

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: P938281

Luminaire Tested: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-12-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938281
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-W2A-W-12-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

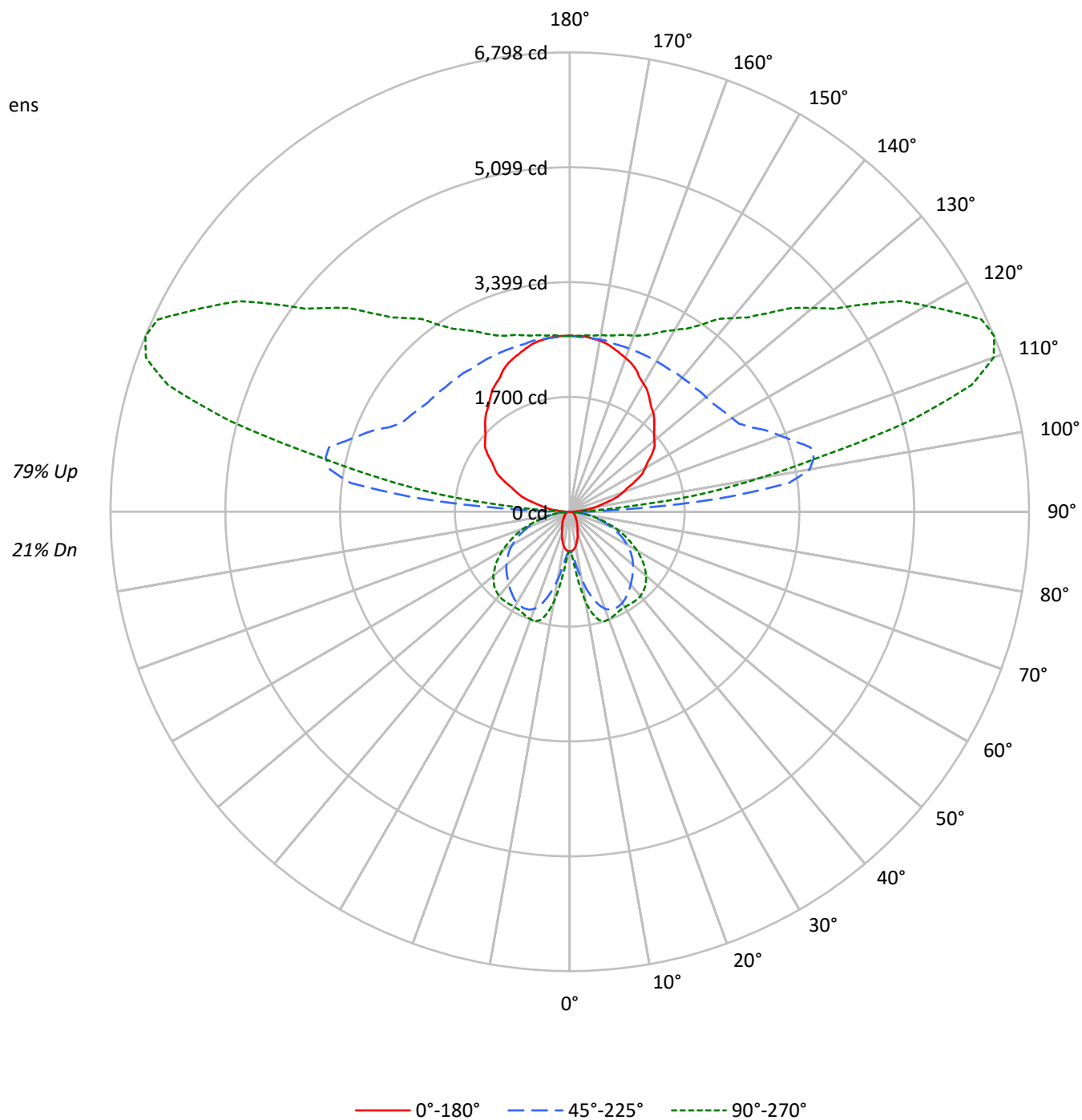
Lumens per Lamp: N/A
Luminaire Lumens: 21411.9 lumens
Efficiency: N/A
Efficacy: 128.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 166.8
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P938281

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-12-5000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1808	1808	1808
5°	1767	2090	2430
10°	1603	3047	4029
15°	1363	3982	4864
20°	1110	4616	4958
25°	926	4831	4857
30°	782	4863	4848
35°	691	4784	4973
40°	603	4680	5103
45°	546	4605	5123
50°	502	4537	5038
55°	481	4437	4814
60°	493	4244	4462
65°	514	3950	3977
70°	548	3448	3360
75°	610	2813	2622
80°	672	1954	1767
85°	609	1038	904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 6495 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	0.4
10°-20°	335.1	1.6
20°-30°	586.1	2.7
30°-40°	754.5	3.5
40°-50°	842.7	3.9
50°-60°	807.2	3.8
60°-70°	639.7	3.0
70°-80°	376.1	1.8
80°-90°	114.4	0.5
90°-100°	1269.3	5.9
100°-110°	3337.1	15.6
110°-120°	3460.2	16.2
120°-130°	2775.5	13.0
130°-140°	2177.8	10.2
140°-150°	1671.5	7.8
150°-160°	1203.8	5.6
160°-170°	736.5	3.4
170°-180°	248.8	1.2
0°-30°	996.8	4.7
0°-40°	1751.3	8.2
0°-60°	3401.2	15.9
0°-90°	4531.4	21.2
90°-120°	8066.6	37.7
90°-150°	14691.3	68.6
90°-180°	16880.0	78.8
0°-180°	21411.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	584	584	584	584	584	
5°	570	611	688	778	806	53
15°	427	788	1327	1609	1659	119
25°	272	893	1580	1650	1652	126
35°	184	853	1488	1573	1635	115
45°	126	680	1316	1507	1575	97
55°	90	432	1116	1297	1332	82
65°	72	229	829	932	945	71
75°	53	141	455	500	502	55
85°	19	43	113	124	126	20
90°	18	49	133	66	66	16
95°	168	657	2186	1127	767	186
105°	601	911	3689	5601	5225	637
115°	1068	1297	2955	5895	6728	1055
125°	1486	1666	2688	4542	5358	1319
135°	1770	1949	2604	3666	4158	1370
145°	2054	2184	2571	3128	3373	1286
