

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: P938226

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938226
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-92765-1D-UNV-STD-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

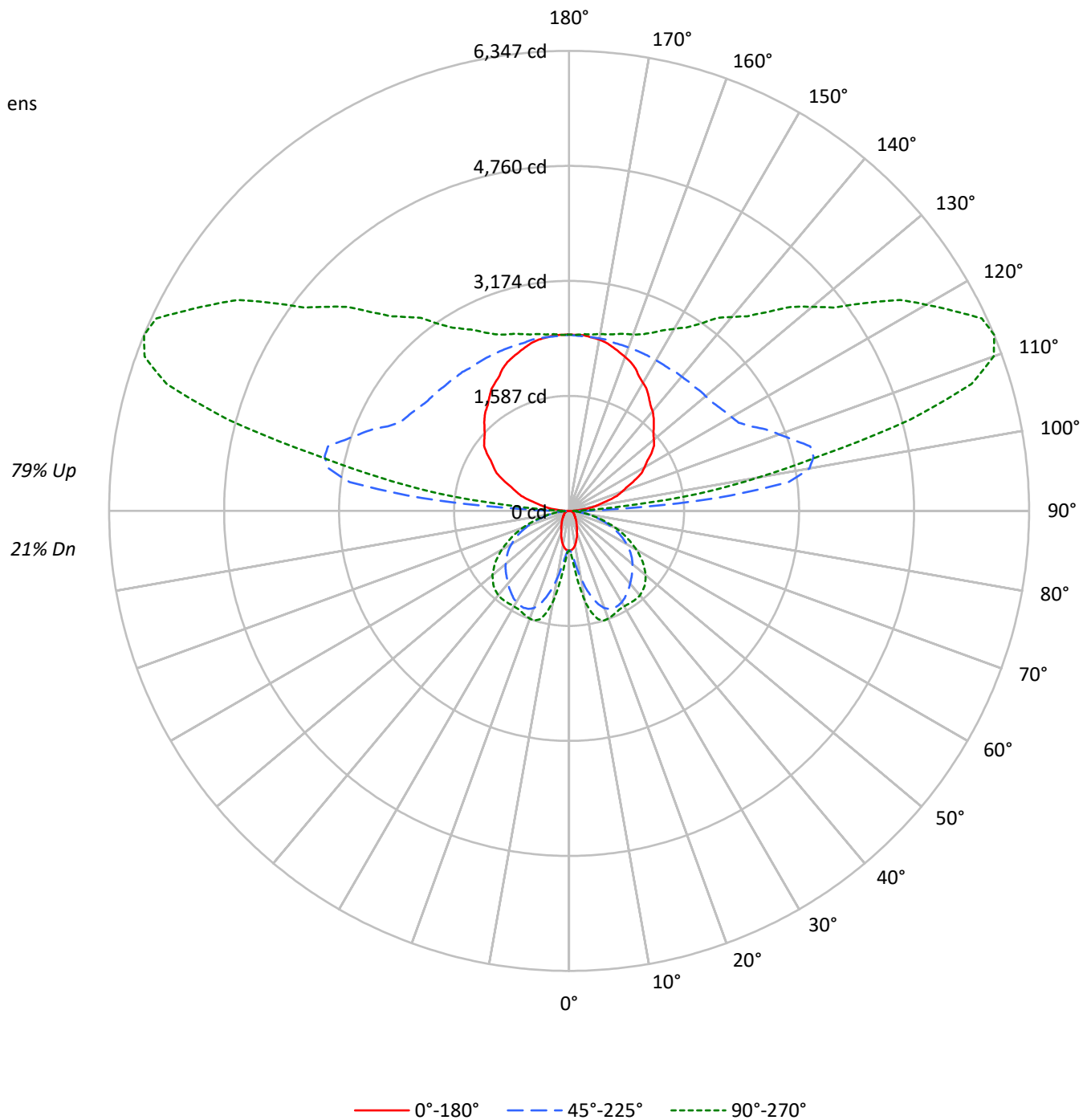
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19991.4 lumens
Efficiency: N/A
Efficacy: 119.9 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 (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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1688	1688	1688
5°	1650	1951	2269
10°	1497	2845	3761
15°	1273	3718	4542
20°	1037	4310	4629
25°	865	4511	4535
30°	730	4541	4526
35°	646	4466	4643
40°	563	4370	4764
45°	510	4299	4783
50°	468	4236	4703
55°	449	4143	4495
60°	460	3963	4166
65°	480	3688	3714
70°	512	3219	3137
75°	569	2626	2448
80°	628	1824	1649
85°	567	970	845

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6050 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	0.4
10°-20°	312.9	1.6
20°-30°	547.2	2.7
30°-40°	704.4	3.5
40°-50°	786.8	3.9
50°-60°	753.6	3.8
60°-70°	597.2	3.0
70°-80°	351.2	1.8
80°-90°	106.9	0.5
90°-100°	1185.1	5.9
100°-110°	3115.7	15.6
110°-120°	3230.6	16.2
120°-130°	2591.4	13.0
130°-140°	2033.3	10.2
140°-150°	1560.6	7.8
150°-160°	1123.9	5.6
160°-170°	687.7	3.4
170°-180°	232.3	1.2
0°-30°	930.7	4.7
0°-40°	1635.1	8.2
0°-60°	3175.5	15.9
0°-90°	4230.8	21.2
90°-120°	7531.4	37.7
90°-150°	13716.7	68.6
90°-180°	15761.0	78.8
0°-180°	19991.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	532	570	642	726	753	49
15°	398	735	1239	1502	1549	111
25°	254	834	1476	1541	1542	117
35°	172	797	1390	1469	1527	107
45°	118	635	1228	1407	1470	91
55°	84	404	1042	1211	1244	77
65°	67	214	774	870	883	66
75°	49	132	425	467	468	51
85°	18	40	105	116	118	19
90°	16	46	124	62	62	15
95°	157	614	2041	1052	716	174
105°	561	850	3444	5230	4879	595
115°	997	1211	2759	5504	6282	985
125°	1387	1555	2510	4241	5003	1231
135°	1653	1819	2431	3423	3882	1279
145°	1917	2040	2400	2921	3149	1201
155°	2167	2227	2400	2635	2712	996
165°	2338	2369	2400	2495	2526	660
175°	2431	2431	2416	2448	2448	231
