

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: P937629

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-5000K

Issue Date: 12/17/2024

**Test Information**

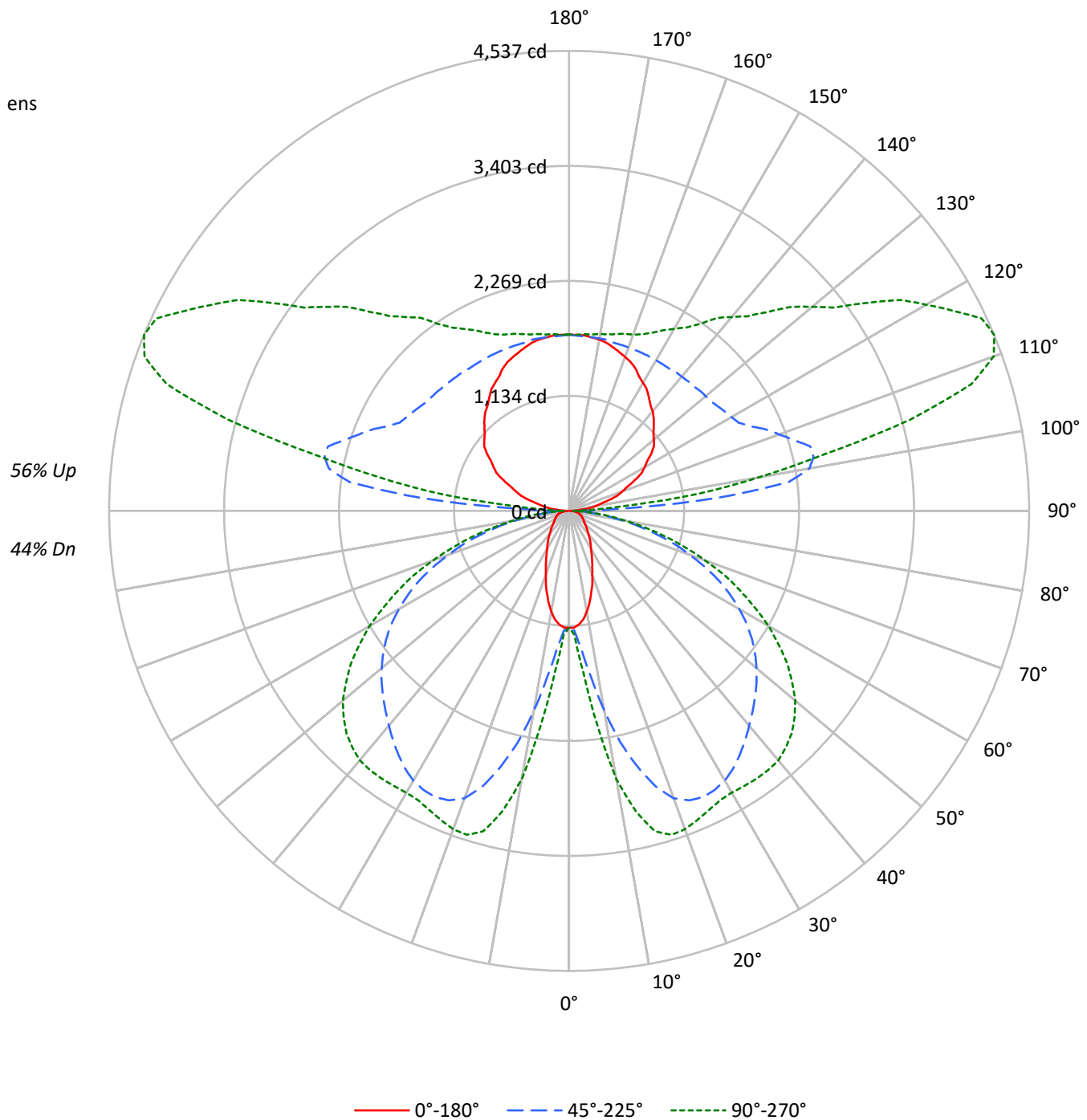
Test Method: LM-79-2019  
Report Number: P937629  
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-5000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20186.0 lumens  
Efficiency: N/A  
Efficacy: 116.0 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: P937629  
CATALOG NUMBER: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-5000K

