

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: P937766

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937766
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-93050-1D-UNV-STD-W-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

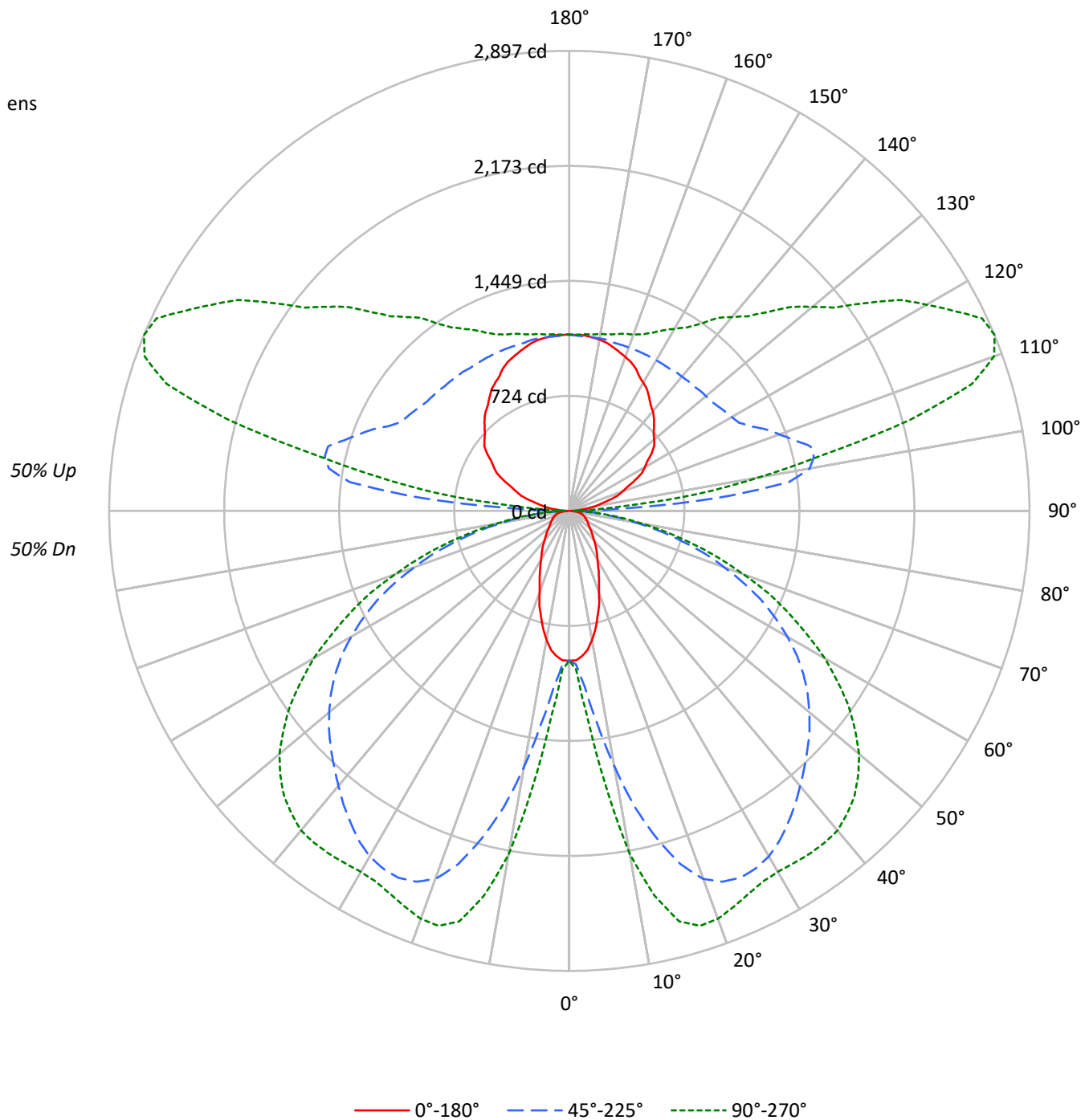
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14488.8 lumens
Efficiency: N/A
Efficacy: 105.3 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-93050-1D-UNV-STD-W-8-3500K

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	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°	4372	4372	4372
5°	4271	5054	5877
10°	3874	7367	9744
15°	3293	9624	11765
20°	2681	11153	11990
25°	2236	11671	11747
30°	1886	11745	11725
35°	1668	11550	12028
40°	1453	11297	12342
45°	1316	11111	12390
50°	1207	10944	12185
55°	1156	10699	11645
60°	1183	10229	10792
65°	1231	9515	9620
70°	1311	8298	8127
75°	1454	6766	6342
80°	1589	4691	4273
85°	1411	2489	2188

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12390 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.9	0.8
10°-20°	540.3	3.7
20°-30°	945.0	6.5
30°-40°	1216.6	8.4
40°-50°	1358.9	9.4
50°-60°	1301.5	9.0
60°-70°	1031.4	7.1
70°-80°	606.5	4.2
80°-90°	172.7	1.2
90°-100°	541.0	3.7
100°-110°	1422.2	9.8
110°-120°	1474.7	10.2
120°-130°	1182.9	8.2
130°-140°	928.1	6.4
140°-150°	712.4	4.9
150°-160°	513.0	3.5
160°-170°	313.9	2.2
170°-180°	106.0	0.7
0°-30°	1607.2	11.1
0°-40°	2823.8	19.5
0°-60°	5484.1	37.9
0°-90°	7294.7	50.3
90°-120°	3437.8	23.7
90°-150°	6261.1	43.2
90°-180°	7194.0	49.7
0°-180°	14488.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	918	985	1109	1254	1300	85
15°	688	1270	2139	2594	2676	191
25°	439	1439	2548	2661	2664	202
35°	297	1376	2400	2536	2636	185
45°	203	1097	2121	2430	2539	157
55°	146	697	1800	2091	2148	133
65°	115	370	1336	1503	1524	114
75°	85	227	733	806	809	89
85°	30	70	182	200	203	32
90°	7	21	57	28	28	8
95°	72	280	932	480	327	79
105°	256	388	1572	2387	2227	272
115°	455	553	1259	2512	2868	449
125°	633	710	1146	1936	2284	562
135°	754	830	1110	1563	1772	584
145°	875	931	1096	1333	1437	548
155°	989	1017	1096	1203	1238	454
165°	1067	1081	1096	1139	1153	301
