

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: P938429

Luminaire Tested: SQ4-FB-150U-100D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938429
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-92765-1D-UNV-STD-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

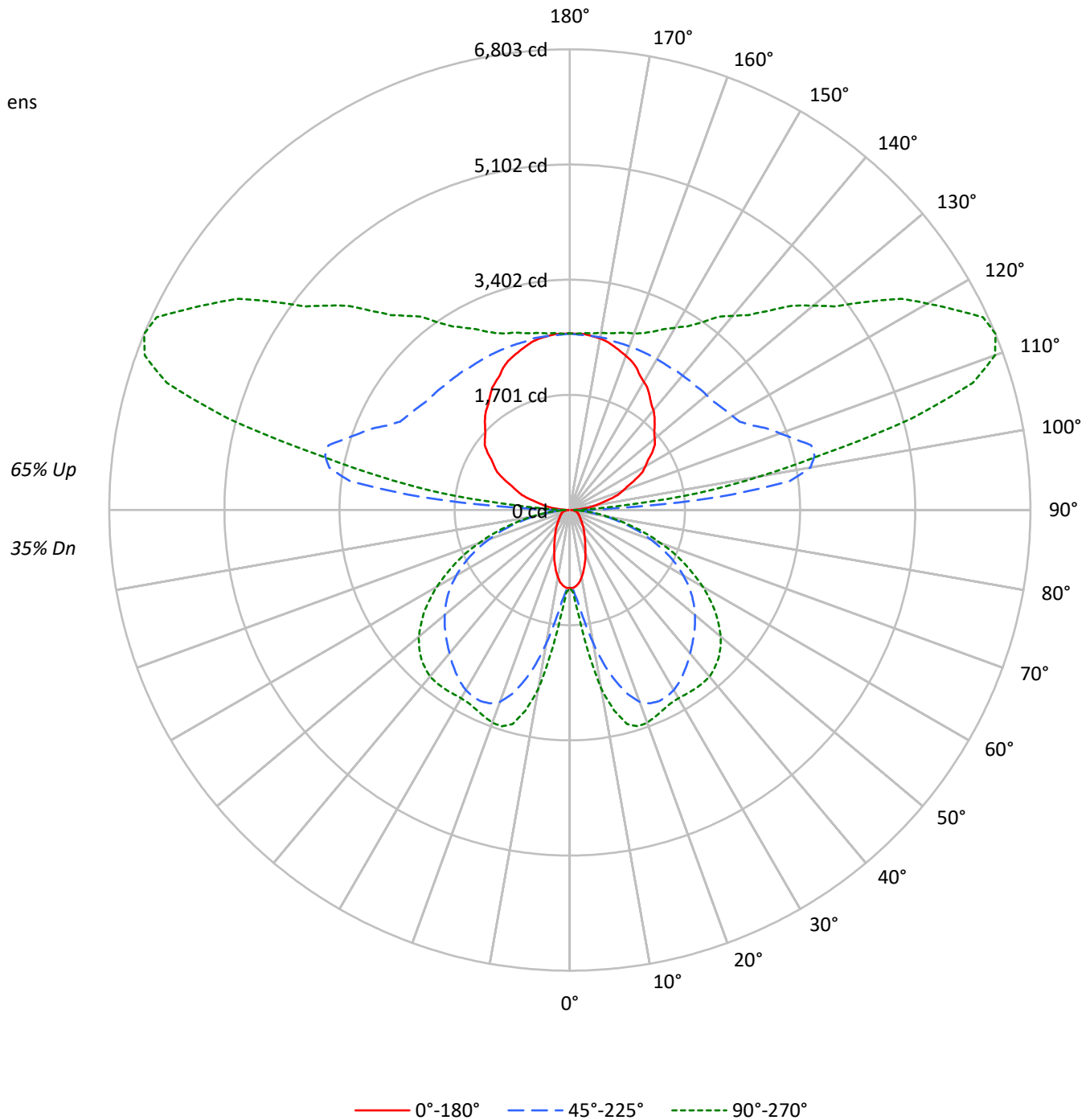
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25816.6 lumens
Efficiency: N/A
Efficacy: 118.9 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: Semi-Indirect

Input Watts (W): 217.2
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	0
RCR																		
0	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3564	3564	3564
5°	3483	4120	4790
10°	3160	6007	7941
15°	2687	7850	9590
20°	2188	9099	9773
25°	1826	9524	9574
30°	1541	9587	9556
35°	1363	9430	9803
40°	1188	9226	10059
45°	1077	9077	10098
50°	989	8944	9931
55°	948	8748	9491
60°	971	8367	8796
65°	1012	7787	7841
70°	1081	6796	6624
75°	1203	5546	5169
80°	1323	3851	3483
85°	1199	2047	1783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10098 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	0.6
10°-20°	660.6	2.6
20°-30°	1155.4	4.5
30°-40°	1487.4	5.8
40°-50°	1661.3	6.4
50°-60°	1591.2	6.2
60°-70°	1261.0	4.9
70°-80°	741.5	2.9
80°-90°	215.9	0.8
90°-100°	1270.3	4.9
100°-110°	3339.6	12.9
110°-120°	3462.8	13.4
120°-130°	2777.6	10.8
130°-140°	2179.4	8.4
140°-150°	1672.8	6.5
150°-160°	1204.7	4.7
160°-170°	737.1	2.9
170°-180°	249.0	1.0
0°-30°	1965.0	7.6
0°-40°	3452.4	13.4
0°-60°	6704.9	26.0
0°-90°	8923.3	34.6
90°-120°	8072.7	31.3
90°-150°	14702.4	56.9
90°-180°	16893.0	65.4
0°-180°	25816.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1123	1204	1356	1534	1589	104
15°	841	1552	2616	3171	3271	234
25°	537	1760	3116	3253	3256	247
35°	363	1682	2934	3101	3223	227
45°	248	1341	2593	2971	3105	192
55°	178	852	2201	2556	2627	162
65°	141	452	1634	1838	1864	140
75°	104	278	897	986	989	109
85°	37	85	222	244	248	39
90°	18	49	133	66	66	17
95°	168	658	2188	1128	768	186
105°	602	911	3692	5605	5229	638
115°	1069	1298	2958	5899	6733	1055
125°	1487	1667	2690	4546	5362	1320
135°	1772	1950	2606	3669	4161	1371
145°	2055	2186	2573	3131	3376	1287
155°	2323	2387	2573	2825	2907	1067
