

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: P937767

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937767
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-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

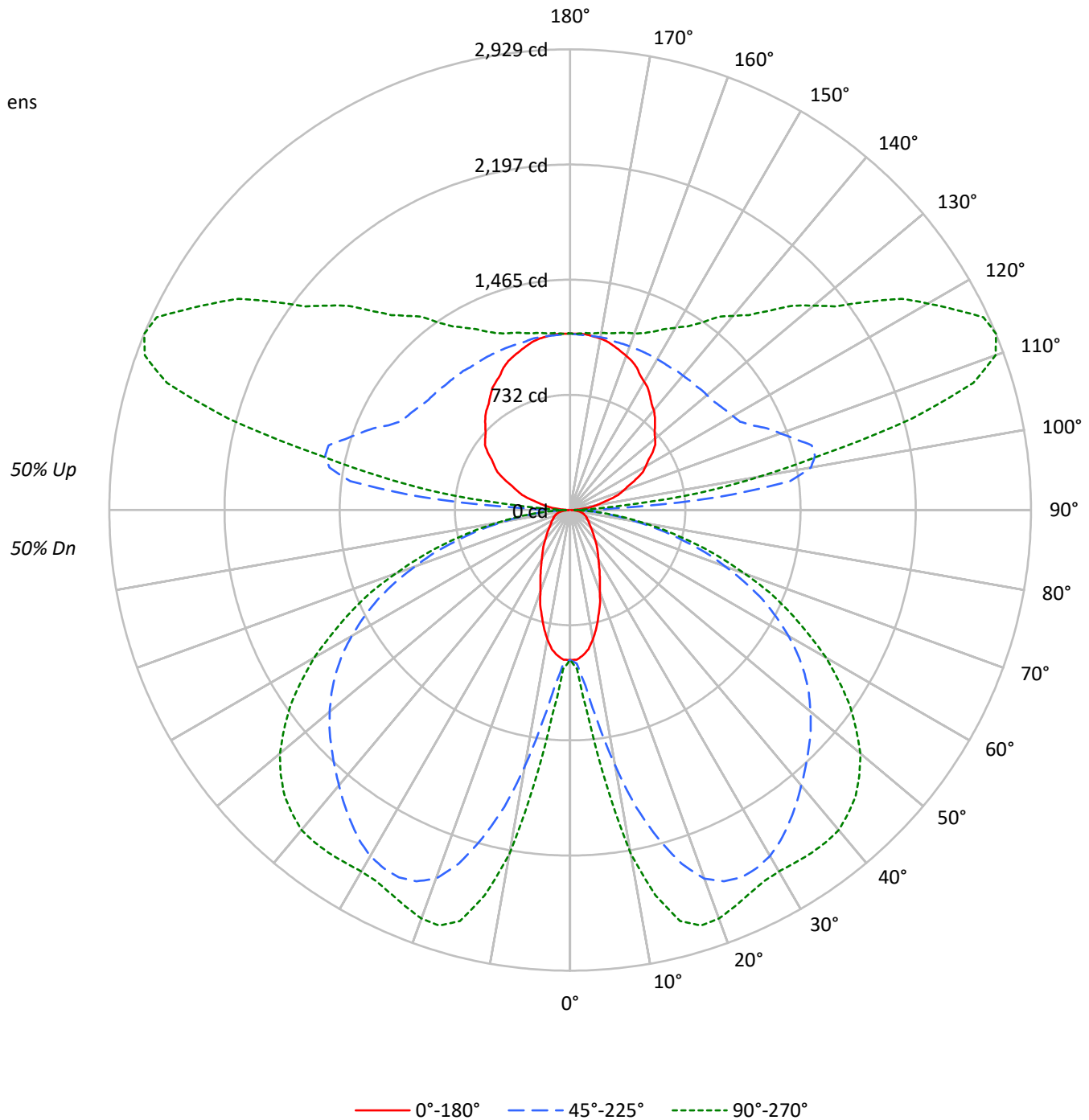
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14648.2 lumens
Efficiency: N/A
Efficacy: 106.5 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 (A_{in}): 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	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°	4421	4421	4421
5°	4318	5109	5942
10°	3917	7448	9851
15°	3329	9730	11895
20°	2710	11276	12122
25°	2261	11800	11876
30°	1906	11874	11854
35°	1686	11677	12160
40°	1469	11420	12477
45°	1330	11233	12526
50°	1220	11064	12319
55°	1169	10817	11772
60°	1196	10341	10910
65°	1245	9619	9726
70°	1326	8389	8216
75°	1470	6840	6412
80°	1607	4743	4320
85°	1425	2517	2212

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12526 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.2	0.8
10°-20°	546.2	3.7
20°-30°	955.5	6.5
30°-40°	1229.9	8.4
40°-50°	1373.8	9.4
50°-60°	1315.8	9.0
60°-70°	1042.8	7.1
70°-80°	613.2	4.2
80°-90°	174.6	1.2
90°-100°	546.9	3.7
100°-110°	1437.8	9.8
110°-120°	1490.9	10.2
120°-130°	1195.9	8.2
130°-140°	938.3	6.4
140°-150°	720.2	4.9
150°-160°	518.7	3.5
160°-170°	317.4	2.2
170°-180°	107.2	0.7
0°-30°	1624.9	11.1
0°-40°	2854.9	19.5
0°-60°	5544.4	37.9
0°-90°	7375.0	50.3
90°-120°	3475.6	23.7
90°-150°	6330.0	43.2
90°-180°	7273.0	49.7
0°-180°	14648.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	953	953	953	953	953	
5°	928	996	1121	1268	1314	86
15°	695	1284	2163	2622	2705	194
25°	444	1455	2576	2690	2693	205
35°	300	1391	2426	2564	2665	187
45°	205	1109	2144	2457	2567	159
55°	147	705	1820	2114	2172	134
65°	116	374	1351	1520	1541	115
75°	86	230	741	815	818	90
85°	31	70	184	202	205	33
90°	8	21	57	29	29	8
95°	72	283	942	486	331	80
105°	259	392	1590	2413	2251	275
115°	460	559	1273	2540	2899	454
125°	640	718	1158	1957	2309	568
135°	763	840	1122	1580	1791	590
145°	885	941	1108	1348	1453	554
155°	1000	1028	1108	1216	1252	459
165°	1079	1093	1108	1151	1166	305
