

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: P937776

Luminaire Tested: SQ4-FB-100U-125D-940-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

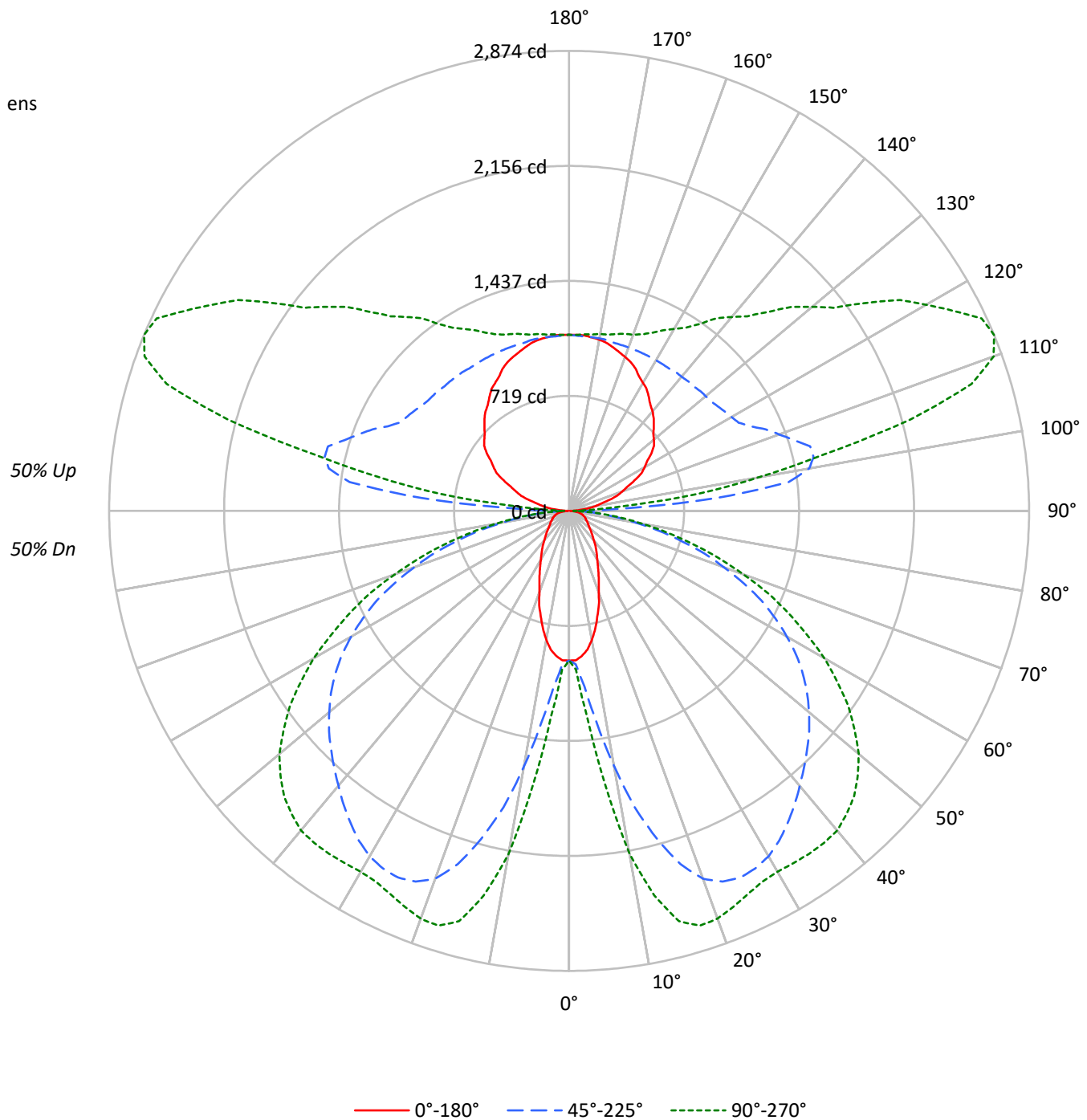
Test Method: LM-79-2019  
Report Number: P937776  
REPORT IS A COMBINATION OF REPORTS P933584 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-940-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14370.5 lumens  
Efficiency: N/A  
Efficacy: 104.4 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 (A<sub>in</sub>): 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	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°	4337	4337	4337
5°	4236	5013	5829
10°	3843	7307	9664
15°	3266	9546	11669
20°	2659	11062	11893
25°	2218	11576	11651
30°	1870	11649	11629
35°	1654	11456	11930
40°	1441	11204	12241
45°	1305	11020	12288
50°	1197	10854	12085
55°	1147	10612	11549
60°	1173	10145	10703
65°	1221	9437	9541
70°	1301	8230	8061
75°	1442	6711	6290
80°	1574	4654	4239
85°	1397	2470	2170

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 12288 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	120.9	0.8
10°-20°	535.9	3.7
20°-30°	937.3	6.5
30°-40°	1206.6	8.4
40°-50°	1347.8	9.4
50°-60°	1290.8	9.0
60°-70°	1023.0	7.1
70°-80°	601.6	4.2
80°-90°	171.3	1.2
90°-100°	536.6	3.7
100°-110°	1410.6	9.8
110°-120°	1462.6	10.2
120°-130°	1173.2	8.2
130°-140°	920.5	6.4
140°-150°	706.5	4.9
150°-160°	508.8	3.5
160°-170°	311.3	2.2
170°-180°	105.2	0.7
0°-30°	1594.1	11.1
0°-40°	2800.7	19.5
0°-60°	5439.3	37.9
0°-90°	7235.2	50.3
90°-120°	3409.7	23.7
90°-150°	6210.0	43.2
90°-180°	7135.0	49.7
0°-180°	14370.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	911	977	1100	1244	1289	84
15°	682	1259	2122	2573	2654	190
25°	436	1428	2528	2639	2642	201
35°	294	1364	2380	2516	2615	184
45°	201	1088	2104	2410	2519	156
55°	144	691	1785	2074	2131	131
65°	114	367	1325	1491	1512	113
75°	84	225	727	800	802	88
85°	30	69	180	198	201	32
90°	7	21	56	28	28	8
95°	71	278	924	476	324	79
105°	254	385	1559	2368	2209	269
115°	451	548	1249	2492	2844	446
125°	628	704	1136	1920	2265	557
135°	748	824	1101	1550	1757	579
145°	868	923	1087	1322	1426	544
