

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: P938387

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-STD-W-6-2700K

Issue Date: 12/17/2024

**Test Information**

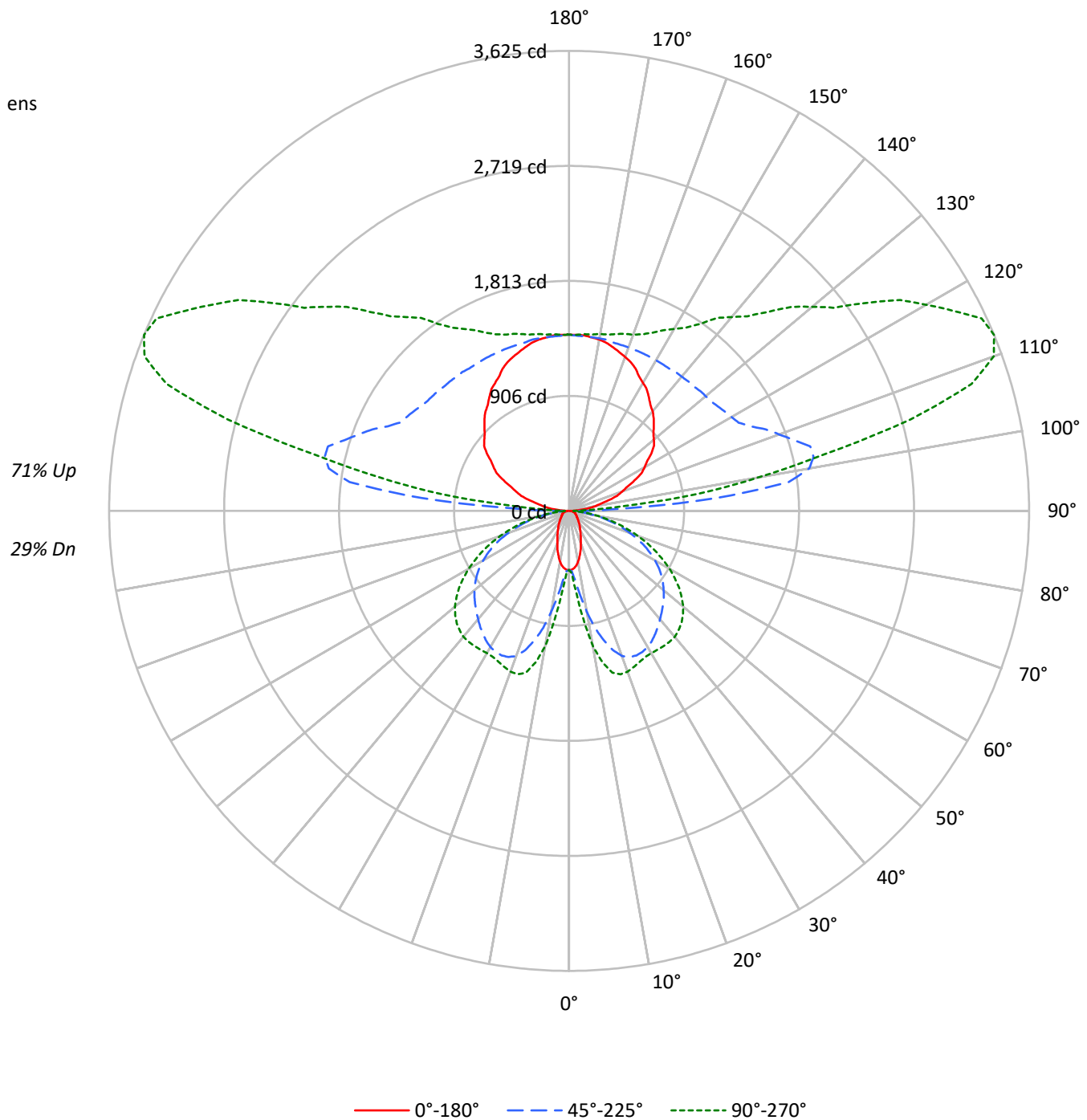
Test Method: LM-79-2019  
Report Number: P938387  
REPORT IS A COMBINATION OF REPORTS P933638 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-B2750-1D-UNV-STD-W-6-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12600.3 lumens  
Efficiency: N/A  
Efficacy: 132.1 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: Semi-Indirect  
  