155°	2321	2386	2571	2822	2905	1066
165°	2504	2538	2571	2672	2705	707
175°	2604	2604	2588	2622	2622	247
180°	2604	2604	2604	2604	2604	

TEST NUMBER: P938281

CATALOG NUMBER: SQ4-FB-150U-050D-B2750-1D-UNV-W2A-W-12-5000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5	584.5
2.5°	584.5	584.5	588.2	590.1	593.8	595.7	599.5	603.3	614.6	616.4	620.2
5°	569.5	576.9	601.4	610.7	637.1	672.8	687.8	712.3	763.0	778.0	787.5
7.5°	546.9	563.8	623.9	638.9	704.8	798.8	838.2	890.8	971.6	1011.1	1043.0
10°	511.2	546.9	654.0	689.8	796.8	939.7	1012.9	1086.2	1208.4	1263.0	1283.6
12.5°	471.7	530.0	685.9	734.8	888.9	1097.5	1185.9	1266.7	1405.8	1479.1	1490.3
15°	426.7	505.6	716.0	787.5	986.7	1229.1	1326.8	1426.4	1556.1	1608.7	1621.9
17.5°	387.1	486.7	744.2	819.4	1061.9	1347.5	1447.0	1529.8	1635.1	1670.7	1680.2
20°	338.3	456.7	763.0	860.8	1140.8	1434.0	1529.8	1593.7	1665.1	1687.6	1691.4
22.5°	302.6	424.7	774.3	875.8	1193.4	1486.6	1567.3	1618.2	1667.0	1674.5	1676.3
25°	272.5	389.0	772.4	892.7	1238.5	1518.5	1580.5	1618.2	1646.3	1650.1	1650.1
27.5°	244.3	349.6	764.9	896.5	1272.3	1526.1	1574.9	1601.2	1614.3	1621.9	1621.9
30°	219.9	312.0	746.1	888.9	1287.3	1518.5	1558.0	1571.2	1584.3	1595.6	1601.2
32.5°	201.1	276.3	717.9	873.9	1289.2	1499.7	1527.9	1535.4	1554.2	1580.5	1589.9
35°	184.2	240.6	685.9	853.2	1278.0	1469.6	1488.4	1496.0	1533.5	1573.0	1586.1
37.5°	167.3	214.3	644.6	817.5	1261.0	1434.0	1447.0	1460.2	1518.5	1565.5	1580.5
40°	150.4	191.7	595.7	778.0	1234.7	1390.7	1402.0	1422.7	1499.7	1554.2	1569.2
42.5°	137.2	172.9	543.1	736.7	1200.9	1341.9	1358.8	1388.9	1477.1	1535.4	1552.3
45°	125.9	154.1	486.7	680.3	1157.7	1291.1	1315.5	1356.9	1450.9	1507.2	1522.2
47.5°	114.6	140.9	428.5	622.0	1110.7	1240.4	1272.3	1319.3	1415.1	1469.6	1482.8
50°	105.3	127.8	370.2	560.0	1059.9	1185.9	1223.4	1272.3	1370.1	1420.8	1437.7
52.5°	97.7	116.6	315.7	498.0	1001.7	1129.5	1172.7	1223.4	1315.5	1364.4	1375.7
55°	90.2	107.1	268.7	432.3	941.6	1069.3	1116.3	1165.2	1255.4	1296.8	1304.2
57.5°	86.5	99.6	229.3	370.2	877.7	1001.7	1054.3	1099.4	1183.9	1216.0	1223.4
60°	80.8	94.0	199.2	317.7	808.1	937.8	982.9	1028.0	1099.4	1125.8	1131.4
62.5°	75.2	90.2	176.6	266.8	736.7	862.6	907.8	949.0	1009.2	1028.0	1035.5
