

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: P937649

Luminaire Tested: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937649
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

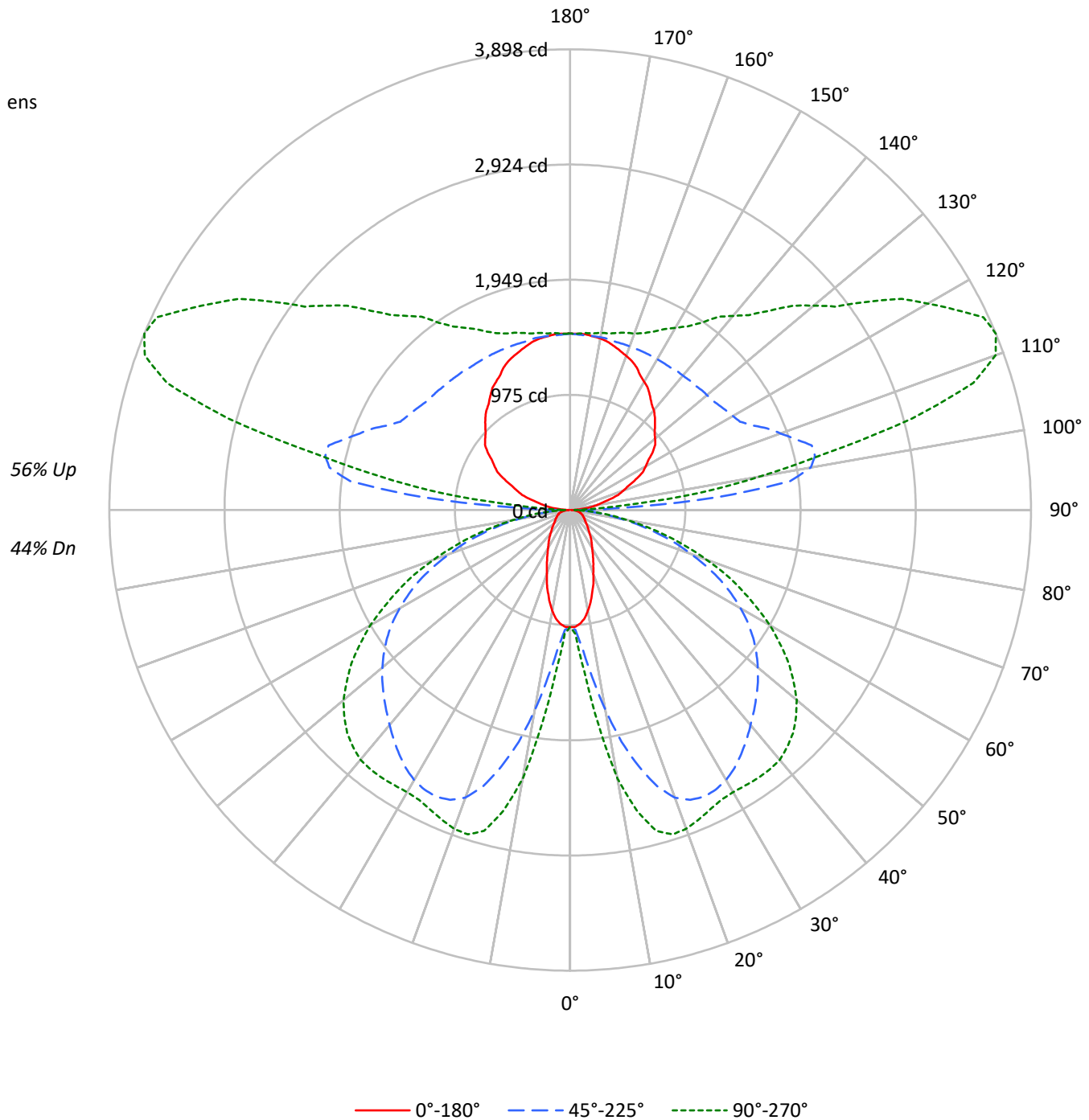
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17341.6 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: General Diffuse

