

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: P937749

Luminaire Tested: SQ4-FB-100U-125D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

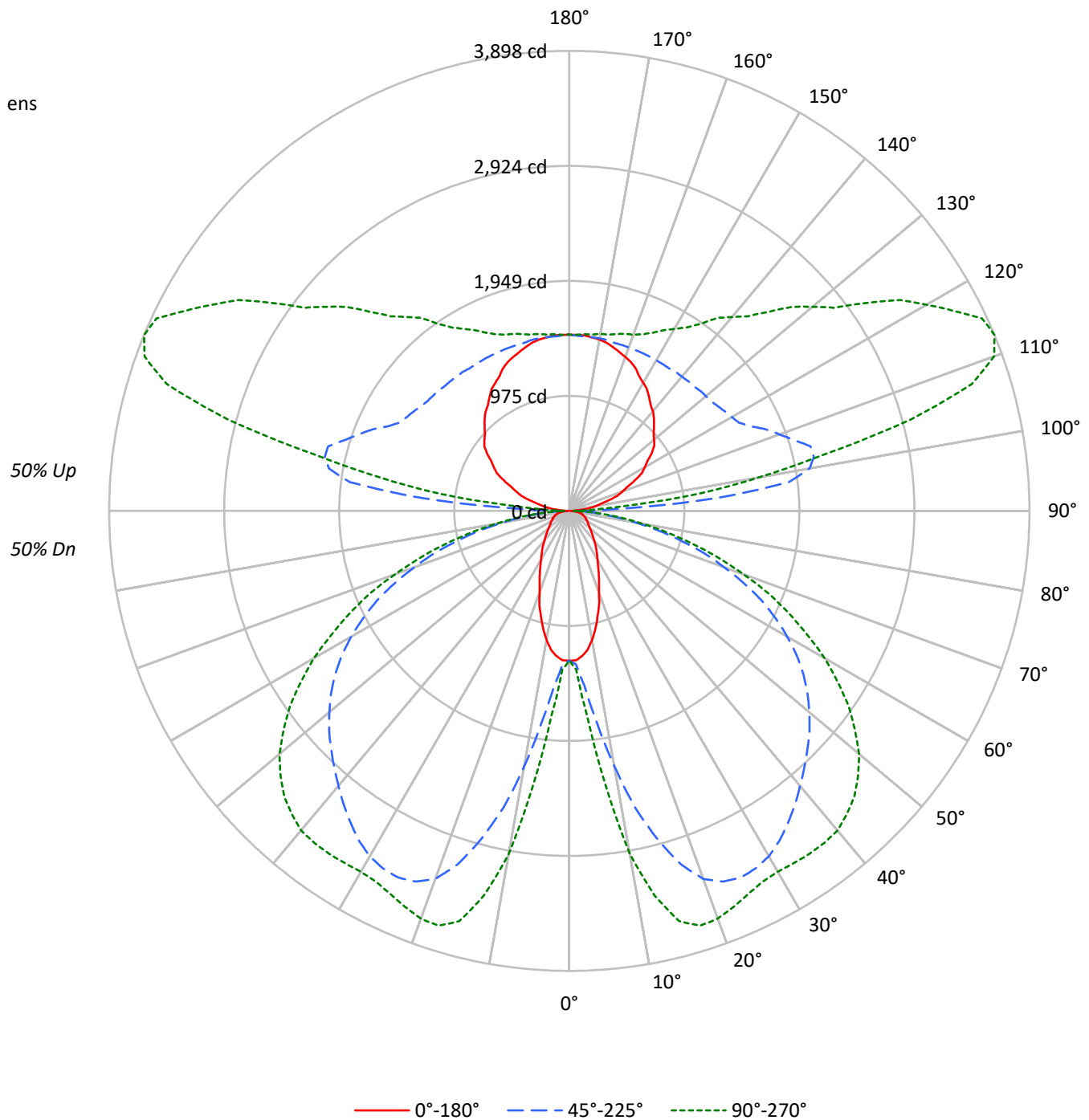
Test Method: LM-79-2019  
Report Number: P937749  
REPORT IS A COMBINATION OF REPORTS P933560 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-125D-930-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19492.1 lumens  
Efficiency: N/A  
Efficacy: 94.4 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): 206.4  
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: P937749  
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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	47	47	47	41
2	88	80	74	68	81	74	69	64	63	59	55	52	49	46	42	40	38	38	38	38	34
3	80	70	62	56	73	65	58	53	55	50	45	46	42	39	37	34	32	32	32	32	28
4	73	62	53	47	67	57	50	44	48	43	38	40	36	32	33	30	27	27	27	27	23
5	67	54	46	40	61	50	43	37	43	37	32	36	31	28	29	26	23	23	23	23	20
6	61	49	40	34	56	45	37	32	38	32	28	32	27	24	26	23	20	20	20	20	17
7	56	44	35	30	52	40	33	28	34	29	24	29	24	21	24	20	17	17	17	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	15	15	15	13
9	48	36	28	23	44	33	26	21	28	23	19	24	19	16	20	16	14	14	14	14	11
10	45	33	25	20	41	30	24	19	26	21	17	22	18	15	18	15	12	12	12	12	10

