

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: P937909

Luminaire Tested: SQ4-FB-125U-075D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

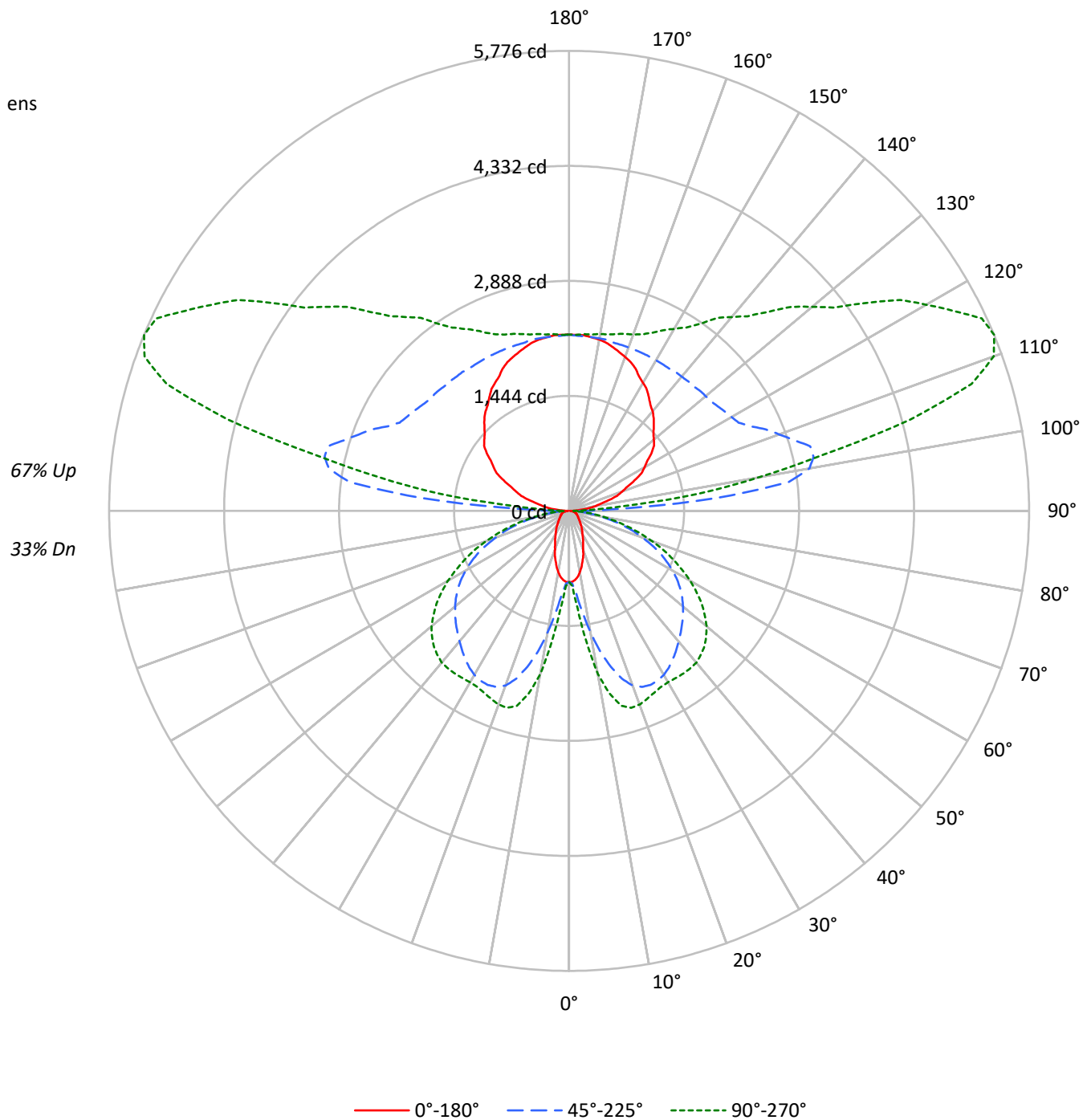
Test Method: LM-79-2019  
Report Number: P937909  
REPORT IS A COMBINATION OF REPORTS P933590 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-075D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21251.9 lumens  
Efficiency: N/A  
Efficacy: 127.4 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: Semi-Indirect  
  
Input Watts (W): 166.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	33				33
1	94	89	85	82	84	80	77	74	64	62	60	49	47	46	35	34	33	27				27
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22				22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	31	26	24	23	18				18
4	70	59	52	46	63	54	47	42	43	38	34	33	29	26	23	21	19	15				15
5	64	53	45	39	57	48	41	35	38	33	29	29	25	23	21	18	16	13				13
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	19	16	14	11				11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	10				10
8	50	38	30	25	45	34	28	23	28	23	19	21	18	15	15	13	11	8				8
9	47	34	27	22	42	31	25	20	25	20	17	19	16	13	14	12	10	7				7
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	7				7

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

	0°	45°	90°
0°	2759	2759	2759
5°	2696	3190	3709
10°	2447	4651	6148
15°	2080	6077	7424
20°	1694	7044	7566
25°	1414	7373	7412
30°	1193	7422	7398
35°	1055	7301	7590
40°	920	7142	7787
45°	834	7027	7818
50°	765	6924	7688
55°	734	6772	7348
60°	752	6478	6809
65°	784	6029	6070
70°	836	5261	5128
75°	931	4294	4002
80°	1024	2981	2696
85°	930	1585	1380

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7818 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.4	0.5
10°-20°	511.4	2.4
20°-30°	894.5	4.2
30°-40°	1151.5	5.4
40°-50°	1286.1	6.1
50°-60°	1231.8	5.8
60°-70°	976.2	4.6
70°-80°	574.0	2.7
80°-90°	167.9	0.8
90°-100°	1078.5	5.1
100°-110°	2835.5	13.3
110°-120°	2940.1	13.8
120°-130°	2358.3	11.1
130°-140°	1850.4	8.7
140°-150°	1420.3	6.7
150°-160°	1022.8	4.8
160°-170°	625.8	2.9
170°-180°	211.4	1.0
0°-30°	1521.2	7.2
0°-40°	2672.7	12.6
0°-60°	5190.7	24.4
0°-90°	6908.8	32.5
90°-120°	6854.0	32.3
90°-150°	12482.9	58.7
90°-180°	14343.0	67.5
0°-180°	21251.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	869	932	1050	1187	1230	80