Input Watts (W): 95.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-STD-W-6-2700K

### 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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2874	2874	2874
5°	2807	3321	3863
10°	2545	4840	6405
15°	2162	6322	7735
20°	1760	7325	7883
25°	1467	7664	7722
30°	1237	7710	7708
35°	1093	7580	7907
40°	952	7411	8113
45°	861	7287	8145
50°	790	7175	8010
55°	755	7011	7654
60°	772	6701	7094
65°	803	6230	6324
70°	853	5428	5342
75°	941	4422	4169
80°	1022	3064	2810
85°	888	1622	1438

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8145 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	0.5
10°-20°	266.4	2.1
20°-30°	466.0	3.7
30°-40°	599.8	4.8
40°-50°	670.0	5.3
50°-60°	641.7	5.1
60°-70°	508.5	4.0
70°-80°	299.0	2.4
80°-90°	88.4	0.7
90°-100°	676.8	5.4
100°-110°	1779.3	14.1
110°-120°	1844.9	14.6
120°-130°	1479.9	11.7
130°-140°	1161.2	9.2
140°-150°	891.2	7.1
150°-160°	641.8	5.1
160°-170°	392.7	3.1
170°-180°	132.7	1.1
0°-30°	792.4	6.3
0°-40°	1392.3	11.0
0°-60°	2703.9	21.5
0°-90°	3599.8	28.6
90°-120°	4301.0	34.1
90°-150°	7833.3	62.2
90°-180°	9001.0	71.4
0°-180°	12600.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	465	465	465	465	465	
5°	453	486	547	618	641	42
15°	339	626	1055	1279	1319	94
25°	217	710	1257	1312	1313	100
35°	146	678	1183	1251	1300	91
45°	100	541	1046	1198	1252	77
55°	72	344	887	1031	1059	65
65°	57	182	659	741	752	56
75°	42	112	362	397	399	44
85°	15	34	90	99	100	16
90°	9	26	71	36	36	9
95°	89	350	1166	601	409	99
105°	320	486	1967	2986	2786	340
115°	569	691	1576	3143	3588	562
125°	792	888	1433	2422	2857	703
135°	944	1039	1388	1955	2217	730
145°	1095	1165	1371	1668	1798	686
155°	1237	1272	1371	1505	1549	569
165°	1335	1353	1371	1425	1442	377
175°	1388	1388	1380	1398	1398	132
180°	1388	1388	1388	1388	1388	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6	464.6
2.5°	464.6	464.6	467.6	469.1	472.1	473.6	476.6	479.6	488.5	490.0	493.0
5°	452.7	458.7	478.1	485.6	506.5	534.9	546.8	566.2	606.6	618.5	626.0
7.5°	434.8	448.2	496.0	508.0	560.2	635.0	666.3	708.2	772.4	803.8	829.2
10°	406.4	434.8	519.9	548.3	633.5	747.0	805.3	863.5	960.6	1004.0	1020.4
12.5°	375.0	421.3	545.3	584.2	706.7	872.5	942.7	1007.0	1117.5	1175.9	1184.8
15°	339.1	401.9	569.2	626.0	784.4	977.1	1054.8	1134.0	1237.1	1279.0	1289.4
17.5°	307.8	386.9	591.6	651.4	844.1	1071.2	1150.5	1216.2	1299.9	1328.3	1335.7
20°	268.9	363.0	606.6	684.3	906.9	1140.0	1216.2	1267.0	1323.8	1341.7	1344.7
22.5°	240.5	337.6	615.5	696.2	948.7	1181.9	1246.1	1286.4	1325.3	1331.3	1332.7
25°	216.6	309.3	614.0	709.6	984.5	1207.3	1256.6	1286.4	1308.8	1311.8	1311.8
27.5°	194.2	277.9	608.1	712.6	1011.4	1213.2	1252.1	1273.0	1283.4	1289.4	1289.4
30°	174.8	248.0	593.1	706.7	1023.4	1207.3	1238.6	1249.1	1259.5	1268.5	1273.0
32.5°	159.9	219.6	570.7	694.7	1024.9	1192.3	1214.7	1220.7	1235.6	1256.6	1264.0
35°	146.4	191.2	545.3	678.3	1015.9	1168.4	1183.3	1189.3	1219.2	1250.6	1261.0
37.5°	133.0	170.3	512.4	649.9	1002.5	1140.0	1150.5	1160.9	1207.3	1244.6	1256.6
40°	119.5	152.4	473.6	618.5	981.6	1105.6	1114.5	1131.0	1192.3	1235.6	1247.6
42.5°	109.1	137.4	431.8	585.6	954.7	1066.7	1080.2	1104.1	1174.4	1220.7	1234.1
45°	100.1	122.5	386.9	540.8	920.3	1026.4	1045.8	1078.7	1153.5	1198.3	1210.2
47.5°	91.1	112.0	340.6	494.5	883.0	986.0	1011.4	1048.8	1125.0	1168.4	1178.9
50°	83.7	101.6	294.3	445.2	842.6	942.7	972.6	1011.4	1089.1	1129.5	1143.0
52.5°	77.7	92.6	251.0	395.9	796.3	897.9	932.3	972.6	1045.8	1084.6	1093.6
55°	71.7	85.2	213.6	343.6	748.5	850.1	887.4	926.3	998.0	1030.9	1036.8
57.5°	68.7	79.2	182.3	294.3	697.7	796.3	838.1	874.0	941.2	966.6	972.6
60°	64.2	74.7	158.4	252.5	642.4	745.5	781.4	817.2	874.0	894.9	899.4
62.5°	59.8	71.7	140.4	212.1	585.6	685.7	721.6	754.5	802.3	817.2	823.2
