

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: P938327

Luminaire Tested: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

**Test Information**

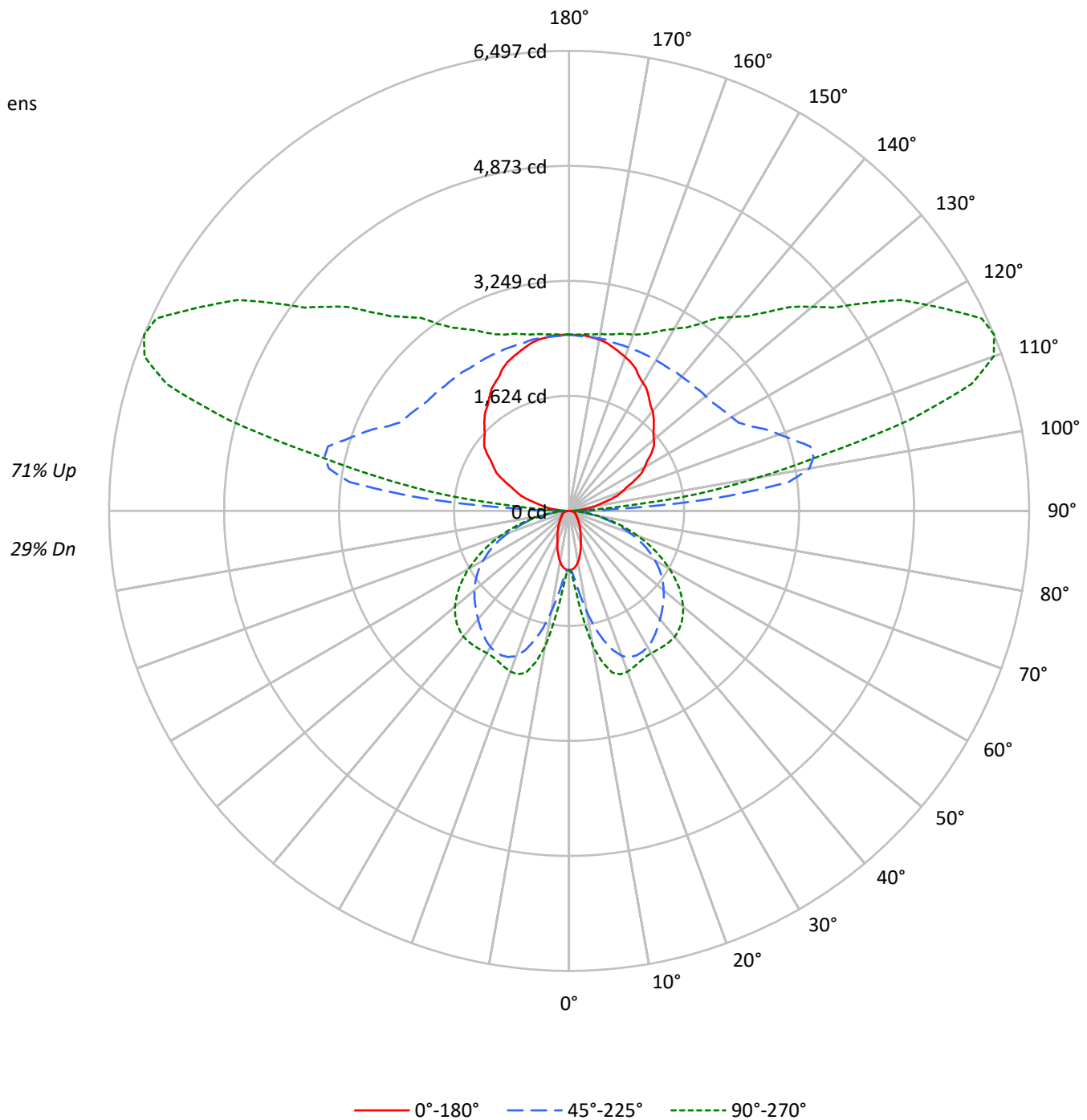
Test Method: LM-79-2019  
Report Number: P938327  
REPORT IS A COMBINATION OF REPORTS P933622 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-12-3500K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22585.0 lumens  
Efficiency: N/A  
Efficacy: 118.4 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): 190.8  
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	0
RCR																		
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	6

