

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: P937796

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-W2A-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937796
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

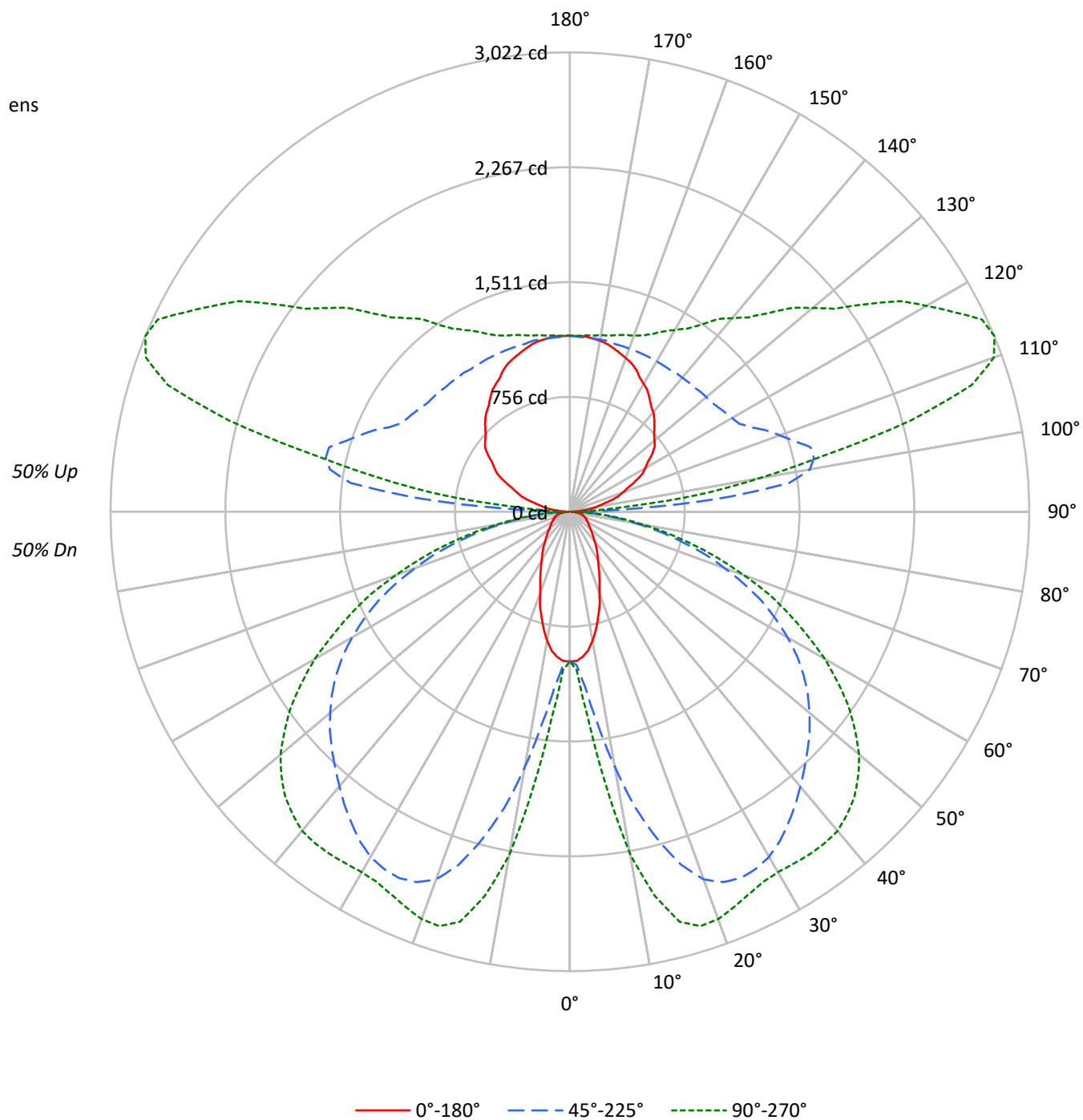
Lumens per Lamp: N/A
Luminaire Lumens: 15115.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: General Diffuse

