

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: P937554

Luminaire Tested: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937554
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-93050-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

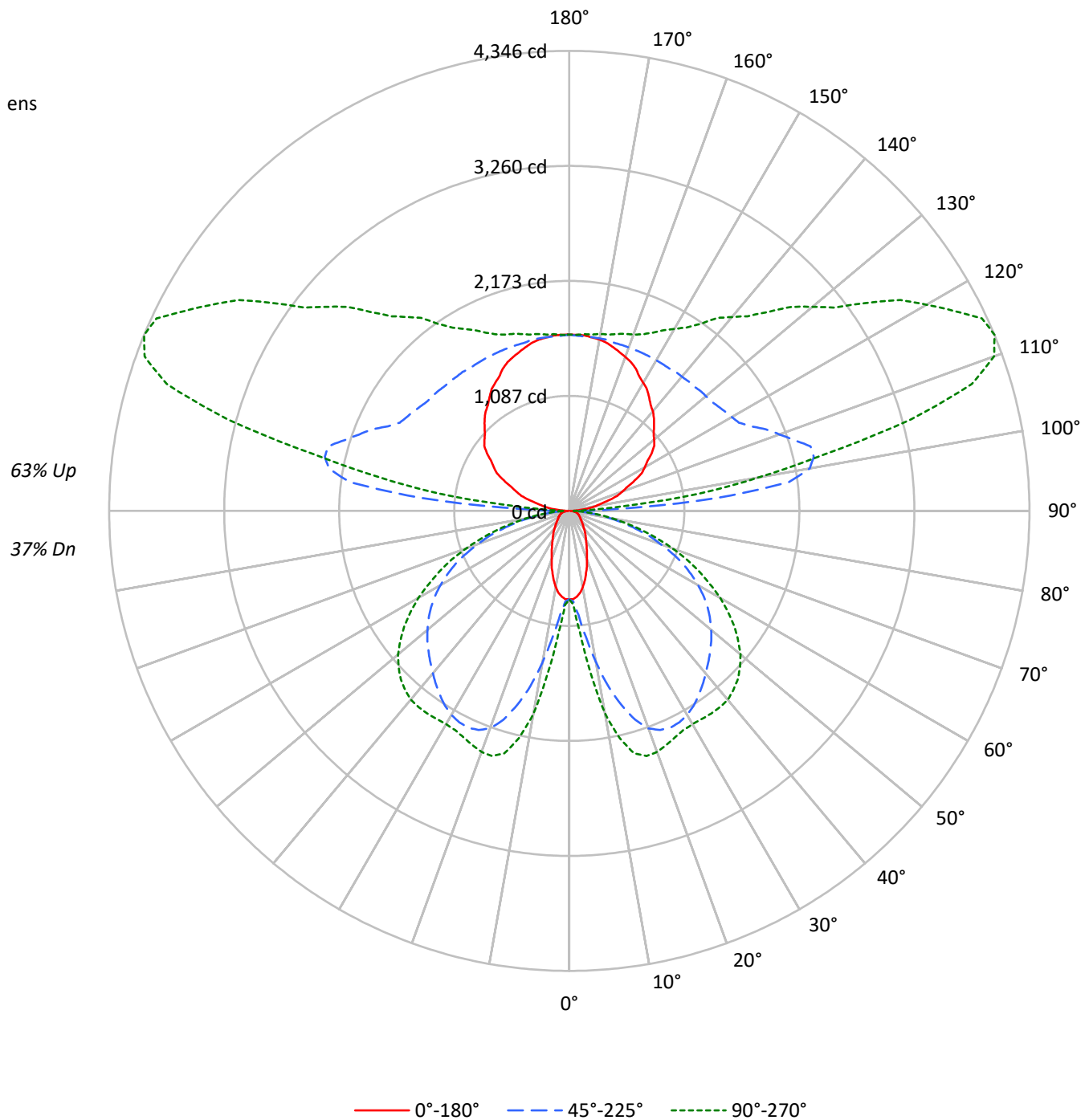
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17259.8 lumens
Efficiency: N/A
Efficacy: 116.9 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): 147.6
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37			37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31			31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25			25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21			21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17			17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15			15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13			13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11			11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10			10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9			9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8			8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2584	2584	2584
5°	2525	2987	3473
10°	2291	4355	5758
15°	1948	5692	6953
20°	1587	6597	7086
25°	1324	6905	6942
30°	1117	6951	6928
35°	988	6837	7108
40°	862	6689	7293
45°	781	6581	7321
50°	717	6484	7200
55°	687	6342	6881
60°	704	6066	6377
65°	734	5646	5685
70°	783	4927	4803
75°	872	4021	3747
80°	959	2792	2525
85°	872	1484	1293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7321 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	0.6
10°-20°	478.9	2.8
20°-30°	837.7	4.9
30°-40°	1078.4	6.2
40°-50°	1204.5	7.0
50°-60°	1153.6	6.7
60°-70°	914.3	5.3
70°-80°	537.6	3.1
80°-90°	155.7	0.9
90°-100°	811.4	4.7
100°-110°	2133.3	12.4
110°-120°	2212.0	12.8
120°-130°	1774.3	10.3
130°-140°	1392.2	8.1
140°-150°	1068.5	6.2
150°-160°	769.5	4.5
160°-170°	470.8	2.7
170°-180°	159.1	0.9
0°-30°	1424.7	8.3
0°-40°	2503.0	14.5
0°-60°	4861.1	28.2
0°-90°	6468.7	37.5
90°-120°	5156.7	29.9
90°-150°	9391.7	54.4
90°-180°	10791.0	62.5
0°-180°	17259.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	835	835	835	835	835	
5°	814	873	983	1112	1152	75
15°	610	1126	1896	2299	2372	170
25°	390	1276	2259	2358	2361	179
