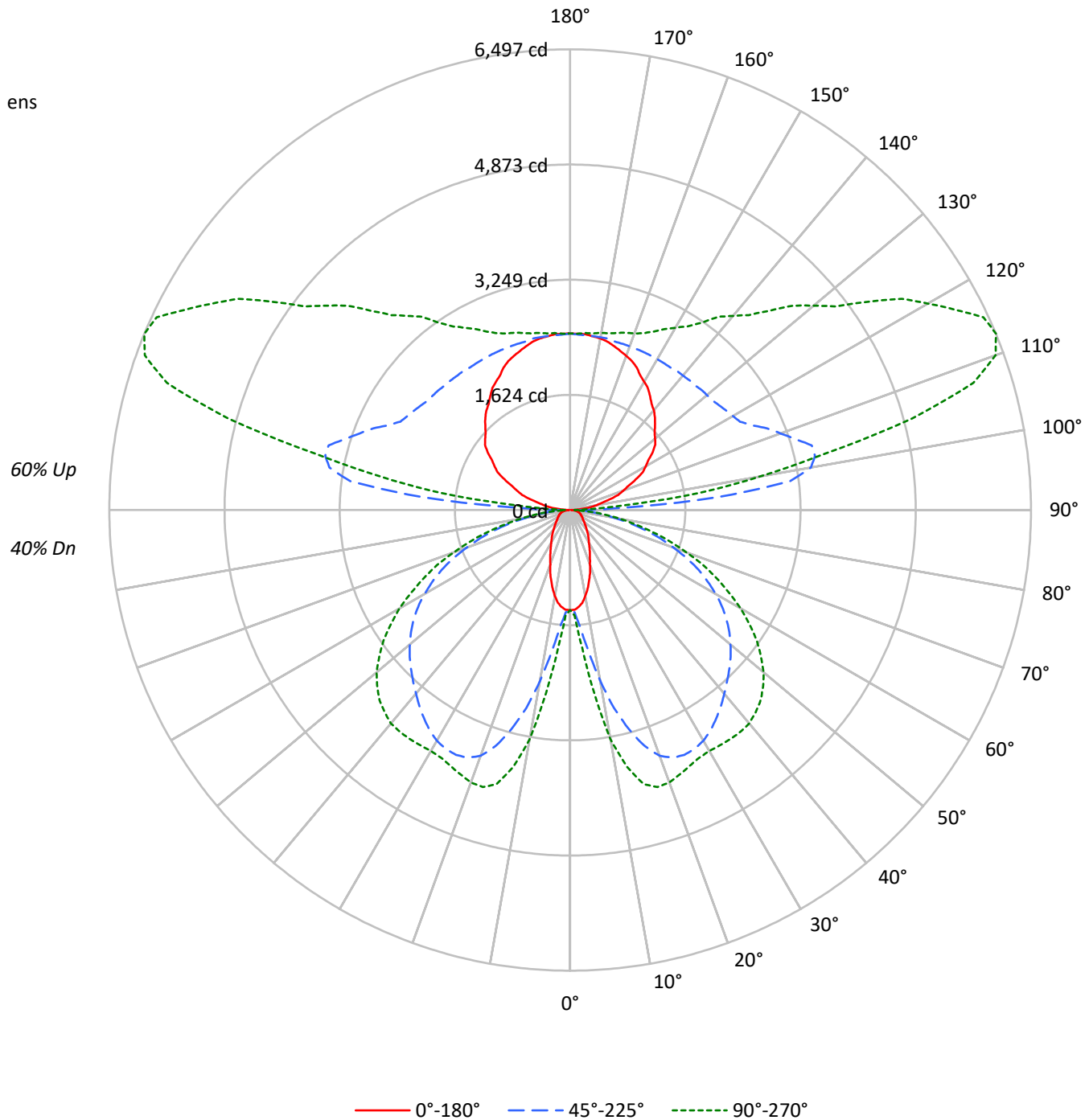
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27044.6 lumens
Efficiency: N/A
Efficacy: 108.4 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: General Diffuse

Input Watts (W): 249.6
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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CATALOG NUMBER: SQ4-FB-150U-125D-92765-1D-UNV-STD-W-12-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4359	4359	4359
5°	4260	5040	5859
10°	3866	7348	9714
15°	3287	9602	11729
20°	2677	11130	11954
25°	2234	11650	11711
30°	1885	11727	11689
35°	1667	11535	11991
40°	1454	11285	12304
45°	1317	11103	12352
50°	1209	10940	12147
55°	1159	10700	11609
60°	1189	10234	10758
65°	1238	9525	9591
70°	1322	8312	8102
75°	1470	6784	6323
80°	1619	4710	4261
85°	1468	2504	2180

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12352 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.3	0.7
10°-20°	808.0	3.0
20°-30°	1413.3	5.2
30°-40°	1819.3	6.7
40°-50°	2032.1	7.5
50°-60°	1946.3	7.2
60°-70°	1542.4	5.7
70°-80°	907.0	3.4
80°-90°	261.5	1.0
90°-100°	1213.1	4.5
100°-110°	3189.2	11.8
110°-120°	3306.9	12.2
120°-130°	2652.5	9.8
130°-140°	2081.3	7.7
140°-150°	1597.5	5.9
150°-160°	1150.4	4.3
160°-170°	703.9	2.6
170°-180°	237.8	0.9
0°-30°	2403.5	8.9
0°-40°	4222.8	15.6
0°-60°	8201.1	30.3
0°-90°	10912.0	40.3
90°-120°	7709.2	28.5
90°-150°	14040.5	51.9
90°-180°	16133.0	59.7
0°-180°	27044.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1409	1409	1409	1409	1409	
5°	1373	1473	1659	1876	1944	127
15°	1029	1899	3199	3879	4001	286
25°	657	2152	3811	3979	3983	303
35°	444	2057	3589	3793	3942	277
45°	304	1640	3172	3634	3798	235
55°	218	1042	2692	3127	3213	198
65°	172	553	1998	2248	2279	171
75°	127	340	1097	1205	1210	133
85°	45	104	272	299	304	48
90°	17	47	127	64	64	17
95°	160	628	2089	1077	733	178
105°	575	870	3526	5353	4994	609
115°	1020	1239	2824	5634	6430	1008
125°	1420	1592	2569	4341	5121	1260
135°	1692	1862	2489	3504	3973	1309
145°	1962	2088	2457	2990	3224	1229
155°	2218	2280	2457	2697	2776	1019
165°	2393	2425	2457	2554	2586	675
175°	2489	2489	2474	2505	2505	236
