

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: P937792

Luminaire Tested: SQ4-FB-100U-125D-B2750-1D-UNV-STD-W-8-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937792
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-STD-W-8-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

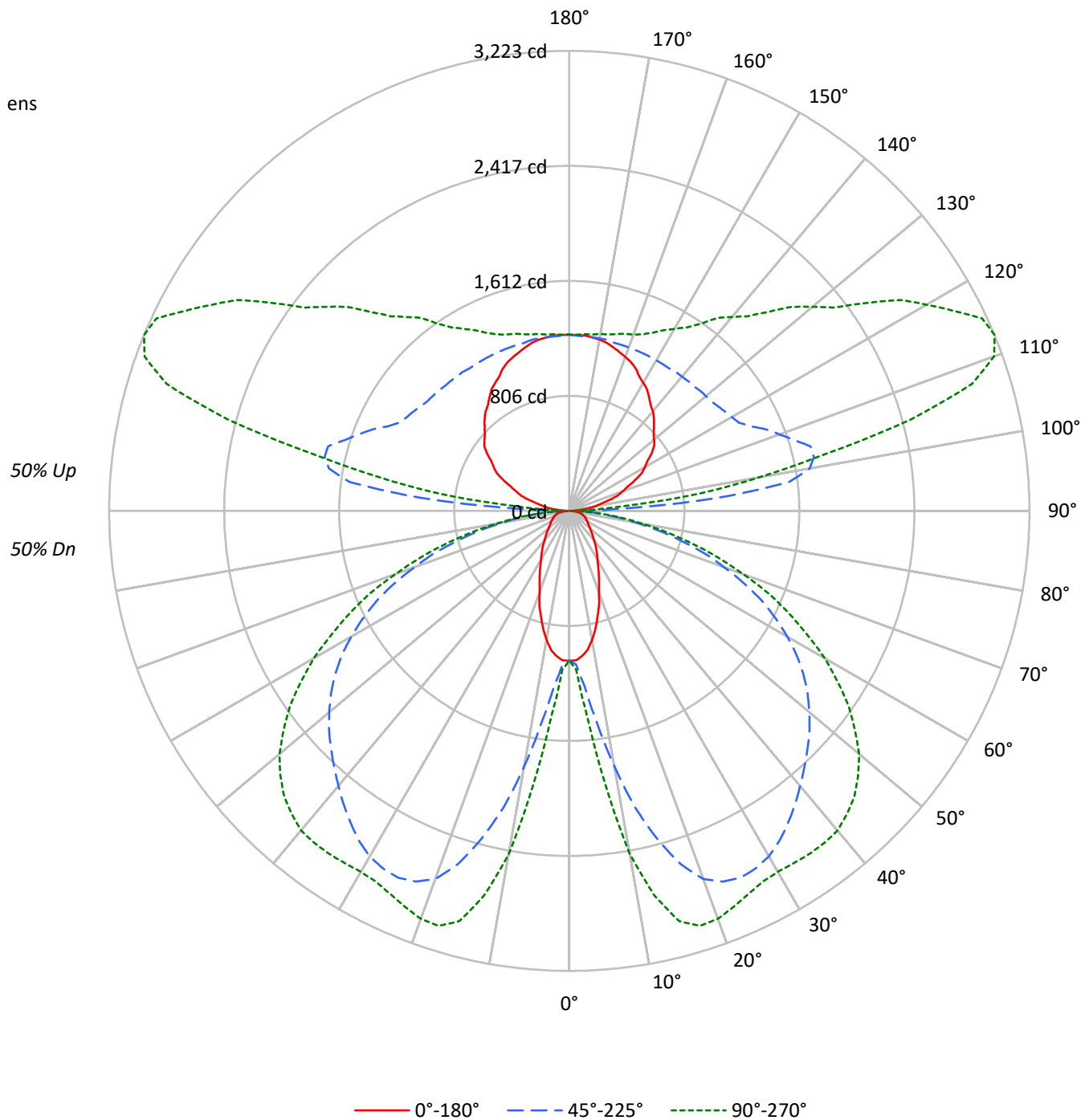
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16118.3 lumens
Efficiency: N/A
Efficacy: 117.1 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	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°	4864	4864	4864
5°	4752	5622	6538
10°	4310	8195	10840
15°	3663	10706	13088
20°	2982	12408	13339
25°	2488	12984	13068
30°	2098	13066	13044
35°	1855	12849	13380
40°	1617	12567	13730
45°	1464	12360	13783
50°	1342	12175	13555
55°	1286	11903	12954
60°	1316	11379	12005
65°	1370	10585	10702
70°	1460	9231	9041
75°	1617	7527	7055
80°	1766	5220	4754
85°	1570	2770	2434

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13783 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	0.8
10°-20°	601.1	3.7
20°-30°	1051.3	6.5
30°-40°	1353.4	8.4
40°-50°	1511.7	9.4
50°-60°	1447.8	9.0
60°-70°	1147.4	7.1
70°-80°	674.7	4.2
80°-90°	192.2	1.2
90°-100°	601.8	3.7
100°-110°	1582.1	9.8
110°-120°	1640.5	10.2
120°-130°	1315.9	8.2
130°-140°	1032.5	6.4
140°-150°	792.5	4.9
150°-160°	570.7	3.5
160°-170°	349.2	2.2
170°-180°	118.0	0.7
0°-30°	1788.0	11.1
0°-40°	3141.4	19.5
0°-60°	6100.9	37.9
0°-90°	8115.2	50.3
90°-120°	3824.4	23.7
90°-150°	6965.3	43.2
90°-180°	8003.0	49.7
0°-180°	16118.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1021	1096	1234	1396	1446	94
15°	765	1412	2380	2886	2977	213
25°	489	1601	2835	2960	2963	225
35°	330	1530	2670	2822	2933	206
45°	226	1220	2360	2704	2825	175
55°	162	775	2002	2326	2390	147
65°	128	411	1487	1672	1696	127
75°	94	253	816	897	900	99
85°	34	78	202	222	226	36
90°	8	23	63	32	32	9
95°	80	312	1036	534	364	88
105°	285	432	1749	2656	2477	302
115°	506	615	1401	2795	3190	500
125°	704	790	1274	2154	2540	625
135°	839	924	1234	1738	1971	649
145°	974	1036	1219	1483	1599	610
155°	1100	1131	1219	1338	1377	506
165°	1187	1203	1219	1267	1283	335
175°	1234	1234	1227	1243	1243	117