### 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	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°	3564	3564	3564
5°	3483	4120	4790
10°	3160	6007	7941
15°	2687	7850	9590
20°	2188	9099	9773
25°	1826	9524	9574
30°	1541	9587	9556
35°	1363	9430	9803
40°	1188	9226	10059
45°	1077	9077	10098
50°	989	8944	9931
55°	948	8748	9491
60°	971	8367	8796
65°	1012	7787	7841
70°	1081	6796	6624
75°	1203	5546	5169
80°	1323	3851	3483
85°	1199	2047	1783

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10098 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	149.0	0.7
10°-20°	660.6	3.3
20°-30°	1155.4	5.7
30°-40°	1487.4	7.4
40°-50°	1661.3	8.2
50°-60°	1591.2	7.9
60°-70°	1261.0	6.2
70°-80°	741.5	3.7
80°-90°	212.6	1.1
90°-100°	847.1	4.2
100°-110°	2227.2	11.0
110°-120°	2309.3	11.4
120°-130°	1852.4	9.2
130°-140°	1453.4	7.2
140°-150°	1115.6	5.5
150°-160°	803.4	4.0
160°-170°	491.6	2.4
170°-180°	166.1	0.8
0°-30°	1965.0	9.7
0°-40°	3452.4	17.1
0°-60°	6704.9	33.2
0°-90°	8920.0	44.2
90°-120°	5383.6	26.7
90°-150°	9804.9	48.6
90°-180°	11266.0	55.8
0°-180°	20186.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1152	1152	1152	1152	1152	
5°	1123	1204	1356	1534	1589	104
15°	841	1552	2616	3171	3271	234
25°	537	1760	3116	3253	3256	247
35°	363	1682	2934	3101	3223	227
45°	248	1341	2593	2971	3105	192
55°	178	852	2201	2556	2627	162
65°	141	452	1634	1838	1864	140
75°	104	278	897	986	989	109
85°	37	85	222	244	248	39
90°	12	33	89	44	44	12
95°	112	439	1459	752	512	124
105°	401	608	2462	3738	3487	425
115°	713	865	1972	3934	4490	704
125°	991	1112	1794	3031	3576	880
135°	1182	1300	1738	2447	2775	914
145°	1370	1458	1716	2088	2251	859
155°	1549	1592	1716	1884	1938	712
165°	1671	1694	1716	1783	1806	472
175°	1738	1738	1727	1750	1750	165
180°	1738	1738	1738	1738	1738	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2	1152.2
2.5°	1152.2	1152.2	1159.6	1163.3	1170.7	1174.5	1181.8	1189.2	1211.5	1215.2	1222.6
5°	1122.6	1137.4	1185.6	1204.1	1256.0	1326.3	1356.0	1404.1	1504.1	1533.8	1552.3
7.5°	1078.1	1111.5	1230.0	1259.6	1389.3	1574.5	1652.4	1756.0	1915.4	1993.2	2056.2
10°	1007.7	1078.1	1289.2	1359.6	1570.9	1852.4	1996.9	2141.4	2382.2	2489.6	2530.3
12.5°	929.9	1044.7	1352.2	1448.6	1752.4	2163.6	2337.7	2497.1	2771.2	2915.7	2937.9
15°	841.0	996.6	1411.5	1552.3	1945.0	2422.9	2615.6	2812.0	3067.6	3171.3	3197.3
17.5°	763.2	959.6	1467.1	1615.3	2093.2	2656.3	2852.7	3015.7	3223.1	3293.5	3312.1
20°	666.8	900.3	1504.1	1696.8	2248.8	2826.7	3015.7	3141.6	3282.4	3326.9	3334.3
22.5°	596.4	837.3	1526.4	1726.4	2352.6	2930.5	3089.8	3189.9	3286.1	3301.0	3304.7
25°	537.2	766.9	1522.6	1759.8	2441.5	2993.5	3115.7	3189.9	3245.4	3252.8	3252.8
27.5°	481.7	689.1	1507.9	1767.2	2508.2	3008.3	3104.6	3156.5	3182.4	3197.3	3197.3
30°	433.4	615.0	1470.8	1752.4	2537.8	2993.5	3071.3	3097.2	3123.1	3145.4	3156.5