165°	2506	2540	2573	2674	2707	707
175°	2606	2606	2590	2623	2623	247
180°	2606	2606	2606	2606	2606	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2
2.5°	1152.2	1152.2	1159.6	1163.3	1170.7	1174.5	1181.8	1189.2	1211.5	1215.2	1222.6
5°	1122.6	1137.4	1185.6	1204.1	1256.0	1326.3	1356.0	1404.1	1504.1	1533.8	1552.3
7.5°	1078.1	1111.5	1230.0	1259.6	1389.3	1574.5	1652.4	1756.0	1915.4	1993.2	2056.2
10°	1007.7	1078.1	1289.2	1359.6	1570.9	1852.4	1996.9	2141.4	2382.2	2489.6	2530.3
12.5°	929.9	1044.7	1352.2	1448.6	1752.4	2163.6	2337.7	2497.1	2771.2	2915.7	2937.9
15°	841.0	996.6	1411.5	1552.3	1945.0	2422.9	2615.6	2812.0	3067.6	3171.3	3197.3
17.5°	763.2	959.6	1467.1	1615.3	2093.2	2656.3	2852.7	3015.7	3223.1	3293.5	3312.1
20°	666.8	900.3	1504.1	1696.8	2248.8	2826.7	3015.7	3141.6	3282.4	3326.9	3334.3
22.5°	596.4	837.3	1526.4	1726.4	2352.6	2930.5	3089.8	3189.9	3286.1	3301.0	3304.7
25°	537.2	766.9	1522.6	1759.8	2441.5	2993.5	3115.7	3189.9	3245.4	3252.8	3252.8
27.5°	481.7	689.1	1507.9	1767.2	2508.2	3008.3	3104.6	3156.5	3182.4	3197.3	3197.3
30°	433.4	615.0	1470.8	1752.4	2537.8	2993.5	3071.3	3097.2	3123.1	3145.4	3156.5
32.5°	396.4	544.6	1415.2	1722.8	2541.5	2956.5	3012.0	3026.9	3063.9	3115.7	3134.3
35°	363.0	474.2	1352.2	1682.0	2519.2	2897.1	2934.2	2949.0	3023.1	3100.9	3126.9
37.5°	329.8	422.4	1270.7	1611.6	2485.9	2826.7	2852.7	2878.6	2993.5	3086.1	3115.7
40°	296.4	377.9	1174.5	1533.8	2434.1	2741.6	2763.7	2804.5	2956.5	3063.9	3093.5
42.5°	270.4	340.9	1070.7	1452.3	2367.3	2645.2	2678.6	2737.8	2912.0	3026.9	3060.1
45°	248.3	303.8	959.6	1341.1	2282.2	2545.2	2593.3	2674.8	2860.1	2971.2	3000.9
47.5°	226.0	277.9	844.7	1226.3	2189.5	2445.2	2508.2	2600.7	2789.7	2897.1	2923.1
50°	207.5	251.9	729.8	1104.1	2089.5	2337.7	2411.8	2508.2	2700.8	2800.8	2834.2
52.5°	192.6	229.7	622.4	981.8	1974.7	2226.6	2311.8	2411.8	2593.3	2689.7	2712.0
55°	177.9	211.2	529.8	852.1	1856.1	2108.0	2200.7	2296.9	2474.8	2556.3	2571.1
57.5°	170.4	196.4	452.0	729.8	1730.1	1974.7	2078.4	2167.3	2334.1	2397.0	2411.8
60°	159.3	185.3	392.7	626.1	1593.0	1848.7	1937.6	2026.5	2167.3	2219.2	2230.3
62.5°	148.2	177.9	348.3	526.1	1452.3	1700.5	1789.4	1870.9	1989.5	2026.5	2041.3
