

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: P938348

Luminaire Tested: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938348
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-92765-1D-UNV-STD-W-8-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

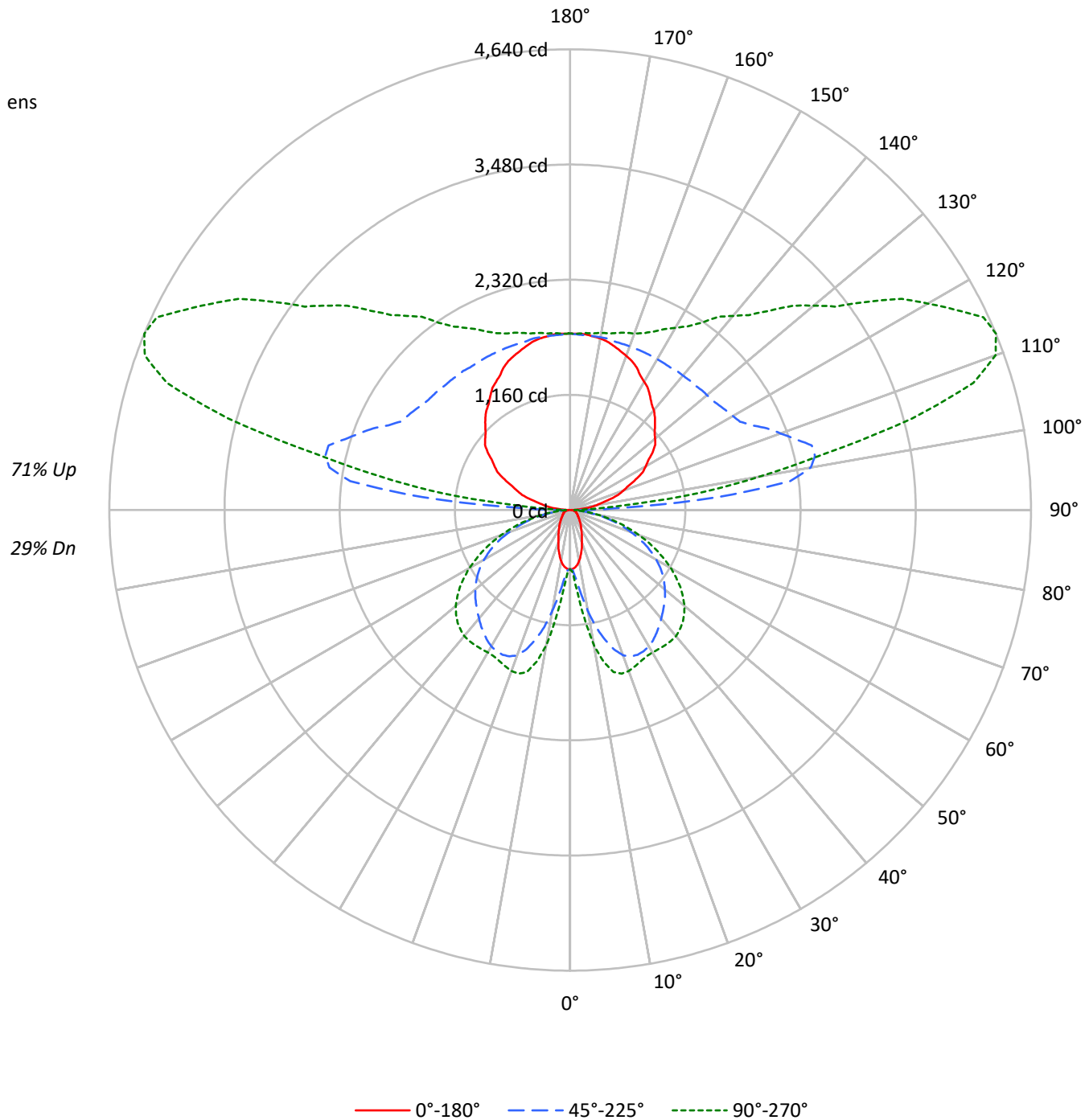
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16129.1 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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CATALOG NUMBER: SQ4-FB-150U-075D-92765-1D-UNV-STD-W-8-6500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2760	2760	2760
5°	2696	3189	3709
10°	2445	4649	6150
15°	2078	6074	7425
20°	1692	7039	7568
25°	1411	7366	7414
30°	1190	7413	7400
35°	1052	7289	7591
40°	917	7129	7789
45°	830	7013	7820
50°	762	6907	7690
55°	730	6753	7349
60°	747	6456	6811
65°	777	6005	6071
70°	828	5237	5129
75°	916	4270	4002
80°	1003	2961	2697
85°	890	1570	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7820 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.9	0.5
10°-20°	341.0	2.1
20°-30°	596.4	3.7
30°-40°	767.8	4.8
40°-50°	857.6	5.3
50°-60°	821.4	5.1
60°-70°	650.9	4.0
70°-80°	382.8	2.4
80°-90°	113.1	0.7
90°-100°	866.3	5.4
100°-110°	2277.6	14.1
110°-120°	2361.6	14.6
120°-130°	1894.3	11.7
130°-140°	1486.3	9.2
140°-150°	1140.8	7.1
150°-160°	821.6	5.1
160°-170°	502.7	3.1
170°-180°	169.8	1.1
0°-30°	1014.4	6.3
0°-40°	1782.2	11.0
0°-60°	3461.2	21.5
0°-90°	4608.0	28.6
90°-120°	5505.5	34.1
90°-150°	10027.0	62.2
90°-180°	11521.0	71.4
0°-180°	16129.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	595	595	595	595	595	
5°	580	622	700	792	820	53
15°	434	801	1350	1637	1689	121
25°	277	908	1608	1679	1681	128
35°	187	868	1515	1601	1664	117
45°	128	692	1339	1534	1603	99
55°	92	440	1136	1320	1356	84
65°	73	233	843	948	962	72
75°	54	143	463	509	511	56
85°	19	44	115	126	128	20
90°	12	33	91	45	45	11
95°	115	448	1492	769	524	127
105°	410	621	2518	3823	3566	435
115°	729	885	2017	4023	4592	720
125°	1014	1137	1834	3100	3657	900
135°	1208	1330	1777	2502	2838	935
145°	1402	1491	1754	2135	2302	878
155°	1584	1628	1754	1926	1982	728
165°	1709	1732	1754	1824	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°	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8	594.8
2.5°	594.8	594.8	598.6	600.5	604.3	606.2	610.1	613.9	625.4	627.3	631.1
5°	579.5	587.1	612.0	621.5	648.3	684.6	699.9	724.8	776.4	791.7	801.3
7.5°	556.5	573.7	634.9	650.2	717.1	812.8	852.9	906.5	988.7	1028.9	1061.4
