

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: P937009

Luminaire Tested: SQ4-FB-075U-050D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

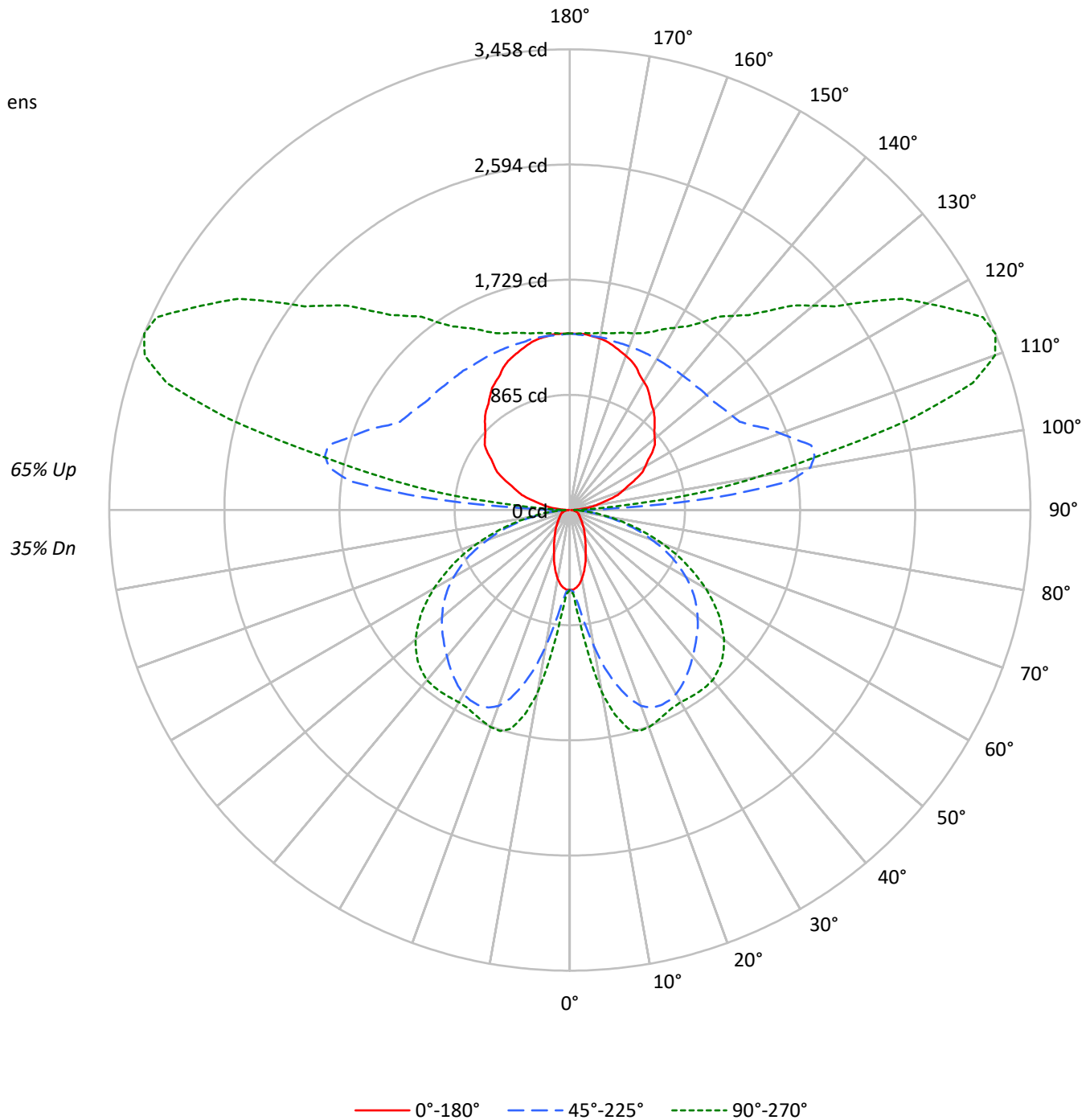
Test Method: LM-79-2019  
Report Number: P937009  
REPORT IS A COMBINATION OF REPORTS P933493 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-050D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13220.5 lumens  
Efficiency: N/A  
Efficacy: 128.1 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: Semi-Indirect  
  
Input Watts (W): 103.2  
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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### 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	50	30	10	0	
RCR																						
0	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35				
1	94	90	86	82	85	81	78	75	65	63	61	50	49	47	37	36	35	29				
2	85	78	72	66	77	70	65	61	57	53	50	44	41	39	32	30	29	23				
3	77	68	61	55	70	62	55	50	49	45	41	38	35	32	28	26	24	19				
4	71	60	52	46	63	54	47	42	44	39	35	34	30	27	25	22	20	16				
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14				
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12				
7	55	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10				
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9				
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8				
10	44	32	24	20	39	29	22	18	23	18	15	18	15	12	14	11	9	7				

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

	0°	45°	90°
0°	1851	1851	1851
5°	1809	2139	2487
10°	1641	3119	4123
15°	1395	4076	4979
20°	1136	4725	5074
25°	948	4945	4971
30°	800	4978	4962
35°	708	4896	5090
40°	617	4791	5223
45°	559	4713	5243
50°	513	4644	5156
55°	492	4542	4928
60°	504	4345	4567
65°	526	4044	4071
70°	561	3529	3439
75°	624	2879	2684
80°	687	1999	1809
85°	622	1063	926

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5243 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	0.6
10°-20°	343.0	2.6
20°-30°	599.9	4.5
30°-40°	772.3	5.8
40°-50°	862.6	6.5
50°-60°	826.2	6.2
60°-70°	654.7	5.0
70°-80°	385.0	2.9
80°-90°	112.0	0.8
90°-100°	645.7	4.9
100°-110°	1697.7	12.8
110°-120°	1760.3	13.3
120°-130°	1411.9	10.7
130°-140°	1107.9	8.4
140°-150°	850.3	6.4
150°-160°	612.4	4.6
160°-170°	374.7	2.8
170°-180°	126.6	1.0
0°-30°	1020.3	7.7
0°-40°	1792.5	13.6
