

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: P938511

Luminaire Tested: SQ4-FB-150U-125D-830-1D-UNV-STD-W-6

Issue Date: 12/17/2024

**Test Information**

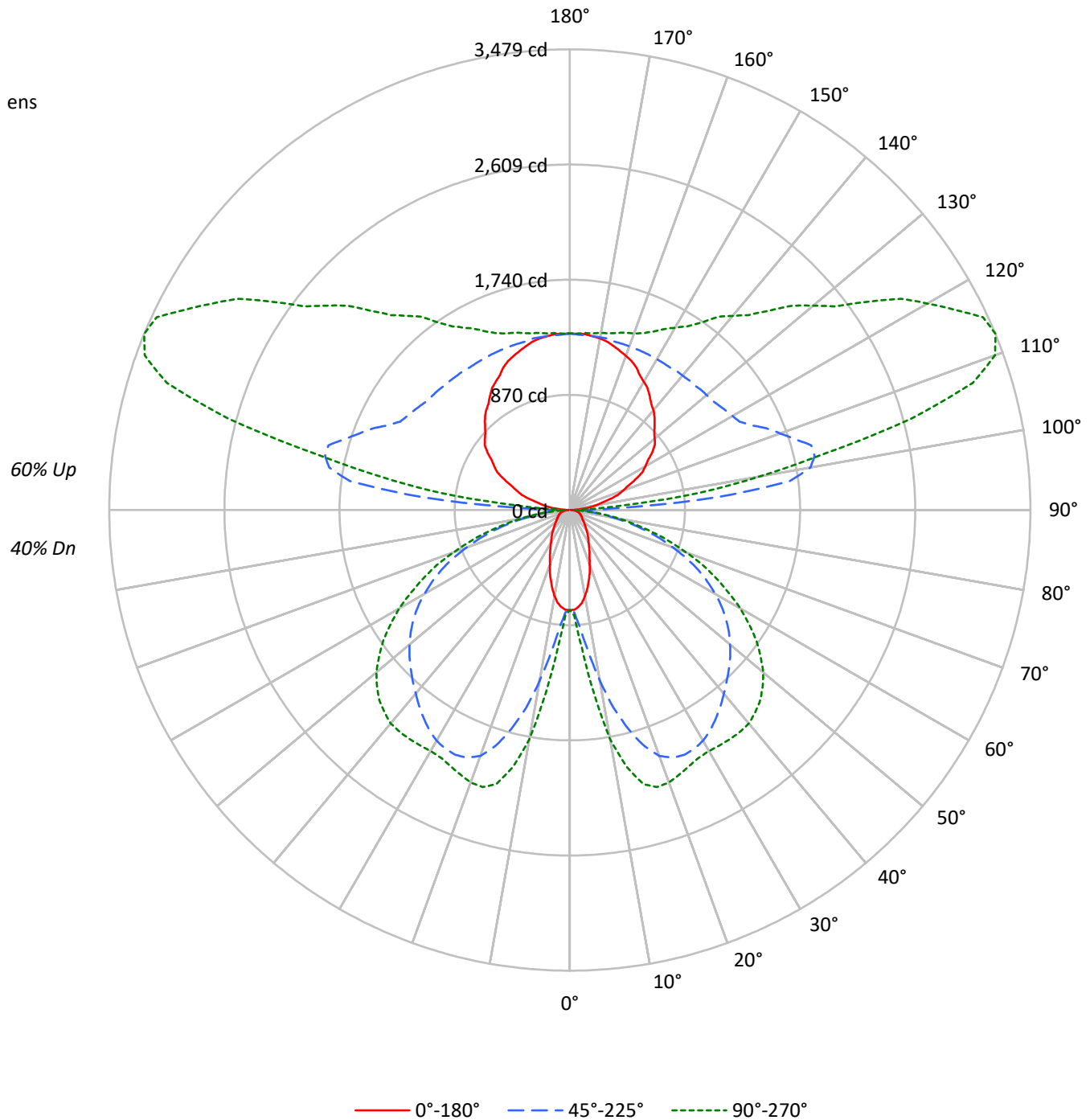
Test Method: LM-79-2019  
Report Number: P938511  
REPORT IS A COMBINATION OF REPORTS P933640 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-830-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14482.4 lumens  
Efficiency: N/A  
Efficacy: 116.0 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°	4669	4669	4669
5°	4559	5394	6276
10°	4134	7862	10404
15°	3512	10269	12563
20°	2858	11897	12803
25°	2383	12447	12542
30°	2009	12522	12519
35°	1776	12311	12843
40°	1547	12037	13177
45°	1399	11835	13229
50°	1281	11654	13010
55°	1226	11389	12433
60°	1254	10884	11522
65°	1304	10118	10271
70°	1385	8818	8678
75°	1530	7184	6771
80°	1660	4977	4563
85°	1449	2635	2336

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13229 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.6	0.7
10°-20°	432.7	3.0
20°-30°	756.8	5.2
30°-40°	974.2	6.7
40°-50°	1088.2	7.5
50°-60°	1042.2	7.2
60°-70°	826.0	5.7
70°-80°	485.7	3.4
80°-90°	140.0	1.0
90°-100°	649.6	4.5
100°-110°	1707.8	11.8
110°-120°	1770.8	12.2
120°-130°	1420.4	9.8
130°-140°	1114.5	7.7
140°-150°	855.5	5.9
150°-160°	616.1	4.3
160°-170°	376.9	2.6
170°-180°	127.4	0.9
0°-30°	1287.1	8.9
0°-40°	2261.3	15.6
0°-60°	4391.7	30.3
0°-90°	5843.4	40.3
90°-120°	4128.3	28.5
90°-150°	7518.7	51.9
90°-180°	8639.0	59.7
0°-180°	14482.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	755	755	755	755	755	
5°	735	789	888	1005	1041	68
15°	551	1017	1713	2077	2143	153
25°	352	1153	2041	2131	2133	162
35°	238	1102	1922	2031	2111	149
45°	163	878	1699	1946	2034	126
55°	116	558	1442	1674	1720	106
65°	92	296	1070	1204	1221	91
75°	68	182	587	646	648	71
85°	24	56	146	160	163	26
90°	9	25	68	34	34	9
95°	86	336	1119	577	393	95
105°	308	466	1888	2867	2674	326
115°	546	664	1512	3017	3443	540
125°	760	852	1376	2324	2742	675
135°	906	997	1333	1876	2128	701
145°	1051	1118	1316	1601	1726	658
155°	1188	1221	1316	1444	1486	546
165°	1282	1299	1316	1368	1384	362
175°	1333	1333	1325	1342	1342	127
