

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: P937604

Luminaire Tested: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937604  
REPORT IS A COMBINATION OF REPORTS P933582 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-075D-B40-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

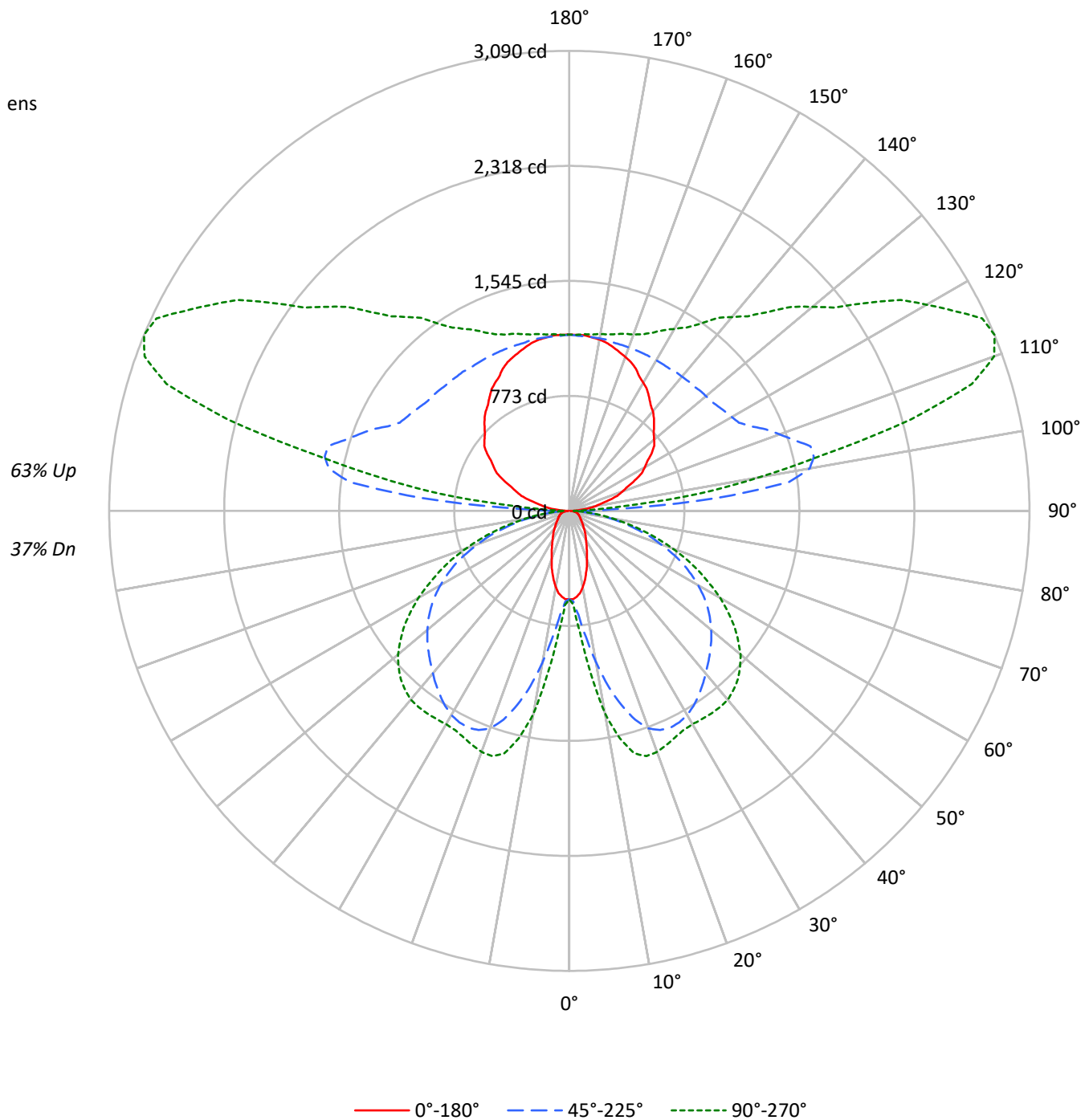
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12273.7 lumens  
Efficiency: N/A  
Efficacy: 124.7 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: Semi-Indirect

Input Watts (W): 98.4  
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				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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

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

	0°	45°	90°
0°	2756	2756	2756
5°	2692	3186	3704
10°	2442	4643	6142
15°	2076	6067	7416
20°	1690	7030	7558
25°	1410	7357	7405
30°	1189	7403	7391
35°	1051	7280	7582
40°	916	7121	7779
45°	829	7004	7810
50°	761	6898	7681
55°	729	6744	7340
60°	746	6447	6802
65°	776	5997	6063
70°	826	5230	5123
75°	916	4264	3998
80°	1000	2957	2694
85°	890	1569	1379

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7810 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	76.8	0.6
10°-20°	340.6	2.8
20°-30°	595.7	4.9
30°-40°	766.8	6.2
40°-50°	856.5	7.0
50°-60°	820.4	6.7
60°-70°	650.1	5.3
70°-80°	382.3	3.1
80°-90°	110.7	0.9
90°-100°	577.0	4.7
100°-110°	1517.0	12.4
110°-120°	1573.0	12.8
120°-130°	1261.7	10.3
130°-140°	990.0	8.1
140°-150°	759.9	6.2
150°-160°	547.2	4.5
160°-170°	334.8	2.7
170°-180°	113.1	0.9
0°-30°	1013.1	8.3
0°-40°	1780.0	14.5
0°-60°	3456.9	28.2
0°-90°	4600.0	37.5
90°-120°	3667.0	29.9
90°-150°	6678.5	54.4
90°-180°	7674.0	62.5
0°-180°	12273.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	579	621	699	791	819	53
15°	434	800	1349	1635	1687	121
25°	277	907	1606	1677	1679	128
35°	187	867	1513	1599	1662	117
45°	128	691	1337	1532	1601	99
55°	92	439	1135	1318	1354	84
65°	73	233	842	947	961	72
75°	54	143	462	508	510	56
85°	19	44	115	126	128	20
90°	8	22	60	30	30	8
95°	76	299	994	512	349	85
105°	273	414	1677	2546	2375	290
115°	485	590	1343	2680	3059	479
