

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: P937877

Luminaire Tested: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

**Test Information**

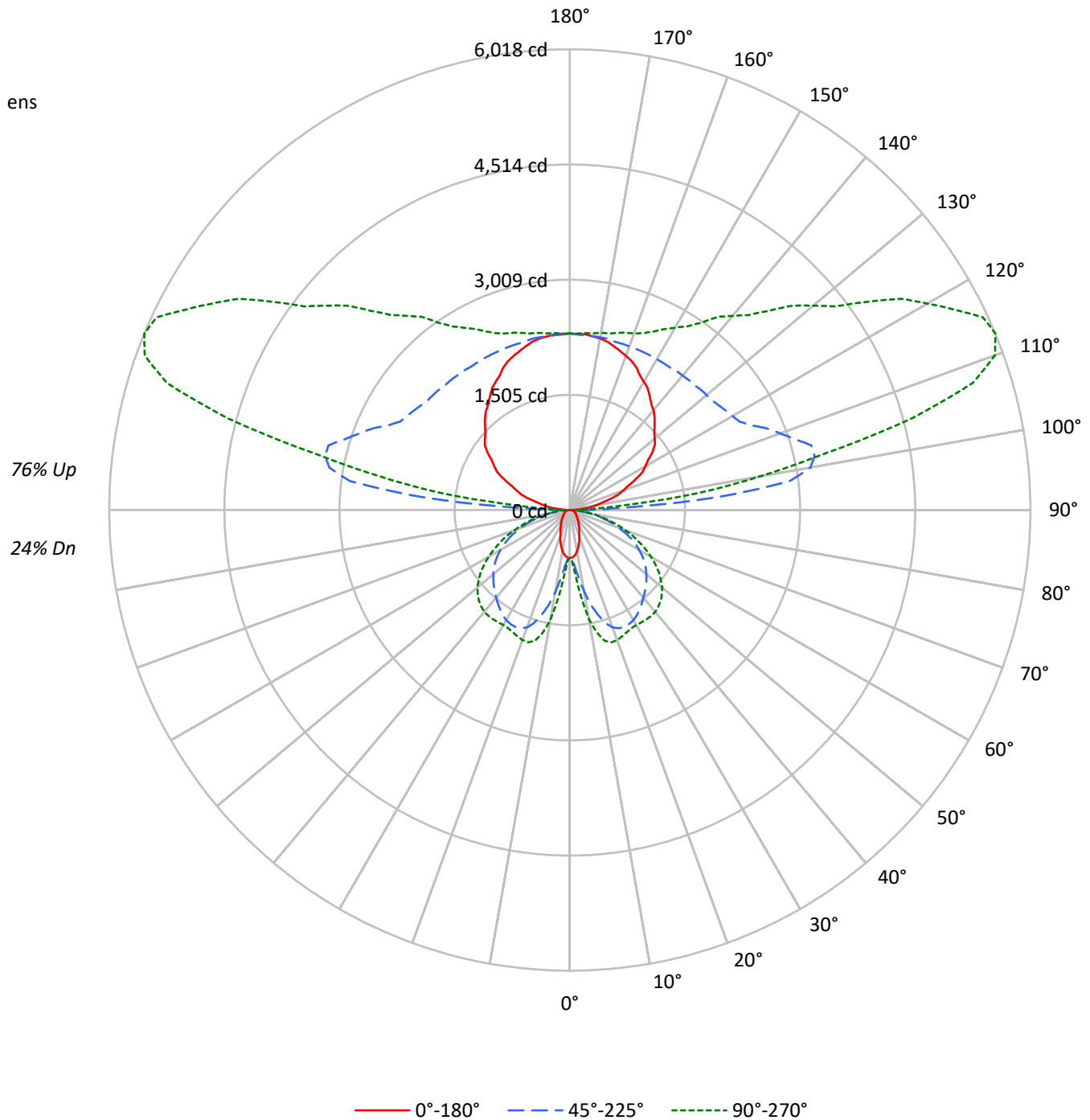
Test Method: LM-79-2019  
Report Number: P937877  
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-B2750-1D-UNV-STD-W-12-2700K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19773.6 lumens  
Efficiency: N/A  
Efficacy: 138.5 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 (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	101	101	101	101	90	90	90	90	69	69	69	50	50	50	33	33	33	24
1	92	88	84	80	81	78	75	72	60	58	56	44	42	41	28	28	27	20
2	83	76	70	65	74	68	63	58	52	49	46	38	36	34	25	23	22	16
3	76	66	59	54	67	59	53	48	46	42	38	33	30	28	22	20	19	13
4	69	58	51	45	61	52	46	41	40	36	32	29	26	24	19	17	16	11
5	63	52	44	38	56	46	39	34	36	31	27	26	23	20	17	15	13	10
6	58	46	38	33	51	41	34	29	32	27	23	23	20	17	15	13	12	8
7	53	41	34	28	47	37	30	26	29	24	20	21	18	15	14	12	10	7
8	49	37	30	25	44	33	27	22	26	21	18	19	16	13	12	10	9	6
9	46	34	27	22	40	30	24	20	24	19	16	17	14	12	11	9	8	6
10	42	31	24	19	38	28	21	17	22	17	14	16	13	10	10	9	7	5

