

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: P937809

Luminaire Tested: SQ4-FB-125U-050D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

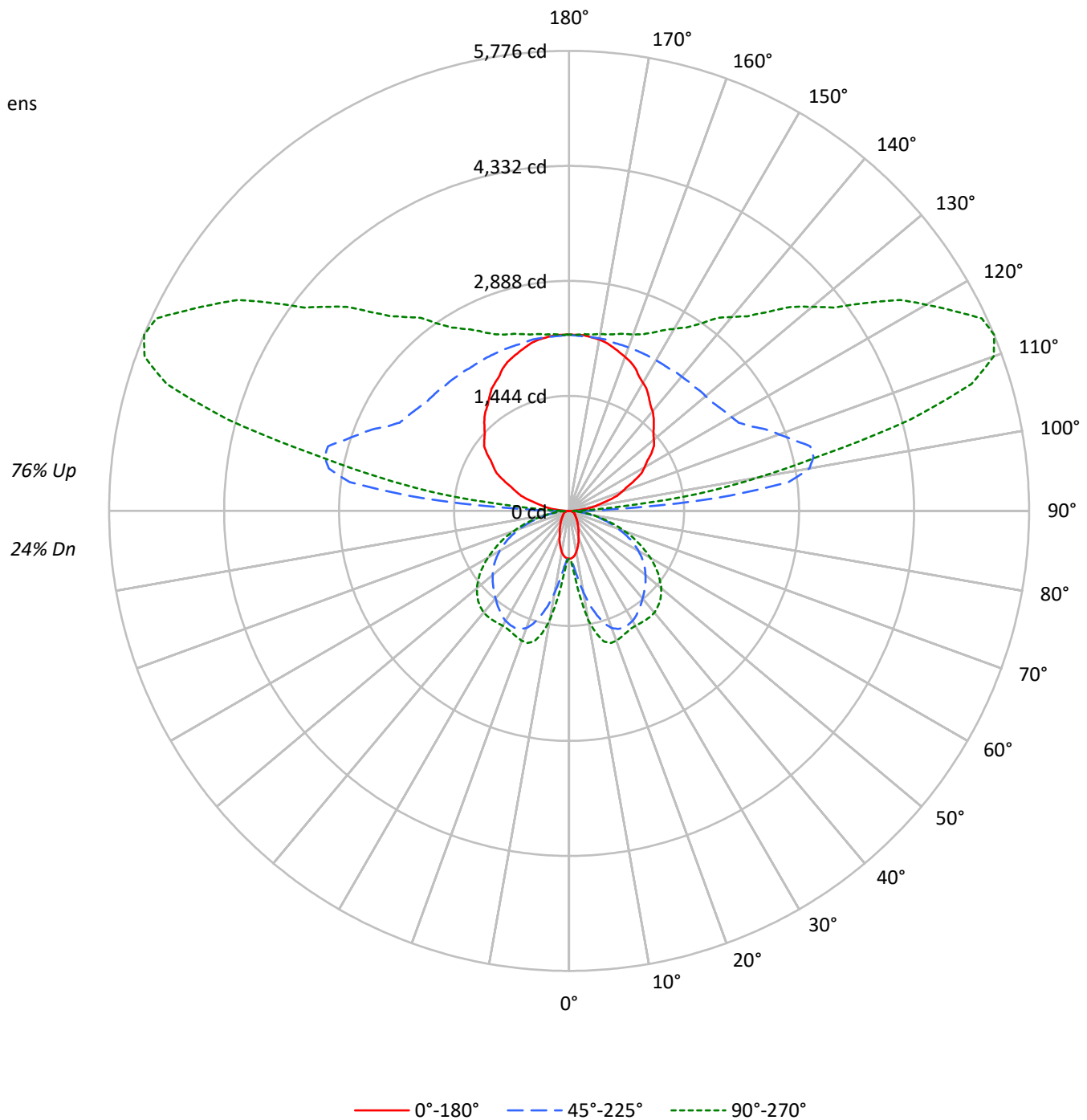
Test Method: LM-79-2019  
Report Number: P937809  
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-830-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18979.5 lumens  
Efficiency: N/A  
Efficacy: 132.9 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): 142.8  
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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24				24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20				20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16				16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13				13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11				11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10				10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8				8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7				7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6				6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6				6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5				5

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

	0°	45°	90°
0°	1851	1851	1851
5°	1809	2139	2487
10°	1641	3119	4123
15°	1395	4076	4979
20°	1136	4725	5074
25°	948	4945	4971
30°	800	4978	4962
35°	708	4896	5090
40°	617	4791	5223
45°	559	4713	5243
50°	513	4644	5156
55°	492	4542	4928
60°	504	4345	4567
65°	526	4044	4071
70°	561	3529	3439
75°	624	2879	2684
80°	687	1999	1809
85°	622	1063	926

