

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: P937181

Luminaire Tested: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

**Test Information**

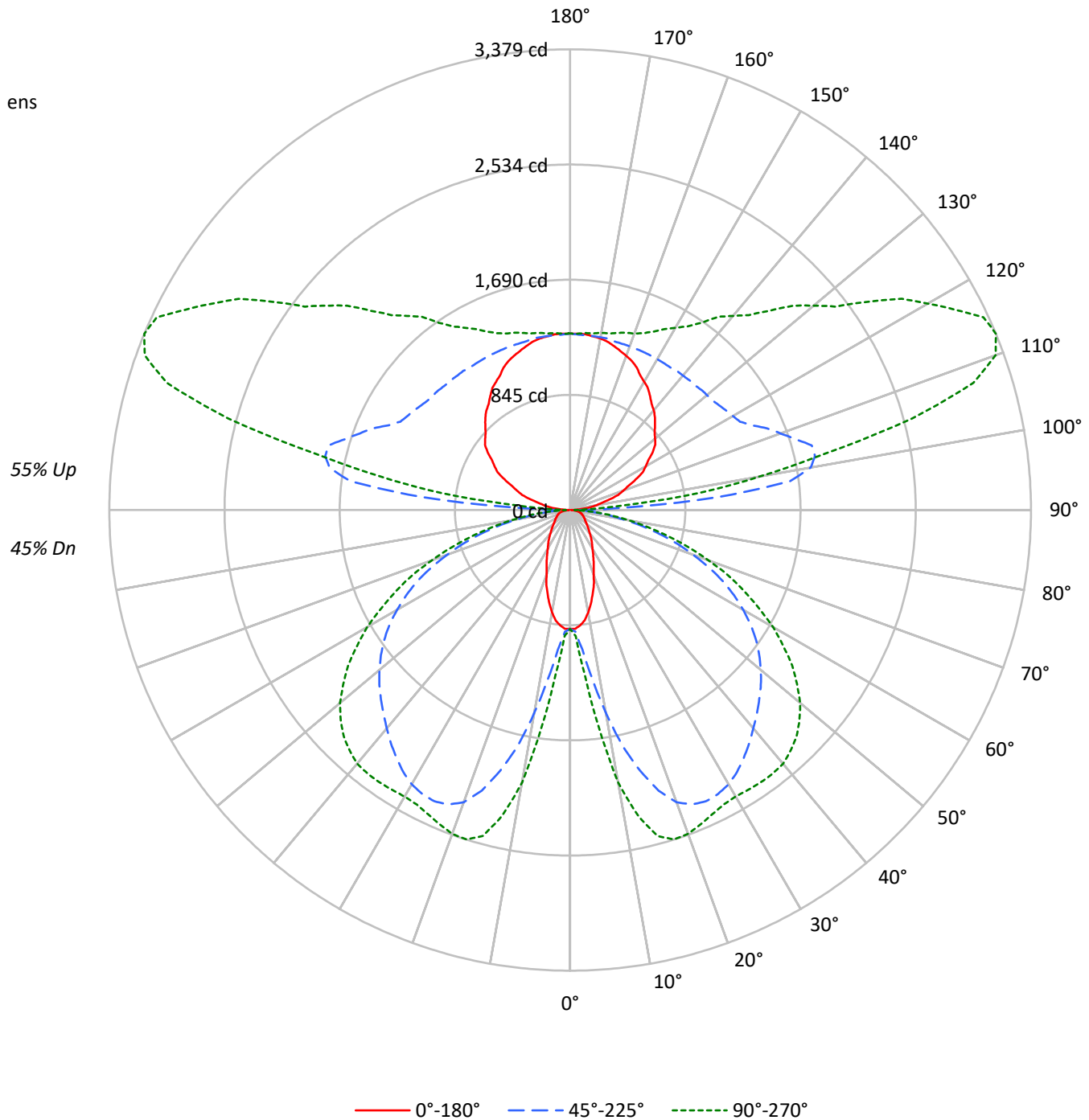
Test Method: LM-79-2019  
Report Number: P937181  
REPORT IS A COMBINATION OF REPORTS P933494 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-075D-B2750-1D-UNV-STD-W-12-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15136.4 lumens  
Efficiency: N/A  
Efficacy: 119.0 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: General Diffuse  
  
