

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: P937849

Luminaire Tested: SQ4-FB-125U-050D-930-1D-UNV-STD-W-12

Issue Date: 12/17/2024

**Test Information**

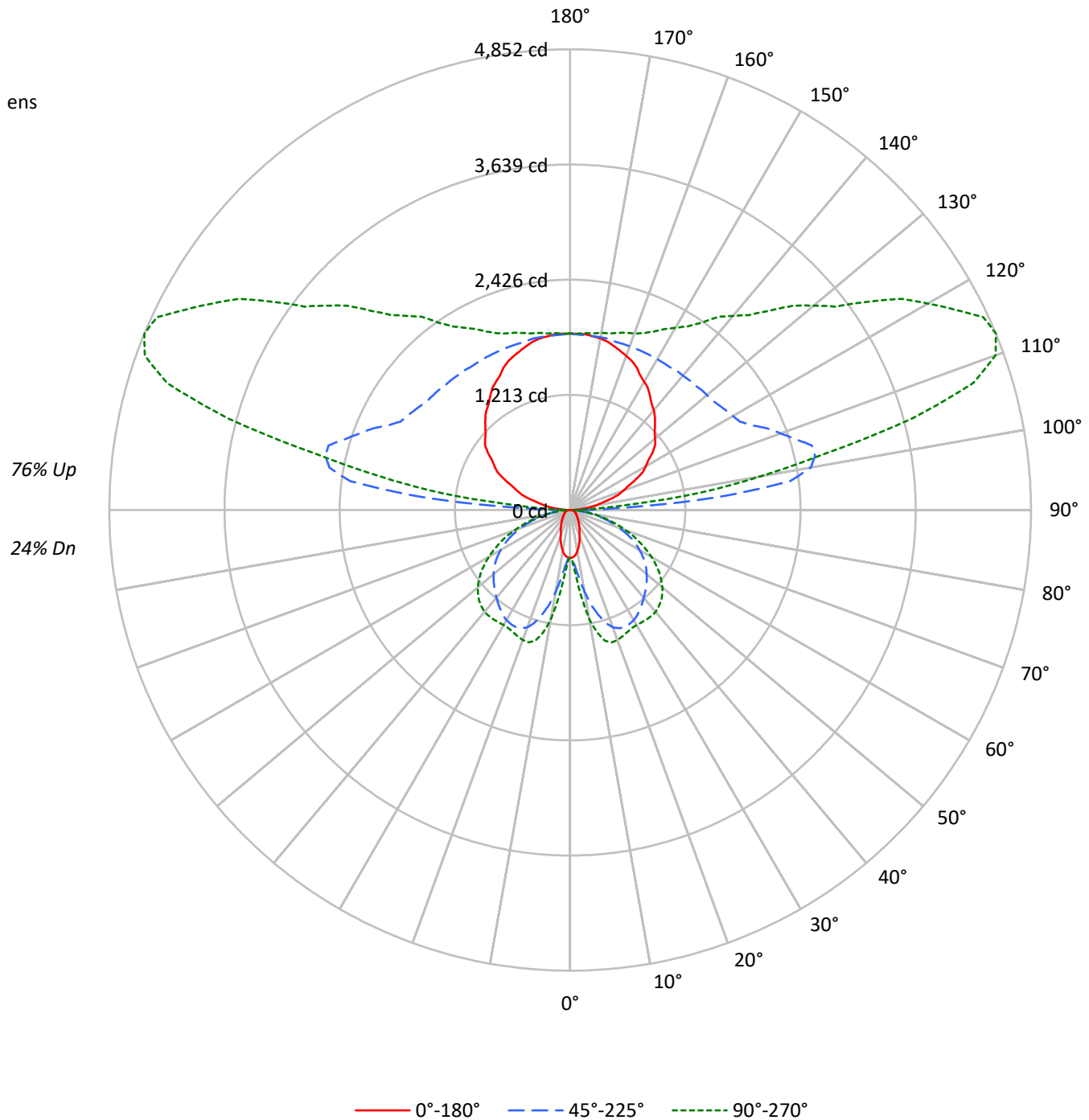
Test Method: LM-79-2019  
Report Number: P937849  
REPORT IS A COMBINATION OF REPORTS P933589 AND P933786  
Test Lab: INNOVATION CENTER  
Issue Date: 12/17/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-FB-125U-050D-930-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15942.0 lumens  
Efficiency: N/A  
Efficacy: 111.6 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		
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°	1554	1554	1554
5°	1519	1797	2089
10°	1378	2620	3464
15°	1172	3424	4182
20°	954	3968	4262
25°	797	4154	4176
30°	672	4181	4168
35°	595	4113	4276
40°	518	4024	4387
45°	469	3959	4404
50°	431	3900	4331
55°	414	3815	4139
60°	424	3649	3836
65°	441	3396	3419
70°	471	2964	2889
75°	524	2419	2254
80°	578	1679	1519
85°	522	892	777