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-8-5000K

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°	4561	4561	4561
5°	4456	5272	6131
10°	4042	7685	10165
15°	3435	10040	12274
20°	2797	11635	12509
25°	2333	12176	12254
30°	1967	12252	12231
35°	1739	12049	12548
40°	1516	11785	12875
45°	1373	11591	12925
50°	1259	11417	12711
55°	1206	11162	12147
60°	1234	10671	11258
65°	1284	9926	10035
70°	1368	8656	8478
75°	1516	7058	6617
80°	1657	4895	4458
85°	1472	2597	2282

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 12925 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.2	0.8
10°-20°	563.6	3.7
20°-30°	985.9	6.5
30°-40°	1269.1	8.4
40°-50°	1417.6	9.4
50°-60°	1357.7	9.0
60°-70°	1076.0	7.1
70°-80°	632.7	4.2
80°-90°	180.2	1.2
90°-100°	564.3	3.7
100°-110°	1483.6	9.8
110°-120°	1538.4	10.2
120°-130°	1234.0	8.2
130°-140°	968.2	6.4
140°-150°	743.1	4.9
150°-160°	535.2	3.5
160°-170°	327.5	2.2
170°-180°	110.6	0.7
0°-30°	1676.7	11.1
0°-40°	2945.8	19.5
0°-60°	5721.1	37.9
0°-90°	7610.0	50.3
90°-120°	3586.3	23.7
90°-150°	6531.7	43.2
90°-180°	7505.0	49.7
0°-180°	15115.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	983	983	983	983	983	
5°	958	1027	1157	1309	1356	88
15°	718	1324	2232	2706	2791	200
25°	458	1502	2659	2776	2779	211
35°	310	1435	2504	2646	2750	193
45°	212	1144	2213	2535	2649	164
55°	152	727	1878	2181	2241	138
65°	120	386	1394	1568	1590	119
75°	88	237	765	841	844	93
85°	32	73	190	209	212	34
90°	8	22	59	30	30	9
95°	75	292	972	501	341	83
105°	267	405	1640	2490	2323	283
115°	475	577	1314	2621	2991	469
125°	660	740	1195	2019	2382	586
135°	787	866	1158	1630	1848	609
145°	913	971	1143	1391	1500	572
155°	1032	1061	1143	1255	1291	474
165°	1113	1128	1143	1188	1203	314
175°	1158	1158	1151	1165	1165	110
180°	1158	1158	1158	1158	1158	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1	983.1
2.5°	983.1	983.1	989.5	992.7	998.9	1002.1	1008.4	1014.8	1033.8	1036.9	1043.2
5°	957.8	970.5	1011.6	1027.4	1071.7	1131.7	1157.0	1198.1	1283.4	1308.7	1324.5
7.5°	919.9	948.4	1049.5	1074.8	1185.4	1343.6	1409.9	1498.4	1634.3	1700.7	1754.5
10°	859.8	919.9	1100.1	1160.1	1340.4	1580.6	1703.9	1827.2	2032.7	2124.4	2159.1
12.5°	793.4	891.5	1153.9	1236.1	1495.2	1846.1	1994.7	2130.6	2364.6	2487.9	2506.9
15°	717.6	850.4	1204.4	1324.5	1659.6	2067.4	2231.8	2399.4	2617.5	2706.0	2728.1
17.5°	651.2	818.7	1251.8	1378.3	1786.1	2266.6	2434.1	2573.3	2750.3	2810.3	2826.1
20°	569.0	768.2	1283.4	1447.8	1918.9	2412.1	2573.3	2680.7	2800.9	2838.8	2845.1
22.5°	508.9	714.4	1302.5	1473.1	2007.4	2500.5	2636.5	2721.8	2804.0	2816.7	2819.8
25°	458.4	654.4	1299.3	1501.6	2083.3	2554.3	2658.6	2721.8	2769.2	2775.6	2775.6