Input Watts (W): 127.2  
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

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### 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	92	88	84	88	84	80	77	70	67	65	57	55	53	44	43	42	37
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	38	36	35	30
3	79	69	62	56	72	64	57	52	53	48	44	43	39	36	34	31	29	25
4	72	61	53	47	65	56	49	43	46	41	37	38	34	31	30	27	24	21
5	66	54	46	39	60	50	42	37	41	36	31	34	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	21	18	15
7	56	43	35	29	51	40	32	27	33	28	23	27	23	20	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	21	25	20	17	20	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	17	14	16	13	11	9

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

	0°	45°	90°
0°	2695	2695	2695
5°	2634	3116	3623
10°	2390	4544	6007
15°	2032	5938	7253
20°	1655	6882	7392
25°	1381	7204	7242
30°	1165	7251	7228
35°	1031	7133	7415
40°	899	6978	7608
45°	814	6866	7638
50°	748	6765	7512
55°	717	6616	7178
60°	735	6329	6653
65°	766	5890	5930
70°	818	5140	5010
75°	910	4195	3909
80°	1000	2913	2634
85°	907	1548	1348

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7638 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.7	0.7
10°-20°	499.6	3.3
20°-30°	873.9	5.8
30°-40°	1125.0	7.4
40°-50°	1256.5	8.3
50°-60°	1203.5	8.0
60°-70°	953.8	6.3
70°-80°	560.8	3.7
80°-90°	160.7	1.1
90°-100°	630.9	4.2
100°-110°	1658.6	11.0
110°-120°	1719.8	11.4
120°-130°	1379.5	9.1
130°-140°	1082.4	7.2
140°-150°	830.8	5.5
150°-160°	598.3	4.0
160°-170°	366.1	2.4
170°-180°	123.7	0.8
0°-30°	1486.2	9.8
0°-40°	2611.2	17.3
0°-60°	5071.2	33.5
0°-90°	6746.5	44.6
90°-120°	4009.2	26.5
90°-150°	7301.8	48.2
90°-180°	8390.0	55.4
0°-180°	15136.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	871	871	871	871	871	
5°	849	911	1026	1160	1202	78
15°	636	1174	1978	2399	2474	177
25°	406	1331	2357	2460	2463	187
35°	275	1272	2219	2345	2438	171
45°	188	1014	1962	2247	2348	145
55°	134	644	1664	1934	1987	123
65°	106	342	1236	1390	1410	106
75°	78	210	678	745	748	82
85°	28	64	168	185	188	30
90°	9	24	66	33	33	9
95°	83	327	1087	560	381	93
105°	299	452	1834	2784	2597	317
115°	531	644	1469	2930	3344	524
125°	738	828	1336	2258	2663	656
135°	880	968	1294	1822	2066	681
145°	1021	1086	1278	1555	1676	639
155°	1154	1186	1278	1403	1444	530
165°	1245	1261	1278	1328	1345	351
175°	1294	1294	1286	1303	1303	123
180°	1294	1294	1294	1294	1294	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4
2.5°	871.4	871.4	877.0	879.8	885.4	888.2	893.8	899.4	916.3	919.1	924.7
5°	849.0	860.2	896.6	910.6	949.9	1003.1	1025.5	1062.1	1137.7	1160.1	1174.1
7.5°	815.4	840.6	930.3	952.7	1050.8	1190.9	1249.8	1328.2	1448.7	1507.6	1555.2
10°	762.1	815.4	975.1	1028.3	1188.1	1401.1	1510.4	1619.6	1801.8	1883.0	1913.9
12.5°	703.3	790.2	1022.7	1095.7	1325.4	1636.5	1768.2	1888.6	2096.0	2205.3	2222.1
15°	636.1	753.7	1067.7	1174.1	1471.1	1832.6	1978.3	2126.8	2320.1	2398.6	2418.2
17.5°	577.2	725.7	1109.7	1221.8	1583.2	2009.1	2157.6	2280.9	2437.8	2491.1	2505.1
20°	504.4	680.9	1137.7	1283.4	1700.9	2138.0	2280.9	2376.2	2482.7	2516.3	2521.9
22.5°	451.1	633.3	1154.5	1305.8	1779.4	2216.5	2337.0	2412.6	2485.5	2496.7	2499.5
25°	406.3	580.0	1151.7	1331.0	1846.6	2264.1	2356.6	2412.6	2454.6	2460.2	2460.2
27.5°	364.3	521.2	1140.5	1336.6	1897.0	2275.3	2348.2	2387.4	2407.0	2418.2	2418.2
30°	327.8	465.1	1112.5	1325.4	1919.5	2264.1	2323.0	2342.6	2362.2	2379.0	2387.4
32.5°	299.8	411.9	1070.5	1303.0	1922.3	2236.1	2278.1	2289.3	2317.3	2356.6	2370.6
35°	274.6	358.7	1022.7	1272.2	1905.5	2191.3	2219.3	2230.5	2286.5	2345.4	2365.0
37.5°	249.4	319.4	961.1	1219.0	1880.2	2138.0	2157.6	2177.2	2264.1	2334.2	2356.6
40°	224.2	285.8	888.2	1160.1	1841.0	2073.6	2090.4	2121.2	2236.1	2317.3	2339.8
42.5°	204.5	257.8	809.8	1098.5	1790.6	2000.7	2025.9	2070.8	2202.5	2289.3	2314.5
45°	187.7	229.8	725.7	1014.3	1726.1	1925.1	1961.5	2023.1	2163.2	2247.3	2269.7
47.5°	170.9	210.2	638.9	927.5	1656.1	1849.4	1897.0	1967.1	2110.0	2191.3	2210.9
50°	156.9	190.5	552.0	835.0	1580.4	1768.2	1824.2	1897.0	2042.8	2118.4	2143.6
