

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: P938227

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938227
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-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

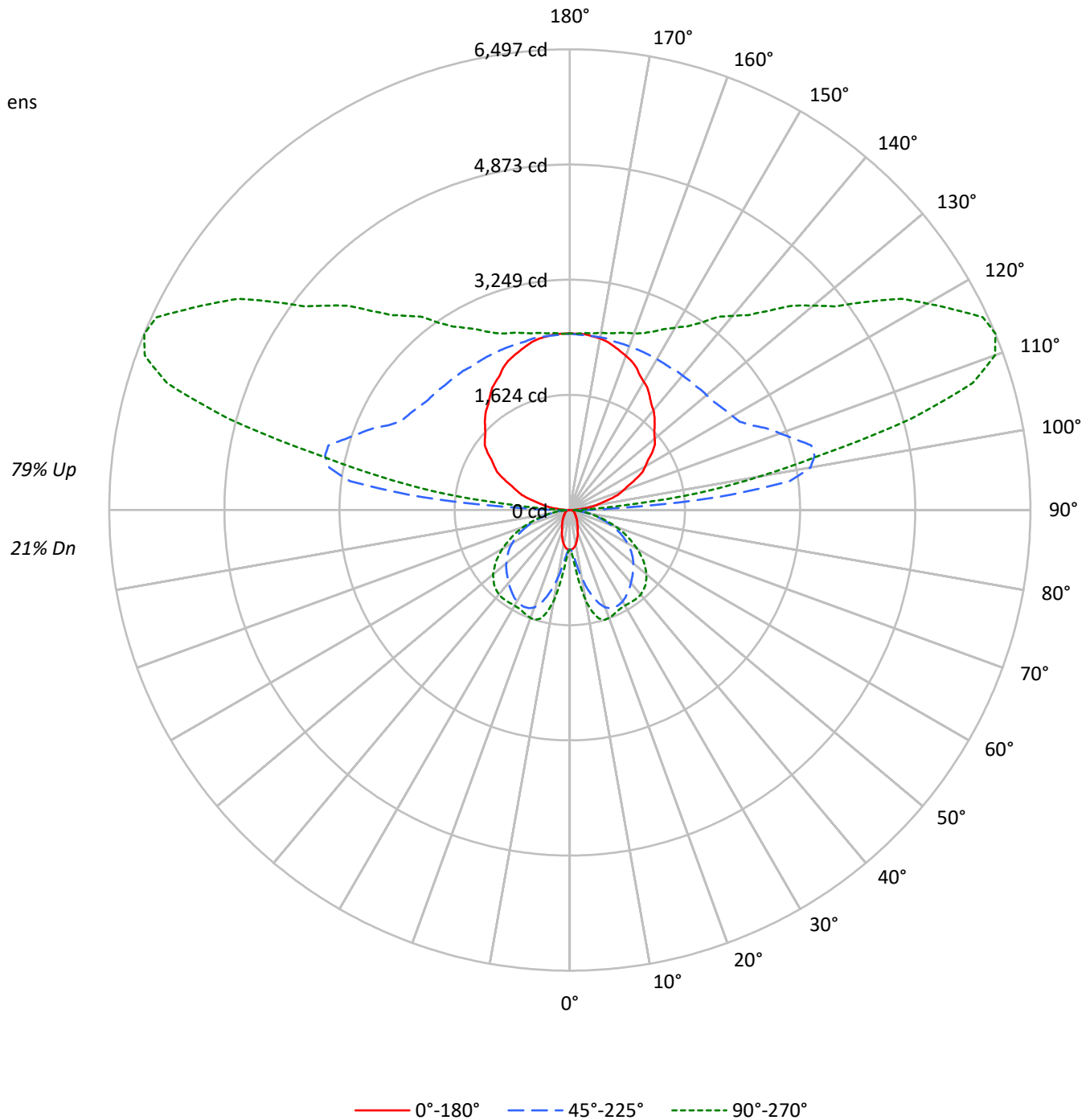
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20463.3 lumens
Efficiency: N/A
Efficacy: 122.7 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: P938227
CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-3500K

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°	1728	1728	1728
5°	1688	1997	2322
10°	1532	2912	3850
15°	1303	3806	4649
20°	1061	4411	4738
25°	886	4617	4642
30°	747	4648	4633
35°	661	4572	4753
40°	576	4473	4877
45°	522	4401	4896
50°	479	4336	4815
55°	459	4241	4601
60°	471	4057	4264
65°	491	3775	3801
70°	524	3295	3211
75°	583	2688	2506
80°	643	1867	1689
85°	580	992	864

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 6199 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.3	0.4
10°-20°	320.2	1.6
20°-30°	560.1	2.7
30°-40°	721.1	3.5
40°-50°	805.4	3.9
50°-60°	771.4	3.8
60°-70°	611.3	3.0
70°-80°	359.5	1.8
80°-90°	109.4	0.5
90°-100°	1213.1	5.9
100°-110°	3189.2	15.6
110°-120°	3306.9	16.2
120°-130°	2652.5	13.0
130°-140°	2081.3	10.2
140°-150°	1597.5	7.8
150°-160°	1150.4	5.6
160°-170°	703.9	3.4
170°-180°	237.8	1.2
0°-30°	952.6	4.7
0°-40°	1673.7	8.2
0°-60°	3250.5	15.9
0°-90°	4330.7	21.2
90°-120°	7709.2	37.7
90°-150°	14040.5	68.6
90°-180°	16133.0	78.8
0°-180°	20463.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	544	584	657	744	770	50
15°	408	753	1268	1537	1586	113
25°	260	853	1510	1577	1579	120
35°	176	815	1422	1503	1563	110
45°	120	650	1257	1440	1505	93
55°	86	413	1067	1239	1273	79
65°	68	219	792	891	903	68
75°	50	135	435	478	480	53
85°	18	41	108	118	120	19
90°	17	47	127	64	64	15
95°	160	628	2089	1077	733	178
105°	575	870	3526	5353	4994	609
115°	1020	1239	2824	5634	6430	1008
125°	1420	1592	2569	4341	5121	1260
135°	1692	1862	2489	3504	3973	1309
145°	1962	2088	2457	2990	3224	1229
155°	2218	2280	2457	2697	2776	1019
165°	2393	2425	2457	2554	2586	675