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 90°  
 Luminance: 4603 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.0	0.4
10°-20°	288.1	1.8
20°-30°	503.9	3.2
30°-40°	648.7	4.1
40°-50°	724.5	4.5
50°-60°	693.9	4.4
60°-70°	550.0	3.4
70°-80°	323.4	2.0
80°-90°	96.9	0.6
90°-100°	905.9	5.7
100°-110°	2381.7	14.9
110°-120°	2469.5	15.5
120°-130°	1980.9	12.4
130°-140°	1554.3	9.7
140°-150°	1193.0	7.5
150°-160°	859.1	5.4
160°-170°	525.7	3.3
170°-180°	177.6	1.1
0°-30°	857.0	5.4
0°-40°	1505.7	9.4
0°-60°	2924.1	18.3
0°-90°	3894.4	24.4
90°-120°	5757.1	36.1
90°-150°	10485.2	65.8
90°-180°	12048.0	75.6
0°-180°	15942.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	490	525	591	669	693	45
15°	367	677	1141	1383	1427	102
25°	234	768	1359	1419	1420	108
35°	158	734	1280	1352	1406	99
45°	108	585	1131	1296	1354	84
55°	78	372	960	1115	1146	71
65°	61	197	713	801	813	61
75°	45	121	391	430	431	47
85°	16	37	97	107	108	17
90°	12	35	95	47	47	11
95°	120	469	1560	804	548	133
105°	429	650	2633	3998	3729	455
115°	762	926	2109	4207	4802	753
125°	1060	1189	1918	3242	3824	941
135°	1264	1391	1858	2617	2967	978
145°	1466	1559	1835	2233	2407	918
155°	1656	1702	1835	2014	2073	761
165°	1787	1811	1835	1907	1931	504
175°	1858	1858	1847	1871	1871	176
180°	1858	1858	1858	1858	1858	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5	502.5
2.5°	502.5	502.5	505.7	507.3	510.5	512.2	515.4	518.7	528.4	530.0	533.2
5°	489.6	496.0	517.1	525.1	547.7	578.4	591.3	612.4	656.0	668.9	677.0
7.5°	470.2	484.7	536.4	549.3	605.9	686.7	720.6	765.9	835.4	869.2	896.7
10°	439.5	470.2	562.3	593.0	685.0	807.9	870.9	933.9	1038.9	1085.8	1103.6
12.5°	405.5	455.6	589.7	631.7	764.2	943.6	1019.6	1089.0	1208.6	1271.6	1281.3
15°	366.8	434.7	615.6	677.0	848.3	1056.7	1140.7	1226.3	1337.9	1383.1	1394.4
17.5°	332.8	418.4	639.8	704.5	912.9	1158.5	1244.1	1315.2	1405.7	1436.4	1444.5
20°	290.8	392.7	656.0	740.0	980.8	1232.8	1315.2	1370.2	1431.6	1450.9	1454.2
22.5°	260.2	365.1	665.7	753.0	1026.0	1278.1	1347.5	1391.2	1433.2	1439.6	1441.2
25°	234.3	334.4	664.1	767.5	1064.8	1305.5	1358.8	1391.2	1415.4	1418.7	1418.7
27.5°	210.1	300.6	657.6	770.7	1093.8	1312.0	1354.0	1376.6	1387.9	1394.4	1394.4
30°	189.0	268.2	641.4	764.2	1106.8	1305.5	1339.5	1350.8	1362.0	1371.8	1376.6
32.5°	172.9	237.5	617.2	751.3	1108.4	1289.4	1313.6	1320.1	1336.2	1358.8	1366.9
35°	158.4	206.9	589.7	733.5	1098.7	1263.5	1279.7	1286.2	1318.4	1352.4	1363.7
37.5°	143.8	184.2	554.2	702.9	1084.1	1232.8	1244.1	1255.4	1305.5	1345.9	1358.8
40°	129.3	164.8	512.2	668.9	1061.6	1195.7	1205.4	1223.1	1289.4	1336.2	1349.1
42.5°	118.0	148.6	466.9	633.4	1032.5	1153.7	1168.2	1194.1	1269.9	1320.1	1334.6
45°	108.2	132.5	418.4	584.9	995.3	1110.0	1131.0	1166.6	1247.4	1295.8	1308.7
47.5°	98.5	121.2	368.4	534.8	954.9	1066.4	1093.8	1134.2	1216.6	1263.5	1274.8
50°	90.5	109.9	318.3	481.5	911.2	1019.6	1051.8	1093.8	1177.9	1221.5	1236.1
52.5°	84.0	100.2	271.4	428.2	861.2	971.1	1008.2	1051.8	1131.0	1173.0	1182.7
55°	77.6	92.1	231.0	371.6	809.5	919.4	959.7	1001.7	1079.3	1114.9	1121.3
57.5°	74.4	85.6	197.1	318.3	754.6	861.2	906.4	945.2	1017.9	1045.4	1051.8
60°	69.5	80.8	171.3	273.1	694.8	806.3	845.1	883.8	945.2	967.9	972.7
62.5°	64.6	77.6	151.8	229.4	633.4	741.7	780.4	815.9	867.6	883.8	890.3
65°	61.4	74.4	137.3	197.1	570.4	673.8	712.6	743.3	785.3	801.4	804.6
67.5°	58.1	71.1	126.0	169.7	507.3	605.9	635.0	664.1	696.4	712.6	714.2
70°	53.3	67.9	116.4	150.2	442.7	528.4	552.6	583.3	609.2	617.2	622.1
