

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: P937516

Luminaire Tested: SQ4-FB-100U-075D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937516  
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-835-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

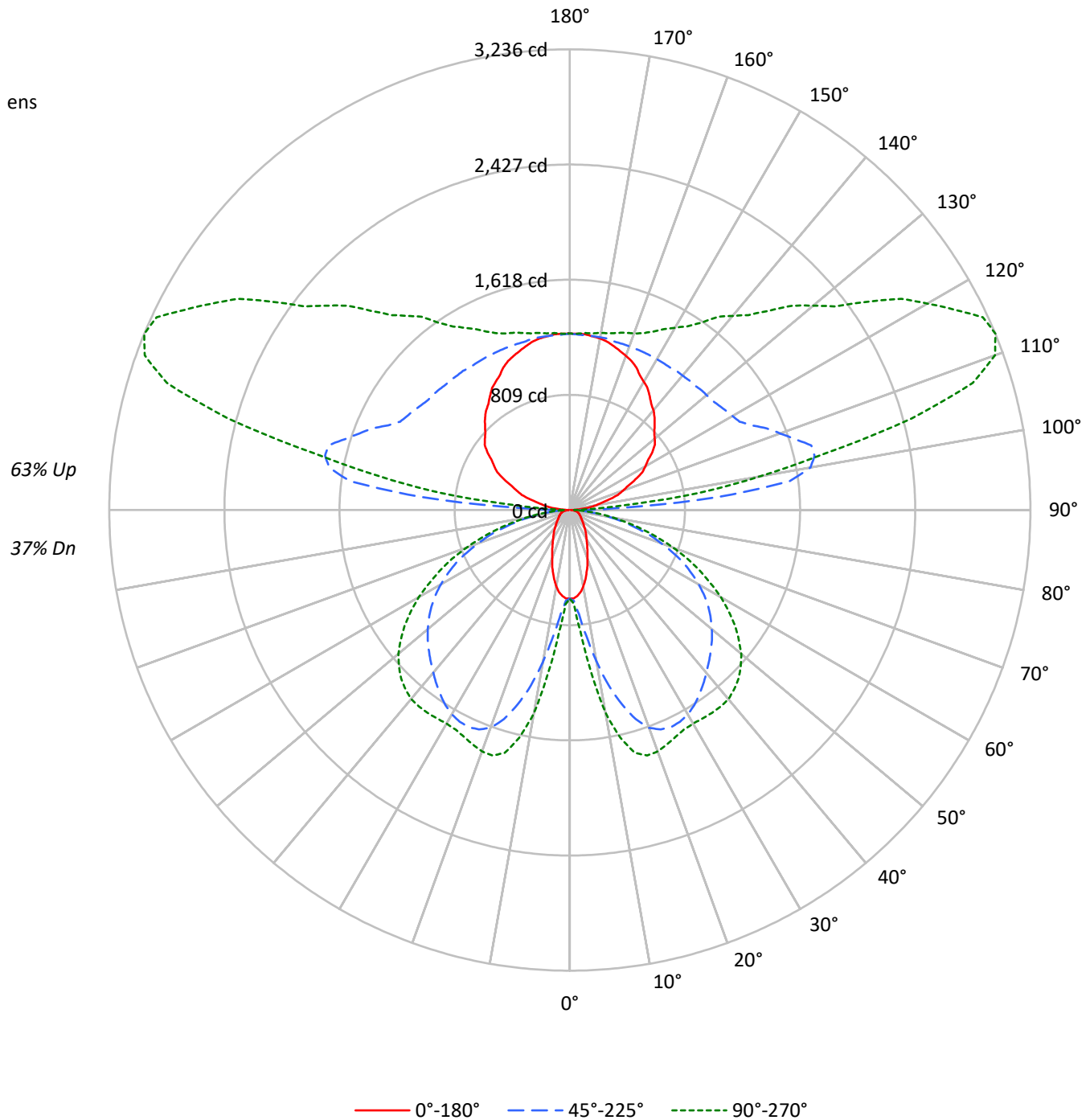
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12852.0 lumens  
Efficiency: N/A  
Efficacy: 130.6 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°	2886	2886	2886
5°	2819	3335	3879
10°	2557	4862	6431
15°	2173	6353	7766
20°	1769	7362	7914
25°	1476	7703	7753
30°	1245	7752	7739
35°	1100	7623	7939
40°	959	7456	8146
45°	868	7334	8178
50°	797	7223	8042
55°	763	7062	7686
60°	781	6751	7123
65°	813	6280	6349
70°	866	5477	5364
75°	959	4465	4186
80°	1048	3097	2820
85°	932	1643	1444

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8178 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	0.6
10°-20°	356.6	2.8
20°-30°	623.8	4.9
30°-40°	803.0	6.2
40°-50°	896.9	7.0
50°-60°	859.0	6.7
60°-70°	680.7	5.3
70°-80°	400.3	3.1
80°-90°	115.9	0.9
90°-100°	604.2	4.7
100°-110°	1588.5	12.4
110°-120°	1647.1	12.8
120°-130°	1321.2	10.3
130°-140°	1036.6	8.1
140°-150°	795.7	6.2
150°-160°	573.0	4.5
160°-170°	350.6	2.7
170°-180°	118.4	0.9
0°-30°	1060.8	8.3
0°-40°	1863.8	14.5
0°-60°	3619.7	28.2
0°-90°	4816.7	37.5
90°-120°	3839.8	29.9
90°-150°	6993.2	54.4
90°-180°	8035.0	62.5
0°-180°	12852.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	606	650	732	828	858	56
15°	454	838	1412	1712	1766	126
25°	290	950	1682	1756	1758	134
35°	196	908	1584	1674	1740	122
45°	134	724	1400	1604	1676	104
55°	96	460	1188	1380	1418	87
65°	76	244	882	992	1006	75
75°	56	150	484	532	534	59
85°	20	46	120	132	134	21
90°	8	23	63	32	32	8
95°	80	313	1041	537	365	89
105°	286	433	1756	2666	2487	303
115°	508	617	1407	2806	3203	502
125°	707	793	1279	2162	2551	628
135°	843	928	1240	1745	1979	652
145°	978	1040	1224	1489	1606	612
155°	1105	1136	1224	1344	1383	508
165°	1192	1208	1224	1272	1288	336
175°	1240	1240	1232	1248	1248	118
180°	1240	1240	1240	1240	1240	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0	622.0