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

	0°	45°	90°
0°	2576	2576	2576
5°	2517	2978	3463
10°	2284	4343	5741
15°	1942	5675	6931
20°	1582	6577	7064
25°	1320	6885	6921
30°	1114	6930	6908
35°	985	6817	7086
40°	859	6669	7271
45°	778	6561	7299
50°	715	6465	7179
55°	685	6323	6860
60°	702	6048	6358
65°	732	5629	5668
70°	782	4912	4788
75°	869	4008	3736
80°	956	2784	2517
85°	868	1480	1288

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7299 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	107.7	0.5
10°-20°	477.5	2.1
20°-30°	835.2	3.7
30°-40°	1075.1	4.8
40°-50°	1200.9	5.3
50°-60°	1150.2	5.1
60°-70°	911.5	4.0
70°-80°	536.0	2.4
80°-90°	158.4	0.7
90°-100°	1213.1	5.4
100°-110°	3189.2	14.1
110°-120°	3306.9	14.6
120°-130°	2652.5	11.7
130°-140°	2081.3	9.2
140°-150°	1597.5	7.1
150°-160°	1150.4	5.1
160°-170°	703.9	3.1
170°-180°	237.8	1.1
0°-30°	1420.4	6.3
0°-40°	2495.5	11.0
0°-60°	4846.5	21.5
0°-90°	6452.4	28.6
90°-120°	7709.2	34.1
90°-150°	14040.5	62.2
90°-180°	16133.0	71.4
0°-180°	22585.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	833	833	833	833	833	
5°	811	870	980	1109	1149	75
15°	608	1122	1891	2292	2365	169
25°	388	1272	2252	2351	2354	179
35°	262	1216	2121	2242	2330	164
45°	179	969	1875	2148	2244	139
55°	128	616	1591	1848	1899	117
65°	102	327	1181	1328	1347	101
75°	75	201	648	712	715	78
85°	27	62	161	177	179	28
90°	17	47	127	64	64	16
95°	160	628	2089	1077	733	178
105°	575	870	3526	5353	4994	609
115°	1020	1239	2824	5634	6430	1008
125°	1420	1592	2569	4341	5121	1260
135°	1692	1862	2489	3504	3973	1309
145°	1962	2088	2457	2990	3224	1229
155°	2218	2280	2457	2697	2776	1019
165°	2393	2425	2457	2554	2586	675
175°	2489	2489	2474	2505	2505	236
180°	2489	2489	2489	2489	2489	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8	832.8
2.5°	832.8	832.8	838.2	840.8	846.2	848.9	854.2	859.6	875.7	878.3	883.7
5°	811.4	822.1	856.9	870.3	907.8	958.7	980.1	1015.0	1087.3	1108.7	1122.1
7.5°	779.3	803.4	889.0	910.5	1004.2	1138.2	1194.4	1269.4	1384.5	1440.8	1486.3
10°	728.4	779.3	931.9	982.8	1135.5	1339.0	1443.5	1547.9	1722.0	1799.6	1829.1
12.5°	672.1	755.2	977.4	1047.1	1266.7	1564.0	1689.8	1805.0	2003.1	2107.6	2123.6
15°	607.9	720.3	1020.4	1122.1	1406.0	1751.4	1890.7	2032.6	2217.4	2292.3	2311.1
17.5°	551.6	693.6	1060.5	1167.6	1513.1	1920.1	2062.0	2179.9	2329.8	2380.7	2394.1
20°	482.0	650.7	1087.3	1226.5	1625.6	2043.3	2179.9	2270.9	2372.7	2404.8	2410.2
22.5°	431.1	605.2	1103.4	1248.0	1700.5	2118.3	2233.4	2305.7	2375.4	2386.1	2388.7
25°	388.3	554.3	1100.7	1272.1	1764.8	2163.8	2252.2	2305.7	2345.9	2351.3	2351.3
27.5°	348.1	498.1	1090.0	1277.4	1813.0	2174.5	2244.1	2281.6	2300.4	2311.1	2311.1
30°	313.3	444.5	1063.2	1266.7	1834.4	2163.8	2220.0	2238.8	2257.5	2273.6	2281.6
32.5°	286.5	393.6	1023.0	1245.3	1837.1	2137.0	2177.2	2187.9	2214.7	2252.2	2265.6
35°	262.4	342.8	977.4	1215.8	1821.0	2094.2	2121.0	2131.7	2185.2	2241.5	2260.2
37.5°	238.3	305.3	918.5	1165.0	1796.9	2043.3	2062.0	2080.8	2163.8	2230.7	2252.2
40°	214.2	273.1	848.9	1108.7	1759.4	1981.7	1997.8	2027.2	2137.0	2214.7	2236.1
42.5°	195.5	246.4	773.9	1049.8	1711.2	1912.1	1936.2	1979.0	2104.9	2187.9	2212.0
45°	179.4	219.6	693.6	969.4	1649.7	1839.8	1874.6	1933.5	2067.4	2147.7	2169.2
47.5°	163.3	200.8	610.6	886.4	1582.7	1767.5	1813.0	1879.9	2016.5	2094.2	2112.9
50°	150.0	182.1	527.5	798.0	1510.4	1689.8	1743.4	1813.0	1952.2	2024.6	2048.7
52.5°	139.2	166.0	449.9	709.6	1427.4	1609.5	1671.1	1743.4	1874.6	1944.2	1960.3
55°	128.5	152.6	382.9	615.9	1341.7	1523.8	1590.7	1660.4	1788.9	1847.8	1858.5
57.5°	123.2	141.9	326.7	527.5	1250.6	1427.4	1502.4	1566.6	1687.1	1732.7	1743.4
60°	115.1	133.9	283.9	452.6	1151.6	1336.3	1400.6	1464.9	1566.6	1604.1	1612.2
62.5°	107.1	128.5	251.7	380.3	1049.8	1229.2	1293.5	1352.4	1438.1	1464.9	1475.6