15°	651	1202	2025	2455	2532	181
25°	416	1362	2412	2518	2521	192
35°	281	1302	2272	2401	2495	176
45°	192	1038	2008	2300	2404	149
55°	138	660	1704	1979	2034	125
65°	109	350	1265	1423	1443	108
75°	80	215	694	763	766	84
85°	29	66	172	189	192	30
90°	15	42	113	56	56	14
95°	142	558	1858	958	652	158
105°	511	774	3135	4759	4440	542
115°	907	1102	2511	5009	5717	896
125°	1262	1415	2284	3859	4553	1121
135°	1504	1656	2213	3115	3533	1164
145°	1745	1856	2184	2658	2866	1093
155°	1972	2027	2184	2398	2468	906
165°	2128	2156	2184	2270	2299	601
175°	2213	2213	2199	2227	2227	210
180°	2213	2213	2213	2213	2213	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9
2.5°	891.9	891.9	897.7	900.6	906.3	909.2	914.9	920.6	937.8	940.7	946.4
5°	869.0	880.5	917.8	932.1	972.3	1026.7	1049.7	1087.1	1164.5	1187.4	1201.8
7.5°	834.6	860.4	952.2	975.1	1075.5	1219.0	1279.2	1359.5	1482.9	1543.1	1591.8
10°	780.1	834.6	998.1	1052.6	1216.1	1434.1	1545.9	1657.8	1844.2	1927.4	1958.9
12.5°	719.9	808.8	1046.8	1121.5	1356.7	1675.0	1809.8	1933.1	2145.4	2257.2	2274.4
15°	651.0	771.5	1092.8	1201.8	1505.8	1875.8	2024.9	2176.9	2374.8	2455.1	2475.2
17.5°	590.8	742.8	1135.8	1250.5	1620.5	2056.5	2208.5	2334.6	2495.3	2549.7	2564.1
20°	516.2	696.9	1164.5	1313.6	1741.0	2188.4	2334.6	2432.2	2541.1	2575.6	2581.3
22.5°	461.7	648.2	1181.7	1336.6	1821.3	2268.7	2392.0	2469.4	2544.0	2555.5	2558.4
25°	415.9	593.7	1178.8	1362.4	1890.1	2317.4	2412.1	2469.4	2512.5	2518.2	2518.2
27.5°	372.8	533.4	1167.4	1368.1	1941.7	2328.9	2403.5	2443.6	2463.7	2475.2	2475.2
30°	335.6	476.1	1138.7	1356.7	1964.7	2317.4	2377.7	2397.7	2417.8	2435.0	2443.6
32.5°	306.9	421.6	1095.7	1333.7	1967.5	2288.8	2331.8	2343.3	2371.9	2412.1	2426.4
35°	281.1	367.1	1046.8	1302.2	1950.3	2242.9	2271.6	2283.0	2340.4	2400.6	2420.7
37.5°	255.3	327.0	983.7	1247.7	1924.5	2188.4	2208.5	2228.5	2317.4	2389.1	2412.1
40°	229.4	292.5	909.2	1187.4	1884.4	2122.4	2139.6	2171.2	2288.8	2371.9	2394.9
42.5°	209.4	263.9	828.9	1124.4	1832.7	2047.8	2073.7	2119.5	2254.3	2343.3	2369.1
45°	192.2	235.2	742.8	1038.2	1766.8	1970.4	2007.7	2070.8	2214.2	2300.2	2323.2
47.5°	174.9	215.1	653.9	949.3	1695.1	1893.0	1941.7	2013.4	2159.7	2242.9	2262.9
50°	160.6	195.0	565.0	854.7	1617.6	1809.8	1867.2	1941.7	2090.9	2168.3	2194.1