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

	0°	45°	90°
0°	1928	1928	1928
5°	1884	2229	2591
10°	1710	3250	4296
15°	1454	4247	5187
20°	1184	4922	5287
25°	988	5152	5179
30°	834	5186	5169
35°	737	5101	5303
40°	643	4991	5441
45°	583	4910	5463
50°	535	4838	5372
55°	513	4732	5134
60°	526	4526	4758
65°	548	4213	4242
70°	584	3676	3583
75°	650	3000	2796
80°	716	2083	1884
85°	648	1107	965

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 5716 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.6	0.4
10°-20°	357.3	1.8
20°-30°	625.0	3.2
30°-40°	804.6	4.1
40°-50°	898.7	4.5
50°-60°	860.7	4.4
60°-70°	682.1	3.4
70°-80°	401.1	2.0
80°-90°	120.2	0.6
90°-100°	1123.6	5.7
100°-110°	2954.1	14.9
110°-120°	3063.1	15.5
120°-130°	2457.0	12.4
130°-140°	1927.8	9.7
140°-150°	1479.7	7.5
150°-160°	1065.6	5.4
160°-170°	652.0	3.3
170°-180°	220.3	1.1
0°-30°	1063.0	5.4
0°-40°	1867.5	9.4
0°-60°	3627.0	18.3
0°-90°	4830.4	24.4
90°-120°	7140.8	36.1
90°-150°	13005.2	65.8
90°-180°	14943.0	75.6
0°-180°	19773.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	607	651	734	830	860	56
15°	455	840	1415	1716	1770	127
25°	291	952	1685	1760	1762	134
35°	196	910	1587	1678	1744	123
45°	134	726	1403	1607	1680	104
55°	96	461	1190	1383	1421	88
65°	76	244	884	994	1008	75
75°	56	150	485	533	535	59
85°	20	46	120	132	134	21
90°	15	43	118	59	59	14
95°	148	582	1935	998	679	165
105°	532	806	3266	4958	4626	564
115°	945	1148	2616	5218	5956	934
125°	1315	1474	2379	4021	4743	1167
135°	1567	1725	2305	3246	3680	1213
145°	1818	1934	2276	2769	2986	1139
155°	2054	2112	2276	2498	2571	944
165°	2217	2246	2276	2365	2395	626
175°	2305	2305	2291	2321	2321	219
180°	2305	2305	2305	2305	2305	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3
2.5°	623.3	623.3	627.3	629.3	633.3	635.2	639.3	643.3	655.4	657.4	661.3
5°	607.3	615.2	641.3	651.3	679.4	717.4	733.5	759.5	813.6	829.7	839.7
7.5°	583.2	601.2	665.3	681.4	751.6	851.8	893.8	950.0	1036.1	1078.2	1112.2
10°	545.1	583.2	697.4	735.5	849.7	1002.1	1080.2	1158.3	1288.6	1346.8	1368.8
12.5°	503.0	565.1	731.5	783.6	947.9	1170.4	1264.6	1350.8	1499.1	1577.3	1589.2
15°	455.0	539.1	763.5	839.7	1052.2	1310.6	1414.9	1521.1	1659.4	1715.5	1729.6
17.5°	412.8	519.0	793.6	873.8	1132.4	1436.9	1543.1	1631.3	1743.6	1781.6	1791.7
20°	360.8	487.0	813.6	917.9	1216.5	1529.2	1631.3	1699.5	1775.7	1799.7	1803.7
22.5°	322.7	452.9	825.7	933.9	1272.6	1585.2	1671.4	1725.6	1777.7	1785.6	1787.6
25°	290.6	414.8	823.7	952.0	1320.7	1619.3	1685.4	1725.6	1755.5	1759.6	1759.6
27.5°	260.6	372.8	815.6	956.0	1356.8	1627.4	1679.5	1707.4	1721.5	1729.6	1729.6
30°	234.5	332.7	795.6	947.9	1372.8	1619.3	1661.4	1675.5	1689.4	1701.5	1707.4
32.5°	214.4	294.6	765.5	931.9	1374.8	1599.3	1629.4	1637.3	1657.3	1685.4	1695.5
35°	196.4	256.6	731.5	909.8	1362.8	1567.2	1587.2	1595.3	1635.3	1677.5	1691.4
37.5°	178.4	228.5	687.4	871.8	1344.7	1529.2	1543.1	1557.1	1619.3	1669.4	1685.4
40°	160.4	204.4	635.2	829.7	1316.7	1483.0	1495.1	1517.1	1599.3	1657.3	1673.4
42.5°	146.3	184.4	579.2	785.6	1280.7	1431.0	1449.0	1481.1	1575.2	1637.3	1655.4
45°	134.3	164.3	519.0	725.5	1234.5	1376.8	1402.9	1447.0	1547.2	1607.2	1623.3
47.5°	122.2	150.3	457.0	663.3	1184.4	1322.7	1356.8	1406.8	1509.0	1567.2	1581.2
50°	112.2	136.3	394.8	597.2	1130.3	1264.6	1304.7	1356.8	1461.0	1515.1	1533.1
52.5°	104.2	124.3	336.6	531.1	1068.2	1204.5	1250.6	1304.7	1402.9	1455.0	1467.0
55°	96.2	114.2	286.5	460.9	1004.1	1140.3	1190.4	1242.5	1338.7	1382.8	1390.8
57.5°	92.2	106.2	244.5	394.8	935.9	1068.2	1124.3	1172.4	1262.5	1296.7	1304.7
60°	86.2	100.2	212.4	338.7	861.7	1000.1	1048.2	1096.2	1172.4	1200.5	1206.5
62.5°	80.2	96.2	188.3	284.6	785.6	919.9	968.0	1012.0	1076.2	1096.2	1104.3
65°	76.2	92.2	170.3	244.5	707.5	835.7	883.9	921.9	974.0	994.0	998.0