52.5°	145.7	173.7	470.7	742.5	1493.6	1684.1	1748.5	1824.2	1961.5	2034.3	2051.2
55°	134.5	159.7	400.7	644.5	1403.9	1594.4	1664.5	1737.3	1871.8	1933.5	1944.7
57.5°	128.9	148.5	341.8	552.0	1308.6	1493.6	1572.0	1639.3	1765.4	1813.0	1824.2
60°	120.5	140.1	297.0	473.5	1205.0	1398.3	1465.5	1532.8	1639.3	1678.5	1686.9
62.5°	112.1	134.5	263.4	397.9	1098.5	1286.2	1353.5	1415.1	1504.8	1532.8	1544.0
65°	106.5	128.9	238.2	341.8	989.1	1168.5	1235.8	1289.0	1361.9	1389.9	1395.5
67.5°	100.9	123.3	218.6	294.2	879.8	1050.8	1101.3	1151.7	1207.8	1235.8	1238.6
70°	92.5	117.7	201.7	260.6	767.7	916.3	958.3	1011.5	1056.4	1070.5	1078.9
72.5°	86.9	109.3	190.5	235.4	652.9	787.4	826.6	857.4	896.6	910.6	910.6
75°	78.5	98.1	179.3	210.2	535.2	644.5	678.1	708.9	739.7	745.3	736.9
77.5°	70.0	86.9	154.1	176.5	417.5	510.0	538.0	554.8	580.0	585.6	588.4
80°	58.8	75.7	120.5	137.3	302.6	375.5	395.1	409.1	431.5	431.5	437.1
82.5°	44.8	58.8	86.9	98.1	204.5	257.8	274.6	283.0	297.0	297.0	297.0
85°	28.0	36.4	56.0	64.4	123.3	156.9	168.1	170.9	182.1	184.9	184.9
87.5°	14.0	19.6	36.4	39.2	64.4	81.3	81.3	86.9	86.9	84.1	81.3
90°	8.7	15.6	22.5	24.3	38.2	56.8	66.0	58.7	44.0	33.0	33.0
92.5°	34.7	93.8	152.9	167.7	235.6	326.3	371.7	325.8	234.0	165.0	158.5
95°	83.4	191.5	299.6	326.6	579.9	917.7	1086.6	969.7	735.7	560.2	540.3
97.5°	144.2	239.6	334.9	358.7	781.2	1344.4	1626.0	1552.0	1404.2	1293.3	1255.5
100°	191.1	277.6	364.1	385.6	854.4	1479.4	1791.9	1797.3	1808.1	1816.3	1771.1
102.5°	231.1	311.8	392.4	412.5	888.0	1521.9	1838.9	1933.0	2121.4	2262.7	2224.1
105°	298.8	367.2	435.4	452.5	912.9	1526.7	1833.6	2044.8	2467.2	2783.9	2763.1
107.5°	368.3	432.0	495.7	511.6	917.6	1458.8	1729.4	2024.0	2613.1	3054.8	3059.9
110°	415.2	472.7	530.2	544.6	910.6	1398.6	1642.5	1971.9	2630.4	3124.3	3145.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	461.2	516.0	570.9	584.6	910.9	1346.0	1563.5	1900.5	2574.6	3080.1	3113.2
115°	530.7	581.2	631.9	644.5	919.2	1285.7	1468.8	1793.5	2442.8	2929.8	2975.8
117.5°	599.3	645.3	691.2	702.6	936.3	1247.8	1403.6	1696.6	2282.6	2722.1	2773.2
120°	639.3	682.6	725.7	736.6	950.3	1235.1	1377.6	1645.2	2180.7	2582.3	2631.9
122.5°	678.4	722.0	765.6	776.5	970.2	1228.5	1357.6	1598.6	2080.9	2442.5	2491.4
125°	738.3	778.1	817.9	827.8	997.1	1223.0	1335.9	1540.7	1950.3	2257.5	2302.6
127.5°	787.0	827.2	867.3	877.3	1024.1	1219.8	1317.7	1493.6	1845.2	2109.0	2147.0
130°	813.0	856.3	899.4	910.3	1043.7	1221.7	1310.7	1467.2	1780.3	2015.1	2050.2
132.5°	839.9	883.2	926.3	937.2	1059.6	1223.0	1304.6	1444.7	1725.0	1935.2	1966.7
135°	879.9	919.2	958.7	968.5	1077.1	1221.9	1294.2	1411.6	1646.3	1822.3	1849.4
137.5°	920.7	959.7	998.7	1008.4	1103.1	1229.3	1292.5	1391.7	1590.1	1738.9	1761.2
140°	954.5	990.4	1026.4	1035.3	1119.0	1230.6	1286.4	1372.1	1543.5	1672.0	1692.8
142.5°	980.6	1013.9	1047.0	1055.3	1132.4	1235.0	1286.4	1361.7	1512.2	1625.2	1643.0
145°	1020.6	1049.5	1078.5	1085.8	1149.8	1235.0	1277.7	1339.3	1462.5	1554.8	1568.4
147.5°	1060.6	1088.8	1117.0	1124.0	1175.3	1243.5	1277.7	1326.2	1423.0	1495.7	1506.9
150°	1086.6	1112.1	1137.6	1144.0	1188.5	1248.0	1277.7	1318.6	1400.4	1461.8	1470.9
152.5°	1113.5	1132.8	1152.1	1156.9	1197.2	1250.9	1277.7	1312.6	1382.5	1434.9	1441.7
155°	1153.5	1167.8	1182.1	1185.6	1216.3	1257.3	1277.7	1305.5	1361.1	1402.8	1407.4
157.5°	1183.0	1196.9	1210.8	1214.3	1235.4	1263.6	1277.7	1299.3	1342.5	1374.9	1378.1
160°	1203.0	1213.8	1224.7	1227.4	1244.2	1266.5	1277.7	1296.2	1333.3	1361.1	1363.0
162.5°	1223.0	1231.1	1239.1	1241.2	1253.3	1269.6	1277.7	1293.3	1324.6	1348.0	1349.8
165°	1244.7	1252.0	1259.3	1261.2	1266.7	1274.1	1277.7	1288.9	1311.2	1328.1	1329.9
167.5°	1264.6	1268.1	1271.6	1272.5	1277.2	1283.3	1286.4	1293.7	1308.3	1319.4	1320.1
170°	1277.7	1281.2	1284.7	1285.6	1285.8	1286.2	1286.4	1293.7	1308.3	1319.4	1319.4
172.5°	1284.6	1285.4	1286.2	1286.4	1286.4	1286.4	1286.4	1292.2	1303.8	1312.5	1311.8
175°	1294.2	1294.2	1294.2	1294.2	1291.6	1288.2	1286.4	1290.0	1297.4	1302.9	1302.9
177.5°	1294.2	1294.2	1294.2	1294.2	1292.2	1289.5	1288.2	1291.1	1296.9	1301.2	1300.4
180°	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2	1294.2