125°	675	757	1222	2065	2436	600
135°	805	886	1184	1667	1890	623
145°	934	993	1169	1422	1533	585
155°	1055	1084	1169	1283	1320	485
165°	1138	1154	1169	1215	1230	321
175°	1184	1184	1177	1192	1192	112
180°	1184	1184	1184	1184	1184	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
2.5°	594.0	594.0	597.8	599.7	603.6	605.5	609.3	613.1	624.6	626.5	630.3
5°	578.7	586.4	611.2	620.8	647.5	683.8	699.1	723.9	775.5	790.7	800.3
7.5°	555.8	573.0	634.1	649.4	716.2	811.8	851.9	905.3	987.5	1027.6	1060.0
10°	519.5	555.8	664.7	701.0	809.8	955.0	1029.5	1104.1	1228.2	1283.6	1304.6
12.5°	479.4	538.6	697.2	746.8	903.4	1115.5	1205.3	1287.4	1428.8	1503.3	1514.7
15°	433.6	513.8	727.7	800.3	1002.8	1249.2	1348.6	1449.8	1581.6	1635.1	1648.4
17.5°	393.5	494.7	756.4	832.8	1079.1	1369.6	1470.8	1554.8	1661.8	1698.1	1707.6
20°	343.8	464.1	775.5	874.8	1159.5	1457.4	1554.8	1619.8	1692.4	1715.3	1719.1
22.5°	307.5	431.7	786.9	890.1	1212.9	1510.9	1593.0	1644.6	1694.3	1701.9	1703.8
25°	277.0	395.4	785.0	907.2	1258.8	1543.4	1606.4	1644.6	1673.3	1677.1	1677.1
27.5°	248.3	355.3	777.4	911.1	1293.2	1551.0	1600.7	1627.4	1640.8	1648.4	1648.4
30°	223.5	317.1	758.3	903.4	1308.4	1543.4	1583.5	1596.9	1610.2	1621.7	1627.4
32.5°	204.4	280.8	729.6	888.2	1310.4	1524.3	1552.9	1560.6	1579.7	1606.4	1616.0
35°	187.2	244.5	697.2	867.1	1298.9	1493.7	1512.8	1520.5	1558.7	1598.8	1612.1
37.5°	170.0	217.7	655.1	830.8	1281.7	1457.4	1470.8	1484.2	1543.4	1591.1	1606.4
40°	152.8	194.8	605.5	790.7	1255.0	1413.5	1425.0	1446.0	1524.3	1579.7	1594.9
42.5°	139.4	175.7	552.0	748.7	1220.6	1363.8	1381.0	1411.6	1501.4	1560.6	1577.8
45°	128.0	156.6	494.7	691.4	1176.7	1312.3	1337.1	1379.1	1474.6	1531.9	1547.2
47.5°	116.5	143.2	435.5	632.2	1128.9	1260.7	1293.2	1340.9	1438.3	1493.7	1507.1
50°	107.0	129.9	376.3	569.2	1077.2	1205.3	1243.5	1293.2	1392.5	1444.1	1461.2
52.5°	99.3	118.4	320.9	506.2	1018.0	1148.0	1191.9	1243.5	1337.1	1386.8	1398.2
55°	91.7	108.9	273.1	439.3	956.9	1086.9	1134.6	1184.3	1276.0	1318.0	1325.6
57.5°	87.9	101.2	233.0	376.3	892.0	1018.0	1071.5	1117.4	1203.4	1235.9	1243.5
60°	82.1	95.5	202.5	322.8	821.3	953.1	998.9	1044.8	1117.4	1144.2	1149.9
62.5°	76.4	91.7	179.5	271.2	748.7	876.7	922.5	964.6	1025.7	1044.8	1052.4
