

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: P938395

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938395
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-B2750-1D-UNV-W2A-W-8-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

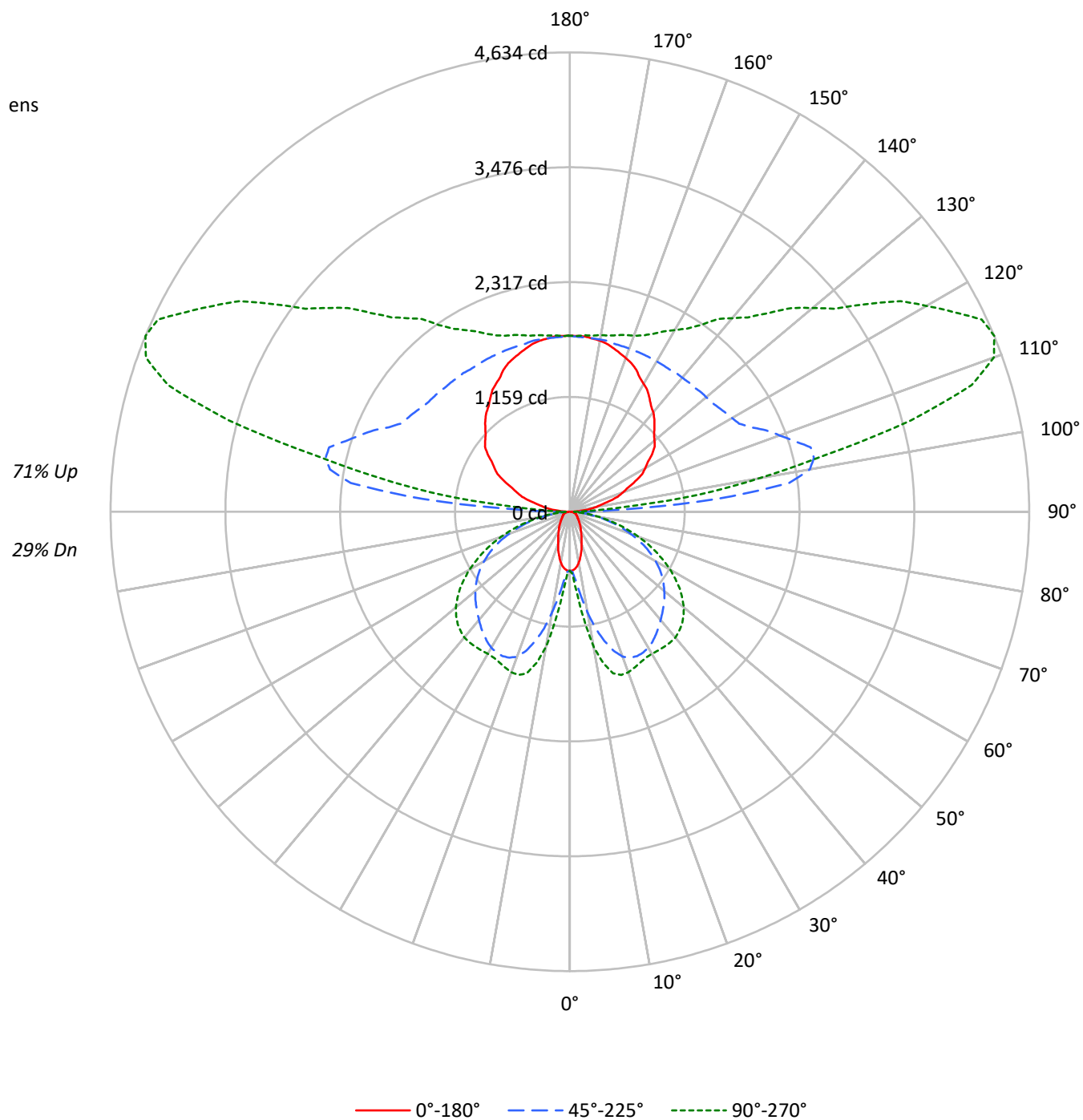
Lumens per Lamp: N/A
Luminaire Lumens: 16108.9 lumens
Efficiency: N/A
Efficacy: 126.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 127.2
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P938395