180°	1333	1333	1333	1333	1333	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	754.7	754.7	754.7	754.7	754.7	754.7	754.7	754.7	754.7	754.7	754.7
2.5°	754.7	754.7	759.5	761.9	766.8	769.3	774.1	778.9	793.5	796.0	800.8
5°	735.3	745.0	776.6	788.7	822.6	868.7	888.1	919.7	985.3	1004.7	1016.8
7.5°	706.2	728.0	805.6	825.0	910.0	1031.3	1082.3	1150.3	1254.6	1305.5	1346.8
10°	660.0	706.2	844.4	890.6	1028.9	1213.4	1308.0	1402.6	1560.4	1630.7	1657.4
12.5°	609.1	684.3	885.7	948.8	1147.8	1417.2	1531.2	1635.5	1815.2	1909.8	1924.3
15°	550.8	652.8	924.5	1016.8	1274.0	1587.1	1713.2	1841.8	2009.3	2077.2	2094.2
17.5°	499.9	628.5	961.0	1058.0	1371.1	1739.9	1868.5	1975.3	2111.2	2157.3	2169.5
20°	436.8	589.7	985.3	1111.4	1473.0	1851.6	1975.3	2057.8	2150.0	2179.1	2184.0
22.5°	390.7	548.5	999.8	1130.9	1541.0	1919.5	2023.9	2089.3	2152.4	2162.2	2164.6
25°	351.9	502.3	997.4	1152.6	1599.2	1960.8	2040.9	2089.3	2125.8	2130.6	2130.6
27.5°	315.5	451.3	987.6	1157.5	1642.9	1970.4	2033.5	2067.5	2084.5	2094.2	2094.2
30°	283.9	402.9	963.4	1147.8	1662.3	1960.8	2011.7	2028.7	2045.6	2060.3	2067.5
32.5°	259.6	356.7	926.9	1128.4	1664.7	1936.5	1972.9	1982.6	2006.8	2040.9	2052.9
35°	237.9	310.6	885.7	1101.7	1650.2	1897.7	1921.9	1931.6	1980.2	2031.1	2048.1
37.5°	216.0	276.7	832.4	1055.6	1628.3	1851.6	1868.5	1885.5	1960.8	2021.4	2040.9
40°	194.2	247.5	769.3	1004.7	1594.3	1795.8	1810.3	1837.0	1936.5	2006.8	2026.2
42.5°	177.1	223.2	701.3	951.2	1550.6	1732.7	1754.5	1793.3	1907.3	1982.6	2004.4
45°	162.6	198.9	628.5	878.5	1494.8	1667.1	1698.6	1752.1	1873.4	1946.2	1965.6
47.5°	148.0	182.0	553.2	803.2	1434.2	1601.6	1642.9	1703.5	1827.3	1897.7	1914.7
50°	135.8	165.0	478.1	723.1	1368.6	1531.2	1579.8	1642.9	1769.1	1834.6	1856.4
52.5°	126.2	150.5	407.6	643.1	1293.4	1458.4	1514.2	1579.8	1698.6	1761.7	1776.3
55°	116.4	138.3	347.0	558.1	1215.7	1380.8	1441.5	1504.6	1621.0	1674.4	1684.1
57.5°	111.7	128.6	296.1	478.1	1133.2	1293.4	1361.3	1419.6	1528.8	1570.0	1579.8
60°	104.3	121.3	257.3	410.1	1043.5	1210.9	1269.2	1327.4	1419.6	1453.6	1460.9
62.5°	97.0	116.4	228.1	344.5	951.2	1113.8	1172.1	1225.5	1303.1	1327.4	1337.1
65°	92.3	111.7	206.3	296.1	856.6	1011.9	1070.1	1116.2	1179.3	1203.6	1208.5
