

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: P938580

Luminaire Tested: SQ4-FB-150U-125D-B2750-1D-UNV-W2A-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938580
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-B2750-1D-UNV-W2A-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

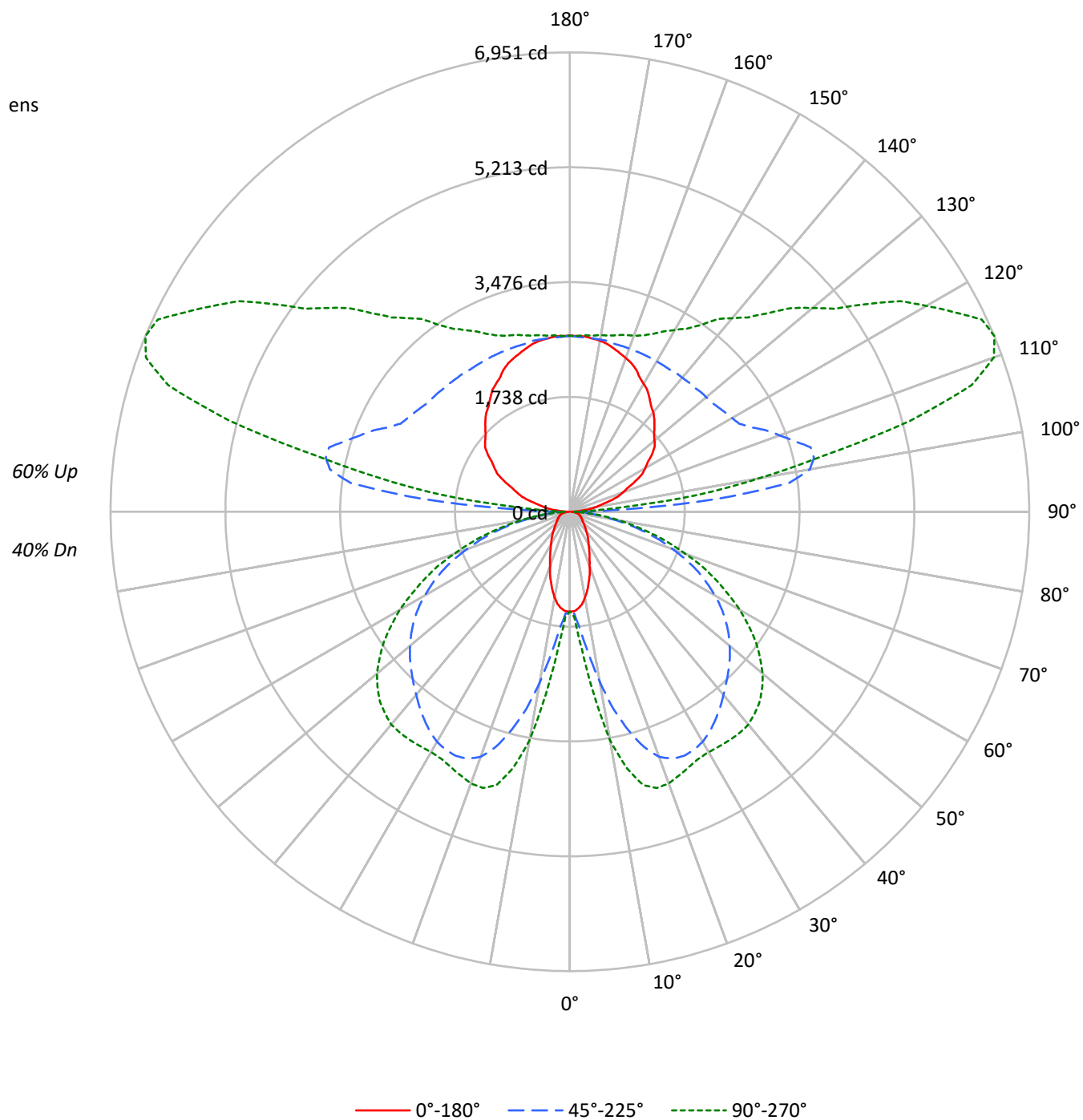
Lumens per Lamp: N/A
Luminaire Lumens: 28934.6 lumens
Efficiency: N/A
Efficacy: 115.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 249.6
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P938580

CATALOG NUMBER: SQ4-FB-150U-125D-B2750-1D-UNV-W2A-W-12-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P938580

