

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: P937712

Luminaire Tested: SQ4-FB-100U-125D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937712
REPORT IS A COMBINATION OF REPORTS P933584 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-125D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

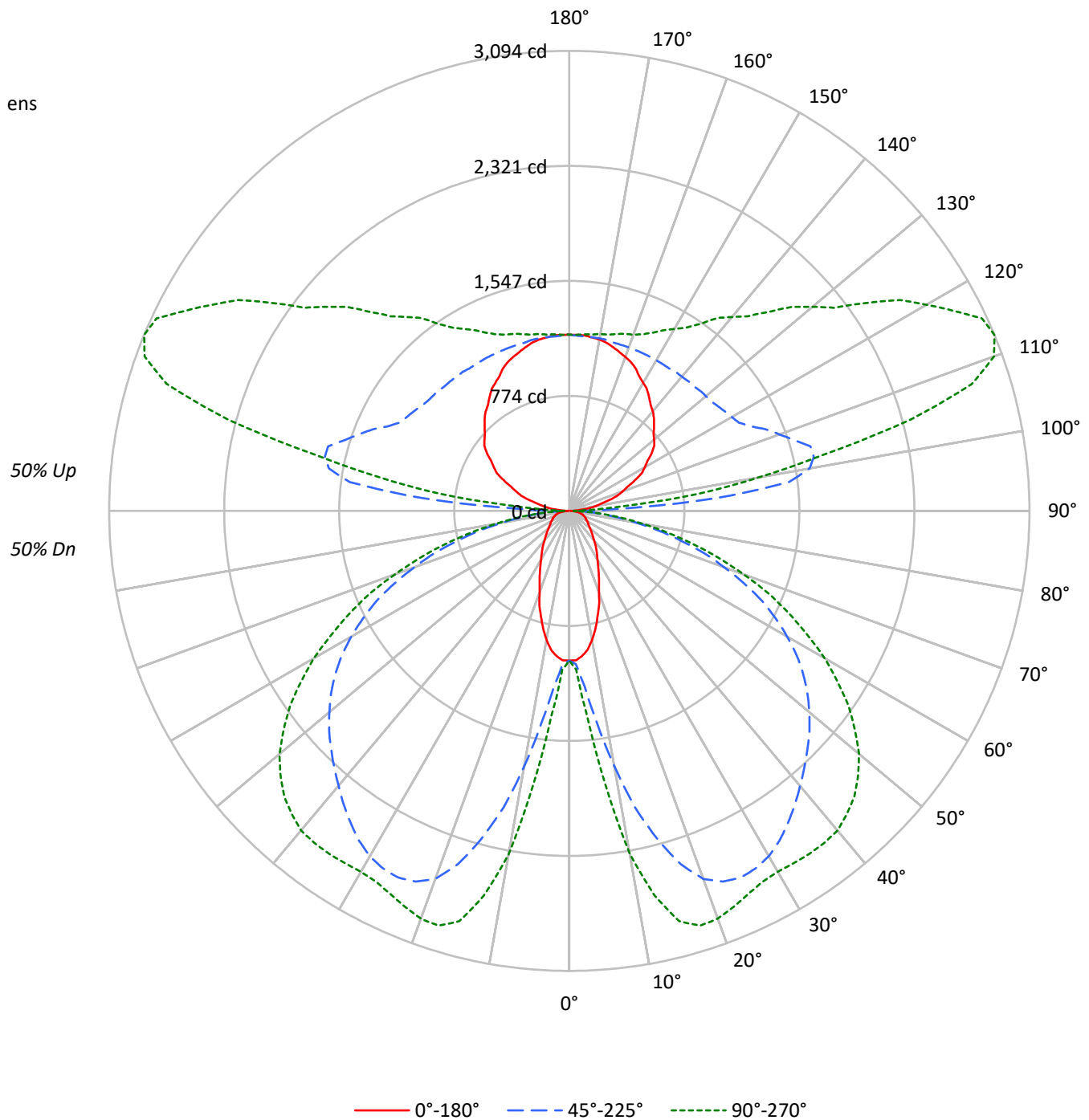
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15471.0 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 137.6
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56	56	56	56	50
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	49	48	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	42	40	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	37	34	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	33	30	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	29	26	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	26	23	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	22	18	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	20	16	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	18	15	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4669	4669	4669
5°	4561	5396	6276
10°	4137	7866	10404
15°	3516	10277	12563
20°	2863	11909	12803
25°	2388	12463	12543
30°	2014	12541	12519
35°	1780	12333	12843
40°	1552	12062	13178
45°	1405	11864	13229
50°	1289	11686	13010
55°	1235	11424	12434
60°	1263	10922	11523
65°	1314	10160	10272
70°	1401	8860	8678
75°	1552	7225	6772
80°	1697	5010	4563
85°	1504	2659	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°	130.2	0.8
10°-20°	576.9	3.7
20°-30°	1009.1	6.5
30°-40°	1299.0	8.4
40°-50°	1451.0	9.4
50°-60°	1389.7	9.0
60°-70°	1101.3	7.1
70°-80°	647.6	4.2
80°-90°	184.4	1.2
90°-100°	577.6	3.7
100°-110°	1518.6	9.8
110°-120°	1574.6	10.2
120°-130°	1263.0	8.2
130°-140°	991.0	6.4
140°-150°	760.7	4.9
150°-160°	547.8	3.5
160°-170°	335.2	2.2
170°-180°	113.2	0.7
0°-30°	1716.2	11.1
0°-40°	3015.2	19.5
0°-60°	5855.9	37.9
0°-90°	7789.3	50.3
90°-120°	3670.8	23.7
90°-150°	6685.5	43.2
90°-180°	7682.0	49.7
0°-180°	15471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	980	1052	1184	1340	1388	90
15°	734	1356	2284	2770	2857	204
25°	469	1537	2721	2841	2844	216
35°	317	1469	2563	2708	2815	198
45°	217	1171	2265	2595	2712	168
