

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: P937716

Luminaire Tested: SQ4-FB-100U-125D-835-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937716
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-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

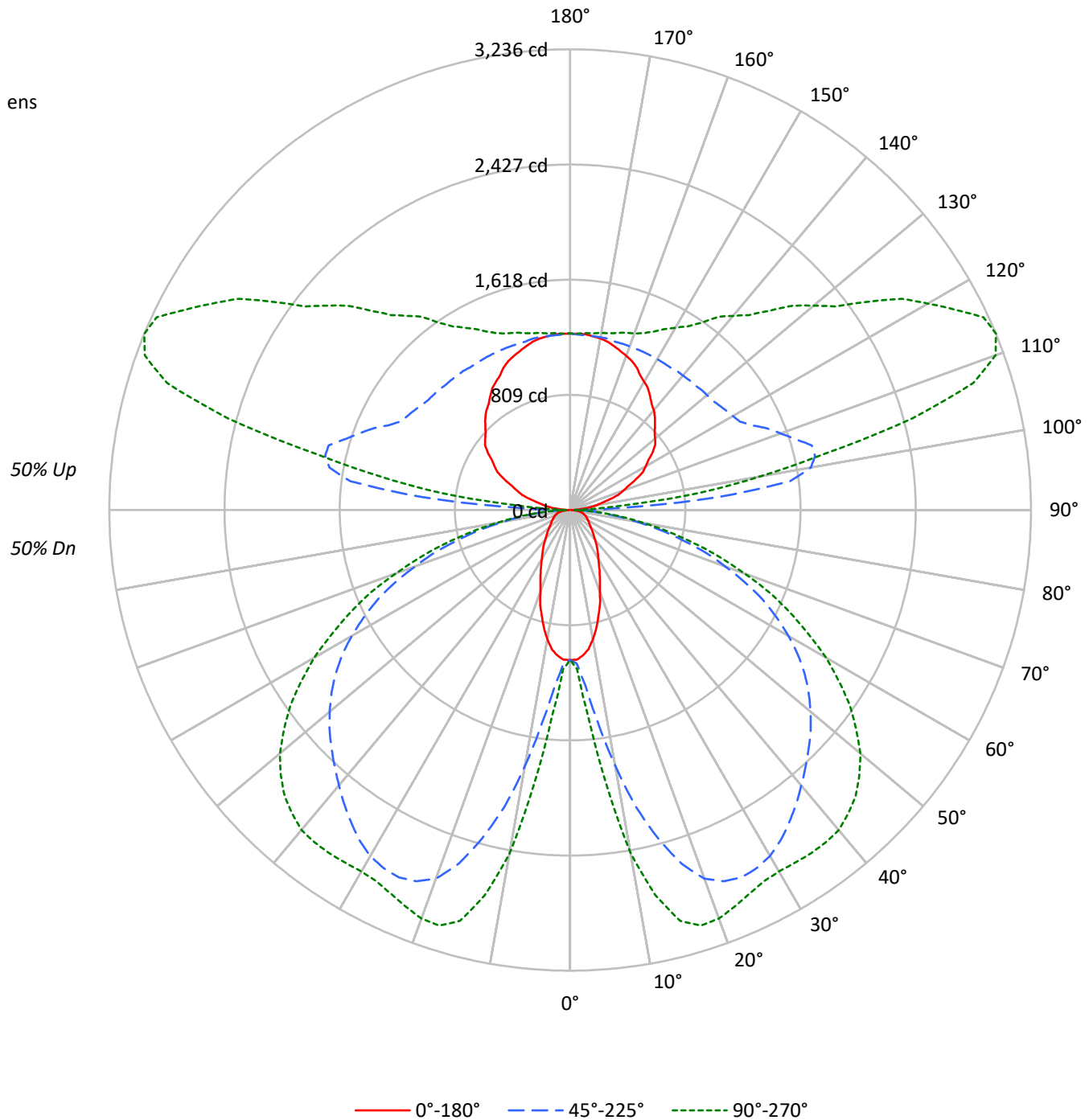
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16183.0 lumens
Efficiency: N/A
Efficacy: 117.6 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									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	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	50																												
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47	41																												
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	34																												
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	28																												
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	23																												
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	20																												
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	17																												
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	15																												
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13																												
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	11																												
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	10																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4884	4884	4884
5°	4771	5645	6564
10°	4328	8228	10883
15°	3678	10750	13141
20°	2994	12457	13392
25°	2498	13036	13121
30°	2106	13118	13096
35°	1862	12900	13434
40°	1623	12617	13785
45°	1470	12410	13838
50°	1348	12223	13609
55°	1291	11950	13006
60°	1322	11425	12054
65°	1375	10628	10745
70°	1465	9268	9077
75°	1624	7557	7084
80°	1774	5241	4773
85°	1574	2781	2443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.2	0.8
10°-20°	603.5	3.7
20°-30°	1055.6	6.5
30°-40°	1358.8	8.4
40°-50°	1517.7	9.4
50°-60°	1453.6	9.0
60°-70°	1152.0	7.1
70°-80°	677.4	4.2
80°-90°	192.9	1.2
90°-100°	604.2	3.7
100°-110°	1588.5	9.8
110°-120°	1647.1	10.2
120°-130°	1321.2	8.2
130°-140°	1036.6	6.4
140°-150°	795.7	4.9
150°-160°	573.0	3.5
160°-170°	350.6	2.2
170°-180°	118.4	0.7
0°-30°	1795.2	11.1
0°-40°	3154.0	19.5
0°-60°	6125.4	37.9
