

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: P937273

Luminaire Tested: SQ4-FB-075U-100D-940-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

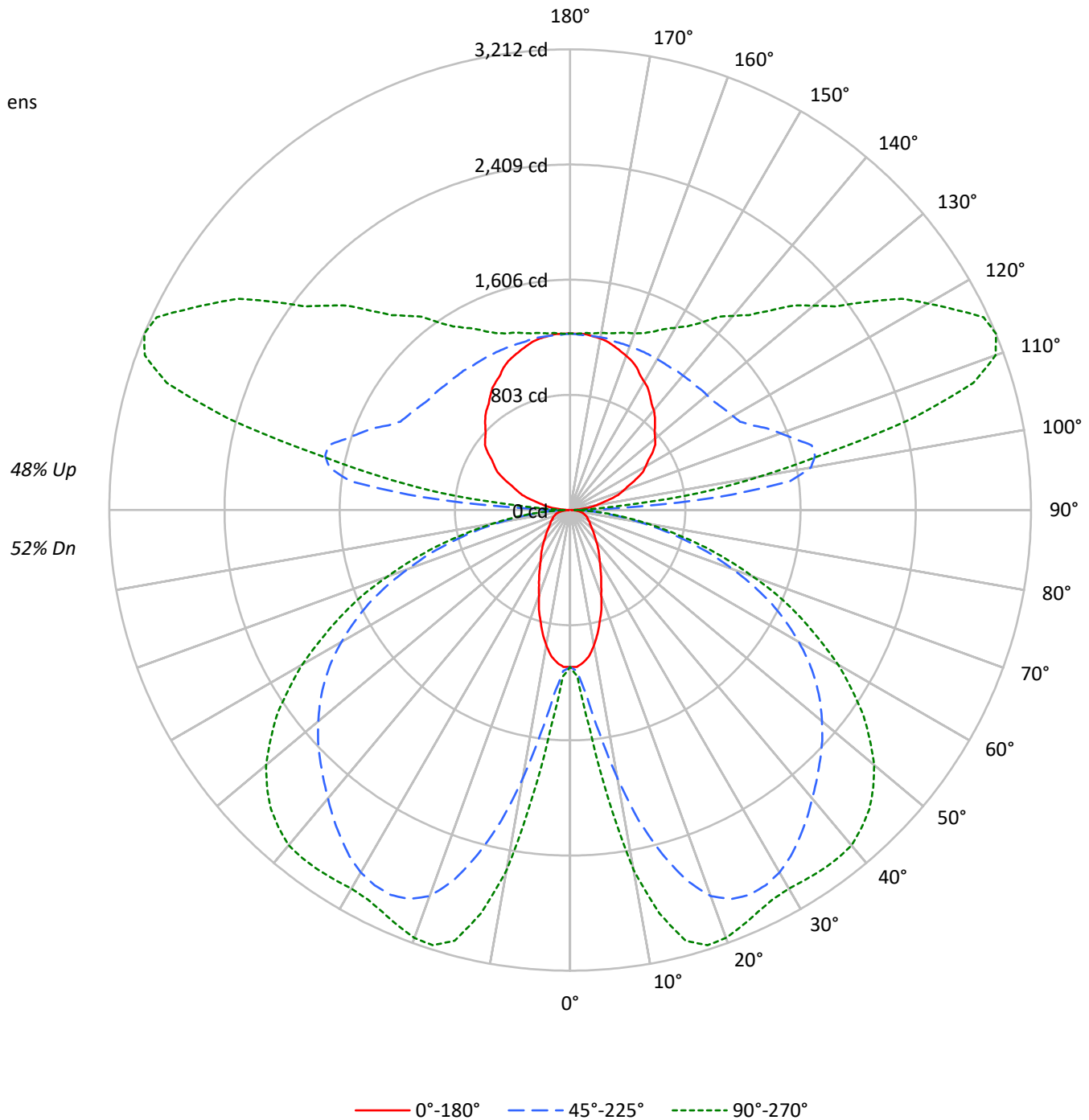
Test Method: LM-79-2019  
Report Number: P937273  
REPORT IS A COMBINATION OF REPORTS P933495 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-075U-100D-940-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16449.3 lumens  
Efficiency: N/A  
Efficacy: 107.1 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: General Diffuse  
  