180°	1234	1234	1234	1234	1234	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1048.4	1048.4	1055.2	1058.5	1065.2	1068.6	1075.4	1082.2	1102.4	1105.8	1112.4
5°	1021.4	1034.9	1078.8	1095.6	1142.8	1206.9	1233.8	1277.7	1368.6	1395.6	1412.4
7.5°	981.0	1011.3	1119.2	1146.2	1264.1	1432.7	1503.5	1597.9	1742.8	1813.6	1871.0
10°	916.9	981.0	1173.1	1237.1	1429.4	1685.5	1817.0	1948.5	2167.6	2265.4	2302.5
12.5°	846.1	950.7	1230.5	1318.1	1594.5	1968.7	2127.2	2272.1	2521.6	2653.0	2673.3
15°	765.2	906.9	1284.3	1412.4	1769.8	2204.6	2379.9	2558.6	2791.3	2885.6	2909.2
17.5°	694.4	873.1	1334.9	1469.8	1904.7	2417.1	2595.7	2744.1	2932.8	2996.9	3013.7
20°	606.8	819.2	1368.6	1543.9	2046.3	2572.2	2744.1	2858.6	2986.8	3027.2	3033.9
22.5°	542.7	761.8	1388.9	1570.9	2140.6	2666.5	2811.5	2902.4	2990.1	3003.6	3007.0
25°	488.8	697.8	1385.5	1601.3	2221.6	2723.9	2835.1	2902.4	2953.0	2959.8	2959.8
27.5°	438.2	627.0	1372.0	1608.0	2282.2	2737.3	2825.0	2872.2	2895.8	2909.2	2909.2
30°	394.4	559.6	1338.3	1594.5	2309.2	2723.9	2794.6	2818.2	2841.8	2862.0	2872.2
32.5°	360.8	495.5	1287.7	1567.5	2312.5	2690.1	2740.7	2754.1	2787.9	2835.1	2851.9
35°	330.4	431.5	1230.5	1530.5	2292.3	2636.2	2669.9	2683.3	2750.8	2821.6	2845.2
37.5°	300.0	384.3	1156.3	1466.4	2262.0	2572.2	2595.7	2619.3	2723.9	2808.1	2835.1
40°	269.7	343.8	1068.6	1395.6	2214.8	2494.6	2514.8	2551.9	2690.1	2787.9	2814.8
42.5°	246.1	310.2	974.3	1321.5	2154.1	2406.9	2437.3	2491.2	2649.7	2754.1	2784.5
45°	225.9	276.4	873.1	1220.3	2076.6	2315.9	2359.7	2433.9	2602.4	2703.6	2730.5
47.5°	205.7	252.8	768.6	1115.8	1992.3	2224.9	2282.2	2366.5	2538.4	2636.2	2659.8
50°	188.7	229.3	664.1	1004.6	1901.3	2127.2	2194.6	2282.2	2457.5	2548.6	2578.8
52.5°	175.3	209.0	566.3	893.3	1796.8	2026.0	2103.6	2194.6	2359.7	2447.4	2467.6
55°	161.8	192.1	482.1	775.4	1688.9	1918.1	2002.5	2090.1	2251.9	2326.1	2339.5
57.5°	155.1	178.7	411.2	664.1	1574.3	1796.8	1891.2	1972.1	2123.8	2181.0	2194.6
60°	144.9	168.5	357.4	569.7	1449.6	1682.1	1763.0	1844.0	1972.1	2019.3	2029.4
62.5°	134.9	161.8	316.9	478.7	1321.5	1547.3	1628.3	1702.4	1810.2	1844.0	1857.4
65°	128.1	155.1	286.5	411.2	1190.0	1405.8	1486.6	1550.7	1638.3	1672.1	1678.8