52.5°	149.1	177.8	481.8	760.0	1528.7	1723.8	1789.7	1867.2	2007.7	2082.3	2099.5
55°	137.7	163.5	410.1	659.6	1437.0	1632.0	1703.7	1778.3	1915.9	1979.0	1990.5
57.5°	131.9	152.0	349.9	565.0	1339.5	1528.7	1609.0	1677.9	1806.9	1855.7	1867.2
60°	123.3	143.4	304.0	484.7	1233.3	1431.2	1500.1	1568.9	1677.9	1718.0	1726.6
62.5°	114.7	137.7	269.6	407.3	1124.4	1316.5	1385.3	1448.4	1540.2	1568.9	1580.4
65°	109.0	131.9	243.8	349.9	1012.4	1196.1	1264.9	1319.4	1393.9	1422.6	1428.4
67.5°	103.2	126.2	223.7	301.1	900.6	1075.5	1127.2	1178.8	1236.2	1264.9	1267.8
70°	94.6	120.5	206.5	266.7	785.8	937.8	980.9	1035.3	1081.2	1095.7	1104.3
72.5°	88.9	111.9	195.0	240.9	668.2	805.9	846.1	877.6	917.8	932.1	932.1
75°	80.3	100.4	183.6	215.1	547.8	659.6	694.1	725.6	757.2	762.9	754.3
77.5°	71.7	88.9	157.7	180.7	427.3	522.0	550.7	567.9	593.7	599.4	602.3
80°	60.2	77.4	123.3	140.5	309.7	384.3	404.4	418.7	441.7	441.7	447.4
82.5°	45.9	60.2	88.9	100.4	209.4	263.9	281.1	289.7	304.0	304.0	304.0
85°	28.7	37.3	57.4	66.0	126.2	160.6	172.1	174.9	186.4	189.3	189.3
87.5°	14.3	20.1	37.3	40.2	66.0	83.2	83.2	88.9	88.9	86.0	83.2
90°	14.8	26.7	38.6	41.6	65.3	96.9	112.8	100.3	75.2	56.4	56.4
92.5°	59.4	160.3	261.4	286.6	403.0	558.0	635.5	557.0	399.9	282.1	270.9
95°	142.5	327.3	512.1	558.3	991.4	1568.9	1857.6	1657.6	1257.7	957.8	923.8
97.5°	246.5	409.5	572.5	613.3	1335.4	2298.3	2779.8	2653.4	2400.6	2211.0	2146.3
100°	326.7	474.6	622.4	659.4	1460.7	2529.2	3063.4	3072.7	3091.1	3105.0	3027.9
102.5°	395.0	533.0	670.8	705.3	1518.1	2601.8	3143.6	3304.6	3626.7	3868.3	3802.3
105°	510.8	627.6	744.4	773.7	1560.7	2610.0	3134.6	3495.6	4217.7	4759.2	4723.7
107.5°	629.6	738.5	847.4	874.6	1568.6	2493.9	2956.5	3460.1	4467.1	5222.4	5231.0
110°	709.8	808.1	906.5	931.0	1556.7	2390.9	2808.0	3371.0	4496.8	5341.3	5378.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	788.5	882.2	975.9	999.3	1557.1	2301.0	2672.9	3249.1	4401.3	5265.6	5322.3
115°	907.2	993.7	1080.2	1101.8	1571.6	2197.8	2511.0	3066.1	4176.1	5008.7	5087.4
117.5°	1024.6	1103.1	1181.7	1201.3	1600.7	2133.3	2399.7	2900.6	3902.4	4653.7	4741.0
120°	1092.9	1166.8	1240.8	1259.2	1624.5	2111.6	2355.1	2812.8	3728.2	4414.7	4499.5
122.5°	1159.7	1234.3	1308.9	1327.5	1658.7	2100.2	2321.0	2733.1	3557.4	4175.6	4259.3
125°	1262.2	1330.2	1398.1	1415.2	1704.7	2090.8	2283.8	2633.9	3334.1	3859.3	3936.3
