

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: P937255

Luminaire Tested: SQ4-FB-075U-100D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

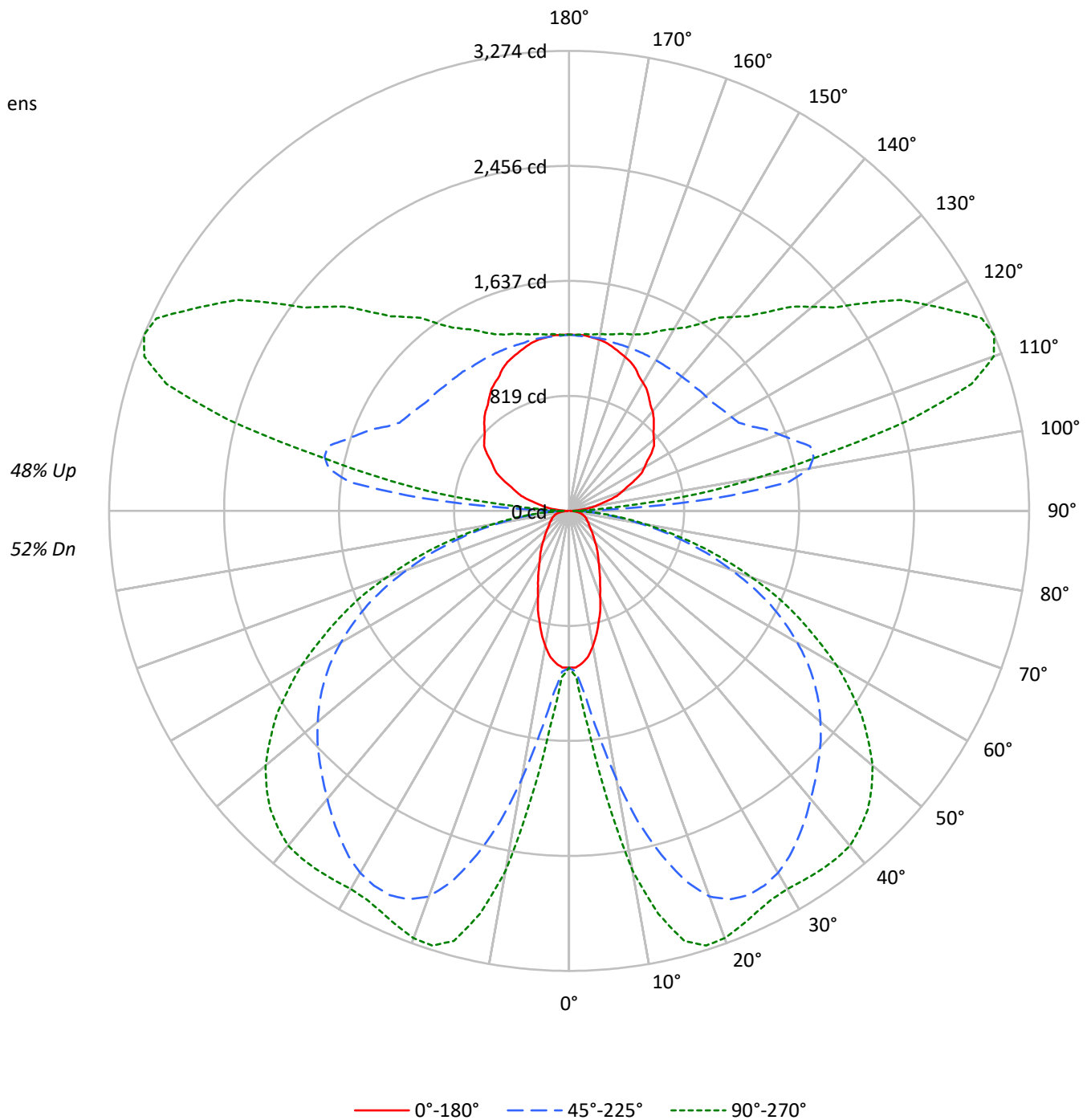
Test Method: LM-79-2019  
Report Number: P937255  
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-93050-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16767.2 lumens  
Efficiency: N/A  
Efficacy: 109.2 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: General Diffuse  
  
Input Watts (W): 153.6  
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	0
RCR																		
0	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	10