175°	2489	2489	2474	2505	2505	236
180°	2489	2489	2489	2489	2489	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6	558.6
2.5°	558.6	558.6	562.2	564.0	567.5	569.3	573.0	576.5	587.3	589.1	592.7
5°	544.2	551.4	574.8	583.7	608.9	643.0	657.3	680.7	729.2	743.6	752.6
7.5°	522.6	538.8	596.3	610.6	673.6	763.4	801.0	851.4	928.6	966.3	996.8
10°	488.5	522.6	625.0	659.2	761.5	898.1	968.0	1038.1	1154.9	1207.0	1226.7
12.5°	450.8	506.5	655.5	702.2	849.5	1048.9	1133.4	1210.6	1343.5	1413.6	1424.3
15°	407.7	483.2	684.3	752.6	943.0	1174.6	1268.1	1363.2	1487.2	1537.4	1550.0
17.5°	370.0	465.1	711.2	783.1	1014.8	1287.8	1382.9	1462.0	1562.6	1596.7	1605.7
20°	323.3	436.5	729.2	822.6	1090.2	1370.4	1462.0	1523.1	1591.4	1612.9	1616.4
22.5°	289.2	405.9	740.0	837.0	1140.5	1420.7	1497.9	1546.5	1593.1	1600.3	1602.1
25°	260.5	371.8	738.2	853.2	1183.6	1451.2	1510.5	1546.5	1573.3	1577.0	1577.0
27.5°	233.5	334.1	731.0	856.7	1215.9	1458.5	1505.1	1530.2	1542.8	1550.0	1550.0
30°	210.1	298.1	713.0	849.5	1230.3	1451.2	1489.0	1501.6	1514.1	1524.9	1530.2
32.5°	192.2	264.0	686.1	835.1	1232.1	1433.3	1460.2	1467.4	1485.3	1510.5	1519.5
35°	176.0	229.9	655.5	815.4	1221.4	1404.5	1422.5	1429.7	1465.6	1503.4	1515.8
37.5°	159.9	204.8	616.1	781.3	1205.1	1370.4	1382.9	1395.5	1451.2	1496.1	1510.5
40°	143.7	183.2	569.3	743.6	1180.0	1329.1	1339.9	1359.6	1433.3	1485.3	1499.7
42.5°	131.1	165.2	519.1	704.1	1147.7	1282.4	1298.6	1327.3	1411.7	1467.4	1483.5
45°	120.3	147.3	465.1	650.2	1106.4	1233.9	1257.3	1296.8	1386.6	1440.4	1454.8
47.5°	109.5	134.7	409.5	594.5	1061.5	1185.4	1215.9	1260.8	1352.4	1404.5	1417.1
50°	100.6	122.1	353.8	535.2	1012.9	1133.4	1169.2	1215.9	1309.4	1357.9	1374.0
52.5°	93.4	111.4	301.7	475.9	957.3	1079.4	1120.8	1169.2	1257.3	1303.9	1314.7
55°	86.2	102.4	256.8	413.1	899.9	1022.0	1066.9	1113.5	1199.8	1239.3	1246.5
57.5°	82.7	95.2	219.1	353.8	838.8	957.3	1007.6	1050.7	1131.5	1162.1	1169.2
60°	77.2	89.8	190.4	303.6	772.3	896.3	939.4	982.4	1050.7	1075.9	1081.2
62.5°	71.9	86.2	168.8	255.0	704.1	824.4	867.5	907.0	964.5	982.4	989.6
65°	68.3	82.7	152.6	219.1	634.0	749.0	792.1	826.2	872.9	890.8	894.4
