

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: P937978

Luminaire Tested: SQ4-FB-125U-075D-B2750-1D-UNV-STD-W-12-3000K

Issue Date: 12/17/2024

**Test Information**

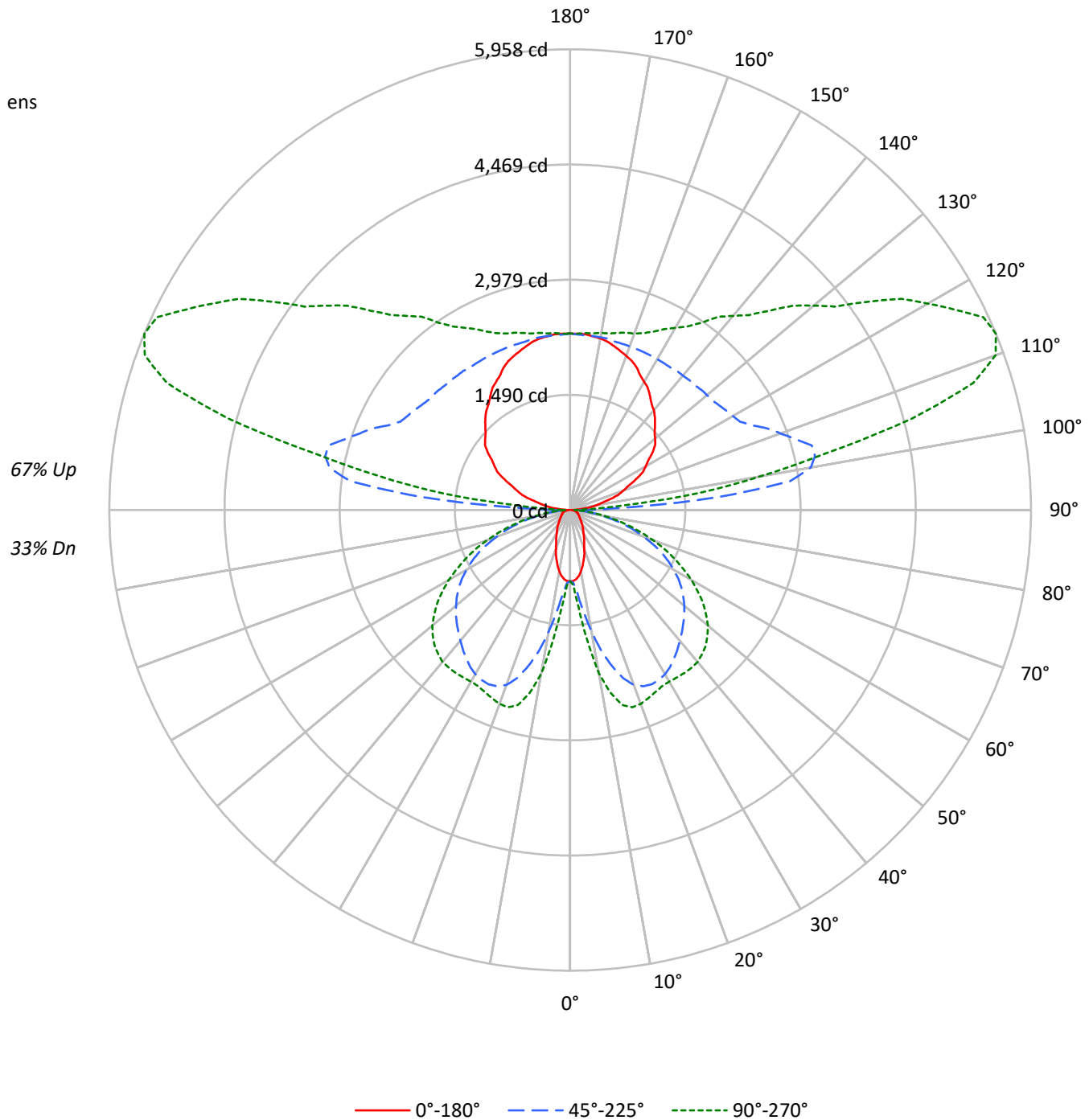
Test Method: LM-79-2019  
Report Number: P937978  
REPORT IS A COMBINATION OF REPORTS P933590 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-075D-B2750-1D-UNV-STD-W-12-3000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21918.8 lumens  
Efficiency: N/A  
Efficacy: 131.4 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				
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°	2845	2845	2845
5°	2781	3289	3825
10°	2523	4797	6341
15°	2145	6268	7657
20°	1747	7265	7803
25°	1458	7605	7645
30°	1230	7655	7630
35°	1088	7530	7828
40°	949	7367	8032
45°	860	7248	8063
50°	789	7142	7930
55°	757	6985	7578
60°	776	6681	7023
65°	808	6218	6261
70°	863	5426	5289
75°	960	4428	4127
80°	1056	3075	2781
85°	959	1634	1423

