

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: P937855

Luminaire Tested: SQ4-FB-125U-050D-93050-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P937855  
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-93050-1D-UNV-STD-W-12-4000K  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

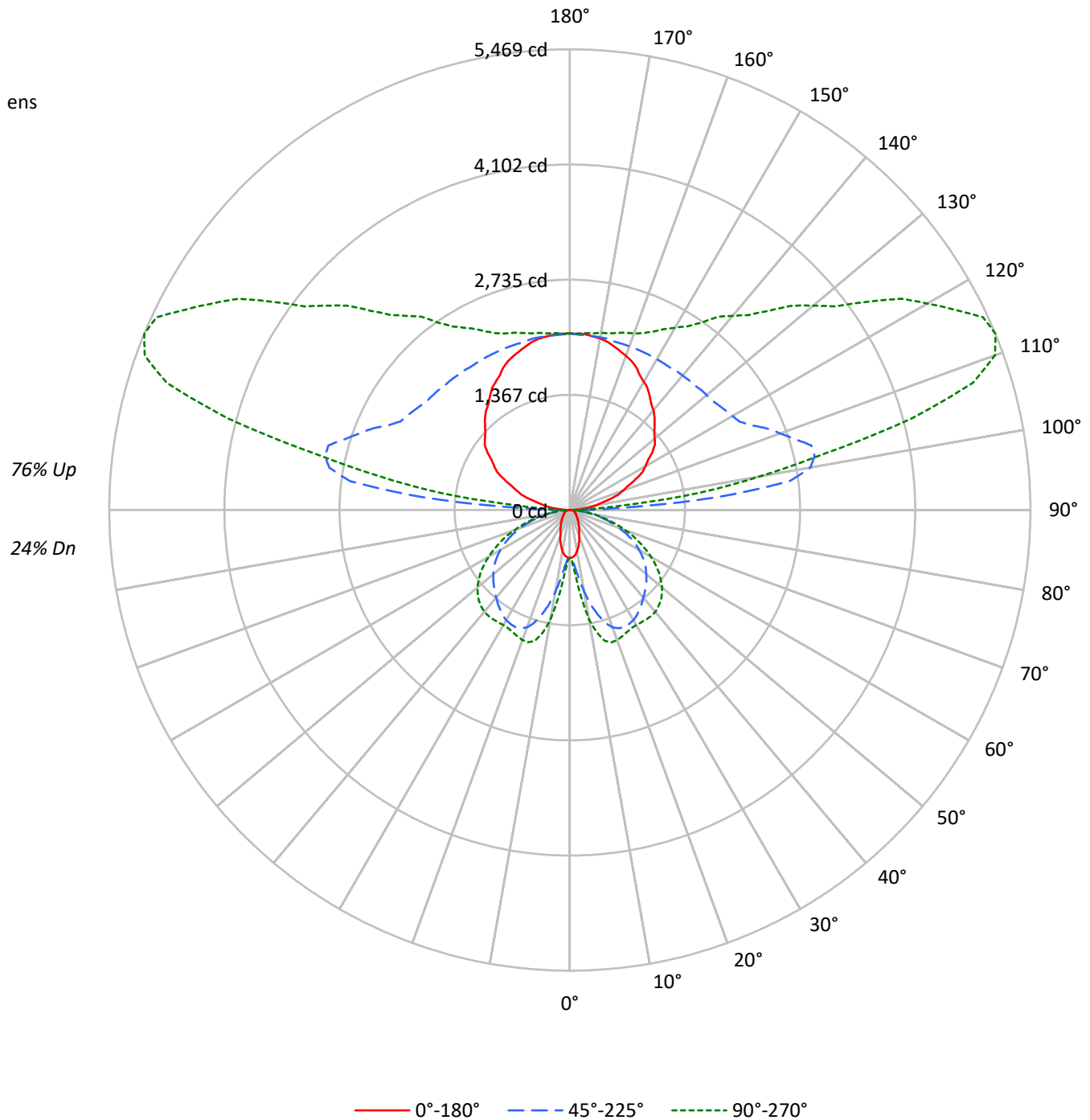
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17970.2 lumens  
Efficiency: N/A  
Efficacy: 125.8 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	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°	1752	1752	1752
5°	1712	2025	2355
10°	1554	2953	3904
15°	1321	3859	4714
20°	1076	4474	4805
25°	898	4682	4707
30°	757	4713	4698
35°	670	4636	4820
40°	584	4536	4945
45°	529	4462	4965
50°	486	4397	4882
55°	466	4300	4666
60°	477	4114	4324
65°	498	3828	3854
70°	531	3341	3256
75°	591	2726	2541
80°	651	1893	1712
85°	590	1006	876

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 5196 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.3	0.4
10°-20°	324.7	1.8
20°-30°	568.0	3.2
30°-40°	731.2	4.1
40°-50°	816.7	4.5
50°-60°	782.2	4.4
60°-70°	619.9	3.4
70°-80°	364.5	2.0
80°-90°	109.3	0.6
90°-100°	1021.1	5.7
100°-110°	2684.7	14.9
110°-120°	2783.7	15.5
120°-130°	2232.9	12.4
130°-140°	1752.0	9.7
140°-150°	1344.7	7.5
150°-160°	968.4	5.4
160°-170°	592.5	3.3
170°-180°	200.2	1.1
0°-30°	966.0	5.4
0°-40°	1697.2	9.4
0°-60°	3296.2	18.3
0°-90°	4389.9	24.4
90°-120°	6489.5	36.1
90°-150°	11819.1	65.8
90°-180°	13580.0	75.6
0°-180°	17970.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	552	592	667	754	781	51
15°	414	763	1286	1559	1608	115
25°	264	865	1532	1599	1601	122
35°	178	827	1442	1524	1585	111
45°	122	659	1275	1461	1526	94
55°	87	419	1082	1257	1291	80
65°	69	222	803	903	916	69
75°	51	137	441	484	486	53
85°	18	42	109	120	122	19
90°	14	39	107	53	53	13
95°	135	529	1759	907	617	150
105°	484	732	2968	4506	4204	513
115°	859	1043	2378	4742	5413	848
125°	1195	1340	2162	3654	4311	1061
135°	1424	1568	2095	2950	3345	1102
145°	1652	1758	2068	2517	2714	1035
155°	1867	1919	2068	2271	2337	858
165°	2015	2041	2068	2150	2176	569
175°	2095	2095	2082	2109	2109	199
