

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: P938225

Luminaire Tested: SQ4-FB-150U-050D-92765-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938225
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-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

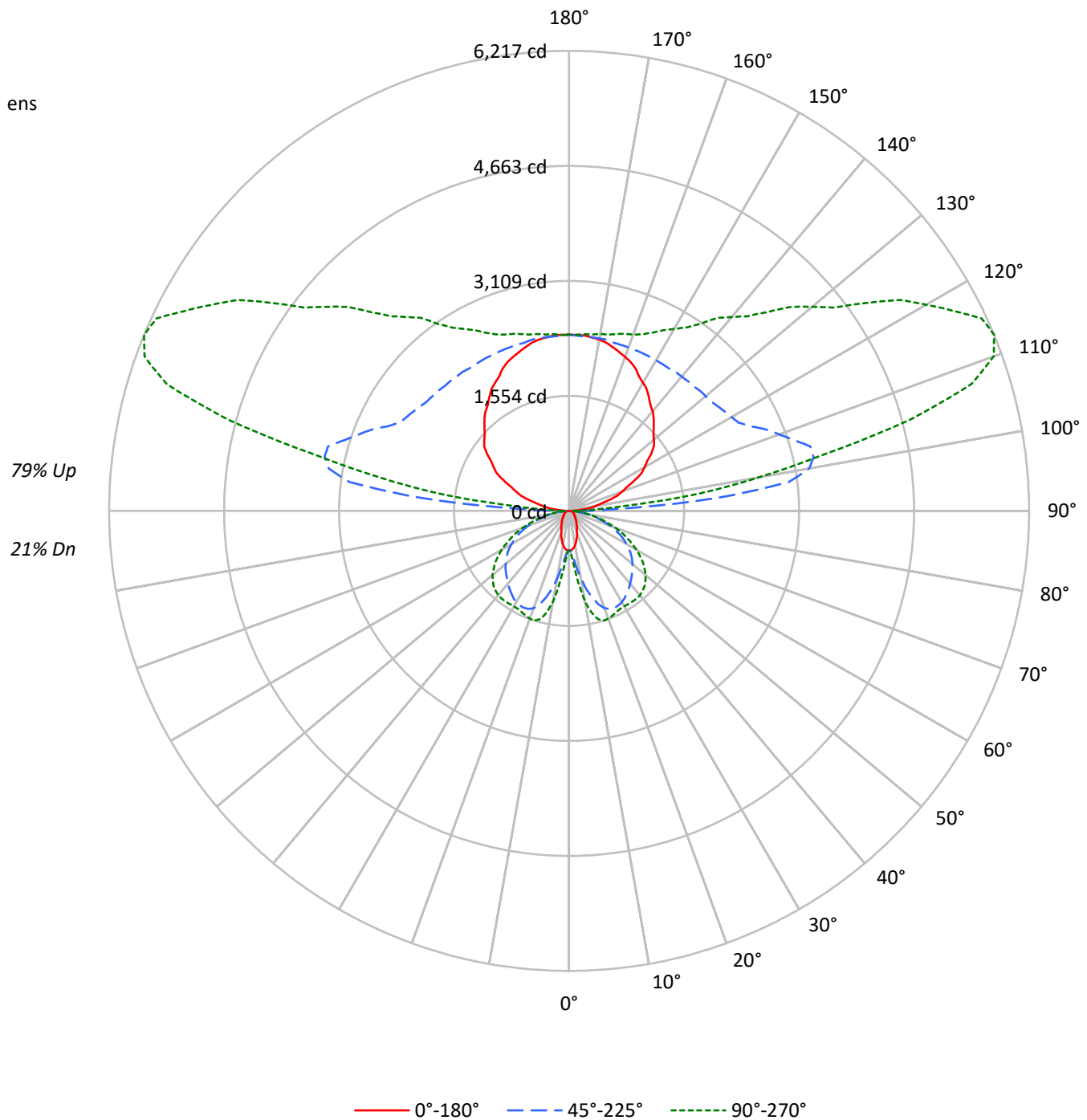
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19580.9 lumens
Efficiency: N/A
Efficacy: 117.4 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: P938225
CATALOG NUMBER: SQ4-FB-150U-050D-92765-1D-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	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°	1653	1653	1653
5°	1616	1911	2222
10°	1466	2787	3684
15°	1247	3642	4448
20°	1015	4221	4534
25°	847	4418	4442
30°	715	4448	4433
35°	632	4375	4548
40°	551	4280	4666
45°	499	4211	4684
50°	459	4149	4607
55°	440	4058	4403
60°	451	3882	4080
65°	470	3613	3637
70°	501	3153	3073
75°	557	2573	2398
80°	614	1786	1616
85°	557	949	827

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 90°
 Luminance: 5939 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	0.4
10°-20°	306.4	1.6
20°-30°	536.0	2.7
30°-40°	690.0	3.5
40°-50°	770.7	3.9
50°-60°	738.1	3.8
60°-70°	585.0	3.0
70°-80°	344.0	1.8
80°-90°	104.7	0.5
90°-100°	1160.8	5.9
100°-110°	3051.7	15.6
110°-120°	3164.3	16.2
120°-130°	2538.1	13.0
130°-140°	1991.5	10.2
140°-150°	1528.6	7.8
150°-160°	1100.8	5.6
160°-170°	673.6	3.4
170°-180°	227.6	1.2
0°-30°	911.6	4.7
0°-40°	1601.5	8.2
0°-60°	3110.3	15.9
0°-90°	4143.9	21.2
90°-120°	7376.7	37.7
90°-150°	13435.0	68.6
90°-180°	15437.0	78.8
0°-180°	19580.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	534	534	534	534	534	
5°	521	558	629	712	737	48
15°	390	720	1213	1471	1518	109
25°	249	816	1445	1509	1511	115
35°	168	780	1361	1438	1495	105
45°	115	622	1203	1378	1440	89
55°	82	395	1021	1186	1218	75
65°	65	210	758	852	864	65
75°	48	129	416	457	459	50
85°	17	40	103	113	115	18
90°	16	45	122	61	61	14
95°	153	601	1999	1031	702	170
105°	550	833	3374	5122	4779	583
115°	976	1186	2702	5391	6153	964
125°	1358	1523	2458	4154	4900	1206
135°	1619	1782	2381	3353	3802	1253
145°	1878	1998	2351	2861	3084	1176