35°	263	1220	2127	2248	2337	164
45°	180	972	1880	2154	2251	139
55°	129	618	1596	1853	1904	117
65°	102	328	1185	1332	1351	101
75°	75	201	650	714	717	79
85°	27	62	161	177	180	29
90°	11	31	85	42	42	11
95°	107	420	1398	720	490	119
105°	384	582	2358	3581	3340	407
115°	683	829	1889	3768	4301	674
125°	950	1065	1718	2904	3425	843
135°	1132	1246	1665	2344	2658	876
145°	1313	1396	1643	2000	2156	822
155°	1484	1525	1643	1804	1857	682
165°	1601	1622	1643	1708	1729	452
175°	1665	1665	1654	1676	1676	158
180°	1665	1665	1665	1665	1665	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	835.3	835.3	840.7	843.4	848.8	851.4	856.8	862.2	878.3	881.0	886.4
5°	813.8	824.6	859.5	872.9	910.5	961.6	983.1	1018.1	1090.6	1112.1	1125.5
7.5°	781.6	805.8	891.7	913.2	1007.2	1141.6	1198.0	1273.2	1388.7	1445.1	1490.8
10°	730.6	781.6	934.7	985.7	1138.9	1343.1	1447.8	1552.6	1727.1	1805.0	1834.6
12.5°	674.2	757.4	980.4	1050.3	1270.5	1568.7	1694.9	1810.4	2009.2	2113.9	2130.0
15°	609.7	722.5	1023.4	1125.5	1410.2	1756.7	1896.4	2038.7	2224.0	2299.3	2318.1
17.5°	553.3	695.7	1063.7	1171.2	1517.6	1925.9	2068.3	2186.4	2336.9	2387.9	2401.3
20°	483.5	652.7	1090.6	1230.2	1630.5	2049.5	2186.4	2277.8	2379.8	2412.1	2417.4
22.5°	432.4	607.0	1106.7	1251.7	1705.7	2124.7	2240.2	2312.7	2382.5	2393.3	2395.9
25°	389.5	556.0	1104.0	1275.9	1770.1	2170.3	2259.0	2312.7	2353.0	2358.3	2358.3
27.5°	349.2	499.6	1093.3	1281.3	1818.5	2181.1	2250.9	2288.5	2307.3	2318.1	2318.1
30°	314.3	445.9	1066.4	1270.5	1840.0	2170.3	2226.7	2245.5	2264.3	2280.4	2288.5
32.5°	287.4	394.8	1026.1	1249.0	1842.6	2143.5	2183.8	2194.5	2221.4	2259.0	2272.4
35°	263.2	343.8	980.4	1219.5	1826.5	2100.5	2127.4	2138.1	2191.8	2248.2	2267.0
37.5°	239.0	306.2	921.3	1168.5	1802.4	2049.5	2068.3	2087.1	2170.3	2237.5	2259.0
40°	214.9	274.0	851.4	1112.1	1764.7	1987.7	2003.8	2033.3	2143.5	2221.4	2242.8
42.5°	196.1	247.1	776.2	1053.0	1716.4	1917.8	1942.0	1985.0	2111.2	2194.5	2218.7
45°	180.0	220.2	695.7	972.3	1654.6	1845.3	1880.2	1939.3	2073.6	2154.2	2175.7
47.5°	163.8	201.4	612.4	889.0	1587.5	1772.8	1818.5	1885.6	2022.6	2100.5	2119.3
50°	150.4	182.6	529.1	800.4	1515.0	1694.9	1748.6	1818.5	1958.1	2030.7	2054.8
52.5°	139.7	166.5	451.2	711.8	1431.7	1614.3	1676.1	1748.6	1880.2	1950.1	1966.2