0°-90°	8147.7	50.3
90°-120°	3839.8	23.7
90°-150°	6993.2	43.2
90°-180°	8035.0	49.7
0°-180°	16183.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1053	1053	1053	1053	1053	
5°	1026	1100	1239	1401	1452	95
15°	768	1418	2390	2897	2989	214
25°	491	1608	2846	2972	2975	226
35°	332	1537	2681	2833	2945	207
45°	227	1225	2369	2714	2836	175
55°	162	778	2010	2335	2400	148
65°	129	413	1493	1679	1702	127
75°	95	254	819	900	904	99
85°	34	78	203	223	227	36
90°	8	23	63	32	32	9
95°	80	313	1041	537	365	89
105°	286	433	1756	2666	2487	303
115°	508	617	1407	2806	3203	502
125°	707	793	1279	2162	2551	628
135°	843	928	1240	1745	1979	652
145°	978	1040	1224	1489	1606	612
155°	1105	1136	1224	1344	1383	508
165°	1192	1208	1224	1272	1288	336
175°	1240	1240	1232	1248	1248	118
180°	1240	1240	1240	1240	1240	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6	1052.6
2.5°	1052.6	1052.6	1059.4	1062.8	1069.5	1072.9	1079.7	1086.5	1106.8	1110.2	1116.9
5°	1025.5	1039.1	1083.1	1100.0	1147.4	1211.7	1238.8	1282.8	1374.1	1401.2	1418.1
7.5°	984.9	1015.4	1123.7	1150.8	1269.2	1438.5	1509.5	1604.3	1749.8	1820.9	1878.5
10°	920.6	984.9	1177.8	1242.1	1435.1	1692.3	1824.3	1956.3	2176.3	2274.5	2311.7
12.5°	849.5	954.5	1235.4	1323.4	1600.9	1976.6	2135.7	2281.2	2531.7	2663.7	2684.0
15°	768.3	910.5	1289.5	1418.1	1776.9	2213.5	2389.5	2568.9	2802.5	2897.2	2920.9
17.5°	697.2	876.6	1340.3	1475.7	1912.3	2426.8	2606.1	2755.1	2944.6	3008.9	3025.8
20°	609.2	822.5	1374.1	1550.1	2054.5	2582.5	2755.1	2870.1	2998.8	3039.4	3046.1
22.5°	544.9	764.9	1394.5	1577.2	2149.2	2677.2	2822.8	2914.1	3002.1	3015.7	3019.1
25°	490.8	700.6	1391.1	1607.7	2230.5	2734.8	2846.5	2914.1	2964.9	2971.7	2971.7
27.5°	440.0	629.5	1377.5	1614.5	2291.4	2748.3	2836.3	2883.7	2907.4	2920.9	2920.9
30°	396.0	561.8	1343.7	1600.9	2318.5	2734.8	2805.8	2829.5	2853.2	2873.5	2883.7
32.5°	362.2	497.5	1292.9	1573.8	2321.8	2700.9	2751.7	2765.2	2799.1	2846.5	2863.4
35°	331.7	433.2	1235.4	1536.6	2301.5	2646.8	2680.6	2694.1	2761.8	2832.9	2856.6
37.5°	301.2	385.8	1160.9	1472.3	2271.1	2582.5	2606.1	2629.8	2734.8	2819.4	2846.5
40°	270.8	345.2	1072.9	1401.2	2223.7	2504.6	2524.9	2562.1	2700.9	2799.1	2826.1
42.5°	247.1	311.4	978.2	1326.8	2162.8	2416.6	2447.1	2501.2	2660.3	2765.2	2795.7
45°	226.8	277.5	876.6	1225.2	2084.9	2325.2	2369.2	2443.7	2612.9	2714.5	2741.5
47.5°	206.5	253.8	771.7	1120.3	2000.3	2233.8	2291.4	2376.0	2548.6	2646.8	2670.5