175°	1110	1110	1103	1117	1117	105
180°	1110	1110	1110	1110	1110	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4	942.4
2.5°	942.4	942.4	948.5	951.5	957.5	960.6	966.7	972.8	990.9	994.0	1000.0
5°	918.1	930.3	969.7	984.8	1027.3	1084.8	1109.1	1148.5	1230.2	1254.5	1269.6
7.5°	881.8	909.1	1006.1	1030.3	1136.3	1287.9	1351.5	1436.3	1566.6	1630.3	1681.8
10°	824.2	881.8	1054.5	1112.1	1284.9	1515.1	1633.3	1751.5	1948.5	2036.4	2069.7
12.5°	760.6	854.6	1106.1	1184.9	1433.3	1769.7	1912.1	2042.4	2266.7	2384.8	2403.0
15°	687.9	815.2	1154.5	1269.6	1590.9	1981.8	2139.3	2300.0	2509.1	2593.9	2615.1
17.5°	624.2	784.8	1200.0	1321.2	1712.1	2172.7	2333.3	2466.7	2636.3	2693.9	2709.0
20°	545.4	736.4	1230.2	1387.8	1839.4	2312.1	2466.7	2569.6	2684.9	2721.2	2727.2
22.5°	487.9	684.8	1248.5	1412.1	1924.2	2396.9	2527.3	2609.0	2687.8	2700.0	2703.0
25°	439.4	627.3	1245.5	1439.4	1997.0	2448.5	2548.5	2609.0	2654.5	2660.6	2660.6
27.5°	393.9	563.6	1233.3	1445.5	2051.5	2460.6	2539.4	2581.8	2603.0	2615.1	2615.1
30°	354.5	503.0	1203.0	1433.3	2075.8	2448.5	2512.1	2533.3	2554.5	2572.7	2581.8
32.5°	324.3	445.4	1157.5	1409.0	2078.7	2418.1	2463.6	2475.7	2506.1	2548.5	2563.6
35°	297.0	387.8	1106.1	1375.7	2060.6	2369.7	2400.0	2412.1	2472.7	2536.3	2557.5
37.5°	269.7	345.4	1039.4	1318.2	2033.3	2312.1	2333.3	2354.5	2448.5	2524.2	2548.5
40°	242.5	309.1	960.6	1254.5	1990.9	2242.4	2260.6	2293.9	2418.1	2506.1	2530.2
42.5°	221.2	278.8	875.8	1187.9	1936.4	2163.6	2190.9	2239.4	2381.8	2475.7	2503.0
45°	203.1	248.4	784.8	1096.9	1866.6	2081.8	2121.2	2187.9	2339.4	2430.3	2454.5
47.5°	184.9	227.2	690.9	1003.0	1790.9	1999.9	2051.5	2127.3	2281.8	2369.7	2390.9
50°	169.7	206.1	597.0	903.0	1709.1	1912.1	1972.7	2051.5	2209.1	2290.9	2318.1
52.5°	157.6	187.8	509.1	803.0	1615.1	1821.2	1890.9	1972.7	2121.2	2200.0	2218.1
55°	145.5	172.7	433.3	697.0	1518.2	1724.2	1800.0	1878.8	2024.2	2090.9	2103.0
57.5°	139.4	160.6	369.7	597.0	1415.1	1615.1	1700.0	1772.7	1909.1	1960.6	1972.7
60°	130.3	151.5	321.2	512.1	1303.0	1512.1	1584.8	1657.6	1772.7	1815.2	1824.2
62.5°	121.2	145.5	284.9	430.3	1187.9	1390.9	1463.7	1530.3	1627.2	1657.6	1669.7
