

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: P938608

Luminaire Tested: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-8

Issue Date: 12/17/2024

**Test Information**

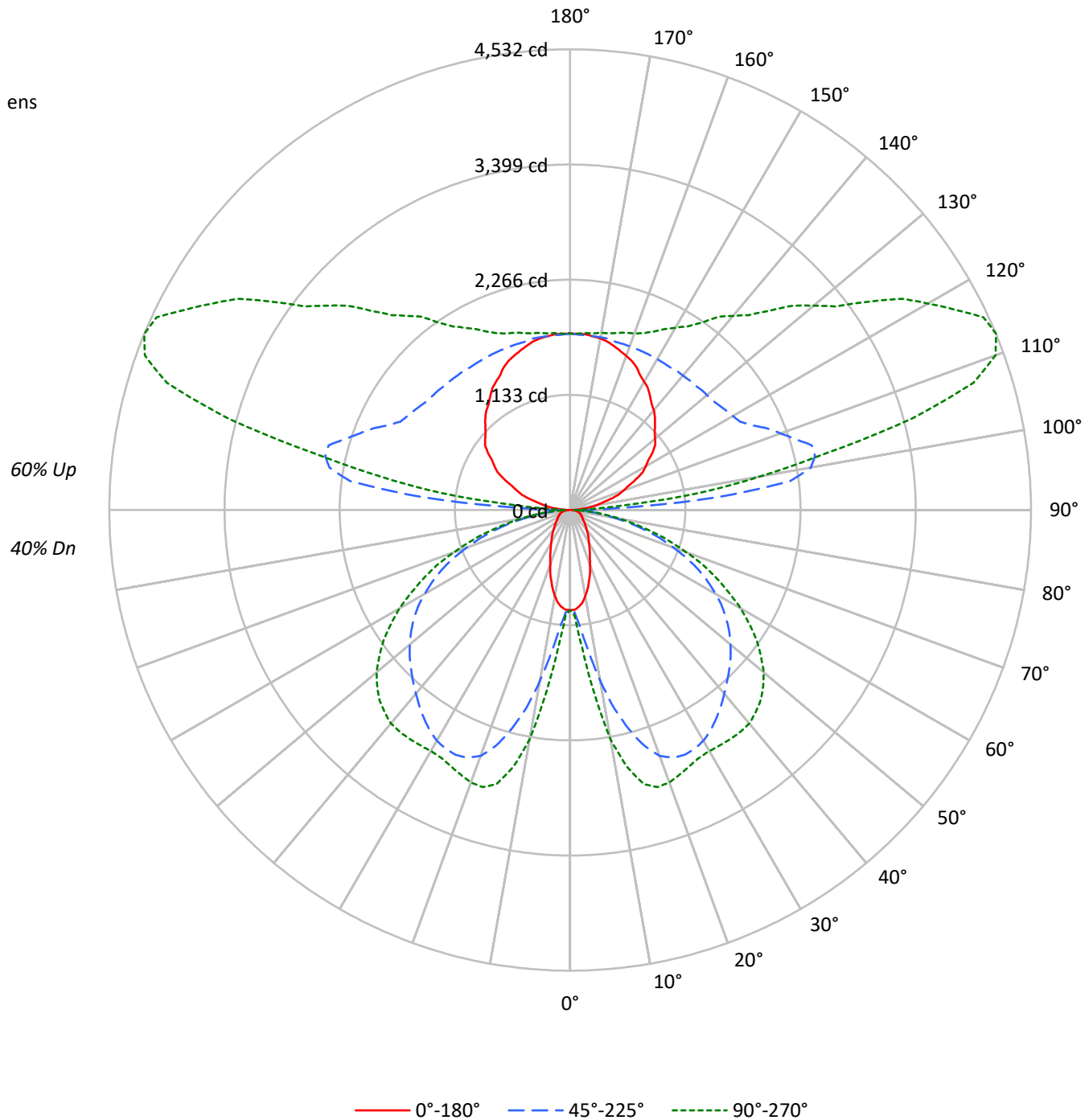
Test Method: LM-79-2019  
Report Number: P938608  
REPORT IS A COMBINATION OF REPORTS P933648 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-125D-B50-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18865.9 lumens  
Efficiency: N/A  
Efficacy: 113.4 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): 166.4  
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

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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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	47	47	47	40
1	95	91	87	83	86	83	79	76	68	65	63	54	52	51	41	40	39	39	39	39	33
2	86	79	72	67	78	72	66	62	59	55	51	47	44	42	36	34	32	32	32	32	27
3	78	69	61	55	71	63	56	51	51	47	43	41	37	35	31	29	27	27	27	27	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	23	23	23	19
5	65	53	45	39	59	49	42	36	40	35	30	32	28	25	24	22	19	19	19	19	16
6	60	48	39	34	54	44	36	31	36	30	26	29	25	21	22	19	17	17	17	17	14
7	55	43	35	29	50	39	32	27	32	27	23	26	22	19	20	17	15	15	15	15	12
8	51	39	31	25	46	35	28	24	29	24	20	23	19	16	18	15	13	13	13	13	10
9	47	35	27	22	43	32	25	21	27	21	18	21	17	15	17	14	11	11	11	11	9
10	44	32	25	20	40	29	23	18	24	19	16	20	16	13	15	12	10	10	10	10	8