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3922	3922	3922
5°	3832	4534	5271
10°	3478	6610	8738
15°	2957	8638	10552
20°	2408	10012	10754
25°	2010	10480	10535
30°	1695	10549	10515
35°	1500	10377	10787
40°	1308	10152	11068
45°	1185	9988	11112
50°	1088	9841	10928
55°	1043	9625	10443
60°	1069	9207	9678
65°	1114	8569	8627
70°	1189	7478	7289
75°	1322	6103	5688
80°	1456	4237	3833
85°	1322	2252	1961

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11112 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.0	0.8
10°-20°	726.8	3.7
20°-30°	1271.4	6.5
30°-40°	1636.6	8.4
40°-50°	1828.0	9.4
50°-60°	1750.8	9.0
60°-70°	1387.6	7.1
70°-80°	815.9	4.2
80°-90°	232.4	1.2
90°-100°	727.8	3.7
100°-110°	1913.3	9.8
110°-120°	1983.9	10.2
120°-130°	1591.3	8.2
130°-140°	1248.6	6.4
140°-150°	958.4	4.9
150°-160°	690.2	3.5
160°-170°	422.3	2.2
170°-180°	142.7	0.7
0°-30°	2162.2	11.1
0°-40°	3798.8	19.5
0°-60°	7377.7	37.8
0°-90°	9813.6	50.3
90°-120°	4625.0	23.7
90°-150°	8423.3	43.2
90°-180°	9679.0	49.7
0°-180°	19492.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1268	1268	1268	1268	1268	
5°	1235	1325	1492	1688	1749	114
15°	925	1708	2878	3490	3600	258
25°	591	1936	3428	3579	3583	272
35°	400	1851	3229	3412	3547	249
45°	273	1476	2854	3269	3416	211
55°	196	938	2422	2813	2890	178
65°	155	497	1798	2022	2050	154
75°	114	306	987	1084	1088	119
85°	41	94	245	269	273	43
90°	10	28	76	38	38	11
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	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9	1267.9
2.5°	1267.9	1267.9	1276.0	1280.1	1288.2	1292.3	1300.5	1308.6	1333.1	1337.2	1345.3
5°	1235.2	1251.5	1304.5	1324.9	1382.0	1459.5	1492.1	1545.1	1655.1	1687.7	1708.1
7.5°	1186.3	1223.0	1353.5	1386.1	1528.8	1732.6	1818.2	1932.3	2107.6	2193.2	2262.5
10°	1108.9	1186.3	1418.7	1496.1	1728.5	2038.3	2197.2	2356.2	2621.2	2739.4	2784.3
12.5°	1023.3	1149.6	1488.0	1594.0	1928.2	2380.7	2572.3	2747.6	3049.3	3208.3	3232.7
15°	925.4	1096.6	1553.2	1708.1	2140.2	2666.1	2878.0	3094.1	3375.4	3489.6	3518.1
17.5°	839.8	1055.9	1614.4	1777.4	2303.2	2922.9	3139.0	3318.3	3546.6	3624.1	3644.5
20°	733.8	990.6	1655.1	1867.1	2474.5	3110.4	3318.3	3456.9	3611.9	3660.8	3668.9