65°	71.5	86.5	159.7	229.3	663.4	783.7	828.8	864.5	913.4	932.1	935.9
67.5°	67.6	82.7	146.5	197.4	590.1	704.8	738.6	772.4	810.0	828.8	830.7
70°	62.0	78.9	135.3	174.8	514.9	614.6	642.8	678.5	708.5	717.9	723.6
72.5°	58.3	73.3	127.8	157.8	437.9	528.1	554.4	575.1	601.4	610.7	610.7
75°	52.6	65.8	120.3	140.9	358.9	432.3	454.8	475.5	496.1	499.9	494.3
77.5°	47.0	58.3	103.4	118.4	280.0	342.0	360.8	372.1	389.0	392.7	394.6
80°	39.5	50.7	80.8	92.1	203.0	251.8	265.0	274.4	289.4	289.4	293.2
82.5°	30.1	39.5	58.3	65.8	137.2	172.9	184.2	189.8	199.2	199.2	199.2
85°	18.8	24.5	37.5	43.2	82.7	105.3	112.7	114.6	122.2	124.0	124.0
87.5°	9.4	13.2	24.5	26.3	43.2	54.5	54.5	58.3	58.3	56.4	54.5
90°	17.5	31.5	45.5	48.9	76.9	114.1	132.8	118.1	88.5	66.4	66.4
92.5°	69.9	188.7	307.6	337.3	474.2	656.7	747.9	655.5	470.6	332.0	318.9
95°	167.7	385.2	602.7	657.1	1166.8	1846.5	2186.3	1950.9	1480.3	1127.2	1087.3
97.5°	290.1	481.9	673.8	721.8	1571.7	2705.0	3271.5	3122.8	2825.4	2602.2	2526.1
100°	384.4	558.4	732.4	776.0	1719.1	2976.6	3605.3	3616.2	3637.9	3654.3	3563.6
102.5°	464.9	627.2	789.5	830.1	1786.6	3062.0	3699.8	3889.3	4268.3	4552.6	4474.9
105°	601.2	738.7	876.2	910.6	1836.8	3071.7	3689.2	4114.1	4963.8	5601.1	5559.4
107.5°	741.0	869.2	997.3	1029.4	1846.1	2935.0	3479.5	4072.1	5257.4	6146.4	6156.5
110°	835.4	951.1	1066.8	1095.8	1832.1	2813.9	3304.8	3967.4	5292.4	6286.2	6329.7

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	928.0	1038.3	1148.6	1176.2	1832.7	2708.0	3145.7	3823.8	5180.0	6197.1	6263.9
115°	1067.8	1169.6	1271.4	1296.8	1849.6	2586.7	2955.3	3608.5	4914.9	5894.8	5987.4
117.5°	1205.9	1298.3	1390.7	1413.8	1883.9	2510.7	2824.1	3413.7	4592.8	5477.1	5579.8
120°	1286.2	1373.3	1460.2	1482.0	1911.9	2485.1	2771.7	3310.4	4387.7	5195.7	5295.5
122.5°	1364.9	1452.7	1540.4	1562.4	1952.2	2471.7	2731.6	3216.6	4186.7	4914.3	5012.8
125°	1485.5	1565.5	1645.5	1665.5	2006.3	2460.7	2687.9	3099.9	3924.0	4542.0	4632.7
127.5°	1583.3	1664.1	1744.9	1765.1	2060.4	2454.3	2651.2	3005.0	3712.6	4243.3	4319.8
130°	1635.8	1722.8	1809.7	1831.5	2100.0	2458.1	2637.1	2952.1	3582.1	4054.5	4125.2
132.5°	1690.0	1776.9	1863.9	1885.7	2132.0	2460.6	2624.9	2906.9	3470.8	3893.8	3957.1