180°	2095	2095	2095	2095	2095	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4	566.4
2.5°	566.4	566.4	570.1	571.9	575.5	577.3	581.0	584.6	595.6	597.4	601.0
5°	551.9	559.1	582.8	591.9	617.4	652.0	666.6	690.3	739.4	754.0	763.1
7.5°	530.0	546.4	604.6	619.2	683.0	774.1	812.3	863.3	941.6	979.8	1010.8
10°	495.4	530.0	633.8	668.5	772.2	910.7	981.6	1052.7	1171.1	1224.0	1244.0
12.5°	457.1	513.6	664.8	712.1	861.4	1063.7	1149.3	1227.6	1362.4	1433.4	1444.3
15°	413.5	490.0	693.9	763.1	956.2	1191.1	1285.9	1382.4	1508.1	1559.0	1571.8
17.5°	375.2	471.7	721.2	794.1	1029.1	1305.9	1402.4	1482.6	1584.6	1619.2	1628.3
20°	327.8	442.6	739.4	834.2	1105.6	1389.7	1482.6	1544.5	1613.7	1635.5	1639.2
22.5°	293.3	411.6	750.4	848.8	1156.5	1440.7	1519.0	1568.2	1615.5	1622.8	1624.6
25°	264.1	377.0	748.6	865.2	1200.2	1471.6	1531.7	1568.2	1595.4	1599.1	1599.1
27.5°	236.8	338.8	741.2	868.8	1233.0	1478.9	1526.3	1551.7	1564.5	1571.8	1571.8
30°	213.1	302.3	723.0	861.4	1247.6	1471.6	1509.9	1522.7	1535.3	1546.3	1551.7
32.5°	194.9	267.7	695.7	846.9	1249.4	1453.4	1480.8	1488.0	1506.2	1531.7	1540.9
35°	178.5	233.2	664.8	826.9	1238.5	1424.3	1442.5	1449.8	1486.2	1524.5	1537.1
37.5°	162.1	207.6	624.7	792.3	1222.1	1389.7	1402.4	1415.1	1471.6	1517.1	1531.7
40°	145.7	185.7	577.3	754.0	1196.6	1347.8	1358.7	1378.7	1453.4	1506.2	1520.8
42.5°	133.0	167.5	526.4	714.0	1163.9	1300.4	1316.8	1346.0	1431.5	1488.0	1504.4
45°	122.0	149.4	471.7	659.3	1121.9	1251.2	1274.9	1315.0	1406.1	1460.7	1475.2
47.5°	111.1	136.6	415.3	602.8	1076.4	1202.1	1233.0	1278.5	1371.4	1424.3	1437.0
50°	102.0	123.8	358.8	542.7	1027.2	1149.3	1185.7	1233.0	1327.8	1376.9	1393.3
52.5°	94.7	113.0	305.9	482.6	970.8	1094.6	1136.5	1185.7	1274.9	1322.3	1333.2
55°	87.4	103.8	260.4	418.9	912.5	1036.3	1081.8	1129.2	1216.6	1256.7	1264.0
57.5°	83.8	96.5	222.2	358.8	850.6	970.8	1021.7	1065.5	1147.4	1178.4	1185.7
60°	78.3	91.1	193.1	307.8	783.1	908.9	952.6	996.2	1065.5	1091.0	1096.4
62.5°	72.9	87.4	171.2	258.6	714.0	836.0	879.7	919.7	978.0	996.2	1003.6
65°	69.2	83.8	154.8	222.2	642.9	759.5	803.2	837.8	885.2	903.4	907.0
67.5°	65.5	80.1	142.0	191.3	571.9	683.0	715.8	748.6	785.0	803.2	805.1