180°	2489	2489	2489	2489	2489	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4	1409.4
2.5°	1409.4	1409.4	1418.4	1422.9	1431.9	1436.5	1445.6	1454.6	1481.8	1486.4	1495.4
5°	1373.0	1391.1	1450.1	1472.7	1536.2	1622.3	1658.6	1717.5	1839.8	1876.1	1898.7
7.5°	1318.7	1359.5	1504.5	1540.8	1699.4	1925.9	2021.1	2148.0	2342.9	2438.0	2515.0
10°	1232.6	1318.7	1577.0	1663.0	1921.4	2265.7	2442.5	2619.2	2913.8	3045.2	3095.1
12.5°	1137.5	1277.9	1654.0	1771.9	2143.4	2646.4	2859.4	3054.3	3389.6	3566.4	3593.5
15°	1028.7	1219.0	1726.5	1898.7	2379.1	2963.7	3199.2	3439.4	3752.1	3879.1	3910.7
17.5°	933.5	1173.7	1794.5	1975.7	2560.3	3249.1	3489.3	3688.7	3942.4	4028.6	4051.2
20°	815.7	1101.1	1839.8	2075.4	2750.7	3457.6	3688.7	3842.7	4015.0	4069.4	4078.4
22.5°	729.5	1024.1	1867.0	2111.7	2877.5	3584.5	3779.4	3901.6	4019.5	4037.6	4042.1
25°	657.1	938.1	1862.5	2152.5	2986.3	3661.5	3811.0	3901.6	3969.7	3978.7	3978.7
27.5°	589.1	842.9	1844.3	2161.6	3067.8	3679.6	3797.5	3860.8	3892.6	3910.7	3910.7
30°	530.2	752.2	1799.0	2143.4	3104.1	3661.5	3756.7	3788.4	3820.1	3847.3	3860.8
32.5°	484.9	666.2	1731.1	2107.2	3108.6	3616.2	3684.2	3702.3	3747.6	3811.0	3833.7
35°	444.1	580.0	1654.0	2057.3	3081.5	3543.7	3589.0	3607.2	3697.8	3792.9	3824.6
37.5°	403.3	516.6	1554.3	1971.3	3040.7	3457.6	3489.3	3521.0	3661.5	3774.8	3811.0
40°	362.5	462.2	1436.5	1876.1	2977.2	3353.4	3380.5	3430.4	3616.2	3747.6	3783.8
42.5°	330.8	416.9	1309.7	1776.4	2895.7	3235.6	3276.4	3348.8	3561.8	3702.3	3743.1
45°	303.6	371.6	1173.7	1640.5	2791.4	3113.2	3172.1	3271.8	3498.4	3634.3	3670.5
47.5°	276.4	339.9	1033.2	1500.0	2678.1	2990.8	3067.8	3181.1	3412.3	3543.7	3575.4
50°	253.8	308.1	892.7	1350.4	2555.8	2859.4	2950.0	3067.8	3303.5	3425.9	3466.7
52.5°	235.7	281.0	761.3	1200.8	2415.3	2723.5	2827.7	2950.0	3172.1	3289.9	3317.1
55°	217.5	258.3	648.0	1042.2	2270.3	2578.4	2691.8	2809.6	3027.1	3126.8	3144.9
57.5°	208.4	240.2	552.9	892.7	2116.2	2415.3	2542.2	2651.0	2854.9	2931.9	2950.0
60°	194.9	226.5	480.3	765.9	1948.6	2261.3	2370.0	2478.8	2651.0	2714.4	2728.0
62.5°	181.3	217.5	426.0	643.5	1776.4	2080.0	2188.7	2288.4	2433.5	2478.8	2496.9
65°	172.2	208.4	385.2	552.9	1599.7	1889.7	1998.4	2084.5	2202.4	2247.6	2256.7