65°	140.8	170.4	314.9	452.0	1307.8	1544.9	1633.8	1704.2	1800.5	1837.5	1845.0
67.5°	133.4	163.0	289.0	389.0	1163.3	1389.3	1456.0	1522.6	1596.8	1633.8	1637.5
70°	122.3	155.6	266.8	344.5	1015.1	1211.5	1267.1	1337.5	1396.7	1415.2	1426.4
72.5°	114.9	144.5	251.9	311.2	863.2	1041.1	1093.0	1133.7	1185.6	1204.1	1204.1
75°	103.8	129.6	237.1	277.9	707.6	852.1	896.6	937.3	978.1	985.5	974.3
77.5°	92.6	114.9	203.8	233.4	552.0	674.3	711.3	733.6	766.9	774.3	778.0
80°	77.8	100.0	159.3	181.5	400.1	496.4	522.4	540.9	570.5	570.5	577.9
82.5°	59.3	77.8	114.9	129.6	270.4	340.9	363.0	374.2	392.7	392.7	392.7
85°	37.0	48.1	74.1	85.2	163.0	207.5	222.3	226.0	240.8	244.5	244.5
87.5°	18.5	25.9	48.1	51.9	85.2	107.4	107.4	114.9	114.9	111.1	107.4
90°	17.5	31.5	45.5	49.0	76.9	114.2	132.9	118.1	88.6	66.5	66.5
92.5°	69.9	188.8	307.8	337.5	474.6	657.2	748.5	656.0	471.0	332.3	319.1
95°	167.9	385.5	603.2	657.6	1167.7	1847.9	2188.0	1952.4	1481.4	1128.1	1088.1
97.5°	290.3	482.3	674.3	722.3	1572.9	2707.0	3274.0	3125.2	2827.5	2604.2	2528.0
100°	384.7	558.9	733.0	776.6	1720.4	2978.8	3608.1	3618.9	3640.7	3657.0	3566.3
102.5°	465.2	627.7	790.1	830.8	1788.0	3064.3	3702.6	3892.2	4271.5	4556.0	4478.3
105°	601.7	739.3	876.8	911.2	1838.2	3074.1	3692.0	4117.2	4967.6	5605.3	5563.6
107.5°	741.6	869.8	998.1	1030.1	1847.4	2937.2	3482.2	4075.2	5261.4	6151.0	6161.1
110°	836.0	951.8	1067.6	1096.6	1833.5	2816.0	3307.3	3970.4	5296.4	6290.9	6334.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.7	1039.1	1149.5	1177.1	1834.1	2710.1	3148.1	3826.7	5183.9	6201.8	6268.6
115°	1068.6	1170.4	1272.3	1297.7	1851.0	2588.7	2957.5	3611.2	4918.6	5899.2	5991.9
117.5°	1206.8	1299.2	1391.8	1414.9	1885.3	2512.6	2826.3	3416.3	4596.2	5481.2	5584.0
120°	1287.2	1374.3	1461.3	1483.1	1913.3	2487.0	2773.8	3312.9	4391.0	5199.6	5299.5
122.5°	1365.9	1453.7	1541.6	1563.6	1953.6	2473.6	2733.6	3219.0	4189.9	4918.0	5016.6
125°	1486.6	1566.7	1646.8	1666.8	2007.8	2462.6	2689.9	3102.3	3927.0	4545.5	4636.2
127.5°	1584.5	1665.4	1746.2	1766.4	2062.0	2456.1	2653.2	3007.2	3715.4	4246.5	4323.0
130°	1637.0	1724.1	1811.1	1832.9	2101.6	2460.0	2639.1	2954.3	3584.8	4057.6	4128.3
132.5°	1691.3	1778.3	1865.3	1887.1	2133.7	2462.5	2626.9	2909.1	3473.5	3896.7	3960.1