70°	60.1	76.5	131.2	169.4	499.0	595.6	622.9	657.5	686.7	695.7	701.2
72.5°	56.5	71.1	123.8	153.0	424.3	511.8	537.3	557.3	582.8	591.9	591.9
75°	51.0	63.7	116.6	136.6	347.9	418.9	440.7	460.8	480.8	484.4	479.0
77.5°	45.5	56.5	100.2	114.8	271.4	331.5	349.7	360.6	377.0	380.6	382.4
80°	38.3	49.2	78.3	89.2	196.7	244.0	256.8	265.9	280.5	280.5	284.1
82.5°	29.1	38.3	56.5	63.7	133.0	167.5	178.5	183.9	193.1	193.1	193.1
85°	18.2	23.7	36.4	41.9	80.1	102.0	109.3	111.1	118.4	120.2	120.2
87.5°	9.1	12.8	23.7	25.5	41.9	52.9	52.9	56.5	56.5	54.7	52.9
90°	14.0	25.3	36.6	39.4	61.8	91.8	106.8	95.0	71.2	53.4	53.4
92.5°	56.2	151.8	247.5	271.4	381.5	528.3	601.8	527.3	378.6	267.1	256.5
95°	135.0	309.9	484.9	528.6	938.7	1485.5	1758.8	1569.5	1190.8	906.9	874.7
97.5°	233.4	387.7	542.1	580.7	1264.4	2176.1	2631.9	2512.3	2272.9	2093.5	2032.2
100°	309.3	449.3	589.3	624.3	1383.0	2394.7	2900.5	2909.3	2926.7	2939.9	2866.9
102.5°	374.0	504.6	635.2	667.8	1437.4	2463.4	2976.4	3128.9	3433.8	3662.6	3600.1
105°	483.6	594.2	704.8	732.5	1477.7	2471.2	2967.9	3309.7	3993.4	4506.1	4472.5
107.5°	596.1	699.2	802.3	828.1	1485.2	2361.3	2799.3	3276.0	4229.5	4944.7	4952.9
110°	672.1	765.1	858.3	881.5	1473.9	2263.7	2658.6	3191.7	4257.7	5057.2	5092.3



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	746.6	835.3	924.0	946.2	1474.3	2178.6	2530.7	3076.3	4167.3	4985.5	5039.3
115°	859.0	940.8	1022.7	1043.2	1488.0	2081.0	2377.5	2903.0	3954.0	4742.3	4816.8
117.5°	970.2	1044.5	1118.9	1137.4	1515.6	2019.9	2272.0	2746.3	3694.9	4406.2	4488.9
120°	1034.8	1104.7	1174.8	1192.3	1538.1	1999.3	2229.9	2663.3	3529.9	4179.9	4260.2
122.5°	1098.1	1168.7	1239.3	1256.9	1570.5	1988.5	2197.5	2587.8	3368.2	3953.6	4032.8
125°	1195.1	1259.4	1323.8	1339.9	1614.1	1979.6	2162.3	2493.8	3156.8	3654.0	3727.0
127.5°	1273.8	1338.8	1403.8	1420.0	1657.6	1974.4	2132.8	2417.4	2986.7	3413.6	3475.2
130°	1316.0	1386.0	1456.0	1473.4	1689.5	1977.6	2121.6	2375.0	2881.8	3261.8	3318.7
132.5°	1359.6	1429.5	1499.6	1517.0	1715.3	1979.6	2111.7	2338.6	2792.2	3132.5	3183.5
135°	1424.3	1488.0	1551.7	1567.6	1743.4	1977.8	2094.9	2284.9	2664.8	2949.7	2993.6