0°-60°	3481.3	26.3
0°-90°	4633.1	35.0
90°-120°	4103.6	31.0
90°-150°	7473.8	56.5
90°-180°	8587.0	65.0
0°-180°	13220.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	583	625	704	796	825	54
15°	437	806	1358	1647	1698	122
25°	279	914	1618	1689	1691	128
35°	188	873	1524	1610	1674	118
45°	129	696	1346	1543	1612	100
55°	92	442	1143	1327	1364	84
65°	73	235	848	954	968	72
75°	54	144	466	512	514	56
85°	19	44	115	127	129	20
90°	9	25	68	34	34	9
95°	85	334	1112	573	390	95
105°	306	463	1877	2850	2658	324
115°	543	660	1503	2999	3423	537
125°	756	847	1367	2311	2726	671
135°	901	991	1325	1865	2115	697
145°	1045	1111	1308	1592	1716	654
155°	1181	1214	1308	1436	1478	542
165°	1274	1291	1308	1359	1376	360
175°	1325	1325	1317	1334	1334	126
180°	1325	1325	1325	1325	1325	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	598.3	598.3	602.1	604.0	607.8	609.7	613.7	617.5	629.0	631.0	634.8
5°	582.9	590.5	615.6	625.1	652.1	688.6	704.0	729.0	781.0	796.3	806.0
7.5°	559.7	577.0	638.6	654.0	721.4	817.6	857.9	911.8	994.5	1034.9	1067.6
10°	523.2	559.7	669.4	706.0	815.6	961.8	1036.8	1111.8	1236.9	1292.7	1313.8
12.5°	482.8	542.4	702.1	752.1	909.8	1123.4	1213.8	1296.5	1438.9	1513.9	1525.4
15°	436.7	517.5	732.9	806.0	1009.9	1258.0	1358.1	1460.0	1592.8	1646.6	1660.1
17.5°	396.3	498.2	761.7	838.7	1086.9	1379.2	1481.1	1565.8	1673.6	1710.1	1719.7
20°	346.3	467.5	781.0	881.0	1167.7	1467.7	1565.8	1631.2	1704.4	1727.4	1731.2
22.5°	309.7	434.7	792.5	896.4	1221.5	1521.6	1604.3	1656.3	1706.3	1713.9	1715.8
25°	279.0	398.2	790.6	913.7	1267.7	1554.3	1617.7	1656.3	1685.0	1689.0	1689.0
27.5°	250.1	357.8	782.9	917.6	1302.3	1562.0	1612.0	1638.9	1652.4	1660.1	1660.1
30°	225.0	319.3	763.7	909.8	1317.7	1554.3	1594.7	1608.2	1621.6	1633.1	1638.9
32.5°	205.8	282.8	734.8	894.4	1319.6	1535.0	1563.9	1571.6	1590.8	1617.7	1627.4
35°	188.5	246.3	702.1	873.3	1308.1	1504.3	1523.5	1531.2	1569.7	1610.1	1623.5
37.5°	171.2	219.3	659.8	836.8	1290.7	1467.7	1481.1	1494.6	1554.3	1602.4	1617.7
40°	153.9	196.2	609.7	796.3	1263.8	1423.5	1435.1	1456.2	1535.0	1590.8	1606.2
42.5°	140.4	177.0	555.9	754.1	1229.2	1373.5	1390.8	1421.6	1511.9	1571.6	1588.9
45°	128.9	157.7	498.2	696.4	1185.0	1321.5	1346.5	1388.9	1485.1	1542.7	1558.1
47.5°	117.3	144.3	438.6	636.7	1136.9	1269.6	1302.3	1350.4	1448.4	1504.3	1517.7
