

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: P938312

Luminaire Tested: SQ4-FB-150U-075D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938312
REPORT IS A COMBINATION OF REPORTS P933646 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-075D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

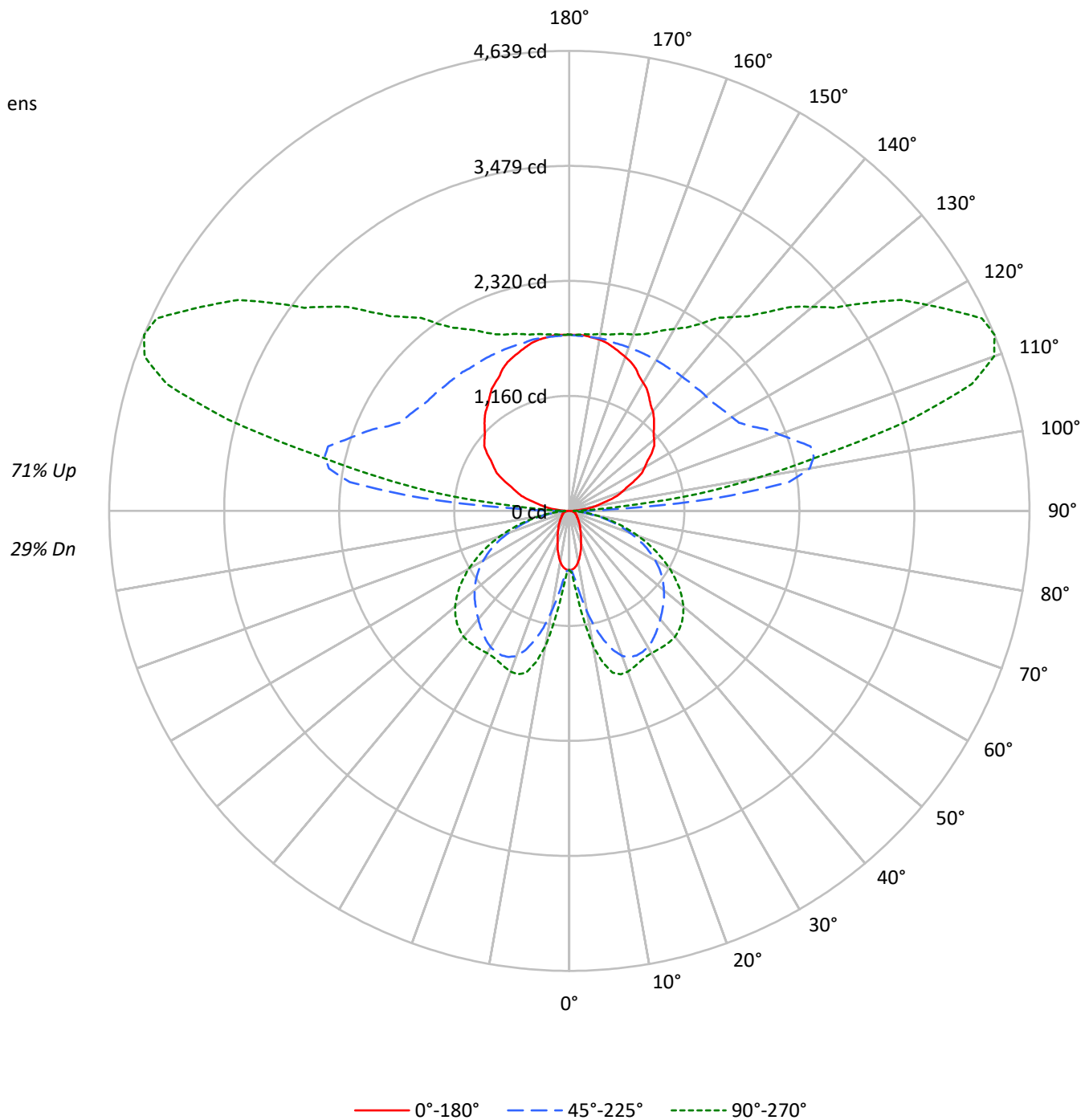
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16125.8 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
Input Voltage (V): NR
Input Current (A_{in}): 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	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36	36	36	36	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25	27	26	25	19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21	24	22	21	16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17	21	19	17	13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15	19	17	15	11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13	17	15	13	10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11	15	13	11	8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10	14	12	10	7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9	13	10	9	6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8	12	9	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2695	3189	3708
10°	2445	4648	6148
15°	2078	6073	7424
20°	1692	7038	7566
25°	1411	7365	7412
30°	1190	7411	7398
35°	1052	7288	7589
40°	917	7128	7787
45°	830	7011	7818
50°	762	6906	7688
55°	730	6751	7348
60°	747	6455	6810
65°	777	6004	6069
70°	828	5236	5128
75°	916	4269	4002
80°	1003	2961	2697
85°	890	1570	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.5
10°-20°	340.9	2.1
20°-30°	596.3	3.7
30°-40°	767.6	4.8
40°-50°	857.4	5.3
50°-60°	821.2	5.1
60°-70°	650.8	4.0
70°-80°	382.7	2.4
80°-90°	113.1	0.7
90°-100°	866.1	5.4
100°-110°	2277.1	14.1
110°-120°	2361.1	14.6
120°-130°	1893.9	11.7
130°-140°	1486.0	9.2
140°-150°	1140.6	7.1
150°-160°	821.4	5.1
160°-170°	502.6	3.1
170°-180°	169.8	1.1
0°-30°	1014.2	6.3
0°-40°	1781.8	11.0
0°-60°	3460.5	21.5
0°-90°	4607.1	28.6
90°-120°	5504.4	34.1
90°-150°	10024.9	62.2
90°-180°	11519.0	71.4
0°-180°	16125.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	579	621	700	792	820	53
15°	434	801	1350	1637	1688	121
