

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: P938255

Luminaire Tested: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938255
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-93050-1D-UNV-STD-W-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

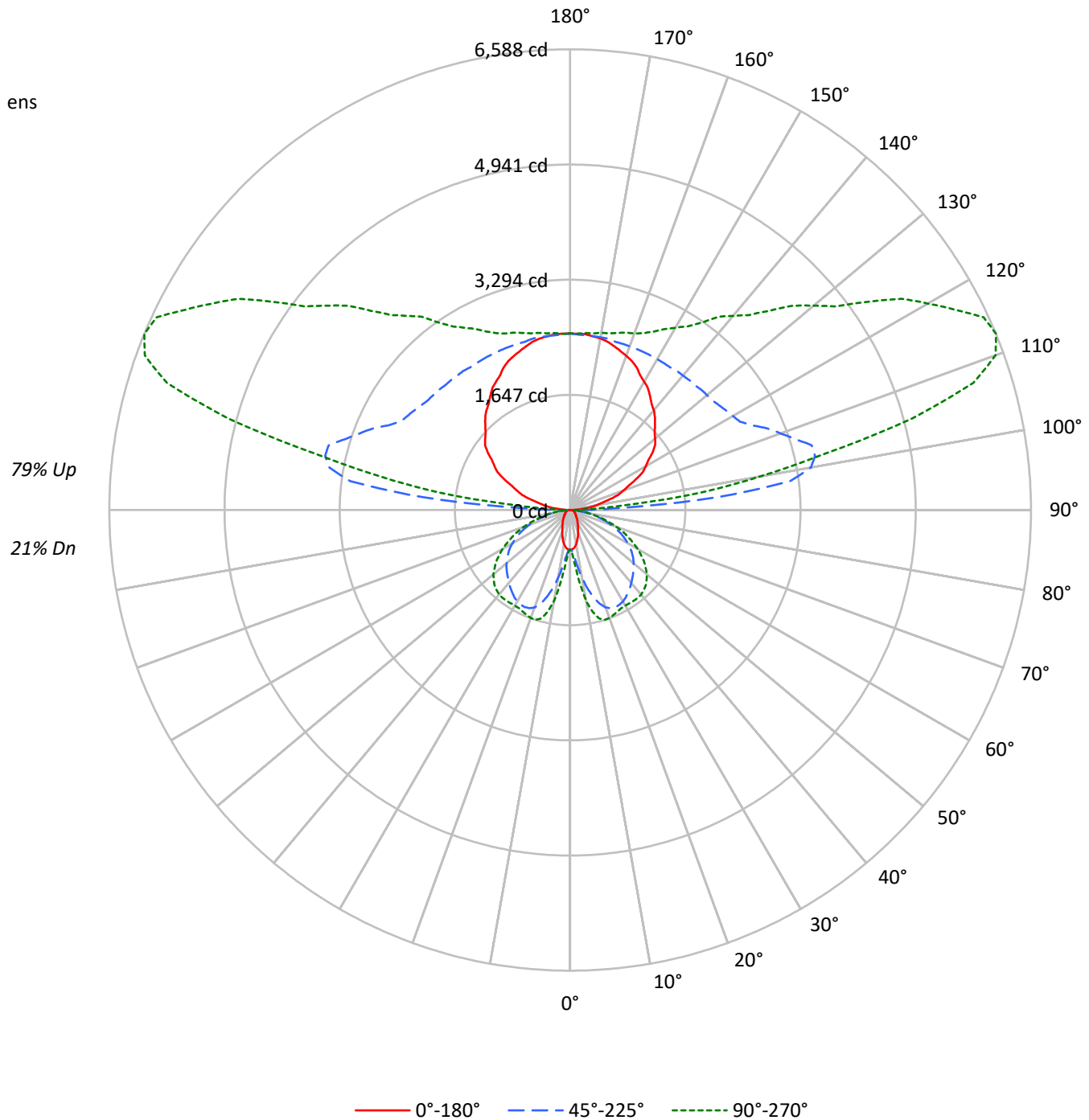
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20750.8 lumens
Efficiency: N/A
Efficacy: 124.4 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: 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: P938255
CATALOG NUMBER: SQ4-FB-150U-050D-93050-1D-UNV-STD-W-12-4000K

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°	1752	1752	1752
5°	1712	2025	2355
10°	1554	2953	3904
15°	1321	3859	4714
20°	1076	4474	4805
25°	898	4682	4707
30°	757	4713	4698
35°	670	4636	4820
40°	584	4536	4945
45°	529	4462	4965
50°	486	4397	4882
55°	466	4300	4666
60°	477	4114	4324
65°	498	3828	3854
70°	531	3341	3256
75°	591	2726	2541
80°	651	1893	1712
85°	590	1006	876

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6273 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	0.4
10°-20°	324.7	1.6
20°-30°	568.0	2.7
30°-40°	731.2	3.5
40°-50°	816.7	3.9
50°-60°	782.2	3.8
60°-70°	619.9	3.0
70°-80°	364.5	1.8
80°-90°	110.9	0.5
90°-100°	1230.1	5.9
100°-110°	3234.0	15.6
110°-120°	3353.3	16.2
120°-130°	2689.8	13.0
130°-140°	2110.5	10.2
140°-150°	1619.9	7.8
150°-160°	1166.6	5.6
160°-170°	713.8	3.4
170°-180°	241.2	1.2
0°-30°	966.0	4.7
0°-40°	1697.2	8.2
0°-60°	3296.2	15.9
0°-90°	4391.5	21.2
90°-120°	7817.5	37.7
90°-150°	14237.7	68.6
90°-180°	16359.0	78.8
0°-180°	20750.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	552	592	667	754	781	51
15°	414	763	1286	1559	1608	115
25°	264	865	1532	1599	1601	122
35°	178	827	1442	1524	1585	111
45°	122	659	1275	1461	1526	94
55°	87	419	1082	1257	1291	80
65°	69	222	803	903	916	69
75°	51	137	441	484	486	53
85°	18	42	109	120	122	19
90°	17	47	129	64	64	15
95°	163	637	2119	1092	744	181
105°	583	882	3575	5428	5064	618
115°	1035	1257	2864	5713	6521	1022
125°	1440	1614	2605	4402	5193	1278
135°	1716	1888	2524	3553	4029	1327
145°	1990	2117	2491	3032	3269	1247