67.5°	87.4	106.8	189.3	254.8	761.9	910.0	953.7	997.4	1045.9	1070.1	1072.6
70°	80.1	101.9	174.8	225.7	664.9	793.5	829.9	876.0	914.9	926.9	934.3
72.5°	75.2	94.6	165.0	203.8	565.4	681.9	715.9	742.5	776.6	788.7	788.7
75°	68.0	84.9	155.4	182.0	463.5	558.1	587.3	613.9	640.6	645.5	638.2
77.5°	60.7	75.2	133.5	152.9	361.6	441.7	466.0	480.5	502.3	507.2	509.6
80°	51.0	65.5	104.3	118.9	262.0	325.1	342.2	354.3	373.7	373.7	378.6
82.5°	38.8	51.0	75.2	84.9	177.1	223.2	237.9	245.1	257.3	257.3	257.3
85°	24.3	31.5	48.6	55.8	106.8	135.8	145.6	148.0	157.7	160.1	160.1
87.5°	12.1	17.0	31.5	33.9	55.8	70.4	70.4	75.2	75.2	72.8	70.4
90°	9.0	16.2	23.2	25.0	39.4	58.4	68.0	60.4	45.3	34.0	34.0
92.5°	35.8	96.6	157.5	172.7	242.7	336.1	382.8	335.5	240.9	170.0	163.2
95°	85.8	197.1	308.5	336.3	597.2	945.0	1118.9	998.4	757.5	576.9	556.4
97.5°	148.5	246.6	344.8	369.4	804.4	1384.4	1674.3	1598.2	1446.0	1331.8	1292.8
100°	196.7	285.8	374.8	397.1	879.8	1523.4	1845.2	1850.7	1861.9	1870.2	1823.9
102.5°	237.9	321.0	404.1	424.8	914.4	1567.1	1893.5	1990.4	2184.4	2329.9	2290.1
105°	307.6	378.0	448.4	466.0	940.0	1572.0	1888.1	2105.5	2540.4	2866.6	2845.2
107.5°	379.2	444.8	510.4	526.8	944.7	1502.1	1780.7	2084.1	2690.7	3145.6	3150.8
110°	427.5	486.8	546.0	560.8	937.6	1440.0	1691.3	2030.4	2708.5	3217.1	3239.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	474.9	531.3	587.7	601.9	937.9	1385.9	1609.9	1956.9	2651.0	3171.5	3205.8
115°	546.4	598.6	650.7	663.7	946.5	1323.8	1512.4	1846.7	2515.3	3016.8	3064.2
117.5°	617.1	664.4	711.7	723.6	964.2	1285.0	1445.4	1747.1	2350.4	2803.0	2855.6
120°	658.3	702.9	747.4	758.5	978.5	1271.9	1418.5	1694.2	2245.5	2659.0	2710.1
122.5°	698.5	743.5	788.4	799.6	999.0	1265.0	1398.0	1646.2	2142.7	2515.0	2565.4
125°	760.2	801.1	842.1	852.4	1026.7	1259.3	1375.6	1586.5	2008.2	2324.5	2370.9
127.5°	810.3	851.6	893.0	903.3	1054.5	1256.0	1356.8	1537.8	1900.0	2171.6	2210.8
130°	837.2	881.7	926.3	937.4	1074.8	1258.1	1349.7	1510.9	1833.2	2075.0	2111.1
132.5°	864.9	909.4	954.0	965.1	1091.2	1259.3	1343.4	1487.6	1776.2	1992.7	2025.1
135°	906.0	946.5	987.2	997.3	1109.1	1258.1	1332.7	1453.5	1695.2	1876.4	1904.4