25°	277	908	1608	1679	1681	128
35°	187	868	1514	1600	1664	117
45°	128	692	1338	1534	1602	99
55°	92	440	1136	1319	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	510	56
85°	19	44	115	126	128	20
90°	12	33	91	45	45	11
95°	114	448	1492	769	524	127
105°	410	621	2517	3822	3566	435
115°	729	885	2017	4022	4591	720
125°	1014	1136	1834	3099	3656	900
135°	1208	1330	1777	2502	2837	935
145°	1401	1491	1754	2135	2302	878
155°	1584	1628	1754	1926	1982	728
165°	1709	1732	1754	1823	1846	482
175°	1777	1777	1766	1789	1789	169
180°	1777	1777	1777	1777	1777	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6	594.6
2.5°	594.6	594.6	598.5	600.4	604.2	606.1	609.9	613.8	625.2	627.1	631.0
5°	579.3	587.0	611.8	621.4	648.2	684.5	699.8	724.6	776.3	791.6	801.1
7.5°	556.4	573.6	634.8	650.1	717.0	812.6	852.8	906.3	988.5	1028.7	1061.2
10°	520.1	556.4	665.4	701.7	810.7	956.0	1030.6	1105.2	1229.5	1285.0	1306.0
12.5°	479.9	539.2	697.9	747.6	904.4	1116.7	1206.6	1288.8	1430.3	1504.8	1516.3
15°	434.0	514.3	728.5	801.1	1003.8	1250.5	1350.0	1451.3	1583.2	1636.8	1650.2
17.5°	393.9	495.2	757.2	833.6	1080.3	1371.0	1472.3	1556.5	1663.5	1699.9	1709.4
20°	344.2	464.6	776.3	875.7	1160.7	1459.0	1556.5	1621.5	1694.1	1717.1	1720.9
22.5°	307.8	432.1	787.7	891.0	1214.2	1512.5	1594.7	1646.3	1696.0	1703.7	1705.6
25°	277.2	395.8	785.8	908.2	1260.1	1545.0	1608.1	1646.3	1675.0	1678.8	1678.8
27.5°	248.6	355.6	778.2	912.0	1294.5	1552.6	1602.4	1629.1	1642.5	1650.2	1650.2
30°	223.7	317.4	759.1	904.4	1309.8	1545.0	1585.1	1598.5	1611.9	1623.4	1629.1
32.5°	204.6	281.1	730.4	889.1	1311.7	1525.9	1554.6	1562.2	1581.3	1608.1	1617.6
35°	187.4	244.7	697.9	868.0	1300.3	1495.3	1514.4	1522.0	1560.3	1600.4	1613.8
37.5°	170.2	218.0	655.8	831.7	1283.0	1459.0	1472.3	1485.7	1545.0	1592.8	1608.1
40°	153.0	195.0	606.1	791.6	1256.3	1415.0	1426.4	1447.5	1525.9	1581.3	1596.6
42.5°	139.6	175.9	552.6	749.5	1221.9	1365.3	1382.5	1413.1	1502.9	1562.2	1579.4
45°	128.1	156.8	495.2	692.1	1177.9	1313.6	1338.5	1380.6	1476.2	1533.5	1548.8
47.5°	116.6	143.4	435.9	632.9	1130.1	1262.0	1294.5	1342.3	1439.8	1495.3	1508.7
50°	107.1	130.0	376.7	569.8	1078.4	1206.6	1244.8	1294.5	1393.9	1445.6	1462.8
52.5°	99.4	118.5	321.2	506.7	1019.1	1149.2	1193.2	1244.8	1338.5	1388.2	1399.7