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8063 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.0	0.5
10°-20°	527.4	2.4
20°-30°	922.5	4.2
30°-40°	1187.6	5.4
40°-50°	1326.5	6.1
50°-60°	1270.5	5.8
60°-70°	1006.9	4.6
70°-80°	592.0	2.7
80°-90°	173.2	0.8
90°-100°	1112.3	5.1
100°-110°	2924.4	13.3
110°-120°	3032.3	13.8
120°-130°	2432.3	11.1
130°-140°	1908.5	8.7
140°-150°	1464.8	6.7
150°-160°	1054.9	4.8
160°-170°	645.5	2.9
170°-180°	218.1	1.0
0°-30°	1569.0	7.2
0°-40°	2756.6	12.6
0°-60°	5353.6	24.4
0°-90°	7125.6	32.5
90°-120°	7069.1	32.3
90°-150°	12874.7	58.7
90°-180°	14793.0	67.5
0°-180°	21918.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	896	961	1083	1225	1269	83
15°	672	1240	2088	2532	2612	187
25°	429	1405	2488	2597	2600	198
35°	290	1343	2343	2476	2574	181
45°	198	1071	2071	2372	2479	153
55°	142	680	1757	2041	2097	129
65°	112	361	1305	1467	1488	111
75°	83	222	716	787	790	87
85°	30	68	178	195	198	31
90°	15	43	116	58	58	15
95°	147	576	1916	988	672	163
105°	527	798	3233	4908	4579	559
115°	936	1136	2590	5166	5896	924
125°	1302	1460	2356	3980	4696	1156
135°	1552	1708	2282	3213	3644	1200
145°	1800	1914	2253	2741	2956	1127
155°	2034	2090	2253	2473	2545	935
165°	2195	2224	2253	2342	2371	619
175°	2282	2282	2268	2297	2297	217
180°	2282	2282	2282	2282	2282	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	919.9	919.9	925.9	928.8	934.7	937.7	943.6	949.5	967.3	970.2	976.1
5°	896.3	908.1	946.6	961.4	1002.8	1059.0	1082.6	1121.2	1201.0	1224.7	1239.5
7.5°	860.8	887.4	982.1	1005.7	1109.2	1257.2	1319.4	1402.2	1529.4	1591.5	1641.8
10°	804.6	860.8	1029.4	1085.6	1254.3	1479.1	1594.5	1709.8	1902.1	1987.9	2020.4
12.5°	742.5	834.2	1079.7	1156.7	1399.2	1727.6	1866.6	1993.8	2212.7	2328.0	2345.8
15°	671.5	795.7	1127.1	1239.5	1553.0	1934.6	2088.4	2245.2	2449.3	2532.1	2552.9
17.5°	609.3	766.1	1171.5	1289.8	1671.4	2121.0	2277.8	2407.9	2573.6	2629.8	2644.6
20°	532.4	718.8	1201.0	1354.9	1795.6	2257.1	2407.9	2508.5	2620.9	2656.4	2662.3
22.5°	476.2	668.5	1218.8	1378.5	1878.4	2339.9	2467.1	2546.9	2623.8	2635.7	2638.6
25°	428.9	612.3	1215.8	1405.1	1949.4	2390.2	2487.8	2546.9	2591.3	2597.2	2597.2
27.5°	384.5	550.2	1204.0	1411.1	2002.7	2402.0	2478.9	2520.3	2541.0	2552.9	2552.9
30°	346.1	491.0	1174.4	1399.2	2026.3	2390.2	2452.3	2473.0	2493.7	2511.4	2520.3
32.5°	316.5	434.8	1130.1	1375.6	2029.3	2360.6	2405.0	2416.8	2446.4	2487.8	2502.6
35°	289.9	378.6	1079.7	1343.0	2011.5	2313.3	2342.8	2354.7	2413.8	2475.9	2496.7
37.5°	263.3	337.2	1014.6	1286.8	1984.9	2257.1	2277.8	2298.5	2390.2	2464.1	2487.8
40°	236.6	301.7	937.7	1224.7	1943.5	2189.0	2206.8	2239.3	2360.6	2446.4	2470.0
42.5°	215.9	272.1	854.9	1159.6	1890.3	2112.1	2138.7	2186.1	2325.1	2416.8	2443.4
45°	198.2	242.6	766.1	1070.8	1822.2	2032.2	2070.7	2135.8	2283.7	2372.4	2396.1
47.5°	180.4	221.8	674.4	979.1	1748.3	1952.4	2002.7	2076.6	2227.5	2313.3	2334.0
50°	165.6	201.1	582.7	881.5	1668.4	1866.6	1925.8	2002.7	2156.5	2236.3	2263.0
52.5°	153.8	183.4	496.9	783.9	1576.7	1777.9	1845.9	1925.8	2070.7	2147.6	2165.4
55°	142.0	168.6	423.0	680.3	1482.1	1683.2	1757.2	1834.1	1976.0	2041.1	2053.0
57.5°	136.1	156.8	360.9	582.7	1381.5	1576.7	1659.5	1730.5	1863.6	1913.9	1925.8
60°	127.2	147.9	313.5	499.9	1272.0	1476.1	1547.1	1618.1	1730.5	1771.9	1780.8
62.5°	118.3	142.0	278.1	420.0	1159.6	1357.8	1428.8	1493.9	1588.5	1618.1	1630.0
65°	112.4	136.1	251.4	360.9	1044.2	1233.6	1304.6	1360.8	1437.7	1467.3	1473.2
67.5°	106.5	130.2	230.7	310.6	928.8	1109.2	1162.6	1215.8	1275.0	1304.6	1307.5
70°	97.6	124.2	213.0	275.1	810.5	967.3	1011.6	1067.8	1115.2	1130.1	1138.9
72.5°	91.7	115.4	201.1	248.5	689.2	831.2	872.6	905.1	946.6	961.4	961.4
75°	82.8	103.5	189.3	221.8	565.0	680.3	715.8	748.4	780.9	786.8	778.0
77.5°	74.0	91.7	162.7	186.4	440.7	538.4	567.9	585.7	612.3	618.2	621.2
80°	62.1	79.9	127.2	144.9	319.5	396.4	417.1	431.9	455.5	455.5	461.4
82.5°	47.3	62.1	91.7	103.5	215.9	272.1	289.9	298.8	313.5	313.5	313.5
85°	29.6	38.5	59.2	68.0	130.2	165.6	177.5	180.4	192.3	195.2	195.2
87.5°	14.8	20.7	38.5	41.4	68.0	85.8	85.8	91.7	91.7	88.7	85.8
90°	15.3	27.5	39.8	42.9	67.3	100.0	116.3	103.4	77.6	58.2	58.2
92.5°	61.2	165.4	269.6	295.6	415.6	575.5	655.5	574.4	412.4	291.0	279.4
95°	147.0	337.6	528.2	575.8	1022.5	1618.1	1915.9	1709.6	1297.2	987.9	952.8
97.5°	254.2	422.3	590.5	632.5	1377.3	2370.4	2867.0	2736.6	2475.9	2280.4	2213.7
100°	336.9	489.5	641.9	680.0	1506.5	2608.6	3159.5	3169.1	3188.1	3202.4	3123.0
102.5°	407.4	549.7	691.9	727.5	1565.8	2683.4	3242.3	3408.3	3740.5	3989.7	3921.6
105°	526.8	647.3	767.8	798.0	1609.6	2691.9	3233.0	3605.3	4350.0	4908.5	4871.9
107.5°	649.4	761.7	874.0	902.1	1617.8	2572.2	3049.3	3568.6	4607.3	5386.3	5395.2
110°	732.1	833.5	934.9	960.3	1605.5	2465.9	2896.1	3476.7	4637.9	5508.9	5547.0