**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	0.7
10°-20°	563.6	3.0
20°-30°	985.9	5.2
30°-40°	1269.1	6.7
40°-50°	1417.6	7.5
50°-60°	1357.7	7.2
60°-70°	1076.0	5.7
70°-80°	632.7	3.4
80°-90°	182.4	1.0
90°-100°	846.2	4.5
100°-110°	2224.7	11.8
110°-120°	2306.8	12.2
120°-130°	1850.3	9.8
130°-140°	1451.9	7.7
140°-150°	1114.3	5.9
150°-160°	802.5	4.3
160°-170°	491.0	2.6
170°-180°	165.9	0.9
0°-30°	1676.7	8.9
0°-40°	2945.8	15.6
0°-60°	5721.1	30.3
0°-90°	7612.2	40.3
90°-120°	5377.7	28.5
90°-150°	9794.2	51.9
90°-180°	11254.0	59.7
0°-180°	18865.9	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°	12	33	88	44	44	12
95°	112	438	1458	752	512	124
105°	401	607	2460	3734	3484	425
115°	712	864	1970	3930	4486	703
125°	990	1110	1792	3028	3572	879
135°	1180	1299	1736	2444	2772	913
145°	1369	1456	1714	2086	2249	858
155°	1547	1590	1714	1882	1936	711
165°	1670	1692	1714	1781	1804	471
175°	1736	1736	1726	1748	1748	165
180°	1736	1736	1736	1736	1736	



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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°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.2	437.9	498.7	437.0	313.8	221.4	212.6
95°	111.9	256.8	401.8	438.0	777.8	1230.9	1457.5	1300.6	986.9	751.5	724.8
97.5°	193.4	321.3	449.3	481.2	1047.9	1803.4	2181.1	2081.9	1883.6	1734.8	1684.1
100°	256.3	372.3	488.3	517.3	1146.1	1984.4	2403.6	2410.8	2425.3	2436.2	2375.7
102.5°	309.9	418.2	526.3	553.4	1191.1	2041.4	2466.5	2592.9	2845.5	3035.0	2983.3
105°	400.8	492.4	584.1	607.0	1224.5	2047.8	2459.5	2742.8	3309.3	3734.1	3706.3
107.5°	494.0	579.5	664.8	686.2	1230.7	1956.7	2319.7	2714.8	3505.0	4097.6	4104.4
110°	556.9	634.1	711.2	730.5	1221.4	1875.9	2203.2	2644.9	3528.3	4190.9	4219.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.7	692.2	765.7	784.1	1221.8	1805.3	2097.1	2549.2	3453.3	4131.4	4175.9
115°	711.9	779.7	847.5	864.5	1233.1	1724.4	1970.2	2405.6	3276.6	3929.8	3991.5
117.5°	803.9	865.5	927.2	942.6	1255.9	1673.8	1882.8	2275.8	3061.8	3651.4	3719.8
120°	857.5	915.5	973.5	988.0	1274.6	1656.7	1847.8	2206.9	2925.2	3463.8	3530.3
122.5°	909.9	968.5	1026.9	1041.6	1301.4	1647.9	1821.0	2144.4	2791.2	3276.2	3341.9
125°	990.3	1043.7	1097.0	1110.3	1337.5	1640.4	1791.9	2066.6	2615.9	3028.0	3088.5
127.5°	1055.6	1109.4	1163.3	1176.7	1373.6	1636.2	1767.4	2003.2	2475.0	2828.8	2879.8
130°	1090.5	1148.5	1206.5	1221.0	1400.1	1638.7	1758.1	1968.0	2388.1	2703.0	2750.2
132.5°	1126.7	1184.7	1242.7	1257.2	1421.5	1640.5	1749.9	1937.9	2313.8	2595.8	2638.0
135°	1180.2	1233.1	1285.9	1299.1	1444.7	1638.9	1735.9	1893.4	2208.3	2444.4	2480.7
137.5°	1235.0	1287.3	1339.5	1352.6	1479.6	1649.0	1733.7	1866.8	2132.9	2332.5	2362.3
140°	1280.4	1328.6	1376.7	1388.8	1501.0	1650.7	1725.5	1840.4	2070.4	2242.8	2270.6
142.5°	1315.4	1359.9	1404.5	1415.6	1518.9	1656.6	1725.5	1826.4	2028.4	2179.9	2203.8
145°	1369.0	1407.8	1446.7	1456.4	1542.2	1656.6	1713.8	1796.4	1961.6	2085.5	2103.6
147.5°	1422.6	1460.4	1498.2	1507.7	1576.4	1668.0	1713.8	1778.8	1908.7	2006.2	2021.3
150°	1457.5	1491.7	1525.9	1534.4	1594.2	1673.9	1713.8	1768.7	1878.5	1960.8	1973.0
152.5°	1493.7	1519.5	1545.5	1551.9	1605.9	1677.8	1713.8	1760.7	1854.4	1924.7	1933.8
155°	1547.3	1566.4	1585.6	1590.3	1631.5	1686.3	1713.8	1751.1	1825.7	1881.6	1887.7
157.5°	1586.9	1605.5	1624.1	1628.8	1657.1	1694.9	1713.8	1742.8	1800.8	1844.4	1848.7
160°	1613.7	1628.1	1642.6	1646.3	1668.8	1698.8	1713.8	1738.6	1788.4	1825.7	1828.1
162.5°	1640.5	1651.3	1662.2	1664.9	1681.2	1703.0	1713.8	1734.8	1776.7	1808.2	1810.6
165°	1669.5	1679.3	1689.2	1691.7	1699.0	1708.8	1713.8	1728.8	1758.9	1781.4	1783.8
167.5°	1696.3	1701.0	1705.7	1706.9	1713.0	1721.4	1725.5	1735.3	1755.0	1769.7	1770.8
170°	1713.8	1718.5	1723.1	1724.4	1724.7	1725.2	1725.5	1735.3	1755.0	1769.7	1769.7
172.5°	1723.1	1724.2	1725.2	1725.5	1725.5	1725.5	1725.5	1733.2	1748.7	1760.4	1759.5
175°	1735.9	1735.9	1735.9	1735.9	1732.5	1727.8	1725.5	1730.4	1740.2	1747.6	1747.6
177.5°	1735.9	1735.9	1735.9	1735.9	1733.2	1729.6	1727.8	1731.7	1739.5	1745.3	1744.2
180°	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9