155°	2122	2182	2351	2581	2656	975
165°	2290	2321	2351	2444	2474	646
175°	2381	2381	2367	2397	2397	226
180°	2381	2381	2381	2381	2381	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5	534.5
2.5°	534.5	534.5	537.9	539.6	543.1	544.8	548.3	551.7	562.0	563.7	567.1
5°	520.8	527.6	550.0	558.5	582.6	615.2	629.0	651.4	697.7	711.5	720.1
7.5°	500.1	515.6	570.6	584.3	644.5	730.5	766.5	814.7	888.5	924.6	953.8
10°	467.5	500.1	598.1	630.8	728.7	859.3	926.3	993.4	1105.1	1155.0	1173.8
12.5°	431.3	484.6	627.3	671.9	812.9	1003.7	1084.5	1158.4	1285.5	1352.6	1362.8
15°	390.2	462.3	654.8	720.1	902.3	1123.9	1213.4	1304.4	1423.1	1471.2	1483.2
17.5°	354.0	445.1	680.6	749.3	971.1	1232.3	1323.3	1399.0	1495.2	1527.9	1536.5
20°	309.4	417.7	697.7	787.2	1043.2	1311.3	1399.0	1457.4	1522.7	1543.3	1546.7
22.5°	276.7	388.4	708.1	800.9	1091.3	1359.4	1433.3	1479.8	1524.4	1531.3	1533.0
25°	249.2	355.7	706.4	816.4	1132.6	1388.6	1445.4	1479.8	1505.5	1509.0	1509.0
27.5°	223.4	319.7	699.4	819.8	1163.5	1395.6	1440.2	1464.2	1476.3	1483.2	1483.2
30°	201.1	285.3	682.3	812.9	1177.2	1388.6	1424.8	1436.8	1448.8	1459.1	1464.2
32.5°	183.9	252.7	656.5	799.1	1179.0	1371.5	1397.3	1404.1	1421.3	1445.4	1454.0
35°	168.4	220.0	627.3	780.2	1168.7	1344.0	1361.1	1368.1	1402.4	1438.5	1450.5
37.5°	153.0	195.9	589.5	747.6	1153.2	1311.3	1323.3	1335.3	1388.6	1431.6	1445.4
40°	137.5	175.3	544.8	711.5	1129.2	1271.8	1282.1	1301.0	1371.5	1421.3	1435.0
42.5°	125.5	158.1	496.7	673.7	1098.2	1227.1	1242.6	1270.1	1350.8	1404.1	1419.6
45°	115.1	140.9	445.1	622.1	1058.7	1180.7	1203.0	1240.9	1326.8	1378.3	1392.1
47.5°	104.8	128.9	391.9	568.8	1015.7	1134.3	1163.5	1206.5	1294.1	1344.0	1356.0
50°	96.3	116.8	338.6	512.1	969.3	1084.5	1118.8	1163.5	1252.9	1299.3	1314.8
52.5°	89.3	106.6	288.7	455.4	916.1	1032.9	1072.4	1118.8	1203.0	1247.7	1258.0
55°	82.5	98.0	245.7	395.3	861.0	977.9	1020.9	1065.5	1148.0	1185.9	1192.7
57.5°	79.1	91.1	209.7	338.6	802.6	916.1	964.1	1005.4	1082.7	1112.0	1118.8
60°	73.9	85.9	182.2	290.5	739.0	857.6	898.9	940.1	1005.4	1029.5	1034.6
62.5°	68.8	82.5	161.5	244.0	673.7	788.9	830.1	867.9	922.9	940.1	947.0
65°	65.3	79.1	146.1	209.7	606.7	716.7	758.0	790.6	835.3	852.4	855.8