55°	128.9	153.1	384.1	617.8	1345.7	1528.4	1595.5	1665.4	1794.3	1853.4	1864.1
57.5°	123.6	142.4	327.7	529.1	1254.4	1431.7	1506.9	1571.4	1692.2	1737.9	1748.6
60°	115.5	134.3	284.7	453.9	1155.0	1340.4	1404.8	1469.3	1571.4	1609.0	1617.0
62.5°	107.4	128.9	252.5	381.4	1053.0	1232.9	1297.4	1356.5	1442.4	1469.3	1480.0
65°	102.1	123.6	228.3	327.7	948.1	1120.1	1184.6	1235.6	1305.5	1332.3	1337.7
67.5°	96.7	118.2	209.5	282.0	843.4	1007.2	1055.7	1104.0	1157.7	1184.6	1187.3
70°	88.6	112.8	193.4	249.8	735.9	878.3	918.6	969.6	1012.6	1026.1	1034.2
72.5°	83.3	104.8	182.6	225.6	625.8	754.7	792.4	821.9	859.5	872.9	872.9
75°	75.2	94.0	171.9	201.4	513.0	617.8	650.0	679.5	709.1	714.5	706.4
77.5°	67.1	83.3	147.7	169.2	400.2	488.8	515.7	531.8	556.0	561.4	564.0
80°	56.4	72.5	115.5	131.6	290.1	359.9	378.7	392.1	413.6	413.6	419.0
82.5°	43.0	56.4	83.3	94.0	196.1	247.1	263.2	271.3	284.7	284.7	284.7
85°	26.9	34.9	53.7	61.8	118.2	150.4	161.2	163.8	174.6	177.3	177.3
87.5°	13.4	18.8	34.9	37.6	61.8	77.9	77.9	83.3	83.3	80.6	77.9
90°	11.2	20.1	29.0	31.2	49.2	73.0	84.9	75.5	56.6	42.4	42.4
92.5°	44.7	120.6	196.6	215.6	303.2	419.8	478.2	419.1	300.9	212.3	203.9
95°	107.3	246.3	385.3	420.1	745.9	1180.4	1397.6	1247.2	946.3	720.5	694.9
97.5°	185.4	308.1	430.7	461.4	1004.7	1729.1	2091.4	1996.3	1806.1	1663.5	1614.9
100°	245.8	357.0	468.2	496.0	1098.9	1902.8	2304.8	2311.8	2325.7	2336.0	2278.1
102.5°	297.2	400.9	504.7	530.7	1142.1	1957.5	2365.1	2486.3	2728.6	2910.3	2860.6
105°	384.4	472.2	560.1	582.0	1174.2	1963.7	2358.4	2630.1	3173.3	3580.6	3553.9
107.5°	473.7	555.6	637.6	658.1	1180.1	1876.2	2224.3	2603.2	3360.9	3929.2	3935.6
110°	534.1	608.0	682.0	700.5	1171.2	1798.8	2112.6	2536.2	3383.2	4018.5	4046.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	593.2	663.8	734.2	751.9	1171.6	1731.2	2011.0	2444.5	3311.4	3961.6	4004.3
115°	682.6	747.7	812.7	829.0	1182.3	1653.6	1889.2	2306.8	3141.9	3768.3	3827.5
117.5°	770.9	830.0	889.0	903.8	1204.4	1605.0	1805.4	2182.2	2936.0	3501.3	3566.9
120°	822.3	877.9	933.5	947.4	1222.3	1588.7	1771.9	2116.2	2804.9	3321.4	3385.3
122.5°	872.6	928.7	984.8	998.8	1248.0	1580.1	1746.2	2056.3	2676.4	3141.6	3204.5
125°	949.7	1000.8	1051.9	1064.7	1282.5	1573.1	1718.3	1981.7	2508.5	2903.6	2961.5
127.5°	1012.2	1063.8	1115.5	1128.4	1317.2	1568.9	1694.8	1921.0	2373.3	2712.5	2761.4