27.5°	411.0	588.0	1286.6	1507.9	2140.2	2566.9	2649.1	2693.4	2715.5	2728.1	2728.1
30°	369.9	524.7	1255.0	1495.2	2165.5	2554.3	2620.6	2642.8	2664.9	2683.8	2693.4
32.5°	338.3	464.7	1207.6	1469.9	2168.6	2522.6	2570.1	2582.7	2614.4	2658.6	2674.4
35°	309.8	404.6	1153.9	1435.2	2149.6	2472.1	2503.7	2516.3	2579.5	2645.9	2668.1
37.5°	281.3	360.3	1084.3	1375.1	2121.2	2412.1	2434.1	2456.2	2554.3	2633.3	2658.6
40°	252.9	322.4	1002.1	1308.7	2076.9	2339.3	2358.3	2393.0	2522.6	2614.4	2639.6
42.5°	230.8	290.8	913.6	1239.2	2020.1	2257.1	2285.6	2336.1	2484.7	2582.7	2611.2
45°	211.8	259.2	818.7	1144.3	1947.3	2171.7	2212.8	2282.4	2440.4	2535.3	2560.6
47.5°	192.9	237.0	720.8	1046.4	1868.3	2086.4	2140.2	2219.2	2380.4	2472.1	2494.2
50°	177.0	215.0	622.8	942.0	1782.9	1994.7	2058.0	2140.2	2304.6	2389.9	2418.3
52.5°	164.4	196.0	531.1	837.7	1684.9	1899.8	1972.6	2058.0	2212.8	2295.0	2314.0
55°	151.8	180.2	452.1	727.1	1583.8	1798.7	1877.8	1960.0	2111.7	2181.3	2193.9
57.5°	145.4	167.6	385.6	622.8	1476.3	1684.9	1773.5	1849.3	1991.6	2045.3	2058.0
60°	135.9	158.0	335.1	534.2	1359.3	1577.4	1653.3	1729.2	1849.3	1893.6	1903.0
62.5°	126.5	151.8	297.2	448.9	1239.2	1451.0	1526.9	1596.4	1697.5	1729.2	1741.8
65°	120.1	145.4	268.7	385.6	1115.9	1318.2	1394.1	1454.1	1536.3	1568.0	1574.3
67.5°	113.8	139.1	246.6	331.9	992.7	1185.4	1242.3	1299.3	1362.5	1394.1	1397.3
70°	104.3	132.8	227.6	294.0	866.2	1033.8	1081.1	1141.2	1191.8	1207.6	1217.1
72.5°	98.0	123.3	215.0	265.5	736.6	888.3	932.6	967.3	1011.6	1027.4	1027.4
75°	88.5	110.7	202.3	237.0	603.8	727.1	765.0	799.8	834.5	840.9	831.4
77.5°	79.0	98.0	173.9	199.1	471.0	575.3	606.9	626.0	654.4	660.7	663.9
80°	66.4	85.4	135.9	154.9	341.4	423.6	445.7	461.6	486.8	486.8	493.2
82.5°	50.6	66.4	98.0	110.7	230.8	290.8	309.8	319.2	335.1	335.1	335.1
85°	31.6	41.1	63.2	72.7	139.1	177.0	189.7	192.9	205.5	208.7	208.7
87.5°	15.8	22.1	41.1	44.3	72.7	91.7	91.7	98.0	98.0	94.8	91.7
90°	7.8	14.0	20.2	21.8	34.2	50.7	59.0	52.5	39.3	29.5	29.5
92.5°	31.1	84.0	136.8	150.0	210.8	292.0	332.5	291.4	209.3	147.7	141.8
95°	74.6	171.3	268.0	292.2	518.7	820.9	972.0	867.4	658.1	501.2	483.4
97.5°	129.0	214.3	299.6	320.9	698.8	1202.6	1454.5	1388.4	1256.1	1156.9	1123.1
100°	170.9	248.3	325.7	345.0	764.3	1323.4	1602.9	1607.8	1617.4	1624.7	1584.3
102.5°	206.7	278.8	351.0	369.0	794.3	1361.3	1644.9	1729.1	1897.7	2024.1	1989.5
105°	267.3	328.4	389.5	404.8	816.6	1365.7	1640.2	1829.1	2206.9	2490.2	2471.6
107.5°	329.4	386.4	443.4	457.7	820.8	1304.9	1547.0	1810.5	2337.4	2732.6	2737.1
110°	371.4	422.8	474.3	487.2	814.5	1251.0	1469.3	1763.9	2352.9	2794.8	2814.1