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4664	4664	4664
5°	4558	5392	6269
10°	4136	7861	10393
15°	3516	10273	12549
20°	2864	11908	12789
25°	2390	12464	12529
30°	2016	12546	12506
35°	1784	12341	12829
40°	1555	12074	13163
45°	1409	11879	13215
50°	1294	11704	12996
55°	1240	11448	12420
60°	1271	10950	11511
65°	1324	10191	10261
70°	1415	8893	8668
75°	1573	7258	6765
80°	1731	5039	4559
85°	1572	2678	2333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13215 cd/sqm

TEST NUMBER: P938580

CATALOG NUMBER: SQ4-FB-150U-125D-B2750-1D-UNV-W2A-W-12-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	0.7
10°-20°	864.4	3.0
20°-30°	1512.0	5.2
30°-40°	1946.4	6.7
40°-50°	2174.1	7.5
50°-60°	2082.3	7.2
60°-70°	1650.2	5.7
70°-80°	970.4	3.4
80°-90°	279.7	1.0
90°-100°	1297.8	4.5
100°-110°	3412.1	11.8
110°-120°	3538.0	12.2
120°-130°	2837.9	9.8
130°-140°	2226.7	7.7
140°-150°	1709.1	5.9
150°-160°	1230.8	4.3
160°-170°	753.1	2.6
170°-180°	254.4	0.9
0°-30°	2571.5	8.9
0°-40°	4517.9	15.6
0°-60°	8774.2	30.3
0°-90°	11674.5	40.3
90°-120°	8247.9	28.5
90°-150°	15021.7	51.9
90°-180°	17260.0	59.7
0°-180°	28934.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1508	1508	1508	1508	1508	
5°	1469	1576	1774	2007	2080	136
15°	1100	2031	3423	4150	4281	306
25°	703	2303	4077	4257	4262	324
35°	475	2201	3840	4058	4218	297
45°	325	1755	3394	3888	4063	251
55°	233	1115	2880	3345	3437	212
65°	184	592	2138	2405	2439	183
75°	136	364	1173	1290	1294	142
85°	48	112	291	320	325	51
90°	18	50	136	68	68	18
95°	172	672	2236	1153	784	190
105°	615	931	3772	5727	5343	652
115°	1092	1326	3022	6027	6880	1078
125°	1519	1703	2748	4644	5479	1348
135°	1810	1992	2662	3749	4251	1401
145°	2100	2234	2628	3199	3449	1315
155°	2373	2439	2628	2886	2970	1090
165°	2561	2595	2628	2732	2766	723
175°	2662	2662	2646	2680	2680	253
180°	2662	2662	2662	2662	2662	