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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°	44.3	44.3
92.5°	177.4	142.2
95°	618.1	511.5
97.5°	1481.0	1278.1
100°	2133.9	1892.1
102.5°	2776.1	2569.1
105°	3595.0	3483.6
107.5°	4131.3	4158.2
110°	4335.8	4451.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4354.0	4532.1
115°	4238.6	4485.5
117.5°	3993.8	4267.7
120°	3796.5	4062.6
122.5°	3604.4	3866.9
125°	3330.4	3572.2
127.5°	3083.9	3287.9
130°	2938.6	3127.1
132.5°	2806.8	2975.6
135°	2626.2	2771.7
137.5°	2481.4	2600.4
140°	2382.0	2493.3
142.5°	2299.6	2395.4
145°	2176.1	2248.6
147.5°	2081.3	2141.4
150°	2021.7	2070.4
152.5°	1970.6	2007.4
155°	1912.1	1936.4
157.5°	1865.7	1882.8
160°	1838.0	1847.8
162.5°	1819.8	1829.1
165°	1793.7	1803.6
167.5°	1775.0	1779.1
170°	1769.7	1769.7
172.5°	1755.9	1752.3
175°	1747.6	1747.6
177.5°	1740.0	1735.9
180°	1735.9	1735.9



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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	5.33	6.14	6.35	7.18	8.58	18.51	19.31	19.53	20.36	21.76
	3H	6.03	6.75	7.07	7.80	9.22	20.34	21.07	21.38	22.12	23.54
	4H	6.32	7.01	7.37	8.07	9.49	20.98	21.67	22.03	22.73	24.15
	6H	6.57	7.21	7.63	8.26	9.70	21.41	22.05	22.47	23.10	24.54
	8H	6.64	7.24	7.70	8.32	9.75	21.53	22.14	22.60	23.21	24.64
	12H	6.65	7.23	7.72	8.30	9.75	21.60	22.17	22.67	23.24	24.70
4H	2H	12.54	13.23	13.59	14.28	15.70	18.77	19.46	19.83	20.52	21.94
	3H	14.10	14.68	15.16	15.76	17.19	20.81	21.39	21.88	22.47	23.91
	4H	14.19	14.72	15.26	15.79	17.25	21.58	22.11	22.65	23.18	24.64
	6H	14.20	14.65	15.28	15.75	17.20	22.11	22.57	23.20	23.66	25.12
	8H	14.17	14.60	15.26	15.69	17.16	22.28	22.70	23.36	23.79	25.26
	12H	14.13	14.51	15.23	15.61	17.09	22.37	22.75	23.47	23.85	25.33
8H	4H	15.63	16.06	16.71	17.14	18.61	21.63	22.06	22.72	23.15	24.62
	6H	15.87	16.22	16.97	17.35	18.82	22.26	22.61	23.37	23.74	25.21
	8H	15.89	16.20	17.00	17.31	18.80	22.48	22.79	23.59	23.90	25.39
	12H	15.85	16.13	16.97	17.23	18.76	22.62	22.90	23.74	24.00	25.53
12H	4H	15.77	16.16	16.87	17.26	18.73	21.58	21.97	22.68	23.07	24.55
	6H	16.13	16.44	17.24	17.55	19.04	22.24	22.55	23.35	23.66	25.15
	8H	16.20	16.47	17.31	17.57	19.10	22.47	22.74	23.59	23.85	25.38