

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: P937748

Luminaire Tested: SQ4-FB-100U-125D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937748
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-92765-1D-UNV-STD-W-8-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

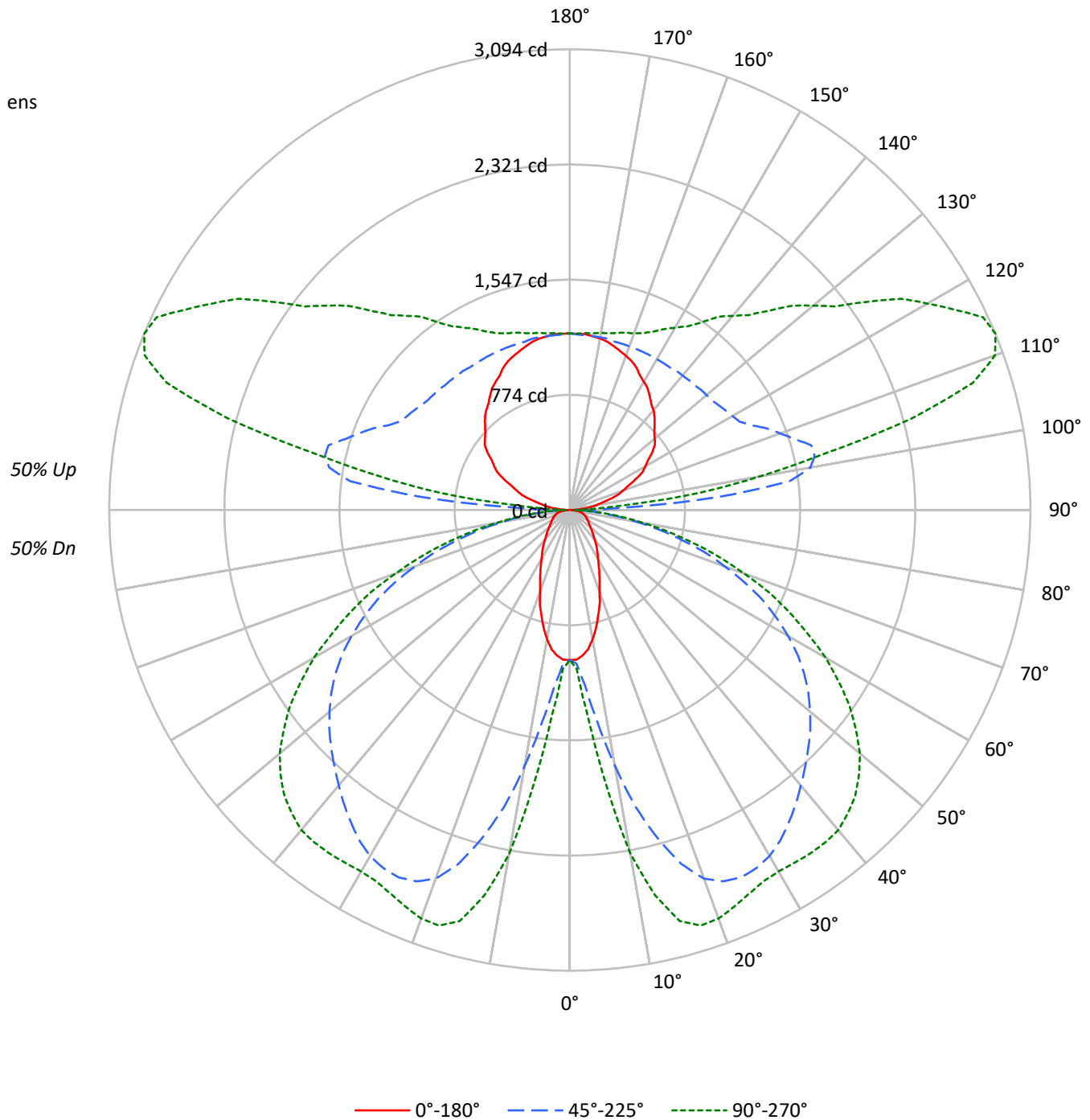
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15474.1 lumens
Efficiency: N/A
Efficacy: 112.5 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	47	47	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	38	38	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	32	32	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	27	27	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	23	23	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	20	20	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	17	17	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	15	15	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	14	14	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	12	12	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4670	4670	4670
5°	4562	5397	6277
10°	4138	7868	10407
15°	3517	10279	12565
20°	2863	11912	12806
25°	2389	12465	12546
30°	2014	12543	12522
35°	1781	12335	12846
40°	1552	12065	13180
45°	1406	11866	13232
50°	1289	11688	13013
55°	1235	11427	12436
60°	1263	10925	11525
65°	1315	10162	10274
70°	1401	8862	8679
75°	1552	7226	6773
80°	1697	5011	4564
85°	1504	2659	2337

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13232 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	0.8
10°-20°	577.0	3.7
20°-30°	1009.3	6.5
30°-40°	1299.3	8.4
40°-50°	1451.3	9.4
50°-60°	1390.0	9.0
60°-70°	1101.6	7.1
70°-80°	647.8	4.2
80°-90°	184.5	1.2
90°-100°	577.8	3.7
100°-110°	1518.9	9.8
110°-120°	1574.9	10.2
120°-130°	1263.3	8.2
130°-140°	991.2	6.4
140°-150°	760.8	4.9
150°-160°	547.9	3.5
160°-170°	335.2	2.2
170°-180°	113.3	0.7
0°-30°	1716.5	11.1
0°-40°	3015.8	19.5
0°-60°	5857.0	37.9
0°-90°	7790.8	50.3
90°-120°	3671.6	23.7
90°-150°	6686.9	43.2
90°-180°	7683.0	49.7
0°-180°	15474.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	981	1052	1184	1340	1388	91
15°	735	1356	2285	2770	2858	204
25°	469	1537	2722	2842	2845	216
35°	317	1469	2563	2709	2816	198
45°	217	1172	2265	2596	2712	168
55°	155	744	1922	2233	2295	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	2683	3062	480
125°	676	758	1223	2067	2439	600
135°	806	887	1185	1669	1892	623
145°	935	994	1170	1424	1535	586
155°	1056	1086	1170	1285	1322	485
165°	1140	1155	1170	1216	1231	322
175°	1185	1185	1178	1193	1193	113