155°	2249	2312	2491	2735	2815	1033
165°	2427	2459	2491	2590	2622	685
175°	2524	2524	2508	2540	2540	240
180°	2524	2524	2524	2524	2524	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4
2.5°	566.4	566.4	570.1	571.9	575.5	577.3	581.0	584.6	595.6	597.4	601.0
5°	551.9	559.1	582.8	591.9	617.4	652.0	666.6	690.3	739.4	754.0	763.1
7.5°	530.0	546.4	604.6	619.2	683.0	774.1	812.3	863.3	941.6	979.8	1010.8
10°	495.4	530.0	633.8	668.5	772.2	910.7	981.6	1052.7	1171.1	1224.0	1244.0
12.5°	457.1	513.6	664.8	712.1	861.4	1063.7	1149.3	1227.6	1362.4	1433.4	1444.3
15°	413.5	490.0	693.9	763.1	956.2	1191.1	1285.9	1382.4	1508.1	1559.0	1571.8
17.5°	375.2	471.7	721.2	794.1	1029.1	1305.9	1402.4	1482.6	1584.6	1619.2	1628.3
20°	327.8	442.6	739.4	834.2	1105.6	1389.7	1482.6	1544.5	1613.7	1635.5	1639.2
22.5°	293.3	411.6	750.4	848.8	1156.5	1440.7	1519.0	1568.2	1615.5	1622.8	1624.6
25°	264.1	377.0	748.6	865.2	1200.2	1471.6	1531.7	1568.2	1595.4	1599.1	1599.1
27.5°	236.8	338.8	741.2	868.8	1233.0	1478.9	1526.3	1551.7	1564.5	1571.8	1571.8
30°	213.1	302.3	723.0	861.4	1247.6	1471.6	1509.9	1522.7	1535.3	1546.3	1551.7
32.5°	194.9	267.7	695.7	846.9	1249.4	1453.4	1480.8	1488.0	1506.2	1531.7	1540.9
35°	178.5	233.2	664.8	826.9	1238.5	1424.3	1442.5	1449.8	1486.2	1524.5	1537.1
37.5°	162.1	207.6	624.7	792.3	1222.1	1389.7	1402.4	1415.1	1471.6	1517.1	1531.7
40°	145.7	185.7	577.3	754.0	1196.6	1347.8	1358.7	1378.7	1453.4	1506.2	1520.8
42.5°	133.0	167.5	526.4	714.0	1163.9	1300.4	1316.8	1346.0	1431.5	1488.0	1504.4
45°	122.0	149.4	471.7	659.3	1121.9	1251.2	1274.9	1315.0	1406.1	1460.7	1475.2
47.5°	111.1	136.6	415.3	602.8	1076.4	1202.1	1233.0	1278.5	1371.4	1424.3	1437.0
50°	102.0	123.8	358.8	542.7	1027.2	1149.3	1185.7	1233.0	1327.8	1376.9	1393.3
52.5°	94.7	113.0	305.9	482.6	970.8	1094.6	1136.5	1185.7	1274.9	1322.3	1333.2
55°	87.4	103.8	260.4	418.9	912.5	1036.3	1081.8	1129.2	1216.6	1256.7	1264.0
57.5°	83.8	96.5	222.2	358.8	850.6	970.8	1021.7	1065.5	1147.4	1178.4	1185.7
60°	78.3	91.1	193.1	307.8	783.1	908.9	952.6	996.2	1065.5	1091.0	1096.4
62.5°	72.9	87.4	171.2	258.6	714.0	836.0	879.7	919.7	978.0	996.2	1003.6
65°	69.2	83.8	154.8	222.2	642.9	759.5	803.2	837.8	885.2	903.4	907.0
