

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: P937768

Luminaire Tested: SQ4-FB-100U-125D-93050-1D-UNV-STD-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937768
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

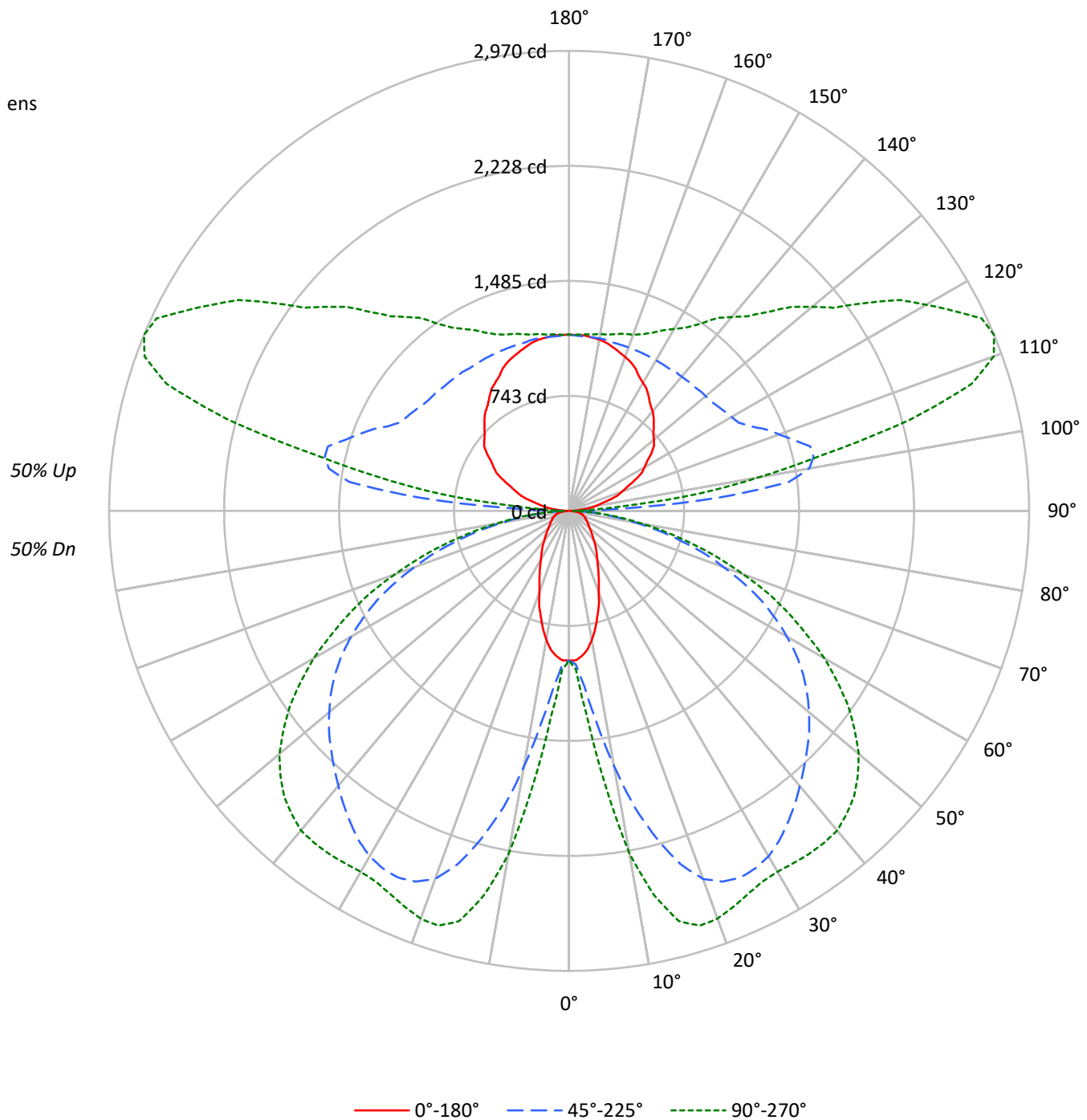
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14851.1 lumens
Efficiency: N/A
Efficacy: 107.9 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





TEST NUMBER: P937768

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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	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°	4482	4482	4482
5°	4378	5180	6024
10°	3971	7551	9987
15°	3375	9865	12059
20°	2748	11432	12290
25°	2292	11963	12041
30°	1933	12039	12018
35°	1709	11839	12328
40°	1489	11579	12650
45°	1349	11388	12700
50°	1237	11217	12489
55°	1185	10967	11936
60°	1213	10485	11061
65°	1262	9753	9861
70°	1344	8505	8330
75°	1490	6935	6501
80°	1627	4809	4380
85°	1444	2552	2242

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 12700 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	0.8
10°-20°	553.8	3.7
20°-30°	968.7	6.5
30°-40°	1247.0	8.4
40°-50°	1392.8	9.4
50°-60°	1334.0	9.0
60°-70°	1057.2	7.1
70°-80°	621.7	4.2
80°-90°	177.0	1.2
90°-100°	554.5	3.7
100°-110°	1457.7	9.8
110°-120°	1511.5	10.2
120°-130°	1212.4	8.2
130°-140°	951.3	6.4
140°-150°	730.2	4.9
150°-160°	525.8	3.5
160°-170°	321.7	2.2
170°-180°	108.7	0.7
0°-30°	1647.4	11.1
0°-40°	2894.4	19.5
0°-60°	5621.2	37.9
0°-90°	7477.1	50.3
90°-120°	3523.7	23.7
90°-150°	6417.7	43.2
90°-180°	7374.0	49.7
0°-180°	14851.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	966	966	966	966	966	
5°	941	1010	1137	1286	1332	87
15°	705	1301	2193	2659	2743	196
25°	450	1475	2612	2727	2730	207
35°	304	1410	2460	2600	2702	190
45°	208	1124	2174	2491	2603	161
55°	149	714	1845	2143	2202	136
65°	118	379	1370	1541	1562	117
75°	87	233	752	826	829	91
85°	31	71	186	205	208	33
90°	8	21	58	29	29	8
95°	73	287	955	492	335	81
105°	263	398	1612	2447	2283	278
115°	466	566	1291	2575	2939	461
125°	649	728	1174	1984	2341	576
135°	773	851	1138	1602	1816	598
145°	897	954	1123	1366	1473	562
155°	1014	1042	1123	1233	1269	466
