

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: P938607

Luminaire Tested: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P938607  
REPORT IS A COMBINATION OF REPORTS P933640 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

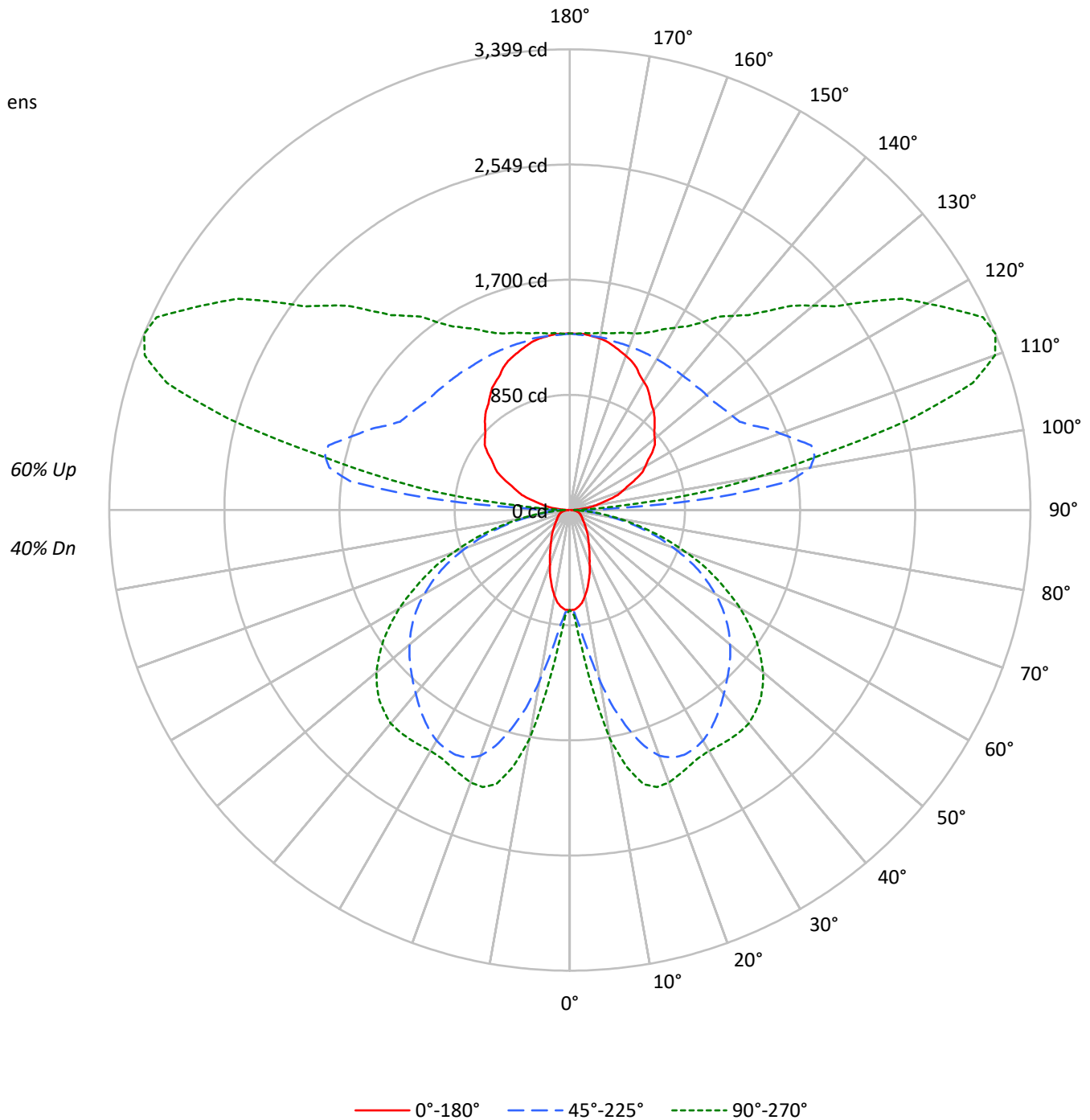
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14149.2 lumens  
Efficiency: N/A  
Efficacy: 113.4 lumens/watt  
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33  
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 6' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 124.8  
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

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

	0°	45°	90°
0°	4561	4561	4561
5°	4454	5270	6131
10°	4039	7681	10164
15°	3432	10033	12274
20°	2792	11623	12508
25°	2329	12160	12254
30°	1963	12234	12231
35°	1735	12027	12547
40°	1511	11760	12874
45°	1367	11563	12924
50°	1252	11385	12710
55°	1199	11127	12147
60°	1225	10634	11257
65°	1273	9885	10035
70°	1354	8615	8478
75°	1494	7019	6616
80°	1621	4862	4458
85°	1413	2574	2282

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12924 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	0.7
10°-20°	422.7	3.0
20°-30°	739.4	5.2
30°-40°	951.8	6.7
40°-50°	1063.1	7.5
50°-60°	1018.2	7.2
60°-70°	807.0	5.7
70°-80°	474.5	3.4
80°-90°	136.8	1.0
90°-100°	634.7	4.5
100°-110°	1668.5	11.8
110°-120°	1730.1	12.2
120°-130°	1387.7	9.8
130°-140°	1088.9	7.7
140°-150°	835.8	5.9
150°-160°	601.9	4.3
160°-170°	368.3	2.6
170°-180°	124.4	0.9
0°-30°	1257.5	8.9
0°-40°	2209.3	15.6
0°-60°	4290.6	30.3
0°-90°	5708.9	40.3
90°-120°	4033.3	28.5
90°-150°	7345.7	51.9
90°-180°	8440.0	59.7
0°-180°	14149.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	737	737	737	737	737	
5°	718	771	868	982	1017	66
15°	538	993	1674	2029	2094	150
25°	344	1126	1994	2082	2084	158
35°	232	1076	1878	1984	2063	145
45°	159	858	1660	1901	1987	123
55°	114	545	1408	1636	1681	104
65°	90	289	1046	1176	1192	89
75°	66	178	574	631	633	70
85°	24	54	142	156	159	25
90°	9	24	66	33	33	9
95°	84	329	1093	564	384	93
105°	301	455	1845	2801	2613	319
115°	534	648	1478	2947	3364	527
125°	743	833	1344	2271	2679	659