67.5°	121.3	148.3	262.9	354.0	1058.5	1264.1	1324.8	1385.5	1453.0	1486.6	1490.0
70°	111.3	141.6	242.7	313.5	923.7	1102.4	1152.9	1216.9	1270.9	1287.7	1297.9
72.5°	104.5	131.5	229.3	283.2	785.4	947.3	994.5	1031.6	1078.8	1095.6	1095.6
75°	94.4	118.0	215.7	252.8	643.9	775.4	815.8	852.9	889.9	896.7	886.6
77.5°	84.3	104.5	185.5	212.3	502.3	613.5	647.2	667.5	697.8	704.6	708.0
80°	70.8	91.0	144.9	165.1	364.0	451.7	475.3	492.2	519.1	519.1	525.9
82.5°	54.0	70.8	104.5	118.0	246.1	310.2	330.4	340.4	357.4	357.4	357.4
85°	33.7	43.8	67.4	77.5	148.3	188.7	202.3	205.7	219.1	222.5	222.5
87.5°	16.8	23.6	43.8	47.2	77.5	97.8	97.8	104.5	104.5	101.1	97.8
90°	8.3	14.9	21.5	23.2	36.5	54.1	62.9	56.0	41.9	31.5	31.5
92.5°	33.2	89.5	145.9	160.0	224.8	311.3	354.6	310.8	223.2	157.5	151.2
95°	79.6	182.7	285.8	311.5	553.2	875.4	1036.5	925.0	701.8	534.5	515.5
97.5°	137.5	228.5	319.5	342.2	745.2	1282.4	1551.1	1480.6	1339.5	1233.7	1197.7
100°	182.3	264.7	347.3	367.9	815.0	1411.2	1709.3	1714.5	1724.8	1732.5	1689.5
102.5°	220.4	297.3	374.3	393.5	847.0	1451.7	1754.1	1843.9	2023.7	2158.4	2121.6
105°	285.1	350.2	415.3	431.7	870.8	1456.4	1749.1	1950.5	2353.3	2655.5	2635.7
107.5°	351.3	412.0	472.8	488.0	875.3	1391.5	1649.7	1930.6	2492.6	2914.0	2918.8
110°	396.0	450.9	505.8	519.5	868.6	1334.0	1566.8	1880.9	2509.1	2980.3	3000.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	439.9	492.2	544.6	557.7	868.9	1283.9	1491.4	1812.9	2455.8	2938.1	2969.8
115°	506.3	554.5	602.8	614.8	876.9	1226.4	1401.1	1710.8	2330.2	2794.8	2838.7
117.5°	571.7	615.5	659.4	670.3	893.2	1190.3	1338.9	1618.4	2177.5	2596.7	2645.4
120°	609.9	651.1	692.3	702.6	906.5	1178.3	1314.1	1569.5	2080.2	2463.3	2510.6
122.5°	647.1	688.7	730.4	740.7	925.5	1171.8	1295.0	1525.0	1984.9	2329.9	2376.7
125°	704.3	742.2	780.2	789.6	951.2	1166.6	1274.3	1469.7	1860.4	2153.5	2196.5
127.5°	750.7	788.9	827.3	836.8	976.9	1163.6	1257.0	1424.7	1760.1	2011.7	2048.0
130°	775.5	816.7	858.0	868.3	995.6	1165.4	1250.3	1399.6	1698.3	1922.3	1955.7
132.5°	801.2	842.4	883.7	894.0	1010.8	1166.6	1244.5	1378.2	1645.5	1846.0	1876.0
135°	839.3	876.9	914.5	923.9	1027.5	1165.5	1234.5	1346.5	1570.4	1738.3	1764.2