175°	1122	1122	1115	1130	1130	107
180°	1122	1122	1122	1122	1122	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8	952.8
2.5°	952.8	952.8	958.9	962.0	968.1	971.1	977.3	983.5	1001.8	1004.9	1011.0
5°	928.2	940.6	980.4	995.7	1038.6	1096.8	1121.3	1161.1	1243.8	1268.3	1283.6
7.5°	891.5	919.1	1017.1	1041.7	1148.8	1302.1	1366.3	1452.1	1583.9	1648.2	1700.3
10°	833.3	891.5	1066.1	1124.3	1299.0	1531.8	1651.3	1770.8	1969.9	2058.8	2092.5
12.5°	768.9	864.0	1118.2	1197.9	1449.1	1789.1	1933.2	2064.9	2291.6	2411.1	2429.5
15°	695.4	824.1	1167.2	1283.6	1608.4	2003.6	2162.9	2325.3	2536.7	2622.4	2643.9
17.5°	631.1	793.5	1213.2	1335.7	1730.9	2196.6	2358.9	2493.8	2665.3	2723.5	2738.8
20°	551.4	744.5	1243.8	1403.1	1859.7	2337.6	2493.8	2597.9	2714.4	2751.1	2757.2
22.5°	493.2	692.4	1262.2	1427.6	1945.4	2423.3	2555.1	2637.7	2717.4	2729.7	2732.8
25°	444.3	634.2	1259.2	1455.2	2019.0	2475.4	2576.5	2637.7	2683.7	2689.9	2689.9
27.5°	398.3	569.8	1246.9	1461.4	2074.1	2487.7	2567.3	2610.2	2631.7	2643.9	2643.9
30°	358.4	508.5	1216.3	1449.1	2098.6	2475.4	2539.7	2561.2	2582.6	2601.0	2610.2
32.5°	327.8	450.3	1170.3	1424.5	2101.6	2444.7	2490.7	2503.0	2533.6	2576.5	2591.8
35°	300.2	392.1	1118.2	1390.9	2083.2	2395.8	2426.4	2438.6	2499.9	2564.2	2585.7
37.5°	272.6	349.2	1050.8	1332.7	2055.7	2337.6	2358.9	2380.4	2475.4	2552.0	2576.5
40°	245.1	312.5	971.1	1268.3	2012.8	2267.1	2285.4	2319.1	2444.7	2533.6	2558.1
42.5°	223.7	281.9	885.4	1201.0	1957.7	2187.4	2215.0	2264.0	2408.0	2503.0	2530.6
45°	205.3	251.2	793.5	1109.0	1887.2	2104.7	2144.5	2211.9	2365.1	2457.1	2481.5
47.5°	186.9	229.7	698.5	1014.1	1810.6	2021.9	2074.1	2150.7	2306.9	2395.8	2417.2
50°	171.5	208.4	603.6	912.9	1727.9	1933.2	1994.4	2074.1	2233.4	2316.1	2343.6
52.5°	159.3	189.9	514.7	811.8	1632.9	1841.2	1911.7	1994.4	2144.5	2224.2	2242.5
55°	147.1	174.6	438.1	704.7	1534.9	1743.2	1819.8	1899.5	2046.5	2113.9	2126.1
57.5°	140.9	162.4	373.7	603.6	1430.7	1632.9	1718.7	1792.2	1930.1	1982.1	1994.4
60°	131.7	153.2	324.8	517.8	1317.4	1528.7	1602.2	1675.8	1792.2	1835.1	1844.3
62.5°	122.6	147.1	288.0	435.0	1201.0	1406.2	1479.8	1547.1	1645.1	1675.8	1688.0