TEST NUMBER: P938580

CATALOG NUMBER: SQ4-FB-150U-125D-B2750-1D-UNV-W2A-W-12-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8	1507.8
2.5°	1507.8	1507.8	1517.5	1522.4	1532.0	1536.9	1546.6	1556.3	1585.4	1590.3	1599.9
5°	1469.0	1488.4	1551.4	1575.7	1643.6	1735.7	1774.5	1837.5	1968.4	2007.2	2031.4
7.5°	1410.8	1454.5	1609.7	1648.4	1818.1	2060.5	2162.3	2298.1	2506.6	2608.4	2690.8
10°	1318.8	1410.8	1687.2	1779.3	2055.6	2424.1	2613.2	2802.3	3117.4	3258.0	3311.4
12.5°	1217.0	1367.2	1769.6	1895.7	2293.2	2831.4	3059.2	3267.7	3626.5	3815.6	3844.6
15°	1100.5	1304.1	1847.2	2031.4	2545.4	3170.8	3422.8	3679.8	4014.3	4150.1	4184.0
17.5°	998.7	1255.7	1919.9	2113.8	2739.2	3476.2	3733.2	3946.4	4217.9	4310.1	4334.4
20°	872.7	1178.1	1968.4	2220.5	2942.9	3699.2	3946.4	4111.3	4295.6	4353.7	4363.4
22.5°	780.5	1095.7	1997.5	2259.2	3078.6	3835.0	4043.5	4174.3	4300.4	4319.8	4324.6
25°	703.0	1003.6	1992.6	2302.9	3195.0	3917.4	4077.4	4174.3	4247.1	4256.7	4256.7
27.5°	630.3	901.8	1973.2	2312.6	3282.2	3936.8	4062.9	4130.7	4164.7	4184.0	4184.0
30°	567.3	804.8	1924.7	2293.2	3321.0	3917.4	4019.2	4053.1	4087.1	4116.1	4130.7
32.5°	518.8	712.7	1852.0	2254.5	3325.9	3868.9	3941.7	3961.1	4009.5	4077.4	4101.6
35°	475.1	620.6	1769.6	2201.1	3296.9	3791.4	3839.8	3859.3	3956.2	4058.0	4091.9
37.5°	431.5	552.7	1662.9	2109.0	3253.2	3699.2	3733.2	3767.1	3917.4	4038.6	4077.4
40°	387.8	494.5	1536.9	2007.2	3185.3	3587.7	3616.8	3670.2	3868.9	4009.5	4048.2
42.5°	353.9	446.1	1401.2	1900.5	3098.0	3461.7	3505.3	3582.9	3810.7	3961.1	4004.7
45°	324.8	397.6	1255.7	1755.1	2986.5	3330.8	3393.8	3500.5	3742.8	3888.3	3927.1
47.5°	295.8	363.7	1105.4	1604.8	2865.3	3199.8	3282.2	3403.4	3650.8	3791.4	3825.3
50°	271.5	329.7	955.1	1444.8	2734.5	3059.2	3156.2	3282.2	3534.4	3665.3	3708.9
52.5°	252.1	300.6	814.5	1284.8	2584.1	2913.8	3025.3	3156.2	3393.8	3519.8	3548.9
55°	232.7	276.4	693.3	1115.1	2428.9	2758.6	2879.9	3006.0	3238.6	3345.3	3364.7
57.5°	223.0	257.0	591.5	955.1	2264.1	2584.1	2719.8	2836.3	3054.4	3136.8	3156.2
60°	208.5	242.4	513.9	819.4	2084.8	2419.3	2535.6	2652.0	2836.3	2904.1	2918.7
62.5°	194.0	232.7	455.7	688.5	1900.5	2225.3	2341.7	2448.3	2603.5	2652.0	2671.4
65°	184.2	223.0	412.1	591.5	1711.5	2021.7	2138.1	2230.2	2356.3	2404.7	2414.4
67.5°	174.6	213.3	378.2	509.1	1522.4	1818.1	1905.3	1992.6	2089.6	2138.1	2142.9
70°	160.0	203.6	349.1	450.9	1328.4	1585.4	1658.1	1750.2	1827.8	1852.0	1866.5
72.5°	150.3	189.1	329.7	407.2	1129.7	1362.4	1430.2	1483.6	1551.4	1575.7	1575.7
75°	135.7	169.7	310.3	363.7	926.0	1115.1	1173.3	1226.6	1279.9	1289.6	1275.1
77.5°	121.2	150.3	266.6	305.4	722.4	882.4	930.8	960.0	1003.6	1013.3	1018.1
80°	101.8	130.9	208.5	237.6	523.6	649.7	683.6	707.8	746.6	746.6	756.4
82.5°	77.5	101.8	150.3	169.7	353.9	446.1	475.1	489.6	513.9	513.9	513.9
85°	48.5	63.0	96.9	111.5	213.3	271.5	290.9	295.8	315.2	320.0	320.0
87.5°	24.3	33.9	63.0	67.9	111.5	140.6	140.6	150.3	150.3	145.4	140.6
90°	17.9	32.2	46.5	50.0	78.6	116.7	135.8	120.7	90.5	67.9	67.9
92.5°	71.4	192.9	314.5	344.9	484.9	671.5	764.8	670.2	481.2	339.5	326.0
95°	171.5	393.8	616.3	671.8	1193.1	1888.0	2235.5	1994.8	1513.6	1152.6	1111.7
97.5°	296.6	492.8	688.9	738.0	1607.1	2765.8	3345.1	3193.0	2888.9	2660.7	2582.9
100°	393.1	571.0	748.9	793.4	1757.8	3043.5	3686.4	3697.5	3719.7	3736.4	3643.7
102.5°	475.3	641.3	807.3	848.8	1826.8	3130.9	3782.9	3976.7	4364.3	4655.0	4575.5
105°	614.7	755.3	895.9	931.0	1878.1	3140.8	3772.2	4206.6	5075.4	5727.0	5684.4
107.5°	757.7	888.7	1019.7	1052.5	1887.6	3001.0	3557.8	4163.7	5375.6	6284.6	6294.9
110°	854.2	972.5	1090.8	1120.4	1873.3	2877.1	3379.1	4056.6	5411.4	6427.5	6472.0