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	412.5	461.6	510.7	522.9	814.8	1204.0	1398.6	1700.1	2303.0	2755.2	2784.9
115°	474.8	520.0	565.3	576.6	822.3	1150.0	1313.9	1604.3	2185.2	2620.8	2662.0
117.5°	536.1	577.2	618.3	628.6	837.6	1116.2	1255.6	1517.7	2041.9	2435.0	2480.7
120°	571.9	610.6	649.2	658.8	850.0	1104.9	1232.3	1471.8	1950.8	2310.0	2354.3
122.5°	606.8	645.9	684.9	694.6	867.9	1098.9	1214.4	1430.0	1861.4	2184.9	2228.7
125°	660.4	696.0	731.6	740.5	892.0	1094.0	1195.0	1378.2	1744.6	2019.4	2059.8
127.5°	704.0	739.8	775.8	784.7	916.1	1091.2	1178.7	1336.0	1650.6	1886.5	1920.5
130°	727.2	765.9	804.5	814.3	933.6	1092.9	1172.5	1312.5	1592.6	1802.6	1834.0
132.5°	751.3	790.0	828.6	838.4	947.9	1094.0	1167.0	1292.4	1543.1	1731.1	1759.2
135°	787.1	822.3	857.6	866.4	963.5	1093.0	1157.7	1262.7	1472.6	1630.1	1654.4
137.5°	823.6	858.4	893.4	902.1	986.8	1099.7	1156.1	1244.8	1422.4	1555.5	1575.4
140°	853.9	886.0	918.1	926.2	1001.0	1100.8	1150.7	1227.4	1380.7	1495.7	1514.3
142.5°	877.2	906.9	936.6	944.0	1012.9	1104.7	1150.7	1218.0	1352.7	1453.8	1469.7
145°	913.0	938.9	964.8	971.3	1028.5	1104.8	1142.9	1198.0	1308.2	1390.8	1402.9
147.5°	948.7	973.9	999.1	1005.5	1051.3	1112.4	1142.9	1186.3	1272.9	1338.0	1347.9
150°	972.0	994.8	1017.6	1023.3	1063.2	1116.3	1142.9	1179.5	1252.8	1307.7	1315.8
152.5°	996.1	1013.4	1030.7	1035.0	1070.9	1118.9	1142.9	1174.2	1236.7	1283.6	1289.8
155°	1031.8	1044.6	1057.4	1060.6	1088.0	1124.6	1142.9	1167.8	1217.6	1254.8	1258.8
157.5°	1058.2	1070.6	1083.2	1086.2	1105.1	1130.3	1142.9	1162.3	1200.9	1230.0	1232.8
160°	1076.2	1085.9	1095.5	1097.9	1113.0	1132.9	1142.9	1159.6	1192.7	1217.6	1219.2
162.5°	1094.0	1101.3	1108.6	1110.3	1121.2	1135.7	1142.9	1156.9	1184.9	1205.9	1207.5
165°	1113.4	1120.0	1126.5	1128.2	1133.1	1139.7	1142.9	1152.9	1173.0	1188.0	1189.7
167.5°	1131.3	1134.3	1137.5	1138.3	1142.4	1147.9	1150.7	1157.2	1170.4	1180.2	1180.9
170°	1142.9	1146.0	1149.2	1149.9	1150.2	1150.5	1150.7	1157.2	1170.4	1180.2	1180.2
172.5°	1149.2	1149.8	1150.5	1150.7	1150.7	1150.7	1150.7	1155.9	1166.3	1174.0	1173.5
175°	1157.7	1157.7	1157.7	1157.7	1155.4	1152.3	1150.7	1154.0	1160.5	1165.4	1165.4
177.5°	1157.7	1157.7	1157.7	1157.7	1155.9	1153.5	1152.3	1154.9	1160.0	1164.0	1163.3
180°	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7	1157.7

