

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: P937793

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-8-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937793
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-B2750-1D-UNV-W2A-W-8-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

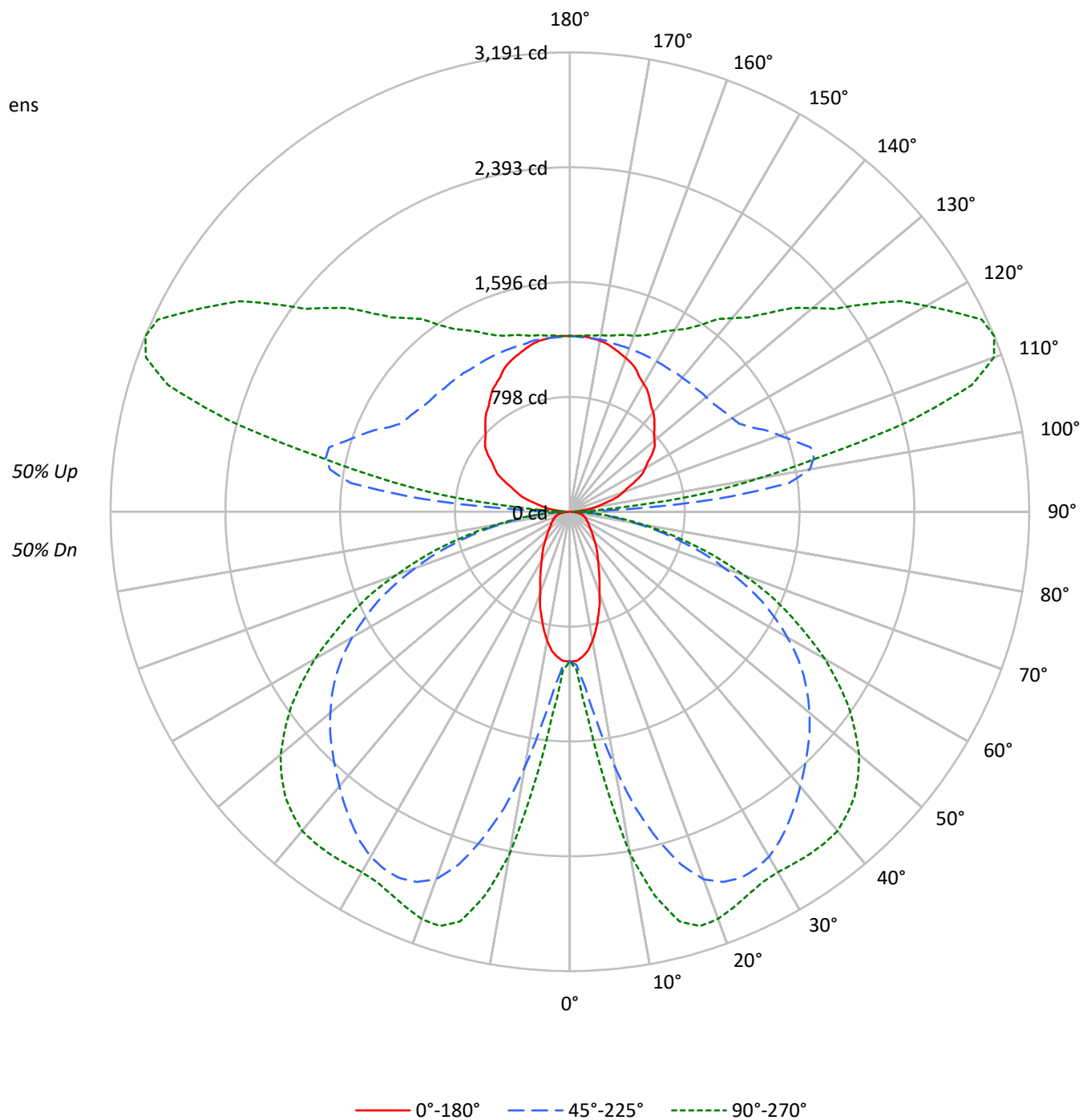
Lumens per Lamp: N/A
Luminaire Lumens: 15956.4 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

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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CATALOG NUMBER: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-8-3000K

