

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: P938277

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938277
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-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

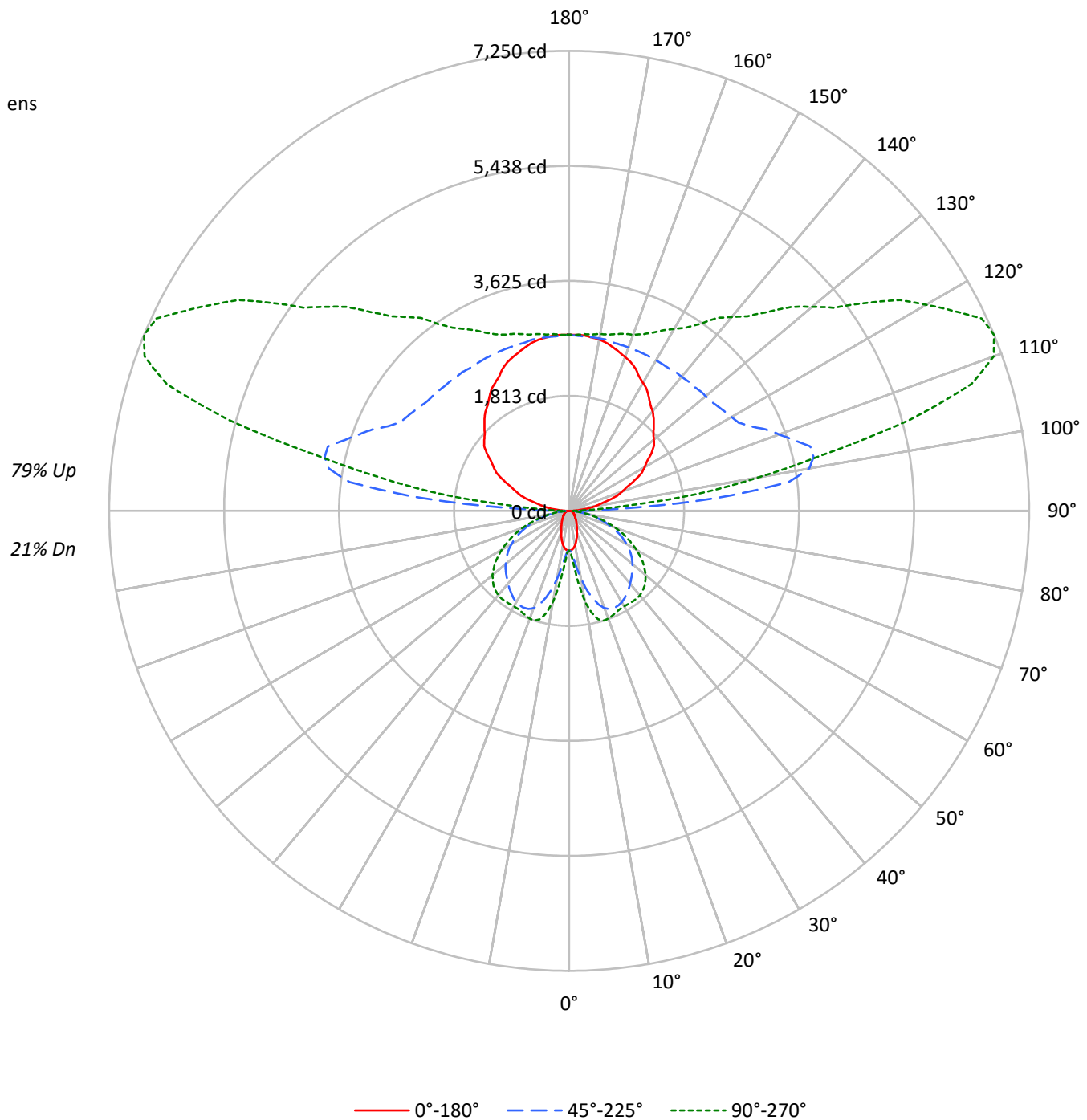
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22833.3 lumens
Efficiency: N/A
Efficacy: 136.9 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): 166.8
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

TEST NUMBER: P938277
CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-STD-W-12-2700K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1928	1928	1928
5°	1884	2229	2591
10°	1710	3250	4296
15°	1454	4247	5187
20°	1184	4922	5287
25°	988	5152	5179
30°	834	5186	5169
35°	737	5101	5303
40°	643	4991	5441
45°	583	4910	5463
50°	535	4838	5372
55°	513	4732	5134
60°	526	4526	4758
65°	548	4213	4242
70°	584	3676	3583
75°	650	3000	2796
80°	716	2083	1884
85°	648	1107	965

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6904 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	0.4
10°-20°	357.3	1.6
20°-30°	625.0	2.7
30°-40°	804.6	3.5
40°-50°	898.7	3.9
50°-60°	860.7	3.8
60°-70°	682.1	3.0
70°-80°	401.1	1.8
80°-90°	122.0	0.5
90°-100°	1353.6	5.9
100°-110°	3558.6	15.6
110°-120°	3689.9	16.2
120°-130°	2959.7	13.0
130°-140°	2322.3	10.2
140°-150°	1782.5	7.8
150°-160°	1283.7	5.6
160°-170°	785.4	3.4
170°-180°	265.4	1.2
0°-30°	1063.0	4.7
0°-40°	1867.5	8.2
0°-60°	3627.0	15.9
0°-90°	4832.2	21.2
90°-120°	8602.0	37.7
90°-150°	15666.6	68.6
90°-180°	18001.0	78.8
0°-180°	22833.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	607	651	734	830	860	56
15°	455	840	1415	1716	1770	127
25°	291	952	1685	1760	1762	134
35°	196	910	1587	1678	1744	123
45°	134	726	1403	1607	1680	104
55°	96	461	1190	1383	1421	88
65°	76	244	884	994	1008	75
75°	56	150	485	533	535	59
85°	20	46	120	132	134	21
90°	19	52	142	71	71	17
95°	179	701	2331	1202	818	199
105°	641	971	3934	5973	5572	680
115°	1139	1383	3151	6286	7175	1125
125°	1584	1776	2866	4844	5714	1406
135°	1888	2078	2777	3910	4434	1461
145°	2190	2330	2741	3336	3597	1372
155°	2475	2544	2741	3010	3097	1137