65°	101.8	123.2	227.6	326.7	945.3	1116.8	1181.0	1231.9	1301.5	1328.3	1333.7
67.5°	96.4	117.8	208.9	281.2	840.8	1004.2	1052.5	1100.7	1154.2	1181.0	1183.7
70°	88.4	112.5	192.8	249.0	733.7	875.7	915.8	966.7	1009.6	1023.0	1031.1
72.5°	83.0	104.4	182.1	224.9	623.9	752.5	790.0	819.4	856.9	870.3	870.3
75°	75.0	93.7	171.4	200.8	511.5	615.9	648.0	677.5	707.0	712.3	704.3
77.5°	66.9	83.0	147.3	168.7	399.0	487.4	514.1	530.2	554.3	559.7	562.4
80°	56.2	72.3	115.1	131.2	289.2	358.8	377.6	391.0	412.4	412.4	417.7
82.5°	42.8	56.2	83.0	93.7	195.5	246.4	262.4	270.5	283.9	283.9	283.9
85°	26.8	34.8	53.6	61.6	117.8	150.0	160.7	163.3	174.1	176.7	176.7
87.5°	13.4	18.7	34.8	37.5	61.6	77.7	77.7	83.0	83.0	80.3	77.7
90°	16.7	30.1	43.5	46.8	73.5	109.1	126.9	112.8	84.6	63.5	63.5
92.5°	66.8	180.3	293.9	322.3	453.2	627.6	714.8	626.4	449.8	317.3	304.7
95°	160.3	368.1	576.0	628.0	1115.2	1764.7	2089.4	1864.5	1414.7	1077.3	1039.1
97.5°	277.2	460.6	643.9	689.8	1502.1	2585.1	3126.6	2984.5	2700.2	2486.9	2414.2
100°	367.4	533.7	700.0	741.6	1643.0	2844.7	3445.6	3456.0	3476.8	3492.4	3405.7
102.5°	444.3	599.4	754.5	793.4	1707.5	2926.4	3535.8	3717.0	4079.2	4350.9	4276.6
105°	574.6	706.0	837.4	870.2	1755.4	2935.6	3525.8	3931.8	4743.9	5353.0	5313.1
107.5°	708.2	830.7	953.1	983.8	1764.3	2805.0	3325.4	3891.7	5024.5	5874.1	5883.7
110°	798.4	909.0	1019.6	1047.2	1751.0	2689.2	3158.4	3791.6	5057.9	6007.7	6049.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	886.9	992.3	1097.7	1124.1	1751.5	2588.1	3006.3	3654.4	4950.5	5922.5	5986.4
115°	1020.5	1117.7	1215.0	1239.3	1767.7	2472.1	2824.3	3448.6	4697.1	5633.6	5722.1
117.5°	1152.5	1240.7	1329.1	1351.2	1800.4	2399.5	2699.0	3262.4	4389.3	5234.4	5332.6
120°	1229.2	1312.4	1395.5	1416.3	1827.2	2375.0	2648.9	3163.7	4193.3	4965.5	5060.9
122.5°	1304.4	1388.3	1472.2	1493.2	1865.7	2362.2	2610.6	3074.1	4001.3	4696.6	4790.7
125°	1419.7	1496.1	1572.6	1591.7	1917.4	2351.7	2568.8	2962.6	3750.2	4340.8	4427.5
127.5°	1513.2	1590.4	1667.6	1686.9	1969.1	2345.5	2533.7	2871.8	3548.1	4055.3	4128.4
130°	1563.3	1646.4	1729.5	1750.3	2007.0	2349.2	2520.3	2821.3	3423.4	3874.9	3942.4
132.5°	1615.1	1698.2	1781.3	1802.1	2037.6	2351.6	2508.6	2778.1	3317.1	3721.2	3781.8
135°	1691.9	1767.6	1843.3	1862.3	2071.1	2349.5	2488.6	2714.3	3165.6	3504.1	3556.2
137.5°	1770.4	1845.4	1920.4	1939.1	2121.1	2363.8	2485.2	2676.0	3057.6	3343.8	3386.4
140°	1835.6	1904.6	1973.7	1990.9	2151.7	2366.2	2473.5	2638.3	2968.0	3215.1	3255.0
142.5°	1885.7	1949.5	2013.3	2029.3	2177.4	2374.8	2473.5	2618.3	2907.8	3125.0	3159.3
145°	1962.5	2018.2	2073.8	2087.7	2210.8	2374.8	2456.8	2575.2	2812.0	2989.7	3015.6
147.5°	2039.3	2093.5	2147.6	2161.2	2259.8	2391.2	2456.8	2550.0	2736.3	2876.1	2897.6
150°	2089.4	2138.4	2187.5	2199.7	2285.4	2399.7	2456.8	2535.6	2692.9	2810.9	2828.4
152.5°	2141.2	2178.3	2215.4	2224.7	2302.1	2405.3	2456.8	2524.1	2658.4	2759.2	2772.4
155°	2218.1	2245.6	2273.0	2279.8	2338.8	2417.5	2456.8	2510.3	2617.3	2697.4	2706.2
157.5°	2274.8	2301.5	2328.2	2334.9	2375.5	2429.7	2456.8	2498.4	2581.5	2643.9	2650.1
160°	2313.2	2334.0	2354.8	2360.0	2392.3	2435.3	2456.8	2492.5	2563.7	2617.2	2620.7
162.5°	2351.6	2367.2	2382.8	2386.7	2410.1	2441.2	2456.8	2486.9	2547.1	2592.2	2595.5
165°	2393.4	2407.5	2421.6	2425.2	2435.7	2449.8	2456.8	2478.4	2521.4	2553.7	2557.3
167.5°	2431.9	2438.5	2445.2	2446.8	2455.8	2467.6	2473.5	2487.6	2515.8	2537.0	2538.5
170°	2456.8	2463.5	2470.2	2471.9	2472.5	2473.2	2473.5	2487.6	2515.8	2537.0	2537.0
172.5°	2470.2	2471.7	2473.2	2473.5	2473.5	2473.5	2473.5	2484.7	2507.0	2523.7	2522.4
175°	2488.6	2488.6	2488.6	2488.6	2483.6	2476.9	2473.5	2480.6	2494.7	2505.3	2505.3
177.5°	2488.6	2488.6	2488.6	2488.6	2484.7	2479.5	2476.9	2482.5	2493.6	2501.9	2500.4
180°	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6	2488.6