67.5°	61.8	75.6	134.0	180.5	539.6	644.5	675.4	706.4	740.7	758.0	759.7
70°	56.7	72.2	123.8	159.8	470.9	562.0	587.8	620.4	647.9	656.5	661.7
72.5°	53.3	67.0	116.8	144.3	400.4	482.9	507.0	525.9	550.0	558.5	558.5
75°	48.1	60.1	110.0	128.9	328.2	395.3	415.9	434.8	453.7	457.1	452.0
77.5°	43.0	53.3	94.6	108.3	256.1	312.8	329.9	340.3	355.7	359.2	360.9
80°	36.1	46.4	73.9	84.2	185.6	230.3	242.3	250.9	264.7	264.7	268.1
82.5°	27.5	36.1	53.3	60.1	125.5	158.1	168.4	173.6	182.2	182.2	182.2
85°	17.2	22.4	34.3	39.5	75.6	96.3	103.1	104.8	111.7	113.4	113.4
87.5°	8.6	12.0	22.4	24.1	39.5	49.9	49.9	53.3	53.3	51.6	49.9
90°	16.0	28.8	41.6	44.8	70.3	104.4	121.5	108.0	81.0	60.7	60.7
92.5°	63.9	172.5	281.3	308.4	433.6	600.5	684.0	599.4	430.4	303.6	291.6
95°	153.4	352.2	551.2	600.9	1067.1	1688.6	1999.3	1784.1	1353.7	1030.8	994.3
97.5°	265.3	440.7	616.2	660.1	1437.3	2473.6	2991.8	2855.8	2583.7	2379.7	2310.1
100°	351.6	510.7	669.8	709.6	1572.1	2722.0	3297.0	3306.9	3326.8	3341.8	3258.8
102.5°	425.1	573.5	722.0	759.1	1633.9	2800.2	3383.4	3556.7	3903.3	4163.3	4092.2
105°	549.8	675.5	801.3	832.7	1679.7	2809.1	3373.7	3762.3	4539.3	5122.1	5083.9
107.5°	677.7	794.9	912.0	941.3	1688.2	2684.0	3182.0	3723.9	4807.8	5620.8	5630.0
110°	763.9	869.8	975.6	1002.1	1675.5	2573.2	3022.2	3628.1	4839.8	5748.6	5788.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	848.7	949.5	1050.4	1075.6	1676.0	2476.5	2876.7	3496.8	4737.0	5667.1	5728.2
115°	976.5	1069.5	1162.6	1185.9	1691.4	2365.5	2702.5	3299.9	4494.6	5390.7	5475.4
117.5°	1102.8	1187.2	1271.8	1292.9	1722.8	2296.0	2582.6	3121.8	4200.0	5008.7	5102.6
120°	1176.2	1255.8	1335.3	1355.2	1748.4	2272.6	2534.7	3027.3	4012.4	4751.3	4842.6
122.5°	1248.1	1328.4	1408.7	1428.8	1785.2	2260.4	2498.0	2941.5	3828.7	4494.1	4584.1
125°	1358.5	1431.6	1504.8	1523.1	1834.8	2250.3	2458.0	2834.9	3588.4	4153.6	4236.6
127.5°	1447.9	1521.8	1595.7	1614.1	1884.2	2244.4	2424.4	2748.0	3395.1	3880.4	3950.3
130°	1495.9	1575.4	1655.0	1674.9	1920.4	2247.9	2411.6	2699.6	3275.8	3707.8	3772.4
132.5°	1545.5	1625.0	1704.5	1724.4	1949.7	2250.2	2400.4	2658.3	3174.0	3560.8	3618.7