165°	2671	2706	2741	2850	2885	754
175°	2777	2777	2760	2796	2796	264
180°	2777	2777	2777	2777	2777	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3
2.5°	623.3	623.3	627.3	629.3	633.3	635.2	639.3	643.3	655.4	657.4	661.3
5°	607.3	615.2	641.3	651.3	679.4	717.4	733.5	759.5	813.6	829.7	839.7
7.5°	583.2	601.2	665.3	681.4	751.6	851.8	893.8	950.0	1036.1	1078.2	1112.2
10°	545.1	583.2	697.4	735.5	849.7	1002.1	1080.2	1158.3	1288.6	1346.8	1368.8
12.5°	503.0	565.1	731.5	783.6	947.9	1170.4	1264.6	1350.8	1499.1	1577.3	1589.2
15°	455.0	539.1	763.5	839.7	1052.2	1310.6	1414.9	1521.1	1659.4	1715.5	1729.6
17.5°	412.8	519.0	793.6	873.8	1132.4	1436.9	1543.1	1631.3	1743.6	1781.6	1791.7
20°	360.8	487.0	813.6	917.9	1216.5	1529.2	1631.3	1699.5	1775.7	1799.7	1803.7
22.5°	322.7	452.9	825.7	933.9	1272.6	1585.2	1671.4	1725.6	1777.7	1785.6	1787.6
25°	290.6	414.8	823.7	952.0	1320.7	1619.3	1685.4	1725.6	1755.5	1759.6	1759.6
27.5°	260.6	372.8	815.6	956.0	1356.8	1627.4	1679.5	1707.4	1721.5	1729.6	1729.6
30°	234.5	332.7	795.6	947.9	1372.8	1619.3	1661.4	1675.5	1689.4	1701.5	1707.4
32.5°	214.4	294.6	765.5	931.9	1374.8	1599.3	1629.4	1637.3	1657.3	1685.4	1695.5
35°	196.4	256.6	731.5	909.8	1362.8	1567.2	1587.2	1595.3	1635.3	1677.5	1691.4
37.5°	178.4	228.5	687.4	871.8	1344.7	1529.2	1543.1	1557.1	1619.3	1669.4	1685.4
40°	160.4	204.4	635.2	829.7	1316.7	1483.0	1495.1	1517.1	1599.3	1657.3	1673.4
42.5°	146.3	184.4	579.2	785.6	1280.7	1431.0	1449.0	1481.1	1575.2	1637.3	1655.4
45°	134.3	164.3	519.0	725.5	1234.5	1376.8	1402.9	1447.0	1547.2	1607.2	1623.3
47.5°	122.2	150.3	457.0	663.3	1184.4	1322.7	1356.8	1406.8	1509.0	1567.2	1581.2
50°	112.2	136.3	394.8	597.2	1130.3	1264.6	1304.7	1356.8	1461.0	1515.1	1533.1
52.5°	104.2	124.3	336.6	531.1	1068.2	1204.5	1250.6	1304.7	1402.9	1455.0	1467.0
55°	96.2	114.2	286.5	460.9	1004.1	1140.3	1190.4	1242.5	1338.7	1382.8	1390.8
57.5°	92.2	106.2	244.5	394.8	935.9	1068.2	1124.3	1172.4	1262.5	1296.7	1304.7
60°	86.2	100.2	212.4	338.7	861.7	1000.1	1048.2	1096.2	1172.4	1200.5	1206.5
62.5°	80.2	96.2	188.3	284.6	785.6	919.9	968.0	1012.0	1076.2	1096.2	1104.3
65°	76.2	92.2	170.3	244.5	707.5	835.7	883.9	921.9	974.0	994.0	998.0