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°	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5	1006.5
2.5°	1006.5	1006.5	1013.0	1016.2	1022.6	1025.9	1032.4	1038.9	1058.3	1061.6	1068.0
5°	980.6	993.6	1035.7	1051.8	1097.1	1158.6	1184.5	1226.6	1313.9	1339.8	1356.0
7.5°	941.8	970.9	1074.5	1100.4	1213.6	1375.5	1443.4	1534.0	1673.1	1741.1	1796.2
10°	880.3	941.8	1126.2	1187.7	1372.2	1618.2	1744.4	1870.6	2081.0	2174.9	2210.4
12.5°	812.3	912.7	1181.3	1265.4	1530.8	1890.0	2042.1	2181.3	2420.8	2547.0	2566.4
15°	734.6	870.6	1233.0	1356.0	1699.1	2116.5	2284.8	2456.4	2679.7	2770.3	2792.9
17.5°	666.7	838.2	1281.6	1411.1	1828.5	2320.5	2491.9	2634.4	2815.6	2877.1	2893.2
20°	582.5	786.5	1313.9	1482.2	1964.5	2469.4	2634.4	2744.4	2867.4	2906.3	2912.7
22.5°	521.0	731.4	1333.4	1508.1	2055.0	2559.9	2699.1	2786.4	2870.6	2883.6	2886.8
25°	469.3	669.9	1330.2	1537.3	2132.8	2615.0	2721.8	2786.4	2835.0	2841.5	2841.5
27.5°	420.7	601.9	1317.2	1543.8	2191.0	2627.9	2712.1	2757.4	2780.0	2792.9	2792.9
30°	378.7	537.2	1284.8	1530.8	2216.9	2615.0	2682.9	2705.5	2728.2	2747.6	2757.4
32.5°	346.3	475.7	1236.3	1504.9	2220.1	2582.6	2631.2	2644.1	2676.5	2721.8	2738.0
35°	317.2	414.2	1181.3	1469.3	2200.7	2530.9	2563.2	2576.1	2640.8	2708.8	2731.5
37.5°	288.0	368.9	1110.0	1407.8	2171.6	2469.4	2491.9	2514.6	2615.0	2695.9	2721.8
40°	258.9	330.1	1025.9	1339.8	2126.3	2394.9	2414.3	2449.9	2582.6	2676.5	2702.3
42.5°	236.3	297.8	935.3	1268.7	2068.1	2310.7	2339.9	2391.6	2543.8	2644.1	2673.2
45°	216.9	265.3	838.2	1171.5	1993.6	2223.3	2265.4	2336.6	2498.4	2595.6	2621.4
47.5°	197.5	242.7	737.9	1071.2	1912.7	2135.9	2191.0	2271.9	2437.0	2530.9	2553.5
50°	181.2	220.1	637.6	964.4	1825.3	2042.1	2106.9	2191.0	2359.3	2446.7	2475.8
52.5°	168.3	200.6	543.7	857.6	1725.0	1945.0	2019.5	2106.9	2265.4	2349.6	2369.0
55°	155.4	184.4	462.8	744.4	1621.4	1841.4	1922.4	2006.6	2161.9	2233.1	2246.0
57.5°	148.9	171.5	394.8	637.6	1511.4	1725.0	1815.6	1893.3	2038.9	2093.9	2106.9
60°	139.1	161.8	343.1	546.9	1391.6	1614.9	1692.6	1770.3	1893.3	1938.6	1948.2
62.5°	129.5	155.4	304.3	459.5	1268.7	1485.4	1563.2	1634.3	1737.9	1770.3	1783.2
65°	123.0	148.9	275.1	394.8	1142.5	1349.6	1427.2	1488.7	1572.8	1605.3	1611.7
67.5°	116.5	142.4	252.4	339.8	1016.2	1213.6	1271.8	1330.2	1394.9	1427.2	1430.5
70°	106.8	136.0	233.0	301.0	886.8	1058.3	1106.8	1168.3	1220.1	1236.3	1246.0
72.5°	100.3	126.2	220.1	271.8	754.1	909.4	954.8	990.3	1035.7	1051.8	1051.8
75°	90.6	113.3	207.1	242.7	618.2	744.4	783.2	818.8	854.4	860.9	851.2
77.5°	80.9	100.3	178.0	203.9	482.2	589.0	621.3	640.8	669.9	676.4	679.7
80°	68.0	87.4	139.1	158.5	349.5	433.6	456.3	472.6	498.4	498.4	504.9