180°	2431	2431	2431	2431	2431	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	545.7	545.7	545.7	545.7	545.7	545.7	545.7	545.7	545.7	545.7	545.7
2.5°	545.7	545.7	549.2	551.0	554.4	556.2	559.8	563.2	573.8	575.5	579.0
5°	531.7	538.7	561.5	570.2	594.8	628.1	642.2	665.0	712.4	726.4	735.2
7.5°	510.6	526.4	582.5	596.6	658.0	745.8	782.6	831.7	907.2	944.0	973.8
10°	477.3	510.6	610.6	644.0	743.9	877.4	945.7	1014.2	1128.2	1179.2	1198.4
12.5°	440.4	494.8	640.4	686.0	829.9	1024.7	1107.2	1182.7	1312.5	1381.0	1391.4
15°	398.3	472.0	668.5	735.2	921.2	1147.5	1238.8	1331.8	1452.9	1502.0	1514.3
17.5°	361.5	454.4	694.8	765.0	991.4	1258.1	1351.0	1428.3	1526.6	1559.9	1568.7
20°	315.9	426.4	712.4	803.7	1065.1	1338.8	1428.3	1488.0	1554.7	1575.7	1579.2
22.5°	282.5	396.5	722.9	817.7	1114.2	1387.9	1463.4	1510.8	1556.4	1563.4	1565.1
25°	254.5	363.2	721.2	833.5	1156.3	1417.8	1475.7	1510.8	1537.0	1540.6	1540.6
27.5°	228.1	326.4	714.1	837.0	1187.9	1424.8	1470.4	1494.9	1507.2	1514.3	1514.3
30°	205.3	291.3	696.6	829.9	1201.9	1417.8	1454.6	1466.9	1479.1	1489.7	1494.9
32.5°	187.7	257.9	670.2	815.9	1203.7	1400.2	1426.6	1433.5	1451.1	1475.7	1484.5
35°	172.0	224.6	640.4	796.6	1193.2	1372.1	1389.7	1396.7	1431.8	1468.7	1480.9
37.5°	156.2	200.0	601.9	763.3	1177.3	1338.8	1351.0	1363.3	1417.8	1461.6	1475.7
40°	140.4	178.9	556.2	726.4	1152.8	1298.5	1309.0	1328.3	1400.2	1451.1	1465.1
42.5°	128.1	161.4	507.1	687.9	1121.3	1252.9	1268.6	1296.7	1379.1	1433.5	1449.3
45°	117.6	143.9	454.4	635.2	1080.9	1205.4	1228.3	1266.9	1354.6	1407.2	1421.2
47.5°	107.0	131.6	400.1	580.8	1037.0	1158.1	1187.9	1231.7	1321.2	1372.1	1384.4
50°	98.3	119.3	345.7	522.9	989.6	1107.2	1142.3	1187.9	1279.2	1326.5	1342.3
52.5°	91.2	108.8	294.7	465.0	935.3	1054.6	1094.9	1142.3	1228.3	1273.9	1284.4
55°	84.2	100.0	250.9	403.6	879.1	998.4	1042.3	1087.9	1172.1	1210.7	1217.7
57.5°	80.8	93.0	214.1	345.7	819.5	935.3	984.4	1026.5	1105.4	1135.3	1142.3
60°	75.4	87.7	186.0	296.6	754.5	875.6	917.7	959.8	1026.5	1051.1	1056.3
62.5°	70.2	84.2	164.9	249.1	687.9	805.4	847.5	886.1	942.2	959.8	966.8
65°	66.7	80.8	149.1	214.1	619.4	731.7	773.8	807.2	852.8	870.3	873.8