67.5°	65.5	80.1	142.0	191.3	571.9	683.0	715.8	748.6	785.0	803.2	805.1
70°	60.1	76.5	131.2	169.4	499.0	595.6	622.9	657.5	686.7	695.7	701.2
72.5°	56.5	71.1	123.8	153.0	424.3	511.8	537.3	557.3	582.8	591.9	591.9
75°	51.0	63.7	116.6	136.6	347.9	418.9	440.7	460.8	480.8	484.4	479.0
77.5°	45.5	56.5	100.2	114.8	271.4	331.5	349.7	360.6	377.0	380.6	382.4
80°	38.3	49.2	78.3	89.2	196.7	244.0	256.8	265.9	280.5	280.5	284.1
82.5°	29.1	38.3	56.5	63.7	133.0	167.5	178.5	183.9	193.1	193.1	193.1
85°	18.2	23.7	36.4	41.9	80.1	102.0	109.3	111.1	118.4	120.2	120.2
87.5°	9.1	12.8	23.7	25.5	41.9	52.9	52.9	56.5	56.5	54.7	52.9
90°	16.9	30.5	44.1	47.4	74.5	110.6	128.7	114.4	85.8	64.4	64.4
92.5°	67.7	182.8	298.1	326.9	459.6	636.4	724.9	635.2	456.1	321.8	309.0
95°	162.6	373.3	584.1	636.8	1130.8	1789.5	2118.8	1890.7	1434.6	1092.4	1053.7
97.5°	281.1	467.1	653.0	699.5	1523.2	2621.4	3170.5	3026.4	2738.1	2521.9	2448.1
100°	372.6	541.2	709.8	752.0	1666.0	2884.7	3494.0	3504.5	3525.6	3541.4	3453.6
102.5°	450.5	607.8	765.1	804.5	1731.5	2967.5	3585.5	3769.2	4136.5	4412.0	4336.7
105°	582.7	715.9	849.1	882.4	1780.1	2976.9	3575.3	3987.1	4810.6	5428.2	5387.7
107.5°	718.2	842.3	966.5	997.6	1789.1	2844.4	3372.1	3946.4	5095.1	5956.6	5966.4
110°	809.6	921.7	1033.9	1061.9	1775.6	2727.0	3202.7	3844.9	5129.0	6092.1	6134.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	899.4	1006.3	1113.2	1139.9	1776.1	2624.4	3048.6	3705.7	5020.0	6005.7	6070.5
115°	1034.9	1133.4	1232.1	1256.7	1792.5	2506.8	2864.0	3497.1	4763.1	5712.7	5802.5
117.5°	1168.7	1258.2	1347.8	1370.1	1825.7	2433.2	2736.9	3308.3	4450.9	5308.0	5407.5
120°	1246.5	1330.9	1415.1	1436.2	1852.9	2408.4	2686.2	3208.2	4252.2	5035.2	5132.0
122.5°	1322.7	1407.8	1492.9	1514.2	1891.9	2395.4	2647.2	3117.3	4057.5	4762.6	4858.0
125°	1439.7	1517.1	1594.7	1614.1	1944.4	2384.7	2604.9	3004.2	3802.9	4401.8	4489.7
127.5°	1534.4	1612.7	1691.0	1710.6	1996.8	2378.5	2569.3	2912.2	3597.9	4112.2	4186.4
130°	1585.3	1669.6	1753.8	1774.9	2035.2	2382.2	2555.7	2860.9	3471.5	3929.3	3997.8
132.5°	1637.8	1722.1	1806.3	1827.4	2066.2	2384.6	2543.9	2817.1	3363.7	3773.5	3834.9