67.5°	163.2	199.4	353.5	475.9	1422.9	1699.4	1780.9	1862.5	1953.1	1998.4	2003.0
70°	149.5	190.3	326.3	421.4	1241.6	1481.8	1549.8	1635.9	1708.4	1731.1	1744.6
72.5°	140.5	176.7	308.1	380.6	1055.9	1273.4	1336.8	1386.7	1450.1	1472.7	1472.7
75°	126.8	158.6	290.0	339.9	865.5	1042.2	1096.7	1146.5	1196.3	1205.4	1191.8
77.5°	113.3	140.5	249.2	285.5	675.2	824.8	870.0	897.3	938.1	947.1	951.6
80°	95.2	122.4	194.9	222.1	489.4	607.2	638.9	661.6	697.9	697.9	707.0
82.5°	72.5	95.2	140.5	158.6	330.8	416.9	444.1	457.6	480.3	480.3	480.3
85°	45.3	58.9	90.6	104.3	199.4	253.8	271.9	276.4	294.6	299.1	299.1
87.5°	22.7	31.7	58.9	63.5	104.3	131.4	131.4	140.5	140.5	135.9	131.4
90°	16.7	30.1	43.5	46.8	73.5	109.1	126.9	112.8	84.6	63.5	63.5
92.5°	66.8	180.3	293.9	322.3	453.2	627.6	714.8	626.4	449.8	317.3	304.7
95°	160.3	368.1	576.0	628.0	1115.2	1764.7	2089.4	1864.5	1414.7	1077.3	1039.1
97.5°	277.2	460.6	643.9	689.8	1502.1	2585.1	3126.6	2984.5	2700.2	2486.9	2414.2
100°	367.4	533.7	700.0	741.6	1643.0	2844.7	3445.6	3456.0	3476.8	3492.4	3405.7
102.5°	444.3	599.4	754.5	793.4	1707.5	2926.4	3535.8	3717.0	4079.2	4350.9	4276.6
105°	574.6	706.0	837.4	870.2	1755.4	2935.6	3525.8	3931.8	4743.9	5353.0	5313.1
107.5°	708.2	830.7	953.1	983.8	1764.3	2805.0	3325.4	3891.7	5024.5	5874.1	5883.7
110°	798.4	909.0	1019.6	1047.2	1751.0	2689.2	3158.4	3791.6	5057.9	6007.7	6049.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	886.9	992.3	1097.7	1124.1	1751.5	2588.1	3006.3	3654.4	4950.5	5922.5	5986.4
115°	1020.5	1117.7	1215.0	1239.3	1767.7	2472.1	2824.3	3448.6	4697.1	5633.6	5722.1
117.5°	1152.5	1240.7	1329.1	1351.2	1800.4	2399.5	2699.0	3262.4	4389.3	5234.4	5332.6
120°	1229.2	1312.4	1395.5	1416.3	1827.2	2375.0	2648.9	3163.7	4193.3	4965.5	5060.9
122.5°	1304.4	1388.3	1472.2	1493.2	1865.7	2362.2	2610.6	3074.1	4001.3	4696.6	4790.7
125°	1419.7	1496.1	1572.6	1591.7	1917.4	2351.7	2568.8	2962.6	3750.2	4340.8	4427.5
127.5°	1513.2	1590.4	1667.6	1686.9	1969.1	2345.5	2533.7	2871.8	3548.1	4055.3	4128.4
130°	1563.3	1646.4	1729.5	1750.3	2007.0	2349.2	2520.3	2821.3	3423.4	3874.9	3942.4
132.5°	1615.1	1698.2	1781.3	1802.1	2037.6	2351.6	2508.6	2778.1	3317.1	3721.2	3781.8