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	56	56	56
1	97	93	89	85	90	86	82	79	72	70	67	60	58	57	49	48	47
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4815	4815	4815
5°	4704	5566	6473
10°	4267	8113	10731
15°	3626	10599	12957
20°	2952	12283	13205
25°	2463	12853	12937
30°	2077	12934	12913
35°	1837	12720	13246
40°	1600	12441	13592
45°	1449	12236	13645
50°	1329	12053	13419
55°	1273	11783	12824
60°	1303	11265	11885
65°	1356	10479	10595
70°	1444	9138	8950
75°	1601	7451	6984
80°	1749	5167	4706
85°	1551	2742	2409

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 13645 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	0.8
10°-20°	595.0	3.7
20°-30°	1040.8	6.5
30°-40°	1339.8	8.4
40°-50°	1496.5	9.4
50°-60°	1433.3	9.0
60°-70°	1135.9	7.1
70°-80°	667.9	4.2
80°-90°	190.2	1.2
90°-100°	595.8	3.7
100°-110°	1566.2	9.8
110°-120°	1624.0	10.2
120°-130°	1302.7	8.2
130°-140°	1022.1	6.4
140°-150°	784.5	4.9
150°-160°	565.0	3.5
160°-170°	345.7	2.2
170°-180°	116.8	0.7
0°-30°	1770.0	11.1
0°-40°	3109.8	19.5
0°-60°	6039.6	37.9
0°-90°	8033.7	50.3
90°-120°	3786.0	23.7
90°-150°	6895.3	43.2
90°-180°	7923.0	49.7
0°-180°	15956.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1011	1085	1222	1382	1432	93
15°	758	1398	2356	2857	2947	211
25°	484	1585	2807	2930	2933	223
35°	327	1515	2643	2793	2903	204
45°	224	1208	2336	2676	2797	173
55°	160	768	1982	2303	2366	146
65°	127	407	1472	1655	1679	126
75°	94	250	808	888	891	98
85°	33	77	200	220	224	35
90°	8	23	62	31	31	9
95°	79	308	1026	529	360	87
105°	282	427	1732	2629	2452	299
115°	501	609	1387	2767	3158	495
125°	697	782	1262	2132	2515	619
135°	831	915	1222	1721	1951	643
145°	964	1025	1207	1468	1583	604
155°	1089	1120	1207	1325	1363	500
165°	1175	1191	1207	1254	1270	332
175°	1222	1222	1215	1230	1230	116
180°	1222	1222	1222	1222	1222	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1037.9	1037.9	1044.6	1047.9	1054.5	1057.9	1064.6	1071.3	1091.3	1094.7	1101.3
5°	1011.1	1024.6	1067.9	1084.6	1131.3	1194.7	1221.5	1264.8	1354.9	1381.6	1398.2
7.5°	971.1	1001.2	1108.0	1134.7	1251.4	1418.4	1488.4	1581.8	1725.3	1795.4	1852.2
10°	907.7	971.1	1161.3	1224.7	1415.0	1668.6	1798.8	1928.9	2145.8	2242.7	2279.3
12.5°	837.6	941.1	1218.1	1304.9	1578.5	1948.9	2105.8	2249.3	2496.3	2626.4	2646.4
15°	757.5	897.8	1271.4	1398.2	1752.0	2182.5	2356.0	2532.9	2763.3	2856.6	2880.0
17.5°	687.4	864.3	1321.5	1455.0	1885.5	2392.8	2569.6	2716.5	2903.4	2966.8	2983.4
20°	600.7	811.0	1354.9	1528.4	2025.7	2546.3	2716.5	2829.9	2956.8	2996.8	3003.5
22.5°	537.3	754.2	1375.0	1555.1	2119.1	2639.7	2783.3	2873.3	2960.1	2973.5	2976.8
25°	483.9	690.8	1371.6	1585.2	2199.3	2696.5	2806.6	2873.3	2923.4	2930.1	2930.1
27.5°	433.8	620.7	1358.2	1591.9	2259.3	2709.8	2796.6	2843.3	2866.7	2880.0	2880.0
30°	390.5	553.9	1324.9	1578.5	2286.0	2696.5	2766.5	2789.9	2813.3	2833.3	2843.3
32.5°	357.1	490.5	1274.8	1551.8	2289.3	2663.1	2713.2	2726.5	2759.9	2806.6	2823.3
35°	327.1	427.1	1218.1	1515.1	2269.3	2609.7	2643.1	2656.4	2723.1	2793.2	2816.6
37.5°	297.0	380.4	1144.6	1451.7	2239.3	2546.3	2569.6	2593.0	2696.5	2779.9	2806.6
40°	267.0	340.4	1057.9	1381.6	2192.6	2469.5	2489.6	2526.2	2663.1	2759.9	2786.5
42.5°	243.6	307.0	964.5	1308.2	2132.5	2382.8	2412.8	2466.2	2623.1	2726.5	2756.6
45°	223.6	273.6	864.3	1208.0	2055.7	2292.6	2336.0	2409.5	2576.3	2676.5	2703.1
47.5°	203.6	250.2	760.9	1104.6	1972.3	2202.5	2259.3	2342.7	2512.9	2609.7	2633.1
50°	186.8	227.0	657.5	994.5	1882.2	2105.8	2172.6	2259.3	2432.9	2523.0	2553.0
52.5°	173.5	206.9	560.6	884.3	1778.7	2005.6	2082.4	2172.6	2336.0	2422.8	2442.8
55°	160.2	190.2	477.2	767.6	1672.0	1898.8	1982.4	2069.1	2229.2	2302.7	2316.0
57.5°	153.5	176.9	407.1	657.5	1558.5	1778.7	1872.2	1952.3	2102.4	2159.1	2172.6
60°	143.5	166.8	353.8	564.0	1435.0	1665.3	1745.3	1825.5	1952.3	1999.0	2009.0