50°	107.7	130.8	379.0	573.2	1084.9	1213.8	1252.3	1302.3	1402.4	1454.3	1471.6
52.5°	100.0	119.3	323.1	509.7	1025.3	1156.1	1200.4	1252.3	1346.5	1396.5	1408.1
55°	92.3	109.7	275.0	442.4	963.7	1094.5	1142.6	1192.6	1285.0	1327.3	1335.0
57.5°	88.5	101.9	234.7	379.0	898.4	1025.3	1079.1	1125.3	1211.8	1244.6	1252.3
60°	82.7	96.2	203.9	325.1	827.1	959.9	1006.1	1052.2	1125.3	1152.3	1158.0
62.5°	77.0	92.3	180.8	273.1	754.1	883.0	929.1	971.4	1033.0	1052.2	1059.9
65°	73.1	88.5	163.5	234.7	679.0	802.2	848.4	884.9	934.9	954.1	957.9
67.5°	69.2	84.6	150.0	202.0	604.0	721.4	756.0	790.6	829.0	848.4	850.3
70°	63.5	80.8	138.5	178.9	527.0	629.0	657.9	694.4	725.2	734.8	740.6
72.5°	59.7	75.0	130.8	161.6	448.2	540.5	567.5	588.6	615.6	625.1	625.1
75°	53.8	67.3	123.1	144.3	367.4	442.4	465.5	486.7	507.8	511.7	505.9
77.5°	48.1	59.7	105.8	121.2	286.6	350.1	369.3	380.9	398.2	402.0	403.9
80°	40.4	51.9	82.7	94.3	207.7	257.7	271.2	280.9	296.3	296.3	300.1
82.5°	30.8	40.4	59.7	67.3	140.4	177.0	188.5	194.3	203.9	203.9	203.9
85°	19.2	25.0	38.4	44.3	84.6	107.7	115.4	117.3	125.0	127.0	127.0
87.5°	9.7	13.5	25.0	27.0	44.3	55.8	55.8	59.7	59.7	57.7	55.8
90°	8.9	16.0	23.0	24.9	39.1	58.1	67.6	60.0	45.0	33.7	33.7
92.5°	35.6	96.0	156.5	171.6	241.2	334.0	380.5	333.5	239.5	168.9	162.2
95°	85.4	196.0	306.7	334.3	593.6	939.4	1112.2	992.5	753.0	573.4	553.0
97.5°	147.6	245.2	342.8	367.2	799.6	1376.1	1664.3	1588.6	1437.3	1323.8	1285.1
100°	195.6	284.1	372.6	394.7	874.5	1514.2	1834.1	1839.6	1850.7	1859.0	1812.9
102.5°	236.5	319.1	401.6	422.3	908.9	1557.7	1882.2	1978.5	2171.4	2316.0	2276.5
105°	305.8	375.8	445.7	463.2	934.4	1562.7	1876.8	2093.0	2525.3	2849.5	2828.2
107.5°	377.0	442.2	507.3	523.7	939.2	1493.2	1770.1	2071.7	2674.6	3126.8	3132.0
110°	424.9	483.8	542.7	557.4	932.0	1431.5	1681.2	2018.3	2692.4	3197.9	3220.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	472.1	528.2	584.3	598.4	932.4	1377.7	1600.3	1945.3	2635.2	3152.6	3186.5
115°	543.2	594.9	646.7	659.6	940.9	1315.9	1503.4	1835.7	2500.3	2998.8	3045.9
117.5°	613.5	660.5	707.4	719.2	958.4	1277.2	1436.7	1736.6	2336.4	2786.3	2838.6
120°	654.4	698.6	742.8	753.9	972.6	1264.2	1410.0	1684.0	2232.1	2643.1	2693.9
122.5°	694.3	739.0	783.6	794.8	993.1	1257.4	1389.5	1636.3	2129.9	2500.0	2550.1
125°	755.7	796.4	837.2	847.3	1020.6	1251.8	1367.4	1577.0	1996.2	2310.7	2356.8