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	832.8	832.8
2.5°	889.0	883.7
5°	1143.5	1148.9
7.5°	1539.9	1537.2
10°	1914.8	1938.9
12.5°	2187.9	2193.3
15°	2353.9	2364.6
17.5°	2418.2	2420.9
20°	2420.9	2415.5
22.5°	2391.4	2386.1
25°	2356.6	2353.9
27.5°	2324.5	2327.1
30°	2311.1	2319.1
32.5°	2311.1	2324.5
35°	2316.4	2329.8
37.5°	2313.8	2329.8
40°	2303.0	2321.8
42.5°	2273.6	2287.0
45°	2228.1	2244.1
47.5°	2169.2	2179.9
50°	2094.2	2104.9
52.5°	2000.5	2003.1
55°	1888.0	1898.7
57.5°	1767.5	1770.2
60°	1633.6	1641.6
62.5°	1491.7	1491.7
65°	1341.7	1347.1
67.5°	1186.4	1199.8
70°	1028.4	1031.1
72.5°	873.0	873.0
75°	712.3	715.0
77.5°	559.7	559.7
80°	415.1	417.7
82.5°	286.5	291.9
85°	179.4	179.4
87.5°	83.0	75.0
90°	63.5	63.5
92.5°	254.2	203.8
95°	886.1	733.2
97.5°	2123.2	1832.2
100°	3059.1	2712.4
102.5°	3979.7	3682.8
105°	5153.5	4993.9
107.5°	5922.4	5960.9
110°	6215.6	6381.9