65°	115.1	139.4	257.6	369.7	1069.7	1263.6	1336.3	1393.9	1472.7	1503.0	1509.0
67.5°	109.0	133.3	236.4	318.2	951.5	1136.3	1190.9	1245.5	1306.1	1336.3	1339.4
70°	100.0	127.3	218.2	281.8	830.3	990.9	1036.3	1093.9	1142.4	1157.5	1166.7
72.5°	93.9	118.2	206.1	254.5	706.0	851.5	894.0	927.3	969.7	984.8	984.8
75°	84.9	106.1	193.9	227.2	578.8	697.0	733.4	766.7	800.0	806.0	797.0
77.5°	75.7	93.9	166.7	190.9	451.5	551.5	581.8	600.0	627.3	633.3	636.4
80°	63.7	81.8	130.3	148.4	327.2	406.0	427.2	442.5	466.6	466.6	472.7
82.5°	48.5	63.7	93.9	106.1	221.2	278.8	297.0	306.0	321.2	321.2	321.2
85°	30.3	39.4	60.6	69.7	133.3	169.7	181.8	184.9	197.0	200.0	200.0
87.5°	15.1	21.2	39.4	42.4	69.7	87.9	87.9	93.9	93.9	90.9	87.9
90°	7.4	13.4	19.3	20.9	32.8	48.6	56.6	50.3	37.7	28.3	28.3
92.5°	29.8	80.5	131.2	143.8	202.1	279.9	318.7	279.3	200.6	141.5	135.9
95°	71.5	164.2	256.9	280.1	497.3	786.9	931.8	831.5	630.8	480.4	463.4
97.5°	123.6	205.4	287.2	307.6	669.9	1152.8	1394.3	1330.9	1204.1	1109.0	1076.6
100°	163.8	238.0	312.2	330.7	732.6	1268.6	1536.5	1541.2	1550.4	1557.4	1518.7
102.5°	198.1	267.3	336.5	353.7	761.4	1304.9	1576.7	1657.5	1819.1	1940.2	1907.1
105°	256.2	314.8	373.3	388.0	782.8	1309.1	1572.3	1753.3	2115.4	2387.1	2369.3
107.5°	315.8	370.4	425.0	438.7	786.8	1250.8	1482.9	1735.5	2240.6	2619.4	2623.7
110°	356.0	405.3	454.6	467.0	780.8	1199.2	1408.4	1690.8	2255.5	2679.0	2697.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	395.5	442.5	489.6	501.3	781.1	1154.1	1340.6	1629.6	2207.6	2641.1	2669.6
115°	455.1	498.4	541.8	552.7	788.2	1102.4	1259.4	1537.9	2094.7	2512.2	2551.7
117.5°	513.9	553.3	592.7	602.5	802.9	1070.0	1203.6	1454.8	1957.3	2334.2	2377.9
120°	548.2	585.3	622.3	631.6	814.8	1059.2	1181.3	1410.8	1869.9	2214.3	2256.8
122.5°	581.7	619.1	656.5	665.8	831.9	1053.3	1164.1	1370.8	1784.3	2094.4	2136.4
125°	633.1	667.2	701.3	709.8	855.0	1048.7	1145.5	1321.1	1672.4	1935.8	1974.4
127.5°	674.8	709.2	743.6	752.2	878.1	1046.0	1129.9	1280.7	1582.2	1808.4	1840.9
130°	697.1	734.2	771.2	780.5	895.0	1047.6	1123.9	1258.1	1526.6	1728.0	1758.0
132.5°	720.2	757.3	794.3	803.6	908.7	1048.7	1118.7	1238.8	1479.1	1659.4	1686.3
135°	754.5	788.2	822.1	830.5	923.6	1047.7	1109.7	1210.4	1411.6	1562.6	1585.9