127.5°	805.5	846.6	887.7	898.0	1048.3	1248.5	1348.7	1528.7	1888.7	2158.6	2197.6
130°	832.2	876.5	920.6	931.7	1068.3	1250.4	1341.6	1501.8	1822.2	2062.6	2098.5
132.5°	859.7	904.0	948.2	959.3	1084.6	1251.8	1335.3	1478.7	1765.6	1980.8	2013.0
135°	900.6	940.9	981.2	991.3	1102.5	1250.6	1324.7	1444.8	1685.0	1865.3	1893.0
137.5°	942.4	982.3	1022.3	1032.2	1129.1	1258.3	1322.9	1424.4	1627.6	1779.9	1802.6
140°	977.0	1013.7	1050.5	1059.7	1145.4	1259.6	1316.7	1404.5	1579.9	1711.4	1732.7
142.5°	1003.7	1037.7	1071.7	1080.2	1159.1	1264.1	1316.7	1393.8	1547.9	1663.4	1681.7
145°	1044.6	1074.3	1103.9	1111.4	1176.8	1264.1	1307.8	1370.8	1496.9	1591.5	1605.3
147.5°	1085.5	1114.4	1143.3	1150.5	1202.9	1272.8	1307.8	1357.4	1456.6	1530.9	1542.4
150°	1112.2	1138.3	1164.4	1170.9	1216.5	1277.4	1307.8	1349.7	1433.4	1496.2	1505.5
152.5°	1139.7	1159.5	1179.2	1184.2	1225.4	1280.4	1307.8	1343.6	1415.1	1468.7	1475.7
155°	1180.7	1195.3	1209.9	1213.5	1245.0	1286.9	1307.8	1336.3	1393.2	1435.8	1440.5
157.5°	1210.9	1225.1	1239.4	1242.9	1264.5	1293.4	1307.8	1329.9	1374.2	1407.3	1410.6
160°	1231.3	1242.4	1253.5	1256.3	1273.5	1296.3	1307.8	1326.7	1364.7	1393.2	1395.1
162.5°	1251.8	1260.1	1268.3	1270.4	1282.9	1299.5	1307.8	1323.8	1355.8	1379.8	1381.6
165°	1274.1	1281.5	1289.0	1290.9	1296.5	1304.1	1307.8	1319.3	1342.1	1359.3	1361.2
167.5°	1294.4	1298.0	1301.6	1302.5	1307.2	1313.5	1316.7	1324.2	1339.2	1350.4	1351.2
170°	1307.8	1311.3	1315.0	1315.8	1316.1	1316.5	1316.7	1324.2	1339.2	1350.4	1350.4
172.5°	1314.9	1315.6	1316.5	1316.7	1316.7	1316.7	1316.7	1322.6	1334.5	1343.4	1342.7
175°	1324.7	1324.7	1324.7	1324.7	1322.1	1318.5	1316.7	1320.4	1328.0	1333.6	1333.6
177.5°	1324.7	1324.7	1324.7	1324.7	1322.6	1319.9	1318.5	1321.5	1327.4	1331.8	1331.0
180°	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7	1324.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	598.3	598.3
2.5°	638.6	634.8
5°	821.4	825.2
7.5°	1106.1	1104.2
10°	1375.4	1392.7
12.5°	1571.6	1575.4
15°	1690.9	1698.5
17.5°	1737.1	1739.0
20°	1739.0	1735.1
22.5°	1717.7	1713.9
25°	1692.8	1690.9
27.5°	1669.7	1671.7
30°	1660.1	1665.8
32.5°	1660.1	1669.7
35°	1663.9	1673.6
37.5°	1662.0	1673.6
40°	1654.3	1667.7
42.5°	1633.1	1642.8
45°	1600.4	1612.0
47.5°	1558.1	1565.8
50°	1504.3	1511.9
52.5°	1437.0	1438.9
55°	1356.2	1363.8