32.5°	396.4	544.6	1415.2	1722.8	2541.5	2956.5	3012.0	3026.9	3063.9	3115.7	3134.3
35°	363.0	474.2	1352.2	1682.0	2519.2	2897.1	2934.2	2949.0	3023.1	3100.9	3126.9
37.5°	329.8	422.4	1270.7	1611.6	2485.9	2826.7	2852.7	2878.6	2993.5	3086.1	3115.7
40°	296.4	377.9	1174.5	1533.8	2434.1	2741.6	2763.7	2804.5	2956.5	3063.9	3093.5
42.5°	270.4	340.9	1070.7	1452.3	2367.3	2645.2	2678.6	2737.8	2912.0	3026.9	3060.1
45°	248.3	303.8	959.6	1341.1	2282.2	2545.2	2593.3	2674.8	2860.1	2971.2	3000.9
47.5°	226.0	277.9	844.7	1226.3	2189.5	2445.2	2508.2	2600.7	2789.7	2897.1	2923.1
50°	207.5	251.9	729.8	1104.1	2089.5	2337.7	2411.8	2508.2	2700.8	2800.8	2834.2
52.5°	192.6	229.7	622.4	981.8	1974.7	2226.6	2311.8	2411.8	2593.3	2689.7	2712.0
55°	177.9	211.2	529.8	852.1	1856.1	2108.0	2200.7	2296.9	2474.8	2556.3	2571.1
57.5°	170.4	196.4	452.0	729.8	1730.1	1974.7	2078.4	2167.3	2334.1	2397.0	2411.8
60°	159.3	185.3	392.7	626.1	1593.0	1848.7	1937.6	2026.5	2167.3	2219.2	2230.3
62.5°	148.2	177.9	348.3	526.1	1452.3	1700.5	1789.4	1870.9	1989.5	2026.5	2041.3
65°	140.8	170.4	314.9	452.0	1307.8	1544.9	1633.8	1704.2	1800.5	1837.5	1845.0
67.5°	133.4	163.0	289.0	389.0	1163.3	1389.3	1456.0	1522.6	1596.8	1633.8	1637.5
70°	122.3	155.6	266.8	344.5	1015.1	1211.5	1267.1	1337.5	1396.7	1415.2	1426.4
72.5°	114.9	144.5	251.9	311.2	863.2	1041.1	1093.0	1133.7	1185.6	1204.1	1204.1
75°	103.8	129.6	237.1	277.9	707.6	852.1	896.6	937.3	978.1	985.5	974.3
77.5°	92.6	114.9	203.8	233.4	552.0	674.3	711.3	733.6	766.9	774.3	778.0
80°	77.8	100.0	159.3	181.5	400.1	496.4	522.4	540.9	570.5	570.5	577.9
82.5°	59.3	77.8	114.9	129.6	270.4	340.9	363.0	374.2	392.7	392.7	392.7
85°	37.0	48.1	74.1	85.2	163.0	207.5	222.3	226.0	240.8	244.5	244.5
87.5°	18.5	25.9	48.1	51.9	85.2	107.4	107.4	114.9	114.9	111.1	107.4
90°	11.7	21.0	30.3	32.6	51.3	76.2	88.6	78.8	59.1	44.3	44.3
92.5°	46.6	125.9	205.3	225.1	316.5	438.3	499.2	437.5	314.2	221.6	212.8
95°	112.0	257.1	402.3	438.6	778.7	1232.3	1459.1	1302.0	987.9	752.3	725.5
97.5°	193.6	321.6	449.7	481.7	1048.9	1805.2	2183.4	2084.1	1885.6	1736.7	1685.9
100°	256.6	372.7	488.8	517.8	1147.3	1986.5	2406.2	2413.5	2428.0	2438.8	2378.4
102.5°	310.2	418.6	526.9	554.0	1192.4	2043.6	2469.2	2595.7	2848.6	3038.4	2986.5
105°	401.3	493.0	584.8	607.7	1225.9	2050.1	2462.2	2745.8	3312.9	3738.2	3710.3
107.5°	494.6	580.1	665.6	687.0	1232.0	1958.8	2322.2	2717.8	3508.8	4102.1	4108.8
110°	557.6	634.8	712.0	731.3	1222.7	1877.9	2205.5	2647.7	3532.1	4195.3	4224.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	619.3	693.0	766.6	785.0	1223.2	1807.3	2099.4	2552.0	3457.1	4135.9	4180.5
115°	712.6	780.6	848.4	865.4	1234.4	1726.3	1972.3	2408.3	3280.2	3934.1	3995.9
117.5°	804.8	866.5	928.2	943.6	1257.4	1675.6	1884.8	2278.3	3065.2	3655.4	3723.9
120°	858.4	916.5	974.6	989.1	1276.1	1658.6	1849.9	2209.4	2928.3	3467.6	3534.2
122.5°	911.0	969.6	1028.1	1042.8	1302.9	1649.7	1823.1	2146.7	2794.2	3279.8	3345.5