67.5°	72.1	88.1	156.3	210.5	629.3	751.6	787.6	823.7	863.7	883.9	885.8
70°	66.1	84.2	144.3	186.4	549.1	655.4	685.4	723.5	755.6	765.5	771.6
72.5°	62.2	78.2	136.3	168.3	466.9	563.1	591.2	613.2	641.3	651.3	651.3
75°	56.1	70.1	128.3	150.3	382.8	460.9	485.0	507.1	529.1	533.1	527.1
77.5°	50.1	62.2	110.3	126.3	298.6	364.7	384.8	396.8	414.8	418.8	420.8
80°	42.1	54.1	86.2	98.2	216.4	268.5	282.6	292.6	308.7	308.7	312.6
82.5°	32.1	42.1	62.2	70.1	146.3	184.4	196.4	202.4	212.4	212.4	212.4
85°	20.0	26.1	40.0	46.1	88.1	112.2	120.2	122.2	130.3	132.3	132.3
87.5°	10.1	14.0	26.1	28.1	46.1	58.2	58.2	62.2	62.2	60.2	58.2
90°	15.4	27.8	40.2	43.3	68.0	101.0	117.5	104.5	78.4	58.8	58.8
92.5°	61.9	167.0	272.3	298.6	419.8	581.4	662.1	580.3	416.6	293.9	282.3
95°	148.5	341.0	533.6	581.7	1032.9	1634.5	1935.3	1727.0	1310.3	997.9	962.4
97.5°	256.8	426.6	596.5	638.9	1391.3	2394.5	2896.1	2764.4	2501.1	2303.5	2236.1
100°	340.3	494.4	648.4	686.9	1521.8	2635.0	3191.6	3201.2	3220.5	3234.9	3154.6
102.5°	411.5	555.3	698.9	734.8	1581.6	2710.6	3275.1	3442.9	3778.4	4030.1	3961.4
105°	532.2	653.9	775.6	806.1	1626.0	2719.2	3265.8	3641.9	4394.2	4958.3	4921.3
107.5°	656.0	769.4	882.9	911.2	1634.2	2598.3	3080.2	3604.8	4654.0	5440.9	5449.9
110°	739.5	841.9	944.4	970.0	1621.8	2490.9	2925.5	3512.0	4685.0	5564.8	5603.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	821.5	919.1	1016.7	1041.1	1622.3	2397.3	2784.7	3385.0	4585.5	5485.9	5545.0
115°	945.2	1035.2	1125.4	1147.9	1637.3	2289.8	2616.1	3194.4	4350.8	5218.2	5300.2
117.5°	1067.5	1149.3	1231.2	1251.6	1667.7	2222.6	2500.1	3022.0	4065.7	4848.4	4939.4
120°	1138.6	1215.6	1292.7	1311.9	1692.5	2200.0	2453.6	2930.5	3884.2	4599.4	4687.8
122.5°	1208.2	1285.9	1363.6	1383.0	1728.1	2188.1	2418.1	2847.5	3706.2	4350.3	4437.5
125°	1315.0	1385.8	1456.6	1474.4	1776.1	2178.3	2379.3	2744.1	3473.6	4020.8	4101.0
127.5°	1401.7	1473.2	1544.7	1562.5	1824.0	2172.6	2346.9	2660.0	3286.4	3756.2	3823.9
130°	1448.1	1525.1	1602.1	1621.3	1859.0	2176.1	2334.5	2613.3	3171.0	3589.2	3651.7
132.5°	1496.0	1573.0	1650.1	1669.3	1887.4	2178.3	2323.7	2573.3	3072.5	3446.9	3502.9
135°	1567.2	1637.3	1707.4	1725.0	1918.4	2176.3	2305.1	2514.2	2932.2	3245.8	3294.1
137.5°	1639.9	1709.3	1778.8	1796.1	1964.7	2189.6	2302.1	2478.7	2832.1	3097.2	3136.7
140°	1700.2	1764.1	1828.1	1844.1	1993.1	2191.8	2291.2	2443.8	2749.1	2978.0	3015.0
142.5°	1746.6	1805.7	1864.9	1879.7	2016.8	2199.8	2291.2	2425.3	2693.5	2894.6	2926.3
145°	1817.8	1869.4	1921.0	1933.8	2047.8	2199.8	2275.8	2385.4	2604.7	2769.2	2793.3
147.5°	1888.9	1939.1	1989.3	2001.9	2093.2	2214.9	2275.8	2362.0	2534.6	2664.0	2683.9
150°	1935.3	1980.7	2026.2	2037.5	2116.9	2222.8	2275.8	2348.7	2494.4	2603.6	2619.8
152.5°	1983.3	2017.7	2052.2	2060.7	2132.4	2228.0	2275.8	2338.0	2462.4	2555.7	2568.0
155°	2054.4	2079.9	2105.3	2111.7	2166.4	2239.3	2275.8	2325.3	2424.3	2498.5	2506.5
157.5°	2107.1	2131.8	2156.6	2162.8	2200.5	2250.7	2275.8	2314.2	2391.2	2449.0	2454.6
160°	2142.7	2161.9	2181.2	2186.0	2215.9	2255.8	2275.8	2308.7	2374.8	2424.3	2427.6
162.5°	2178.3	2192.7	2207.1	2210.7	2232.4	2261.3	2275.8	2303.6	2359.3	2401.1	2404.1
165°	2216.9	2229.9	2243.0	2246.3	2256.1	2269.2	2275.8	2295.7	2335.5	2365.4	2368.7
167.5°	2252.6	2258.7	2264.9	2266.4	2274.7	2285.7	2291.2	2304.2	2330.3	2350.0	2351.4
170°	2275.8	2281.9	2288.1	2289.6	2290.1	2290.8	2291.2	2304.2	2330.3	2350.0	2350.0
172.5°	2288.1	2289.5	2290.9	2291.2	2291.2	2291.2	2291.2	2301.6	2322.2	2337.6	2336.4
175°	2305.1	2305.1	2305.1	2305.1	2300.5	2294.3	2291.2	2297.8	2310.8	2320.6	2320.6
177.5°	2305.1	2305.1	2305.1	2305.1	2301.6	2296.7	2294.3	2299.5	2309.7	2317.5	2316.1
180°	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1	2305.1