Input Watts (W): 153.6  
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				
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	108	108	108	108	99	99	99	99	84	84	84	70	70	70	58	58	58	58	58	58	52
1	98	93	89	85	90	86	82	79	73	70	68	61	59	57	50	49	47	50	49	47	42
2	88	80	74	69	81	74	69	64	63	59	55	53	50	47	43	41	39	43	41	39	34
3	80	70	62	56	74	65	58	53	55	50	46	46	42	39	38	35	32	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	27	33	30	27	24
5	67	55	46	40	61	51	43	37	43	37	33	36	32	28	30	26	23	30	26	23	20
6	61	49	40	34	56	45	38	32	39	33	28	32	28	24	27	23	20	27	23	20	17
7	56	44	35	30	52	41	33	28	35	29	24	29	25	21	24	20	18	24	20	18	15
8	52	39	31	26	48	37	29	24	31	26	21	27	22	19	22	18	16	22	18	16	13
9	49	36	28	23	45	33	26	22	29	23	19	24	20	16	20	17	14	20	17	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	19	15	12	19	15	12	10

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

	0°	45°	90°
0°	3386	3386	3386
5°	3309	3914	4551
10°	3003	5707	7545
15°	2553	7458	9110
20°	2079	8645	9285
25°	1735	9049	9096
30°	1464	9108	9079
35°	1295	8959	9314
40°	1129	8765	9556
45°	1023	8624	9594
50°	939	8497	9435
55°	901	8310	9017
60°	923	7949	8356
65°	961	7398	7449
70°	1027	6457	6293
75°	1143	5269	4911
80°	1257	3659	3309
85°	1141	1945	1694