135°	1715.6	1792.4	1869.2	1888.4	2100.2	2382.5	2523.6	2752.4	3210.1	3553.3	3606.2
137.5°	1795.3	1871.3	1947.4	1966.4	2150.9	2397.0	2520.1	2713.6	3100.5	3390.7	3434.0
140°	1861.4	1931.3	2001.4	2018.9	2182.0	2399.5	2508.3	2675.4	3009.7	3260.3	3300.8
142.5°	1912.2	1976.9	2041.6	2057.8	2208.0	2408.2	2508.3	2655.1	2948.7	3168.9	3203.7
145°	1990.1	2046.6	2103.0	2117.1	2241.8	2408.2	2491.4	2611.4	2851.5	3031.7	3058.0
147.5°	2067.9	2122.9	2177.8	2191.6	2291.5	2424.7	2491.4	2585.9	2774.8	2916.5	2938.3
150°	2118.8	2168.5	2218.2	2230.6	2317.5	2433.4	2491.4	2571.2	2730.8	2850.4	2868.1
152.5°	2171.3	2209.0	2246.5	2255.9	2334.4	2439.0	2491.4	2559.5	2695.8	2797.9	2811.3
155°	2249.2	2277.1	2304.9	2311.9	2371.7	2451.4	2491.4	2545.6	2654.0	2735.3	2744.2
157.5°	2306.8	2333.9	2360.9	2367.7	2408.9	2463.8	2491.4	2533.5	2617.8	2681.1	2687.3
160°	2345.7	2366.8	2387.9	2393.2	2425.9	2469.6	2491.4	2527.5	2599.7	2653.9	2657.6
162.5°	2384.6	2400.5	2416.2	2420.2	2443.9	2475.5	2491.4	2521.9	2582.9	2628.6	2631.9
165°	2427.0	2441.3	2455.6	2459.2	2469.9	2484.2	2491.4	2513.2	2556.8	2589.6	2593.2
167.5°	2466.0	2472.8	2479.5	2481.2	2490.3	2502.3	2508.3	2522.6	2551.2	2572.6	2574.2
170°	2491.4	2498.2	2504.9	2506.7	2507.2	2507.9	2508.3	2522.6	2551.2	2572.6	2572.6
172.5°	2504.9	2506.4	2507.9	2508.3	2508.3	2508.3	2508.3	2519.6	2542.2	2559.2	2557.8
175°	2523.6	2523.6	2523.6	2523.6	2518.5	2511.7	2508.3	2515.4	2529.7	2540.5	2540.5
177.5°	2523.6	2523.6	2523.6	2523.6	2519.6	2514.4	2511.7	2517.3	2528.7	2537.1	2535.5
180°	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	566.4	566.4
2.5°	604.6	601.0
5°	777.7	781.3
7.5°	1047.3	1045.5
10°	1302.3	1318.6
12.5°	1488.0	1491.6
15°	1601.0	1608.2
17.5°	1644.7	1646.5
20°	1646.5	1642.9
22.5°	1626.4	1622.8
25°	1602.8	1601.0
27.5°	1580.9	1582.8
30°	1571.8	1577.2
32.5°	1571.8	1580.9
35°	1575.4	1584.6
37.5°	1573.6	1584.6
40°	1566.3	1579.1
42.5°	1546.3	1555.4
45°	1515.3	1526.3
47.5°	1475.2	1482.6
50°	1424.3	1431.5
52.5°	1360.5	1362.4
55°	1284.1	1291.3
57.5°	1202.1	1203.9
60°	1111.0	1116.4
62.5°	1014.5	1014.5
65°	912.5	916.1
67.5°	806.9	815.9
70°	699.4	701.2
72.5°	593.8	593.8
75°	484.4	486.3