82.5°	51.8	68.0	100.3	113.3	236.3	297.8	317.2	326.8	343.1	343.1	343.1
85°	32.3	42.1	64.7	74.4	142.4	181.2	194.2	197.5	210.4	213.6	213.6
87.5°	16.2	22.7	42.1	45.3	74.4	93.9	93.9	100.3	100.3	97.1	93.9
90°	7.9	14.3	20.7	22.3	35.0	51.9	60.4	53.7	40.3	30.2	30.2
92.5°	31.8	86.0	140.1	153.6	215.8	298.9	340.4	298.3	214.3	151.2	145.2
95°	76.4	175.4	274.3	299.1	531.1	840.4	995.1	888.0	673.7	513.1	494.9
97.5°	132.1	219.4	306.7	328.5	715.4	1231.2	1489.1	1421.4	1286.0	1184.4	1149.8
100°	175.0	254.2	333.4	353.2	782.5	1354.8	1641.0	1646.0	1655.8	1663.3	1622.0
102.5°	211.6	285.4	359.3	377.8	813.1	1393.7	1684.0	1770.2	1942.8	2072.2	2036.8
105°	273.7	336.2	398.7	414.4	836.0	1398.1	1679.2	1872.5	2259.3	2549.4	2530.4
107.5°	337.2	395.6	453.9	468.5	840.3	1335.9	1583.7	1853.5	2393.0	2797.5	2802.1
110°	380.2	432.9	485.6	498.8	833.9	1280.7	1504.2	1805.8	2408.8	2861.2	2881.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	422.4	472.6	522.8	535.4	834.2	1232.6	1431.8	1740.5	2357.7	2820.7	2851.1
115°	486.0	532.3	578.7	590.3	841.8	1177.4	1345.1	1642.5	2237.1	2683.1	2725.2
117.5°	548.9	590.9	633.0	643.5	857.5	1142.7	1285.4	1553.7	2090.4	2492.9	2539.6
120°	585.5	625.1	664.6	674.5	870.2	1131.2	1261.6	1506.8	1997.1	2364.9	2410.3
122.5°	621.2	661.2	701.2	711.1	888.5	1125.0	1243.2	1464.0	1905.6	2236.8	2281.7
125°	676.1	712.6	749.0	758.1	913.2	1120.0	1223.4	1411.0	1786.1	2067.4	2108.7
127.5°	720.7	757.4	794.2	803.4	937.8	1117.1	1206.7	1367.7	1689.8	1931.3	1966.1
130°	744.5	784.1	823.7	833.6	955.8	1118.8	1200.3	1343.6	1630.4	1845.5	1877.6
132.5°	769.2	808.7	848.3	858.3	970.4	1120.0	1194.8	1323.1	1579.7	1772.2	1801.0
135°	805.8	841.8	878.0	887.0	986.4	1118.9	1185.2	1292.7	1507.6	1668.8	1693.7
137.5°	843.2	878.8	914.6	923.5	1010.2	1125.8	1183.6	1274.4	1456.2	1592.4	1612.8
140°	874.2	907.0	939.9	948.2	1024.8	1127.0	1178.0	1256.5	1413.5	1531.2	1550.3
142.5°	898.1	928.5	958.9	966.4	1037.0	1131.0	1178.0	1247.0	1384.9	1488.3	1504.7
145°	934.7	961.2	987.7	994.3	1053.0	1131.1	1170.1	1226.5	1339.2	1423.9	1436.2
147.5°	971.2	997.0	1022.8	1029.3	1076.3	1138.8	1170.1	1214.5	1303.2	1369.7	1380.0
150°	995.1	1018.4	1041.8	1047.6	1088.4	1142.8	1170.1	1207.6	1282.5	1338.8	1347.1
152.5°	1019.8	1037.5	1055.2	1059.6	1096.4	1145.5	1170.1	1202.1	1266.1	1314.1	1320.4
155°	1056.3	1069.4	1082.5	1085.8	1113.9	1151.4	1170.1	1195.5	1246.5	1284.6	1288.8
157.5°	1083.4	1096.1	1108.9	1112.1	1131.4	1157.2	1170.1	1189.9	1229.5	1259.2	1262.1
160°	1101.7	1111.7	1121.5	1124.0	1139.4	1159.9	1170.1	1187.1	1221.1	1246.5	1248.2
162.5°	1120.0	1127.4	1134.9	1136.7	1147.8	1162.6	1170.1	1184.4	1213.0	1234.5	1236.2
165°	1139.9	1146.6	1153.3	1155.0	1160.1	1166.7	1170.1	1180.3	1200.9	1216.3	1218.0