130°	1045.7	1101.3	1156.9	1170.8	1342.5	1571.5	1685.9	1887.2	2289.9	2591.9	2637.1
132.5°	1080.4	1136.0	1191.6	1205.4	1362.9	1573.0	1678.0	1858.2	2218.8	2489.1	2529.6
135°	1131.8	1182.3	1233.0	1245.6	1385.3	1571.5	1664.7	1815.6	2117.4	2343.8	2378.8
137.5°	1184.2	1234.4	1284.5	1297.0	1418.8	1581.2	1662.4	1790.0	2045.3	2236.7	2265.2
140°	1227.8	1274.0	1320.1	1331.7	1439.3	1582.8	1654.5	1764.7	1985.3	2150.6	2177.3
142.5°	1261.3	1304.0	1346.7	1357.4	1456.4	1588.5	1654.5	1751.4	1945.1	2090.3	2113.2
145°	1312.7	1350.0	1387.2	1396.5	1478.8	1588.6	1643.4	1722.6	1881.0	1999.8	2017.1
147.5°	1364.1	1400.4	1436.6	1445.7	1511.6	1599.5	1643.4	1705.7	1830.4	1923.8	1938.3
150°	1397.6	1430.4	1463.1	1471.4	1528.7	1605.2	1643.4	1696.1	1801.3	1880.2	1891.9
152.5°	1432.2	1457.0	1481.9	1488.1	1539.8	1608.9	1643.4	1688.4	1778.2	1845.6	1854.4
155°	1483.6	1502.0	1520.4	1525.0	1564.5	1617.1	1643.4	1679.2	1750.6	1804.2	1810.1
157.5°	1521.6	1539.5	1557.4	1561.9	1589.1	1625.3	1643.4	1671.2	1726.8	1768.5	1772.6
160°	1547.3	1561.2	1575.1	1578.6	1600.2	1629.0	1643.4	1667.3	1714.9	1750.6	1752.9
162.5°	1573.0	1583.4	1593.8	1596.4	1612.1	1633.0	1643.4	1663.5	1703.7	1733.9	1736.1
165°	1600.9	1610.3	1619.8	1622.1	1629.2	1638.7	1643.4	1657.8	1686.6	1708.2	1710.5
167.5°	1626.6	1631.1	1635.6	1636.7	1642.6	1650.6	1654.5	1664.0	1682.9	1697.1	1698.0
170°	1643.4	1647.9	1652.4	1653.5	1653.8	1654.3	1654.5	1664.0	1682.9	1697.1	1697.1
172.5°	1652.3	1653.3	1654.3	1654.5	1654.5	1654.5	1654.5	1662.0	1676.9	1688.1	1687.2
175°	1664.7	1664.7	1664.7	1664.7	1661.3	1656.8	1654.5	1659.3	1668.7	1675.8	1675.8
177.5°	1664.7	1664.7	1664.7	1664.7	1662.1	1658.6	1656.8	1660.5	1668.0	1673.5	1672.5
180°	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7	1664.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	835.3	835.3
2.5°	891.7	886.4
5°	1147.0	1152.4
7.5°	1544.5	1541.8
10°	1920.5	1944.7
12.5°	2194.5	2199.9
15°	2361.0	2371.8
17.5°	2425.5	2428.2
20°	2428.2	2422.8
22.5°	2398.6	2393.3
25°	2363.7	2361.0
27.5°	2331.5	2334.2
30°	2318.1	2326.1
32.5°	2318.1	2331.5
35°	2323.4	2336.9
37.5°	2320.7	2336.9
40°	2310.0	2328.8
42.5°	2280.4	2293.9
45°	2234.8	2250.9
47.5°	2175.7	2186.4
50°	2100.5	2111.2
52.5°	2006.5	2009.2
55°	1893.7	1904.4
57.5°	1772.8	1775.5
60°	1638.5	1646.6