65°	56.8	68.7	127.0	182.3	527.4	623.0	658.9	687.2	726.1	741.0	744.0
67.5°	53.8	65.7	116.5	156.9	469.1	560.2	587.1	614.0	643.9	658.9	660.3
70°	49.3	62.7	107.6	138.9	409.4	488.5	510.9	539.3	563.2	570.7	575.2
72.5°	46.3	58.3	101.6	125.5	348.1	419.8	440.7	457.2	478.1	485.6	485.6
75°	41.8	52.3	95.6	112.0	285.4	343.6	361.5	378.0	394.4	397.4	392.9
77.5°	37.4	46.3	82.2	94.1	222.6	271.9	286.8	295.8	309.3	312.2	313.7
80°	31.4	40.3	64.2	73.2	161.4	200.2	210.7	218.1	230.1	230.1	233.1
82.5°	23.9	31.4	46.3	52.3	109.1	137.4	146.4	150.9	158.4	158.4	158.4
85°	14.9	19.4	29.9	34.4	65.7	83.7	89.6	91.1	97.1	98.6	98.6
87.5°	7.5	10.5	19.4	20.9	34.4	43.3	43.3	46.3	46.3	44.8	43.3
90°	9.4	16.8	24.2	26.1	41.0	60.9	70.8	62.9	47.2	35.5	35.5
92.5°	37.3	100.6	164.0	179.9	252.9	350.2	398.8	349.5	251.0	177.1	170.0
95°	89.4	205.4	321.4	350.4	622.2	984.5	1165.7	1040.2	789.2	601.0	579.7
97.5°	154.7	257.0	359.3	384.9	838.0	1442.3	1744.4	1665.1	1506.4	1387.5	1346.9
100°	205.0	297.8	390.5	413.7	916.6	1587.1	1922.4	1928.2	1939.8	1948.5	1900.2
102.5°	247.9	334.5	421.0	442.6	952.7	1632.6	1972.7	2073.7	2275.8	2427.4	2385.9
105°	320.5	393.8	467.1	485.5	979.4	1637.8	1967.1	2193.6	2646.7	2986.5	2964.2
107.5°	395.1	463.4	531.8	548.8	984.2	1564.9	1855.2	2171.3	2803.2	3277.2	3282.6
110°	445.4	507.2	568.8	584.3	976.9	1500.3	1762.0	2115.3	2821.9	3351.7	3374.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	494.8	553.6	612.3	627.1	977.2	1443.9	1677.3	2038.8	2761.9	3304.2	3339.9
115°	569.3	623.6	677.9	691.4	986.1	1379.2	1575.7	1924.0	2620.6	3143.0	3192.4
117.5°	642.9	692.2	741.5	753.9	1004.6	1338.7	1505.9	1820.2	2448.8	2920.3	2975.1
120°	685.8	732.3	778.7	790.2	1019.4	1325.1	1477.9	1765.1	2339.5	2770.3	2823.5
122.5°	727.8	774.6	821.4	833.1	1040.8	1317.9	1456.5	1715.1	2232.3	2620.3	2672.8
125°	792.0	834.6	877.4	888.0	1069.7	1312.0	1433.1	1652.9	2092.2	2421.8	2470.1
127.5°	844.2	887.2	930.4	941.1	1098.6	1308.5	1413.5	1602.2	1979.5	2262.4	2303.2
130°	872.2	918.6	965.0	976.6	1119.8	1310.7	1406.2	1574.1	1909.9	2161.8	2199.5
132.5°	901.1	947.5	993.9	1005.5	1136.8	1312.0	1399.6	1549.9	1850.6	2076.1	2109.8
135°	943.9	986.1	1028.5	1039.0	1155.5	1310.7	1388.4	1514.3	1766.1	1954.9	1984.0
137.5°	987.7	1029.6	1071.4	1081.9	1183.4	1318.8	1386.5	1493.0	1705.8	1865.5	1889.3
140°	1024.1	1062.6	1101.1	1110.7	1200.5	1320.2	1380.1	1472.0	1655.8	1793.8	1816.0
142.5°	1052.0	1087.6	1123.3	1132.2	1214.8	1325.0	1380.1	1460.8	1622.3	1743.4	1762.5
145°	1094.9	1126.0	1157.1	1164.8	1233.4	1325.0	1370.7	1436.7	1568.9	1668.0	1682.4
147.5°	1137.7	1168.0	1198.2	1205.8	1260.7	1334.0	1370.7	1422.7	1526.6	1604.6	1616.6
150°	1165.7	1193.0	1220.3	1227.2	1275.0	1338.8	1370.7	1414.6	1502.4	1568.2	1578.0
152.5°	1194.6	1215.3	1236.0	1241.2	1284.3	1341.9	1370.7	1408.1	1483.1	1539.3	1546.7
155°	1237.4	1252.8	1268.1	1271.9	1304.9	1348.8	1370.7	1400.5	1460.1	1504.9	1509.7
157.5°	1269.1	1284.0	1299.0	1302.7	1325.4	1355.6	1370.7	1393.9	1440.3	1475.1	1478.5
160°	1290.6	1302.2	1313.7	1316.6	1334.6	1358.6	1370.7	1390.6	1430.4	1460.1	1462.1
162.5°	1312.0	1320.7	1329.4	1331.6	1344.6	1362.0	1370.7	1387.4	1421.0	1446.2	1448.1
165°	1335.3	1343.2	1351.0	1353.0	1358.8	1366.7	1370.7	1382.7	1406.8	1424.8	1426.8
167.5°	1356.8	1360.4	1364.2	1365.1	1370.1	1376.8	1380.1	1387.9	1403.7	1415.4	1416.2
170°	1370.7	1374.4	1378.2	1379.1	1379.4	1379.9	1380.1	1387.9	1403.7	1415.4	1415.4
172.5°	1378.2	1379.0	1379.9	1380.1	1380.1	1380.1	1380.1	1386.2	1398.7	1407.9	1407.2
175°	1388.4	1388.4	1388.4	1388.4	1385.6	1382.0	1380.1	1383.9	1391.8	1397.7	1397.7
177.5°	1388.4	1388.4	1388.4	1388.4	1386.2	1383.3	1381.9	1384.9	1391.2	1395.9	1395.1
180°	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4	1388.4