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

	0°	45°	90°
0°	3451	3451	3451
5°	3373	3990	4639
10°	3061	5818	7691
15°	2602	7602	9287
20°	2119	8812	9464
25°	1768	9223	9272
30°	1492	9284	9254
35°	1320	9132	9494
40°	1151	8934	9741
45°	1043	8790	9779
50°	957	8661	9617
55°	918	8471	9191
60°	940	8103	8518
65°	980	7541	7593
70°	1047	6581	6415
75°	1165	5370	5006
80°	1281	3729	3373
85°	1160	1981	1727

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9779 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.3	0.9
10°-20°	639.7	3.8
20°-30°	1118.9	6.7
30°-40°	1440.3	8.6
40°-50°	1608.8	9.6
50°-60°	1540.9	9.2
60°-70°	1221.1	7.3
70°-80°	718.1	4.3
80°-90°	204.3	1.2
90°-100°	611.4	3.6
100°-110°	1607.4	9.6
110°-120°	1666.7	9.9
120°-130°	1336.9	8.0
130°-140°	1049.0	6.3
140°-150°	805.1	4.8
150°-160°	579.8	3.5
160°-170°	354.8	2.1
170°-180°	119.9	0.7
0°-30°	1902.9	11.3
0°-40°	3343.2	19.9
0°-60°	6492.9	38.7
0°-90°	8636.4	51.5
90°-120°	3885.4	23.2
90°-150°	7076.4	42.2
90°-180°	8131.0	48.5
0°-180°	16767.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1116	1116	1116	1116	1116	
5°	1087	1166	1313	1485	1539	100
15°	814	1503	2533	3071	3168	227
25°	520	1704	3017	3150	3154	240
35°	352	1629	2842	3003	3121	220
45°	240	1299	2511	2877	3006	186
55°	172	825	2131	2476	2544	157
65°	136	438	1582	1780	1805	135
75°	100	269	868	954	958	105
85°	36	83	215	237	240	38
90°	8	24	64	32	32	9
95°	81	316	1053	543	370	90
105°	290	439	1777	2698	2517	307
115°	514	625	1424	2839	3241	508
125°	716	802	1295	2188	2581	635
135°	853	939	1254	1766	2003	660
145°	989	1052	1238	1507	1625	620
155°	1118	1149	1238	1360	1399	514
165°	1206	1222	1238	1287	1303	340
175°	1254	1254	1247	1263	1263	119
180°	1254	1254	1254	1254	1254	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1115.8	1115.8	1122.9	1126.6	1133.7	1137.3	1144.5	1151.6	1173.2	1176.8	1184.0
5°	1087.1	1101.4	1148.1	1166.0	1216.3	1284.4	1313.1	1359.7	1456.6	1485.3	1503.2
7.5°	1044.0	1076.3	1191.1	1219.8	1345.3	1524.7	1600.1	1700.5	1854.9	1930.2	1991.2
10°	975.9	1044.0	1248.5	1316.6	1521.2	1793.8	1933.8	2073.7	2306.9	2410.9	2450.4
12.5°	900.5	1011.7	1309.5	1402.8	1697.0	2095.2	2263.8	2418.1	2683.6	2823.6	2845.0
15°	814.4	965.1	1366.9	1503.2	1883.5	2346.4	2532.9	2723.1	2970.6	3071.0	3096.2
17.5°	739.1	929.2	1420.7	1564.2	2027.0	2572.4	2762.6	2920.4	3121.3	3189.4	3207.4
20°	645.7	871.9	1456.6	1643.1	2177.7	2737.4	2920.4	3042.3	3178.7	3221.7	3228.9
22.5°	577.6	810.8	1478.1	1671.8	2278.2	2837.9	2992.1	3089.0	3182.3	3196.7	3200.2
25°	520.2	742.7	1474.5	1704.1	2364.3	2898.9	3017.3	3089.0	3142.8	3150.0	3150.0
27.5°	466.4	667.3	1460.2	1711.3	2428.9	2913.2	3006.5	3056.7	3081.8	3096.2	3096.2
30°	419.7	595.6	1424.3	1697.0	2457.6	2898.9	2974.2	2999.3	3024.4	3046.0	3056.7
32.5°	383.9	527.3	1370.5	1668.3	2461.1	2863.0	2916.8	2931.2	2967.0	3017.3	3035.2
35°	351.6	459.2	1309.5	1628.8	2439.6	2805.5	2841.5	2855.8	2927.6	3002.9	3028.0
37.5°	319.3	409.0	1230.6	1560.7	2407.4	2737.4	2762.6	2787.6	2898.9	2988.6	3017.3
40°	287.0	366.0	1137.3	1485.3	2357.1	2654.9	2676.4	2715.8	2863.0	2967.0	2995.7
42.5°	261.9	330.1	1036.9	1406.3	2292.5	2561.6	2593.9	2651.3	2819.9	2931.2	2963.4
45°	240.4	294.2	929.2	1298.7	2210.0	2464.8	2511.4	2590.3	2769.7	2877.3	2906.0
47.5°	218.9	269.1	818.0	1187.6	2120.3	2367.9	2428.9	2518.5	2701.5	2805.5	2830.7
50°	200.9	243.9	706.7	1069.2	2023.5	2263.8	2335.6	2428.9	2615.5	2712.3	2744.6
52.5°	186.6	222.4	602.7	950.8	1912.2	2156.2	2238.7	2335.6	2511.4	2604.7	2626.2
55°	172.3	204.5	513.0	825.1	1797.5	2041.4	2131.1	2224.3	2396.6	2475.5	2489.8
57.5°	165.0	190.2	437.7	706.7	1675.5	1912.2	2012.7	2098.8	2260.3	2321.2	2335.6
60°	154.2	179.4	380.3	606.3	1542.7	1790.2	1876.4	1962.5	2098.8	2149.0	2159.8
62.5°	143.5	172.3	337.3	509.4	1406.3	1646.8	1732.8	1811.8	1926.6	1962.5	1976.8