67.5°	64.6	79.0	140.1	188.6	564.0	673.6	705.9	738.2	774.1	792.1	793.9
70°	59.3	75.4	129.3	167.0	492.1	587.3	614.3	648.4	677.1	686.1	691.5
72.5°	55.7	70.1	122.1	150.9	418.5	504.7	529.9	549.6	574.8	583.7	583.7
75°	50.3	62.8	115.0	134.7	343.0	413.1	434.6	454.4	474.2	477.7	472.4
77.5°	44.9	55.7	98.8	113.2	267.6	326.9	344.8	355.6	371.8	375.3	377.1
80°	37.8	48.5	77.2	88.0	194.0	240.7	253.2	262.3	276.6	276.6	280.2
82.5°	28.7	37.8	55.7	62.8	131.1	165.2	176.0	181.4	190.4	190.4	190.4
85°	17.9	23.4	35.9	41.3	79.0	100.6	107.7	109.5	116.8	118.5	118.5
87.5°	9.0	12.6	23.4	25.2	41.3	52.1	52.1	55.7	55.7	53.9	52.1
90°	16.7	30.1	43.5	46.8	73.5	109.1	126.9	112.8	84.6	63.5	63.5
92.5°	66.8	180.3	293.9	322.3	453.2	627.6	714.8	626.4	449.8	317.3	304.7
95°	160.3	368.1	576.0	628.0	1115.2	1764.7	2089.4	1864.5	1414.7	1077.3	1039.1
97.5°	277.2	460.6	643.9	689.8	1502.1	2585.1	3126.6	2984.5	2700.2	2486.9	2414.2
100°	367.4	533.7	700.0	741.6	1643.0	2844.7	3445.6	3456.0	3476.8	3492.4	3405.7
102.5°	444.3	599.4	754.5	793.4	1707.5	2926.4	3535.8	3717.0	4079.2	4350.9	4276.6
105°	574.6	706.0	837.4	870.2	1755.4	2935.6	3525.8	3931.8	4743.9	5353.0	5313.1
107.5°	708.2	830.7	953.1	983.8	1764.3	2805.0	3325.4	3891.7	5024.5	5874.1	5883.7
110°	798.4	909.0	1019.6	1047.2	1751.0	2689.2	3158.4	3791.6	5057.9	6007.7	6049.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	886.9	992.3	1097.7	1124.1	1751.5	2588.1	3006.3	3654.4	4950.5	5922.5	5986.4
115°	1020.5	1117.7	1215.0	1239.3	1767.7	2472.1	2824.3	3448.6	4697.1	5633.6	5722.1
117.5°	1152.5	1240.7	1329.1	1351.2	1800.4	2399.5	2699.0	3262.4	4389.3	5234.4	5332.6
120°	1229.2	1312.4	1395.5	1416.3	1827.2	2375.0	2648.9	3163.7	4193.3	4965.5	5060.9
122.5°	1304.4	1388.3	1472.2	1493.2	1865.7	2362.2	2610.6	3074.1	4001.3	4696.6	4790.7
125°	1419.7	1496.1	1572.6	1591.7	1917.4	2351.7	2568.8	2962.6	3750.2	4340.8	4427.5
127.5°	1513.2	1590.4	1667.6	1686.9	1969.1	2345.5	2533.7	2871.8	3548.1	4055.3	4128.4
130°	1563.3	1646.4	1729.5	1750.3	2007.0	2349.2	2520.3	2821.3	3423.4	3874.9	3942.4
132.5°	1615.1	1698.2	1781.3	1802.1	2037.6	2351.6	2508.6	2778.1	3317.1	3721.2	3781.8