135°	1770.3	1849.5	1928.8	1948.6	2167.1	2458.4	2604.0	2840.1	3312.3	3666.5	3721.1
137.5°	1852.5	1931.0	2009.4	2029.0	2219.5	2473.4	2600.4	2800.0	3199.3	3498.8	3543.4
140°	1920.7	1992.9	2065.2	2083.2	2251.5	2475.9	2588.2	2760.6	3105.6	3364.2	3405.9
142.5°	1973.1	2039.9	2106.6	2123.4	2278.3	2484.9	2588.2	2739.7	3042.6	3269.8	3305.8
145°	2053.5	2111.8	2170.0	2184.5	2313.2	2484.9	2570.7	2694.6	2942.4	3128.2	3155.4
147.5°	2133.8	2190.5	2247.2	2261.4	2364.5	2502.0	2570.7	2668.3	2863.2	3009.4	3032.0
150°	2186.3	2237.6	2288.9	2301.7	2391.3	2511.0	2570.7	2653.1	2817.8	2941.3	2959.5
152.5°	2240.5	2279.3	2318.1	2327.8	2408.8	2516.8	2570.7	2641.1	2781.6	2887.1	2900.9
155°	2320.9	2349.7	2378.3	2385.5	2447.3	2529.6	2570.7	2626.7	2738.6	2822.5	2831.6
157.5°	2380.3	2408.2	2436.2	2443.2	2485.7	2542.3	2570.7	2614.3	2701.2	2766.5	2773.0
160°	2420.5	2442.2	2464.0	2469.4	2503.2	2548.2	2570.7	2608.0	2682.5	2738.5	2742.2
162.5°	2460.6	2477.0	2493.2	2497.3	2521.8	2554.4	2570.7	2602.2	2665.2	2712.3	2715.8
165°	2504.3	2519.1	2533.8	2537.6	2548.6	2563.4	2570.7	2593.3	2638.3	2672.1	2675.8
167.5°	2544.6	2551.6	2558.5	2560.3	2569.6	2582.0	2588.2	2603.0	2632.5	2654.6	2656.2
170°	2570.7	2577.7	2584.8	2586.5	2587.1	2587.8	2588.2	2603.0	2632.5	2654.6	2654.6
172.5°	2584.8	2586.2	2587.8	2588.2	2588.2	2588.2	2588.2	2599.9	2623.2	2640.7	2639.3
175°	2604.0	2604.0	2604.0	2604.0	2598.8	2591.8	2588.2	2595.6	2610.3	2621.5	2621.5
177.5°	2604.0	2604.0	2604.0	2604.0	2599.9	2594.5	2591.8	2597.5	2609.2	2617.9	2616.3
180°	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0	2604.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	584.5	584.5
2.5°	623.9	620.2
5°	802.5	806.2
7.5°	1080.6	1078.8
10°	1343.7	1360.7
12.5°	1535.4	1539.1
15°	1652.0	1659.4
17.5°	1697.1	1698.9
20°	1698.9	1695.2
22.5°	1678.2	1674.5
25°	1653.8	1652.0
27.5°	1631.2	1633.2
30°	1621.9	1627.5
32.5°	1621.9	1631.2
35°	1625.6	1635.1
37.5°	1623.8	1635.1
40°	1616.2	1629.4
42.5°	1595.6	1605.0
45°	1563.6	1574.9
47.5°	1522.2	1529.8
50°	1469.6	1477.1
52.5°	1403.9	1405.8
55°	1325.0	1332.4
57.5°	1240.4	1242.2
60°	1146.4	1152.0
62.5°	1046.8	1046.8
65°	941.6	945.3
67.5°	832.6	841.9
70°	721.7	723.6