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	813.3	909.9	1006.5	1030.7	1606.0	2373.2	2756.8	3351.0	4539.4	5430.8	5489.4
115°	935.7	1024.8	1114.1	1136.4	1620.9	2266.8	2589.8	3162.3	4307.1	5165.9	5247.0
117.5°	1056.8	1137.7	1218.8	1239.0	1651.0	2200.3	2475.0	2991.6	4024.9	4799.7	4889.8
120°	1127.2	1203.4	1279.7	1298.8	1675.5	2177.9	2429.0	2901.1	3845.2	4553.2	4640.7
122.5°	1196.1	1273.0	1349.9	1369.2	1710.7	2166.1	2393.8	2818.9	3669.0	4306.7	4392.9
125°	1301.8	1371.9	1442.0	1459.6	1758.2	2156.4	2355.5	2716.5	3438.8	3980.4	4059.9
127.5°	1387.6	1458.4	1529.2	1546.8	1805.7	2150.8	2323.3	2633.3	3253.4	3718.5	3785.5
130°	1433.5	1509.8	1586.0	1605.0	1840.4	2154.2	2311.1	2587.1	3139.1	3553.1	3615.1
132.5°	1481.0	1557.2	1633.5	1652.5	1868.5	2156.4	2300.3	2547.4	3041.6	3412.3	3467.8
135°	1551.5	1620.9	1690.3	1707.7	1899.1	2154.4	2282.0	2489.0	2902.8	3213.2	3261.0
137.5°	1623.4	1692.2	1760.9	1778.1	1945.0	2167.6	2278.9	2453.9	2803.7	3066.1	3105.2
140°	1683.1	1746.4	1809.7	1825.6	1973.1	2169.8	2268.2	2419.2	2721.5	2948.1	2984.7
142.5°	1729.0	1787.6	1846.2	1860.8	1996.6	2177.7	2268.2	2400.9	2666.4	2865.5	2897.0
145°	1799.5	1850.6	1901.7	1914.4	2027.2	2177.7	2252.9	2361.5	2578.6	2741.4	2765.2
147.5°	1869.9	1919.6	1969.3	1981.8	2072.2	2192.7	2252.9	2338.3	2509.2	2637.3	2657.0
150°	1915.9	1960.9	2005.8	2017.1	2095.6	2200.5	2252.9	2325.1	2469.3	2577.5	2593.5
152.5°	1963.4	1997.4	2031.6	2040.0	2111.0	2205.6	2252.9	2314.5	2437.7	2530.1	2542.2
155°	2033.8	2059.1	2084.2	2090.5	2144.6	2216.8	2252.9	2301.9	2399.9	2473.4	2481.4
157.5°	2086.0	2110.4	2135.0	2141.1	2178.4	2228.1	2252.9	2291.0	2367.2	2424.4	2430.0
160°	2121.2	2140.2	2159.3	2164.1	2193.7	2233.2	2252.9	2285.5	2350.9	2399.9	2403.2
162.5°	2156.4	2170.7	2185.0	2188.5	2210.0	2238.6	2252.9	2280.5	2335.6	2377.0	2380.0
165°	2194.6	2207.6	2220.5	2223.7	2233.5	2246.4	2252.9	2272.6	2312.1	2341.7	2344.9
167.5°	2229.9	2236.1	2242.2	2243.6	2251.8	2262.8	2268.2	2281.1	2306.9	2326.4	2327.7
170°	2252.9	2259.0	2265.1	2266.6	2267.1	2267.8	2268.2	2281.1	2306.9	2326.4	2326.4
172.5°	2265.1	2266.5	2267.9	2268.2	2268.2	2268.2	2268.2	2278.4	2298.9	2314.1	2313.0
175°	2282.0	2282.0	2282.0	2282.0	2277.4	2271.3	2268.2	2274.7	2287.6	2297.3	2297.3
177.5°	2282.0	2282.0	2282.0	2282.0	2278.4	2273.6	2271.3	2276.4	2286.5	2294.2	2292.8
180°	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0	2282.0