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-4000K

Luminous Intensity Polar Plot



TEST NUMBER: P938395

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	27	26	25			19
3	76	67	60	54	68	60	54	49	47	43	39	35	32	30	24	22	21			16
4	70	59	51	45	62	53	46	41	42	37	33	31	28	25	21	19	17			13
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15			11
6	58	47	39	33	52	42	35	30	33	28	24	25	21	18	17	15	13			10
7	54	42	34	28	48	38	31	26	30	25	21	22	19	16	15	13	11			8
8	50	38	30	25	44	34	27	23	27	22	18	20	17	14	14	12	10			7
9	46	34	27	22	41	31	24	20	24	20	16	18	15	12	13	10	9			6
10	43	31	24	19	38	28	22	18	22	18	14	17	13	11	12	9	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2756	2756	2756
5°	2692	3186	3704
10°	2442	4643	6142
15°	2076	6067	7416
20°	1690	7030	7558
25°	1410	7357	7405
30°	1189	7403	7391
35°	1051	7280	7582
40°	916	7121	7779
45°	829	7004	7810
50°	761	6898	7681
55°	729	6744	7340
60°	746	6447	6802
65°	776	5997	6063
70°	826	5230	5123
75°	916	4264	3998
80°	1000	2957	2694
85°	890	1569	1379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7810 cd/sqm

TEST NUMBER: P938395

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.8	0.5
10°-20°	340.6	2.1
20°-30°	595.7	3.7
30°-40°	766.8	4.8
40°-50°	856.5	5.3
50°-60°	820.4	5.1
60°-70°	650.1	4.0
70°-80°	382.3	2.4
80°-90°	113.0	0.7
90°-100°	865.2	5.4
100°-110°	2274.7	14.1
110°-120°	2358.7	14.6
120°-130°	1891.9	11.7
130°-140°	1484.5	9.2
140°-150°	1139.4	7.1
150°-160°	820.6	5.1
160°-170°	502.1	3.1
170°-180°	169.6	1.1
0°-30°	1013.1	6.3
0°-40°	1780.0	11.0
0°-60°	3456.9	21.5
0°-90°	4602.2	28.6
90°-120°	5498.6	34.1
90°-150°	10014.5	62.2
90°-180°	11507.0	71.4
0°-180°	16108.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	594	594	594	594	594	
5°	579	621	699	791	819	53
15°	434	800	1349	1635	1687	121
25°	277	907	1606	1677	1679	128
35°	187	867	1513	1599	1662	117
45°	128	691	1337	1532	1601	99
55°	92	439	1135	1318	1354	84
65°	73	233	842	947	961	72
75°	54	143	462	508	510	56
85°	19	44	115	126	128	20
90°	12	33	90	45	45	11
95°	114	448	1490	768	523	127
105°	410	621	2515	3818	3562	434
115°	728	884	2014	4018	4586	719
125°	1013	1135	1832	3096	3652	899
135°	1207	1328	1775	2499	2834	934
145°	1400	1489	1752	2132	2299	877
155°	1582	1626	1752	1924	1980	727
165°	1707	1730	1752	1822	1844	482
175°	1775	1775	1764	1787	1787	168
180°	1775	1775	1775	1775	1775	

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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-4000K