62.5°	133.5	160.2	313.7	473.9	1308.2	1531.8	1611.9	1685.3	1792.1	1825.5	1838.8
65°	126.8	153.5	283.7	407.1	1178.1	1391.6	1471.7	1535.1	1621.9	1655.3	1661.9
67.5°	120.1	146.8	260.3	350.4	1047.9	1251.4	1311.5	1371.6	1438.4	1471.7	1475.1
70°	110.1	140.2	240.3	310.4	914.4	1091.3	1141.3	1204.7	1258.1	1274.8	1284.9
72.5°	103.4	130.2	227.0	280.3	777.6	937.8	984.5	1021.2	1067.9	1084.6	1084.6
75°	93.5	116.8	213.6	250.2	637.4	767.6	807.6	844.3	881.0	887.7	877.7
77.5°	83.4	103.4	183.6	210.2	497.2	607.4	640.7	660.8	690.8	697.5	700.8
80°	70.1	90.1	143.5	163.5	360.4	447.2	470.5	487.3	513.9	513.9	520.6
82.5°	53.4	70.1	103.4	116.8	243.6	307.0	327.1	337.0	353.8	353.8	353.8
85°	33.3	43.4	66.8	76.7	146.8	186.8	200.3	203.6	216.9	220.3	220.3
87.5°	16.7	23.4	43.4	46.7	76.7	96.8	96.8	103.4	103.4	100.1	96.8
90°	8.2	14.8	21.3	23.0	36.1	53.5	62.3	55.4	41.5	31.2	31.2
92.5°	32.8	88.6	144.4	158.4	222.5	308.2	351.0	307.6	221.0	155.9	149.7
95°	78.8	180.8	282.9	308.4	547.6	866.6	1026.1	915.7	694.7	529.1	510.4
97.5°	136.2	226.2	316.3	338.8	737.7	1269.6	1535.5	1465.7	1326.1	1221.4	1185.7
100°	180.4	262.1	343.8	364.2	806.8	1397.1	1692.2	1697.3	1707.5	1715.1	1672.6
102.5°	218.2	294.3	370.5	389.6	838.5	1437.1	1736.4	1825.4	2003.4	2136.8	2100.3
105°	282.2	346.7	411.2	427.3	862.1	1441.7	1731.5	1930.9	2329.7	2628.9	2609.3
107.5°	347.8	407.9	468.1	483.1	866.5	1377.5	1633.1	1911.3	2467.6	2884.7	2889.5
110°	392.0	446.4	500.7	514.3	859.9	1320.6	1551.1	1862.1	2483.9	2950.4	2970.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	435.5	487.3	539.1	552.1	860.2	1271.1	1476.4	1794.7	2431.2	2908.6	2940.0
115°	501.2	548.9	596.7	608.7	868.1	1214.1	1387.0	1693.7	2306.8	2766.7	2810.2
117.5°	566.0	609.3	652.7	663.6	884.2	1178.4	1325.5	1602.2	2155.6	2570.6	2618.8
120°	603.7	644.5	685.4	695.5	897.4	1166.4	1300.9	1553.7	2059.4	2438.6	2485.4
122.5°	640.6	681.8	723.0	733.3	916.2	1160.0	1282.0	1509.7	1965.0	2306.5	2352.8
125°	697.2	734.8	772.3	781.7	941.6	1154.9	1261.5	1454.9	1841.7	2131.8	2174.4
127.5°	743.1	781.0	819.0	828.4	967.1	1151.9	1244.3	1410.4	1742.5	1991.5	2027.4
130°	767.7	808.5	849.3	859.6	985.6	1153.7	1237.7	1385.5	1681.2	1903.0	1936.1
132.5°	793.1	834.0	874.8	885.0	1000.7	1154.9	1232.0	1364.3	1629.0	1827.5	1857.1
135°	830.9	868.1	905.3	914.6	1017.2	1153.8	1222.1	1333.0	1554.6	1720.9	1746.5
137.5°	869.5	906.2	943.1	952.3	1041.7	1160.9	1220.5	1314.1	1501.6	1642.1	1663.1
140°	901.4	935.3	969.2	977.7	1056.7	1162.1	1214.8	1295.7	1457.6	1579.0	1598.6
142.5°	926.1	957.4	988.8	996.6	1069.3	1166.2	1214.8	1285.8	1428.0	1534.7	1551.6
145°	963.8	991.1	1018.5	1025.3	1085.8	1166.3	1206.6	1264.7	1381.0	1468.3	1481.0
147.5°	1001.5	1028.1	1054.7	1061.4	1109.8	1174.3	1206.6	1252.3	1343.8	1412.4	1423.0
150°	1026.1	1050.2	1074.2	1080.3	1122.4	1178.5	1206.6	1245.2	1322.5	1380.5	1389.1
152.5°	1051.6	1069.8	1088.1	1092.6	1130.5	1181.2	1206.6	1239.6	1305.6	1355.1	1361.6
155°	1089.2	1102.7	1116.3	1119.6	1148.6	1187.2	1206.6	1232.8	1285.3	1324.7	1328.9
157.5°	1117.1	1130.3	1143.5	1146.7	1166.6	1193.3	1206.6	1227.0	1267.8	1298.5	1301.4
160°	1136.1	1146.3	1156.5	1159.0	1174.9	1196.0	1206.6	1224.1	1259.1	1285.3	1287.1
162.5°	1154.9	1162.6	1170.3	1172.2	1183.6	1198.9	1206.6	1221.4	1250.8	1273.0	1274.7
165°	1175.4	1182.3	1189.2	1191.0	1196.2	1203.1	1206.6	1217.1	1238.3	1254.2	1256.0
167.5°	1194.2	1197.5	1200.8	1201.6	1206.0	1211.8	1214.8	1221.7	1235.6	1245.9	1246.6
170°	1206.6	1209.8	1213.2	1214.0	1214.3	1214.6	1214.8	1221.7	1235.6	1245.9	1245.9
172.5°	1213.2	1213.9	1214.6	1214.8	1214.8	1214.8	1214.8	1220.3	1231.2	1239.4	1238.8
175°	1222.1	1222.1	1222.1	1222.1	1219.7	1216.4	1214.8	1218.2	1225.1	1230.3	1230.3
177.5°	1222.1	1222.1	1222.1	1222.1	1220.3	1217.7	1216.4	1219.2	1224.6	1228.8	1228.1
180°	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1	1222.1