65°	116.4	140.9	260.4	373.7	1081.5	1277.5	1351.0	1409.2	1488.9	1519.6	1525.6
67.5°	110.2	134.8	239.0	321.7	962.0	1148.8	1204.0	1259.2	1320.4	1351.0	1354.1
70°	101.1	128.7	220.6	284.9	839.4	1001.8	1047.7	1105.9	1155.0	1170.3	1179.5
72.5°	95.0	119.5	208.4	257.3	713.8	860.9	903.8	937.5	980.4	995.7	995.7
75°	85.8	107.3	196.1	229.7	585.2	704.7	741.4	775.1	808.8	814.9	805.8
77.5°	76.6	95.0	168.5	193.0	456.5	557.6	588.2	606.6	634.2	640.3	643.4
80°	64.4	82.7	131.7	150.1	330.8	410.5	431.9	447.3	471.8	471.8	477.9
82.5°	49.1	64.4	95.0	107.3	223.7	281.9	300.2	309.4	324.8	324.8	324.8
85°	30.6	39.8	61.3	70.4	134.8	171.5	183.8	186.9	199.1	202.2	202.2
87.5°	15.3	21.5	39.8	42.9	70.4	88.9	88.9	95.0	95.0	91.9	88.9
90°	7.5	13.6	19.6	21.1	33.1	49.2	57.2	50.9	38.1	28.6	28.6
92.5°	30.1	81.4	132.6	145.4	204.3	283.0	322.2	282.4	202.8	143.1	137.4
95°	72.3	166.0	259.7	283.1	502.7	795.5	942.0	840.6	637.8	485.7	468.5
97.5°	125.0	207.6	290.4	311.0	677.2	1165.5	1409.6	1345.5	1217.4	1121.2	1088.5
100°	165.6	240.6	315.6	334.4	740.7	1282.5	1553.4	1558.1	1567.5	1574.5	1535.4
102.5°	200.3	270.2	340.2	357.6	769.7	1319.3	1594.1	1675.7	1839.1	1961.6	1928.1
105°	259.1	318.3	377.5	392.3	791.4	1323.5	1589.6	1772.6	2138.7	2413.3	2395.3
107.5°	319.3	374.5	429.7	443.5	795.5	1264.6	1499.2	1754.6	2265.3	2648.2	2652.6
110°	359.9	409.8	459.6	472.1	789.4	1212.4	1423.9	1709.4	2280.3	2708.5	2727.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	399.8	447.3	494.9	506.8	789.7	1166.8	1355.4	1647.6	2231.9	2670.1	2698.9
115°	460.1	503.9	547.8	558.8	796.9	1114.5	1273.3	1554.8	2117.7	2539.9	2579.8
117.5°	519.6	559.4	599.2	609.2	811.7	1081.8	1216.8	1470.8	1978.9	2359.8	2404.1
120°	554.2	591.7	629.2	638.5	823.8	1070.8	1194.3	1426.4	1890.5	2238.6	2281.6
122.5°	588.1	625.9	663.8	673.2	841.1	1064.9	1176.9	1385.9	1803.9	2117.4	2159.9
125°	640.0	674.5	709.0	717.6	864.4	1060.2	1158.1	1335.7	1690.8	1957.0	1996.2
127.5°	682.2	717.0	751.8	760.5	887.8	1057.5	1142.3	1294.7	1599.6	1828.2	1861.2
130°	704.8	742.2	779.7	789.1	904.8	1059.1	1136.2	1271.9	1543.4	1747.0	1777.4
132.5°	728.1	765.6	803.1	812.5	918.6	1060.2	1131.0	1252.5	1495.4	1677.6	1704.9
135°	762.8	796.9	831.1	839.6	933.8	1059.2	1121.9	1223.7	1427.2	1579.8	1603.3