10°	520.2	556.5	665.5	701.8	810.9	956.2	1030.8	1105.5	1229.8	1285.2	1306.3
12.5°	480.0	539.3	698.0	747.7	904.6	1116.9	1206.8	1289.0	1430.6	1505.1	1516.6
15°	434.1	514.4	728.6	801.3	1004.0	1250.8	1350.2	1451.6	1583.6	1637.1	1650.5
17.5°	394.0	495.3	757.3	833.8	1080.5	1371.3	1472.6	1556.8	1663.9	1700.2	1709.8
20°	344.2	464.7	776.4	875.9	1160.9	1459.2	1556.8	1621.8	1694.5	1717.4	1721.2
22.5°	307.9	432.2	787.9	891.2	1214.5	1512.8	1595.0	1646.7	1696.4	1704.0	1705.9
25°	277.3	395.9	786.0	908.4	1260.4	1545.3	1608.4	1646.7	1675.3	1679.2	1679.2
27.5°	248.6	355.7	778.3	912.2	1294.8	1553.0	1602.7	1629.4	1642.8	1650.5	1650.5
30°	223.7	317.5	759.2	904.6	1310.1	1545.3	1585.5	1598.9	1612.2	1623.7	1629.4
32.5°	204.6	281.1	730.5	889.3	1312.0	1526.2	1554.9	1562.5	1581.6	1608.4	1618.0
35°	187.4	244.8	698.0	868.2	1300.5	1495.6	1514.7	1522.4	1560.6	1600.8	1614.1
37.5°	170.2	218.0	655.9	831.9	1283.3	1459.2	1472.6	1486.0	1545.3	1593.1	1608.4
40°	153.0	195.1	606.2	791.7	1256.5	1415.3	1426.7	1447.8	1526.2	1581.6	1596.9
42.5°	139.6	175.9	552.7	749.7	1222.1	1365.5	1382.8	1413.3	1503.2	1562.5	1579.7
45°	128.1	156.8	495.3	692.3	1178.1	1313.9	1338.8	1380.8	1476.5	1533.8	1549.1
47.5°	116.7	143.4	436.0	633.0	1130.3	1262.3	1294.8	1342.6	1440.1	1495.6	1509.0
50°	107.1	130.0	376.7	569.9	1078.6	1206.8	1245.1	1294.8	1394.2	1445.9	1463.1
52.5°	99.4	118.6	321.3	506.8	1019.3	1149.4	1193.4	1245.1	1338.8	1388.5	1400.0
55°	91.8	109.0	273.5	439.8	958.1	1088.2	1136.1	1185.8	1277.6	1319.6	1327.3
57.5°	88.0	101.4	233.3	376.7	893.1	1019.3	1072.8	1118.8	1204.9	1237.4	1245.1
60°	82.2	95.6	202.7	323.2	822.3	954.3	1000.2	1046.1	1118.8	1145.6	1151.4
62.5°	76.5	91.8	179.8	271.6	749.7	877.8	923.7	965.8	1027.0	1046.1	1053.7
65°	72.7	88.0	162.6	233.3	675.1	797.5	843.4	879.7	929.4	948.5	952.4
67.5°	68.8	84.1	149.2	200.8	600.5	717.1	751.6	786.0	824.2	843.4	845.3
70°	63.1	80.3	137.7	177.9	524.0	625.4	654.0	690.4	721.0	730.5	736.3
72.5°	59.3	74.6	130.0	160.6	445.6	537.4	564.2	585.2	612.0	621.5	621.5
75°	53.5	66.9	122.4	143.4	365.3	439.8	462.8	483.8	504.9	508.7	503.0
77.5°	47.8	59.3	105.2	120.5	284.9	348.1	367.2	378.7	395.9	399.7	401.6
80°	40.2	51.6	82.2	93.7	206.5	256.3	269.6	279.2	294.5	294.5	298.3
82.5°	30.6	40.2	59.3	66.9	139.6	175.9	187.4	193.2	202.7	202.7	202.7
85°	19.1	24.9	38.2	44.0	84.1	107.1	114.7	116.7	124.3	126.2	126.2
87.5°	9.6	13.4	24.9	26.8	44.0	55.5	55.5	59.3	59.3	57.4	55.5
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	210.0	230.3	323.7	448.3	510.5	447.4	321.3	226.6	217.6