165°	1094	1108	1123	1167	1182	309
175°	1138	1138	1131	1145	1145	108
180°	1138	1138	1138	1138	1138	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0	966.0
2.5°	966.0	966.0	972.2	975.3	981.5	984.6	990.8	997.1	1015.7	1018.8	1025.0
5°	941.1	953.6	994.0	1009.5	1053.0	1112.0	1136.8	1177.2	1261.0	1285.9	1301.4
7.5°	903.8	931.8	1031.2	1056.1	1164.7	1320.1	1385.3	1472.3	1605.8	1671.0	1723.9
10°	844.8	903.8	1080.9	1139.9	1317.0	1553.0	1674.2	1795.3	1997.2	2087.3	2121.4
12.5°	779.6	875.9	1133.7	1214.5	1469.1	1813.9	1959.9	2093.4	2323.3	2444.5	2463.1
15°	705.1	835.6	1183.4	1301.4	1630.7	2031.3	2192.8	2357.5	2571.8	2658.7	2680.5
17.5°	639.8	804.5	1230.0	1354.2	1754.9	2227.1	2391.6	2528.3	2702.2	2761.3	2776.8
20°	559.1	754.8	1261.0	1422.5	1885.4	2369.9	2528.3	2633.9	2752.0	2789.2	2795.4
22.5°	500.1	701.9	1279.7	1447.4	1972.3	2456.9	2590.5	2674.3	2755.0	2767.5	2770.6
25°	450.4	642.9	1276.6	1475.4	2046.9	2509.7	2612.2	2674.3	2720.9	2727.1	2727.1
27.5°	403.8	577.7	1264.1	1481.6	2102.8	2522.1	2602.9	2646.4	2668.1	2680.5	2680.5
30°	363.4	515.6	1233.1	1469.1	2127.7	2509.7	2574.9	2596.6	2618.4	2637.0	2646.4
32.5°	332.4	456.6	1186.5	1444.3	2130.7	2478.6	2525.2	2537.6	2568.7	2612.2	2627.7
35°	304.4	397.5	1133.7	1410.1	2112.1	2429.0	2460.0	2472.4	2534.5	2599.7	2621.5
37.5°	276.4	354.0	1065.4	1351.1	2084.2	2369.9	2391.6	2413.4	2509.7	2587.3	2612.2
40°	248.5	316.8	984.6	1285.9	2040.7	2298.5	2317.1	2351.2	2478.6	2568.7	2593.5
42.5°	226.8	285.8	897.7	1217.6	1984.8	2217.7	2245.7	2295.3	2441.3	2537.6	2565.6
45°	208.1	254.7	804.5	1124.4	1913.3	2133.8	2174.2	2242.6	2397.8	2491.1	2515.9
47.5°	189.5	232.9	708.2	1028.1	1835.7	2049.9	2102.8	2180.4	2338.8	2429.0	2450.7
50°	173.9	211.3	611.9	925.6	1751.8	1959.9	2022.0	2102.8	2264.3	2348.2	2376.1
52.5°	161.5	192.5	521.8	823.1	1655.5	1866.7	1938.2	2022.0	2174.2	2255.0	2273.6
55°	149.1	177.0	444.2	714.4	1556.1	1767.3	1845.0	1925.8	2074.8	2143.2	2155.6
57.5°	142.9	164.6	378.9	611.9	1450.5	1655.5	1742.5	1817.0	1956.8	2009.6	2022.0
60°	133.5	155.3	329.3	524.9	1335.6	1549.9	1624.4	1699.0	1817.0	1860.5	1869.8
62.5°	124.3	149.1	292.0	441.0	1217.6	1425.6	1500.2	1568.5	1667.9	1699.0	1711.4