127.5°	1345.4	1414.0	1482.7	1499.8	1750.7	2085.3	2252.6	2553.2	3154.4	3605.4	3670.4
130°	1389.9	1463.8	1537.7	1556.2	1784.4	2088.7	2240.8	2508.4	3043.6	3445.0	3505.1
132.5°	1435.9	1509.8	1583.8	1602.3	1811.6	2090.8	2230.3	2469.9	2949.1	3308.4	3362.3
135°	1504.3	1571.6	1638.9	1655.7	1841.4	2088.9	2212.6	2413.2	2814.5	3115.4	3161.8
137.5°	1574.1	1640.7	1707.3	1724.0	1885.8	2101.7	2209.6	2379.2	2718.4	2972.8	3010.7
140°	1631.9	1693.3	1754.6	1770.0	1913.1	2103.8	2199.2	2345.6	2638.7	2858.4	2893.9
142.5°	1676.4	1733.2	1790.0	1804.2	1935.8	2111.4	2199.2	2327.9	2585.3	2778.3	2808.8
145°	1744.8	1794.3	1843.8	1856.2	1965.5	2111.4	2184.4	2289.6	2500.1	2658.0	2681.1
147.5°	1813.1	1861.2	1909.4	1921.5	2009.1	2126.0	2184.4	2267.2	2432.8	2557.0	2576.1
150°	1857.6	1901.2	1944.8	1955.7	2031.9	2133.5	2184.4	2254.3	2394.2	2499.1	2514.6
152.5°	1903.7	1936.7	1969.7	1978.0	2046.8	2138.5	2184.4	2244.1	2363.5	2453.1	2464.9
155°	1971.9	1996.4	2020.8	2026.9	2079.4	2149.4	2184.4	2231.9	2326.9	2398.1	2405.9
157.5°	2022.5	2046.2	2070.0	2076.0	2112.1	2160.3	2184.4	2221.3	2295.2	2350.6	2356.1
160°	2056.6	2075.1	2093.6	2098.2	2126.9	2165.2	2184.4	2216.0	2279.4	2326.9	2330.1
162.5°	2090.8	2104.6	2118.5	2121.9	2142.8	2170.5	2184.4	2211.1	2264.6	2304.6	2307.6
165°	2127.9	2140.4	2152.9	2156.1	2165.5	2178.1	2184.4	2203.5	2241.7	2270.4	2273.6
167.5°	2162.1	2168.0	2173.9	2175.4	2183.3	2193.9	2199.2	2211.7	2236.8	2255.6	2256.9
170°	2184.4	2190.3	2196.2	2197.7	2198.1	2198.8	2199.2	2211.7	2236.8	2255.6	2255.6
172.5°	2196.2	2197.6	2198.9	2199.2	2199.2	2199.2	2199.2	2209.1	2228.9	2243.7	2242.6
175°	2212.6	2212.6	2212.6	2212.6	2208.1	2202.1	2199.2	2205.5	2218.0	2227.4	2227.4
177.5°	2212.6	2212.6	2212.6	2212.6	2209.1	2204.4	2202.1	2207.1	2217.0	2224.4	2223.1
180°	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6	2212.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	891.9	891.9
2.5°	952.2	946.4
5°	1224.7	1230.5
7.5°	1649.2	1646.3
10°	2050.7	2076.5
12.5°	2343.3	2349.0
15°	2521.1	2532.5
17.5°	2589.9	2592.8
20°	2592.8	2587.0
22.5°	2561.2	2555.5
25°	2523.9	2521.1
27.5°	2489.5	2492.4
30°	2475.2	2483.8
32.5°	2475.2	2489.5
35°	2480.9	2495.3
37.5°	2478.0	2495.3
40°	2466.6	2486.7
42.5°	2435.0	2449.4
45°	2386.3	2403.5
47.5°	2323.2	2334.6
50°	2242.9	2254.3
52.5°	2142.5	2145.4
55°	2022.0	2033.5
57.5°	1893.0	1895.8