Input Watts (W): 174
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

TEST NUMBER: P937649
CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

Luminous Intensity Polar Plot





TEST NUMBER: P937649

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

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	0				
RCR																															
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44													
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36													
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30													
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24													
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20													
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17													
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15													
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13													
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11													
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10													
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3062	3062	3062
5°	2992	3540	4115
10°	2715	5161	6823
15°	2308	6744	8238
20°	1880	7817	8396
25°	1569	8182	8225
30°	1324	8236	8210
35°	1171	8102	8422
40°	1021	7926	8641
45°	925	7798	8676
50°	850	7684	8532
55°	814	7515	8154
60°	834	7188	7556
65°	869	6690	6736
70°	928	5838	5691
75°	1033	4764	4441
80°	1136	3309	2992
85°	1030	1759	1532

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8676 cd/sqm



TEST NUMBER: P937649

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	0.7
10°-20°	567.5	3.3
20°-30°	992.6	5.7
30°-40°	1277.8	7.4
40°-50°	1427.2	8.2
50°-60°	1367.0	7.9
60°-70°	1083.3	6.2
70°-80°	637.0	3.7
80°-90°	182.7	1.1
90°-100°	727.8	4.2
100°-110°	1913.3	11.0
110°-120°	1983.9	11.4
120°-130°	1591.3	9.2
130°-140°	1248.6	7.2
140°-150°	958.4	5.5
150°-160°	690.2	4.0
160°-170°	422.3	2.4
170°-180°	142.7	0.8
0°-30°	1688.1	9.7
0°-40°	2965.9	17.1
0°-60°	5760.1	33.2
0°-90°	7663.1	44.2
90°-120°	4625.0	26.7
90°-150°	8423.3	48.6
90°-180°	9679.0	55.8
0°-180°	17341.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	964	1034	1165	1318	1365	89
15°	722	1334	2247	2724	2810	201
25°	462	1512	2677	2794	2798	213
35°	312	1445	2521	2664	2769	195
45°	213	1152	2228	2553	2667	165
55°	153	732	1891	2196	2257	139
65°	121	388	1404	1579	1601	120
75°	89	239	770	847	850	93
85°	32	73	191	210	213	34
90°	10	28	76	38	38	10
95°	96	377	1254	646	440	107
105°	345	522	2115	3211	2996	365
115°	612	744	1694	3380	3858	605
125°	852	955	1541	2604	3072	756
135°	1015	1117	1493	2102	2384	785
145°	1177	1252	1474	1794	1934	738
155°	1331	1368	1474	1618	1665	611
165°	1436	1455	1474	1532	1551	405
175°	1493	1493	1484	1503	1503	142
180°	1493	1493	1493	1493	1493	