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 5493 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	0.4
10°-20°	343.0	1.8
20°-30°	599.9	3.2
30°-40°	772.3	4.1
40°-50°	862.6	4.5
50°-60°	826.2	4.4
60°-70°	654.7	3.4
70°-80°	385.0	2.0
80°-90°	115.4	0.6
90°-100°	1078.5	5.7
100°-110°	2835.5	14.9
110°-120°	2940.1	15.5
120°-130°	2358.3	12.4
130°-140°	1850.4	9.7
140°-150°	1420.3	7.5
150°-160°	1022.8	5.4
160°-170°	625.8	3.3
170°-180°	211.4	1.1
0°-30°	1020.3	5.4
0°-40°	1792.5	9.4
0°-60°	3481.3	18.3
0°-90°	4636.5	24.4
90°-120°	6854.0	36.1
90°-150°	12482.9	65.8
90°-180°	14343.0	75.6
0°-180°	18979.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	583	625	704	796	825	54
15°	437	806	1358	1647	1698	122
25°	279	914	1618	1689	1691	128
35°	188	873	1524	1610	1674	118
45°	129	696	1346	1543	1612	100
55°	92	442	1143	1327	1364	84
65°	73	235	848	954	968	72
75°	54	144	466	512	514	56
85°	19	44	115	127	129	20
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°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	598.3	598.3	602.1	604.0	607.8	609.7	613.7	617.5	629.0	631.0	634.8
5°	582.9	590.5	615.6	625.1	652.1	688.6	704.0	729.0	781.0	796.3	806.0
7.5°	559.7	577.0	638.6	654.0	721.4	817.6	857.9	911.8	994.5	1034.9	1067.6
10°	523.2	559.7	669.4	706.0	815.6	961.8	1036.8	1111.8	1236.9	1292.7	1313.8
12.5°	482.8	542.4	702.1	752.1	909.8	1123.4	1213.8	1296.5	1438.9	1513.9	1525.4
15°	436.7	517.5	732.9	806.0	1009.9	1258.0	1358.1	1460.0	1592.8	1646.6	1660.1
17.5°	396.3	498.2	761.7	838.7	1086.9	1379.2	1481.1	1565.8	1673.6	1710.1	1719.7
20°	346.3	467.5	781.0	881.0	1167.7	1467.7	1565.8	1631.2	1704.4	1727.4	1731.2
22.5°	309.7	434.7	792.5	896.4	1221.5	1521.6	1604.3	1656.3	1706.3	1713.9	1715.8
25°	279.0	398.2	790.6	913.7	1267.7	1554.3	1617.7	1656.3	1685.0	1689.0	1689.0
27.5°	250.1	357.8	782.9	917.6	1302.3	1562.0	1612.0	1638.9	1652.4	1660.1	1660.1
30°	225.0	319.3	763.7	909.8	1317.7	1554.3	1594.7	1608.2	1621.6	1633.1	1638.9
32.5°	205.8	282.8	734.8	894.4	1319.6	1535.0	1563.9	1571.6	1590.8	1617.7	1627.4
35°	188.5	246.3	702.1	873.3	1308.1	1504.3	1523.5	1531.2	1569.7	1610.1	1623.5
37.5°	171.2	219.3	659.8	836.8	1290.7	1467.7	1481.1	1494.6	1554.3	1602.4	1617.7
40°	153.9	196.2	609.7	796.3	1263.8	1423.5	1435.1	1456.2	1535.0	1590.8	1606.2
42.5°	140.4	177.0	555.9	754.1	1229.2	1373.5	1390.8	1421.6	1511.9	1571.6	1588.9
45°	128.9	157.7	498.2	696.4	1185.0	1321.5	1346.5	1388.9	1485.1	1542.7	1558.1
47.5°	117.3	144.3	438.6	636.7	1136.9	1269.6	1302.3	1350.4	1448.4	1504.3	1517.7
50°	107.7	130.8	379.0	573.2	1084.9	1213.8	1252.3	1302.3	1402.4	1454.3	1471.6
52.5°	100.0	119.3	323.1	509.7	1025.3	1156.1	1200.4	1252.3	1346.5	1396.5	1408.1
55°	92.3	109.7	275.0	442.4	963.7	1094.5	1142.6	1192.6	1285.0	1327.3	1335.0
57.5°	88.5	101.9	234.7	379.0	898.4	1025.3	1079.1	1125.3	1211.8	1244.6	1252.3