137.5°	948.1	988.2	1028.4	1038.4	1135.9	1265.8	1330.8	1433.0	1637.3	1790.6	1813.4
140°	983.0	1020.0	1056.9	1066.1	1152.3	1267.2	1324.6	1412.9	1589.4	1721.8	1743.1
142.5°	1009.7	1044.0	1078.2	1086.7	1166.0	1271.8	1324.6	1402.2	1557.1	1673.4	1691.7
145°	1050.9	1080.8	1110.6	1118.0	1183.9	1271.8	1315.6	1379.0	1505.9	1601.0	1614.9
147.5°	1092.0	1121.1	1150.1	1157.3	1210.1	1280.5	1315.6	1365.6	1465.3	1540.1	1551.7
150°	1118.9	1145.1	1171.3	1177.9	1223.8	1285.1	1315.6	1357.8	1442.0	1505.2	1514.6
152.5°	1146.6	1166.5	1186.4	1191.4	1232.8	1288.0	1315.6	1351.6	1423.6	1477.5	1484.6
155°	1187.7	1202.5	1217.2	1220.8	1252.5	1294.6	1315.6	1344.2	1401.5	1444.4	1449.1
157.5°	1218.1	1232.5	1246.8	1250.4	1272.1	1301.1	1315.6	1337.9	1382.5	1415.8	1419.1
160°	1238.8	1249.9	1261.0	1263.7	1281.0	1304.1	1315.6	1334.8	1372.9	1401.5	1403.4
162.5°	1259.3	1267.7	1276.0	1278.1	1290.6	1307.3	1315.6	1331.7	1363.9	1388.1	1389.9
165°	1281.7	1289.3	1296.7	1298.6	1304.3	1311.8	1315.6	1327.2	1350.3	1367.6	1369.5
167.5°	1302.3	1305.8	1309.4	1310.3	1315.1	1321.5	1324.6	1332.2	1347.3	1358.6	1359.3
170°	1315.6	1319.2	1322.8	1323.7	1324.0	1324.4	1324.6	1332.2	1347.3	1358.6	1358.6
172.5°	1322.8	1323.6	1324.4	1324.6	1324.6	1324.6	1324.6	1330.6	1342.5	1351.4	1350.7
175°	1332.7	1332.7	1332.7	1332.7	1330.0	1326.4	1324.6	1328.4	1335.9	1341.6	1341.6
177.5°	1332.7	1332.7	1332.7	1332.7	1330.6	1327.8	1326.4	1329.3	1335.3	1339.8	1339.1
180°	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7	1332.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	754.7	754.7
2.5°	805.6	800.8
5°	1036.2	1041.1
7.5°	1395.4	1392.9
10°	1735.0	1756.9
12.5°	1982.6	1987.4
15°	2133.0	2142.8
17.5°	2191.2	2193.7
20°	2193.7	2188.9
22.5°	2167.0	2162.2
25°	2135.4	2133.0
27.5°	2106.4	2108.7
30°	2094.2	2101.5
32.5°	2094.2	2106.4
35°	2099.1	2111.2
37.5°	2096.6	2111.2
40°	2086.9	2103.9
42.5°	2060.3	2072.4
45°	2019.0	2033.5
47.5°	1965.6	1975.3
50°	1897.7	1907.3
52.5°	1812.7	1815.2
55°	1710.8	1720.5
57.5°	1601.6	1604.0
60°	1480.3	1487.5
62.5°	1351.7	1351.7
65°	1215.7	1220.6
67.5°	1075.0	1087.2
70°	931.8	934.3
72.5°	791.1	791.1
75°	645.5	647.9
77.5°	507.2	507.2
80°	376.1	378.6