2.5°	622.0	622.0	626.0	628.0	632.0	634.0	638.0	642.0	654.0	656.0	660.0
5°	606.0	614.0	640.0	650.0	678.0	716.0	732.0	758.0	812.0	828.0	838.0
7.5°	582.0	600.0	664.0	680.0	750.0	850.0	892.0	948.0	1034.0	1076.0	1110.0
10°	544.0	582.0	696.0	734.0	848.0	1000.0	1078.0	1156.1	1286.1	1344.1	1366.1
12.5°	502.0	564.0	730.0	782.0	946.0	1168.1	1262.1	1348.1	1496.1	1574.1	1586.1
15°	454.0	538.0	762.0	838.0	1050.0	1308.1	1412.1	1518.1	1656.1	1712.1	1726.1
17.5°	412.0	518.0	792.0	872.0	1130.0	1434.1	1540.1	1628.1	1740.1	1778.1	1788.1
20°	360.0	486.0	812.0	916.0	1214.1	1526.1	1628.1	1696.1	1772.1	1796.1	1800.1
22.5°	322.0	452.0	824.0	932.0	1270.1	1582.1	1668.1	1722.1	1774.1	1782.1	1784.1
25°	290.0	414.0	822.0	950.0	1318.1	1616.1	1682.1	1722.1	1752.1	1756.1	1756.1
27.5°	260.0	372.0	814.0	954.0	1354.1	1624.1	1676.1	1704.1	1718.1	1726.1	1726.1
30°	234.0	332.0	794.0	946.0	1370.1	1616.1	1658.1	1672.1	1686.1	1698.1	1704.1
32.5°	214.0	294.0	764.0	930.0	1372.1	1596.1	1626.1	1634.1	1654.1	1682.1	1692.1
35°	196.0	256.0	730.0	908.0	1360.1	1564.1	1584.1	1592.1	1632.1	1674.1	1688.1
37.5°	178.0	228.0	686.0	870.0	1342.1	1526.1	1540.1	1554.1	1616.1	1666.1	1682.1
40°	160.0	204.0	634.0	828.0	1314.1	1480.1	1492.1	1514.1	1596.1	1654.1	1670.1
42.5°	146.0	184.0	578.0	784.0	1278.1	1428.1	1446.1	1478.1	1572.1	1634.1	1652.1
45°	134.0	164.0	518.0	724.0	1232.1	1374.1	1400.1	1444.1	1544.1	1604.1	1620.1
47.5°	122.0	150.0	456.0	662.0	1182.1	1320.1	1354.1	1404.1	1506.1	1564.1	1578.1
50°	112.0	136.0	394.0	596.0	1128.0	1262.1	1302.1	1354.1	1458.1	1512.1	1530.1
52.5°	104.0	124.0	336.0	530.0	1066.0	1202.1	1248.1	1302.1	1400.1	1452.1	1464.1
55°	96.0	114.0	286.0	460.0	1002.0	1138.1	1188.1	1240.1	1336.1	1380.1	1388.1
57.5°	92.0	106.0	244.0	394.0	934.0	1066.0	1122.0	1170.1	1260.1	1294.1	1302.1
60°	86.0	100.0	212.0	338.0	860.0	998.0	1046.0	1094.0	1170.1	1198.1	1204.1
62.5°	80.0	96.0	188.0	284.0	784.0	918.0	966.0	1010.0	1074.0	1094.0	1102.0
65°	76.0	92.0	170.0	244.0	706.0	834.0	882.0	920.0	972.0	992.0	996.0
67.5°	72.0	88.0	156.0	210.0	628.0	750.0	786.0	822.0	862.0	882.0	884.0