135°	1691.9	1767.6	1843.3	1862.3	2071.1	2349.5	2488.6	2714.3	3165.6	3504.1	3556.2
137.5°	1770.4	1845.4	1920.4	1939.1	2121.1	2363.8	2485.2	2676.0	3057.6	3343.8	3386.4
140°	1835.6	1904.6	1973.7	1990.9	2151.7	2366.2	2473.5	2638.3	2968.0	3215.1	3255.0
142.5°	1885.7	1949.5	2013.3	2029.3	2177.4	2374.8	2473.5	2618.3	2907.8	3125.0	3159.3
145°	1962.5	2018.2	2073.8	2087.7	2210.8	2374.8	2456.8	2575.2	2812.0	2989.7	3015.6
147.5°	2039.3	2093.5	2147.6	2161.2	2259.8	2391.2	2456.8	2550.0	2736.3	2876.1	2897.6
150°	2089.4	2138.4	2187.5	2199.7	2285.4	2399.7	2456.8	2535.6	2692.9	2810.9	2828.4
152.5°	2141.2	2178.3	2215.4	2224.7	2302.1	2405.3	2456.8	2524.1	2658.4	2759.2	2772.4
155°	2218.1	2245.6	2273.0	2279.8	2338.8	2417.5	2456.8	2510.3	2617.3	2697.4	2706.2
157.5°	2274.8	2301.5	2328.2	2334.9	2375.5	2429.7	2456.8	2498.4	2581.5	2643.9	2650.1
160°	2313.2	2334.0	2354.8	2360.0	2392.3	2435.3	2456.8	2492.5	2563.7	2617.2	2620.7
162.5°	2351.6	2367.2	2382.8	2386.7	2410.1	2441.2	2456.8	2486.9	2547.1	2592.2	2595.5
165°	2393.4	2407.5	2421.6	2425.2	2435.7	2449.8	2456.8	2478.4	2521.4	2553.7	2557.3
167.5°	2431.9	2438.5	2445.2	2446.8	2455.8	2467.6	2473.5	2487.6	2515.8	2537.0	2538.5
170°	2456.8	2463.5	2470.2	2471.9	2472.5	2473.2	2473.5	2487.6	2515.8	2537.0	2537.0
172.5°	2470.2	2471.7	2473.2	2473.5	2473.5	2473.5	2473.5	2484.7	2507.0	2523.7	2522.4
175°	2488.6	2488.6	2488.6	2488.6	2483.6	2476.9	2473.5	2480.6	2494.7	2505.3	2505.3
177.5°	2488.6	2488.6	2488.6	2488.6	2484.7	2479.5	2476.9	2482.5	2493.6	2501.9	2500.4
180°	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1409.4	1409.4
2.5°	1504.5	1495.4
5°	1935.0	1944.0
7.5°	2605.6	2601.1
10°	3240.0	3280.8
12.5°	3702.3	3711.3
15°	3983.2	4001.3
17.5°	4092.0	4096.5
20°	4096.5	4087.5
22.5°	4046.7	4037.6
25°	3987.8	3983.2
27.5°	3933.4	3938.0
30°	3910.7	3924.3
32.5°	3910.7	3933.4
35°	3919.8	3942.4
37.5°	3915.3	3942.4
40°	3897.2	3928.9
42.5°	3847.3	3870.0
45°	3770.2	3797.5
47.5°	3670.5	3688.7
50°	3543.7	3561.8
52.5°	3385.1	3389.6
55°	3194.8	3212.9
57.5°	2990.8	2995.4
60°	2764.3	2777.8
62.5°	2524.1	2524.1
65°	2270.3	2279.4
67.5°	2007.5	2030.2
70°	1740.2	1744.6
72.5°	1477.3	1477.3
75°	1205.4	1209.9
77.5°	947.1	947.1