TEST NUMBER: P937649

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9	989.9
2.5°	989.9	989.9	996.2	999.4	1005.8	1009.0	1015.3	1021.7	1040.8	1044.0	1050.3
5°	964.4	977.1	1018.5	1034.4	1079.0	1139.5	1164.9	1206.3	1292.2	1317.6	1333.5
7.5°	926.2	954.8	1056.7	1082.1	1193.5	1352.7	1419.5	1508.6	1645.5	1712.3	1766.4
10°	865.7	926.2	1107.6	1168.0	1349.5	1591.4	1715.5	1839.7	2046.5	2138.8	2173.8
12.5°	798.9	897.5	1161.7	1244.5	1505.5	1858.7	2008.3	2145.2	2380.7	2504.9	2523.9
15°	722.5	856.2	1212.6	1333.5	1671.0	2081.5	2247.0	2415.7	2635.4	2724.4	2746.7
17.5°	655.6	824.4	1260.4	1387.7	1798.2	2282.0	2450.8	2590.8	2769.0	2829.5	2845.4
20°	572.9	773.4	1292.2	1457.7	1931.9	2428.4	2590.8	2699.0	2819.9	2858.1	2864.5
22.5°	512.4	719.3	1311.3	1483.1	2021.1	2517.6	2654.4	2740.4	2823.1	2835.9	2839.0
25°	461.5	658.9	1308.1	1511.8	2097.4	2571.7	2676.7	2740.4	2788.1	2794.4	2794.4
27.5°	413.8	592.0	1295.4	1518.2	2154.8	2584.4	2667.2	2711.7	2734.0	2746.7	2746.7
30°	372.4	528.4	1263.5	1505.5	2180.2	2571.7	2638.5	2660.8	2683.1	2702.2	2711.7
32.5°	340.6	467.8	1215.8	1480.0	2183.4	2539.9	2587.6	2600.4	2632.2	2676.7	2692.6
35°	311.9	407.4	1161.7	1445.0	2164.2	2488.9	2520.8	2533.5	2597.1	2664.0	2686.3
37.5°	283.3	362.9	1091.7	1384.5	2135.7	2428.4	2450.8	2473.0	2571.7	2651.3	2676.7
40°	254.6	324.7	1009.0	1317.6	2091.1	2355.3	2374.3	2409.3	2539.9	2632.2	2657.6
42.5°	232.3	292.9	919.8	1247.6	2033.8	2272.5	2301.2	2352.1	2501.7	2600.4	2628.9
45°	213.3	261.0	824.4	1152.1	1960.6	2186.6	2227.9	2297.9	2457.1	2552.6	2578.0
47.5°	194.2	238.7	725.7	1053.5	1881.0	2100.6	2154.8	2234.3	2396.6	2488.9	2511.2
50°	178.3	216.4	627.0	948.5	1795.1	2008.3	2072.0	2154.8	2320.3	2406.2	2434.9
52.5°	165.5	197.3	534.7	843.5	1696.4	1912.8	1986.1	2072.0	2227.9	2310.7	2329.8
55°	152.8	181.4	455.1	732.0	1594.6	1811.0	1890.6	1973.3	2126.1	2196.1	2208.8
57.5°	146.4	168.7	388.3	627.0	1486.4	1696.4	1785.6	1861.9	2005.2	2059.2	2072.0
60°	136.8	159.2	337.3	537.8	1368.6	1588.2	1664.6	1741.0	1861.9	1906.5	1916.0
62.5°	127.3	152.8	299.2	451.9	1247.6	1460.9	1537.3	1607.3	1709.2	1741.0	1753.7
65°	120.9	146.4	270.5	388.3	1123.6	1327.2	1403.6	1464.1	1546.8	1578.6	1585.0
67.5°	114.6	140.0	248.3	334.2	999.4	1193.5	1250.8	1308.1	1371.8	1403.6	1406.8
70°	105.0	133.7	229.2	296.0	872.1	1040.8	1088.5	1149.0	1199.9	1215.8	1225.4
72.5°	98.7	124.1	216.4	267.3	741.6	894.4	938.9	974.0	1018.5	1034.4	1034.4
75°	89.1	111.4	203.7	238.7	607.9	732.0	770.2	805.2	840.3	846.6	837.0
77.5°	79.6	98.7	175.1	200.5	474.3	579.3	611.1	630.2	658.9	665.2	668.4
80°	66.8	85.9	136.8	155.9	343.8	426.5	448.8	464.7	490.2	490.2	496.5
82.5°	50.9	66.8	98.7	111.4	232.3	292.9	311.9	321.4	337.3	337.3	337.3
85°	31.8	41.4	63.7	73.2	140.0	178.3	191.0	194.2	206.9	210.1	210.1
87.5°	15.9	22.2	41.4	44.6	73.2	92.3	92.3	98.7	98.7	95.5	92.3
90°	10.0	18.1	26.0	28.0	44.1	65.4	76.1	67.7	50.7	38.1	38.1
92.5°	40.1	108.2	176.3	193.4	271.9	376.5	428.9	375.9	269.9	190.4	182.8
95°	96.2	220.9	345.6	376.8	669.0	1058.7	1253.5	1118.6	848.7	646.3	623.3
97.5°	166.3	276.3	386.3	413.9	901.1	1550.8	1875.7	1790.4	1619.9	1492.0	1448.4
100°	220.4	320.2	419.9	444.9	985.6	1706.6	2067.2	2073.4	2085.9	2095.2	2043.2
102.5°	266.5	359.6	452.7	475.9	1024.4	1755.7	2121.3	2229.9	2447.2	2610.2	2565.7
105°	344.7	423.5	502.4	522.0	1053.1	1761.2	2115.3	2358.9	2846.1	3211.4	3187.5
107.5°	424.9	498.3	571.8	590.2	1058.4	1682.8	1995.0	2334.8	3014.4	3524.0	3529.8
110°	479.0	545.3	611.6	628.3	1050.4	1613.3	1894.8	2274.7	3034.4	3604.2	3629.2