60°	82.7	96.2	203.9	325.1	827.1	959.9	1006.1	1052.2	1125.3	1152.3	1158.0
62.5°	77.0	92.3	180.8	273.1	754.1	883.0	929.1	971.4	1033.0	1052.2	1059.9
65°	73.1	88.5	163.5	234.7	679.0	802.2	848.4	884.9	934.9	954.1	957.9
67.5°	69.2	84.6	150.0	202.0	604.0	721.4	756.0	790.6	829.0	848.4	850.3
70°	63.5	80.8	138.5	178.9	527.0	629.0	657.9	694.4	725.2	734.8	740.6
72.5°	59.7	75.0	130.8	161.6	448.2	540.5	567.5	588.6	615.6	625.1	625.1
75°	53.8	67.3	123.1	144.3	367.4	442.4	465.5	486.7	507.8	511.7	505.9
77.5°	48.1	59.7	105.8	121.2	286.6	350.1	369.3	380.9	398.2	402.0	403.9
80°	40.4	51.9	82.7	94.3	207.7	257.7	271.2	280.9	296.3	296.3	300.1
82.5°	30.8	40.4	59.7	67.3	140.4	177.0	188.5	194.3	203.9	203.9	203.9
85°	19.2	25.0	38.4	44.3	84.6	107.7	115.4	117.3	125.0	127.0	127.0
87.5°	9.7	13.5	25.0	27.0	44.3	55.8	55.8	59.7	59.7	57.7	55.8
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°	598.3	598.3
2.5°	638.6	634.8
5°	821.4	825.2
7.5°	1106.1	1104.2
10°	1375.4	1392.7
12.5°	1571.6	1575.4
15°	1690.9	1698.5
17.5°	1737.1	1739.0
20°	1739.0	1735.1
22.5°	1717.7	1713.9
25°	1692.8	1690.9
27.5°	1669.7	1671.7
30°	1660.1	1665.8
32.5°	1660.1	1669.7
35°	1663.9	1673.6
37.5°	1662.0	1673.6
40°	1654.3	1667.7
42.5°	1633.1	1642.8
45°	1600.4	1612.0
47.5°	1558.1	1565.8
50°	1504.3	1511.9
52.5°	1437.0	1438.9
55°	1356.2	1363.8
57.5°	1269.6	1271.5
60°	1173.4	1179.1
62.5°	1071.5	1071.5
65°	963.7	967.6
67.5°	852.2	861.7
70°	738.7	740.6
72.5°	627.1	627.1
75°	511.7	513.6
77.5°	402.0	402.0
80°	298.2	300.1
82.5°	205.8	209.7
85°	128.9	128.9
87.5°	59.7	53.8
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	0.13	0.82	1.28	1.96	3.55	13.33	14.01	14.47	15.15	16.74
	3H	0.83	1.44	1.98	2.59	4.19	15.16	15.77	16.31	16.92	18.53
	4H	1.12	1.70	2.28	2.85	4.46	15.80	16.38	16.96	17.53	19.14
	6H	1.36	1.90	2.53	3.04	4.67	16.22	16.76	17.39	17.91	19.53
	8H	1.42	1.93	2.59	3.09	4.71	16.34	16.85	17.51	18.02	19.63
	12H	1.43	1.92	2.61	3.07	4.71	16.41	16.89	17.58	18.05	19.69
4H	2H	7.34	7.92	8.51	9.07	10.68	13.58	14.16	14.75	15.31	16.92
	3H	8.89	9.38	10.06	10.55	12.17	15.61	16.10	16.79	17.27	18.90
	4H	8.97	9.42	10.15	10.58	12.23	16.38	16.83	17.55	17.98	19.63
	6H	8.97	9.36	10.15	10.54	12.17	16.91	17.29	18.09	18.48	20.11
	8H	8.95	9.31	10.13	10.48	12.13	17.07	17.43	18.25	18.60	20.25
	12H	8.89	9.22	10.09	10.40	12.06	17.16	17.48	18.35	18.67	20.32
8H	4H	10.41	10.77	11.59	11.94	13.59	16.42	16.78	17.60	17.95	19.60
	6H	10.64	10.94	11.84	12.15	13.80	17.05	17.34	18.25	18.56	20.21
	8H	10.66	10.91	11.86	12.11	13.77	17.27	17.52	18.47	18.72	20.39
	12H	10.61	10.84	11.82	12.03	13.73	17.40	17.63	18.61	18.82	20.52
12H	4H	10.54	10.87	11.74	12.05	13.71	16.36	16.69	17.56	17.87	19.53
	6H	10.90	11.16	12.10	12.35	14.02	17.03	17.29	18.23	18.48	20.15
	8H	10.96	11.19	12.17	12.38	14.08	17.25	17.48	18.46	18.67	20.37