65°	136.3	165.0	304.9	437.7	1266.5	1496.1	1582.1	1650.4	1743.6	1779.5	1786.7
67.5°	129.2	157.9	279.9	376.7	1126.6	1345.3	1410.0	1474.5	1546.3	1582.1	1585.8
70°	118.4	150.7	258.3	333.6	983.0	1173.2	1227.0	1295.2	1352.6	1370.5	1381.3
72.5°	111.2	139.9	243.9	301.3	835.9	1008.2	1058.4	1097.9	1148.1	1166.0	1166.0
75°	100.5	125.5	229.6	269.1	685.2	825.1	868.2	907.7	947.2	954.3	943.5
77.5°	89.7	111.2	197.3	226.0	534.6	653.0	688.8	710.4	742.7	749.8	753.5
80°	75.3	96.9	154.2	175.8	387.5	480.7	505.9	523.8	552.5	552.5	559.7
82.5°	57.4	75.3	111.2	125.5	261.9	330.1	351.6	362.3	380.3	380.3	380.3
85°	35.8	46.6	71.8	82.6	157.9	200.9	215.2	218.9	233.2	236.8	236.8
87.5°	17.9	25.1	46.6	50.2	82.6	104.0	104.0	111.2	111.2	107.6	104.0
90°	8.4	15.1	21.8	23.5	37.0	55.0	64.0	56.8	42.6	32.0	32.0
92.5°	33.7	90.9	148.2	162.5	228.4	316.3	360.3	315.7	226.7	159.9	153.6
95°	80.8	185.6	290.4	316.5	562.0	889.4	1053.1	939.7	713.0	542.9	523.6
97.5°	139.8	232.2	324.6	347.7	757.1	1302.9	1575.8	1504.1	1360.8	1253.4	1216.7
100°	185.2	269.0	352.8	373.7	828.0	1433.7	1736.6	1741.8	1752.3	1760.2	1716.5
102.5°	223.9	302.1	380.3	399.8	860.5	1474.9	1782.1	1873.3	2055.9	2192.8	2155.5
105°	289.6	355.8	422.0	438.6	884.7	1479.6	1777.0	1981.7	2391.0	2697.9	2677.8
107.5°	356.9	418.6	480.4	495.8	889.2	1413.8	1676.0	1961.5	2532.4	2960.5	2965.4
110°	402.3	458.1	513.9	527.8	882.4	1355.4	1591.8	1911.0	2549.2	3027.9	3048.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	447.0	500.1	553.2	566.5	882.8	1304.4	1515.2	1841.8	2495.1	2984.9	3017.1
115°	514.3	563.3	612.3	624.6	890.9	1246.0	1423.5	1738.1	2367.4	2839.3	2883.9
117.5°	580.8	625.4	669.8	681.0	907.4	1209.3	1360.3	1644.2	2212.1	2638.1	2687.6
120°	619.6	661.5	703.3	713.8	920.9	1197.0	1335.0	1594.4	2113.4	2502.6	2550.7
122.5°	657.4	699.7	742.0	752.6	940.3	1190.6	1315.7	1549.3	2016.6	2367.1	2414.5
125°	715.5	754.1	792.6	802.2	966.3	1185.2	1294.7	1493.2	1890.1	2187.8	2231.5
127.5°	762.7	801.6	840.5	850.2	992.5	1182.1	1277.0	1447.4	1788.2	2043.9	2080.7
130°	787.9	829.9	871.7	882.2	1011.5	1184.0	1270.2	1421.9	1725.3	1952.9	1986.9
132.5°	814.0	855.9	897.7	908.2	1026.9	1185.2	1264.3	1400.1	1671.7	1875.5	1906.0
135°	852.8	890.9	929.1	938.6	1043.8	1184.1	1254.3	1368.0	1595.4	1766.1	1792.3
137.5°	892.3	930.1	967.9	977.3	1069.1	1191.4	1252.6	1348.7	1541.0	1685.2	1706.8
140°	925.1	959.8	994.7	1003.4	1084.5	1192.6	1246.7	1329.8	1495.9	1620.4	1640.5
142.5°	950.3	982.6	1014.7	1022.7	1097.4	1196.9	1246.7	1319.6	1465.5	1575.0	1592.3
145°	989.1	1017.1	1045.2	1052.2	1114.3	1196.9	1238.3	1297.9	1417.3	1506.8	1519.9
147.5°	1027.8	1055.1	1082.5	1089.3	1139.0	1205.1	1238.3	1285.2	1379.1	1449.5	1460.4
150°	1053.1	1077.8	1102.5	1108.6	1151.8	1209.5	1238.3	1277.9	1357.2	1416.7	1425.4
152.5°	1079.1	1097.9	1116.5	1121.2	1160.2	1212.3	1238.3	1272.1	1339.8	1390.6	1397.2
155°	1117.9	1131.7	1145.6	1149.0	1178.8	1218.4	1238.3	1265.2	1319.1	1359.5	1363.9
157.5°	1146.5	1160.0	1173.5	1176.8	1197.3	1224.6	1238.3	1259.2	1301.1	1332.5	1335.6
160°	1165.8	1176.3	1186.8	1189.5	1205.8	1227.4	1238.3	1256.2	1292.1	1319.1	1320.9
162.5°	1185.2	1193.1	1200.9	1202.9	1214.6	1230.4	1238.3	1253.4	1283.7	1306.4	1308.1
165°	1206.3	1213.4	1220.4	1222.2	1227.6	1234.7	1238.3	1249.1	1270.8	1287.0	1288.9
167.5°	1225.6	1228.9	1232.4	1233.2	1237.7	1243.7	1246.7	1253.7	1267.9	1278.6	1279.4
170°	1238.3	1241.6	1245.0	1245.9	1246.1	1246.5	1246.7	1253.7	1267.9	1278.6	1278.6
172.5°	1245.0	1245.7	1246.5	1246.7	1246.7	1246.7	1246.7	1252.3	1263.5	1271.9	1271.3
175°	1254.3	1254.3	1254.3	1254.3	1251.7	1248.4	1246.7	1250.2	1257.4	1262.7	1262.7
177.5°	1254.3	1254.3	1254.3	1254.3	1252.3	1249.7	1248.4	1251.2	1256.8	1261.0	1260.3
180°	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3	1254.3