50°	189.5	230.2	666.8	1008.6	1908.9	2135.7	2203.4	2291.4	2467.4	2558.8	2589.2
52.5°	176.0	209.8	568.6	896.9	1804.0	2034.1	2112.0	2203.4	2369.2	2457.2	2477.5
55°	162.5	192.9	484.0	778.5	1695.7	1925.8	2010.5	2098.5	2260.9	2335.4	2348.9
57.5°	155.7	179.4	412.9	666.8	1580.6	1804.0	1898.8	1980.0	2132.3	2189.8	2203.4
60°	145.5	169.2	358.8	572.0	1455.4	1688.9	1770.1	1851.4	1980.0	2027.4	2037.5
62.5°	135.4	162.5	318.2	480.6	1326.8	1553.5	1634.8	1709.2	1817.5	1851.4	1864.9
65°	128.6	155.7	287.7	412.9	1194.8	1411.4	1492.6	1556.9	1644.9	1678.8	1685.5
67.5°	121.8	148.9	264.0	355.4	1062.8	1269.2	1330.1	1391.1	1458.8	1492.6	1496.0
70°	111.7	142.2	243.7	314.8	927.4	1106.8	1157.5	1221.8	1276.0	1292.9	1303.1
72.5°	104.9	132.0	230.2	284.3	788.6	951.1	998.5	1035.7	1083.1	1100.0	1100.0
75°	94.8	118.5	216.6	253.8	646.5	778.5	819.1	856.3	893.5	900.3	890.2
77.5°	84.6	104.9	186.2	213.2	504.3	616.0	649.8	670.2	700.6	707.4	710.8
80°	71.1	91.4	145.5	165.8	365.5	453.5	477.2	494.2	521.2	521.2	528.0
82.5°	54.2	71.1	104.9	118.5	247.1	311.4	331.7	341.8	358.8	358.8	358.8
85°	33.8	44.0	67.7	77.8	148.9	189.5	203.1	206.5	220.0	223.4	223.4
87.5°	16.9	23.7	44.0	47.4	77.8	98.2	98.2	104.9	104.9	101.5	98.2
90°	8.3	15.0	21.6	23.3	36.6	54.3	63.2	56.2	42.1	31.6	31.6
92.5°	33.3	89.9	146.5	160.6	225.7	312.6	356.0	312.0	224.1	158.1	151.8
95°	79.9	183.4	286.9	312.8	555.4	878.9	1040.7	928.7	704.6	536.6	517.6
97.5°	138.1	229.4	320.8	343.6	748.2	1287.6	1557.3	1486.5	1344.9	1238.7	1202.5
100°	183.0	265.8	348.7	369.4	818.3	1416.9	1716.2	1721.4	1731.7	1739.5	1696.3
102.5°	221.3	298.5	375.8	395.1	850.4	1457.5	1761.1	1851.3	2031.8	2167.1	2130.1
105°	286.2	351.6	417.0	433.4	874.3	1462.2	1756.1	1958.3	2362.8	2666.2	2646.3
107.5°	352.7	413.7	474.7	490.0	878.8	1397.1	1656.3	1938.4	2502.6	2925.7	2930.5
110°	397.6	452.7	507.8	521.6	872.1	1339.4	1573.1	1888.5	2519.2	2992.3	3013.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	441.7	494.2	546.8	559.9	872.4	1289.1	1497.4	1820.2	2465.7	2949.9	2981.7
115°	508.3	556.7	605.2	617.3	880.4	1231.3	1406.7	1717.7	2339.6	2806.0	2850.1
117.5°	574.0	618.0	662.0	673.0	896.8	1195.1	1344.3	1624.9	2186.2	2607.1	2656.0
120°	612.3	653.7	695.1	705.4	910.1	1183.0	1319.4	1575.8	2088.6	2473.2	2520.7
122.5°	649.7	691.5	733.3	743.7	929.2	1176.5	1300.2	1531.1	1992.9	2339.3	2386.2