95°	114.6	263.0	411.4	448.5	796.3	1260.2	1492.1	1331.5	1010.3	769.4	742.0
97.5°	198.0	328.9	459.9	492.6	1072.8	1846.2	2232.9	2131.4	1928.4	1776.0	1724.1
100°	262.4	381.1	499.9	529.6	1173.3	2031.5	2460.7	2468.1	2482.9	2494.0	2432.2
102.5°	317.3	428.1	538.8	566.5	1219.4	2089.9	2525.1	2654.5	2913.1	3107.1	3054.2
105°	410.3	504.1	598.0	621.4	1253.6	2096.5	2517.9	2808.0	3387.9	3822.9	3794.4
107.5°	505.7	593.2	680.6	702.5	1260.0	2003.2	2374.8	2779.3	3588.3	4195.0	4201.9
110°	570.2	649.2	728.1	747.8	1250.4	1920.5	2255.6	2707.7	3612.1	4290.4	4320.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.4	708.6	783.9	802.7	1250.8	1848.2	2146.9	2609.7	3535.3	4229.5	4275.1
115°	728.8	798.2	867.6	885.1	1262.4	1765.4	2017.0	2462.8	3354.4	4023.2	4086.4
117.5°	823.0	886.1	949.2	965.0	1285.8	1713.6	1927.5	2329.9	3134.6	3738.1	3808.2
120°	877.9	937.3	996.6	1011.5	1304.9	1696.1	1891.7	2259.4	2994.7	3546.1	3614.2
122.5°	931.5	991.5	1051.3	1066.3	1332.4	1687.0	1864.3	2195.3	2857.5	3354.0	3421.3
125°	1013.9	1068.5	1123.0	1136.7	1369.3	1679.4	1834.5	2115.7	2678.1	3100.0	3161.8
127.5°	1080.7	1135.8	1190.9	1204.7	1406.3	1675.1	1809.4	2050.8	2533.8	2896.0	2948.2
130°	1116.5	1175.8	1235.2	1250.0	1433.3	1677.6	1799.8	2014.8	2444.8	2767.2	2815.5
132.5°	1153.5	1212.8	1272.2	1287.0	1455.2	1679.5	1791.5	1983.9	2368.8	2657.5	2700.7
135°	1208.2	1262.4	1316.5	1330.0	1479.0	1677.8	1777.2	1938.4	2260.7	2502.5	2539.6
137.5°	1264.4	1317.9	1371.4	1384.8	1514.8	1688.2	1774.9	1911.1	2183.6	2387.9	2418.4
140°	1310.8	1360.2	1409.4	1421.8	1536.7	1689.9	1766.5	1884.2	2119.6	2296.1	2324.6
142.5°	1346.6	1392.2	1437.8	1449.2	1555.0	1696.0	1766.5	1869.8	2076.6	2231.7	2256.1
145°	1401.5	1441.3	1481.0	1491.0	1578.9	1696.0	1754.5	1839.0	2008.2	2135.1	2153.6
147.5°	1456.4	1495.1	1533.8	1543.5	1613.9	1707.7	1754.5	1821.1	1954.1	2053.9	2069.3
150°	1492.1	1527.1	1562.1	1570.8	1632.0	1713.7	1754.5	1810.7	1923.1	2007.4	2019.9
152.5°	1529.1	1555.6	1582.2	1588.8	1644.1	1717.7	1754.5	1802.5	1898.4	1970.4	1979.8
155°	1584.0	1603.6	1623.2	1628.1	1670.3	1726.4	1754.5	1792.7	1869.1	1926.3	1932.6
157.5°	1624.6	1643.7	1662.7	1667.5	1696.5	1735.2	1754.5	1784.3	1843.6	1888.2	1892.6
160°	1652.0	1666.8	1681.7	1685.4	1708.4	1739.1	1754.5	1780.0	1830.9	1869.1	1871.6
162.5°	1679.5	1690.5	1701.7	1704.5	1721.1	1743.4	1754.5	1776.0	1819.0	1851.2	1853.6
165°	1709.2	1719.2	1729.4	1731.9	1739.4	1749.5	1754.5	1769.9	1800.7	1823.7	1826.2
167.5°	1736.6	1741.4	1746.2	1747.4	1753.8	1762.3	1766.5	1776.5	1796.7	1811.8	1812.8