65°	118.0	142.9	264.0	378.9	1096.5	1295.2	1369.8	1428.8	1509.5	1540.6	1546.8
67.5°	111.8	136.6	242.3	326.1	975.3	1164.7	1220.6	1276.6	1338.7	1369.8	1372.9
70°	102.5	130.5	223.6	288.9	851.1	1015.7	1062.2	1121.2	1171.0	1186.5	1195.8
72.5°	96.3	121.1	211.3	260.9	723.7	872.8	916.3	950.5	994.0	1009.5	1009.5
75°	87.0	108.7	198.8	232.9	593.3	714.4	751.7	785.8	820.0	826.2	816.9
77.5°	77.6	96.3	170.9	195.7	462.8	565.3	596.3	615.0	642.9	649.2	652.3
80°	65.2	83.9	133.5	152.2	335.4	416.2	437.9	453.5	478.3	478.3	484.5
82.5°	49.7	65.2	96.3	108.7	226.8	285.8	304.4	313.7	329.3	329.3	329.3
85°	31.0	40.4	62.1	71.4	136.6	173.9	186.4	189.5	201.9	205.0	205.0
87.5°	15.5	21.7	40.4	43.5	71.4	90.1	90.1	96.3	96.3	93.1	90.1
90°	7.6	13.8	19.8	21.4	33.6	49.8	58.0	51.6	38.6	29.0	29.0
92.5°	30.6	82.5	134.4	147.4	207.1	286.9	326.7	286.3	205.7	145.1	139.3
95°	73.3	168.3	263.3	287.1	509.7	806.6	955.0	852.3	646.6	492.4	475.0
97.5°	126.7	210.5	294.4	315.3	686.6	1181.6	1429.1	1364.2	1234.2	1136.7	1103.5
100°	167.9	243.9	320.0	339.0	750.9	1300.3	1574.9	1579.7	1589.2	1596.3	1556.7
102.5°	203.1	273.9	344.9	362.6	780.4	1337.5	1616.2	1698.9	1864.6	1988.7	1954.8
105°	262.6	322.7	382.7	397.7	802.3	1341.9	1611.6	1797.1	2168.3	2446.8	2428.5
107.5°	323.7	379.7	435.6	449.7	806.5	1282.1	1520.0	1778.9	2296.6	2684.9	2689.3
110°	364.9	415.4	466.0	478.7	800.3	1229.2	1443.6	1733.1	2311.9	2746.0	2765.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	405.3	453.5	501.8	513.8	800.6	1183.0	1374.2	1670.4	2262.8	2707.1	2736.3
115°	466.5	510.9	555.4	566.5	807.9	1130.0	1290.9	1576.3	2147.0	2575.1	2615.5
117.5°	526.8	567.1	607.5	617.6	823.0	1096.7	1233.7	1491.2	2006.3	2392.5	2437.4
120°	561.9	599.9	637.9	647.3	835.2	1085.6	1210.8	1446.1	1916.7	2269.6	2313.2
122.5°	596.2	634.6	672.9	682.5	852.7	1079.7	1193.2	1405.1	1828.9	2146.8	2189.8
125°	648.9	683.9	718.8	727.5	876.4	1074.9	1174.1	1354.2	1714.2	1984.1	2023.8
127.5°	691.7	726.9	762.2	771.0	900.1	1072.1	1158.1	1312.7	1621.8	1853.6	1887.0
130°	714.5	752.5	790.5	800.0	917.3	1073.8	1152.0	1289.5	1564.8	1771.2	1802.0
132.5°	738.2	776.2	814.2	823.7	931.4	1074.9	1146.7	1269.8	1516.1	1700.9	1728.5