65°	72.6	87.9	162.4	233.0	674.2	796.5	842.3	878.6	928.3	947.4	951.2
67.5°	68.8	84.0	149.0	200.5	599.7	716.2	750.6	785.0	823.2	842.3	844.2
70°	63.0	80.2	137.5	177.6	523.3	624.6	653.2	689.5	720.1	729.6	735.4
72.5°	59.2	74.5	129.9	160.4	445.0	536.7	563.4	584.5	611.2	620.8	620.8
75°	53.5	66.8	122.2	143.2	364.8	439.3	462.2	483.2	504.2	508.1	502.3
77.5°	47.8	59.2	105.0	120.3	284.6	347.6	366.7	378.2	395.4	399.2	401.1
80°	40.1	51.6	82.1	93.6	206.3	255.9	269.3	278.9	294.1	294.1	298.0
82.5°	30.6	40.1	59.2	66.8	139.4	175.7	187.2	192.9	202.5	202.5	202.5
85°	19.1	24.8	38.2	43.9	84.0	107.0	114.6	116.5	124.2	126.1	126.1
87.5°	9.5	13.4	24.8	26.7	43.9	55.4	55.4	59.2	59.2	57.3	55.4
90°	7.9	14.3	20.6	22.3	35.0	51.9	60.4	53.7	40.2	30.2	30.2
92.5°	31.8	85.9	139.9	153.4	215.5	298.5	340.0	298.0	214.0	151.0	145.0
95°	76.3	175.1	274.0	298.7	530.4	839.3	993.9	886.9	672.9	512.5	494.3
97.5°	131.9	219.1	306.4	328.1	714.5	1229.7	1487.2	1419.6	1284.4	1183.0	1148.4
100°	174.8	253.8	333.0	352.8	781.5	1353.1	1639.0	1643.9	1653.8	1661.2	1620.0
102.5°	211.3	285.1	358.9	377.3	812.1	1391.9	1681.9	1768.0	1940.4	2069.6	2034.2
105°	273.3	335.8	398.2	413.9	835.0	1396.4	1677.1	1870.2	2256.5	2546.2	2527.2
107.5°	336.8	395.1	453.3	468.0	839.3	1334.2	1581.8	1851.2	2390.0	2794.0	2798.6
110°	379.7	432.3	484.9	498.1	832.9	1279.1	1502.3	1803.5	2405.8	2857.6	2877.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	421.8	472.0	522.2	534.7	833.1	1231.1	1430.0	1738.3	2354.7	2817.2	2847.5
115°	485.4	531.6	578.0	589.5	840.8	1175.9	1343.4	1640.4	2234.3	2679.7	2721.8
117.5°	548.2	590.2	632.2	642.7	856.4	1141.3	1283.8	1551.8	2087.8	2489.8	2536.5
120°	584.7	624.3	663.8	673.7	869.1	1129.8	1260.0	1504.9	1994.6	2361.9	2407.3
122.5°	620.5	660.4	700.3	710.2	887.4	1123.6	1241.7	1462.2	1903.2	2234.0	2278.8
125°	675.3	711.7	748.1	757.1	912.0	1118.6	1221.8	1409.2	1783.8	2064.8	2106.1
127.5°	719.8	756.5	793.2	802.4	936.7	1115.7	1205.2	1366.0	1687.7	1928.9	1963.7
130°	743.6	783.1	822.6	832.6	954.6	1117.4	1198.8	1342.0	1628.4	1843.2	1875.2
132.5°	768.2	807.7	847.3	857.2	969.2	1118.6	1193.3	1321.4	1577.8	1770.0	1798.7
