

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: P937666

Luminaire Tested: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937666  
REPORT IS A COMBINATION OF REPORTS P933583 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

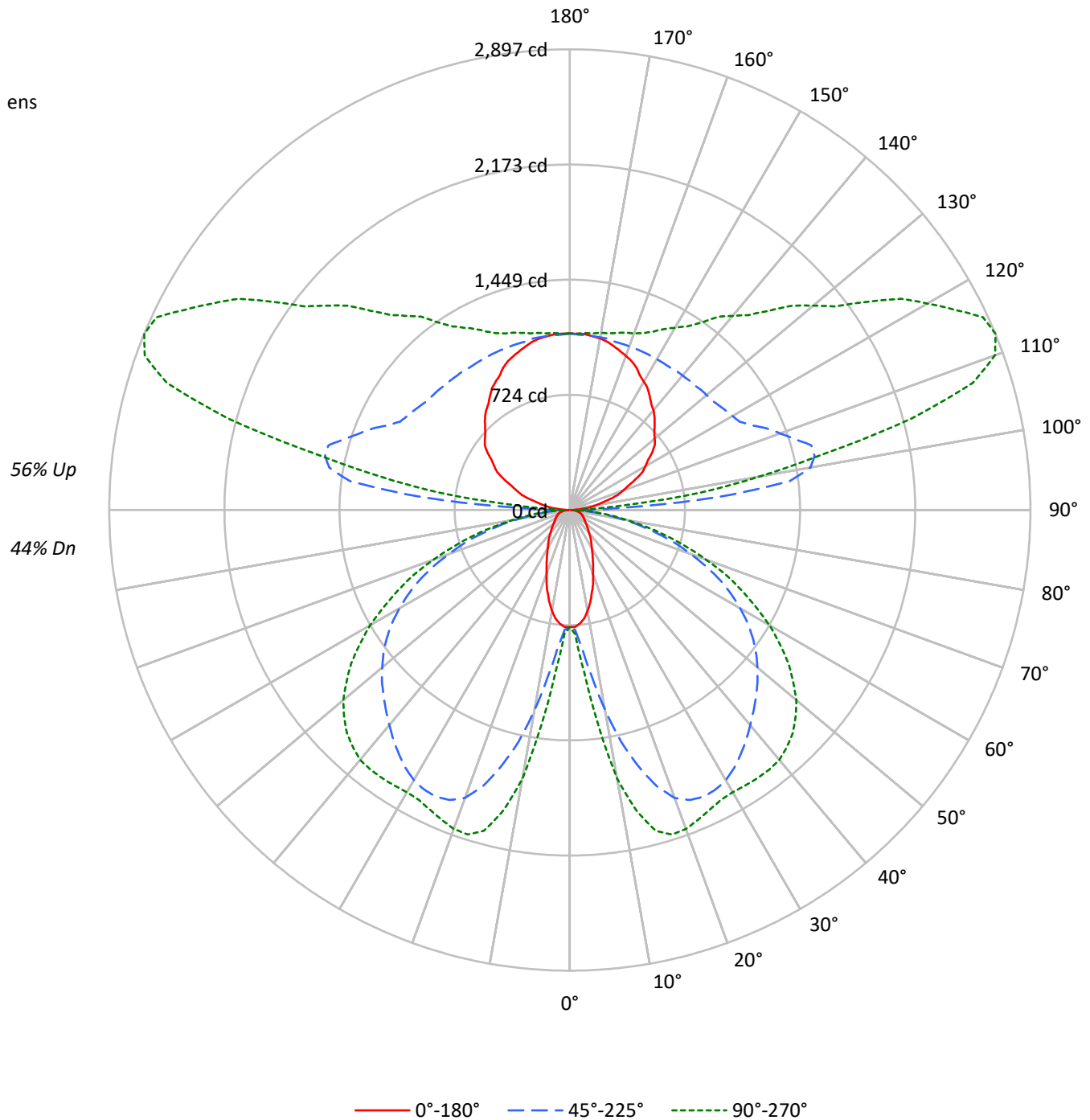
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12890.7 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 116  
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