80°	702.4	707.0
82.5°	484.9	494.0
85°	303.6	303.6
87.5°	140.5	126.8
90°	63.5	63.5
92.5°	254.2	203.8
95°	886.1	733.2
97.5°	2123.2	1832.2
100°	3059.1	2712.4
102.5°	3979.7	3682.8
105°	5153.5	4993.9
107.5°	5922.4	5960.9
110°	6215.6	6381.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6241.7	6497.1
115°	6076.2	6430.3
117.5°	5725.3	6117.9
120°	5442.4	5824.0
122.5°	5167.1	5543.4
125°	4774.2	5120.9
127.5°	4420.9	4713.3
130°	4212.6	4482.8
132.5°	4023.7	4265.7
135°	3764.8	3973.4
137.5°	3557.2	3727.8
140°	3414.6	3574.2
142.5°	3296.6	3433.9
145°	3119.6	3223.5
147.5°	2983.8	3069.8
150°	2898.2	2968.0
152.5°	2825.1	2877.7
155°	2741.0	2775.9
157.5°	2674.6	2699.0
160°	2634.8	2648.9
162.5°	2608.9	2622.2
165°	2571.4	2585.5
167.5°	2544.4	2550.4
170°	2537.0	2537.0
172.5°	2517.2	2512.0
175°	2505.3	2505.3
177.5°	2494.5	2488.6
180°	2488.6	2488.6



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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	5.17	5.98	6.20	7.02	8.42	18.37	19.18	19.39	20.22	21.62
	3H	5.88	6.60	6.91	7.65	9.07	20.21	20.93	21.24	21.98	23.40
	4H	6.17	6.86	7.22	7.91	9.34	20.85	21.54	21.90	22.59	24.02
	6H	6.42	7.05	7.48	8.11	9.55	21.28	21.92	22.35	22.98	24.42
	8H	6.48	7.09	7.55	8.16	9.60	21.41	22.01	22.47	23.08	24.52
	12H	6.50	7.08	7.57	8.14	9.60	21.48	22.05	22.55	23.12	24.58
4H	2H	12.39	13.08	13.45	14.13	15.56	18.63	19.32	19.69	20.37	21.80
	3H	13.95	14.53	15.02	15.61	17.05	20.68	21.26	21.74	22.34	23.78
	4H	14.04	14.57	15.12	15.65	17.11	21.45	21.98	22.52	23.05	24.51
	6H	14.05	14.51	15.13	15.60	17.06	21.99	22.44	23.07	23.54	24.99
	8H	14.03	14.45	15.11	15.54	17.01	22.15	22.58	23.23	23.66	25.13
	12H	13.98	14.37	15.08	15.47	16.94	22.24	22.63	23.34	23.73	25.21
8H	4H	15.49	15.92	16.57	17.00	18.47	21.50	21.93	22.58	23.01	24.49
	6H	15.73	16.08	16.83	17.21	18.68	22.13	22.49	23.24	23.61	25.08
	8H	15.75	16.06	16.86	17.17	18.65	22.36	22.67	23.47	23.78	25.26
	12H	15.71	15.98	16.83	17.09	18.62	22.50	22.77	23.62	23.88	25.41
12H	4H	15.63	16.02	16.73	17.12	18.59	21.45	21.84	22.55	22.94	24.41
	6H	15.99	16.30	17.10	17.41	18.90	22.12	22.43	23.23	23.54	25.02
	8H	16.05	16.33	17.17	17.43	18.96	22.35	22.62	23.46	23.73	25.25