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 9594 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.6	0.9
10°-20°	627.5	3.8
20°-30°	1097.7	6.7
30°-40°	1413.0	8.6
40°-50°	1578.3	9.6
50°-60°	1511.7	9.2
60°-70°	1198.0	7.3
70°-80°	704.5	4.3
80°-90°	200.4	1.2
90°-100°	599.8	3.6
100°-110°	1576.9	9.6
110°-120°	1635.1	9.9
120°-130°	1311.5	8.0
130°-140°	1029.1	6.3
140°-150°	789.9	4.8
150°-160°	568.8	3.5
160°-170°	348.0	2.1
170°-180°	117.6	0.7
0°-30°	1866.8	11.3
0°-40°	3279.9	19.9
0°-60°	6369.8	38.7
0°-90°	8472.7	51.5
90°-120°	3811.7	23.2
90°-150°	6942.2	42.2
90°-180°	7977.0	48.5
0°-180°	16449.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1095	1095	1095	1095	1095	
5°	1066	1144	1288	1457	1510	98
15°	799	1475	2485	3013	3108	222
25°	510	1672	2960	3090	3094	235
35°	345	1598	2788	2946	3062	215
45°	236	1274	2464	2823	2950	182
55°	169	810	2091	2429	2496	154
65°	134	429	1552	1746	1770	133
75°	99	264	852	936	940	103
85°	35	81	211	232	236	37
90°	8	23	63	31	31	9
95°	79	310	1033	533	363	88
105°	284	430	1743	2647	2469	301
115°	505	613	1396	2786	3179	498
125°	702	787	1270	2146	2532	623
135°	837	921	1230	1733	1965	647
145°	970	1032	1215	1478	1594	608
155°	1097	1127	1215	1334	1372	504
165°	1183	1199	1215	1263	1278	334
175°	1230	1230	1223	1239	1239	117
180°	1230	1230	1230	1230	1230	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6	1094.6
2.5°	1094.6	1094.6	1101.7	1105.2	1112.2	1115.8	1122.8	1129.8	1150.9	1154.5	1161.5
5°	1066.5	1080.5	1126.3	1143.9	1193.2	1260.1	1288.2	1334.0	1429.0	1457.1	1474.7
7.5°	1024.2	1055.9	1168.5	1196.7	1319.8	1495.8	1569.8	1668.3	1819.7	1893.6	1953.4
10°	957.4	1024.2	1224.8	1291.7	1492.4	1759.8	1897.1	2034.4	2263.2	2365.2	2403.9
12.5°	883.5	992.5	1284.7	1376.2	1664.8	2055.5	2220.9	2372.3	2632.7	2770.0	2791.1
15°	798.9	946.8	1341.0	1474.7	1847.8	2301.9	2484.9	2671.5	2914.3	3012.8	3037.5
17.5°	725.1	911.6	1393.8	1534.6	1988.6	2523.6	2710.2	2865.0	3062.1	3129.0	3146.6
20°	633.5	855.3	1429.0	1612.0	2136.4	2685.5	2865.0	2984.7	3118.4	3160.7	3167.7
22.5°	566.6	795.5	1450.1	1640.1	2235.0	2784.1	2935.4	3030.5	3121.9	3136.1	3139.5
25°	510.3	728.6	1446.6	1671.8	2319.5	2843.9	2960.1	3030.5	3083.2	3090.2	3090.2
27.5°	457.6	654.6	1432.5	1678.9	2382.9	2857.9	2949.5	2998.8	3023.4	3037.5	3037.5
30°	411.8	584.3	1397.3	1664.8	2411.0	2843.9	2917.8	2942.5	2967.1	2988.2	2998.8
32.5°	376.6	517.3	1344.5	1636.7	2414.5	2808.7	2861.5	2875.6	2910.8	2960.1	2977.6
35°	344.9	450.5	1284.7	1598.0	2393.3	2752.4	2787.6	2801.6	2872.1	2945.9	2970.6
37.5°	313.3	401.3	1207.2	1531.1	2361.7	2685.5	2710.2	2734.8	2843.9	2931.9	2960.1
40°	281.6	359.0	1115.8	1457.1	2312.4	2604.6	2625.6	2664.4	2808.7	2910.8	2938.9
42.5°	256.9	323.9	1017.2	1379.7	2249.0	2513.0	2544.7	2601.0	2766.5	2875.6	2907.2
45°	235.9	288.6	911.6	1274.1	2168.1	2418.0	2463.8	2541.2	2717.2	2822.8	2850.9
47.5°	214.7	264.0	802.5	1165.1	2080.1	2323.0	2382.9	2470.8	2650.3	2752.4	2777.0
50°	197.1	239.3	693.4	1048.9	1985.1	2220.9	2291.3	2382.9	2565.9	2660.9	2692.6
52.5°	183.0	218.2	591.3	932.8	1876.0	2115.3	2196.3	2291.3	2463.8	2555.3	2576.4
55°	169.0	200.6	503.3	809.5	1763.4	2002.7	2090.7	2182.2	2351.2	2428.6	2442.6
57.5°	161.9	186.6	429.4	693.4	1643.7	1876.0	1974.6	2059.0	2217.4	2277.2	2291.3
60°	151.3	176.0	373.0	594.8	1513.4	1756.3	1840.8	1925.3	2059.0	2108.3	2118.9
62.5°	140.7	169.0	330.9	499.8	1379.7	1615.5	1700.0	1777.4	1890.1	1925.3	1939.3
65°	133.7	161.9	299.2	429.4	1242.5	1467.7	1552.1	1619.1	1710.6	1745.7	1752.8
67.5°	126.7	154.9	274.6	369.6	1105.2	1319.8	1383.2	1446.6	1517.0	1552.1	1555.7
70°	116.2	147.9	253.4	327.3	964.4	1150.9	1203.8	1270.6	1326.9	1344.5	1355.1
72.5°	109.1	137.3	239.3	295.6	820.1	989.1	1038.3	1077.1	1126.3	1143.9	1143.9
75°	98.6	123.2	225.3	264.0	672.2	809.5	851.8	890.5	929.2	936.2	925.7
77.5°	88.0	109.1	193.6	221.7	524.5	640.6	675.8	696.9	728.6	735.6	739.2
80°	73.9	95.0	151.3	172.4	380.2	471.6	496.3	513.9	542.0	542.0	549.1
82.5°	56.3	73.9	109.1	123.2	256.9	323.9	344.9	355.5	373.0	373.0	373.0