135°	885	974	1302	1833	2079	685
145°	1027	1092	1285	1564	1686	643
155°	1160	1193	1285	1411	1452	533
165°	1252	1269	1285	1336	1353	353
175°	1302	1302	1294	1311	1311	124
180°	1302	1302	1302	1302	1302	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3
2.5°	737.3	737.3	742.1	744.4	749.2	751.6	756.3	761.0	775.2	777.6	782.4
5°	718.3	727.9	758.7	770.6	803.7	848.7	867.7	898.5	962.6	981.5	993.4
7.5°	689.9	711.2	787.1	806.0	889.1	1007.6	1057.4	1123.8	1225.7	1275.5	1315.8
10°	644.8	689.9	825.0	870.1	1005.3	1185.4	1277.9	1370.4	1524.5	1593.2	1619.3
12.5°	595.1	668.6	865.4	927.0	1121.4	1384.6	1496.0	1597.9	1773.4	1865.9	1880.0
15°	538.2	637.7	903.3	993.4	1244.6	1550.5	1673.8	1799.4	1963.1	2029.4	2046.0
17.5°	488.4	614.0	938.9	1033.7	1339.5	1699.9	1825.5	1929.8	2062.6	2107.7	2119.5
20°	426.7	576.1	962.6	1085.9	1439.1	1809.0	1929.8	2010.4	2100.6	2129.0	2133.7
22.5°	381.7	535.8	976.8	1104.8	1505.5	1875.3	1977.3	2041.3	2102.9	2112.4	2114.8
25°	343.8	490.7	974.4	1126.1	1562.4	1915.6	1993.9	2041.3	2076.8	2081.6	2081.6
27.5°	308.2	440.9	964.9	1130.9	1605.1	1925.1	1986.7	2020.0	2036.5	2046.0	2046.0
30°	277.4	393.6	941.2	1121.4	1624.0	1915.6	1965.4	1982.0	1998.6	2012.9	2020.0
32.5°	253.7	348.5	905.6	1102.4	1626.4	1891.9	1927.5	1936.9	1960.7	1993.9	2005.7
35°	232.4	303.5	865.4	1076.3	1612.2	1854.0	1877.7	1887.1	1934.6	1984.4	2001.0
37.5°	211.0	270.3	813.2	1031.3	1590.8	1809.0	1825.5	1842.1	1915.6	1974.8	1993.9
40°	189.7	241.8	751.6	981.5	1557.6	1754.4	1768.6	1794.7	1891.9	1960.7	1979.6
42.5°	173.1	218.1	685.2	929.3	1514.9	1692.8	1714.1	1752.0	1863.4	1936.9	1958.3
45°	158.9	194.4	614.0	858.3	1460.4	1628.7	1659.5	1711.7	1830.3	1901.4	1920.4
47.5°	144.6	177.8	540.5	784.7	1401.2	1564.7	1605.1	1664.3	1785.2	1854.0	1870.6
50°	132.7	161.2	467.1	706.5	1337.1	1496.0	1543.4	1605.1	1728.4	1792.3	1813.6
52.5°	123.3	147.0	398.3	628.3	1263.6	1424.8	1479.4	1543.4	1659.5	1721.2	1735.5
55°	113.8	135.1	339.0	545.3	1187.8	1349.0	1408.3	1469.9	1583.7	1635.9	1645.3
57.5°	109.1	125.6	289.3	467.1	1107.2	1263.6	1330.0	1386.9	1493.7	1533.9	1543.4
60°	101.9	118.5	251.3	400.7	1019.5	1183.0	1240.0	1296.9	1386.9	1420.1	1427.2
62.5°	94.8	113.8	222.9	336.6	929.3	1088.2	1145.1	1197.3	1273.1	1296.9	1306.3