TEST NUMBER: P938580

CATALOG NUMBER: SQ4-FB-150U-125D-B2750-1D-UNV-W2A-W-12-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	948.9	1061.7	1174.5	1202.6	1873.9	2768.9	3216.4	3909.8	5296.4	6336.4	6404.7
115°	1091.9	1195.9	1299.9	1325.9	1891.2	2644.9	3021.7	3689.6	5025.4	6027.3	6122.0
117.5°	1233.0	1327.4	1422.0	1445.6	1926.2	2567.1	2887.6	3490.4	4696.0	5600.2	5705.3
120°	1315.1	1404.1	1493.0	1515.3	1954.9	2541.0	2834.1	3384.8	4486.3	5312.5	5414.6
122.5°	1395.5	1485.3	1575.1	1597.5	1996.0	2527.3	2793.0	3288.9	4280.9	5024.8	5125.5
125°	1518.9	1600.7	1682.5	1703.0	2051.4	2516.0	2748.3	3169.6	4012.2	4644.2	4736.9
127.5°	1618.9	1701.5	1784.1	1804.8	2106.7	2509.5	2710.8	3072.5	3796.0	4338.7	4416.9
130°	1672.6	1761.5	1850.4	1872.7	2147.2	2513.4	2696.4	3018.5	3662.6	4145.7	4217.9
132.5°	1728.0	1816.9	1905.8	1928.0	2180.0	2515.9	2683.9	2972.2	3548.9	3981.3	4046.0
135°	1810.1	1891.1	1972.2	1992.4	2215.8	2513.7	2662.5	2904.0	3386.8	3748.9	3804.7
137.5°	1894.1	1974.4	2054.6	2074.6	2269.4	2529.0	2658.9	2863.0	3271.3	3577.4	3623.1
140°	1963.9	2037.7	2111.6	2130.0	2302.1	2531.6	2646.4	2822.7	3175.4	3439.8	3482.5
142.5°	2017.4	2085.7	2154.0	2171.1	2329.5	2540.8	2646.4	2801.3	3111.0	3343.4	3380.1
145°	2099.7	2159.3	2218.8	2233.6	2365.2	2540.8	2628.5	2755.2	3008.5	3198.6	3226.4
147.5°	2181.8	2239.8	2297.7	2312.2	2417.7	2558.3	2628.5	2728.2	2927.6	3077.1	3100.1
150°	2235.5	2287.9	2340.3	2353.4	2445.1	2567.4	2628.5	2712.8	2881.1	3007.4	3026.0
152.5°	2290.9	2330.6	2370.2	2380.1	2462.9	2573.3	2628.5	2700.5	2844.2	2952.0	2966.1
155°	2373.1	2402.5	2431.8	2439.2	2502.3	2586.4	2628.5	2685.7	2800.2	2885.9	2895.3
157.5°	2433.8	2462.4	2490.9	2498.1	2541.5	2599.5	2628.5	2673.0	2762.0	2828.7	2835.3
160°	2474.9	2497.1	2519.4	2524.9	2559.5	2605.5	2628.5	2666.6	2742.9	2800.1	2803.9
162.5°	2515.9	2532.7	2549.3	2553.5	2578.5	2611.8	2628.5	2660.7	2725.1	2773.3	2776.9
165°	2560.6	2575.7	2590.8	2594.6	2605.9	2621.0	2628.5	2651.6	2697.6	2732.2	2736.0
167.5°	2601.8	2609.0	2616.0	2617.8	2627.4	2640.1	2646.4	2661.5	2691.7	2714.3	2715.9
170°	2628.5	2635.7	2642.9	2644.7	2645.3	2646.0	2646.4	2661.5	2691.7	2714.3	2714.3
172.5°	2642.9	2644.4	2646.0	2646.4	2646.4	2646.4	2646.4	2658.3	2682.2	2700.1	2698.6
175°	2662.5	2662.5	2662.5	2662.5	2657.2	2650.0	2646.4	2653.9	2669.0	2680.4	2680.4
177.5°	2662.5	2662.5	2662.5	2662.5	2658.3	2652.8	2650.0	2656.0	2667.9	2676.8	2675.1
180°	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5	2662.5