135°	804.8	840.8	876.9	885.9	985.2	1117.5	1183.7	1291.1	1505.7	1666.8	1691.6
137.5°	842.1	877.7	913.5	922.3	1009.0	1124.4	1182.1	1272.8	1454.4	1590.5	1610.8
140°	873.1	905.9	938.8	947.0	1023.5	1125.6	1176.6	1255.0	1411.8	1529.3	1548.3
142.5°	896.9	927.3	957.7	965.2	1035.7	1129.6	1176.6	1245.4	1383.1	1486.5	1502.8
145°	933.5	960.0	986.5	993.1	1051.6	1129.7	1168.6	1225.0	1337.6	1422.1	1434.4
147.5°	970.0	995.8	1021.6	1028.1	1074.9	1137.4	1168.6	1212.9	1301.6	1368.0	1378.3
150°	993.9	1017.2	1040.5	1046.3	1087.1	1141.4	1168.6	1206.1	1280.9	1337.1	1345.4
152.5°	1018.5	1036.2	1053.8	1058.2	1095.0	1144.1	1168.6	1200.6	1264.5	1312.5	1318.8
155°	1055.0	1068.1	1081.2	1084.4	1112.5	1149.9	1168.6	1194.0	1244.9	1283.0	1287.1
157.5°	1082.0	1094.7	1107.5	1110.7	1130.0	1155.7	1168.6	1188.4	1227.9	1257.6	1260.5
160°	1100.4	1110.3	1120.1	1122.6	1138.0	1158.4	1168.6	1185.6	1219.5	1244.9	1246.7
162.5°	1118.6	1126.0	1133.5	1135.3	1146.4	1161.2	1168.6	1183.0	1211.5	1233.0	1234.6
165°	1138.5	1145.1	1151.8	1153.5	1158.6	1165.3	1168.6	1178.9	1199.4	1214.8	1216.5
167.5°	1156.7	1159.8	1163.1	1163.9	1168.1	1173.7	1176.6	1183.2	1196.7	1206.7	1207.4
170°	1168.6	1171.8	1175.0	1175.8	1176.1	1176.4	1176.6	1183.2	1196.7	1206.7	1206.7
172.5°	1175.0	1175.7	1176.4	1176.6	1176.6	1176.6	1176.6	1181.9	1192.5	1200.4	1199.9
175°	1183.7	1183.7	1183.7	1183.7	1181.3	1178.2	1176.6	1179.9	1186.6	1191.6	1191.6
177.5°	1183.7	1183.7	1183.7	1183.7	1181.9	1179.4	1178.2	1180.9	1186.1	1190.1	1189.5
180°	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7	1183.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	594.0	594.0
2.5°	634.1	630.3
5°	815.6	819.4
7.5°	1098.3	1096.4
10°	1365.7	1382.9
12.5°	1560.6	1564.4
15°	1679.0	1686.6
17.5°	1724.8	1726.7
20°	1726.7	1722.9
22.5°	1705.7	1701.9
25°	1680.9	1679.0
27.5°	1658.0	1659.9
30°	1648.4	1654.2
32.5°	1648.4	1658.0
35°	1652.2	1661.8
37.5°	1650.3	1661.8
40°	1642.7	1656.1
42.5°	1621.7	1631.2
45°	1589.2	1600.7
47.5°	1547.2	1554.8
50°	1493.7	1501.4
52.5°	1426.9	1428.8
55°	1346.6	1354.3
57.5°	1260.7	1262.6
60°	1165.2	1170.9
62.5°	1063.9	1063.9
65°	956.9	960.7
67.5°	846.1	855.7
70°	733.4	735.4
72.5°	622.7	622.7
75°	508.1	510.0
77.5°	399.2	399.2