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	464.6	464.6
2.5°	496.0	493.0
5°	637.9	640.9
7.5°	859.0	857.6
10°	1068.2	1081.7
12.5°	1220.7	1223.7
15°	1313.3	1319.3
17.5°	1349.2	1350.7
20°	1350.7	1347.7
22.5°	1334.2	1331.3
25°	1314.8	1313.3
27.5°	1296.9	1298.4
30°	1289.4	1293.9
32.5°	1289.4	1296.9
35°	1292.4	1299.9
37.5°	1290.9	1299.9
40°	1284.9	1295.4
42.5°	1268.5	1276.0
45°	1243.1	1252.1
47.5°	1210.2	1216.2
50°	1168.4	1174.4
52.5°	1116.0	1117.5
55°	1053.3	1059.2
57.5°	986.0	987.5
60°	911.3	915.8
62.5°	832.2	832.2
65°	748.5	751.5
67.5°	661.8	669.3
70°	573.7	575.2
72.5°	487.0	487.0
75°	397.4	398.9
77.5°	312.2	312.2
80°	231.6	233.1
82.5°	159.9	162.8
85°	100.1	100.1
87.5°	46.3	41.8
90°	35.5	35.5
92.5°	141.8	113.6
95°	494.3	409.1
97.5°	1184.5	1022.2
100°	1706.7	1513.3
102.5°	2220.3	2054.6
105°	2875.2	2786.1
107.5°	3304.1	3325.6
110°	3467.7	3560.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3482.3	3624.7
115°	3389.9	3587.5
117.5°	3194.2	3413.3
120°	3036.4	3249.3
122.5°	2882.7	3092.7
125°	2663.5	2856.9
127.5°	2466.4	2629.6
130°	2350.3	2501.0
132.5°	2244.8	2379.8
135°	2100.5	2216.8
137.5°	1984.6	2079.8
140°	1905.0	1994.1
142.5°	1839.2	1915.8
145°	1740.4	1798.4
147.5°	1664.6	1712.7
150°	1616.9	1655.8
152.5°	1576.1	1605.6
155°	1529.2	1548.7
157.5°	1492.2	1505.9
160°	1470.0	1477.9
162.5°	1455.5	1462.9
165°	1434.5	1442.4
167.5°	1419.6	1422.9
170°	1415.4	1415.4
172.5°	1404.4	1401.5
175°	1397.7	1397.7
177.5°	1391.7	1388.4
180°	1388.4	1388.4