135°	1691.9	1767.6	1843.3	1862.3	2071.1	2349.5	2488.6	2714.3	3165.6	3504.1	3556.2
137.5°	1770.4	1845.4	1920.4	1939.1	2121.1	2363.8	2485.2	2676.0	3057.6	3343.8	3386.4
140°	1835.6	1904.6	1973.7	1990.9	2151.7	2366.2	2473.5	2638.3	2968.0	3215.1	3255.0
142.5°	1885.7	1949.5	2013.3	2029.3	2177.4	2374.8	2473.5	2618.3	2907.8	3125.0	3159.3
145°	1962.5	2018.2	2073.8	2087.7	2210.8	2374.8	2456.8	2575.2	2812.0	2989.7	3015.6
147.5°	2039.3	2093.5	2147.6	2161.2	2259.8	2391.2	2456.8	2550.0	2736.3	2876.1	2897.6
150°	2089.4	2138.4	2187.5	2199.7	2285.4	2399.7	2456.8	2535.6	2692.9	2810.9	2828.4
152.5°	2141.2	2178.3	2215.4	2224.7	2302.1	2405.3	2456.8	2524.1	2658.4	2759.2	2772.4
155°	2218.1	2245.6	2273.0	2279.8	2338.8	2417.5	2456.8	2510.3	2617.3	2697.4	2706.2
157.5°	2274.8	2301.5	2328.2	2334.9	2375.5	2429.7	2456.8	2498.4	2581.5	2643.9	2650.1
160°	2313.2	2334.0	2354.8	2360.0	2392.3	2435.3	2456.8	2492.5	2563.7	2617.2	2620.7
162.5°	2351.6	2367.2	2382.8	2386.7	2410.1	2441.2	2456.8	2486.9	2547.1	2592.2	2595.5
165°	2393.4	2407.5	2421.6	2425.2	2435.7	2449.8	2456.8	2478.4	2521.4	2553.7	2557.3
167.5°	2431.9	2438.5	2445.2	2446.8	2455.8	2467.6	2473.5	2487.6	2515.8	2537.0	2538.5
170°	2456.8	2463.5	2470.2	2471.9	2472.5	2473.2	2473.5	2487.6	2515.8	2537.0	2537.0
172.5°	2470.2	2471.7	2473.2	2473.5	2473.5	2473.5	2473.5	2484.7	2507.0	2523.7	2522.4
175°	2488.6	2488.6	2488.6	2488.6	2483.6	2476.9	2473.5	2480.6	2494.7	2505.3	2505.3
177.5°	2488.6	2488.6	2488.6	2488.6	2484.7	2479.5	2476.9	2482.5	2493.6	2501.9	2500.4
180°	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	558.6	558.6
2.5°	596.3	592.7
5°	766.9	770.5
7.5°	1032.8	1031.0
10°	1284.2	1300.4
12.5°	1467.4	1470.9
15°	1578.8	1585.9
17.5°	1621.9	1623.7
20°	1623.7	1620.1
22.5°	1603.9	1600.3
25°	1580.6	1578.8
27.5°	1559.0	1560.8
30°	1550.0	1555.4
32.5°	1550.0	1559.0
35°	1553.6	1562.6
37.5°	1551.8	1562.6
40°	1544.6	1557.2
42.5°	1524.9	1533.9
45°	1494.3	1505.1
47.5°	1454.8	1462.0
50°	1404.5	1411.7
52.5°	1341.7	1343.5
55°	1266.3	1273.4
57.5°	1185.4	1187.2
60°	1095.6	1101.0
62.5°	1000.4	1000.4
65°	899.9	903.4
67.5°	795.7	804.6
70°	689.7	691.5
72.5°	585.6	585.6
75°	477.7	479.5
77.5°	375.3	375.3