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0	594.0
2.5°	594.0	594.0	597.8	599.7	603.6	605.5	609.3	613.1	624.6	626.5	630.3
5°	578.7	586.4	611.2	620.8	647.5	683.8	699.1	723.9	775.5	790.7	800.3
7.5°	555.8	573.0	634.1	649.4	716.2	811.8	851.9	905.3	987.5	1027.6	1060.0
10°	519.5	555.8	664.7	701.0	809.8	955.0	1029.5	1104.1	1228.2	1283.6	1304.6
12.5°	479.4	538.6	697.2	746.8	903.4	1115.5	1205.3	1287.4	1428.8	1503.3	1514.7
15°	433.6	513.8	727.7	800.3	1002.8	1249.2	1348.6	1449.8	1581.6	1635.1	1648.4
17.5°	393.5	494.7	756.4	832.8	1079.1	1369.6	1470.8	1554.8	1661.8	1698.1	1707.6
20°	343.8	464.1	775.5	874.8	1159.5	1457.4	1554.8	1619.8	1692.4	1715.3	1719.1
22.5°	307.5	431.7	786.9	890.1	1212.9	1510.9	1593.0	1644.6	1694.3	1701.9	1703.8
25°	277.0	395.4	785.0	907.2	1258.8	1543.4	1606.4	1644.6	1673.3	1677.1	1677.1
27.5°	248.3	355.3	777.4	911.1	1293.2	1551.0	1600.7	1627.4	1640.8	1648.4	1648.4
30°	223.5	317.1	758.3	903.4	1308.4	1543.4	1583.5	1596.9	1610.2	1621.7	1627.4
32.5°	204.4	280.8	729.6	888.2	1310.4	1524.3	1552.9	1560.6	1579.7	1606.4	1616.0
35°	187.2	244.5	697.2	867.1	1298.9	1493.7	1512.8	1520.5	1558.7	1598.8	1612.1
37.5°	170.0	217.7	655.1	830.8	1281.7	1457.4	1470.8	1484.2	1543.4	1591.1	1606.4
40°	152.8	194.8	605.5	790.7	1255.0	1413.5	1425.0	1446.0	1524.3	1579.7	1594.9
42.5°	139.4	175.7	552.0	748.7	1220.6	1363.8	1381.0	1411.6	1501.4	1560.6	1577.8
45°	128.0	156.6	494.7	691.4	1176.7	1312.3	1337.1	1379.1	1474.6	1531.9	1547.2
47.5°	116.5	143.2	435.5	632.2	1128.9	1260.7	1293.2	1340.9	1438.3	1493.7	1507.1
50°	107.0	129.9	376.3	569.2	1077.2	1205.3	1243.5	1293.2	1392.5	1444.1	1461.2
52.5°	99.3	118.4	320.9	506.2	1018.0	1148.0	1191.9	1243.5	1337.1	1386.8	1398.2
55°	91.7	108.9	273.1	439.3	956.9	1086.9	1134.6	1184.3	1276.0	1318.0	1325.6
57.5°	87.9	101.2	233.0	376.3	892.0	1018.0	1071.5	1117.4	1203.4	1235.9	1243.5
60°	82.1	95.5	202.5	322.8	821.3	953.1	998.9	1044.8	1117.4	1144.2	1149.9
62.5°	76.4	91.7	179.5	271.2	748.7	876.7	922.5	964.6	1025.7	1044.8	1052.4
65°	72.6	87.9	162.4	233.0	674.2	796.5	842.3	878.6	928.3	947.4	951.2
67.5°	68.8	84.0	149.0	200.5	599.7	716.2	750.6	785.0	823.2	842.3	844.2
70°	63.0	80.2	137.5	177.6	523.3	624.6	653.2	689.5	720.1	729.6	735.4
72.5°	59.2	74.5	129.9	160.4	445.0	536.7	563.4	584.5	611.2	620.8	620.8
75°	53.5	66.8	122.2	143.2	364.8	439.3	462.2	483.2	504.2	508.1	502.3
77.5°	47.8	59.2	105.0	120.3	284.6	347.6	366.7	378.2	395.4	399.2	401.1
80°	40.1	51.6	82.1	93.6	206.3	255.9	269.3	278.9	294.1	294.1	298.0
82.5°	30.6	40.1	59.2	66.8	139.4	175.7	187.2	192.9	202.5	202.5	202.5
85°	19.1	24.8	38.2	43.9	84.0	107.0	114.6	116.5	124.2	126.1	126.1
87.5°	9.5	13.4	24.8	26.7	43.9	55.4	55.4	59.2	59.2	57.3	55.4
90°	11.9	21.5	30.9	33.3	52.4	77.8	90.5	80.5	60.4	45.3	45.3
92.5°	47.7	128.6	209.7	230.0	323.3	447.7	509.9	446.8	320.9	226.3	217.4
95°	114.4	262.6	410.8	447.9	795.3	1258.6	1490.3	1329.8	1009.1	768.4	741.1
97.5°	197.8	328.5	459.4	492.0	1071.4	1843.9	2230.1	2128.7	1925.9	1773.8	1722.0
100°	262.1	380.7	499.3	529.0	1171.9	2029.0	2457.6	2465.0	2479.8	2490.9	2429.1
102.5°	316.9	427.6	538.1	565.8	1217.9	2087.2	2522.0	2651.2	2909.5	3103.3	3050.4
105°	409.8	503.5	597.3	620.7	1252.0	2093.8	2514.8	2804.5	3383.7	3818.1	3789.6
107.5°	505.1	592.5	679.8	701.6	1258.4	2000.7	2371.8	2775.8	3583.8	4189.8	4196.7
110°	569.5	648.3	727.2	746.9	1248.9	1918.1	2252.7	2704.4	3607.6	4285.1	4314.7