137.5°	878.3	915.4	952.7	961.9	1052.3	1172.7	1232.8	1327.5	1516.8	1658.7	1680.0
140°	910.5	944.8	979.1	987.6	1067.4	1173.9	1227.1	1308.8	1472.4	1595.0	1614.8
142.5°	935.4	967.1	998.8	1006.7	1080.2	1178.1	1227.1	1298.9	1442.5	1550.3	1567.3
145°	973.6	1001.2	1028.9	1035.7	1096.8	1178.2	1218.8	1277.6	1395.0	1483.1	1496.0
147.5°	1011.6	1038.5	1065.4	1072.2	1121.1	1186.2	1218.8	1265.0	1357.4	1426.8	1437.4
150°	1036.5	1060.8	1085.1	1091.2	1133.7	1190.4	1218.8	1257.8	1335.9	1394.5	1403.2
152.5°	1062.2	1080.7	1099.1	1103.7	1142.0	1193.2	1218.8	1252.2	1318.8	1368.8	1375.4
155°	1100.3	1113.9	1127.6	1131.0	1160.2	1199.3	1218.8	1245.3	1298.4	1338.1	1342.4
157.5°	1128.5	1141.7	1155.1	1158.3	1178.5	1205.4	1218.8	1239.4	1280.7	1311.6	1314.6
160°	1147.6	1157.9	1168.2	1170.8	1186.8	1208.1	1218.8	1236.5	1271.9	1298.4	1300.2
162.5°	1166.6	1174.4	1182.2	1184.0	1195.6	1211.0	1218.8	1233.7	1263.5	1285.9	1287.6
165°	1187.3	1194.3	1201.3	1203.1	1208.3	1215.3	1218.8	1229.5	1250.9	1266.9	1268.7
167.5°	1206.4	1209.6	1213.0	1213.8	1218.2	1224.1	1227.1	1234.0	1248.1	1258.5	1259.2
170°	1218.8	1222.1	1225.5	1226.3	1226.6	1226.9	1227.1	1234.0	1248.1	1258.5	1258.5
172.5°	1225.5	1226.2	1226.9	1227.1	1227.1	1227.1	1227.1	1232.6	1243.7	1252.0	1251.4
175°	1234.5	1234.5	1234.5	1234.5	1232.1	1228.8	1227.1	1230.6	1237.5	1242.8	1242.8
177.5°	1234.5	1234.5	1234.5	1234.5	1232.6	1230.1	1228.8	1231.6	1237.0	1241.2	1240.5
180°	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5	1234.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1048.4	1048.4
2.5°	1119.2	1112.4
5°	1439.4	1446.2
7.5°	1938.3	1935.0
10°	2410.3	2440.7
12.5°	2754.1	2760.9
15°	2963.2	2976.6
17.5°	3044.1	3047.5
20°	3047.5	3040.7
22.5°	3010.4	3003.6
25°	2966.6	2963.2
27.5°	2926.0	2929.4
30°	2909.2	2919.4
32.5°	2909.2	2926.0
35°	2916.0	2932.8
37.5°	2912.6	2932.8
40°	2899.2	2922.8
42.5°	2862.0	2878.9
45°	2804.7	2825.0
47.5°	2730.5	2744.1
50°	2636.2	2649.7
52.5°	2518.2	2521.6
55°	2376.6	2390.1
57.5°	2224.9	2228.3
60°	2056.3	2066.5
62.5°	1877.7	1877.7
65°	1688.9	1695.7
67.5°	1493.4	1510.2
70°	1294.5	1297.9
72.5°	1099.0	1099.0
75°	896.7	900.1
77.5°	704.6	704.6