55°	91.8	109.0	273.4	439.8	957.9	1088.0	1135.8	1185.5	1277.3	1319.4	1327.0
57.5°	88.0	101.3	233.3	376.7	892.9	1019.1	1072.6	1118.6	1204.7	1237.2	1244.8
60°	82.2	95.6	202.7	323.1	822.2	954.1	1000.0	1045.9	1118.6	1145.4	1151.1
62.5°	76.5	91.8	179.7	271.5	749.5	877.6	923.5	965.6	1026.7	1045.9	1053.5
65°	72.7	88.0	162.5	233.3	674.9	797.3	843.2	879.5	929.2	948.4	952.2
67.5°	68.8	84.1	149.1	200.8	600.4	717.0	751.4	785.8	824.1	843.2	845.1
70°	63.1	80.3	137.7	177.8	523.9	625.2	653.9	690.2	720.8	730.4	736.1
72.5°	59.3	74.6	130.0	160.6	445.5	537.3	564.0	585.1	611.8	621.4	621.4
75°	53.5	66.9	122.4	143.4	365.2	439.8	462.7	483.7	504.8	508.6	502.9
77.5°	47.8	59.3	105.2	120.5	284.9	348.0	367.1	378.6	395.8	399.6	401.5
80°	40.2	51.6	82.2	93.7	206.5	256.2	269.6	279.2	294.4	294.4	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.1	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.6	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.4	55.4	59.3	59.3	57.4	55.4
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	209.9	230.2	323.6	448.2	510.4	447.3	321.2	226.6	217.6
95°	114.5	262.9	411.3	448.4	796.2	1259.9	1491.8	1331.2	1010.1	769.2	741.9
97.5°	198.0	328.9	459.8	492.5	1072.5	1845.8	2232.5	2130.9	1928.0	1775.7	1723.8
100°	262.3	381.1	499.8	529.5	1173.1	2031.1	2460.2	2467.6	2482.4	2493.5	2431.7
102.5°	317.2	428.0	538.7	566.4	1219.2	2089.4	2524.6	2654.0	2912.5	3106.5	3053.6
105°	410.2	504.0	597.9	621.3	1253.3	2096.0	2517.4	2807.4	3387.2	3822.1	3793.6
107.5°	505.6	593.1	680.5	702.4	1259.7	2002.8	2374.3	2778.7	3587.6	4194.2	4201.0
110°	570.1	649.0	728.0	747.7	1250.2	1920.1	2255.1	2707.2	3611.4	4289.6	4319.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.3	708.5	783.7	802.6	1250.5	1847.9	2146.5	2609.2	3534.6	4228.7	4274.3
115°	728.7	798.1	867.5	884.9	1262.1	1765.1	2016.6	2462.3	3353.7	4022.4	4085.6
117.5°	822.8	885.9	949.0	964.8	1285.5	1713.2	1927.1	2329.4	3134.0	3737.4	3807.5
120°	877.7	937.1	996.4	1011.3	1304.7	1695.8	1891.4	2258.9	2994.1	3545.4	3613.5
122.5°	931.3	991.3	1051.1	1066.1	1332.1	1686.7	1863.9	2194.9	2856.9	3353.4	3420.6
125°	1013.6	1068.2	1122.8	1136.5	1369.0	1679.0	1834.1	2115.2	2677.6	3099.4	3161.2
127.5°	1080.5	1135.5	1190.7	1204.5	1406.0	1674.7	1809.0	2050.4	2533.3	2895.4	2947.6