70°	66.0	84.0	144.0	186.0	548.0	654.0	684.0	722.0	754.0	764.0	770.0
72.5°	62.0	78.0	136.0	168.0	466.0	562.0	590.0	612.0	640.0	650.0	650.0
75°	56.0	70.0	128.0	150.0	382.0	460.0	484.0	506.0	528.0	532.0	526.0
77.5°	50.0	62.0	110.0	126.0	298.0	364.0	384.0	396.0	414.0	418.0	420.0
80°	42.0	54.0	86.0	98.0	216.0	268.0	282.0	292.0	308.0	308.0	312.0
82.5°	32.0	42.0	62.0	70.0	146.0	184.0	196.0	202.0	212.0	212.0	212.0
85°	20.0	26.0	40.0	46.0	88.0	112.0	120.0	122.0	130.0	132.0	132.0
87.5°	10.0	14.0	26.0	28.0	46.0	58.0	58.0	62.0	62.0	60.0	58.0
90°	8.3	15.0	21.6	23.3	36.6	54.3	63.2	56.2	42.1	31.6	31.6
92.5°	33.3	89.9	146.5	160.6	225.7	312.6	356.0	312.0	224.1	158.1	151.8
95°	79.9	183.4	286.9	312.8	555.4	878.9	1040.7	928.7	704.6	536.6	517.6
97.5°	138.1	229.4	320.8	343.6	748.2	1287.6	1557.3	1486.5	1344.9	1238.7	1202.5
100°	183.0	265.8	348.7	369.4	818.3	1416.9	1716.2	1721.4	1731.7	1739.5	1696.3
102.5°	221.3	298.5	375.8	395.1	850.4	1457.5	1761.1	1851.3	2031.8	2167.1	2130.1
105°	286.2	351.6	417.0	433.4	874.3	1462.2	1756.1	1958.3	2362.8	2666.2	2646.3
107.5°	352.7	413.7	474.7	490.0	878.8	1397.1	1656.3	1938.4	2502.6	2925.7	2930.5
110°	397.6	452.7	507.8	521.6	872.1	1339.4	1573.1	1888.5	2519.2	2992.3	3013.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	441.7	494.2	546.8	559.9	872.4	1289.1	1497.4	1820.2	2465.7	2949.9	2981.7
115°	508.3	556.7	605.2	617.3	880.4	1231.3	1406.7	1717.7	2339.6	2806.0	2850.1
117.5°	574.0	618.0	662.0	673.0	896.8	1195.1	1344.3	1624.9	2186.2	2607.1	2656.0
120°	612.3	653.7	695.1	705.4	910.1	1183.0	1319.4	1575.8	2088.6	2473.2	2520.7
122.5°	649.7	691.5	733.3	743.7	929.2	1176.5	1300.2	1531.1	1992.9	2339.3	2386.2
125°	707.1	745.2	783.3	792.8	955.0	1171.3	1279.4	1475.6	1867.9	2162.1	2205.3
127.5°	753.7	792.1	830.6	840.2	980.8	1168.3	1262.0	1430.4	1767.2	2019.8	2056.2
130°	778.6	820.0	861.4	871.8	999.6	1170.1	1255.3	1405.2	1705.1	1930.0	1963.6
132.5°	804.4	845.8	887.2	897.6	1014.9	1171.3	1249.5	1383.7	1652.1	1853.4	1883.5
135°	842.7	880.4	918.2	927.6	1031.6	1170.2	1239.5	1351.9	1576.7	1745.3	1771.3