72.5°	50.1	63.0	109.9	135.7	376.4	454.0	476.7	494.4	517.1	525.1	525.1
75°	45.2	56.5	103.4	121.2	308.6	371.6	391.0	408.8	426.6	429.8	424.9
77.5°	40.4	50.1	88.9	101.8	240.7	294.1	310.2	319.9	334.4	337.7	339.3
80°	34.0	43.6	69.5	79.2	174.5	216.5	227.8	235.9	248.8	248.8	252.1
82.5°	25.9	34.0	50.1	56.5	118.0	148.6	158.4	163.2	171.3	171.3	171.3
85°	16.1	21.0	32.3	37.2	71.1	90.5	96.9	98.5	105.0	106.6	106.6
87.5°	8.1	11.3	21.0	22.6	37.2	46.9	46.9	50.1	50.1	48.5	46.9
90°	12.4	22.4	32.4	34.9	54.8	81.4	94.8	84.2	63.2	47.4	47.4
92.5°	49.9	134.7	219.5	240.7	338.5	468.7	533.8	467.8	335.9	237.0	227.6
95°	119.7	274.9	430.2	469.0	832.7	1317.8	1560.3	1392.3	1056.4	804.5	775.9
97.5°	207.0	343.9	480.9	515.1	1121.7	1930.5	2334.9	2228.7	2016.4	1857.2	1802.8
100°	274.4	398.6	522.8	553.8	1226.9	2124.4	2573.1	2580.9	2596.4	2608.1	2543.3
102.5°	331.8	447.7	563.5	592.5	1275.2	2185.4	2640.5	2775.7	3046.3	3249.2	3193.8
105°	429.0	527.2	625.3	649.9	1310.9	2192.3	2633.0	2936.2	3542.7	3997.5	3967.7
107.5°	528.9	620.3	711.8	734.7	1317.6	2094.8	2483.4	2906.3	3752.2	4386.6	4393.9
110°	596.2	678.8	761.4	782.0	1307.5	2008.2	2358.6	2831.5	3777.2	4486.4	4517.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.3	741.0	819.7	839.4	1307.9	1932.7	2245.1	2729.1	3696.9	4422.8	4470.5
115°	762.0	834.6	907.3	925.5	1320.1	1846.1	2109.2	2575.4	3507.7	4207.1	4273.2
117.5°	860.7	926.6	992.6	1009.0	1344.5	1791.9	2015.6	2436.4	3277.8	3908.9	3982.2
120°	918.0	980.1	1042.2	1057.7	1364.5	1773.7	1978.2	2362.7	3131.5	3708.2	3779.4
122.5°	974.1	1036.8	1099.4	1115.0	1393.2	1764.1	1949.5	2295.7	2988.0	3507.3	3577.6
125°	1060.2	1117.3	1174.4	1188.7	1431.9	1756.2	1918.3	2212.3	2800.5	3241.6	3306.4
127.5°	1130.1	1187.7	1245.4	1259.7	1470.5	1751.6	1892.1	2144.6	2649.6	3028.4	3083.0
130°	1167.5	1229.6	1291.6	1307.1	1498.8	1754.4	1882.2	2106.9	2556.5	2893.7	2944.1
132.5°	1206.1	1268.2	1330.3	1345.8	1521.7	1756.2	1873.4	2074.6	2477.1	2778.9	2824.2
135°	1263.5	1320.1	1376.6	1390.7	1546.7	1754.6	1858.5	2027.0	2364.0	2616.8	2655.8
137.5°	1322.1	1378.1	1434.1	1448.0	1584.0	1765.3	1856.0	1998.4	2283.3	2497.0	2528.9
140°	1370.7	1422.3	1473.8	1486.8	1606.9	1767.1	1847.2	1970.2	2216.4	2401.0	2430.8
142.5°	1408.1	1455.8	1503.5	1515.4	1626.0	1773.5	1847.2	1955.3	2171.6	2333.7	2359.3
145°	1465.6	1507.2	1548.7	1559.1	1651.0	1773.5	1834.8	1923.2	2100.0	2232.6	2252.0
147.5°	1522.9	1563.4	1603.8	1613.9	1687.6	1785.7	1834.8	1904.3	2043.5	2147.8	2163.8
150°	1560.3	1596.9	1633.5	1642.7	1706.7	1792.1	1834.8	1893.6	2011.0	2099.1	2112.1
152.5°	1599.0	1626.7	1654.5	1661.4	1719.2	1796.2	1834.8	1885.0	1985.3	2060.5	2070.4
155°	1656.3	1676.9	1697.4	1702.5	1746.6	1805.4	1834.8	1874.7	1954.5	2014.3	2020.8
157.5°	1698.8	1718.7	1738.7	1743.7	1774.1	1814.5	1834.8	1865.8	1927.8	1974.4	1979.0
160°	1727.5	1743.0	1758.6	1762.4	1786.5	1818.7	1834.8	1861.4	1914.6	1954.5	1957.2
162.5°	1756.2	1767.8	1779.4	1782.3	1799.8	1823.1	1834.8	1857.3	1902.1	1935.8	1938.3
165°	1787.3	1797.8	1808.4	1811.0	1819.0	1829.5	1834.8	1850.8	1883.0	1907.0	1909.7
167.5°	1816.1	1821.0	1826.0	1827.2	1833.9	1842.8	1847.2	1857.7	1878.8	1894.6	1895.7
170°	1834.8	1839.8	1844.7	1845.9	1846.3	1846.9	1847.2	1857.7	1878.8	1894.6	1894.6
172.5°	1844.7	1845.9	1847.0	1847.2	1847.2	1847.2	1847.2	1855.6	1872.2	1884.6	1883.7
175°	1858.5	1858.5	1858.5	1858.5	1854.7	1849.7	1847.2	1852.5	1863.0	1870.9	1870.9
177.5°	1858.5	1858.5	1858.5	1858.5	1855.6	1851.6	1849.7	1853.9	1862.2	1868.4	1867.3
180°	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5	1858.5