TEST NUMBER: P937666  
CATALOG NUMBER: SQ4-FB-100U-100D-93050-1D-UNV-STD-W-8-3500K

### 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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	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	16	14	16	13	11	9

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

	0°	45°	90°
0°	3414	3414	3414
5°	3335	3946	4589
10°	3025	5752	7608
15°	2571	7515	9186
20°	2093	8708	9362
25°	1746	9113	9172
30°	1472	9170	9155
35°	1302	9018	9391
40°	1135	8820	9636
45°	1028	8675	9674
50°	942	8545	9514
55°	902	8354	9092
60°	924	7987	8426
65°	961	7429	7511
70°	1024	6479	6345
75°	1136	5283	4952
80°	1240	3664	3337
85°	1099	1944	1709

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	0.7
10°-20°	421.9	3.3
20°-30°	737.9	5.7
30°-40°	949.9	7.4
40°-50°	1061.0	8.2
50°-60°	1016.2	7.9
60°-70°	805.3	6.2
70°-80°	473.6	3.7
80°-90°	135.8	1.1
90°-100°	541.0	4.2
100°-110°	1422.2	11.0
110°-120°	1474.7	11.4
120°-130°	1182.9	9.2
130°-140°	928.1	7.2
140°-150°	712.4	5.5
150°-160°	513.0	4.0
160°-170°	313.9	2.4
170°-180°	106.0	0.8
0°-30°	1254.9	9.7
0°-40°	2204.8	17.1
0°-60°	4282.0	33.2
0°-90°	5696.6	44.2
90°-120°	3437.8	26.7
90°-150°	6261.1	48.6
90°-180°	7194.0	55.8
0°-180°	12890.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	717	769	866	980	1015	66
15°	537	991	1670	2025	2089	149
25°	343	1124	1990	2077	2080	158
35°	232	1074	1874	1980	2058	145
45°	159	856	1656	1898	1983	123
55°	114	544	1405	1632	1678	103
65°	90	289	1043	1174	1190	89
75°	66	178	573	629	632	69
85°	24	54	142	156	159	25
90°	7	21	57	28	28	8
95°	72	280	932	480	327	79
105°	256	388	1572	2387	2227	272
115°	455	553	1259	2512	2868	449
125°	633	710	1146	1936	2284	562
135°	754	830	1110	1563	1772	584
145°	875	931	1096	1333	1437	548
155°	989	1017	1096	1203	1238	454
165°	1067	1081	1096	1139	1153	301
175°	1110	1110	1103	1117	1117	105
180°	1110	1110	1110	1110	1110	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9	735.9
2.5°	735.9	735.9	740.6	742.9	747.7	750.0	754.7	759.5	773.7	776.1	780.8
5°	716.9	726.4	757.2	769.0	802.1	847.1	865.9	896.7	960.6	979.6	991.4
7.5°	688.5	709.8	785.5	804.4	887.3	1005.5	1055.2	1121.5	1223.3	1273.0	1313.2
10°	643.6	688.5	823.4	868.4	1003.2	1183.0	1275.3	1367.6	1521.3	1590.0	1615.9
12.5°	593.9	667.2	863.6	925.1	1119.1	1381.7	1492.9	1594.7	1769.8	1862.1	1876.2
15°	537.1	636.5	901.5	991.4	1242.2	1547.4	1670.4	1795.8	1959.0	2025.3	2041.8
17.5°	487.4	612.8	936.9	1031.6	1336.8	1696.4	1821.9	1925.9	2058.4	2103.4	2115.3
20°	425.9	575.0	960.6	1083.6	1436.2	1805.3	1925.9	2006.4	2096.3	2124.7	2129.4
22.5°	381.0	534.7	974.8	1102.6	1502.4	1871.6	1973.3	2037.1	2098.7	2108.1	2110.5
25°	343.1	489.7	972.4	1123.9	1559.2	1911.8	1989.8	2037.1	2072.6	2077.4	2077.4
27.5°	307.5	440.0	963.0	1128.6	1601.8	1921.3	1982.8	2015.9	2032.4	2041.8	2041.8
30°	276.8	392.8	939.3	1119.1	1620.7	1911.8	1961.4	1978.0	1994.6	2008.7	2015.9
32.5°	253.2	347.8	903.8	1100.2	1623.1	1888.1	1923.6	1933.1	1956.7	1989.8	2001.6
35°	231.9	302.9	863.6	1074.2	1608.9	1850.3	1873.9	1883.4	1930.7	1980.3	1996.9