125°	991.4	1044.8	1098.2	1111.6	1339.0	1642.3	1793.9	2068.9	2618.9	3031.3	3091.8
127.5°	1056.7	1110.6	1164.6	1178.0	1375.1	1638.0	1769.4	2005.5	2477.7	2831.9	2882.9
130°	1091.7	1149.8	1207.8	1222.3	1401.6	1640.6	1760.1	1970.3	2390.7	2706.0	2753.2
132.5°	1127.9	1186.0	1244.0	1258.5	1422.9	1642.2	1751.8	1940.0	2316.4	2598.7	2640.9
135°	1181.6	1234.4	1287.3	1300.5	1446.3	1640.7	1737.9	1895.5	2210.6	2447.0	2483.4
137.5°	1236.3	1288.7	1341.0	1354.1	1481.2	1650.8	1735.6	1868.8	2135.2	2335.1	2364.9
140°	1281.9	1330.1	1378.2	1390.3	1502.6	1652.5	1727.3	1842.4	2072.6	2245.3	2273.1
142.5°	1316.8	1361.4	1406.0	1417.1	1520.5	1658.4	1727.3	1828.5	2030.6	2182.3	2206.2
145°	1370.5	1409.3	1448.2	1458.0	1543.9	1658.4	1715.7	1798.4	1963.7	2087.8	2105.9
147.5°	1424.1	1462.0	1499.8	1509.3	1578.1	1669.9	1715.7	1780.8	1910.9	2008.5	2023.5
150°	1459.1	1493.3	1527.5	1536.1	1596.0	1675.8	1715.7	1770.7	1880.5	1963.0	1975.1
152.5°	1495.2	1521.1	1547.1	1553.6	1607.6	1679.7	1715.7	1762.7	1856.4	1926.8	1936.0
155°	1548.9	1568.1	1587.3	1592.1	1633.3	1688.3	1715.7	1753.0	1827.6	1883.6	1889.7
157.5°	1588.5	1607.2	1625.9	1630.6	1659.0	1696.9	1715.7	1744.7	1802.8	1846.3	1850.6
160°	1615.4	1629.9	1644.4	1648.1	1670.6	1700.7	1715.7	1740.6	1790.3	1827.6	1830.1
162.5°	1642.2	1653.0	1664.0	1666.7	1683.0	1704.8	1715.7	1736.7	1778.7	1810.2	1812.5
165°	1671.3	1681.2	1691.1	1693.5	1700.9	1710.8	1715.7	1730.8	1760.8	1783.3	1785.8
167.5°	1698.2	1702.8	1707.5	1708.7	1714.9	1723.2	1727.3	1737.2	1757.0	1771.7	1772.8
170°	1715.7	1720.4	1725.1	1726.2	1726.6	1727.1	1727.3	1737.2	1757.0	1771.7	1771.7
172.5°	1725.0	1726.0	1727.1	1727.3	1727.3	1727.3	1727.3	1735.1	1750.7	1762.4	1761.5
175°	1737.9	1737.9	1737.9	1737.9	1734.3	1729.7	1727.3	1732.3	1742.1	1749.5	1749.5
177.5°	1737.9	1737.9	1737.9	1737.9	1735.2	1731.5	1729.7	1733.6	1741.4	1747.2	1746.1
180°	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9	1737.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	1152.2	1152.2
2.5°	1230.0	1222.6
5°	1582.0	1589.4
7.5°	2130.3	2126.5
10°	2649.0	2682.2
12.5°	3026.9	3034.2
15°	3256.5	3271.4
17.5°	3345.4	3349.1
20°	3349.1	3341.8
22.5°	3308.4	3301.0
25°	3260.3	3256.5
27.5°	3215.8	3219.5
30°	3197.3	3208.4
32.5°	3197.3	3215.8
35°	3204.6	3223.1
37.5°	3200.9	3223.1
40°	3186.1	3212.0
42.5°	3145.4	3163.9
45°	3082.4	3104.6
47.5°	3000.9	3015.7
50°	2897.1	2912.0
52.5°	2767.5	2771.2
55°	2611.8	2626.7
57.5°	2445.2	2448.8
60°	2259.9	2271.1
62.5°	2063.6	2063.6
65°	1856.1	1863.5
67.5°	1641.3	1659.8
70°	1422.6	1426.4
72.5°	1207.7	1207.7
75°	985.5	989.2
77.5°	774.3	774.3
80°	574.3	577.9
82.5°	396.4	403.8
85°	248.3	248.3
87.5°	114.9	103.8
90°	44.3	44.3
92.5°	177.5	142.3
95°	618.8	512.0
97.5°	1482.7	1279.5
100°	2136.3	1894.2
102.5°	2779.2	2571.8
105°	3598.8	3487.4
107.5°	4135.8	4162.7
110°	4340.5	4456.7