82.5°	259.6	264.5
85°	162.6	162.6
87.5°	75.2	68.0
90°	34.0	34.0
92.5°	136.1	109.1
95°	474.5	392.6
97.5°	1137.0	981.1
100°	1638.2	1452.5
102.5°	2131.1	1972.1
105°	2759.7	2674.2
107.5°	3171.4	3192.1
110°	3328.4	3417.5





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3342.5	3479.2
115°	3253.7	3443.4
117.5°	3065.9	3276.2
120°	2914.5	3118.8
122.5°	2767.0	2968.5
125°	2556.5	2742.2
127.5°	2367.3	2524.0
130°	2255.9	2400.5
132.5°	2154.6	2284.3
135°	2016.1	2127.8
137.5°	1904.9	1996.3
140°	1828.5	1914.0
142.5°	1765.3	1838.9
145°	1670.5	1726.2
147.5°	1597.8	1643.9
150°	1552.0	1589.4
152.5°	1512.8	1541.1
155°	1467.7	1486.5
157.5°	1432.3	1445.4
160°	1411.0	1418.5
162.5°	1397.0	1404.2
165°	1376.9	1384.5
167.5°	1362.6	1365.7
170°	1358.6	1358.6
172.5°	1348.0	1345.2
175°	1341.6	1341.6
177.5°	1335.8	1332.7
180°	1332.7	1332.7



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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	5.40	6.21	6.43	7.25	8.65	18.57	19.38	19.60	20.42	21.82
	3H	6.11	6.83	7.14	7.88	9.30	20.40	21.13	21.44	22.17	23.59
	4H	6.40	7.09	7.45	8.14	9.57	21.04	21.73	22.09	22.78	24.21
	6H	6.65	7.28	7.71	8.34	9.78	21.46	22.10	22.52	23.15	24.59
	8H	6.71	7.32	7.78	8.39	9.83	21.58	22.18	22.64	23.26	24.69
	12H	6.73	7.31	7.80	8.37	9.83	21.64	22.22	22.71	23.28	24.74
4H	2H	12.60	13.29	13.66	14.34	15.77	18.84	19.53	19.89	20.58	22.00
	3H	14.17	14.74	15.23	15.82	17.26	20.87	21.45	21.94	22.53	23.97
	4H	14.26	14.79	15.33	15.86	17.32	21.63	22.16	22.70	23.23	24.69
	6H	14.27	14.72	15.35	15.82	17.27	22.16	22.62	23.25	23.71	25.17
	8H	14.24	14.67	15.32	15.75	17.23	22.32	22.75	23.40	23.84	25.31
	12H	14.20	14.58	15.30	15.68	17.16	22.41	22.80	23.51	23.90	25.37
8H	4H	15.70	16.12	16.78	17.21	18.68	21.69	22.12	22.77	23.20	24.67
	6H	15.94	16.29	17.04	17.42	18.88	22.31	22.66	23.42	23.79	25.26
	8H	15.95	16.26	17.06	17.37	18.86	22.53	22.84	23.64	23.95	25.44
	12H	15.92	16.19	17.03	17.30	18.82	22.67	22.94	23.78	24.05	25.57
12H	4H	15.84	16.22	16.94	17.32	18.80	21.64	22.03	22.74	23.12	24.60
	6H	16.19	16.50	17.30	17.61	19.10	22.29	22.60	23.41	23.71	25.20
	8H	16.26	16.53	17.37	17.64	19.16	22.52	22.79	23.63	23.90	25.42