137.5°	789.5	822.9	856.4	864.7	945.9	1054.1	1108.2	1193.3	1363.5	1491.1	1510.1
140°	818.5	849.3	880.1	887.8	959.5	1055.2	1103.0	1176.5	1323.5	1433.8	1451.6
142.5°	840.9	869.3	897.8	904.9	971.0	1059.0	1103.0	1167.6	1296.7	1393.6	1408.9
145°	875.2	900.0	924.9	931.0	985.9	1059.1	1095.6	1148.4	1254.0	1333.2	1344.8
147.5°	909.4	933.5	957.7	963.8	1007.8	1066.3	1095.6	1137.1	1220.2	1282.5	1292.1
150°	931.8	953.6	975.4	980.9	1019.1	1070.1	1095.6	1130.7	1200.9	1253.5	1261.3
152.5°	954.9	971.4	988.0	992.1	1026.6	1072.6	1095.6	1125.6	1185.5	1230.4	1236.3
155°	989.1	1001.3	1013.6	1016.6	1042.9	1078.0	1095.6	1119.4	1167.1	1202.9	1206.7
157.5°	1014.4	1026.3	1038.3	1041.2	1059.3	1083.5	1095.6	1114.1	1151.2	1179.0	1181.7
160°	1031.6	1040.9	1050.1	1052.4	1066.9	1086.0	1095.6	1111.5	1143.3	1167.1	1168.7
162.5°	1048.7	1055.7	1062.6	1064.3	1074.7	1088.6	1095.6	1109.0	1135.8	1155.9	1157.5
165°	1067.3	1073.6	1079.8	1081.4	1086.2	1092.5	1095.6	1105.2	1124.4	1138.8	1140.4
167.5°	1084.4	1087.4	1090.4	1091.1	1095.1	1100.3	1103.0	1109.3	1121.9	1131.3	1131.9
170°	1095.6	1098.5	1101.6	1102.3	1102.6	1102.8	1103.0	1109.3	1121.9	1131.3	1131.3
172.5°	1101.6	1102.2	1102.8	1103.0	1103.0	1103.0	1103.0	1108.0	1118.0	1125.4	1124.9
175°	1109.7	1109.7	1109.7	1109.7	1107.5	1104.5	1103.0	1106.2	1112.4	1117.2	1117.2
177.5°	1109.7	1109.7	1109.7	1109.7	1108.0	1105.7	1104.5	1107.1	1112.0	1115.7	1115.1
180°	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7	1109.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	942.4	942.4
2.5°	1006.1	1000.0
5°	1293.9	1300.0
7.5°	1742.4	1739.4
10°	2166.7	2194.0
12.5°	2475.7	2481.8
15°	2663.6	2675.7
17.5°	2736.3	2739.4
20°	2739.4	2733.3
22.5°	2706.1	2700.0
25°	2666.7	2663.6
27.5°	2630.2	2633.3
30°	2615.1	2624.2
32.5°	2615.1	2630.2
35°	2621.2	2636.3
37.5°	2618.2	2636.3
40°	2606.1	2627.3
42.5°	2572.7	2587.9
45°	2521.2	2539.4
47.5°	2454.5	2466.7
50°	2369.7	2381.8
52.5°	2263.6	2266.7
55°	2136.3	2148.5
57.5°	1999.9	2003.0
60°	1848.5	1857.6
62.5°	1687.8	1687.8
65°	1518.2	1524.3
67.5°	1342.4	1357.6
70°	1163.6	1166.7
72.5°	987.9	987.9
75°	806.0	809.1
77.5°	633.3	633.3