167.5°	1158.1	1161.3	1164.5	1165.3	1169.5	1175.2	1178.0	1184.7	1198.2	1208.2	1208.9
170°	1170.1	1173.2	1176.5	1177.3	1177.6	1177.8	1178.0	1184.7	1198.2	1208.2	1208.2
172.5°	1176.5	1177.2	1177.8	1178.0	1178.0	1178.0	1178.0	1183.4	1194.0	1201.9	1201.4
175°	1185.2	1185.2	1185.2	1185.2	1182.8	1179.7	1178.0	1181.4	1188.1	1193.1	1193.1
177.5°	1185.2	1185.2	1185.2	1185.2	1183.4	1180.9	1179.7	1182.3	1187.6	1191.6	1190.9
180°	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2	1185.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1006.5	1006.5
2.5°	1074.5	1068.0
5°	1381.9	1388.4
7.5°	1860.8	1857.7
10°	2314.0	2343.2
12.5°	2644.1	2650.6
15°	2844.8	2857.7
17.5°	2922.4	2925.7
20°	2925.7	2919.2
22.5°	2890.1	2883.6
25°	2848.0	2844.8
27.5°	2809.1	2812.4
30°	2792.9	2802.7
32.5°	2792.9	2809.1
35°	2799.4	2815.6
37.5°	2796.2	2815.6
40°	2783.3	2805.9
42.5°	2747.6	2763.9
45°	2692.6	2712.1
47.5°	2621.4	2634.4
50°	2530.9	2543.8
52.5°	2417.5	2420.8
55°	2281.6	2294.6
57.5°	2135.9	2139.2
60°	1974.2	1983.9
62.5°	1802.6	1802.6
65°	1621.4	1627.9
67.5°	1433.7	1449.9
70°	1242.8	1246.0
72.5°	1055.1	1055.1
75°	860.9	864.1
77.5°	676.4	676.4
80°	501.6	504.9
82.5°	346.3	352.7
85°	216.9	216.9
87.5°	100.3	90.6
90°	30.2	30.2
92.5°	121.1	97.1
95°	422.1	349.2
97.5°	1011.2	872.6
100°	1457.0	1291.8
102.5°	1895.4	1753.9
105°	2454.4	2378.3
107.5°	2820.6	2838.9
110°	2960.2	3039.4



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2972.6	3094.2
115°	2893.8	3062.5
117.5°	2726.7	2913.7
120°	2592.0	2773.7
122.5°	2460.9	2640.0
125°	2273.7	2438.9
127.5°	2105.4	2244.8
130°	2006.3	2135.0
132.5°	1916.3	2031.5
135°	1793.1	1892.4
137.5°	1694.1	1775.5
140°	1626.2	1702.2
142.5°	1570.1	1635.5
145°	1485.7	1535.2
147.5°	1421.0	1462.0
150°	1380.3	1413.5
152.5°	1345.5	1370.5
155°	1305.4	1322.0
157.5°	1273.7	1285.4
160°	1254.9	1261.6
162.5°	1242.5	1248.9
165°	1224.7	1231.4
167.5°	1211.8	1214.7
170°	1208.2	1208.2
172.5°	1198.9	1196.4
175°	1193.1	1193.1
177.5°	1188.1	1185.2
180°	1185.2	1185.2



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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	9.53	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	8.64	9.35	10.66	22.49	23.20	23.48	24.19	25.50
	8H	7.72	8.40	8.71	9.40	10.71	22.62	23.29	23.60	24.30	25.60
	12H	7.74	8.39	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	18.21	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	24.94	26.29
8H	4H	16.73	17.20	17.74	18.23	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	17.31	17.90	18.34	19.69	22.69	23.12	23.72	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