130°	1116.2	1175.6	1235.0	1249.8	1433.0	1677.3	1799.5	2014.4	2444.3	2766.7	2814.9
132.5°	1153.2	1212.6	1272.0	1286.8	1454.9	1679.1	1791.2	1983.5	2368.3	2656.9	2700.1
135°	1208.0	1262.1	1316.2	1329.7	1478.7	1677.5	1776.8	1938.0	2260.3	2501.9	2539.1
137.5°	1264.1	1317.7	1371.1	1384.5	1514.5	1687.8	1774.5	1910.8	2183.1	2387.4	2417.9
140°	1310.6	1359.9	1409.1	1421.5	1536.4	1689.5	1766.1	1883.8	2119.2	2295.6	2324.1
142.5°	1346.3	1391.9	1437.5	1448.9	1554.6	1695.7	1766.1	1869.5	2076.1	2231.2	2255.7
145°	1401.2	1441.0	1480.7	1490.7	1578.5	1695.7	1754.2	1838.7	2007.8	2134.7	2153.2
147.5°	1456.1	1494.8	1533.5	1543.2	1613.5	1707.3	1754.2	1820.7	1953.7	2053.5	2068.9
150°	1491.8	1526.8	1561.8	1570.5	1631.7	1713.3	1754.2	1810.4	1922.7	2007.0	2019.5
152.5°	1528.8	1555.3	1581.9	1588.5	1643.7	1717.4	1754.2	1802.2	1898.0	1970.0	1979.4
155°	1583.7	1603.3	1622.9	1627.8	1669.9	1726.1	1754.2	1792.3	1868.7	1926.0	1932.2
157.5°	1624.2	1643.4	1662.4	1667.2	1696.1	1734.9	1754.2	1783.9	1843.3	1887.8	1892.2
160°	1651.7	1666.5	1681.3	1685.0	1708.1	1738.8	1754.2	1779.6	1830.5	1868.7	1871.2
162.5°	1679.1	1690.2	1701.4	1704.2	1720.8	1743.1	1754.2	1775.7	1818.6	1850.8	1853.2
165°	1708.8	1718.9	1729.0	1731.5	1739.1	1749.1	1754.2	1769.6	1800.3	1823.4	1825.9
167.5°	1736.3	1741.1	1745.8	1747.1	1753.4	1761.9	1766.1	1776.2	1796.3	1811.4	1812.5
170°	1754.2	1758.9	1763.7	1765.0	1765.3	1765.8	1766.1	1776.2	1796.3	1811.4	1811.4
172.5°	1763.7	1764.8	1765.8	1766.1	1766.1	1766.1	1766.1	1774.0	1789.9	1801.9	1800.9
175°	1776.8	1776.8	1776.8	1776.8	1773.3	1768.5	1766.1	1771.2	1781.2	1788.8	1788.8
177.5°	1776.8	1776.8	1776.8	1776.8	1774.0	1770.3	1768.5	1772.5	1780.5	1786.4	1785.3
180°	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.6	594.6
2.5°	634.8	631.0
5°	816.4	820.2
7.5°	1099.5	1097.6
10°	1367.2	1384.4
12.5°	1562.2	1566.0
15°	1680.7	1688.4
17.5°	1726.6	1728.5
20°	1728.5	1724.7
22.5°	1707.5	1703.7
25°	1682.7	1680.7
27.5°	1659.7	1661.6
30°	1650.2	1655.9
32.5°	1650.2	1659.7
35°	1654.0	1663.5
37.5°	1652.1	1663.5
40°	1644.4	1657.8
42.5°	1623.4	1632.9
45°	1590.9	1602.4
47.5°	1548.8	1556.5
50°	1495.3	1502.9
52.5°	1428.4	1430.3
55°	1348.1	1355.7
57.5°	1262.0	1263.9
60°	1166.4	1172.2
62.5°	1065.0	1065.0
65°	957.9	961.7