135°	773.3	807.9	842.6	851.3	946.7	1073.9	1137.5	1240.6	1446.9	1601.7	1625.5
137.5°	809.2	843.5	877.8	886.3	969.5	1080.5	1135.9	1223.1	1397.6	1528.3	1547.9
140°	839.0	870.5	902.1	910.0	983.5	1081.6	1130.6	1205.9	1356.6	1469.6	1487.9
142.5°	861.9	891.1	920.3	927.5	995.2	1085.4	1130.6	1196.8	1329.1	1428.4	1444.1
145°	897.0	922.5	948.0	954.3	1010.6	1085.5	1123.0	1177.1	1285.3	1366.5	1378.4
147.5°	932.1	956.9	981.7	987.9	1033.0	1093.0	1123.0	1165.6	1250.7	1314.6	1324.4
150°	955.0	977.4	999.8	1005.4	1044.6	1096.8	1123.0	1159.0	1230.9	1284.9	1292.8
152.5°	978.7	995.7	1012.7	1016.9	1052.2	1099.4	1123.0	1153.7	1215.1	1261.2	1267.2
155°	1013.8	1026.4	1038.9	1042.0	1069.0	1105.0	1123.0	1147.4	1196.3	1232.9	1236.9
157.5°	1039.7	1052.0	1064.3	1067.3	1085.8	1110.6	1123.0	1142.0	1180.0	1208.5	1211.3
160°	1057.4	1066.9	1076.4	1078.8	1093.5	1113.2	1123.0	1139.3	1171.9	1196.3	1198.0
162.5°	1074.9	1082.1	1089.2	1091.0	1101.6	1115.8	1123.0	1136.7	1164.2	1184.8	1186.4
165°	1094.0	1100.4	1106.8	1108.5	1113.3	1119.8	1123.0	1132.8	1152.5	1167.3	1169.0
167.5°	1111.5	1114.5	1117.7	1118.4	1122.4	1127.8	1130.6	1137.0	1150.0	1159.6	1160.2
170°	1123.0	1126.0	1129.1	1129.9	1130.1	1130.4	1130.6	1137.0	1150.0	1159.6	1159.6
172.5°	1129.1	1129.8	1130.4	1130.6	1130.6	1130.6	1130.6	1135.7	1145.9	1153.5	1153.0
175°	1137.5	1137.5	1137.5	1137.5	1135.2	1132.2	1130.6	1133.8	1140.2	1145.1	1145.1
177.5°	1137.5	1137.5	1137.5	1137.5	1135.7	1133.4	1132.2	1134.7	1139.8	1143.6	1143.0
180°	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5	1137.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	966.0	966.0
2.5°	1031.2	1025.0
5°	1326.3	1332.5
7.5°	1785.9	1782.9
10°	2220.8	2248.8
12.5°	2537.6	2543.9
15°	2730.2	2742.6
17.5°	2804.8	2807.9
20°	2807.9	2801.6
22.5°	2773.7	2767.5
25°	2733.4	2730.2
27.5°	2696.0	2699.1
30°	2680.5	2689.9
32.5°	2680.5	2696.0
35°	2686.7	2702.2
37.5°	2683.6	2702.2
40°	2671.2	2693.0
42.5°	2637.0	2652.6
45°	2584.2	2602.9
47.5°	2515.9	2528.3
50°	2429.0	2441.3
52.5°	2320.2	2323.3
55°	2189.7	2202.2
57.5°	2049.9	2053.1
60°	1894.7	1904.0
62.5°	1730.0	1730.0
65°	1556.1	1562.4
67.5°	1376.0	1391.5
70°	1192.7	1195.8
72.5°	1012.6	1012.6
75°	826.2	829.3
77.5°	649.2	649.2