TEST NUMBER: P938395

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-4000K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	632.6	707.8	782.9	801.7	1249.2	1845.9	2144.3	2606.5	3530.9	4224.3	4269.8
115°	727.9	797.2	866.6	883.9	1260.8	1763.2	2014.5	2459.7	3350.2	4018.2	4081.3
117.5°	822.0	885.0	948.0	963.8	1284.2	1711.5	1925.1	2327.0	3130.7	3733.5	3803.5
120°	876.8	936.1	995.4	1010.2	1303.3	1694.0	1889.4	2256.6	2991.0	3541.7	3609.7
122.5°	930.4	990.2	1050.0	1065.0	1330.7	1684.9	1862.0	2192.6	2853.9	3349.9	3417.0
125°	1012.6	1067.1	1121.6	1135.3	1367.6	1677.3	1832.2	2113.0	2674.8	3096.1	3157.9
127.5°	1079.3	1134.3	1189.5	1203.2	1404.5	1673.0	1807.1	2048.3	2530.7	2892.4	2944.6
130°	1115.1	1174.4	1233.7	1248.5	1431.5	1675.5	1797.6	2012.3	2441.7	2763.8	2812.0
132.5°	1152.0	1211.3	1270.6	1285.4	1453.4	1677.4	1789.3	1981.4	2365.8	2654.1	2697.3
135°	1206.7	1260.8	1314.8	1328.3	1477.2	1675.7	1775.0	1936.0	2257.9	2499.3	2536.5
137.5°	1262.8	1316.3	1369.7	1383.0	1512.9	1686.1	1772.7	1908.8	2180.8	2384.9	2415.4
140°	1309.2	1358.5	1407.7	1420.0	1534.8	1687.8	1764.3	1881.8	2116.9	2293.2	2321.7
142.5°	1344.9	1390.5	1436.0	1447.4	1553.0	1693.9	1764.3	1867.5	2074.0	2228.9	2253.3
145°	1399.7	1439.5	1479.2	1489.1	1576.9	1693.9	1752.3	1836.8	2005.7	2132.4	2150.9
147.5°	1454.6	1493.2	1531.9	1541.6	1611.8	1705.5	1752.3	1818.8	1951.6	2051.3	2066.7
150°	1490.3	1525.2	1560.2	1568.9	1630.0	1711.6	1752.3	1808.5	1920.7	2004.9	2017.3
152.5°	1527.2	1553.7	1580.2	1586.8	1642.0	1715.6	1752.3	1800.3	1896.1	1968.0	1977.3
155°	1582.1	1601.6	1621.2	1626.1	1668.2	1724.3	1752.3	1790.4	1866.7	1923.9	1930.2
157.5°	1622.5	1641.6	1660.6	1665.4	1694.4	1733.0	1752.3	1782.0	1841.3	1885.8	1890.2
160°	1650.0	1664.8	1679.6	1683.3	1706.3	1737.0	1752.3	1777.7	1828.6	1866.7	1869.2
162.5°	1677.4	1688.4	1699.6	1702.4	1719.0	1741.3	1752.3	1773.8	1816.7	1848.9	1851.3
165°	1707.1	1717.1	1727.2	1729.7	1737.2	1747.3	1752.3	1767.7	1798.5	1821.5	1824.0
167.5°	1734.5	1739.2	1744.0	1745.3	1751.6	1760.1	1764.3	1774.3	1794.4	1809.5	1810.6
170°	1752.3	1757.1	1761.9	1763.1	1763.5	1764.0	1764.3	1774.3	1794.4	1809.5	1809.5
172.5°	1761.9	1762.9	1764.0	1764.3	1764.3	1764.3	1764.3	1772.2	1788.0	1800.0	1799.0
175°	1775.0	1775.0	1775.0	1775.0	1771.4	1766.7	1764.3	1769.3	1779.4	1786.9	1786.9
177.5°	1775.0	1775.0	1775.0	1775.0	1772.2	1768.5	1766.7	1770.7	1778.6	1784.5	1783.5
180°	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0	1775.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	594.0	594.0
2.5°	634.1	630.3
5°	815.6	819.4
7.5°	1098.3	1096.4
10°	1365.7	1382.9
12.5°	1560.6	1564.4
15°	1679.0	1686.6
17.5°	1724.8	1726.7
20°	1726.7	1722.9
22.5°	1705.7	1701.9
25°	1680.9	1679.0
27.5°	1658.0	1659.9
30°	1648.4	1654.2
32.5°	1648.4	1658.0
35°	1652.2	1661.8
37.5°	1650.3	1661.8
40°	1642.7	1656.1
42.5°	1621.7	1631.2
45°	1589.2	1600.7
47.5°	1547.2	1554.8
50°	1493.7	1501.4
52.5°	1426.9	1428.8
55°	1346.6	1354.3
57.5°	1260.7	1262.6
60°	1165.2	1170.9
62.5°	1063.9	1063.9
65°	956.9	960.7
67.5°	846.1	855.7
70°	733.4	735.4
72.5°	622.7	622.7
75°	508.1	510.0
77.5°	399.2	399.2
80°	296.0	298.0
82.5°	204.4	208.2
85°	128.0	128.0
87.5°	59.2	53.5
90°	45.3	45.3
92.5°	181.4	145.4
95°	632.0	523.0
97.5°	1514.3	1306.8
100°	2181.9	1934.6
102.5°	2838.5	2626.8
105°	3675.8	3562.0
107.5°	4224.2	4251.7
110°	4433.3	4551.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4451.9	4634.0
115°	4333.9	4586.4
117.5°	4083.6	4363.7
120°	3881.9	4154.0
122.5°	3685.4	3953.9
125°	3405.2	3652.5
127.5°	3153.2	3361.8
130°	3004.7	3197.4
132.5°	2869.9	3042.5
135°	2685.3	2834.1
137.5°	2537.1	2658.9
140°	2435.5	2549.4
142.5°	2351.3	2449.3
145°	2225.1	2299.2
147.5°	2128.1	2189.5
150°	2067.2	2116.9
152.5°	2015.0	2052.6
155°	1955.1	1979.9
157.5°	1907.6	1925.1
160°	1879.3	1889.4
162.5°	1860.7	1870.3
165°	1834.1	1844.1
167.5°	1814.9	1819.1
170°	1809.5	1809.5
172.5°	1795.4	1791.7
175°	1786.9	1786.9
177.5°	1779.2	1775.0
180°	1775.0	1775.0