135°	1771.6	1850.9	1930.3	1950.1	2168.7	2460.2	2606.0	2842.3	3314.8	3669.3	3723.9
137.5°	1853.9	1932.4	2010.9	2030.6	2221.1	2475.3	2602.4	2802.2	3201.7	3501.4	3546.1
140°	1922.1	1994.4	2066.7	2084.8	2253.2	2477.8	2590.2	2762.7	3107.9	3366.7	3408.5
142.5°	1974.6	2041.4	2108.2	2125.0	2280.0	2486.8	2590.2	2741.8	3044.9	3272.3	3308.3
145°	2055.0	2113.4	2171.6	2186.2	2315.0	2486.8	2572.7	2696.6	2944.6	3130.6	3157.8
147.5°	2135.4	2192.2	2248.9	2263.1	2366.3	2503.9	2572.7	2670.3	2865.3	3011.7	3034.2
150°	2188.0	2239.3	2290.6	2303.4	2393.1	2512.9	2572.7	2655.1	2819.9	2943.5	2961.7
152.5°	2242.2	2281.1	2319.8	2329.6	2410.6	2518.7	2572.7	2643.1	2783.7	2889.3	2903.1
155°	2322.7	2351.4	2380.1	2387.3	2449.1	2531.5	2572.7	2628.7	2740.7	2824.6	2833.7
157.5°	2382.1	2410.0	2438.0	2445.0	2487.5	2544.3	2572.7	2616.2	2703.3	2768.6	2775.0
160°	2422.3	2444.1	2465.8	2471.3	2505.1	2550.2	2572.7	2610.0	2684.6	2740.6	2744.3
162.5°	2462.5	2478.8	2495.1	2499.2	2523.7	2556.3	2572.7	2604.2	2667.2	2714.4	2717.8
165°	2506.2	2521.0	2535.8	2539.5	2550.5	2565.3	2572.7	2595.2	2640.3	2674.1	2677.8
167.5°	2546.5	2553.5	2560.4	2562.2	2571.6	2584.0	2590.2	2604.9	2634.5	2656.6	2658.2
170°	2572.7	2579.7	2586.7	2588.5	2589.0	2589.8	2590.2	2604.9	2634.5	2656.6	2656.6
172.5°	2586.7	2588.2	2589.8	2590.2	2590.2	2590.2	2590.2	2601.8	2625.2	2642.7	2641.3
175°	2606.0	2606.0	2606.0	2606.0	2600.7	2593.7	2590.2	2597.5	2612.3	2623.4	2623.4
177.5°	2606.0	2606.0	2606.0	2606.0	2601.8	2596.4	2593.7	2599.5	2611.2	2619.9	2618.3
180°	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0	2606.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1152.2	1152.2
2.5°	1230.0	1222.6
5°	1582.0	1589.4
7.5°	2130.3	2126.5
10°	2649.0	2682.2
12.5°	3026.9	3034.2
15°	3256.5	3271.4
17.5°	3345.4	3349.1
20°	3349.1	3341.8
22.5°	3308.4	3301.0
25°	3260.3	3256.5
27.5°	3215.8	3219.5
30°	3197.3	3208.4
32.5°	3197.3	3215.8
35°	3204.6	3223.1
37.5°	3200.9	3223.1
40°	3186.1	3212.0
42.5°	3145.4	3163.9
45°	3082.4	3104.6
47.5°	3000.9	3015.7
50°	2897.1	2912.0
52.5°	2767.5	2771.2
55°	2611.8	2626.7
57.5°	2445.2	2448.8
60°	2259.9	2271.1
62.5°	2063.6	2063.6
65°	1856.1	1863.5
67.5°	1641.3	1659.8
70°	1422.6	1426.4
72.5°	1207.7	1207.7