77.5°	380.6	380.6
80°	282.3	284.1
82.5°	194.9	198.5
85°	122.0	122.0
87.5°	56.5	51.0
90°	64.4	64.4
92.5°	257.8	206.6
95°	898.6	743.5
97.5°	2153.0	1857.9
100°	3102.1	2750.5
102.5°	4035.7	3734.5
105°	5225.9	5064.1
107.5°	6005.6	6044.7
110°	6302.9	6471.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6329.4	6588.4
115°	6161.5	6520.6
117.5°	5805.7	6203.9
120°	5518.9	5905.8
122.5°	5239.7	5621.3
125°	4841.3	5192.8
127.5°	4483.0	4779.5
130°	4271.8	4545.8
132.5°	4080.2	4325.6
135°	3817.7	4029.2
137.5°	3607.2	3780.2
140°	3462.6	3624.4
142.5°	3342.9	3482.2
145°	3163.4	3268.8
147.5°	3025.7	3112.9
150°	2938.9	3009.7
152.5°	2864.7	2918.1
155°	2779.5	2814.9
157.5°	2712.1	2736.9
160°	2671.9	2686.2
162.5°	2645.5	2659.1
165°	2607.5	2621.8
167.5°	2580.2	2586.2
170°	2572.6	2572.6
172.5°	2552.6	2547.3
175°	2540.5	2540.5
177.5°	2529.6	2523.6
180°	2523.6	2523.6



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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	0.00	0.05	0.55	1.20	2.83	12.58	13.24	13.74	14.39	16.02
	3H	0.07	0.67	1.25	1.83	3.47	14.41	15.00	15.58	16.16	17.81
	4H	0.36	0.93	1.54	2.09	3.74	15.04	15.61	16.23	16.77	18.42
	6H	0.60	1.12	1.79	2.29	3.95	15.47	15.99	16.66	17.15	18.81
	8H	0.66	1.16	1.86	2.34	3.99	15.59	16.08	16.78	17.26	18.91
	12H	0.67	1.14	1.87	2.32	3.99	15.65	16.12	16.84	17.29	18.97
4H	2H	6.58	7.15	7.77	8.31	9.96	12.82	13.39	14.01	14.55	16.20
	3H	8.13	8.60	9.32	9.79	11.45	14.86	15.33	16.05	16.52	18.18
	4H	8.22	8.65	9.41	9.83	11.51	15.62	16.05	16.81	17.23	18.91
	6H	8.21	8.59	9.41	9.79	11.45	16.15	16.52	17.35	17.72	19.39
	8H	8.19	8.53	9.38	9.72	11.41	16.31	16.66	17.51	17.85	19.53
	12H	8.13	8.45	9.35	9.65	11.34	16.40	16.71	17.61	17.91	19.60
8H	4H	9.65	10.00	10.85	11.18	12.87	15.66	16.01	16.86	17.20	18.88
	6H	9.88	10.17	11.10	11.40	13.08	16.28	16.57	17.50	17.80	19.48
	8H	9.89	10.14	11.12	11.35	13.05	16.50	16.76	17.73	17.96	19.66
	12H	9.85	10.07	11.08	11.28	13.01	16.64	16.86	17.87	18.07	19.80
12H	4H	9.78	10.10	11.00	11.30	12.99	15.60	15.92	16.82	17.12	18.81
	6H	10.14	10.39	11.36	11.59	13.30	16.27	16.52	17.49	17.72	19.43
	8H	10.20	10.42	11.42	11.62	13.35	16.49	16.71	17.71	17.91	19.65