37.5°	210.6	269.8	811.5	1029.3	1587.6	1805.3	1821.9	1838.4	1911.8	1970.9	1989.8
40°	189.3	241.4	750.0	979.6	1554.4	1750.9	1765.0	1791.1	1888.1	1956.7	1975.6
42.5°	172.7	217.7	683.7	927.5	1511.9	1689.4	1710.7	1748.5	1859.7	1933.1	1954.4
45°	158.6	194.0	612.8	856.5	1457.5	1625.4	1656.2	1708.3	1826.5	1897.5	1916.5
47.5°	144.3	177.5	539.4	783.1	1398.3	1561.6	1601.8	1661.0	1781.6	1850.3	1866.8
50°	132.5	160.9	466.1	705.1	1334.5	1492.9	1540.3	1601.8	1724.8	1788.7	1810.0
52.5°	123.0	146.7	397.5	627.0	1261.0	1421.9	1476.4	1540.3	1656.2	1717.7	1731.9
55°	113.5	134.8	338.3	544.2	1185.4	1346.3	1405.4	1467.0	1580.5	1632.5	1642.0
57.5°	108.9	125.4	288.6	466.1	1104.9	1261.0	1327.3	1384.2	1490.6	1530.8	1540.3
60°	101.7	118.3	250.8	399.8	1017.4	1180.6	1237.4	1294.2	1384.2	1417.3	1424.4
62.5°	94.6	113.5	222.4	336.0	927.5	1086.0	1142.8	1194.9	1270.5	1294.2	1303.7
65°	89.9	108.9	201.1	288.6	835.2	986.6	1043.4	1088.3	1149.8	1173.6	1178.3
67.5°	85.1	104.1	184.5	248.4	742.9	887.3	929.9	972.4	1019.8	1043.4	1045.8
70°	78.1	99.4	170.4	220.1	648.3	773.7	809.2	854.1	892.0	903.8	910.9
72.5°	73.3	92.3	160.9	198.8	551.2	664.9	698.0	724.0	757.2	769.0	769.0
75°	66.3	82.8	151.4	177.5	452.0	544.2	572.6	598.6	624.7	629.4	622.2
77.5°	59.2	73.3	130.1	149.1	352.6	430.6	454.3	468.4	489.7	494.5	496.9
80°	49.7	63.9	101.7	115.9	255.5	317.0	333.6	345.4	364.4	364.4	369.1
82.5°	37.9	49.7	73.3	82.8	172.7	217.7	231.9	239.0	250.8	250.8	250.8
85°	23.6	30.8	47.4	54.4	104.1	132.5	142.0	144.3	153.8	156.1	156.1
87.5°	11.8	16.6	30.8	33.1	54.4	68.6	68.6	73.3	73.3	71.0	68.6
90°	7.4	13.4	19.3	20.9	32.8	48.6	56.6	50.3	37.7	28.3	28.3
92.5°	29.8	80.5	131.2	143.8	202.1	279.9	318.7	279.3	200.6	141.5	135.9
95°	71.5	164.2	256.9	280.1	497.3	786.9	931.8	831.5	630.8	480.4	463.4
97.5°	123.6	205.4	287.2	307.6	669.9	1152.8	1394.3	1330.9	1204.1	1109.0	1076.6
100°	163.8	238.0	312.2	330.7	732.6	1268.6	1536.5	1541.2	1550.4	1557.4	1518.7
102.5°	198.1	267.3	336.5	353.7	761.4	1304.9	1576.7	1657.5	1819.1	1940.2	1907.1
105°	256.2	314.8	373.3	388.0	782.8	1309.1	1572.3	1753.3	2115.4	2387.1	2369.3
107.5°	315.8	370.4	425.0	438.7	786.8	1250.8	1482.9	1735.5	2240.6	2619.4	2623.7
110°	356.0	405.3	454.6	467.0	780.8	1199.2	1408.4	1690.8	2255.5	2679.0	2697.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	395.5	442.5	489.6	501.3	781.1	1154.1	1340.6	1629.6	2207.6	2641.1	2669.6
115°	455.1	498.4	541.8	552.7	788.2	1102.4	1259.4	1537.9	2094.7	2512.2	2551.7
117.5°	513.9	553.3	592.7	602.5	802.9	1070.0	1203.6	1454.8	1957.3	2334.2	2377.9
120°	548.2	585.3	622.3	631.6	814.8	1059.2	1181.3	1410.8	1869.9	2214.3	2256.8
122.5°	581.7	619.1	656.5	665.8	831.9	1053.3	1164.1	1370.8	1784.3	2094.4	2136.4
125°	633.1	667.2	701.3	709.8	855.0	1048.7	1145.5	1321.1	1672.4	1935.8	1974.4
127.5°	674.8	709.2	743.6	752.2	878.1	1046.0	1129.9	1280.7	1582.2	1808.4	1840.9
130°	697.1	734.2	771.2	780.5	895.0	1047.6	1123.9	1258.1	1526.6	1728.0	1758.0
132.5°	720.2	757.3	794.3	803.6	908.7	1048.7	1118.7	1238.8	1479.1	1659.4	1686.3