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	623.3	623.3
2.5°	665.3	661.3
5°	855.8	859.7
7.5°	1152.4	1150.4
10°	1432.9	1451.0
12.5°	1637.3	1641.3
15°	1761.6	1769.6
17.5°	1809.7	1811.7
20°	1811.7	1807.7
22.5°	1789.6	1785.6
25°	1763.6	1761.6
27.5°	1739.5	1741.6
30°	1729.6	1735.5
32.5°	1729.6	1739.5
35°	1733.5	1743.6
37.5°	1731.5	1743.6
40°	1723.5	1737.5
42.5°	1701.5	1711.5
45°	1667.4	1679.5
47.5°	1623.3	1631.3
50°	1567.2	1575.2
52.5°	1497.1	1499.1
55°	1412.9	1420.9
57.5°	1322.7	1324.7
60°	1222.5	1228.5
62.5°	1116.3	1116.3
65°	1004.1	1008.1
67.5°	887.8	897.8
70°	769.6	771.6
72.5°	653.4	653.4
75°	533.1	535.1
77.5°	418.8	418.8
80°	310.7	312.6
82.5°	214.4	218.4
85°	134.3	134.3
87.5°	62.2	56.1
90°	58.8	58.8
92.5°	235.5	188.7
95°	820.8	679.2
97.5°	1966.6	1697.1
100°	2833.5	2512.4
102.5°	3686.3	3411.3
105°	4773.5	4625.7
107.5°	5485.7	5521.4
110°	5757.3	5911.3