TEST NUMBER: P937649

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	532.1	595.3	658.5	674.4	1050.8	1552.7	1803.6	2192.4	2970.0	3553.1	3591.4
115°	612.2	670.6	728.9	743.5	1060.4	1483.1	1694.4	2068.9	2818.0	3379.7	3432.8
117.5°	691.4	744.4	797.4	810.6	1080.2	1439.5	1619.2	1957.2	2633.3	3140.3	3199.2
120°	737.5	787.3	837.3	849.7	1096.3	1424.9	1589.2	1898.1	2515.7	2979.0	3036.2
122.5°	782.6	833.0	883.2	895.8	1119.3	1417.2	1566.2	1844.3	2400.5	2817.6	2874.1
125°	851.7	897.6	943.4	954.9	1150.3	1410.9	1541.1	1777.4	2249.8	2604.2	2656.2
127.5°	907.8	954.1	1000.5	1012.0	1181.4	1407.2	1520.1	1722.9	2128.6	2432.8	2476.7
130°	937.9	987.8	1037.6	1050.1	1204.1	1409.4	1512.0	1692.6	2053.8	2324.7	2365.2
132.5°	969.0	1018.8	1068.7	1081.2	1222.4	1410.8	1505.0	1666.6	1990.0	2232.5	2268.8
135°	1015.1	1060.4	1105.9	1117.2	1242.5	1409.5	1493.0	1628.4	1899.1	2102.2	2133.5
137.5°	1062.1	1107.1	1152.1	1163.3	1272.5	1418.2	1491.0	1605.4	1834.4	2006.1	2031.7
140°	1101.2	1142.7	1184.0	1194.4	1290.9	1419.6	1483.9	1582.8	1780.6	1928.9	1952.8
142.5°	1131.3	1169.6	1207.9	1217.4	1306.2	1424.7	1483.9	1570.8	1744.5	1874.8	1895.3
145°	1177.4	1210.8	1244.2	1252.5	1326.3	1424.8	1474.0	1545.0	1687.0	1793.6	1809.2
147.5°	1223.5	1256.0	1288.5	1296.6	1355.7	1434.6	1474.0	1529.9	1641.7	1725.5	1738.4
150°	1253.5	1282.9	1312.3	1319.7	1371.1	1439.7	1474.0	1521.2	1615.6	1686.4	1696.8
152.5°	1284.6	1306.8	1329.1	1334.7	1381.1	1443.0	1474.0	1514.3	1594.8	1655.3	1663.2
155°	1330.7	1347.1	1363.7	1367.7	1403.2	1450.4	1474.0	1506.0	1570.1	1618.2	1623.4
157.5°	1364.7	1380.8	1396.8	1400.8	1425.2	1457.8	1474.0	1498.9	1548.7	1586.2	1589.9
160°	1387.7	1400.3	1412.7	1415.8	1435.2	1461.1	1474.0	1495.3	1538.1	1570.1	1572.2
162.5°	1410.8	1420.1	1429.5	1431.8	1445.9	1464.6	1474.0	1492.0	1528.0	1555.1	1557.1
165°	1435.8	1444.3	1452.8	1454.9	1461.2	1469.7	1474.0	1486.9	1512.7	1532.0	1534.1
167.5°	1458.9	1462.9	1466.9	1468.0	1473.3	1480.4	1483.9	1492.5	1509.4	1522.1	1523.0
170°	1474.0	1478.0	1482.0	1483.0	1483.3	1483.7	1483.9	1492.5	1509.4	1522.1	1522.1
172.5°	1481.9	1482.8	1483.7	1483.9	1483.9	1483.9	1483.9	1490.6	1504.0	1514.1	1513.3
175°	1493.0	1493.0	1493.0	1493.0	1490.0	1486.0	1483.9	1488.2	1496.6	1503.0	1503.0
177.5°	1493.0	1493.0	1493.0	1493.0	1490.7	1487.6	1486.0	1489.3	1496.0	1501.0	1500.1
180°	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0	1493.0