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	871.4	871.4
2.5°	930.3	924.7
5°	1196.5	1202.2
7.5°	1611.2	1608.4
10°	2003.5	2028.7
12.5°	2289.3	2294.9
15°	2463.1	2474.3
17.5°	2530.3	2533.1
20°	2533.1	2527.5
22.5°	2502.3	2496.7
25°	2465.9	2463.1
27.5°	2432.2	2435.0
30°	2418.2	2426.6
32.5°	2418.2	2432.2
35°	2423.8	2437.8
37.5°	2421.0	2437.8
40°	2409.8	2429.4
42.5°	2379.0	2393.0
45°	2331.4	2348.2
47.5°	2269.7	2280.9
50°	2191.3	2202.5
52.5°	2093.2	2096.0
55°	1975.5	1986.7
57.5°	1849.4	1852.2
60°	1709.3	1717.7
62.5°	1560.8	1560.8
65°	1403.9	1409.5
67.5°	1241.4	1255.4
70°	1076.1	1078.9
72.5°	913.5	913.5
75°	745.3	748.1
77.5°	585.6	585.6
80°	434.3	437.1
82.5°	299.8	305.4
85°	187.7	187.7
87.5°	86.9	78.5
90°	33.0	33.0
92.5°	132.3	106.0
95°	460.8	381.4
97.5°	1104.2	952.9
100°	1590.9	1410.6
102.5°	2069.7	1915.3
105°	2680.1	2597.1
107.5°	3080.0	3100.0
110°	3232.4	3318.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3246.0	3378.8
115°	3159.9	3344.1
117.5°	2977.4	3181.7
120°	2830.4	3028.8
122.5°	2687.1	2882.9
125°	2482.9	2663.1
127.5°	2299.1	2451.2
130°	2190.8	2331.4
132.5°	2092.5	2218.4
135°	1957.9	2066.4
137.5°	1849.9	1938.7
140°	1775.8	1858.8
142.5°	1714.5	1785.8
145°	1622.4	1676.3
147.5°	1551.7	1596.5
150°	1507.2	1543.5
152.5°	1469.2	1496.5
155°	1425.5	1443.6
157.5°	1390.9	1403.6
160°	1370.3	1377.6
162.5°	1356.7	1363.7
165°	1337.2	1344.6
167.5°	1323.3	1326.4
170°	1319.4	1319.4
172.5°	1309.1	1306.4
175°	1302.9	1302.9
177.5°	1297.3	1294.2
180°	1294.2	1294.2