135°	754.5	788.2	822.1	830.5	923.6	1047.7	1109.7	1210.4	1411.6	1562.6	1585.9
137.5°	789.5	822.9	856.4	864.7	945.9	1054.1	1108.2	1193.3	1363.5	1491.1	1510.1
140°	818.5	849.3	880.1	887.8	959.5	1055.2	1103.0	1176.5	1323.5	1433.8	1451.6
142.5°	840.9	869.3	897.8	904.9	971.0	1059.0	1103.0	1167.6	1296.7	1393.6	1408.9
145°	875.2	900.0	924.9	931.0	985.9	1059.1	1095.6	1148.4	1254.0	1333.2	1344.8
147.5°	909.4	933.5	957.7	963.8	1007.8	1066.3	1095.6	1137.1	1220.2	1282.5	1292.1
150°	931.8	953.6	975.4	980.9	1019.1	1070.1	1095.6	1130.7	1200.9	1253.5	1261.3
152.5°	954.9	971.4	988.0	992.1	1026.6	1072.6	1095.6	1125.6	1185.5	1230.4	1236.3
155°	989.1	1001.3	1013.6	1016.6	1042.9	1078.0	1095.6	1119.4	1167.1	1202.9	1206.7
157.5°	1014.4	1026.3	1038.3	1041.2	1059.3	1083.5	1095.6	1114.1	1151.2	1179.0	1181.7
160°	1031.6	1040.9	1050.1	1052.4	1066.9	1086.0	1095.6	1111.5	1143.3	1167.1	1168.7
162.5°	1048.7	1055.7	1062.6	1064.3	1074.7	1088.6	1095.6	1109.0	1135.8	1155.9	1157.5
165°	1067.3	1073.6	1079.8	1081.4	1086.2	1092.5	1095.6	1105.2	1124.4	1138.8	1140.4
167.5°	1084.4	1087.4	1090.4	1091.1	1095.1	1100.3	1103.0	1109.3	1121.9	1131.3	1131.9
170°	1095.6	1098.5	1101.6	1102.3	1102.6	1102.8	1103.0	1109.3	1121.9	1131.3	1131.3
172.5°	1101.6	1102.2	1102.8	1103.0	1103.0	1103.0	1103.0	1108.0	1118.0	1125.4	1124.9
175°	1109.7	1109.7	1109.7	1109.7	1107.5	1104.5	1103.0	1106.2	1112.4	1117.2	1117.2
177.5°	1109.7	1109.7	1109.7	1109.7	1108.0	1105.7	1104.5	1107.1	1112.0	1115.7	1115.1
180°	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	735.9	735.9
2.5°	785.5	780.8
5°	1010.3	1015.0
7.5°	1360.4	1358.1
10°	1691.7	1713.0
12.5°	1933.1	1937.8
15°	2079.7	2089.2
17.5°	2136.5	2138.9
20°	2138.9	2134.2
22.5°	2112.8	2108.1
25°	2082.1	2079.7
27.5°	2053.7	2056.1
30°	2041.8	2049.0
32.5°	2041.8	2053.7
35°	2046.6	2058.4
37.5°	2044.3	2058.4
40°	2034.8	2051.3
42.5°	2008.7	2020.5
45°	1968.5	1982.8
47.5°	1916.5	1925.9
50°	1850.3	1859.7
52.5°	1767.4	1769.8
55°	1668.1	1677.5
57.5°	1561.6	1563.9
60°	1443.2	1450.4
62.5°	1317.9	1317.9
65°	1185.4	1190.1
67.5°	1048.1	1060.0
70°	908.6	910.9
72.5°	771.3	771.3
75°	629.4	631.7
77.5°	494.5	494.5
80°	366.7	369.1
82.5°	253.2	257.9
85°	158.6	158.6
87.5°	73.3	66.3
90°	28.3	28.3
92.5°	113.4	90.9
95°	395.2	327.0
97.5°	946.8	817.1
100°	1364.2	1209.6
102.5°	1774.7	1642.3
105°	2298.1	2226.9
107.5°	2641.0	2658.2
110°	2771.7	2845.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2783.3	2897.2
115°	2709.6	2867.5
117.5°	2553.1	2728.2
120°	2427.0	2597.1
122.5°	2304.2	2472.0
125°	2129.0	2283.6
127.5°	1971.4	2101.8
130°	1878.5	1999.1
132.5°	1794.3	1902.2
135°	1678.9	1771.9
137.5°	1586.2	1662.4
140°	1522.7	1593.8
142.5°	1470.1	1531.3
145°	1391.1	1437.4
147.5°	1330.5	1368.9
150°	1292.4	1323.5
152.5°	1259.8	1283.3
155°	1222.3	1237.9
157.5°	1192.6	1203.6
160°	1175.0	1181.3
162.5°	1163.4	1169.4
165°	1146.7	1153.0
167.5°	1134.6	1137.3
170°	1131.3	1131.3
172.5°	1122.5	1120.2
175°	1117.2	1117.2
177.5°	1112.4	1109.7
180°	1109.7	1109.7