85°	35.2	45.7	70.4	81.0	154.9	197.1	211.2	214.7	228.7	232.3	232.3
87.5°	17.6	24.6	45.7	49.3	81.0	102.0	102.0	109.1	109.1	105.6	102.0
90°	8.3	14.8	21.4	23.1	36.3	54.0	62.8	55.8	41.8	31.3	31.3
92.5°	33.0	89.2	145.4	159.4	224.0	310.3	353.4	309.7	222.4	156.9	150.7
95°	79.3	182.0	284.9	310.5	551.4	872.5	1033.1	921.9	699.5	532.6	513.7
97.5°	137.1	227.8	318.4	341.1	742.7	1278.2	1545.9	1475.6	1335.0	1229.6	1193.6
100°	181.7	263.9	346.1	366.7	812.3	1406.5	1703.6	1708.8	1719.1	1726.8	1683.9
102.5°	219.7	296.4	373.0	392.2	844.2	1446.9	1748.3	1837.8	2016.9	2151.3	2114.6
105°	284.1	349.1	414.0	430.2	867.9	1451.5	1743.3	1944.1	2345.7	2646.8	2627.1
107.5°	350.1	410.7	471.3	486.4	872.4	1387.0	1644.2	1924.3	2484.4	2904.4	2909.2
110°	394.7	449.4	504.1	517.8	865.7	1329.7	1561.6	1874.7	2500.9	2970.4	2991.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	438.5	490.6	542.7	555.8	866.1	1279.7	1486.5	1806.9	2447.8	2928.4	2959.9
115°	504.6	552.6	600.7	612.7	874.0	1222.3	1396.5	1705.1	2322.5	2785.5	2829.3
117.5°	569.8	613.5	657.1	668.0	890.2	1186.4	1334.5	1613.1	2170.2	2588.1	2636.6
120°	607.8	649.0	690.0	700.3	903.5	1174.3	1309.7	1564.2	2073.3	2455.1	2502.3
122.5°	645.0	686.4	727.9	738.3	922.5	1168.0	1290.7	1519.9	1978.4	2322.2	2368.7
125°	702.0	739.8	777.6	787.0	948.0	1162.7	1270.1	1464.8	1854.2	2146.3	2189.2
127.5°	748.2	786.4	824.6	834.1	973.7	1159.7	1252.8	1420.0	1754.3	2005.1	2041.2
130°	773.0	814.1	855.1	865.4	992.3	1161.5	1246.1	1395.0	1692.6	1915.9	1949.2
132.5°	798.6	839.7	880.7	891.0	1007.4	1162.7	1240.4	1373.6	1640.0	1839.9	1869.9
135°	836.6	874.0	911.4	920.8	1024.0	1161.7	1230.5	1342.0	1565.2	1732.6	1758.3
137.5°	875.4	912.4	949.5	958.8	1048.8	1168.8	1228.8	1323.1	1511.8	1653.3	1674.4
140°	907.5	941.6	975.8	984.3	1063.9	1170.0	1223.0	1304.6	1467.5	1589.7	1609.4
142.5°	932.3	963.9	995.4	1003.4	1076.6	1174.2	1223.0	1294.6	1437.8	1545.1	1562.1
145°	970.3	997.8	1025.4	1032.3	1093.1	1174.2	1214.8	1273.3	1390.4	1478.3	1491.1
147.5°	1008.3	1035.1	1062.0	1068.6	1117.4	1182.3	1214.8	1260.9	1353.0	1422.0	1432.7
150°	1033.1	1057.3	1081.6	1087.6	1130.0	1186.5	1214.8	1253.7	1331.5	1389.8	1398.4
152.5°	1058.7	1077.1	1095.3	1100.0	1138.2	1189.3	1214.8	1248.0	1314.4	1364.2	1370.7
155°	1096.7	1110.3	1123.9	1127.2	1156.4	1195.3	1214.8	1241.2	1294.1	1333.7	1338.0
157.5°	1124.7	1138.0	1151.2	1154.5	1174.6	1201.4	1214.8	1235.3	1276.4	1307.2	1310.2
160°	1143.7	1154.0	1164.3	1166.9	1182.9	1204.1	1214.8	1232.4	1267.6	1294.1	1295.9
162.5°	1162.7	1170.5	1178.1	1180.1	1191.6	1207.1	1214.8	1229.6	1259.4	1281.7	1283.3
165°	1183.4	1190.4	1197.3	1199.1	1204.3	1211.3	1214.8	1225.4	1246.7	1262.6	1264.4
167.5°	1202.4	1205.6	1209.0	1209.8	1214.3	1220.1	1223.0	1230.0	1243.9	1254.4	1255.1
170°	1214.8	1218.1	1221.4	1222.2	1222.5	1222.9	1223.0	1230.0	1243.9	1254.4	1254.4
172.5°	1221.4	1222.1	1222.9	1223.0	1223.0	1223.0	1223.0	1228.5	1239.6	1247.8	1247.2
175°	1230.5	1230.5	1230.5	1230.5	1228.0	1224.7	1223.0	1226.5	1233.5	1238.8	1238.8
177.5°	1230.5	1230.5	1230.5	1230.5	1228.5	1226.0	1224.7	1227.5	1233.0	1237.1	1236.4
180°	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5	1230.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1094.6	1094.6
2.5°	1168.5	1161.5
5°	1502.9	1510.0
7.5°	2023.8	2020.3
10°	2516.6	2548.2
12.5°	2875.6	2882.6
15°	3093.8	3107.9
17.5°	3178.2	3181.8
20°	3181.8	3174.8
22.5°	3143.1	3136.1
25°	3097.3	3093.8
27.5°	3055.1	3058.6
30°	3037.5	3048.1
32.5°	3037.5	3055.1
35°	3044.5	3062.1
37.5°	3041.0	3062.1
40°	3026.9	3051.5
42.5°	2988.2	3005.8
45°	2928.4	2949.5
47.5°	2850.9	2865.0
50°	2752.4	2766.5
52.5°	2629.2	2632.7
55°	2481.3	2495.5
57.5°	2323.0	2326.5
60°	2147.0	2157.6
62.5°	1960.4	1960.4
65°	1763.4	1770.4
67.5°	1559.2	1576.8
70°	1351.5	1355.1
72.5°	1147.4	1147.4
75°	936.2	939.8
77.5°	735.6	735.6
80°	545.6	549.1
82.5°	376.6	383.6
85°	235.9	235.9
87.5°	109.1	98.6
90°	31.3	31.3
92.5°	125.7	100.8
95°	438.1	362.6
97.5°	1049.8	905.9
100°	1512.5	1341.1
102.5°	1967.7	1820.9
105°	2548.1	2469.2
107.5°	2928.3	2947.4
110°	3073.2	3155.4