125°	707.1	745.2	783.3	792.8	955.0	1171.3	1279.4	1475.6	1867.9	2162.1	2205.3
127.5°	753.7	792.1	830.6	840.2	980.8	1168.3	1262.0	1430.4	1767.2	2019.8	2056.2
130°	778.6	820.0	861.4	871.8	999.6	1170.1	1255.3	1405.2	1705.1	1930.0	1963.6
132.5°	804.4	845.8	887.2	897.6	1014.9	1171.3	1249.5	1383.7	1652.1	1853.4	1883.5
135°	842.7	880.4	918.2	927.6	1031.6	1170.2	1239.5	1351.9	1576.7	1745.3	1771.3
137.5°	881.8	919.1	956.5	965.8	1056.5	1177.4	1237.8	1332.8	1522.9	1665.4	1686.7
140°	914.2	948.6	983.0	991.6	1071.7	1178.6	1232.0	1314.1	1478.3	1601.4	1621.3
142.5°	939.2	971.0	1002.8	1010.7	1084.5	1182.8	1232.0	1304.1	1448.3	1556.5	1573.6
145°	977.5	1005.2	1033.0	1039.9	1101.2	1182.9	1223.7	1282.7	1400.6	1489.1	1502.0
147.5°	1015.7	1042.7	1069.7	1076.5	1125.6	1191.0	1223.7	1270.1	1362.9	1432.5	1443.2
150°	1040.7	1065.1	1089.5	1095.6	1138.3	1195.2	1223.7	1262.9	1341.3	1400.1	1408.8
152.5°	1066.5	1085.0	1103.5	1108.1	1146.6	1198.0	1223.7	1257.2	1324.1	1374.3	1380.9
155°	1104.7	1118.4	1132.1	1135.5	1164.9	1204.1	1223.7	1250.3	1303.6	1343.5	1347.8
157.5°	1133.0	1146.3	1159.7	1163.0	1183.2	1210.2	1223.7	1244.4	1285.8	1316.9	1319.9
160°	1152.2	1162.6	1172.9	1175.5	1191.6	1213.0	1223.7	1241.5	1277.0	1303.6	1305.4
162.5°	1171.3	1179.1	1186.9	1188.8	1200.4	1215.9	1223.7	1238.7	1268.6	1291.1	1292.8
165°	1192.1	1199.1	1206.1	1207.9	1213.2	1220.2	1223.7	1234.4	1255.9	1272.0	1273.8
167.5°	1211.2	1214.5	1217.9	1218.7	1223.1	1229.0	1232.0	1239.0	1253.1	1263.6	1264.3
170°	1223.7	1227.0	1230.4	1231.2	1231.5	1231.8	1232.0	1239.0	1253.1	1263.6	1263.6
172.5°	1230.4	1231.1	1231.8	1232.0	1232.0	1232.0	1232.0	1237.6	1248.7	1257.0	1256.4
175°	1239.5	1239.5	1239.5	1239.5	1237.0	1233.7	1232.0	1235.5	1242.5	1247.8	1247.8
177.5°	1239.5	1239.5	1239.5	1239.5	1237.6	1235.0	1233.7	1236.5	1242.0	1246.2	1245.5
180°	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5	1239.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1052.6	1052.6
2.5°	1123.7	1116.9
5°	1445.2	1452.0
7.5°	1946.1	1942.8
10°	2420.0	2450.5
12.5°	2765.2	2772.0
15°	2975.1	2988.6
17.5°	3056.3	3059.7
20°	3059.7	3052.9
22.5°	3022.5	3015.7
25°	2978.5	2975.1
27.5°	2937.8	2941.2
30°	2920.9	2931.1
32.5°	2920.9	2937.8
35°	2927.7	2944.6
37.5°	2924.3	2944.6
40°	2910.8	2934.5
42.5°	2873.5	2890.5
45°	2816.0	2836.3
47.5°	2741.5	2755.1
50°	2646.8	2660.3
52.5°	2528.3	2531.7