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4358.8	4537.2
115°	4243.2	4490.4
117.5°	3998.1	4272.4
120°	3800.6	4067.1
122.5°	3608.2	3871.1
125°	3333.9	3576.0
127.5°	3087.2	3291.5
130°	2941.8	3130.5
132.5°	2809.9	2978.9
135°	2629.0	2774.8
137.5°	2484.1	2603.3
140°	2384.6	2496.0
142.5°	2302.1	2398.0
145°	2178.5	2251.1
147.5°	2083.6	2143.7
150°	2023.9	2072.6
152.5°	1972.8	2009.6
155°	1914.1	1938.5
157.5°	1867.7	1884.8
160°	1840.0	1849.9
162.5°	1821.8	1831.2
165°	1795.7	1805.5
167.5°	1776.9	1781.0
170°	1771.7	1771.7
172.5°	1757.8	1754.2
175°	1749.5	1749.5
177.5°	1742.0	1737.9
180°	1737.9	1737.9



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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	4.87	5.71	5.87	6.73	8.08	18.06	18.91	19.06	19.92	21.27
	3H	5.57	6.33	6.58	7.36	8.73	19.91	20.66	20.91	21.69	23.06
	4H	5.87	6.59	6.89	7.62	8.99	20.55	21.27	21.57	22.30	23.68
	6H	6.12	6.78	7.15	7.81	9.20	20.99	21.65	22.02	22.68	24.07
	8H	6.19	6.82	7.23	7.87	9.25	21.11	21.74	22.15	22.79	24.18
	12H	6.21	6.81	7.25	7.85	9.26	21.18	21.78	22.22	22.82	24.23
4H	2H	12.09	12.81	13.12	13.84	15.21	18.33	19.05	19.36	20.08	21.46
	3H	13.66	14.26	14.69	15.31	16.70	20.38	20.99	21.42	22.04	23.43
	4H	13.75	14.30	14.79	15.35	16.76	21.15	21.70	22.20	22.75	24.16
	6H	13.76	14.24	14.81	15.31	16.71	21.70	22.17	22.75	23.24	24.65
	8H	13.74	14.18	14.79	15.24	16.67	21.86	22.30	22.91	23.37	24.79
	12H	13.69	14.10	14.77	15.17	16.60	21.96	22.36	23.03	23.43	24.86
8H	4H	15.20	15.64	16.25	16.70	18.13	21.21	21.66	22.27	22.72	24.14
	6H	15.44	15.81	16.52	16.91	18.33	21.84	22.21	22.92	23.32	24.74
	8H	15.46	15.78	16.54	16.87	18.31	22.07	22.39	23.15	23.48	24.92
	12H	15.42	15.71	16.51	16.79	18.27	22.21	22.50	23.30	23.58	25.06
12H	4H	15.34	15.74	16.42	16.82	18.25	21.16	21.57	22.24	22.64	24.07
	6H	15.70	16.02	16.78	17.11	18.55	21.83	22.15	22.91	23.24	24.68
	8H	15.77	16.05	16.86	17.14	18.62	22.06	22.34	23.15	23.43	24.91