57.5°	1269.6	1271.5
60°	1173.4	1179.1
62.5°	1071.5	1071.5
65°	963.7	967.6
67.5°	852.2	861.7
70°	738.7	740.6
72.5°	627.1	627.1
75°	511.7	513.6
77.5°	402.0	402.0
80°	298.2	300.1
82.5°	205.8	209.7
85°	128.9	128.9
87.5°	59.7	53.8
90°	33.7	33.7
92.5°	135.4	108.5
95°	471.7	390.3
97.5°	1130.2	975.3
100°	1628.4	1443.8
102.5°	2118.4	1960.4
105°	2743.2	2658.3
107.5°	3152.5	3173.1
110°	3308.5	3397.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3322.5	3458.4
115°	3234.3	3422.9
117.5°	3047.5	3256.6
120°	2897.1	3100.1
122.5°	2750.4	2950.8
125°	2541.3	2725.8
127.5°	2353.3	2508.9
130°	2242.4	2386.3
132.5°	2141.8	2270.7
135°	2004.1	2115.1
137.5°	1893.5	1984.4
140°	1817.6	1902.5
142.5°	1754.8	1827.9
145°	1660.6	1715.8
147.5°	1588.2	1634.1
150°	1542.7	1579.9
152.5°	1503.8	1531.8
155°	1459.0	1477.6
157.5°	1423.7	1436.7
160°	1402.5	1410.0
162.5°	1388.7	1395.9
165°	1368.7	1376.3
167.5°	1354.5	1357.6
170°	1350.4	1350.4
172.5°	1339.9	1337.2
175°	1333.6	1333.6
177.5°	1327.9	1324.7
180°	1324.7	1324.7



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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	1.60	2.36	2.67	3.44	4.91	14.79	15.56	15.86	16.63	18.10
	3H	2.30	2.98	3.37	4.07	5.55	16.63	17.31	17.71	18.40	19.88
	4H	2.59	3.24	3.68	4.33	5.82	17.27	17.92	18.36	19.01	20.50
	6H	2.83	3.44	3.93	4.52	6.03	17.70	18.30	18.80	19.39	20.89
	8H	2.90	3.47	4.00	4.58	6.07	17.82	18.39	18.92	19.50	21.00
	12H	2.91	3.46	4.02	4.56	6.08	17.89	18.43	19.00	19.53	21.05
4H	2H	8.81	9.46	9.91	10.55	12.04	15.05	15.70	16.15	16.79	18.28
	3H	10.37	10.91	11.47	12.03	13.53	17.09	17.64	18.20	18.75	20.26
	4H	10.46	10.96	11.57	12.06	13.59	17.86	18.36	18.97	19.46	20.99
	6H	10.46	10.89	11.58	12.02	13.54	18.40	18.83	19.51	19.95	21.47
	8H	10.44	10.84	11.55	11.96	13.49	18.56	18.96	19.68	20.08	21.61
	12H	10.39	10.75	11.52	11.88	13.42	18.65	19.02	19.79	20.15	21.69
8H	4H	11.90	12.30	13.01	13.42	14.95	17.91	18.31	19.03	19.43	20.97
	6H	12.13	12.47	13.27	13.63	15.16	18.54	18.87	19.68	20.03	21.56
	8H	12.15	12.44	13.30	13.58	15.13	18.76	19.05	19.91	20.19	21.74
	12H	12.12	12.37	13.26	13.51	15.09	18.91	19.16	20.05	20.30	21.88
12H	4H	12.04	12.40	13.17	13.53	15.07	17.86	18.22	18.99	19.35	20.89
	6H	12.39	12.69	13.54	13.83	15.38	18.52	18.81	19.67	19.95	21.50
	8H	12.46	12.72	13.61	13.85	15.44	18.75	19.01	19.90	20.14	21.73