72.5°	612.7	612.7
75°	499.9	501.7
77.5°	392.7	392.7
80°	291.3	293.2
82.5°	201.1	204.8
85°	125.9	125.9
87.5°	58.3	52.6
90°	66.4	66.4
92.5°	266.0	213.2
95°	927.2	767.2
97.5°	2221.6	1917.1
100°	3200.9	2838.1
102.5°	4164.2	3853.5
105°	5392.4	5225.4
107.5°	6196.9	6237.3
110°	6503.7	6677.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	6531.1	6798.3
115°	6357.8	6728.3
117.5°	5990.7	6401.5
120°	5694.7	6094.0
122.5°	5406.6	5800.4
125°	4995.5	5358.3
127.5°	4625.8	4931.8
130°	4407.9	4690.6
132.5°	4210.2	4463.4
135°	3939.3	4157.6
137.5°	3722.1	3900.7
140°	3572.9	3739.9
142.5°	3449.4	3593.1
145°	3264.2	3373.0
147.5°	3122.1	3212.1
150°	3032.5	3105.6
152.5°	2956.0	3011.1
155°	2868.0	2904.6
157.5°	2798.5	2824.1
160°	2757.0	2771.7
162.5°	2729.8	2743.8
165°	2690.6	2705.3
167.5°	2662.4	2668.6
170°	2654.6	2654.6
172.5°	2633.9	2628.5
175°	2621.5	2621.5
177.5°	2610.2	2604.0
180°	2604.0	2604.0

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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	0.00	0.16	0.66	1.31	2.94	12.68	13.35	13.85	14.50	16.13
	3H	0.18	0.78	1.36	1.94	3.58	14.51	15.11	15.69	16.27	17.92
	4H	0.47	1.04	1.65	2.20	3.85	15.15	15.72	16.34	16.88	18.53
	6H	0.71	1.23	1.90	2.40	4.06	15.58	16.10	16.77	17.26	18.92
	8H	0.77	1.27	1.96	2.45	4.10	15.69	16.19	16.89	17.37	19.02
	12H	0.78	1.25	1.98	2.43	4.10	15.76	16.23	16.95	17.40	19.07
4H	2H	6.69	7.26	7.88	8.42	10.07	12.93	13.50	14.12	14.66	16.31
	3H	8.24	8.71	9.43	9.90	11.56	14.97	15.44	16.16	16.63	18.29
	4H	8.32	8.76	9.52	9.94	11.61	15.73	16.16	16.92	17.34	19.02
	6H	8.32	8.70	9.52	9.89	11.56	16.26	16.63	17.46	17.83	19.50
	8H	8.30	8.64	9.49	9.83	11.52	16.42	16.77	17.62	17.96	19.64
	12H	8.24	8.56	9.46	9.76	11.45	16.50	16.82	17.72	18.02	19.71
8H	4H	9.76	10.10	10.95	11.29	12.98	15.77	16.12	16.97	17.31	18.99
	6H	9.99	10.28	11.21	11.51	13.19	16.39	16.68	17.61	17.91	19.59
	8H	10.00	10.25	11.23	11.46	13.16	16.61	16.86	17.84	18.07	19.77
	12H	9.96	10.18	11.19	11.39	13.12	16.75	16.97	17.98	18.18	19.91
12H	4H	9.89	10.21	11.10	11.41	13.10	15.71	16.03	16.93	17.23	18.92
	6H	10.25	10.50	11.47	11.70	13.41	16.37	16.63	17.60	17.83	19.53
	8H	10.31	10.53	11.53	11.73	13.46	16.60	16.82	17.82	18.02	19.75