155°	981	1008	1087	1193	1228	451
165°	1059	1073	1087	1130	1144	299
175°	1101	1101	1094	1108	1108	104
180°	1101	1101	1101	1101	1101	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	934.7	934.7	940.7	943.8	949.7	952.7	958.8	964.8	982.8	985.9	991.8
5°	910.6	922.7	961.8	976.8	1018.9	1076.0	1100.1	1139.1	1220.2	1244.3	1259.3
7.5°	874.6	901.7	997.8	1021.9	1127.0	1277.4	1340.4	1424.6	1553.8	1617.0	1668.1
10°	817.5	874.6	1045.9	1103.0	1274.4	1502.8	1620.0	1737.2	1932.6	2019.8	2052.8
12.5°	754.4	847.6	1097.0	1175.2	1421.6	1755.2	1896.5	2025.7	2248.1	2365.4	2383.4
15°	682.3	808.5	1145.1	1259.3	1577.9	1965.6	2121.9	2281.2	2488.6	2572.7	2593.8
17.5°	619.1	778.4	1190.2	1310.4	1698.1	2155.0	2314.2	2446.5	2614.8	2671.9	2686.9
20°	541.0	730.4	1220.2	1376.5	1824.4	2293.3	2446.5	2548.6	2662.9	2699.0	2704.9
22.5°	483.9	679.2	1238.3	1400.6	1908.5	2377.4	2506.6	2587.7	2665.9	2677.9	2681.0
25°	435.8	622.1	1235.3	1427.6	1980.7	2428.5	2527.7	2587.7	2632.8	2638.9	2638.9
27.5°	390.7	559.0	1223.2	1433.7	2034.8	2440.5	2518.6	2560.7	2581.8	2593.8	2593.8
30°	351.6	498.9	1193.2	1421.6	2058.8	2428.5	2491.6	2512.6	2533.6	2551.7	2560.7
32.5°	321.6	441.8	1148.1	1397.5	2061.8	2398.4	2443.5	2455.5	2485.6	2527.7	2542.7
35°	294.5	384.7	1097.0	1364.5	2043.7	2350.4	2380.4	2392.4	2452.5	2515.6	2536.7
37.5°	267.5	342.6	1030.9	1307.4	2016.7	2293.3	2314.2	2335.3	2428.5	2503.6	2527.7
40°	240.5	306.5	952.7	1244.3	1974.6	2224.1	2242.1	2275.1	2398.4	2485.6	2509.6
42.5°	219.4	276.5	868.6	1178.2	1920.6	2145.9	2173.0	2221.1	2362.3	2455.5	2482.6
45°	201.4	246.4	778.4	1088.0	1851.4	2064.8	2103.8	2170.0	2320.3	2410.5	2434.5
47.5°	183.4	225.4	685.3	994.8	1776.3	1983.6	2034.8	2109.9	2263.2	2350.4	2371.4
50°	168.3	204.4	592.1	895.6	1695.1	1896.5	1956.6	2034.8	2191.1	2272.2	2299.2
52.5°	156.3	186.3	504.9	796.4	1602.0	1806.3	1875.5	1956.6	2103.8	2182.0	2200.0
55°	144.3	171.3	429.8	691.3	1505.8	1710.1	1785.3	1863.5	2007.7	2073.8	2085.8
57.5°	138.3	159.3	366.7	592.1	1403.6	1602.0	1686.1	1758.2	1893.5	1944.5	1956.6
60°	129.2	150.2	318.6	507.9	1292.4	1499.7	1571.8	1644.0	1758.2	1800.3	1809.3
62.5°	120.2	144.3	282.6	426.8	1178.2	1379.5	1451.7	1517.8	1613.9	1644.0	1656.0