22.5°	656.3	921.3	1679.6	1899.7	2588.6	3224.6	3399.9	3509.9	3615.9	3632.2	3636.3
25°	591.1	843.9	1675.5	1936.4	2686.4	3293.9	3428.4	3509.9	3571.1	3579.2	3579.2
27.5°	530.0	758.3	1659.2	1944.5	2759.8	3310.2	3416.2	3473.2	3501.8	3518.1	3518.1
30°	477.0	676.7	1618.4	1928.2	2792.4	3293.9	3379.5	3408.0	3436.6	3461.0	3473.2
32.5°	436.2	599.3	1557.3	1895.6	2796.5	3253.1	3314.3	3330.6	3371.3	3428.4	3448.8
35°	399.5	521.8	1488.0	1850.8	2772.1	3187.9	3228.6	3245.0	3326.5	3412.1	3440.6
37.5°	362.8	464.7	1398.3	1773.3	2735.4	3110.4	3139.0	3167.5	3293.9	3395.8	3428.4
40°	326.1	415.8	1292.3	1687.7	2678.3	3016.7	3041.1	3086.0	3253.1	3371.3	3403.9
42.5°	297.6	375.1	1178.2	1598.1	2604.9	2910.7	2947.4	3012.6	3204.2	3330.6	3367.3
45°	273.1	334.3	1055.9	1475.8	2511.1	2800.6	2853.6	2943.3	3147.1	3269.4	3302.0
47.5°	248.7	305.8	929.5	1349.4	2409.2	2690.5	2759.8	2861.7	3069.7	3187.9	3216.4
50°	228.3	277.2	803.1	1214.9	2299.2	2572.3	2653.8	2759.8	2971.8	3081.9	3118.6
52.5°	212.0	252.8	684.9	1080.3	2172.8	2450.0	2543.8	2653.8	2853.6	2959.6	2984.0
55°	195.7	232.4	583.0	937.6	2042.4	2319.5	2421.5	2527.5	2723.1	2812.8	2829.1
57.5°	187.5	216.1	497.4	803.1	1903.8	2172.8	2286.9	2384.8	2568.2	2637.5	2653.8
60°	175.3	203.8	432.1	689.0	1752.9	2034.2	2132.0	2229.9	2384.8	2441.8	2454.1
62.5°	163.1	195.7	383.2	578.9	1598.1	1871.2	1969.0	2058.7	2189.1	2229.9	2246.2
65°	154.9	187.5	346.5	497.4	1439.1	1700.0	1797.8	1875.2	1981.2	2022.0	2030.1
67.5°	146.8	179.4	318.0	428.1	1280.1	1528.8	1602.1	1675.5	1757.0	1797.8	1801.9
70°	134.5	171.2	293.5	379.1	1117.0	1333.1	1394.2	1471.7	1536.9	1557.3	1569.5
72.5°	126.4	159.0	277.2	342.4	949.9	1145.6	1202.6	1247.5	1304.5	1324.9	1324.9
75°	114.1	142.7	260.9	305.8	778.6	937.6	986.6	1031.4	1076.2	1084.4	1072.2
77.5°	101.9	126.4	224.2	256.8	607.4	742.0	782.7	807.2	843.9	852.0	856.1
80°	85.6	110.1	175.3	199.8	440.3	546.3	574.8	595.2	627.8	627.8	636.0
82.5°	65.2	85.6	126.4	142.7	297.6	375.1	399.5	411.7	432.1	432.1	432.1
85°	40.8	53.0	81.5	93.8	179.4	228.3	244.6	248.7	265.0	269.1	269.1
87.5°	20.4	28.5	53.0	57.1	93.8	118.2	118.2	126.4	126.4	122.3	118.2
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