137.5°	798.2	831.9	865.8	874.2	956.3	1065.7	1120.4	1206.4	1378.5	1507.5	1526.7
140°	827.5	858.6	889.8	897.6	970.1	1066.8	1115.2	1189.5	1338.1	1449.5	1467.5
142.5°	850.1	878.9	907.7	914.8	981.6	1070.6	1115.2	1180.4	1310.9	1408.9	1424.4
145°	884.8	909.9	935.0	941.3	996.8	1070.7	1107.6	1161.1	1267.8	1347.9	1359.6
147.5°	919.4	943.8	968.3	974.4	1018.8	1078.0	1107.6	1149.6	1233.6	1296.6	1306.3
150°	942.0	964.1	986.2	991.7	1030.3	1081.8	1107.6	1143.1	1214.1	1267.3	1275.2
152.5°	965.4	982.1	998.8	1003.0	1037.9	1084.4	1107.6	1138.0	1198.5	1244.0	1249.9
155°	999.9	1012.3	1024.7	1027.8	1054.4	1089.9	1107.6	1131.7	1180.0	1216.1	1220.0
157.5°	1025.5	1037.6	1049.7	1052.7	1071.0	1095.4	1107.6	1126.4	1163.9	1192.0	1194.7
160°	1042.9	1052.3	1061.7	1064.0	1078.6	1098.0	1107.6	1123.8	1155.9	1180.0	1181.6
162.5°	1060.2	1067.3	1074.3	1076.1	1086.6	1100.6	1107.6	1121.2	1148.3	1168.7	1170.2
165°	1079.0	1085.4	1091.7	1093.3	1098.1	1104.5	1107.6	1117.3	1136.8	1151.4	1153.0
167.5°	1096.3	1099.3	1102.4	1103.1	1107.1	1112.4	1115.2	1121.5	1134.3	1143.8	1144.4
170°	1107.6	1110.6	1113.7	1114.4	1114.7	1115.0	1115.2	1121.5	1134.3	1143.8	1143.8
172.5°	1113.7	1114.3	1115.0	1115.2	1115.2	1115.2	1115.2	1120.2	1130.3	1137.8	1137.2
175°	1121.9	1121.9	1121.9	1121.9	1119.7	1116.7	1115.2	1118.3	1124.7	1129.5	1129.5
177.5°	1121.9	1121.9	1121.9	1121.9	1120.2	1117.9	1116.7	1119.2	1124.2	1128.0	1127.4
180°	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9	1121.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	952.8	952.8
2.5°	1017.1	1011.0
5°	1308.1	1314.3
7.5°	1761.5	1758.5
10°	2190.5	2218.1
12.5°	2503.0	2509.1
15°	2692.9	2705.2
17.5°	2766.4	2769.5
20°	2769.5	2763.4
22.5°	2735.8	2729.7
25°	2696.0	2692.9
27.5°	2659.2	2662.3
30°	2643.9	2653.1
32.5°	2643.9	2659.2
35°	2650.0	2665.3
37.5°	2647.0	2665.3
40°	2634.7	2656.2
42.5°	2601.0	2616.4
45°	2548.9	2567.3
47.5°	2481.5	2493.8
50°	2395.8	2408.0
52.5°	2288.5	2291.6
55°	2159.8	2172.1
57.5°	2021.9	2025.0
60°	1868.8	1878.0
62.5°	1706.4	1706.4
65°	1534.9	1541.0
67.5°	1357.2	1372.5
70°	1176.4	1179.5
72.5°	998.8	998.8
75°	814.9	818.0
77.5°	640.3	640.3
80°	474.8	477.9