135°	1618.9	1691.3	1763.9	1782.0	1981.7	2248.2	2381.3	2597.2	3029.1	3353.0	3402.8
137.5°	1694.1	1765.8	1837.6	1855.5	2029.7	2261.9	2378.1	2560.6	2925.7	3199.6	3240.4
140°	1756.4	1822.5	1888.6	1905.0	2059.0	2264.2	2366.9	2524.5	2840.0	3076.5	3114.7
142.5°	1804.3	1865.4	1926.5	1941.8	2083.5	2272.4	2366.9	2505.4	2782.4	2990.2	3023.1
145°	1877.9	1931.2	1984.4	1997.7	2115.4	2272.4	2350.9	2464.2	2690.8	2860.7	2885.6
147.5°	1951.3	2003.2	2055.0	2068.0	2162.3	2288.0	2350.9	2440.1	2618.3	2752.1	2772.7
150°	1999.3	2046.2	2093.1	2104.8	2186.8	2296.2	2350.9	2426.2	2576.8	2689.7	2706.4
152.5°	2048.9	2084.4	2119.9	2128.7	2202.8	2301.5	2350.9	2415.2	2543.8	2640.2	2652.8
155°	2122.4	2148.7	2175.0	2181.5	2238.0	2313.2	2350.9	2402.1	2504.4	2581.1	2589.5
157.5°	2176.7	2202.3	2227.8	2234.2	2273.1	2324.9	2350.9	2390.7	2470.2	2529.9	2535.8
160°	2213.5	2233.4	2253.3	2258.2	2289.1	2330.3	2350.9	2385.0	2453.1	2504.3	2507.7
162.5°	2250.2	2265.1	2280.0	2283.8	2306.1	2336.0	2350.9	2379.7	2437.3	2480.4	2483.5
165°	2290.2	2303.7	2317.2	2320.6	2330.7	2344.2	2350.9	2371.5	2412.7	2443.6	2447.0
167.5°	2327.0	2333.4	2339.7	2341.3	2349.9	2361.2	2366.9	2380.4	2407.4	2427.6	2429.1
170°	2350.9	2357.3	2363.7	2365.3	2365.8	2366.5	2366.9	2380.4	2407.4	2427.6	2427.6
172.5°	2363.7	2365.1	2366.5	2366.9	2366.9	2366.9	2366.9	2377.6	2398.9	2414.9	2413.6
175°	2381.3	2381.3	2381.3	2381.3	2376.5	2370.1	2366.9	2373.6	2387.1	2397.3	2397.3
177.5°	2381.3	2381.3	2381.3	2381.3	2377.6	2372.6	2370.1	2375.4	2386.1	2394.0	2392.6
180°	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3	2381.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	534.5	534.5
2.5°	570.6	567.1
5°	733.9	737.3
7.5°	988.2	986.5
10°	1228.8	1244.3
12.5°	1404.1	1407.5
15°	1510.7	1517.5
17.5°	1552.0	1553.7
20°	1553.7	1550.2
22.5°	1534.7	1531.3
25°	1512.4	1510.7
27.5°	1491.7	1493.5
30°	1483.2	1488.3
32.5°	1483.2	1491.7
35°	1486.6	1495.2
37.5°	1484.9	1495.2
40°	1478.0	1490.0
42.5°	1459.1	1467.7
45°	1429.9	1440.2
47.5°	1392.1	1399.0
50°	1344.0	1350.8
52.5°	1283.8	1285.5
55°	1211.7	1218.5
57.5°	1134.3	1136.0
60°	1048.4	1053.5
62.5°	957.3	957.3
65°	861.0	864.5
67.5°	761.4	769.9
70°	660.0	661.7
72.5°	560.3	560.3