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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	3.94	4.78	4.93	5.80	7.14	17.13	17.98	18.13	18.99	20.33
	3H	4.64	5.40	5.65	6.42	7.79	18.97	19.74	19.98	20.76	22.12
	4H	4.94	5.66	5.96	6.69	8.06	19.62	20.34	20.64	21.37	22.74
	6H	5.19	5.86	6.22	6.88	8.27	20.06	20.72	21.09	21.75	23.13
	8H	5.26	5.89	6.29	6.94	8.32	20.18	20.81	21.21	21.86	23.24
	12H	5.27	5.88	6.31	6.92	8.32	20.25	20.85	21.29	21.89	23.30
4H	2H	11.16	11.88	12.18	12.91	14.28	17.40	18.12	18.43	19.15	20.52
	3H	12.73	13.33	13.76	14.38	15.77	19.45	20.06	20.49	21.11	22.49
	4H	12.82	13.37	13.86	14.42	15.83	20.22	20.78	21.26	21.82	23.23
	6H	12.83	13.31	13.88	14.37	15.78	20.76	21.24	21.82	22.31	23.71
	8H	12.81	13.25	13.86	14.31	15.73	20.93	21.38	21.98	22.43	23.85
	12H	12.76	13.17	13.83	14.24	15.66	21.02	21.43	22.10	22.50	23.93
8H	4H	14.27	14.71	15.32	15.77	17.19	20.28	20.73	21.33	21.79	23.21
	6H	14.51	14.88	15.58	15.98	17.40	20.91	21.28	21.99	22.38	23.80
	8H	14.53	14.85	15.61	15.94	17.37	21.14	21.46	22.22	22.55	23.98
	12H	14.49	14.78	15.58	15.86	17.34	21.28	21.57	22.37	22.65	24.13
12H	4H	14.41	14.82	15.48	15.89	17.31	20.23	20.64	21.30	21.71	23.14
	6H	14.77	15.09	15.85	16.18	17.61	20.90	21.22	21.98	22.31	23.74
	8H	14.84	15.12	15.92	16.20	17.68	21.13	21.42	22.22	22.50	23.97