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	983.1	983.1
2.5°	1049.5	1043.2
5°	1349.8	1356.2
7.5°	1817.7	1814.6
10°	2260.3	2288.8
12.5°	2582.7	2589.0
15°	2778.7	2791.4
17.5°	2854.6	2857.8
20°	2857.8	2851.4
22.5°	2823.0	2816.7
25°	2781.9	2778.7
27.5°	2743.9	2747.1
30°	2728.1	2737.6
32.5°	2728.1	2743.9
35°	2734.5	2750.3
37.5°	2731.3	2750.3
40°	2718.7	2740.8
42.5°	2683.8	2699.7
45°	2630.1	2649.1
47.5°	2560.6	2573.3
50°	2472.1	2484.7
52.5°	2361.4	2364.6
55°	2228.6	2241.3
57.5°	2086.4	2089.5
60°	1928.3	1937.9
62.5°	1760.8	1760.8
65°	1583.8	1590.1
67.5°	1400.4	1416.2
70°	1213.9	1217.1
72.5°	1030.6	1030.6
75°	840.9	844.1
77.5°	660.7	660.7
80°	490.0	493.2
82.5°	338.3	344.6
85°	211.8	211.8
87.5°	98.0	88.5
90°	29.5	29.5
92.5°	118.3	94.8
95°	412.3	341.1
97.5°	987.7	852.4
100°	1423.1	1261.8
102.5°	1851.4	1713.2
105°	2397.4	2323.1
107.5°	2755.1	2773.0
110°	2891.5	2968.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2903.6	3022.4
115°	2826.7	2991.4
117.5°	2663.4	2846.1
120°	2531.9	2709.3
122.5°	2403.7	2578.8
125°	2221.0	2382.3
127.5°	2056.6	2192.7
130°	1959.7	2085.4
132.5°	1871.8	1984.4
135°	1751.4	1848.5
137.5°	1654.8	1734.3
140°	1588.5	1662.7
142.5°	1533.6	1597.5
145°	1451.2	1499.5
147.5°	1388.0	1428.1
150°	1348.2	1380.7
152.5°	1314.2	1338.7
155°	1275.1	1291.3
157.5°	1244.2	1255.6
160°	1225.8	1232.3
162.5°	1213.6	1219.9
165°	1196.3	1202.8
167.5°	1183.7	1186.5
170°	1180.2	1180.2
172.5°	1171.0	1168.6
175°	1165.4	1165.4
177.5°	1160.5	1157.7
180°	1157.7	1157.7

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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	6.31	7.21	7.26	8.18	9.44	19.49	20.39	20.43	21.36	22.62
	3H	7.02	7.83	7.98	8.81	10.09	21.33	22.14	22.29	23.12	24.41
	4H	7.32	8.09	8.29	9.07	10.36	21.98	22.75	22.95	23.73	25.02
	6H	7.57	8.28	8.55	9.27	10.57	22.41	23.12	23.39	24.11	25.41
	8H	7.64	8.32	8.63	9.32	10.63	22.53	23.21	23.52	24.21	25.52
	12H	7.66	8.30	8.65	9.30	10.63	22.60	23.25	23.60	24.24	25.57
4H	2H	13.53	14.30	14.51	15.28	16.57	19.77	20.54	20.75	21.52	22.81
	3H	15.10	15.75	16.09	16.76	18.07	21.82	22.46	22.80	23.47	24.78
	4H	15.20	15.79	16.19	16.79	18.12	22.59	23.18	23.58	24.18	25.51
	6H	15.21	15.72	16.22	16.75	18.08	23.13	23.64	24.14	24.66	25.99
	8H	15.19	15.67	16.20	16.69	18.03	23.29	23.77	24.30	24.79	26.13
	12H	15.15	15.58	16.18	16.62	17.97	23.39	23.82	24.42	24.85	26.20
8H	4H	16.65	17.12	17.66	18.14	19.49	22.65	23.13	23.66	24.15	25.49
	6H	16.89	17.29	17.93	18.35	19.69	23.28	23.68	24.32	24.74	26.08
	8H	16.91	17.26	17.95	18.31	19.67	23.50	23.85	24.54	24.90	26.26
	12H	16.88	17.19	17.93	18.23	19.63	23.65	23.96	24.70	25.00	26.40
12H	4H	16.79	17.22	17.82	18.26	19.61	22.61	23.04	23.63	24.07	25.42
	6H	17.15	17.50	18.19	18.55	19.91	23.27	23.61	24.31	24.66	26.02
	8H	17.22	17.53	18.27	18.57	19.97	23.50	23.80	24.54	24.85	26.25