80°	481.4	484.5
82.5°	332.4	338.5
85°	208.1	208.1
87.5°	96.3	87.0
90°	29.0	29.0
92.5°	116.3	93.1
95°	405.1	335.1
97.5°	970.5	837.5
100°	1398.3	1239.8
102.5°	1819.1	1683.3
105°	2355.5	2282.6
107.5°	2707.0	2724.6
110°	2841.0	2917.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	2852.9	2969.7
115°	2777.3	2939.2
117.5°	2616.9	2796.4
120°	2487.7	2662.0
122.5°	2361.8	2533.8
125°	2182.2	2340.7
127.5°	2020.7	2154.4
130°	1925.5	2049.0
132.5°	1839.2	1949.7
135°	1720.9	1816.2
137.5°	1625.9	1704.0
140°	1560.7	1633.7
142.5°	1506.9	1569.6
145°	1425.9	1473.4
147.5°	1363.8	1403.2
150°	1324.7	1356.6
152.5°	1291.3	1315.3
155°	1252.8	1268.8
157.5°	1222.5	1233.7
160°	1204.4	1210.8
162.5°	1192.5	1198.6
165°	1175.4	1181.8
167.5°	1163.0	1165.7
170°	1159.6	1159.6
172.5°	1150.6	1148.2
175°	1145.1	1145.1
177.5°	1140.2	1137.5
180°	1137.5	1137.5



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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	6.25	7.15	7.19	8.12	9.38	19.43	20.33	20.37	21.30	22.56
	3H	6.96	7.77	7.91	8.75	10.03	21.27	22.08	22.23	23.06	24.34
	4H	7.26	8.03	8.23	9.01	10.30	21.92	22.69	22.89	23.67	24.96
	6H	7.51	8.22	8.49	9.21	10.51	22.35	23.06	23.33	24.05	25.35
	8H	7.58	8.26	8.57	9.26	10.56	22.47	23.15	23.46	24.15	25.46
	12H	7.60	8.24	8.59	9.24	10.57	22.54	23.19	23.54	24.18	25.51
4H	2H	13.47	14.24	14.45	15.22	16.51	19.71	20.48	20.68	21.46	22.75
	3H	15.04	15.69	16.03	16.70	18.00	21.76	22.40	22.74	23.41	24.72
	4H	15.14	15.73	16.13	16.73	18.06	22.53	23.12	23.52	24.12	25.45
	6H	15.15	15.66	16.16	16.69	18.02	23.07	23.58	24.07	24.60	25.93
	8H	15.13	15.61	16.14	16.63	17.97	23.23	23.71	24.24	24.73	26.07
	12H	15.09	15.52	16.12	16.55	17.90	23.33	23.76	24.35	24.79	26.14
8H	4H	16.59	17.06	17.60	18.08	19.43	22.59	23.07	23.60	24.09	25.43
	6H	16.83	17.23	17.86	18.29	19.63	23.22	23.62	24.25	24.68	26.02
	8H	16.85	17.20	17.89	18.24	19.61	23.44	23.79	24.48	24.84	26.20
	12H	16.82	17.13	17.87	18.17	19.57	23.59	23.89	24.63	24.94	26.34
12H	4H	16.73	17.16	17.76	18.20	19.55	22.54	22.97	23.57	24.01	25.36
	6H	17.09	17.44	18.13	18.49	19.85	23.20	23.55	24.25	24.60	25.96
	8H	17.16	17.47	18.21	18.51	19.91	23.44	23.74	24.48	24.79	26.19