65°	90.1	109.1	201.6	289.3	836.9	988.6	1045.5	1090.5	1152.2	1175.9	1180.7
67.5°	85.4	104.3	184.9	248.9	744.4	889.1	931.8	974.4	1021.8	1045.5	1047.9
70°	78.3	99.6	170.7	220.5	649.6	775.2	810.8	855.8	893.8	905.6	912.8
72.5°	73.5	92.5	161.2	199.1	552.4	666.2	699.4	725.4	758.7	770.6	770.6
75°	66.4	82.9	151.8	177.8	452.8	545.3	573.8	599.8	625.9	630.6	623.5
77.5°	59.3	73.5	130.4	149.3	353.2	431.5	455.2	469.4	490.7	495.5	497.9
80°	49.8	64.0	101.9	116.2	256.0	317.7	334.3	346.1	365.1	365.1	369.9
82.5°	37.9	49.8	73.5	82.9	173.1	218.1	232.4	239.5	251.3	251.3	251.3
85°	23.7	30.8	47.4	54.5	104.3	132.7	142.2	144.6	154.1	156.4	156.4
87.5°	11.9	16.6	30.8	33.2	54.5	68.7	68.7	73.5	73.5	71.2	68.7
90°	8.8	15.8	22.7	24.5	38.5	57.1	66.4	59.0	44.3	33.3	33.3
92.5°	34.9	94.3	153.8	168.7	237.1	328.4	374.0	327.7	235.4	166.1	159.4
95°	83.9	192.6	301.4	328.6	583.5	923.3	1093.2	975.5	740.1	563.6	543.6
97.5°	145.1	241.0	336.9	360.9	785.9	1352.5	1635.8	1561.5	1412.7	1301.2	1263.0
100°	192.2	279.3	366.2	388.0	859.6	1488.3	1802.7	1808.1	1819.1	1827.2	1781.9
102.5°	232.5	313.6	394.8	415.1	893.4	1531.0	1849.9	1944.6	2134.1	2276.3	2237.4
105°	300.6	369.3	438.0	455.2	918.4	1535.9	1844.6	2057.0	2481.9	2800.6	2779.7
107.5°	370.5	434.6	498.7	514.6	923.0	1467.5	1739.8	2036.1	2628.7	3073.2	3078.3
110°	417.7	475.6	533.4	547.9	916.1	1406.9	1652.3	1983.6	2646.2	3143.1	3164.9



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	464.0	519.1	574.2	588.0	916.3	1354.0	1572.9	1911.9	2590.0	3098.5	3132.0
115°	533.9	584.8	635.7	648.4	924.8	1293.3	1477.6	1804.2	2457.4	2947.3	2993.7
117.5°	602.9	649.1	695.4	706.9	942.0	1255.4	1412.1	1706.9	2296.3	2738.5	2789.9
120°	643.2	686.7	730.2	741.0	955.9	1242.6	1385.9	1655.2	2193.9	2597.8	2647.7
122.5°	682.5	726.4	770.3	781.2	976.0	1235.9	1365.8	1608.3	2093.4	2457.2	2506.4
125°	742.7	782.7	822.8	832.8	1003.1	1230.4	1343.9	1550.0	1962.0	2271.0	2316.3
127.5°	791.7	832.0	872.4	882.5	1030.2	1227.1	1325.5	1502.4	1856.2	2121.6	2159.9
130°	817.9	861.4	905.0	915.8	1050.1	1229.1	1318.6	1476.1	1791.0	2027.2	2062.6
132.5°	845.0	888.5	932.0	942.9	1066.1	1230.4	1312.5	1453.4	1735.4	1946.8	1978.5