55°	155	744	1922	2233	2294	142
65°	123	395	1427	1605	1628	122
75°	91	243	783	861	864	95
85°	32	74	194	214	217	34
90°	8	22	60	30	30	9
95°	76	299	995	513	349	85
105°	274	414	1679	2549	2378	290
115°	486	590	1345	2682	3062	480
125°	676	758	1223	2067	2438	600
135°	806	887	1185	1668	1892	623
145°	934	994	1170	1424	1535	585
155°	1056	1086	1170	1284	1322	485
165°	1140	1155	1170	1216	1231	322
175°	1185	1185	1178	1193	1193	112
180°	1185	1185	1185	1185	1185	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3	1006.3
2.5°	1006.3	1006.3	1012.8	1016.0	1022.4	1025.7	1032.2	1038.7	1058.1	1061.4	1067.8
5°	980.4	993.4	1035.4	1051.6	1096.9	1158.4	1184.3	1226.4	1313.6	1339.5	1355.7
7.5°	941.6	970.7	1074.3	1100.2	1213.4	1375.2	1443.1	1533.7	1672.8	1740.8	1795.8
10°	880.1	941.6	1126.0	1187.4	1372.0	1617.8	1744.0	1870.2	2080.5	2174.4	2210.0
12.5°	812.1	912.5	1181.0	1265.2	1530.5	1889.6	2041.7	2180.8	2420.3	2546.5	2565.9
15°	734.5	870.4	1232.8	1355.7	1698.7	2116.1	2284.4	2455.9	2679.2	2769.7	2792.4
17.5°	666.5	838.0	1281.3	1410.8	1828.2	2320.0	2491.4	2633.9	2815.0	2876.5	2892.7
20°	582.4	786.3	1313.6	1481.9	1964.1	2468.9	2633.9	2743.8	2866.9	2905.7	2912.1
22.5°	520.9	731.2	1333.1	1507.8	2054.6	2559.4	2698.6	2785.9	2870.0	2883.0	2886.3
25°	469.2	669.8	1329.9	1537.0	2132.4	2614.5	2721.3	2785.9	2834.4	2840.9	2840.9
27.5°	420.6	601.8	1316.9	1543.5	2190.6	2627.4	2711.5	2756.8	2779.5	2792.4	2792.4
30°	378.6	537.1	1284.6	1530.5	2216.5	2614.5	2682.3	2705.0	2727.7	2747.1	2756.8
32.5°	346.3	475.6	1236.0	1504.6	2219.6	2582.1	2630.6	2643.5	2675.9	2721.3	2737.4
35°	317.1	414.1	1181.0	1469.0	2200.2	2530.3	2562.7	2575.6	2640.3	2708.3	2730.9
37.5°	287.9	368.8	1109.8	1407.5	2171.2	2468.9	2491.4	2514.1	2614.5	2695.3	2721.3
40°	258.9	330.0	1025.7	1339.5	2125.9	2394.4	2413.8	2449.4	2582.1	2675.9	2701.8
42.5°	236.2	297.7	935.2	1268.4	2067.6	2310.3	2339.4	2391.1	2543.2	2643.5	2672.7
45°	216.8	265.3	838.0	1171.3	1993.2	2222.9	2265.0	2336.2	2497.9	2595.1	2620.9
47.5°	197.4	242.6	737.7	1071.0	1912.3	2135.5	2190.6	2271.5	2436.5	2530.3	2553.0
50°	181.2	220.1	637.5	964.2	1824.9	2041.7	2106.5	2190.6	2358.8	2446.2	2475.3
52.5°	168.3	200.6	543.6	857.4	1724.6	1944.6	2019.1	2106.5	2265.0	2349.1	2368.5
55°	155.4	184.4	462.7	744.2	1621.1	1841.1	1922.0	2006.2	2161.4	2232.6	2245.5