67.5°	63.1	77.2	136.8	184.3	551.0	658.0	689.6	721.2	756.2	773.8	775.6
70°	57.9	73.7	126.4	163.2	480.8	573.8	600.1	633.4	661.5	670.2	675.6
72.5°	54.4	68.5	119.3	147.4	408.8	493.0	517.6	536.9	561.5	570.2	570.2
75°	49.1	61.4	112.3	131.6	335.1	403.6	424.6	444.0	463.2	466.7	461.5
77.5°	43.9	54.4	96.5	110.6	261.4	319.3	336.9	347.4	363.2	366.7	368.4
80°	36.9	47.4	75.4	86.0	189.5	235.1	247.4	256.2	270.2	270.2	273.7
82.5°	28.1	36.9	54.4	61.4	128.1	161.4	172.0	177.2	186.0	186.0	186.0
85°	17.5	22.8	35.1	40.4	77.2	98.3	105.3	107.0	114.1	115.8	115.8
87.5°	8.8	12.3	22.8	24.6	40.4	50.9	50.9	54.4	54.4	52.7	50.9
90°	16.3	29.4	42.5	45.7	71.8	106.6	124.0	110.2	82.7	62.0	62.0
92.5°	65.2	176.2	287.2	314.9	442.7	613.1	698.3	612.0	439.4	310.0	297.7
95°	156.6	359.6	562.7	613.5	1089.4	1724.0	2041.3	1821.5	1382.1	1052.5	1015.1
97.5°	270.9	450.0	629.1	673.9	1467.5	2525.5	3054.5	2915.6	2637.9	2429.6	2358.5
100°	358.9	521.4	683.8	724.5	1605.1	2779.1	3366.1	3376.3	3396.6	3411.8	3327.2
102.5°	434.0	585.6	737.1	775.1	1668.1	2858.9	3454.3	3631.2	3985.1	4250.6	4178.0
105°	561.3	689.7	818.1	850.1	1714.9	2867.9	3444.4	3841.1	4634.5	5229.5	5190.5
107.5°	691.9	811.5	931.2	961.1	1723.6	2740.3	3248.7	3802.0	4908.6	5738.6	5748.0
110°	779.9	888.0	996.0	1023.1	1710.6	2627.2	3085.5	3704.1	4941.3	5869.1	5909.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	866.5	969.4	1072.4	1098.2	1711.1	2528.4	2937.0	3570.1	4836.3	5785.9	5848.3
115°	997.0	1092.0	1187.0	1210.7	1726.9	2415.1	2759.2	3369.1	4588.8	5503.7	5590.2
117.5°	1125.9	1212.1	1298.5	1320.0	1758.9	2344.1	2636.8	3187.2	4288.1	5113.7	5209.6
120°	1200.9	1282.2	1363.3	1383.7	1785.1	2320.2	2587.8	3090.8	4096.6	4851.0	4944.2
122.5°	1274.3	1356.3	1438.2	1458.7	1822.6	2307.8	2550.4	3003.2	3909.0	4588.3	4680.2
125°	1387.0	1461.6	1536.3	1555.0	1873.2	2297.5	2509.5	2894.3	3663.7	4240.7	4325.4
127.5°	1478.3	1553.7	1629.1	1648.0	1923.7	2291.4	2475.3	2805.6	3466.2	3961.7	4033.2
130°	1527.3	1608.5	1689.7	1710.0	1960.7	2295.0	2462.2	2756.2	3344.4	3785.5	3851.5
132.5°	1577.9	1659.0	1740.2	1760.5	1990.6	2297.4	2450.8	2714.0	3240.6	3635.4	3694.5