65°	114.2	138.3	255.5	366.7	1061.0	1253.3	1325.4	1382.5	1460.7	1490.8	1496.7
67.5°	108.2	132.2	234.4	315.6	943.8	1127.0	1181.1	1235.3	1295.4	1325.4	1328.4
70°	99.2	126.3	216.4	279.5	823.5	982.8	1027.9	1085.0	1133.1	1148.1	1157.2
72.5°	93.2	117.2	204.4	252.5	700.3	844.6	886.7	919.7	961.8	976.8	976.8
75°	84.2	105.2	192.3	225.4	574.1	691.3	727.4	760.4	793.4	799.5	790.5
77.5°	75.1	93.2	165.3	189.3	447.8	547.0	577.0	595.1	622.1	628.2	631.2
80°	63.1	81.2	129.2	147.2	324.6	402.7	423.8	438.8	462.8	462.8	468.9
82.5°	48.1	63.1	93.2	105.2	219.4	276.5	294.5	303.5	318.6	318.6	318.6
85°	30.0	39.1	60.1	69.1	132.2	168.3	180.4	183.4	195.4	198.4	198.4
87.5°	15.0	21.0	39.1	42.1	69.1	87.2	87.2	93.2	93.2	90.1	87.2
90°	7.4	13.3	19.2	20.7	32.5	48.2	56.1	49.9	37.4	28.1	28.1
92.5°	29.6	79.8	130.1	142.6	200.4	277.6	316.1	277.1	199.0	140.4	134.8
95°	71.0	162.9	254.8	277.8	493.2	780.5	924.1	824.7	625.7	476.5	459.6
97.5°	122.6	203.7	284.9	305.1	664.4	1143.4	1382.9	1320.0	1194.3	1100.0	1067.8
100°	162.5	236.0	309.6	328.0	726.7	1258.2	1524.0	1528.6	1537.7	1544.7	1506.3
102.5°	196.5	265.1	333.7	350.8	755.2	1294.3	1563.9	1644.0	1804.2	1924.4	1891.5
105°	254.1	312.2	370.3	384.9	776.4	1298.4	1559.4	1739.0	2098.2	2367.6	2349.9
107.5°	313.2	367.4	421.5	435.1	780.4	1240.6	1470.8	1721.3	2222.3	2598.0	2602.3
110°	353.1	402.0	450.9	463.2	774.4	1189.4	1396.9	1677.0	2237.0	2657.2	2675.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	392.2	438.8	485.6	497.2	774.7	1144.7	1329.7	1616.3	2189.5	2619.5	2647.7
115°	451.4	494.3	537.4	548.2	781.8	1093.4	1249.1	1525.3	2077.6	2491.7	2530.9
117.5°	509.7	548.8	587.9	597.6	796.4	1061.2	1193.7	1442.9	1941.3	2315.1	2358.5
120°	543.7	580.5	617.2	626.4	808.2	1050.5	1171.6	1399.3	1854.7	2196.2	2238.4
122.5°	576.9	614.1	651.2	660.4	825.1	1044.7	1154.6	1359.6	1769.7	2077.3	2118.9
125°	627.9	661.7	695.6	704.0	848.0	1040.1	1136.1	1310.3	1658.7	1919.9	1958.3
127.5°	669.3	703.4	737.6	746.1	871.0	1037.5	1120.7	1270.2	1569.3	1793.6	1825.9
130°	691.4	728.2	764.9	774.2	887.6	1039.0	1114.7	1247.8	1514.1	1713.8	1743.7
132.5°	714.3	751.1	787.8	797.1	901.2	1040.1	1109.6	1228.7	1467.1	1645.8	1672.5