67.5°	847.0	856.6
70°	734.2	736.1
72.5°	623.3	623.3
75°	508.6	510.5
77.5°	399.6	399.6
80°	296.4	298.3
82.5°	204.6	208.4
85°	128.1	128.1
87.5°	59.3	53.5
90°	45.3	45.3
92.5°	181.5	145.5
95°	632.7	523.5
97.5°	1515.9	1308.2
100°	2184.2	1936.7
102.5°	2841.5	2629.6
105°	3679.6	3565.7
107.5°	4228.6	4256.1
110°	4437.9	4556.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4456.6	4638.9
115°	4338.4	4591.2
117.5°	4087.9	4368.3
120°	3885.9	4158.3
122.5°	3689.3	3958.0
125°	3408.8	3656.3
127.5°	3156.5	3365.3
130°	3007.9	3200.8
132.5°	2872.9	3045.7
135°	2688.1	2837.0
137.5°	2539.8	2661.7
140°	2438.1	2552.0
142.5°	2353.8	2451.9
145°	2227.4	2301.6
147.5°	2130.4	2191.8
150°	2069.4	2119.2
152.5°	2017.1	2054.7
155°	1957.1	1982.0
157.5°	1909.6	1927.1
160°	1881.3	1891.4
162.5°	1862.7	1872.2
165°	1836.0	1846.0
167.5°	1816.8	1821.0
170°	1811.4	1811.4
172.5°	1797.3	1793.6
175°	1788.8	1788.8
177.5°	1781.0	1776.8
180°	1776.8	1776.8



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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	2.14	2.86	3.26	3.97	5.52	15.32	16.04	16.44	17.15	18.70
	3H	2.84	3.48	3.96	4.60	6.16	17.15	17.79	18.27	18.91	20.47
	4H	3.13	3.74	4.26	4.86	6.43	17.79	18.40	18.92	19.52	21.09
	6H	3.37	3.93	4.51	5.06	6.64	18.21	18.77	19.35	19.90	21.48
	8H	3.43	3.97	4.58	5.11	6.68	18.33	18.86	19.47	20.00	21.57
	12H	3.45	3.95	4.60	5.09	6.68	18.39	18.90	19.54	20.03	21.63
4H	2H	9.34	9.95	10.48	11.07	12.64	15.58	16.19	16.72	17.31	18.88
	3H	10.89	11.40	12.04	12.55	14.13	17.61	18.12	18.76	19.27	20.85
	4H	10.98	11.45	12.13	12.59	14.19	18.37	18.84	19.52	19.98	21.57
	6H	10.98	11.39	12.14	12.55	14.14	18.90	19.30	20.06	20.46	22.05
	8H	10.96	11.33	12.11	12.48	14.09	19.06	19.43	20.21	20.59	22.19
	12H	10.91	11.25	12.08	12.41	14.02	19.14	19.49	20.32	20.65	22.26
8H	4H	12.41	12.79	13.57	13.94	15.55	18.42	18.79	19.57	19.94	21.55
	6H	12.65	12.96	13.83	14.15	15.76	19.04	19.35	20.22	20.54	22.15
	8H	12.66	12.94	13.85	14.11	15.73	19.26	19.53	20.44	20.70	22.32
	12H	12.63	12.86	13.81	14.03	15.69	19.39	19.63	20.58	20.80	22.46
12H	4H	12.55	12.89	13.72	14.05	15.67	18.36	18.70	19.53	19.87	21.48
	6H	12.91	13.18	14.09	14.35	15.97	19.02	19.29	20.20	20.46	22.09
	8H	12.97	13.21	14.15	14.38	16.03	19.24	19.48	20.43	20.65	22.31