135°	885.2	924.8	964.4	974.3	1083.5	1229.1	1302.0	1420.1	1656.2	1833.3	1860.5
137.5°	926.2	965.5	1004.7	1014.5	1109.8	1236.7	1300.2	1400.1	1599.7	1749.4	1771.7
140°	960.3	996.5	1032.5	1041.6	1125.8	1238.0	1294.2	1380.4	1552.8	1682.1	1703.0
142.5°	986.5	1019.9	1053.4	1061.7	1139.2	1242.5	1294.2	1369.9	1521.3	1634.9	1652.8
145°	1026.7	1055.9	1085.0	1092.3	1156.7	1242.5	1285.4	1347.3	1471.2	1564.2	1577.7
147.5°	1066.9	1095.3	1123.6	1130.7	1182.3	1251.0	1285.4	1334.1	1431.5	1504.7	1516.0
150°	1093.2	1118.7	1144.3	1150.8	1195.6	1255.5	1285.4	1326.6	1408.8	1470.6	1479.7
152.5°	1120.2	1139.7	1159.1	1164.0	1204.4	1258.4	1285.4	1320.5	1390.8	1443.5	1450.4
155°	1160.4	1174.8	1189.2	1192.7	1223.6	1264.8	1285.4	1313.3	1369.2	1411.2	1415.8
157.5°	1190.1	1204.1	1218.1	1221.6	1242.9	1271.2	1285.4	1307.1	1350.7	1383.3	1386.4
160°	1210.3	1221.1	1231.9	1234.7	1251.6	1274.1	1285.4	1304.1	1341.3	1369.2	1371.1
162.5°	1230.4	1238.5	1246.6	1248.7	1260.9	1277.2	1285.4	1301.1	1332.5	1356.2	1357.9
165°	1252.2	1259.6	1266.9	1268.7	1274.3	1281.6	1285.4	1296.7	1319.2	1336.1	1338.0
167.5°	1272.3	1275.8	1279.3	1280.1	1284.8	1291.1	1294.2	1301.5	1316.3	1327.3	1328.1
170°	1285.4	1288.8	1292.4	1293.2	1293.5	1294.0	1294.2	1301.5	1316.3	1327.3	1327.3
172.5°	1292.4	1293.1	1294.0	1294.2	1294.2	1294.2	1294.2	1299.9	1311.6	1320.3	1319.6
175°	1302.0	1302.0	1302.0	1302.0	1299.4	1295.9	1294.2	1297.8	1305.2	1310.7	1310.7
177.5°	1302.0	1302.0	1302.0	1302.0	1299.9	1297.2	1295.8	1298.7	1304.6	1309.0	1308.3
180°	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0	1302.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	737.3	737.3
2.5°	787.1	782.4
5°	1012.4	1017.1
7.5°	1363.3	1360.8
10°	1695.1	1716.5
12.5°	1936.9	1941.7
15°	2083.9	2093.5
17.5°	2140.8	2143.2
20°	2143.2	2138.5
22.5°	2117.1	2112.4
25°	2086.3	2083.9
27.5°	2057.9	2060.2
30°	2046.0	2053.1
32.5°	2046.0	2057.9
35°	2050.8	2062.6
37.5°	2048.4	2062.6
40°	2038.9	2055.5
42.5°	2012.9	2024.7
45°	1972.5	1986.7
47.5°	1920.4	1929.8
50°	1854.0	1863.4
52.5°	1771.0	1773.4
55°	1671.4	1680.9
57.5°	1564.7	1567.1
60°	1446.2	1453.3
62.5°	1320.6	1320.6
65°	1187.8	1192.5
67.5°	1050.3	1062.1
70°	910.4	912.8
72.5°	772.9	772.9
75°	630.6	633.0