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**CANDELA DISTRIBUTION (continued):**

	80°	90°
0°	502.5	502.5
2.5°	536.4	533.2
5°	689.9	693.1
7.5°	929.1	927.5
10°	1155.3	1169.8
12.5°	1320.1	1323.3
15°	1420.3	1426.7
17.5°	1459.1	1460.7
20°	1460.7	1457.4
22.5°	1442.8	1439.6
25°	1421.9	1420.3
27.5°	1402.4	1404.1
30°	1394.4	1399.2
32.5°	1394.4	1402.4
35°	1397.6	1405.7
37.5°	1396.0	1405.7
40°	1389.5	1400.8
42.5°	1371.8	1379.9
45°	1344.3	1354.0
47.5°	1308.7	1315.2
50°	1263.5	1269.9
52.5°	1207.0	1208.6
55°	1139.1	1145.6
57.5°	1066.4	1068.0
60°	985.6	990.4
62.5°	900.0	900.0
65°	809.5	812.7
67.5°	715.8	723.8
70°	620.5	622.1
72.5°	526.8	526.8
75°	429.8	431.4
77.5°	337.7	337.7
80°	250.5	252.1
82.5°	172.9	176.1
85°	108.2	108.2
87.5°	50.1	45.2
90°	47.4	47.4
92.5°	189.8	152.2
95°	661.8	547.6
97.5°	1585.5	1368.2
100°	2284.5	2025.6
102.5°	2972.0	2750.3
105°	3848.5	3729.4
107.5°	4422.7	4451.5
110°	4641.7	4765.8