80°	469.7	472.7
82.5°	324.3	330.3
85°	203.1	203.1
87.5°	93.9	84.9
90°	28.3	28.3
92.5°	113.4	90.9
95°	395.2	327.0
97.5°	946.8	817.1
100°	1364.2	1209.6
102.5°	1774.7	1642.3
105°	2298.1	2226.9
107.5°	2641.0	2658.2
110°	2771.7	2845.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2783.3	2897.2
115°	2709.6	2867.5
117.5°	2553.1	2728.2
120°	2427.0	2597.1
122.5°	2304.2	2472.0
125°	2129.0	2283.6
127.5°	1971.4	2101.8
130°	1878.5	1999.1
132.5°	1794.3	1902.2
135°	1678.9	1771.9
137.5°	1586.2	1662.4
140°	1522.7	1593.8
142.5°	1470.1	1531.3
145°	1391.1	1437.4
147.5°	1330.5	1368.9
150°	1292.4	1323.5
152.5°	1259.8	1283.3
155°	1222.3	1237.9
157.5°	1192.6	1203.6
160°	1175.0	1181.3
162.5°	1163.4	1169.4
165°	1146.7	1153.0
167.5°	1134.6	1137.3
170°	1131.3	1131.3
172.5°	1122.5	1120.2
175°	1117.2	1117.2
177.5°	1112.4	1109.7
180°	1109.7	1109.7



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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	6.16	7.07	7.11	8.03	9.30	19.34	20.24	20.29	21.21	22.48
	3H	6.87	7.68	7.83	8.66	9.95	21.18	22.00	22.14	22.97	24.26
	4H	7.17	7.94	8.14	8.92	10.22	21.83	22.60	22.80	23.58	24.88
	6H	7.42	8.13	8.41	9.12	10.43	22.26	22.97	23.25	23.96	25.27
	8H	7.49	8.17	8.48	9.17	10.48	22.39	23.06	23.38	24.07	25.37
	12H	7.51	8.16	8.51	9.16	10.48	22.46	23.10	23.45	24.10	25.43
4H	2H	13.38	14.15	14.36	15.13	16.43	19.62	20.39	20.60	21.37	22.67
	3H	14.95	15.60	15.94	16.61	17.92	21.67	22.32	22.66	23.33	24.63
	4H	15.05	15.64	16.05	16.64	17.98	22.44	23.03	23.44	24.03	25.36
	6H	15.06	15.57	16.07	16.60	17.93	22.98	23.49	23.99	24.52	25.85
	8H	15.04	15.52	16.05	16.54	17.88	23.14	23.62	24.15	24.64	25.99
	12H	15.00	15.43	16.03	16.47	17.82	23.24	23.67	24.27	24.71	26.06
8H	4H	16.50	16.98	17.51	18.00	19.34	22.50	22.98	23.51	24.00	25.34
	6H	16.74	17.14	17.78	18.20	19.54	23.13	23.53	24.17	24.59	25.93
	8H	16.76	17.11	17.81	18.16	19.52	23.36	23.70	24.40	24.75	26.11
	12H	16.73	17.04	17.78	18.08	19.49	23.50	23.81	24.55	24.85	26.25
12H	4H	16.65	17.08	17.67	18.11	19.46	22.46	22.89	23.49	23.92	25.27
	6H	17.00	17.35	18.05	18.40	19.76	23.12	23.47	24.16	24.51	25.87
	8H	17.07	17.38	18.12	18.42	19.83	23.35	23.66	24.40	24.70	26.10