80°	278.4	280.2
82.5°	192.2	195.8
85°	120.3	120.3
87.5°	55.7	50.3
90°	63.5	63.5
92.5°	254.2	203.8
95°	886.1	733.2
97.5°	2123.2	1832.2
100°	3059.1	2712.4
102.5°	3979.7	3682.8
105°	5153.5	4993.9
107.5°	5922.4	5960.9
110°	6215.6	6381.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6241.7	6497.1
115°	6076.2	6430.3
117.5°	5725.3	6117.9
120°	5442.4	5824.0
122.5°	5167.1	5543.4
125°	4774.2	5120.9
127.5°	4420.9	4713.3
130°	4212.6	4482.8
132.5°	4023.7	4265.7
135°	3764.8	3973.4
137.5°	3557.2	3727.8
140°	3414.6	3574.2
142.5°	3296.6	3433.9
145°	3119.6	3223.5
147.5°	2983.8	3069.8
150°	2898.2	2968.0
152.5°	2825.1	2877.7
155°	2741.0	2775.9
157.5°	2674.6	2699.0
160°	2634.8	2648.9
162.5°	2608.9	2622.2
165°	2571.4	2585.5
167.5°	2544.4	2550.4
170°	2537.0	2537.0
172.5°	2517.2	2512.0
175°	2505.3	2505.3
177.5°	2494.5	2488.6
180°	2488.6	2488.6



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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	0.00	0.50	1.15	2.78	12.53	13.19	13.69	14.34	15.97
	3H	0.02	0.62	1.20	1.78	3.43	14.36	14.95	15.53	16.11	17.76
	4H	0.31	0.88	1.49	2.04	3.69	15.00	15.56	16.18	16.72	18.37
	6H	0.55	1.07	1.74	2.24	3.90	15.42	15.94	16.61	17.10	18.76
	8H	0.61	1.11	1.81	2.29	3.94	15.54	16.03	16.73	17.21	18.86
	12H	0.62	1.10	1.82	2.27	3.94	15.60	16.07	16.80	17.24	18.92
4H	2H	6.53	7.10	7.72	8.26	9.91	12.78	13.34	13.97	14.50	16.15
	3H	8.08	8.56	9.28	9.74	11.40	14.81	15.28	16.00	16.47	18.13
	4H	8.17	8.60	9.36	9.78	11.46	15.57	16.01	16.77	17.18	18.86
	6H	8.17	8.54	9.37	9.74	11.40	16.10	16.47	17.30	17.67	19.34
	8H	8.14	8.49	9.34	9.68	11.36	16.26	16.61	17.46	17.80	19.48
	12H	8.08	8.40	9.30	9.60	11.29	16.35	16.66	17.56	17.86	19.55
8H	4H	9.60	9.95	10.80	11.14	12.82	15.61	15.96	16.81	17.15	18.83
	6H	9.83	10.12	11.05	11.35	13.03	16.24	16.52	17.45	17.76	19.44
	8H	9.85	10.10	11.07	11.30	13.01	16.46	16.71	17.68	17.91	19.62
	12H	9.80	10.02	11.03	11.23	12.96	16.59	16.81	17.82	18.02	19.75
12H	4H	9.73	10.05	10.95	11.25	12.94	15.55	15.87	16.77	17.07	18.76
	6H	10.09	10.34	11.31	11.55	13.25	16.22	16.47	17.44	17.67	19.38
	8H	10.15	10.37	11.37	11.57	13.30	16.44	16.66	17.67	17.87	19.60