135°	748.3	781.8	815.4	823.7	916.1	1039.1	1100.7	1200.5	1400.1	1549.8	1572.9
137.5°	783.0	816.2	849.4	857.6	938.2	1045.5	1099.2	1183.5	1352.3	1478.9	1497.8
140°	811.8	842.4	872.9	880.5	951.7	1046.6	1094.0	1166.9	1312.7	1422.0	1439.7
142.5°	834.0	862.2	890.5	897.5	963.0	1050.3	1094.0	1158.0	1286.1	1382.2	1397.4
145°	868.0	892.6	917.3	923.4	977.9	1050.4	1086.6	1139.0	1243.7	1322.3	1333.8
147.5°	901.9	925.9	949.9	955.9	999.5	1057.6	1086.6	1127.8	1210.3	1272.1	1281.6
150°	924.1	945.8	967.5	972.9	1010.8	1061.3	1086.6	1121.5	1191.1	1243.3	1251.0
152.5°	947.1	963.5	979.9	984.0	1018.2	1063.8	1086.6	1116.4	1175.8	1220.4	1226.2
155°	981.0	993.1	1005.3	1008.3	1034.4	1069.2	1086.6	1110.3	1157.6	1193.0	1196.8
157.5°	1006.1	1017.9	1029.8	1032.7	1050.7	1074.7	1086.6	1105.0	1141.8	1169.4	1172.1
160°	1023.2	1032.4	1041.5	1043.8	1058.1	1077.1	1086.6	1102.5	1134.0	1157.6	1159.2
162.5°	1040.1	1047.0	1054.0	1055.7	1066.0	1079.7	1086.6	1100.0	1126.5	1146.5	1148.0
165°	1058.6	1064.8	1071.0	1072.6	1077.3	1083.5	1086.6	1096.1	1115.2	1129.5	1131.1
167.5°	1075.5	1078.5	1081.5	1082.2	1086.1	1091.4	1094.0	1100.2	1112.8	1122.1	1122.7
170°	1086.6	1089.6	1092.6	1093.3	1093.6	1093.8	1094.0	1100.2	1112.8	1122.1	1122.1
172.5°	1092.6	1093.2	1093.8	1094.0	1094.0	1094.0	1094.0	1099.0	1108.8	1116.2	1115.7
175°	1100.7	1100.7	1100.7	1100.7	1098.5	1095.5	1094.0	1097.1	1103.3	1108.0	1108.0
177.5°	1100.7	1100.7	1100.7	1100.7	1099.0	1096.7	1095.5	1098.0	1102.9	1106.6	1106.0
180°	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7	1100.7



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	934.7	934.7
2.5°	997.8	991.8
5°	1283.3	1289.4
7.5°	1728.1	1725.2
10°	2149.0	2176.0
12.5°	2455.5	2461.5
15°	2641.9	2653.9
17.5°	2714.0	2717.0
20°	2717.0	2711.0
22.5°	2684.0	2677.9
25°	2644.9	2641.9
27.5°	2608.8	2611.8
30°	2593.8	2602.8
32.5°	2593.8	2608.8
35°	2599.8	2614.8
37.5°	2596.8	2614.8
40°	2584.8	2605.8
42.5°	2551.7	2566.8
45°	2500.6	2518.6
47.5°	2434.5	2446.5
50°	2350.4	2362.3
52.5°	2245.1	2248.1
55°	2118.9	2130.9
57.5°	1983.6	1986.6
60°	1833.4	1842.4
62.5°	1674.1	1674.1
65°	1505.8	1511.8
67.5°	1331.5	1346.5
70°	1154.1	1157.2
72.5°	979.8	979.8
75°	799.5	802.5
77.5°	628.2	628.2