135°	1652.9	1726.8	1800.8	1819.3	2023.3	2295.3	2431.2	2651.7	3092.6	3423.3	3474.2
137.5°	1729.6	1802.8	1876.1	1894.4	2072.2	2309.3	2427.9	2614.3	2987.1	3266.6	3308.3
140°	1793.3	1860.7	1928.2	1945.0	2102.1	2311.7	2416.5	2577.5	2899.5	3141.0	3180.0
142.5°	1842.2	1904.5	1966.9	1982.5	2127.2	2320.0	2416.5	2557.9	2840.7	3052.9	3086.5
145°	1917.3	1971.7	2026.0	2039.6	2159.8	2320.0	2400.2	2515.8	2747.2	2920.7	2946.1
147.5°	1992.2	2045.2	2098.1	2111.4	2207.6	2336.0	2400.2	2491.2	2673.2	2809.8	2830.8
150°	2041.3	2089.1	2137.0	2149.0	2232.7	2344.4	2400.2	2477.1	2630.8	2746.1	2763.1
152.5°	2091.8	2128.1	2164.3	2173.4	2249.0	2349.8	2400.2	2465.9	2597.1	2695.5	2708.5
155°	2166.9	2193.8	2220.5	2227.3	2284.9	2361.7	2400.2	2452.4	2556.9	2635.2	2643.7
157.5°	2222.4	2248.5	2274.5	2281.1	2320.7	2373.7	2400.2	2440.8	2522.0	2583.0	2589.0
160°	2259.9	2280.2	2300.5	2305.6	2337.1	2379.2	2400.2	2435.0	2504.6	2556.8	2560.3
162.5°	2297.4	2312.6	2327.8	2331.6	2354.5	2384.9	2400.2	2429.6	2488.3	2532.4	2535.6
165°	2338.2	2352.0	2365.7	2369.2	2379.5	2393.3	2400.2	2421.2	2463.2	2494.8	2498.3
167.5°	2375.8	2382.3	2388.8	2390.4	2399.1	2410.7	2416.5	2430.3	2457.8	2478.5	2480.0
170°	2400.2	2406.7	2413.3	2414.9	2415.4	2416.1	2416.5	2430.3	2457.8	2478.5	2478.5
172.5°	2413.3	2414.7	2416.1	2416.5	2416.5	2416.5	2416.5	2427.4	2449.2	2465.5	2464.2
175°	2431.2	2431.2	2431.2	2431.2	2426.3	2419.8	2416.5	2423.4	2437.2	2447.5	2447.5
177.5°	2431.2	2431.2	2431.2	2431.2	2427.4	2422.3	2419.8	2425.2	2436.1	2444.2	2442.7
180°	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	545.7	545.7
2.5°	582.5	579.0
5°	749.3	752.7
7.5°	1008.9	1007.2
10°	1254.6	1270.4
12.5°	1433.5	1437.0
15°	1542.4	1549.3
17.5°	1584.5	1586.2
20°	1586.2	1582.7
22.5°	1566.9	1563.4
25°	1544.1	1542.4
27.5°	1523.0	1524.8
30°	1514.3	1519.5
32.5°	1514.3	1523.0
35°	1517.8	1526.6
37.5°	1516.0	1526.6
40°	1509.0	1521.3
42.5°	1489.7	1498.5
45°	1459.9	1470.4
47.5°	1421.2	1428.3
50°	1372.1	1379.1
52.5°	1310.8	1312.5
55°	1237.1	1244.0
57.5°	1158.1	1159.8
60°	1070.3	1075.6
62.5°	977.4	977.4
65°	879.1	882.6
67.5°	777.3	786.1
70°	673.8	675.6
72.5°	572.1	572.1
75°	466.7	468.5
77.5°	366.7	366.7