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1037.9	1037.9
2.5°	1108.0	1101.3
5°	1425.0	1431.7
7.5°	1918.9	1915.6
10°	2386.1	2416.2
12.5°	2726.5	2733.2
15°	2933.4	2946.8
17.5°	3013.5	3016.9
20°	3016.9	3010.2
22.5°	2980.2	2973.5
25°	2936.8	2933.4
27.5°	2896.7	2900.0
30°	2880.0	2890.1
32.5°	2880.0	2896.7
35°	2886.7	2903.4
37.5°	2883.4	2903.4
40°	2870.0	2893.4
42.5°	2833.3	2850.0
45°	2776.6	2796.6
47.5°	2703.1	2716.5
50°	2609.7	2623.1
52.5°	2492.9	2496.3
55°	2352.7	2366.1
57.5°	2202.5	2205.9
60°	2035.7	2045.8
62.5°	1858.8	1858.8
65°	1672.0	1678.7
67.5°	1478.4	1495.1
70°	1281.5	1284.9
72.5°	1088.0	1088.0
75°	887.7	891.0
77.5°	697.5	697.5
80°	517.3	520.6
82.5°	357.1	363.7
85°	223.6	223.6
87.5°	103.4	93.5
90°	31.2	31.2
92.5°	124.9	100.1
95°	435.2	360.1
97.5°	1042.7	899.8
100°	1502.4	1332.1
102.5°	1954.4	1808.6
105°	2530.9	2452.5
107.5°	2908.5	2927.4
110°	3052.5	3134.1