57.5°	148.8	171.5	394.7	637.5	1511.1	1724.6	1815.3	1892.9	2038.5	2093.4	2106.5
60°	139.1	161.8	343.0	546.8	1391.4	1614.6	1692.2	1769.9	1892.9	1938.2	1947.8
62.5°	129.4	155.4	304.2	459.5	1268.4	1485.1	1562.9	1634.0	1737.5	1769.9	1782.8
65°	122.9	148.8	275.0	394.7	1142.2	1349.3	1426.9	1488.4	1572.5	1604.9	1611.3
67.5°	116.4	142.3	252.4	339.8	1016.0	1213.4	1271.6	1329.9	1394.6	1426.9	1430.2
70°	106.8	135.9	233.0	300.9	886.6	1058.1	1106.6	1168.0	1219.9	1236.0	1245.8
72.5°	100.3	126.2	220.1	271.8	753.9	909.3	954.6	990.1	1035.4	1051.6	1051.6
75°	90.6	113.3	207.1	242.6	618.1	744.2	783.1	818.6	854.2	860.7	851.0
77.5°	80.9	100.3	178.0	203.8	482.1	588.9	621.2	640.7	669.8	676.3	679.5
80°	68.0	87.4	139.1	158.5	349.4	433.5	456.2	472.5	498.3	498.3	504.8
82.5°	51.8	68.0	100.3	113.3	236.2	297.7	317.1	326.8	343.0	343.0	343.0
85°	32.3	42.1	64.7	74.4	142.3	181.2	194.2	197.4	210.3	213.6	213.6
87.5°	16.2	22.7	42.1	45.3	74.4	93.9	93.9	100.3	100.3	97.0	93.9
90°	7.9	14.3	20.6	22.3	35.0	51.9	60.4	53.7	40.2	30.2	30.2
92.5°	31.8	85.9	140.1	153.5	215.8	298.8	340.3	298.3	214.2	151.1	145.1
95°	76.4	175.3	274.3	299.0	531.0	840.2	994.9	887.8	673.6	513.0	494.8
97.5°	132.0	219.3	306.7	328.5	715.3	1230.9	1488.8	1421.1	1285.7	1184.2	1149.6
100°	174.9	254.1	333.4	353.1	782.3	1354.6	1640.7	1645.7	1655.5	1663.0	1621.7
102.5°	211.6	285.4	359.3	377.7	813.0	1393.4	1683.6	1769.8	1942.4	2071.7	2036.4
105°	273.6	336.1	398.7	414.3	835.8	1397.9	1678.8	1872.1	2258.8	2548.9	2529.9
107.5°	337.2	395.5	453.8	468.4	840.1	1335.6	1583.4	1853.1	2392.5	2797.0	2801.6
110°	380.1	432.8	485.5	498.6	833.7	1280.5	1503.9	1805.4	2408.4	2860.6	2880.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	422.3	472.5	522.7	535.3	834.0	1232.4	1431.5	1740.1	2357.2	2820.1	2850.5
115°	485.9	532.2	578.6	590.1	841.7	1177.1	1344.8	1642.1	2236.7	2682.5	2724.7
117.5°	548.7	590.8	632.9	643.4	857.3	1142.5	1285.2	1553.4	2090.0	2492.4	2539.1
120°	585.4	624.9	664.5	674.4	870.1	1130.9	1261.3	1506.5	1996.7	2364.4	2409.8
122.5°	621.1	661.1	701.0	711.0	888.3	1124.7	1243.0	1463.7	1905.2	2236.4	2281.2
125°	676.0	712.4	748.8	757.9	913.0	1119.8	1223.1	1410.7	1785.7	2067.0	2108.3
127.5°	720.5	757.2	794.1	803.2	937.6	1116.9	1206.5	1367.5	1689.4	1930.9	1965.7