80°	465.8	468.9
82.5°	321.6	327.6
85°	201.4	201.4
87.5°	93.2	84.2
90°	28.1	28.1
92.5°	112.5	90.1
95°	392.0	324.3
97.5°	939.1	810.4
100°	1353.0	1199.7
102.5°	1760.2	1628.9
105°	2279.3	2208.7
107.5°	2619.4	2636.5
110°	2749.1	2822.6





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	2760.6	2873.6
115°	2687.4	2844.1
117.5°	2532.2	2705.9
120°	2407.2	2575.9
122.5°	2285.4	2451.8
125°	2111.6	2264.9
127.5°	1955.3	2084.7
130°	1863.2	1982.7
132.5°	1779.6	1886.6
135°	1665.2	1757.4
137.5°	1573.3	1648.8
140°	1510.2	1580.8
142.5°	1458.1	1518.8
145°	1379.8	1425.7
147.5°	1319.7	1357.8
150°	1281.8	1312.7
152.5°	1249.5	1272.8
155°	1212.3	1227.7
157.5°	1182.9	1193.7
160°	1165.4	1171.6
162.5°	1153.9	1159.8
165°	1137.4	1143.6
167.5°	1125.4	1128.0
170°	1122.1	1122.1
172.5°	1113.4	1111.1
175°	1108.0	1108.0
177.5°	1103.3	1100.7
180°	1100.7	1100.7



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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	6.14	7.04	7.08	8.01	9.27	19.31	20.22	20.26	21.18	22.45
	3H	6.84	7.66	7.80	8.63	9.92	21.16	21.97	22.11	22.94	24.23
	4H	7.14	7.91	8.12	8.89	10.19	21.80	22.57	22.77	23.55	24.85
	6H	7.40	8.11	8.38	9.09	10.40	22.24	22.95	23.22	23.93	25.24
	8H	7.47	8.14	8.45	9.15	10.45	22.36	23.03	23.35	24.04	25.34
	12H	7.48	8.13	8.48	9.13	10.46	22.43	23.07	23.42	24.07	25.40
4H	2H	13.36	14.12	14.33	15.11	16.40	19.59	20.36	20.57	21.34	22.64
	3H	14.93	15.57	15.91	16.58	17.89	21.64	22.29	22.63	23.30	24.61
	4H	15.02	15.61	16.02	16.62	17.95	22.41	23.00	23.41	24.00	25.34
	6H	15.04	15.55	16.04	16.57	17.90	22.95	23.46	23.96	24.49	25.82
	8H	15.01	15.49	16.02	16.51	17.86	23.12	23.59	24.13	24.61	25.96
	12H	14.97	15.40	16.00	16.44	17.79	23.21	23.64	24.24	24.68	26.03
8H	4H	16.47	16.95	17.48	17.97	19.31	22.48	22.95	23.48	23.97	25.32
	6H	16.72	17.11	17.75	18.17	19.51	23.11	23.50	24.14	24.56	25.90
	8H	16.73	17.08	17.78	18.13	19.49	23.33	23.68	24.37	24.72	26.08
	12H	16.70	17.01	17.75	18.05	19.46	23.47	23.78	24.52	24.82	26.23
12H	4H	16.62	17.05	17.65	18.08	19.43	22.43	22.86	23.46	23.90	25.25
	6H	16.98	17.32	18.02	18.37	19.73	23.09	23.44	24.13	24.49	25.85
	8H	17.05	17.35	18.09	18.40	19.80	23.32	23.63	24.37	24.67	26.07