75°	985.5	989.2
77.5°	774.3	774.3
80°	574.3	577.9
82.5°	396.4	403.8
85°	248.3	248.3
87.5°	114.9	103.8
90°	66.5	66.5
92.5°	266.2	213.4
95°	927.9	767.8
97.5°	2223.3	1918.6
100°	3203.3	2840.3
102.5°	4167.4	3856.4
105°	5396.5	5229.4
107.5°	6201.6	6242.0
110°	6508.6	6682.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6536.0	6803.4
115°	6362.6	6733.4
117.5°	5995.2	6406.4
120°	5699.0	6098.6
122.5°	5410.7	5804.8
125°	4999.3	5362.3
127.5°	4629.3	4935.5
130°	4411.3	4694.2
132.5°	4213.4	4466.8
135°	3942.3	4160.8
137.5°	3724.9	3903.6
140°	3575.6	3742.7
142.5°	3452.1	3595.8
145°	3266.7	3375.5
147.5°	3124.4	3214.5
150°	3034.8	3107.9
152.5°	2958.3	3013.4
155°	2870.2	2906.7
157.5°	2800.7	2826.3
160°	2759.1	2773.8
162.5°	2731.9	2745.9
165°	2692.6	2707.4
167.5°	2664.4	2670.6
170°	2656.6	2656.6
172.5°	2635.9	2630.4
175°	2623.4	2623.4
177.5°	2612.1	2606.0
180°	2606.0	2606.0



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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	3.82	4.58	4.89	5.66	7.13	17.01	17.77	18.08	18.85	20.32
	3H	4.52	5.20	5.60	6.29	7.78	18.85	19.53	19.93	20.62	22.11
	4H	4.81	5.46	5.90	6.55	8.04	19.49	20.14	20.58	21.23	22.73
	6H	5.05	5.65	6.16	6.74	8.25	19.92	20.52	21.02	21.61	23.12
	8H	5.12	5.69	6.22	6.80	8.30	20.04	20.61	21.15	21.72	23.22
	12H	5.13	5.67	6.24	6.77	8.30	20.11	20.65	21.22	21.75	23.28
4H	2H	11.03	11.68	12.13	12.77	14.26	17.27	17.92	18.37	19.01	20.51
	3H	12.59	13.13	13.69	14.24	15.75	19.31	19.86	20.42	20.97	22.48
	4H	12.68	13.18	13.79	14.28	15.81	20.08	20.58	21.19	21.68	23.21
	6H	12.68	13.11	13.80	14.24	15.76	20.62	21.04	21.74	22.17	23.70
	8H	12.65	13.06	13.77	14.18	15.71	20.78	21.18	21.90	22.30	23.84
	12H	12.61	12.97	13.74	14.10	15.65	20.87	21.23	22.01	22.36	23.91
8H	4H	14.12	14.52	15.24	15.64	17.18	20.13	20.53	21.25	21.65	23.19
	6H	14.35	14.68	15.49	15.85	17.38	20.76	21.09	21.90	22.25	23.79
	8H	14.37	14.66	15.52	15.80	17.36	20.98	21.27	22.13	22.41	23.97
	12H	14.33	14.59	15.48	15.73	17.32	21.12	21.38	22.27	22.52	24.11
12H	4H	14.26	14.62	15.39	15.75	17.30	20.08	20.44	21.21	21.57	23.12
	6H	14.61	14.90	15.76	16.04	17.60	20.74	21.03	21.89	22.17	23.73
	8H	14.68	14.93	15.83	16.07	17.66	20.97	21.22	22.12	22.36	23.95