80°	272.0	273.7
82.5°	187.7	191.2
85°	117.6	117.6
87.5°	54.4	49.1
90°	62.0	62.0
92.5°	248.4	199.1
95°	865.7	716.3
97.5°	2074.2	1789.9
100°	2988.5	2649.8
102.5°	3888.0	3597.8
105°	5034.7	4878.8
107.5°	5785.8	5823.4
110°	6072.2	6234.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6097.8	6347.3
115°	5936.0	6282.0
117.5°	5593.2	5976.8
120°	5316.9	5689.7
122.5°	5047.9	5415.6
125°	4664.1	5002.8
127.5°	4318.9	4604.6
130°	4115.5	4379.4
132.5°	3930.9	4167.3
135°	3678.0	3881.8
137.5°	3475.1	3641.9
140°	3335.9	3491.8
142.5°	3220.6	3354.7
145°	3047.7	3149.2
147.5°	2914.9	2999.0
150°	2831.3	2899.5
152.5°	2759.9	2811.4
155°	2677.8	2711.9
157.5°	2612.9	2636.8
160°	2574.1	2587.8
162.5°	2548.7	2561.8
165°	2512.1	2525.8
167.5°	2485.7	2491.6
170°	2478.5	2478.5
172.5°	2459.1	2454.1
175°	2447.5	2447.5
177.5°	2437.0	2431.2
180°	2431.2	2431.2



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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	0.00	0.42	1.07	2.70	12.45	13.11	13.61	14.26	15.89
	3H	0.00	0.54	1.12	1.70	3.35	14.28	14.87	15.45	16.03	17.68
	4H	0.23	0.80	1.42	1.96	3.61	14.91	15.48	16.10	16.64	18.29
	6H	0.47	0.99	1.66	2.16	3.82	15.34	15.86	16.53	17.02	18.68
	8H	0.54	1.03	1.73	2.21	3.86	15.46	15.95	16.65	17.13	18.78
	12H	0.55	1.02	1.74	2.19	3.86	15.52	15.99	16.72	17.16	18.84
4H	2H	6.45	7.02	7.64	8.18	9.83	12.69	13.26	13.89	14.42	16.07
	3H	8.00	8.47	9.20	9.66	11.32	14.73	15.20	15.92	16.39	18.05
	4H	8.09	8.52	9.28	9.70	11.38	15.49	15.93	16.68	17.10	18.78
	6H	8.09	8.46	9.28	9.66	11.32	16.02	16.39	17.22	17.59	19.26
	8H	8.06	8.41	9.26	9.59	11.28	16.18	16.53	17.38	17.72	19.40
	12H	8.00	8.32	9.22	9.52	11.21	16.27	16.58	17.48	17.78	19.47
8H	4H	9.52	9.87	10.72	11.05	12.74	15.53	15.88	16.73	17.07	18.75
	6H	9.75	10.04	10.97	11.27	12.95	16.16	16.44	17.37	17.67	19.36
	8H	9.77	10.02	10.99	11.22	12.92	16.38	16.63	17.60	17.83	19.53
	12H	9.72	9.94	10.95	11.15	12.88	16.51	16.73	17.74	17.94	19.67
12H	4H	9.65	9.97	10.87	11.17	12.86	15.47	15.79	16.69	16.99	18.68
	6H	10.01	10.26	11.23	11.47	13.17	16.14	16.39	17.36	17.59	19.30
	8H	10.07	10.29	11.29	11.49	13.22	16.36	16.58	17.59	17.78	19.52