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	919.9	919.9
2.5°	982.1	976.1
5°	1263.2	1269.1
7.5°	1700.9	1698.0
10°	2115.1	2141.7
12.5°	2416.8	2422.7
15°	2600.2	2612.0
17.5°	2671.2	2674.1
20°	2674.1	2668.2
22.5°	2641.6	2635.7
25°	2603.1	2600.2
27.5°	2567.6	2570.6
30°	2552.9	2561.7
32.5°	2552.9	2567.6
35°	2558.8	2573.6
37.5°	2555.8	2573.6
40°	2544.0	2564.7
42.5°	2511.4	2526.2
45°	2461.2	2478.9
47.5°	2396.1	2407.9
50°	2313.3	2325.1
52.5°	2209.7	2212.7
55°	2085.5	2097.3
57.5°	1952.4	1955.3
60°	1804.5	1813.4
62.5°	1647.7	1647.7
65°	1482.1	1488.0
67.5°	1310.5	1325.3
70°	1136.0	1138.9
72.5°	964.3	964.3
75°	786.8	789.8
77.5°	618.2	618.2
80°	458.5	461.4
82.5°	316.5	322.4
85°	198.2	198.2
87.5°	91.7	82.8
90°	58.2	58.2
92.5°	233.1	186.8
95°	812.6	672.4
97.5°	1946.9	1680.0
100°	2805.1	2487.2
102.5°	3649.3	3377.0
105°	4725.6	4579.3
107.5°	5430.6	5466.0
110°	5699.5	5851.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5723.4	5957.6
115°	5571.7	5896.4
117.5°	5249.9	5609.9
120°	4990.5	5340.4
122.5°	4738.0	5083.1
125°	4377.7	4695.6
127.5°	4053.7	4321.9
130°	3862.9	4110.6
132.5°	3689.6	3911.5
135°	3452.2	3643.5
137.5°	3261.8	3418.4
140°	3131.1	3277.5
142.5°	3022.9	3148.8
145°	2860.5	2955.8
147.5°	2736.0	2814.9
150°	2657.6	2721.6
152.5°	2590.5	2638.8
155°	2513.4	2545.4
157.5°	2452.5	2475.0
160°	2416.1	2429.0
162.5°	2392.2	2404.5
165°	2357.8	2370.8
167.5°	2333.2	2338.6
170°	2326.4	2326.4
172.5°	2308.1	2303.4
175°	2297.3	2297.3
177.5°	2287.4	2282.0
180°	2282.0	2282.0