62.5°	1496.2	1496.2
65°	1345.7	1351.1
67.5°	1190.0	1203.4
70°	1031.5	1034.2
72.5°	875.6	875.6
75°	714.5	717.1
77.5°	561.4	561.4
80°	416.3	419.0
82.5°	287.4	292.8
85°	180.0	180.0
87.5°	83.3	75.2
90°	42.4	42.4
92.5°	170.0	136.3
95°	592.7	490.5
97.5°	1420.2	1225.6
100°	2046.2	1814.3
102.5°	2662.0	2463.5
105°	3447.1	3340.4
107.5°	3961.5	3987.3
110°	4157.6	4268.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4175.1	4345.9
115°	4064.4	4301.2
117.5°	3829.6	4092.3
120°	3640.4	3895.7
122.5°	3456.2	3707.9
125°	3193.4	3425.3
127.5°	2957.1	3152.8
130°	2817.8	2998.6
132.5°	2691.5	2853.4
135°	2518.2	2657.8
137.5°	2379.4	2493.6
140°	2284.1	2390.8
142.5°	2205.1	2296.9
145°	2086.7	2156.2
147.5°	1995.8	2053.4
150°	1938.6	1985.3
152.5°	1889.6	1924.9
155°	1833.4	1856.8
157.5°	1789.0	1805.4
160°	1762.4	1771.9
162.5°	1745.1	1754.0
165°	1720.0	1729.4
167.5°	1702.0	1705.9
170°	1697.1	1697.1
172.5°	1683.7	1680.2
175°	1675.8	1675.8
177.5°	1668.6	1664.7
180°	1664.7	1664.7



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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	3.04	3.83	4.09	4.89	6.32	16.23	17.02	17.28	18.08	19.51
	3H	3.74	4.45	4.80	5.51	6.97	18.07	18.78	19.13	19.85	21.30
	4H	4.03	4.70	5.11	5.77	7.24	18.72	19.39	19.79	20.46	21.92
	6H	4.28	4.90	5.36	5.97	7.45	19.15	19.76	20.23	20.84	22.31
	8H	4.35	4.93	5.43	6.02	7.49	19.27	19.86	20.35	20.95	22.42
	12H	4.36	4.92	5.45	6.00	7.50	19.34	19.90	20.43	20.98	22.47
4H	2H	10.26	10.92	11.33	12.00	13.46	16.50	17.17	17.58	18.24	19.70
	3H	11.81	12.37	12.90	13.47	14.95	18.54	19.10	19.63	20.20	21.67
	4H	11.91	12.42	13.00	13.51	15.00	19.31	19.82	20.40	20.91	22.41
	6H	11.91	12.35	13.01	13.47	14.95	19.85	20.29	20.95	21.40	22.89
	8H	11.89	12.30	12.99	13.40	14.91	20.01	20.42	21.11	21.53	23.03
	12H	11.84	12.21	12.96	13.33	14.84	20.10	20.48	21.22	21.59	23.10
8H	4H	13.35	13.76	14.45	14.86	16.37	19.36	19.77	20.46	20.88	22.38
	6H	13.59	13.93	14.71	15.07	16.58	19.99	20.33	21.11	21.48	22.98
	8H	13.60	13.90	14.73	15.03	16.55	20.21	20.51	21.34	21.64	23.16
	12H	13.57	13.83	14.70	14.95	16.51	20.36	20.62	21.49	21.74	23.30
12H	4H	13.49	13.86	14.61	14.98	16.49	19.31	19.68	20.43	20.80	22.31
	6H	13.84	14.15	14.97	15.27	16.79	19.97	20.27	21.10	21.40	22.92
	8H	13.91	14.17	15.04	15.30	16.86	20.20	20.47	21.34	21.59	23.15