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	6241.7	6497.1
115°	6076.2	6430.3
117.5°	5725.3	6117.9
120°	5442.4	5824.0
122.5°	5167.1	5543.4
125°	4774.2	5120.9
127.5°	4420.9	4713.3
130°	4212.6	4482.8
132.5°	4023.7	4265.7
135°	3764.8	3973.4
137.5°	3557.2	3727.8
140°	3414.6	3574.2
142.5°	3296.6	3433.9
145°	3119.6	3223.5
147.5°	2983.8	3069.8
150°	2898.2	2968.0
152.5°	2825.1	2877.7
155°	2741.0	2775.9
157.5°	2674.6	2699.0
160°	2634.8	2648.9
162.5°	2608.9	2622.2
165°	2571.4	2585.5
167.5°	2544.4	2550.4
170°	2537.0	2537.0
172.5°	2517.2	2512.0
175°	2505.3	2505.3
177.5°	2494.5	2488.6
180°	2488.6	2488.6



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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	1.91	2.62	3.02	3.74	5.28	15.10	15.82	16.22	16.93	18.48
	3H	2.60	3.24	3.73	4.37	5.93	16.93	17.58	18.06	18.70	20.26
	4H	2.89	3.50	4.03	4.63	6.19	17.58	18.19	18.71	19.31	20.88
	6H	3.14	3.70	4.28	4.82	6.40	18.00	18.57	19.15	19.69	21.27
	8H	3.20	3.73	4.34	4.88	6.45	18.12	18.66	19.27	19.80	21.37
	12H	3.21	3.72	4.36	4.85	6.45	18.19	18.70	19.34	19.83	21.43
4H	2H	9.11	9.72	10.26	10.85	12.41	15.36	15.97	16.50	17.09	18.66
	3H	10.67	11.18	11.81	12.33	13.91	17.39	17.90	18.54	19.05	20.63
	4H	10.75	11.22	11.91	12.36	13.96	18.16	18.63	19.31	19.76	21.36
	6H	10.76	11.16	11.91	12.32	13.91	18.69	19.10	19.85	20.26	21.84
	8H	10.73	11.11	11.89	12.26	13.86	18.85	19.23	20.01	20.38	21.99
	12H	10.68	11.02	11.85	12.18	13.79	18.94	19.28	20.11	20.45	22.06
8H	4H	12.19	12.57	13.35	13.72	15.33	18.20	18.58	19.36	19.73	21.34
	6H	12.43	12.74	13.60	13.93	15.53	18.83	19.14	20.01	20.34	21.94
	8H	12.44	12.71	13.62	13.89	15.51	19.05	19.32	20.23	20.50	22.12
	12H	12.40	12.64	13.59	13.81	15.47	19.19	19.43	20.38	20.60	22.26
12H	4H	12.33	12.67	13.50	13.83	15.44	18.15	18.49	19.32	19.65	21.27
	6H	12.68	12.96	13.87	14.13	15.75	18.81	19.08	19.99	20.26	21.88
	8H	12.75	12.98	13.93	14.15	15.81	19.04	19.28	20.22	20.45	22.10