67.5°	72.1	88.1	156.3	210.5	629.3	751.6	787.6	823.7	863.7	883.9	885.8
70°	66.1	84.2	144.3	186.4	549.1	655.4	685.4	723.5	755.6	765.5	771.6
72.5°	62.2	78.2	136.3	168.3	466.9	563.1	591.2	613.2	641.3	651.3	651.3
75°	56.1	70.1	128.3	150.3	382.8	460.9	485.0	507.1	529.1	533.1	527.1
77.5°	50.1	62.2	110.3	126.3	298.6	364.7	384.8	396.8	414.8	418.8	420.8
80°	42.1	54.1	86.2	98.2	216.4	268.5	282.6	292.6	308.7	308.7	312.6
82.5°	32.1	42.1	62.2	70.1	146.3	184.4	196.4	202.4	212.4	212.4	212.4
85°	20.0	26.1	40.0	46.1	88.1	112.2	120.2	122.2	130.3	132.3	132.3
87.5°	10.1	14.0	26.1	28.1	46.1	58.2	58.2	62.2	62.2	60.2	58.2
90°	18.6	33.6	48.5	52.2	82.0	121.7	141.6	125.9	94.4	70.8	70.8
92.5°	74.5	201.2	328.0	359.7	505.7	700.3	797.6	699.0	501.9	354.1	340.0
95°	178.9	410.8	642.7	700.7	1244.3	1969.1	2331.4	2080.4	1578.6	1202.1	1159.4
97.5°	309.4	513.9	718.5	769.7	1676.1	2884.5	3488.7	3330.1	3012.9	2775.0	2693.8
100°	410.0	595.5	781.1	827.5	1833.2	3174.2	3844.7	3856.2	3879.4	3896.8	3800.1
102.5°	495.7	668.8	841.9	885.2	1905.2	3265.3	3945.4	4147.4	4551.6	4854.8	4771.9
105°	641.1	787.7	934.3	971.0	1958.7	3275.6	3934.1	4387.2	5293.3	5972.9	5928.4
107.5°	790.2	926.9	1063.5	1097.7	1968.6	3129.8	3710.5	4342.5	5606.4	6554.4	6565.1
110°	890.8	1014.2	1137.6	1168.5	1953.8	3000.6	3524.1	4230.7	5643.7	6703.5	6749.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	989.6	1107.3	1224.9	1254.3	1954.4	2887.8	3354.5	4077.6	5523.8	6608.5	6679.7
115°	1138.7	1247.2	1355.8	1382.8	1972.4	2758.4	3151.4	3848.0	5241.2	6286.1	6384.9
117.5°	1285.9	1384.4	1483.0	1507.6	2008.9	2677.3	3011.6	3640.3	4897.6	5840.6	5950.2
120°	1371.6	1464.4	1557.1	1580.4	2038.8	2650.1	2955.7	3530.1	4678.9	5540.5	5647.0
122.5°	1455.5	1549.1	1642.7	1666.1	2081.7	2635.8	2912.9	3430.1	4464.7	5240.6	5345.5
125°	1584.1	1669.4	1754.8	1776.1	2139.5	2624.1	2866.3	3305.7	4184.5	4843.5	4940.3
127.5°	1688.4	1774.6	1860.7	1882.2	2197.2	2617.2	2827.1	3204.4	3959.0	4524.9	4606.5
130°	1744.4	1837.1	1929.8	1953.1	2239.4	2621.3	2812.2	3148.1	3819.9	4323.6	4399.0
132.5°	1802.2	1894.9	1987.6	2010.8	2273.6	2624.0	2799.2	3099.9	3701.2	4152.2	4219.8
135°	1887.8	1972.3	2056.8	2078.0	2310.9	2621.6	2776.8	3028.6	3532.2	3909.9	3968.1