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**CANDELA DISTRIBUTION (continued):**

	80°	90°
112.5°	4661.2	4851.9
115°	4537.6	4802.0
117.5°	4275.5	4568.7
120°	4064.3	4349.2
122.5°	3858.7	4139.7
125°	3565.2	3824.1
127.5°	3301.4	3519.8
130°	3145.9	3347.7
132.5°	3004.8	3185.5
135°	2811.5	2967.2
137.5°	2656.4	2783.9
140°	2550.0	2669.2
142.5°	2461.8	2564.4
145°	2329.6	2407.2
147.5°	2228.2	2292.5
150°	2164.3	2216.4
152.5°	2109.7	2149.1
155°	2046.9	2072.9
157.5°	1997.3	2015.6
160°	1967.7	1978.2
162.5°	1948.2	1958.2
165°	1920.2	1930.8
167.5°	1900.1	1904.6
170°	1894.6	1894.6
172.5°	1879.7	1875.9
175°	1870.9	1870.9
177.5°	1862.9	1858.5
180°	1858.5	1858.5



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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	0.21	0.67	1.35	2.94	12.72	13.41	13.87	14.54	16.14
	3H	0.22	0.84	1.37	1.98	3.59	14.55	15.17	15.70	16.31	17.92
	4H	0.51	1.09	1.67	2.24	3.85	15.19	15.78	16.35	16.92	18.54
	6H	0.75	1.29	1.92	2.44	4.06	15.62	16.16	16.79	17.30	18.93
	8H	0.81	1.33	1.99	2.49	4.11	15.74	16.25	16.91	17.41	19.03
	12H	0.82	1.31	2.00	2.47	4.11	15.80	16.29	16.98	17.44	19.08
4H	2H	6.73	7.32	7.90	8.46	10.07	12.97	13.56	14.14	14.70	16.32
	3H	8.28	8.77	9.45	9.94	11.57	15.01	15.50	16.18	16.67	18.29
	4H	8.37	8.82	9.54	9.98	11.62	15.77	16.22	16.95	17.38	19.02
	6H	8.37	8.75	9.55	9.94	11.57	16.30	16.69	17.48	17.87	19.50
	8H	8.34	8.70	9.52	9.87	11.52	16.46	16.82	17.64	18.00	19.65
	12H	8.29	8.61	9.48	9.80	11.45	16.55	16.88	17.75	18.06	19.72
8H	4H	9.80	10.16	10.98	11.33	12.98	15.81	16.17	16.99	17.35	19.00
	6H	10.03	10.33	11.23	11.55	13.19	16.44	16.74	17.64	17.95	19.60
	8H	10.05	10.31	11.25	11.50	13.17	16.66	16.92	17.86	18.11	19.78
	12H	10.01	10.24	11.22	11.43	13.13	16.80	17.03	18.01	18.22	19.92
12H	4H	9.94	10.26	11.13	11.45	13.10	15.76	16.09	16.95	17.27	18.92
	6H	10.29	10.55	11.50	11.74	13.41	16.42	16.68	17.63	17.87	19.54
	8H	10.35	10.58	11.56	11.77	13.47	16.64	16.87	17.85	18.06	19.76