55°	2386.1	2399.7
57.5°	2233.8	2237.2
60°	2064.6	2074.8
62.5°	1885.2	1885.2
65°	1695.7	1702.5
67.5°	1499.4	1516.3
70°	1299.7	1303.1
72.5°	1103.4	1103.4
75°	900.3	903.7
77.5°	707.4	707.4
80°	524.6	528.0
82.5°	362.2	368.9
85°	226.8	226.8
87.5°	104.9	94.8
90°	31.6	31.6
92.5°	126.7	101.5
95°	441.4	365.2
97.5°	1057.5	912.6
100°	1523.7	1351.0
102.5°	1982.2	1834.3
105°	2566.8	2487.3
107.5°	2949.8	2969.0
110°	3095.8	3178.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3108.8	3236.0
115°	3026.4	3202.8
117.5°	2851.6	3047.2
120°	2710.8	2900.8
122.5°	2573.6	2761.0
125°	2377.9	2550.6
127.5°	2201.9	2347.6
130°	2098.2	2232.8
132.5°	2004.1	2124.6
135°	1875.2	1979.1
137.5°	1771.7	1856.8
140°	1700.7	1780.2
142.5°	1642.0	1710.4
145°	1553.8	1605.5
147.5°	1486.1	1529.0
150°	1443.5	1478.3
152.5°	1407.1	1433.3
155°	1365.2	1382.6
157.5°	1332.1	1344.3
160°	1312.4	1319.4
162.5°	1299.4	1306.1
165°	1280.8	1287.8
167.5°	1267.3	1270.3
170°	1263.6	1263.6
172.5°	1253.8	1251.2
175°	1247.8	1247.8
177.5°	1242.5	1239.5
180°	1239.5	1239.5



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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	6.55	7.45	7.49	8.42	9.68	19.73	20.63	20.67	21.60	22.86
	3H	7.26	8.07	8.21	9.04	10.33	21.57	22.38	22.53	23.36	24.64
	4H	7.56	8.33	8.53	9.31	10.60	22.22	22.99	23.19	23.97	25.26
	6H	7.81	8.52	8.79	9.51	10.81	22.65	23.36	23.63	24.34	25.65
	8H	7.88	8.56	8.87	9.56	10.86	22.77	23.45	23.76	24.45	25.76
	12H	7.90	8.54	8.89	9.54	10.87	22.84	23.48	23.84	24.48	25.81
4H	2H	13.77	14.54	14.74	15.52	16.81	20.01	20.77	20.98	21.76	23.05
	3H	15.34	15.98	16.33	16.99	18.30	22.05	22.70	23.04	23.71	25.02
	4H	15.44	16.03	16.43	17.03	18.36	22.82	23.41	23.82	24.42	25.75
	6H	15.45	15.96	16.46	16.99	18.31	23.37	23.88	24.37	24.90	26.23
	8H	15.43	15.90	16.44	16.92	18.27	23.53	24.01	24.54	25.03	26.37
	12H	15.39	15.82	16.41	16.85	18.20	23.62	24.06	24.65	25.09	26.44
8H	4H	16.88	17.36	17.89	18.38	19.73	22.89	23.36	23.90	24.38	25.73
	6H	17.13	17.52	18.16	18.58	19.93	23.52	23.91	24.55	24.98	26.32
	8H	17.15	17.50	18.19	18.54	19.90	23.74	24.09	24.78	25.14	26.50
	12H	17.12	17.42	18.16	18.47	19.87	23.89	24.19	24.93	25.24	26.64
12H	4H	17.03	17.46	18.06	18.50	19.85	22.84	23.27	23.87	24.31	25.66
	6H	17.39	17.74	18.43	18.78	20.14	23.50	23.85	24.54	24.90	26.26
	8H	17.46	17.77	18.51	18.81	20.21	23.73	24.04	24.78	25.08	26.49