170°	1754.5	1759.3	1764.1	1765.3	1765.7	1766.2	1766.5	1776.5	1796.7	1811.8	1811.8
172.5°	1764.1	1765.1	1766.2	1766.5	1766.5	1766.5	1766.5	1774.4	1790.3	1802.2	1801.3
175°	1777.2	1777.2	1777.2	1777.2	1773.6	1768.9	1766.5	1771.5	1781.6	1789.1	1789.1
177.5°	1777.2	1777.2	1777.2	1777.2	1774.4	1770.7	1768.9	1772.9	1780.8	1786.7	1785.7
180°	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2	1777.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.8	594.8
2.5°	634.9	631.1
5°	816.6	820.4
7.5°	1099.7	1097.8
10°	1367.5	1384.7
12.5°	1562.5	1566.3
15°	1681.1	1688.7
17.5°	1727.0	1728.9
20°	1728.9	1725.1
22.5°	1707.9	1704.0
25°	1683.0	1681.1
27.5°	1660.0	1662.0
30°	1650.5	1656.2
32.5°	1650.5	1660.0
35°	1654.3	1663.9
37.5°	1652.4	1663.9
40°	1644.7	1658.1
42.5°	1623.7	1633.3
45°	1591.2	1602.7
47.5°	1549.1	1556.8
50°	1495.6	1503.2
52.5°	1428.6	1430.6
55°	1348.3	1356.0
57.5°	1262.3	1264.2
60°	1166.7	1172.4
62.5°	1065.2	1065.2
65°	958.1	961.9
67.5°	847.2	856.7
70°	734.4	736.3
72.5°	623.4	623.4
75°	508.7	510.6
77.5°	399.7	399.7
80°	296.4	298.3
82.5°	204.6	208.5
85°	128.1	128.1
87.5°	59.3	53.5
90°	45.3	45.3
92.5°	181.6	145.5
95°	632.8	523.6
97.5°	1516.2	1308.5
100°	2184.6	1937.1
102.5°	2842.1	2630.1
105°	3680.4	3566.4
107.5°	4229.4	4257.0
110°	4438.8	4557.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4457.5	4639.8
115°	4339.3	4592.1
117.5°	4088.7	4369.1
120°	3886.7	4159.2
122.5°	3690.0	3958.8
125°	3409.5	3657.1
127.5°	3157.2	3366.0
130°	3008.5	3201.4
132.5°	2873.5	3046.3
135°	2688.6	2837.6
137.5°	2540.3	2662.2
140°	2438.6	2552.6
142.5°	2354.2	2452.3
145°	2227.8	2302.0
147.5°	2130.8	2192.3
150°	2069.8	2119.6
152.5°	2017.5	2055.1
155°	1957.5	1982.4
157.5°	1910.0	1927.5
160°	1881.7	1891.7
162.5°	1863.0	1872.6
165°	1836.4	1846.4
167.5°	1817.1	1821.4
170°	1811.8	1811.8
172.5°	1797.6	1793.9
175°	1789.1	1789.1
177.5°	1781.4	1777.2
180°	1777.2	1777.2



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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	20.48
	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	21.58
	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	12.49	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	19.95	21.55
	6H	12.65	12.96	13.83	14.15	15.76	19.04	19.35	20.22	20.55	22.15
	8H	12.67	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	14.04	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	19.54	19.87	21.48
	6H	12.91	13.18	14.09	14.35	15.97	19.02	19.29	20.20	20.47	22.09
	8H	12.97	13.21	14.15	14.38	16.03	19.24	19.48	20.43	20.65	22.31