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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	4.72	5.56	5.71	6.57	7.92	17.90	18.74	18.89	19.75	21.10
	3H	5.42	6.18	6.43	7.20	8.57	19.73	20.49	20.74	21.51	22.88
	4H	5.72	6.44	6.74	7.46	8.84	20.38	21.10	21.40	22.12	23.50
	6H	5.97	6.63	7.00	7.66	9.05	20.81	21.47	21.84	22.50	23.89
	8H	6.03	6.67	7.07	7.71	9.10	20.93	21.56	21.97	22.61	23.99
	12H	6.05	6.65	7.09	7.69	9.10	21.00	21.60	22.04	22.64	24.05
4H	2H	11.93	12.65	12.96	13.68	15.05	18.17	18.89	19.19	19.91	21.29
	3H	13.50	14.10	14.53	15.15	16.54	20.21	20.81	21.25	21.87	23.26
	4H	13.59	14.14	14.63	15.19	16.60	20.98	21.53	22.02	22.58	23.99
	6H	13.60	14.08	14.65	15.14	16.55	21.52	21.99	22.57	23.06	24.47
	8H	13.58	14.02	14.63	15.08	16.51	21.68	22.12	22.73	23.18	24.61
	12H	13.53	13.93	14.61	15.01	16.44	21.77	22.17	22.84	23.25	24.68
8H	4H	15.03	15.48	16.09	16.54	17.96	21.04	21.48	22.09	22.54	23.97
	6H	15.27	15.64	16.35	16.75	18.17	21.67	22.03	22.74	23.14	24.56
	8H	15.29	15.62	16.38	16.70	18.14	21.88	22.21	22.97	23.30	24.74
	12H	15.26	15.54	16.35	16.63	18.11	22.03	22.31	23.12	23.40	24.88
12H	4H	15.18	15.58	16.25	16.65	18.08	20.99	21.39	22.06	22.47	23.90
	6H	15.53	15.86	16.62	16.94	18.38	21.65	21.97	22.73	23.06	24.50
	8H	15.60	15.89	16.69	16.97	18.45	21.88	22.16	22.97	23.25	24.73