TEST NUMBER: P938580

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1507.8	1507.8
2.5°	1609.7	1599.9
5°	2070.2	2079.9
7.5°	2787.7	2782.9
10°	3466.5	3510.1
12.5°	3961.1	3970.7
15°	4261.6	4281.0
17.5°	4378.0	4382.8
20°	4382.8	4373.1
22.5°	4329.5	4319.8
25°	4266.5	4261.6
27.5°	4208.3	4213.2
30°	4184.0	4198.6
32.5°	4184.0	4208.3
35°	4193.7	4217.9
37.5°	4188.9	4217.9
40°	4169.5	4203.4
42.5°	4116.1	4140.4
45°	4033.7	4062.9
47.5°	3927.1	3946.4
50°	3791.4	3810.7
52.5°	3621.6	3626.5
55°	3418.0	3437.4
57.5°	3199.8	3204.7
60°	2957.4	2972.0
62.5°	2700.5	2700.5
65°	2428.9	2438.7
67.5°	2147.8	2172.1
70°	1861.8	1866.5
72.5°	1580.5	1580.5
75°	1289.6	1294.5
77.5°	1013.3	1013.3
80°	751.5	756.4
82.5°	518.8	528.5
85°	324.8	324.8
87.5°	150.3	135.7
90°	67.9	67.9
92.5°	272.0	218.0
95°	948.0	784.4
97.5°	2271.6	1960.2
100°	3272.9	2902.0
102.5°	4257.9	3940.1
105°	5513.7	5342.9
107.5°	6336.2	6377.5
110°	6650.0	6827.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6677.9	6951.2
115°	6500.8	6879.6
117.5°	6125.4	6545.5
120°	5822.7	6231.0
122.5°	5528.2	5930.8
125°	5107.8	5478.7
127.5°	4729.8	5042.7
130°	4507.0	4796.1
132.5°	4304.9	4563.8
135°	4027.9	4251.1
137.5°	3805.8	3988.4
140°	3653.3	3824.0
142.5°	3527.0	3673.9
145°	3337.6	3448.8
147.5°	3192.3	3284.3
150°	3100.7	3175.4
152.5°	3022.5	3078.8
155°	2932.5	2969.9
157.5°	2861.5	2887.6
160°	2819.0	2834.1
162.5°	2791.2	2805.5
165°	2751.1	2766.2
167.5°	2722.2	2728.6
170°	2714.3	2714.3
172.5°	2693.1	2687.6
175°	2680.4	2680.4
177.5°	2668.8	2662.5
180°	2662.5	2662.5

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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	5.41	6.22	6.44	7.26	8.66	18.60	19.41	19.63	20.45	21.85
	3H	6.11	6.84	7.15	7.89	9.31	20.44	21.17	21.48	22.22	23.64
	4H	6.41	7.10	7.46	8.15	9.57	21.09	21.78	22.14	22.83	24.26
	6H	6.65	7.29	7.71	8.34	9.78	21.52	22.16	22.58	23.21	24.65
	8H	6.72	7.33	7.78	8.40	9.83	21.64	22.25	22.71	23.32	24.75
	12H	6.73	7.31	7.81	8.38	9.84	21.71	22.29	22.78	23.35	24.81
4H	2H	12.63	13.32	13.68	14.37	15.79	18.87	19.56	19.92	20.61	22.04
	3H	14.19	14.77	15.25	15.84	17.28	20.91	21.49	21.98	22.57	24.01
	4H	14.28	14.81	15.35	15.88	17.34	21.68	22.21	22.75	23.28	24.74
	6H	14.29	14.74	15.37	15.84	17.29	22.22	22.68	23.30	23.77	25.23
	8H	14.26	14.69	15.34	15.78	17.25	22.39	22.81	23.47	23.90	25.37
	12H	14.22	14.60	15.32	15.70	17.18	22.48	22.87	23.58	23.96	25.44
8H	4H	15.72	16.15	16.81	17.24	18.71	21.74	22.16	22.82	23.25	24.72
	6H	15.96	16.32	17.07	17.44	18.91	22.37	22.72	23.47	23.85	25.32
	8H	15.98	16.29	17.09	17.40	18.89	22.59	22.90	23.70	24.01	25.50
	12H	15.95	16.22	17.06	17.32	18.85	22.74	23.01	23.85	24.11	25.64
12H	4H	15.87	16.25	16.97	17.35	18.83	21.69	22.07	22.79	23.17	24.65
	6H	16.22	16.53	17.33	17.64	19.13	22.35	22.66	23.46	23.77	25.26
	8H	16.29	16.56	17.41	17.67	19.19	22.58	22.85	23.70	23.96	25.49