130°	744.3	783.9	823.5	833.4	955.6	1118.6	1200.1	1343.4	1630.1	1845.1	1877.2
132.5°	769.0	808.6	848.2	858.1	970.2	1119.8	1194.5	1322.8	1579.4	1771.9	1800.6
135°	805.6	841.7	877.8	886.8	986.2	1118.7	1185.0	1292.4	1507.3	1668.5	1693.4
137.5°	843.0	878.7	914.4	923.3	1010.0	1125.6	1183.3	1274.2	1455.9	1592.1	1612.5
140°	874.0	906.9	939.7	948.0	1024.5	1126.7	1177.8	1256.3	1413.3	1530.9	1550.0
142.5°	897.9	928.3	958.7	966.2	1036.8	1130.8	1177.8	1246.7	1384.6	1488.0	1504.4
145°	934.5	961.0	987.5	994.1	1052.7	1130.9	1169.9	1226.3	1339.0	1423.6	1435.9
147.5°	971.0	996.8	1022.6	1029.1	1076.1	1138.6	1169.9	1214.2	1302.9	1369.5	1379.7
150°	994.9	1018.2	1041.6	1047.4	1088.2	1142.6	1169.9	1207.3	1282.3	1338.5	1346.8
152.5°	1019.6	1037.3	1054.9	1059.3	1096.1	1145.3	1169.9	1201.9	1265.8	1313.8	1320.1
155°	1056.1	1069.2	1082.3	1085.5	1113.6	1151.1	1169.9	1195.3	1246.2	1284.4	1288.5
157.5°	1083.1	1095.9	1108.7	1111.8	1131.1	1157.0	1169.9	1189.6	1229.2	1259.0	1261.8
160°	1101.5	1111.4	1121.3	1123.8	1139.2	1159.6	1169.9	1186.9	1220.8	1246.2	1248.0
162.5°	1119.8	1127.2	1134.7	1136.5	1147.6	1162.4	1169.9	1184.2	1212.8	1234.3	1235.9
165°	1139.6	1146.3	1153.0	1154.8	1159.8	1166.5	1169.9	1180.1	1200.6	1216.0	1217.8
167.5°	1157.9	1161.1	1164.3	1165.1	1169.3	1174.9	1177.8	1184.5	1198.0	1208.0	1208.7
170°	1169.9	1173.0	1176.3	1177.0	1177.3	1177.6	1177.8	1184.5	1198.0	1208.0	1208.0
172.5°	1176.3	1176.9	1177.6	1177.8	1177.8	1177.8	1177.8	1183.1	1193.8	1201.7	1201.1
175°	1185.0	1185.0	1185.0	1185.0	1182.6	1179.4	1177.8	1181.1	1187.8	1192.9	1192.9
177.5°	1185.0	1185.0	1185.0	1185.0	1183.1	1180.7	1179.4	1182.1	1187.4	1191.4	1190.7
180°	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0	1185.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1006.3	1006.3
2.5°	1074.3	1067.8
5°	1381.6	1388.1
7.5°	1860.5	1857.3
10°	2313.5	2342.7
12.5°	2643.5	2650.0
15°	2844.2	2857.1
17.5°	2921.8	2925.1
20°	2925.1	2918.6
22.5°	2889.5	2883.0
25°	2847.4	2844.2
27.5°	2808.5	2811.8
30°	2792.4	2802.1
32.5°	2792.4	2808.5
35°	2798.9	2815.0
37.5°	2795.6	2815.0
40°	2782.7	2805.4
42.5°	2747.1	2763.3
45°	2692.1	2711.5
47.5°	2620.9	2633.9
50°	2530.3	2543.2
52.5°	2417.1	2420.3
55°	2281.1	2294.1
57.5°	2135.5	2138.8
60°	1973.8	1983.5
62.5°	1802.3	1802.3
65°	1621.1	1627.6