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3065.3	3190.7
115°	2984.0	3158.0
117.5°	2811.7	3004.5
120°	2672.8	2860.2
122.5°	2537.6	2722.3
125°	2344.6	2514.9
127.5°	2171.1	2314.7
130°	2068.8	2201.5
132.5°	1976.0	2094.9
135°	1848.9	1951.4
137.5°	1746.9	1830.8
140°	1676.9	1755.3
142.5°	1619.0	1686.5
145°	1532.0	1583.0
147.5°	1465.3	1507.6
150°	1423.3	1457.6
152.5°	1387.4	1413.2
155°	1346.1	1363.2
157.5°	1313.5	1325.5
160°	1294.0	1300.9
162.5°	1281.2	1287.8
165°	1262.9	1269.8
167.5°	1249.6	1252.5
170°	1245.9	1245.9
172.5°	1236.2	1233.7
175°	1230.3	1230.3
177.5°	1225.1	1222.1
180°	1222.1	1222.1

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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	6.50	7.40	7.44	8.37	9.63	19.68	20.58	20.62	21.55	22.81
	3H	7.21	8.02	8.16	9.00	10.28	21.52	22.33	22.48	23.31	24.59
	4H	7.51	8.28	8.48	9.26	10.55	22.17	22.94	23.14	23.92	25.21
	6H	7.76	8.47	8.74	9.46	10.76	22.60	23.31	23.58	24.30	25.60
	8H	7.83	8.51	8.82	9.51	10.81	22.72	23.40	23.71	24.40	25.71
	12H	7.85	8.49	8.84	9.49	10.82	22.79	23.44	23.79	24.43	25.76
4H	2H	13.72	14.49	14.70	15.47	16.76	19.96	20.73	20.93	21.71	23.00
	3H	15.29	15.93	16.28	16.95	18.25	22.01	22.65	22.99	23.66	24.97
	4H	15.39	15.98	16.38	16.98	18.31	22.77	23.36	23.77	24.37	25.70
	6H	15.40	15.91	16.41	16.94	18.26	23.32	23.83	24.32	24.85	26.18
	8H	15.38	15.85	16.39	16.87	18.22	23.48	23.96	24.49	24.98	26.32
	12H	15.34	15.77	16.37	16.80	18.15	23.58	24.01	24.60	25.04	26.39
8H	4H	16.84	17.31	17.84	18.33	19.68	22.84	23.31	23.85	24.34	25.68
	6H	17.08	17.47	18.11	18.54	19.88	23.47	23.87	24.50	24.93	26.27
	8H	17.10	17.45	18.14	18.49	19.85	23.69	24.04	24.73	25.09	26.45
	12H	17.07	17.38	18.12	18.42	19.82	23.84	24.14	24.88	25.19	26.59
12H	4H	16.98	17.41	18.01	18.45	19.80	22.79	23.22	23.82	24.26	25.61
	6H	17.34	17.69	18.38	18.73	20.10	23.45	23.80	24.50	24.85	26.21
	8H	17.41	17.72	18.46	18.76	20.16	23.69	23.99	24.73	25.03	26.44