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**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



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1267.9	1267.9
2.5°	1353.5	1345.3
5°	1740.7	1748.9
7.5°	2344.0	2339.9
10°	2914.7	2951.4
12.5°	3330.6	3338.7
15°	3583.3	3599.6
17.5°	3681.2	3685.2
20°	3685.2	3677.1
22.5°	3640.4	3632.2
25°	3587.4	3583.3
27.5°	3538.5	3542.6
30°	3518.1	3530.3
32.5°	3518.1	3538.5
35°	3526.2	3546.6
37.5°	3522.2	3546.6
40°	3505.9	3534.4
42.5°	3461.0	3481.4
45°	3391.7	3416.2
47.5°	3302.0	3318.3
50°	3187.9	3204.2
52.5°	3045.2	3049.3
55°	2874.0	2890.3
57.5°	2690.5	2694.6
60°	2486.7	2498.9
62.5°	2270.6	2270.6
65°	2042.4	2050.5
67.5°	1805.9	1826.3
70°	1565.4	1569.5
72.5°	1329.0	1329.0
75°	1084.4	1088.5
77.5°	852.0	852.0
80°	631.9	636.0
82.5°	436.2	444.4
85°	273.1	273.1
87.5°	126.4	114.1
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





TEST NUMBER: P937749

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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	5.79	6.69	6.74	7.66	8.92	18.98	19.88	19.93	20.85	22.12
	3H	6.50	7.31	7.46	8.29	9.57	20.83	21.64	21.79	22.62	23.90
	4H	6.80	7.57	7.77	8.55	9.84	21.48	22.25	22.45	23.23	24.52
	6H	7.05	7.76	8.03	8.75	10.05	21.92	22.63	22.90	23.61	24.92
	8H	7.12	7.80	8.11	8.80	10.10	22.04	22.72	23.03	23.72	25.03
	12H	7.14	7.78	8.13	8.78	10.11	22.11	22.76	23.11	23.76	25.09
4H	2H	13.02	13.79	14.00	14.77	16.06	19.26	20.03	20.24	21.01	22.30
	3H	14.59	15.23	15.58	16.24	17.55	21.32	21.96	22.30	22.97	24.28
	4H	14.69	15.28	15.68	16.28	17.61	22.09	22.68	23.08	23.68	25.01
	6H	14.70	15.21	15.71	16.24	17.56	22.63	23.14	23.64	24.17	25.50
	8H	14.68	15.15	15.69	16.17	17.52	22.80	23.28	23.81	24.30	25.64
	12H	14.64	15.07	15.66	16.10	17.45	22.90	23.33	23.93	24.36	25.71
8H	4H	16.14	16.61	17.15	17.63	18.98	22.15	22.63	23.16	23.65	24.99
	6H	16.38	16.78	17.42	17.84	19.18	22.79	23.18	23.82	24.24	25.59
	8H	16.40	16.75	17.44	17.80	19.16	23.01	23.36	24.05	24.41	25.77
	12H	16.37	16.68	17.42	17.72	19.12	23.16	23.47	24.21	24.51	25.91
12H	4H	16.28	16.72	17.31	17.75	19.10	22.11	22.54	23.13	23.57	24.92
	6H	16.64	16.99	17.68	18.04	19.40	22.77	23.12	23.81	24.17	25.53
	8H	16.71	17.02	17.76	18.06	19.47	23.01	23.31	24.05	24.35	25.76