80°	296.0	298.0
82.5°	204.4	208.2
85°	128.0	128.0
87.5°	59.2	53.5
90°	30.2	30.2
92.5°	121.0	96.9
95°	421.5	348.8
97.5°	1009.9	871.5
100°	1455.1	1290.2
102.5°	1893.0	1751.8
105°	2451.3	2375.4
107.5°	2817.1	2835.4
110°	2956.5	3035.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2968.9	3090.4
115°	2890.2	3058.7
117.5°	2723.3	2910.1
120°	2588.8	2770.3
122.5°	2457.8	2636.8
125°	2270.9	2435.8
127.5°	2102.8	2242.0
130°	2003.8	2132.3
132.5°	1913.9	2029.0
135°	1790.8	1890.0
137.5°	1692.0	1773.2
140°	1624.2	1700.1
142.5°	1568.1	1633.4
145°	1483.9	1533.3
147.5°	1419.2	1460.2
150°	1378.5	1411.8
152.5°	1343.8	1368.8
155°	1303.8	1320.4
157.5°	1272.2	1283.8
160°	1253.3	1260.0
162.5°	1240.9	1247.3
165°	1223.2	1229.8
167.5°	1210.3	1213.1
170°	1206.7	1206.7
172.5°	1197.4	1194.9
175°	1191.6	1191.6
177.5°	1186.6	1183.7
180°	1183.7	1183.7



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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	3.26	4.04	4.31	5.10	6.54	16.44	17.22	17.49	18.28	19.72
	3H	3.96	4.66	5.02	5.73	7.19	18.27	18.98	19.33	20.05	21.50
	4H	4.25	4.92	5.33	5.99	7.45	18.91	19.58	19.99	20.65	22.12
	6H	4.50	5.12	5.58	6.19	7.66	19.34	19.96	20.42	21.03	22.51
	8H	4.57	5.15	5.65	6.24	7.71	19.46	20.05	20.55	21.14	22.61
	12H	4.58	5.14	5.67	6.22	7.72	19.52	20.08	20.62	21.17	22.66
4H	2H	10.47	11.14	11.54	12.21	13.67	16.70	17.37	17.78	18.44	19.91
	3H	12.03	12.59	13.11	13.68	15.16	18.74	19.30	19.83	20.40	21.87
	4H	12.12	12.63	13.21	13.72	15.22	19.51	20.02	20.60	21.11	22.60
	6H	12.12	12.57	13.22	13.68	15.17	20.04	20.48	21.14	21.59	23.08
	8H	12.10	12.51	13.20	13.61	15.12	20.20	20.61	21.30	21.72	23.22
	12H	12.05	12.43	13.17	13.54	15.05	20.29	20.66	21.41	21.78	23.29
8H	4H	13.56	13.97	14.66	15.07	16.58	19.56	19.97	20.66	21.08	22.58
	6H	13.79	14.14	14.92	15.28	16.78	20.18	20.53	21.31	21.67	23.17
	8H	13.81	14.11	14.94	15.24	16.76	20.40	20.70	21.53	21.83	23.35
	12H	13.78	14.04	14.91	15.16	16.72	20.54	20.81	21.68	21.93	23.49
12H	4H	13.70	14.07	14.81	15.19	16.70	19.51	19.88	20.63	21.00	22.51
	6H	14.05	14.35	15.18	15.48	17.00	20.17	20.47	21.30	21.59	23.12
	8H	14.12	14.38	15.25	15.50	17.06	20.39	20.66	21.53	21.78	23.34