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5781.5	6018.0
115°	5628.2	5956.2
117.5°	5303.1	5666.8
120°	5041.2	5394.5
122.5°	4786.1	5134.7
125°	4422.1	4743.3
127.5°	4094.9	4365.8
130°	3902.0	4152.3
132.5°	3727.0	3951.1
135°	3487.2	3680.4
137.5°	3294.9	3453.0
140°	3162.9	3310.7
142.5°	3053.5	3180.7
145°	2889.5	2985.8
147.5°	2763.7	2843.5
150°	2684.5	2749.2
152.5°	2616.8	2665.6
155°	2538.9	2571.2
157.5°	2477.4	2500.1
160°	2440.6	2453.6
162.5°	2416.5	2428.8
165°	2381.7	2394.9
167.5°	2356.8	2362.3
170°	2350.0	2350.0
172.5°	2331.5	2326.8
175°	2320.6	2320.6
177.5°	2310.6	2305.1
180°	2305.1	2305.1



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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	0.28	0.96	1.42	2.10	3.69	13.47	14.16	14.61	15.29	16.89
	3H	0.97	1.58	2.12	2.73	4.34	15.30	15.92	16.45	17.06	18.67
	4H	1.26	1.84	2.42	2.99	4.60	15.94	16.53	17.10	17.67	19.28
	6H	1.50	2.04	2.67	3.18	4.81	16.37	16.90	17.54	18.05	19.68
	8H	1.56	2.07	2.73	3.24	4.85	16.48	17.00	17.66	18.16	19.78
	12H	1.57	2.06	2.75	3.22	4.86	16.55	17.03	17.72	18.19	19.83
4H	2H	7.48	8.06	8.65	9.21	10.82	13.72	14.31	14.89	15.45	17.06
	3H	9.03	9.52	10.20	10.69	12.31	15.76	16.24	16.93	17.41	19.04
	4H	9.12	9.57	10.29	10.73	12.37	16.52	16.97	17.69	18.13	19.77
	6H	9.12	9.50	10.30	10.68	12.32	17.05	17.44	18.23	18.62	20.25
	8H	9.09	9.45	10.27	10.62	12.27	17.21	17.57	18.39	18.74	20.40
	12H	9.04	9.36	10.23	10.55	12.20	17.30	17.63	18.49	18.81	20.46
8H	4H	10.55	10.91	11.73	12.08	13.73	16.56	16.92	17.74	18.10	19.75
	6H	10.78	11.08	11.98	12.30	13.94	17.19	17.49	18.39	18.70	20.35
	8H	10.80	11.06	12.00	12.25	13.92	17.41	17.67	18.61	18.86	20.53
	12H	10.76	10.99	11.97	12.18	13.87	17.55	17.77	18.76	18.97	20.66
12H	4H	10.68	11.01	11.88	12.20	13.85	16.51	16.83	17.70	18.02	19.67
	6H	11.04	11.30	12.25	12.49	14.16	17.17	17.43	18.37	18.62	20.29
	8H	11.10	11.33	12.31	12.52	14.22	17.39	17.62	18.60	18.81	20.51