137.5°	1490.3	1553.4	1616.5	1632.3	1785.5	1989.9	2092.1	2252.7	2573.8	2814.7	2850.6
140°	1545.1	1603.2	1661.3	1675.9	1811.3	1991.9	2082.2	2220.9	2498.3	2706.4	2740.0
142.5°	1587.3	1641.1	1694.8	1708.2	1832.9	1999.1	2082.2	2204.1	2447.8	2630.6	2659.5
145°	1652.0	1698.9	1745.8	1757.5	1861.0	1999.1	2068.2	2167.9	2367.2	2516.6	2538.5
147.5°	1716.6	1762.3	1807.9	1819.3	1902.3	2012.9	2068.2	2146.6	2303.5	2421.0	2439.1
150°	1758.8	1800.1	1841.4	1851.7	1923.8	2020.0	2068.2	2134.5	2266.9	2366.2	2380.8
152.5°	1802.4	1833.7	1865.0	1872.8	1937.9	2024.8	2068.2	2124.8	2237.8	2322.6	2333.8
155°	1867.1	1890.2	1913.3	1919.1	1968.8	2035.1	2068.2	2113.2	2203.2	2270.6	2277.9
157.5°	1915.0	1937.4	1959.9	1965.6	1999.8	2045.4	2068.2	2103.1	2173.1	2225.6	2230.8
160°	1947.3	1964.7	1982.3	1986.6	2013.8	2050.1	2068.2	2098.2	2158.2	2203.2	2206.1
162.5°	1979.6	1992.7	2005.8	2009.1	2028.8	2055.1	2068.2	2093.5	2144.1	2182.1	2184.9
165°	2014.7	2026.6	2038.4	2041.4	2050.4	2062.2	2068.2	2086.3	2122.5	2149.7	2152.7
167.5°	2047.1	2052.7	2058.3	2059.7	2067.2	2077.3	2082.2	2094.1	2117.8	2135.6	2136.9
170°	2068.2	2073.8	2079.4	2080.8	2081.2	2081.9	2082.2	2094.1	2117.8	2135.6	2135.6
172.5°	2079.4	2080.7	2082.0	2082.2	2082.2	2082.2	2082.2	2091.6	2110.4	2124.4	2123.3
175°	2094.9	2094.9	2094.9	2094.9	2090.7	2085.0	2082.2	2088.2	2100.1	2108.9	2108.9
177.5°	2094.9	2094.9	2094.9	2094.9	2091.6	2087.2	2085.0	2089.7	2099.1	2106.1	2104.9
180°	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9	2094.9



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	566.4	566.4
2.5°	604.6	601.0
5°	777.7	781.3
7.5°	1047.3	1045.5
10°	1302.3	1318.6
12.5°	1488.0	1491.6
15°	1601.0	1608.2
17.5°	1644.7	1646.5
20°	1646.5	1642.9
22.5°	1626.4	1622.8
25°	1602.8	1601.0
27.5°	1580.9	1582.8
30°	1571.8	1577.2
32.5°	1571.8	1580.9
35°	1575.4	1584.6
37.5°	1573.6	1584.6
40°	1566.3	1579.1
42.5°	1546.3	1555.4
45°	1515.3	1526.3
47.5°	1475.2	1482.6
50°	1424.3	1431.5
52.5°	1360.5	1362.4
55°	1284.1	1291.3
57.5°	1202.1	1203.9
60°	1111.0	1116.4
62.5°	1014.5	1014.5
65°	912.5	916.1
67.5°	806.9	815.9
70°	699.4	701.2
72.5°	593.8	593.8
75°	484.4	486.3
77.5°	380.6	380.6
80°	282.3	284.1