137.5°	1975.5	2059.1	2142.8	2163.7	2366.8	2637.6	2773.1	2985.9	3411.7	3731.0	3778.6
140°	2048.2	2125.2	2202.3	2221.5	2401.0	2640.3	2760.0	2943.9	3311.7	3587.5	3632.0
142.5°	2104.0	2175.3	2246.5	2264.3	2429.5	2649.9	2760.0	2921.6	3244.6	3486.9	3525.2
145°	2189.8	2252.0	2314.0	2329.5	2466.8	2649.9	2741.4	2873.5	3137.7	3335.9	3364.9
147.5°	2275.5	2335.9	2396.4	2411.5	2521.5	2668.1	2741.4	2845.4	3053.2	3209.2	3233.2
150°	2331.4	2386.1	2440.8	2454.4	2550.1	2677.6	2741.4	2829.2	3004.8	3136.5	3155.9
152.5°	2389.2	2430.6	2472.0	2482.3	2568.7	2683.8	2741.4	2816.4	2966.3	3078.7	3093.5
155°	2475.0	2505.6	2536.2	2543.9	2609.7	2697.5	2741.4	2801.1	2920.4	3009.8	3019.6
157.5°	2538.3	2568.1	2597.9	2605.3	2650.7	2711.1	2741.4	2787.8	2880.5	2950.2	2957.0
160°	2581.1	2604.3	2627.5	2633.3	2669.4	2717.4	2741.4	2781.1	2860.6	2920.3	2924.3
162.5°	2624.0	2641.4	2658.7	2663.1	2689.2	2724.0	2741.4	2775.0	2842.1	2892.4	2896.1
165°	2670.6	2686.3	2702.0	2706.0	2717.8	2733.5	2741.4	2765.4	2813.4	2849.5	2853.4
167.5°	2713.5	2721.0	2728.3	2730.2	2740.2	2753.4	2760.0	2775.8	2807.2	2830.8	2832.5
170°	2741.4	2748.9	2756.3	2758.2	2758.8	2759.6	2760.0	2775.8	2807.2	2830.8	2830.8
172.5°	2756.3	2757.9	2759.6	2760.0	2760.0	2760.0	2760.0	2772.5	2797.4	2816.0	2814.5
175°	2776.8	2776.8	2776.8	2776.8	2771.3	2763.8	2760.0	2767.9	2783.6	2795.5	2795.5
177.5°	2776.8	2776.8	2776.8	2776.8	2772.5	2766.7	2763.8	2770.0	2782.4	2791.7	2790.0
180°	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8	2776.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	623.3	623.3
2.5°	665.3	661.3
5°	855.8	859.7
7.5°	1152.4	1150.4
10°	1432.9	1451.0
12.5°	1637.3	1641.3
15°	1761.6	1769.6
17.5°	1809.7	1811.7
20°	1811.7	1807.7
22.5°	1789.6	1785.6
25°	1763.6	1761.6
27.5°	1739.5	1741.6
30°	1729.6	1735.5
32.5°	1729.6	1739.5
35°	1733.5	1743.6
37.5°	1731.5	1743.6
40°	1723.5	1737.5
42.5°	1701.5	1711.5
45°	1667.4	1679.5
47.5°	1623.3	1631.3
50°	1567.2	1575.2
52.5°	1497.1	1499.1
55°	1412.9	1420.9
57.5°	1322.7	1324.7
60°	1222.5	1228.5
62.5°	1116.3	1116.3
65°	1004.1	1008.1
67.5°	887.8	897.8
70°	769.6	771.6
72.5°	653.4	653.4
75°	533.1	535.1