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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	2.85	3.25	3.97	5.51	15.32	16.03	16.43	17.15	18.69
	3H	2.83	3.47	3.96	4.60	6.16	17.15	17.79	18.27	18.91	20.47
	4H	3.12	3.73	4.26	4.86	6.42	17.78	18.39	18.92	19.52	21.08
	6H	3.37	3.93	4.51	5.05	6.63	18.21	18.77	19.35	19.89	21.47
	8H	3.43	3.96	4.58	5.11	6.68	18.32	18.86	19.47	20.00	21.57
	12H	3.44	3.95	4.59	5.08	6.68	18.39	18.89	19.54	20.03	21.62
4H	2H	9.34	9.95	10.48	11.07	12.64	15.57	16.18	16.71	17.31	18.87
	3H	10.89	11.40	12.04	12.55	14.13	17.60	18.12	18.75	19.26	20.84
	4H	10.98	11.45	12.13	12.58	14.18	18.37	18.84	19.52	19.97	21.57
	6H	10.98	11.38	12.14	12.54	14.13	18.90	19.30	20.05	20.46	22.05
	8H	10.95	11.33	12.11	12.48	14.09	19.05	19.43	20.21	20.58	22.19
	12H	10.90	11.24	12.07	12.41	14.02	19.14	19.48	20.31	20.65	22.26
8H	4H	12.41	12.79	13.57	13.94	15.54	18.41	18.79	19.57	19.94	21.55
	6H	12.64	12.96	13.82	14.15	15.75	19.04	19.35	20.21	20.54	22.14
	8H	12.66	12.93	13.84	14.10	15.73	19.25	19.52	20.44	20.70	22.32
	12H	12.62	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	15.66	18.36	18.70	19.53	19.86	21.47
	6H	12.90	13.17	14.08	14.35	15.97	19.02	19.29	20.20	20.46	22.08
	8H	12.96	13.20	14.15	14.37	16.03	19.24	19.48	20.43	20.65	22.30