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1115.8	1115.8
2.5°	1191.1	1184.0
5°	1532.0	1539.1
7.5°	2063.0	2059.3
10°	2565.2	2597.5
12.5°	2931.2	2938.3
15°	3153.6	3168.0
17.5°	3239.7	3243.3
20°	3243.3	3236.1
22.5°	3203.8	3196.7
25°	3157.2	3153.6
27.5°	3114.1	3117.7
30°	3096.2	3107.0
32.5°	3096.2	3114.1
35°	3103.3	3121.3
37.5°	3099.7	3121.3
40°	3085.4	3110.5
42.5°	3046.0	3063.9
45°	2984.9	3006.5
47.5°	2906.0	2920.4
50°	2805.5	2819.9
52.5°	2680.0	2683.6
55°	2529.3	2543.7
57.5°	2367.9	2371.4
60°	2188.5	2199.3
62.5°	1998.3	1998.3
65°	1797.5	1804.6
67.5°	1589.4	1607.3
70°	1377.7	1381.3
72.5°	1169.6	1169.6
75°	954.3	957.9
77.5°	749.8	749.8
80°	556.1	559.7
82.5°	383.9	391.0
85°	240.4	240.4
87.5°	111.2	100.5
90°	32.0	32.0
92.5°	128.2	102.7
95°	446.6	369.6
97.5°	1070.1	923.4
100°	1541.8	1367.1
102.5°	2005.7	1856.1
105°	2597.4	2516.9
107.5°	2984.9	3004.3
110°	3132.6	3216.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3145.8	3274.5
115°	3062.3	3240.8
117.5°	2885.5	3083.4
120°	2743.0	2935.3
122.5°	2604.1	2793.9
125°	2406.2	2580.9
127.5°	2228.1	2375.5
130°	2123.1	2259.4
132.5°	2027.9	2149.9
135°	1897.5	2002.6
137.5°	1792.8	1878.8
140°	1721.0	1801.4
142.5°	1661.5	1730.7
145°	1572.3	1624.6
147.5°	1503.7	1547.2
150°	1460.7	1495.9
152.5°	1423.8	1450.3
155°	1381.5	1399.0
157.5°	1348.0	1360.3
160°	1328.0	1335.0
162.5°	1314.8	1321.6
165°	1295.9	1303.1
167.5°	1282.4	1285.4
170°	1278.6	1278.6
172.5°	1268.7	1266.0
175°	1262.7	1262.7
177.5°	1257.3	1254.3
180°	1254.3	1254.3