60°	1749.6	1758.2
62.5°	1597.6	1597.6
65°	1437.0	1442.7
67.5°	1270.6	1285.0
70°	1101.4	1104.3
72.5°	935.0	935.0
75°	762.9	765.8
77.5°	599.4	599.4
80°	444.5	447.4
82.5°	306.9	312.6
85°	192.2	192.2
87.5°	88.9	80.3
90°	56.4	56.4
92.5°	226.0	181.2
95°	787.8	651.9
97.5°	1887.6	1628.9
100°	2719.7	2411.5
102.5°	3538.3	3274.3
105°	4581.8	4440.0
107.5°	5265.4	5299.7
110°	5526.1	5673.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5549.3	5776.3
115°	5402.2	5717.0
117.5°	5090.1	5439.3
120°	4838.7	5177.9
122.5°	4593.9	4928.5
125°	4244.5	4552.8
127.5°	3930.4	4190.4
130°	3745.3	3985.6
132.5°	3577.4	3792.5
135°	3347.1	3532.6
137.5°	3162.5	3314.4
140°	3035.9	3177.7
142.5°	2930.9	3053.0
145°	2773.5	2865.9
147.5°	2652.7	2729.3
150°	2576.7	2638.8
152.5°	2511.7	2558.5
155°	2436.9	2467.9
157.5°	2377.9	2399.7
160°	2342.6	2355.1
162.5°	2319.4	2331.3
165°	2286.1	2298.7
167.5°	2262.2	2267.4
170°	2255.6	2255.6
172.5°	2237.9	2233.3
175°	2227.4	2227.4
177.5°	2217.8	2212.6
180°	2212.6	2212.6



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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	2.67	3.42	3.76	4.51	6.01	15.87	16.61	16.95	17.70	19.20
	3H	3.37	4.04	4.47	5.14	6.65	17.70	18.37	18.80	19.47	20.99
	4H	3.66	4.30	4.77	5.40	6.92	18.34	18.98	19.45	20.08	21.60
	6H	3.91	4.49	5.02	5.60	7.13	18.77	19.36	19.89	20.46	22.00
	8H	3.97	4.53	5.09	5.65	7.17	18.89	19.45	20.01	20.57	22.10
	12H	3.98	4.51	5.11	5.63	7.18	18.96	19.49	20.08	20.60	22.15
4H	2H	9.88	10.52	11.00	11.62	13.14	16.13	16.76	17.24	17.86	19.38
	3H	11.44	11.97	12.56	13.10	14.63	18.17	18.70	19.29	19.82	21.36
	4H	11.53	12.02	12.65	13.13	14.69	18.93	19.42	20.06	20.54	22.09
	6H	11.53	11.95	12.66	13.09	14.64	19.47	19.89	20.60	21.03	22.57
	8H	11.51	11.90	12.64	13.03	14.59	19.63	20.02	20.76	21.15	22.71
	12H	11.46	11.81	12.61	12.95	14.52	19.72	20.07	20.87	21.22	22.79
8H	4H	12.97	13.36	14.10	14.49	16.05	18.98	19.37	20.11	20.50	22.07
	6H	13.20	13.53	14.36	14.70	16.26	19.61	19.93	20.76	21.11	22.67
	8H	13.22	13.50	14.38	14.66	16.23	19.83	20.11	20.99	21.27	22.85
	12H	13.18	13.43	14.35	14.58	16.19	19.97	20.22	21.14	21.37	22.98
12H	4H	13.10	13.46	14.25	14.60	16.17	18.93	19.28	20.08	20.43	21.99
	6H	13.46	13.75	14.62	14.90	16.48	19.59	19.87	20.75	21.03	22.61
	8H	13.52	13.77	14.69	14.92	16.54	19.82	20.07	20.98	21.22	22.83