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	3086.2	3212.4
115°	3004.3	3179.4
117.5°	2830.8	3025.0
120°	2691.0	2879.6
122.5°	2554.8	2740.9
125°	2360.6	2532.0
127.5°	2185.9	2330.5
130°	2082.9	2216.5
132.5°	1989.5	2109.2
135°	1861.5	1964.6
137.5°	1758.8	1843.2
140°	1688.4	1767.2
142.5°	1630.0	1697.9
145°	1542.5	1593.8
147.5°	1475.2	1517.9
150°	1433.0	1467.5
152.5°	1396.8	1422.8
155°	1355.3	1372.5
157.5°	1322.4	1334.5
160°	1302.8	1309.7
162.5°	1289.9	1296.6
165°	1271.3	1278.4
167.5°	1258.1	1261.0
170°	1254.4	1254.4
172.5°	1244.6	1242.0
175°	1238.8	1238.8
177.5°	1233.4	1230.5
180°	1230.5	1230.5



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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	5.38	6.30	6.32	7.26	8.50	18.58	19.49	19.51	20.45	21.70
	3H	6.09	6.92	7.04	7.88	9.15	20.43	21.25	21.37	22.22	23.48
	4H	6.39	7.17	7.36	8.15	9.42	21.08	21.86	22.04	22.83	24.11
	6H	6.65	7.37	7.62	8.34	9.64	21.51	22.23	22.49	23.21	24.50
	8H	6.72	7.40	7.70	8.40	9.69	21.64	22.32	22.62	23.32	24.61
	12H	6.74	7.39	7.72	8.38	9.69	21.71	22.36	22.70	23.35	24.67
4H	2H	12.61	13.39	13.58	14.37	15.64	18.86	19.64	19.82	20.61	21.89
	3H	14.19	14.84	15.16	15.84	17.13	20.91	21.57	21.89	22.57	23.86
	4H	14.28	14.88	15.27	15.88	17.19	21.68	22.28	22.67	23.28	24.59
	6H	14.30	14.81	15.30	15.83	17.14	22.23	22.75	23.23	23.77	25.08
	8H	14.28	14.76	15.28	15.77	17.10	22.40	22.88	23.40	23.89	25.22
	12H	14.23	14.67	15.25	15.70	17.03	22.50	22.93	23.52	23.96	25.30
8H	4H	15.74	16.22	16.74	17.23	18.56	21.75	22.23	22.75	23.24	24.57
	6H	15.98	16.38	17.01	17.43	18.76	22.39	22.79	23.41	23.84	25.17
	8H	16.00	16.35	17.03	17.39	18.74	22.61	22.96	23.64	24.00	25.35
	12H	15.97	16.28	17.01	17.32	18.70	22.76	23.07	23.80	24.11	25.49
12H	4H	15.88	16.32	16.90	17.35	18.68	21.71	22.14	22.73	23.17	24.50
	6H	16.24	16.60	17.28	17.63	18.98	22.37	22.72	23.40	23.76	25.11
	8H	16.31	16.62	17.35	17.66	19.05	22.61	22.92	23.64	23.95	25.34