82.5°	327.8	333.9
85°	205.3	205.3
87.5°	95.0	85.8
90°	28.6	28.6
92.5°	114.7	91.9
95°	399.5	330.6
97.5°	957.2	826.0
100°	1379.2	1222.9
102.5°	1794.2	1660.3
105°	2323.4	2251.4
107.5°	2670.0	2687.4
110°	2802.2	2877.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2814.0	2929.1
115°	2739.4	2899.0
117.5°	2581.2	2758.2
120°	2453.7	2625.7
122.5°	2329.5	2499.1
125°	2152.4	2308.7
127.5°	1993.1	2125.0
130°	1899.2	2021.0
132.5°	1814.0	1923.1
135°	1697.4	1791.4
137.5°	1603.7	1680.7
140°	1539.4	1611.4
142.5°	1486.3	1548.2
145°	1406.4	1453.2
147.5°	1345.2	1384.0
150°	1306.6	1338.1
152.5°	1273.7	1297.4
155°	1235.7	1251.5
157.5°	1205.8	1216.8
160°	1187.9	1194.3
162.5°	1176.2	1182.2
165°	1159.3	1165.7
167.5°	1147.1	1149.8
170°	1143.8	1143.8
172.5°	1134.9	1132.5
175°	1129.5	1129.5
177.5°	1124.7	1121.9
180°	1121.9	1121.9



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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	6.20	7.10	7.15	8.07	9.33	19.38	20.28	20.33	21.25	22.51
	3H	6.91	7.72	7.87	8.70	9.98	21.22	22.03	22.18	23.01	24.30
	4H	7.21	7.98	8.18	8.96	10.25	21.87	22.64	22.84	23.62	24.91
	6H	7.46	8.17	8.45	9.16	10.47	22.30	23.01	23.28	24.00	25.31
	8H	7.53	8.21	8.52	9.21	10.52	22.42	23.10	23.41	24.10	25.41
	12H	7.55	8.20	8.55	9.19	10.52	22.49	23.14	23.49	24.14	25.47
4H	2H	13.42	14.19	14.40	15.17	16.47	19.66	20.43	20.64	21.41	22.70
	3H	14.99	15.64	15.98	16.65	17.96	21.71	22.35	22.70	23.36	24.67
	4H	15.09	15.68	16.09	16.68	18.01	22.48	23.07	23.47	24.07	25.40
	6H	15.10	15.61	16.11	16.64	17.97	23.02	23.53	24.03	24.56	25.88
	8H	15.08	15.56	16.09	16.58	17.92	23.18	23.66	24.19	24.68	26.02
	12H	15.04	15.47	16.07	16.51	17.86	23.28	23.71	24.31	24.74	26.09
8H	4H	16.54	17.01	17.55	18.03	19.38	22.54	23.02	23.55	24.04	25.38
	6H	16.78	17.18	17.82	18.24	19.58	23.17	23.57	24.21	24.63	25.97
	8H	16.80	17.15	17.84	18.20	19.56	23.39	23.74	24.44	24.79	26.15
	12H	16.77	17.08	17.82	18.12	19.52	23.54	23.85	24.59	24.89	26.29
12H	4H	16.68	17.11	17.71	18.15	19.50	22.50	22.93	23.53	23.96	25.31
	6H	17.04	17.39	18.08	18.44	19.80	23.16	23.51	24.20	24.55	25.91
	8H	17.11	17.42	18.16	18.46	19.87	23.39	23.70	24.44	24.74	26.14