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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	2.28	3.00	3.40	4.11	5.66	15.44	16.16	16.56	17.27	18.82
	3H	2.97	3.62	4.10	4.74	6.30	17.27	17.91	18.39	19.03	20.59
	4H	3.27	3.88	4.40	5.00	6.57	17.90	18.51	19.04	19.64	21.20
	6H	3.51	4.07	4.65	5.20	6.77	18.32	18.88	19.46	20.01	21.59
	8H	3.57	4.11	4.72	5.25	6.82	18.43	18.97	19.58	20.11	21.68
	12H	3.58	4.09	4.73	5.23	6.82	18.50	19.00	19.65	20.14	21.73
4H	2H	9.47	10.08	10.61	11.20	12.77	15.70	16.31	16.84	17.43	19.00
	3H	11.02	11.53	12.17	12.68	14.26	17.73	18.24	18.88	19.39	20.97
	4H	11.11	11.58	12.26	12.72	14.32	18.48	18.95	19.64	20.09	21.69
	6H	11.11	11.52	12.27	12.68	14.27	19.01	19.41	20.17	20.57	22.16
	8H	11.09	11.46	12.24	12.62	14.22	19.17	19.54	20.32	20.70	22.30
	12H	11.04	11.38	12.21	12.54	14.15	19.25	19.59	20.42	20.76	22.37
8H	4H	12.54	12.92	13.70	14.07	15.67	18.53	18.91	19.69	20.06	21.67
	6H	12.78	13.09	13.95	14.28	15.88	19.15	19.46	20.33	20.66	22.26
	8H	12.79	13.06	13.97	14.24	15.86	19.37	19.64	20.55	20.81	22.43
	12H	12.75	12.99	13.94	14.16	15.82	19.50	19.74	20.69	20.91	22.57
12H	4H	12.67	13.02	13.85	14.18	15.79	18.48	18.82	19.65	19.98	21.59
	6H	13.03	13.30	14.21	14.48	16.10	19.13	19.40	20.31	20.58	22.20
	8H	13.09	13.33	14.28	14.50	16.16	19.35	19.59	20.54	20.76	22.42