77.5°	495.5	495.5
80°	367.4	369.9
82.5°	253.7	258.4
85°	158.9	158.9
87.5°	73.5	66.4
90°	33.3	33.3
92.5°	133.0	106.6
95°	463.5	383.6
97.5°	1110.8	958.6
100°	1600.5	1419.1
102.5°	2082.1	1926.7
105°	2696.2	2612.7
107.5°	3098.5	3118.6
110°	3251.8	3338.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3265.5	3399.1
115°	3178.9	3364.2
117.5°	2995.3	3200.8
120°	2847.4	3047.0
122.5°	2703.3	2900.2
125°	2497.7	2679.1
127.5°	2312.9	2465.9
130°	2204.0	2345.3
132.5°	2105.0	2231.7
135°	1969.7	2078.8
137.5°	1861.1	1950.4
140°	1786.5	1870.0
142.5°	1724.7	1796.5
145°	1632.1	1686.4
147.5°	1561.0	1606.1
150°	1516.3	1552.8
152.5°	1478.0	1505.6
155°	1434.0	1452.3
157.5°	1399.3	1412.1
160°	1378.5	1385.9
162.5°	1364.9	1371.9
165°	1345.2	1352.6
167.5°	1331.2	1334.3
170°	1327.3	1327.3
172.5°	1316.9	1314.2
175°	1310.7	1310.7
177.5°	1305.1	1302.0
180°	1302.0	1302.0



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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	5.32	6.13	6.35	7.17	8.57	18.49	19.30	19.51	20.34	21.74
	3H	6.02	6.75	7.06	7.80	9.22	20.32	21.04	21.36	22.09	23.51
	4H	6.32	7.01	7.37	8.06	9.49	20.96	21.65	22.01	22.70	24.12
	6H	6.57	7.20	7.63	8.26	9.70	21.38	22.02	22.44	23.07	24.51
	8H	6.63	7.24	7.70	8.31	9.75	21.50	22.10	22.56	23.18	24.61
	12H	6.65	7.23	7.72	8.29	9.75	21.56	22.14	22.63	23.20	24.66
4H	2H	12.52	13.21	13.58	14.26	15.69	18.75	19.45	19.81	20.50	21.92
	3H	14.09	14.66	15.15	15.74	17.18	20.79	21.37	21.86	22.45	23.89
	4H	14.18	14.71	15.25	15.78	17.24	21.55	22.08	22.62	23.15	24.61
	6H	14.19	14.64	15.27	15.74	17.19	22.08	22.54	23.16	23.63	25.09
	8H	14.16	14.59	15.24	15.67	17.15	22.24	22.67	23.32	23.75	25.23
	12H	14.12	14.50	15.22	15.60	17.08	22.33	22.72	23.43	23.82	25.29
8H	4H	15.62	16.04	16.70	17.13	18.60	21.61	22.03	22.69	23.12	24.59
	6H	15.85	16.21	16.96	17.34	18.80	22.23	22.58	23.33	23.71	25.18
	8H	15.87	16.18	16.98	17.29	18.78	22.45	22.76	23.56	23.87	25.35
	12H	15.84	16.11	16.95	17.22	18.74	22.59	22.86	23.70	23.96	25.49
12H	4H	15.75	16.14	16.85	17.24	18.72	21.56	21.94	22.66	23.04	24.52
	6H	16.11	16.42	17.22	17.53	19.02	22.21	22.52	23.32	23.63	25.12
	8H	16.18	16.45	17.29	17.56	19.08	22.44	22.71	23.55	23.82	25.34