82.5°	194.9	198.5
85°	122.0	122.0
87.5°	56.5	51.0
90°	53.4	53.4
92.5°	214.0	171.5
95°	745.9	617.2
97.5°	1787.2	1542.3
100°	2575.1	2283.3
102.5°	3350.1	3100.2
105°	4338.2	4203.8
107.5°	4985.4	5017.9
110°	5232.2	5372.1





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	5254.2	5469.2
115°	5114.9	5413.0
117.5°	4819.4	5150.0
120°	4581.4	4902.5
122.5°	4349.6	4666.4
125°	4018.8	4310.6
127.5°	3721.4	3967.6
130°	3546.1	3773.6
132.5°	3387.1	3590.8
135°	3169.1	3344.8
137.5°	2994.4	3138.1
140°	2874.4	3008.8
142.5°	2775.0	2890.6
145°	2626.0	2713.5
147.5°	2511.6	2584.1
150°	2439.7	2498.4
152.5°	2378.1	2422.5
155°	2307.3	2336.7
157.5°	2251.4	2272.0
160°	2218.0	2229.9
162.5°	2196.1	2207.3
165°	2164.5	2176.5
167.5°	2141.9	2146.9
170°	2135.6	2135.6
172.5°	2118.9	2114.5
175°	2108.9	2108.9
177.5°	2099.9	2094.9
180°	2094.9	2094.9



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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	0.00	0.63	1.09	1.77	3.36	13.14	13.82	14.28	14.96	16.55
	3H	0.64	1.25	1.79	2.40	4.00	14.97	15.58	16.12	16.73	18.34
	4H	0.93	1.51	2.09	2.66	4.27	15.61	16.19	16.77	17.34	18.95
	6H	1.17	1.71	2.34	2.85	4.48	16.03	16.57	17.20	17.72	19.34
	8H	1.23	1.74	2.40	2.90	4.52	16.15	16.66	17.32	17.83	19.44
	12H	1.24	1.73	2.42	2.88	4.52	16.22	16.70	17.39	17.86	19.50
4H	2H	7.15	7.73	8.32	8.88	10.49	13.39	13.97	14.56	15.12	16.73
	3H	8.70	9.19	9.87	10.36	11.98	15.42	15.91	16.60	17.08	18.71
	4H	8.78	9.23	9.96	10.39	12.04	16.19	16.64	17.36	17.79	19.44
	6H	8.78	9.17	9.96	10.35	11.98	16.72	17.10	17.90	18.29	19.92
	8H	8.76	9.12	9.94	10.29	11.94	16.88	17.24	18.06	18.41	20.06
	12H	8.70	9.03	9.90	10.21	11.87	16.97	17.29	18.16	18.48	20.13
8H	4H	10.22	10.58	11.40	11.75	13.40	16.23	16.59	17.41	17.76	19.41
	6H	10.45	10.75	11.65	11.96	13.61	16.86	17.15	18.06	18.37	20.02
	8H	10.47	10.72	11.67	11.92	13.58	17.08	17.33	18.28	18.53	20.20
	12H	10.42	10.65	11.63	11.84	13.54	17.21	17.44	18.42	18.63	20.33
12H	4H	10.35	10.68	11.55	11.86	13.52	16.17	16.50	17.37	17.68	19.34
	6H	10.71	10.97	11.91	12.16	13.83	16.84	17.10	18.04	18.29	19.96
	8H	10.77	11.00	11.98	12.19	13.89	17.06	17.29	18.27	18.48	20.18