77.5°	418.8	418.8
80°	310.7	312.6
82.5°	214.4	218.4
85°	134.3	134.3
87.5°	62.2	56.1
90°	70.8	70.8
92.5°	283.7	227.4
95°	988.7	818.1
97.5°	2369.1	2044.4
100°	3413.4	3026.5
102.5°	4440.7	4109.3
105°	5750.4	5572.3
107.5°	6608.3	6651.3
110°	6935.4	7121.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6964.6	7249.6
115°	6779.9	7175.0
117.5°	6388.3	6826.5
120°	6072.7	6498.5
122.5°	5765.5	6185.5
125°	5327.1	5714.0
127.5°	4932.9	5259.2
130°	4700.5	5002.0
132.5°	4489.7	4759.7
135°	4200.8	4433.6
137.5°	3969.2	4159.6
140°	3810.1	3988.2
142.5°	3678.4	3831.6
145°	3480.9	3596.9
147.5°	3329.3	3425.3
150°	3233.8	3311.7
152.5°	3152.2	3211.0
155°	3058.4	3097.4
157.5°	2984.3	3011.6
160°	2940.0	2955.7
162.5°	2911.0	2925.9
165°	2869.2	2884.9
167.5°	2839.1	2845.8
170°	2830.8	2830.8
172.5°	2808.7	2802.9
175°	2795.5	2795.5
177.5°	2783.4	2776.8
180°	2776.8	2776.8



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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	0.38	0.88	1.53	3.16	12.91	13.57	14.07	14.73	16.36
	3H	0.41	1.00	1.58	2.16	3.81	14.74	15.33	15.91	16.49	18.14
	4H	0.69	1.26	1.88	2.42	4.07	15.38	15.94	16.56	17.11	18.75
	6H	0.93	1.45	2.12	2.62	4.28	15.80	16.32	16.99	17.49	19.15
	8H	1.00	1.49	2.19	2.67	4.32	15.92	16.41	17.11	17.59	19.24
	12H	1.01	1.48	2.20	2.65	4.32	15.98	16.45	17.18	17.62	19.30
4H	2H	6.92	7.48	8.11	8.64	10.29	13.16	13.72	14.35	14.89	16.53
	3H	8.46	8.94	9.66	10.12	11.78	15.19	15.66	16.38	16.85	18.51
	4H	8.55	8.99	9.74	10.16	11.84	15.95	16.39	17.15	17.56	19.24
	6H	8.55	8.92	9.75	10.12	11.78	16.48	16.86	17.68	18.05	19.72
	8H	8.52	8.87	9.72	10.06	11.74	16.64	16.99	17.84	18.18	19.86
	12H	8.46	8.78	9.68	9.98	11.67	16.73	17.04	17.94	18.24	19.93
8H	4H	9.98	10.33	11.18	11.52	13.20	15.99	16.34	17.19	17.53	19.22
	6H	10.21	10.50	11.43	11.73	13.41	16.62	16.91	17.84	18.14	19.82
	8H	10.23	10.48	11.45	11.68	13.39	16.84	17.09	18.06	18.29	20.00
	12H	10.19	10.41	11.41	11.61	13.34	16.98	17.20	18.20	18.40	20.13
12H	4H	10.11	10.43	11.33	11.63	13.32	15.94	16.25	17.15	17.45	19.14
	6H	10.47	10.72	11.69	11.93	13.63	16.60	16.85	17.82	18.06	19.76
	8H	10.53	10.75	11.76	11.95	13.69	16.82	17.04	18.05	18.25	19.98