67.5°	1433.4	1449.6
70°	1242.5	1245.8
72.5°	1054.9	1054.9
75°	860.7	863.9
77.5°	676.3	676.3
80°	501.5	504.8
82.5°	346.3	352.7
85°	216.8	216.8
87.5°	100.3	90.6
90°	30.2	30.2
92.5°	121.1	97.0
95°	422.0	349.1
97.5°	1011.0	872.4
100°	1456.7	1291.6
102.5°	1895.0	1753.6
105°	2453.9	2377.9
107.5°	2820.0	2838.4
110°	2959.6	3038.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2972.0	3093.6
115°	2893.2	3061.9
117.5°	2726.1	2913.1
120°	2591.5	2773.2
122.5°	2460.4	2639.5
125°	2273.3	2438.4
127.5°	2105.0	2244.3
130°	2005.9	2134.6
132.5°	1915.9	2031.1
135°	1792.7	1892.0
137.5°	1693.7	1775.1
140°	1625.9	1701.9
142.5°	1569.8	1635.1
145°	1485.4	1534.9
147.5°	1420.7	1461.7
150°	1380.0	1413.3
152.5°	1345.2	1370.2
155°	1305.1	1321.8
157.5°	1273.5	1285.2
160°	1254.7	1261.3
162.5°	1242.2	1248.6
165°	1224.4	1231.1
167.5°	1211.5	1214.4
170°	1208.0	1208.0
172.5°	1198.6	1196.1
175°	1192.9	1192.9
177.5°	1187.8	1185.0
180°	1185.0	1185.0



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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	6.39	7.29	7.34	8.26	9.52	19.57	20.47	20.52	21.44	22.70
	3H	7.10	7.91	8.06	8.89	10.17	21.41	22.22	22.37	23.20	24.49
	4H	7.40	8.17	8.37	9.15	10.44	22.06	22.83	23.03	23.81	25.10
	6H	7.65	8.36	8.63	9.35	10.66	22.49	23.20	23.47	24.19	25.50
	8H	7.72	8.40	8.71	9.40	10.71	22.61	23.29	23.60	24.29	25.60
	12H	7.74	8.38	8.74	9.38	10.71	22.68	23.33	23.68	24.33	25.66
4H	2H	13.61	14.38	14.59	15.36	16.66	19.85	20.62	20.83	21.60	22.89
	3H	15.18	15.83	16.17	16.84	18.15	21.90	22.54	22.89	23.55	24.86
	4H	15.28	15.87	16.28	16.87	18.20	22.67	23.26	23.66	24.26	25.59
	6H	15.29	15.80	16.30	16.83	18.16	23.21	23.72	24.22	24.75	26.07
	8H	15.27	15.75	16.28	16.77	18.11	23.37	23.85	24.38	24.87	26.21
	12H	15.23	15.66	16.26	16.70	18.05	23.47	23.90	24.50	24.93	26.28
8H	4H	16.73	17.20	17.74	18.22	19.57	22.73	23.21	23.74	24.23	25.57
	6H	16.97	17.37	18.01	18.43	19.77	23.36	23.76	24.40	24.82	26.16
	8H	16.99	17.34	18.03	18.39	19.75	23.58	23.93	24.63	24.98	26.34
	12H	16.96	17.27	18.01	18.31	19.71	23.73	24.04	24.78	25.08	26.48
12H	4H	16.87	17.30	17.90	18.34	19.69	22.69	23.12	23.71	24.15	25.50
	6H	17.23	17.58	18.27	18.63	19.99	23.35	23.70	24.39	24.74	26.10
	8H	17.30	17.61	18.35	18.65	20.06	23.58	23.89	24.63	24.93	26.33