75°	457.1	458.8
77.5°	359.2	359.2
80°	266.4	268.1
82.5°	183.9	187.3
85°	115.1	115.1
87.5°	53.3	48.1
90°	60.7	60.7
92.5°	243.3	195.0
95°	847.9	701.6
97.5°	2031.6	1753.2
100°	2927.2	2595.4
102.5°	3808.1	3524.0
105°	4931.3	4778.6
107.5°	5667.0	5703.9
110°	5947.5	6106.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	5972.6	6216.9
115°	5814.1	6153.0
117.5°	5478.4	5854.1
120°	5207.7	5572.8
122.5°	4944.3	5304.4
125°	4568.3	4900.0
127.5°	4230.2	4510.1
130°	4031.0	4289.5
132.5°	3850.2	4081.7
135°	3602.5	3802.1
137.5°	3403.8	3567.1
140°	3267.4	3420.1
142.5°	3154.5	3285.8
145°	2985.1	3084.5
147.5°	2855.1	2937.4
150°	2773.2	2840.0
152.5°	2703.2	2753.6
155°	2622.8	2656.2
157.5°	2559.2	2582.6
160°	2521.2	2534.7
162.5°	2496.4	2509.2
165°	2460.5	2474.0
167.5°	2434.7	2440.4
170°	2427.6	2427.6
172.5°	2408.6	2403.7
175°	2397.3	2397.3
177.5°	2386.9	2381.3
180°	2381.3	2381.3



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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	0.35	1.00	2.63	12.37	13.04	13.54	14.19	15.82
	3H	0.00	0.47	1.05	1.63	3.27	14.20	14.80	15.38	15.96	17.60
	4H	0.16	0.73	1.34	1.89	3.54	14.84	15.41	16.02	16.57	18.22
	6H	0.40	0.92	1.59	2.09	3.74	15.27	15.79	16.46	16.95	18.61
	8H	0.46	0.96	1.65	2.14	3.79	15.38	15.88	16.58	17.06	18.71
	12H	0.47	0.94	1.67	2.12	3.79	15.45	15.92	16.64	17.09	18.76
4H	2H	6.38	6.95	7.57	8.11	9.76	12.62	13.19	13.81	14.35	16.00
	3H	7.93	8.40	9.12	9.59	11.25	14.65	15.13	15.85	16.32	17.98
	4H	8.01	8.45	9.21	9.63	11.30	15.42	15.85	16.61	17.03	18.71
	6H	8.01	8.39	9.21	9.58	11.25	15.95	16.32	17.15	17.52	19.19
	8H	7.98	8.33	9.18	9.52	11.21	16.11	16.46	17.31	17.65	19.33
	12H	7.93	8.25	9.15	9.45	11.14	16.19	16.51	17.41	17.71	19.40
8H	4H	9.45	9.79	10.64	10.98	12.67	15.46	15.81	16.66	17.00	18.68
	6H	9.68	9.97	10.90	11.20	12.88	16.08	16.37	17.30	17.60	19.28
	8H	9.69	9.94	10.92	11.15	12.85	16.30	16.55	17.53	17.76	19.46
	12H	9.65	9.87	10.88	11.08	12.81	16.44	16.66	17.67	17.87	19.60
12H	4H	9.58	9.90	10.79	11.10	12.79	15.40	15.72	16.62	16.92	18.61
	6H	9.94	10.19	11.16	11.39	13.10	16.06	16.31	17.29	17.52	19.22
	8H	10.00	10.22	11.22	11.42	13.15	16.29	16.51	17.51	17.71	19.44