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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	2.78	3.53	3.87	4.62	6.12	15.97	16.72	17.06	17.81	19.31
	3H	3.48	4.15	4.57	5.25	6.76	17.81	18.48	18.91	19.58	21.09
	4H	3.77	4.41	4.88	5.51	7.03	18.45	19.09	19.56	20.19	21.71
	6H	4.01	4.60	5.13	5.70	7.24	18.88	19.47	20.00	20.57	22.10
	8H	4.08	4.64	5.20	5.76	7.28	19.00	19.56	20.12	20.68	22.20
	12H	4.09	4.62	5.22	5.73	7.29	19.07	19.60	20.19	20.71	22.26
4H	2H	9.99	10.63	11.11	11.73	13.25	16.23	16.87	17.35	17.97	19.49
	3H	11.55	12.08	12.67	13.20	14.74	18.27	18.80	19.39	19.93	21.47
	4H	11.64	12.12	12.76	13.24	14.79	19.04	19.53	20.16	20.64	22.20
	6H	11.64	12.06	12.77	13.20	14.74	19.57	19.99	20.71	21.13	22.68
	8H	11.61	12.00	12.75	13.14	14.70	19.74	20.13	20.87	21.26	22.82
	12H	11.56	11.92	12.71	13.06	14.63	19.83	20.18	20.98	21.33	22.89
8H	4H	13.07	13.47	14.21	14.60	16.16	19.09	19.48	20.22	20.61	22.17
	6H	13.31	13.63	14.46	14.81	16.37	19.72	20.04	20.87	21.21	22.77
	8H	13.33	13.61	14.49	14.76	16.34	19.94	20.22	21.10	21.37	22.95
	12H	13.29	13.54	14.45	14.69	16.30	20.08	20.33	21.24	21.48	23.09
12H	4H	13.21	13.57	14.36	14.71	16.28	19.03	19.39	20.18	20.53	22.10
	6H	13.57	13.85	14.73	15.01	16.58	19.70	19.98	20.86	21.13	22.71
	8H	13.63	13.88	14.80	15.03	16.65	19.92	20.17	21.09	21.32	22.94