137.5°	881.8	919.1	956.5	965.8	1056.5	1177.4	1237.8	1332.8	1522.9	1665.4	1686.7
140°	914.2	948.6	983.0	991.6	1071.7	1178.6	1232.0	1314.1	1478.3	1601.4	1621.3
142.5°	939.2	971.0	1002.8	1010.7	1084.5	1182.8	1232.0	1304.1	1448.3	1556.5	1573.6
145°	977.5	1005.2	1033.0	1039.9	1101.2	1182.9	1223.7	1282.7	1400.6	1489.1	1502.0
147.5°	1015.7	1042.7	1069.7	1076.5	1125.6	1191.0	1223.7	1270.1	1362.9	1432.5	1443.2
150°	1040.7	1065.1	1089.5	1095.6	1138.3	1195.2	1223.7	1262.9	1341.3	1400.1	1408.8
152.5°	1066.5	1085.0	1103.5	1108.1	1146.6	1198.0	1223.7	1257.2	1324.1	1374.3	1380.9
155°	1104.7	1118.4	1132.1	1135.5	1164.9	1204.1	1223.7	1250.3	1303.6	1343.5	1347.8
157.5°	1133.0	1146.3	1159.7	1163.0	1183.2	1210.2	1223.7	1244.4	1285.8	1316.9	1319.9
160°	1152.2	1162.6	1172.9	1175.5	1191.6	1213.0	1223.7	1241.5	1277.0	1303.6	1305.4
162.5°	1171.3	1179.1	1186.9	1188.8	1200.4	1215.9	1223.7	1238.7	1268.6	1291.1	1292.8
165°	1192.1	1199.1	1206.1	1207.9	1213.2	1220.2	1223.7	1234.4	1255.9	1272.0	1273.8
167.5°	1211.2	1214.5	1217.9	1218.7	1223.1	1229.0	1232.0	1239.0	1253.1	1263.6	1264.3
170°	1223.7	1227.0	1230.4	1231.2	1231.5	1231.8	1232.0	1239.0	1253.1	1263.6	1263.6
172.5°	1230.4	1231.1	1231.8	1232.0	1232.0	1232.0	1232.0	1237.6	1248.7	1257.0	1256.4
175°	1239.5	1239.5	1239.5	1239.5	1237.0	1233.7	1232.0	1235.5	1242.5	1247.8	1247.8
177.5°	1239.5	1239.5	1239.5	1239.5	1237.6	1235.0	1233.7	1236.5	1242.0	1246.2	1245.5
180°	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	622.0	622.0
2.5°	664.0	660.0
5°	854.0	858.0
7.5°	1150.1	1148.1
10°	1430.1	1448.1
12.5°	1634.1	1638.1
15°	1758.1	1766.1
17.5°	1806.1	1808.1
20°	1808.1	1804.1
22.5°	1786.1	1782.1
25°	1760.1	1758.1
27.5°	1736.1	1738.1
30°	1726.1	1732.1
32.5°	1726.1	1736.1
35°	1730.1	1740.1
37.5°	1728.1	1740.1
40°	1720.1	1734.1
42.5°	1698.1	1708.1
45°	1664.1	1676.1
47.5°	1620.1	1628.1
50°	1564.1	1572.1
52.5°	1494.1	1496.1
55°	1410.1	1418.1
57.5°	1320.1	1322.1
60°	1220.1	1226.1
62.5°	1114.0	1114.0
65°	1002.0	1006.0
67.5°	886.0	896.0
70°	768.0	770.0
72.5°	652.0	652.0
75°	532.0	534.0
77.5°	418.0	418.0
80°	310.0	312.0
82.5°	214.0	218.0
85°	134.0	134.0
87.5°	62.0	56.0