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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	5.45	6.37	6.39	7.32	8.57	18.64	19.56	19.58	20.52	21.76
	3H	6.16	6.98	7.11	7.95	9.22	20.49	21.31	21.44	22.28	23.55
	4H	6.46	7.24	7.42	8.21	9.49	21.14	21.92	22.10	22.89	24.17
	6H	6.71	7.43	7.69	8.41	9.70	21.58	22.30	22.55	23.28	24.57
	8H	6.78	7.47	7.76	8.46	9.75	21.71	22.39	22.68	23.39	24.67
	12H	6.80	7.46	7.79	8.44	9.76	21.78	22.43	22.76	23.42	24.73
4H	2H	12.68	13.46	13.65	14.43	15.71	18.92	19.70	19.89	20.67	21.95
	3H	14.25	14.91	15.23	15.91	17.20	20.98	21.63	21.96	22.63	23.93
	4H	14.35	14.95	15.34	15.94	17.26	21.75	22.35	22.74	23.34	24.66
	6H	14.36	14.88	15.36	15.90	17.21	22.30	22.82	23.30	23.83	25.15
	8H	14.34	14.82	15.34	15.84	17.16	22.47	22.95	23.47	23.96	25.29
	12H	14.30	14.74	15.32	15.76	17.10	22.56	23.00	23.58	24.03	25.36
8H	4H	15.80	16.29	16.80	17.30	18.63	21.82	22.30	22.82	23.31	24.64
	6H	16.05	16.45	17.07	17.50	18.83	22.45	22.85	23.48	23.91	25.23
	8H	16.07	16.42	17.10	17.46	18.80	22.68	23.03	23.71	24.07	25.41
	12H	16.04	16.35	17.08	17.38	18.77	22.83	23.14	23.86	24.17	25.56
12H	4H	15.95	16.39	16.97	17.41	18.75	21.77	22.21	22.79	23.24	24.57
	6H	16.31	16.66	17.34	17.70	19.05	22.44	22.79	23.47	23.83	25.17
	8H	16.38	16.69	17.42	17.73	19.11	22.67	22.98	23.71	24.02	25.41