80°	522.5	525.9
82.5°	360.8	367.4
85°	225.9	225.9
87.5°	104.5	94.4
90°	31.5	31.5
92.5°	126.2	101.1
95°	439.6	363.7
97.5°	1053.3	908.9
100°	1517.6	1345.6
102.5°	1974.3	1827.0
105°	2556.5	2477.4
107.5°	2938.0	2957.1
110°	3083.4	3165.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3096.4	3223.1
115°	3014.3	3190.0
117.5°	2840.2	3035.0
120°	2700.0	2889.2
122.5°	2563.3	2750.0
125°	2368.4	2540.4
127.5°	2193.1	2338.2
130°	2089.8	2223.9
132.5°	1996.1	2116.1
135°	1867.7	1971.2
137.5°	1764.6	1849.4
140°	1693.9	1773.1
142.5°	1635.4	1703.6
145°	1547.6	1599.1
147.5°	1480.2	1522.9
150°	1437.7	1472.4
152.5°	1401.5	1427.6
155°	1359.7	1377.1
157.5°	1326.8	1338.9
160°	1307.2	1314.1
162.5°	1294.2	1300.9
165°	1275.7	1282.6
167.5°	1262.2	1265.2
170°	1258.5	1258.5
172.5°	1248.8	1246.2
175°	1242.8	1242.8
177.5°	1237.5	1234.5
180°	1234.5	1234.5



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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	6.53	7.44	7.48	8.40	9.67	19.71	20.61	20.66	21.58	22.85
	3H	7.24	8.05	8.20	9.03	10.32	21.55	22.37	22.51	23.34	24.63
	4H	7.54	8.31	8.51	9.29	10.59	22.20	22.97	23.17	23.95	25.25
	6H	7.79	8.50	8.78	9.49	10.80	22.63	23.34	23.62	24.33	25.64
	8H	7.86	8.54	8.85	9.54	10.85	22.76	23.43	23.75	24.44	25.74
	12H	7.88	8.53	8.88	9.52	10.85	22.83	23.47	23.82	24.47	25.80
4H	2H	13.75	14.52	14.73	15.50	16.80	19.99	20.76	20.97	21.74	23.04
	3H	15.33	15.97	16.31	16.98	18.29	22.04	22.69	23.03	23.70	25.00
	4H	15.42	16.01	16.42	17.02	18.35	22.81	23.40	23.81	24.40	25.73
	6H	15.44	15.94	16.44	16.97	18.30	23.35	23.86	24.36	24.89	26.22
	8H	15.41	15.89	16.42	16.91	18.25	23.52	23.99	24.52	25.01	26.36
	12H	15.37	15.80	16.40	16.84	18.19	23.61	24.04	24.64	25.08	26.43
8H	4H	16.87	17.35	17.88	18.37	19.71	22.87	23.35	23.88	24.37	25.71
	6H	17.11	17.51	18.15	18.57	19.91	23.51	23.90	24.54	24.96	26.30
	8H	17.13	17.48	18.18	18.53	19.89	23.73	24.07	24.77	25.12	26.48
	12H	17.10	17.41	18.15	18.45	19.86	23.87	24.18	24.92	25.22	26.62
12H	4H	17.02	17.45	18.04	18.48	19.83	22.83	23.26	23.86	24.30	25.65
	6H	17.37	17.72	18.42	18.77	20.13	23.49	23.84	24.53	24.88	26.25
	8H	17.45	17.75	18.49	18.79	20.20	23.72	24.03	24.77	25.07	26.47