90°	31.6	31.6
92.5°	126.7	101.5
95°	441.4	365.2
97.5°	1057.5	912.6
100°	1523.7	1351.0
102.5°	1982.2	1834.3
105°	2566.8	2487.3
107.5°	2949.8	2969.0
110°	3095.8	3178.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3108.8	3236.0
115°	3026.4	3202.8
117.5°	2851.6	3047.2
120°	2710.8	2900.8
122.5°	2573.6	2761.0
125°	2377.9	2550.6
127.5°	2201.9	2347.6
130°	2098.2	2232.8
132.5°	2004.1	2124.6
135°	1875.2	1979.1
137.5°	1771.7	1856.8
140°	1700.7	1780.2
142.5°	1642.0	1710.4
145°	1553.8	1605.5
147.5°	1486.1	1529.0
150°	1443.5	1478.3
152.5°	1407.1	1433.3
155°	1365.2	1382.6
157.5°	1332.1	1344.3
160°	1312.4	1319.4
162.5°	1299.4	1306.1
165°	1280.8	1287.8
167.5°	1267.3	1270.3
170°	1263.6	1263.6
172.5°	1253.8	1251.2
175°	1247.8	1247.8
177.5°	1242.5	1239.5
180°	1239.5	1239.5



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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	3.42	4.21	4.47	5.27	6.70	16.60	17.38	17.65	18.44	19.88
	3H	4.12	4.82	5.18	5.89	7.35	18.43	19.14	19.49	20.21	21.66
	4H	4.41	5.08	5.49	6.15	7.62	19.07	19.74	20.15	20.81	22.28
	6H	4.66	5.28	5.74	6.35	7.83	19.50	20.12	20.58	21.19	22.67
	8H	4.73	5.31	5.81	6.40	7.87	19.62	20.21	20.70	21.30	22.77
	12H	4.74	5.30	5.83	6.38	7.88	19.68	20.24	20.78	21.33	22.82
4H	2H	10.63	11.30	11.70	12.37	13.83	16.86	17.53	17.94	18.60	20.07
	3H	12.19	12.75	13.27	13.84	15.32	18.90	19.46	19.99	20.56	22.03
	4H	12.28	12.79	13.37	13.88	15.38	19.67	20.18	20.76	21.27	22.76
	6H	12.28	12.73	13.38	13.84	15.33	20.20	20.64	21.30	21.75	23.24
	8H	12.26	12.67	13.36	13.78	15.28	20.36	20.77	21.46	21.88	23.38
	12H	12.21	12.59	13.33	13.70	15.21	20.45	20.82	21.57	21.94	23.45
8H	4H	13.72	14.13	14.82	15.23	16.74	19.72	20.13	20.82	21.24	22.74
	6H	13.95	14.30	15.08	15.44	16.94	20.34	20.69	21.47	21.83	23.33
	8H	13.97	14.27	15.10	15.40	16.92	20.56	20.86	21.69	21.99	23.51
	12H	13.94	14.20	15.07	15.32	16.88	20.70	20.97	21.84	22.09	23.65
12H	4H	13.86	14.23	14.97	15.35	16.86	19.67	20.04	20.79	21.16	22.67
	6H	14.21	14.51	15.34	15.64	17.16	20.33	20.63	21.46	21.75	23.28
	8H	14.28	14.54	15.41	15.66	17.22	20.55	20.82	21.69	21.94	23.50