TEST NUMBER: P937649

CATALOG NUMBER: SQ4-FB-100U-100D-930-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	80°	90°
0°	989.9	989.9
2.5°	1056.7	1050.3
5°	1359.1	1365.4
7.5°	1830.1	1826.9
10°	2275.7	2304.3
12.5°	2600.4	2606.7
15°	2797.7	2810.4
17.5°	2874.0	2877.2
20°	2877.2	2870.9
22.5°	2842.2	2835.9
25°	2800.9	2797.7
27.5°	2762.6	2765.9
30°	2746.7	2756.3
32.5°	2746.7	2762.6
35°	2753.1	2769.0
37.5°	2749.9	2769.0
40°	2737.2	2759.4
42.5°	2702.2	2718.1
45°	2648.1	2667.2
47.5°	2578.0	2590.8
50°	2488.9	2501.7
52.5°	2377.5	2380.7
55°	2243.8	2256.6
57.5°	2100.6	2103.8
60°	1941.5	1951.0
62.5°	1772.8	1772.8
65°	1594.6	1600.9
67.5°	1410.0	1425.9
70°	1222.2	1225.4
72.5°	1037.6	1037.6
75°	846.6	849.8
77.5°	665.2	665.2
80°	493.4	496.5
82.5°	340.6	346.9
85°	213.3	213.3
87.5°	98.7	89.1
90°	38.1	38.1
92.5°	152.5	122.2
95°	531.6	439.9
97.5°	1273.8	1099.2
100°	1835.3	1627.3
102.5°	2387.6	2209.5
105°	3091.7	2996.0
107.5°	3553.0	3576.2
110°	3728.9	3828.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	3744.6	3897.8
115°	3645.3	3857.7
117.5°	3434.8	3670.4
120°	3265.1	3494.0
122.5°	3099.8	3325.6
125°	2864.1	3072.1
127.5°	2652.2	2827.7
130°	2527.3	2689.4
132.5°	2414.0	2559.2
135°	2258.6	2383.8
137.5°	2134.1	2236.5
140°	2048.6	2144.3
142.5°	1977.7	2060.1
145°	1871.6	1933.9
147.5°	1790.0	1841.7
150°	1738.7	1780.6
152.5°	1694.8	1726.4
155°	1644.4	1665.3
157.5°	1604.6	1619.2
160°	1580.7	1589.2
162.5°	1565.1	1573.2
165°	1542.6	1551.1
167.5°	1526.5	1530.0
170°	1522.1	1522.1
172.5°	1510.1	1507.0
175°	1503.0	1503.0
177.5°	1496.6	1493.0
180°	1493.0	1493.0



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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	4.34	5.19	5.34	6.20	7.55	17.54	18.38	18.53	19.39	20.74
	3H	5.05	5.80	6.05	6.83	8.20	19.38	20.14	20.39	21.16	22.53
	4H	5.34	6.06	6.37	7.09	8.47	20.03	20.75	21.05	21.77	23.15
	6H	5.59	6.26	6.63	7.29	8.68	20.46	21.12	21.49	22.15	23.54
	8H	5.66	6.29	6.70	7.34	8.73	20.58	21.21	21.62	22.26	23.65
	12H	5.68	6.28	6.72	7.32	8.73	20.65	21.25	21.70	22.30	23.71
4H	2H	11.56	12.28	12.59	13.31	14.69	17.81	18.53	18.83	19.55	20.93
	3H	13.13	13.73	14.17	14.79	16.18	19.86	20.46	20.89	21.51	22.90
	4H	13.22	13.78	14.27	14.82	16.23	20.63	21.18	21.67	22.22	23.64
	6H	13.23	13.71	14.29	14.78	16.19	21.17	21.64	22.22	22.71	24.12
	8H	13.21	13.65	14.26	14.72	16.14	21.33	21.78	22.39	22.84	24.26
	12H	13.16	13.57	14.24	14.64	16.07	21.43	21.83	22.50	22.91	24.34
8H	4H	14.67	15.11	15.73	16.18	17.60	20.68	21.13	21.74	22.19	23.61
	6H	14.91	15.28	15.99	16.38	17.80	21.32	21.69	22.40	22.79	24.21
	8H	14.93	15.25	16.01	16.34	17.78	21.54	21.86	22.63	22.95	24.39
	12H	14.90	15.18	15.99	16.26	17.74	21.69	21.97	22.78	23.05	24.53
12H	4H	14.81	15.22	15.89	16.29	17.72	20.64	21.04	21.71	22.11	23.54
	6H	15.17	15.50	16.26	16.58	18.02	21.30	21.62	22.39	22.71	24.15
	8H	15.24	15.52	16.33	16.61	18.09	21.53	21.82	22.62	22.90	24.38