

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: P937478

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937478
REPORT IS A COMBINATION OF REPORTS P933557 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

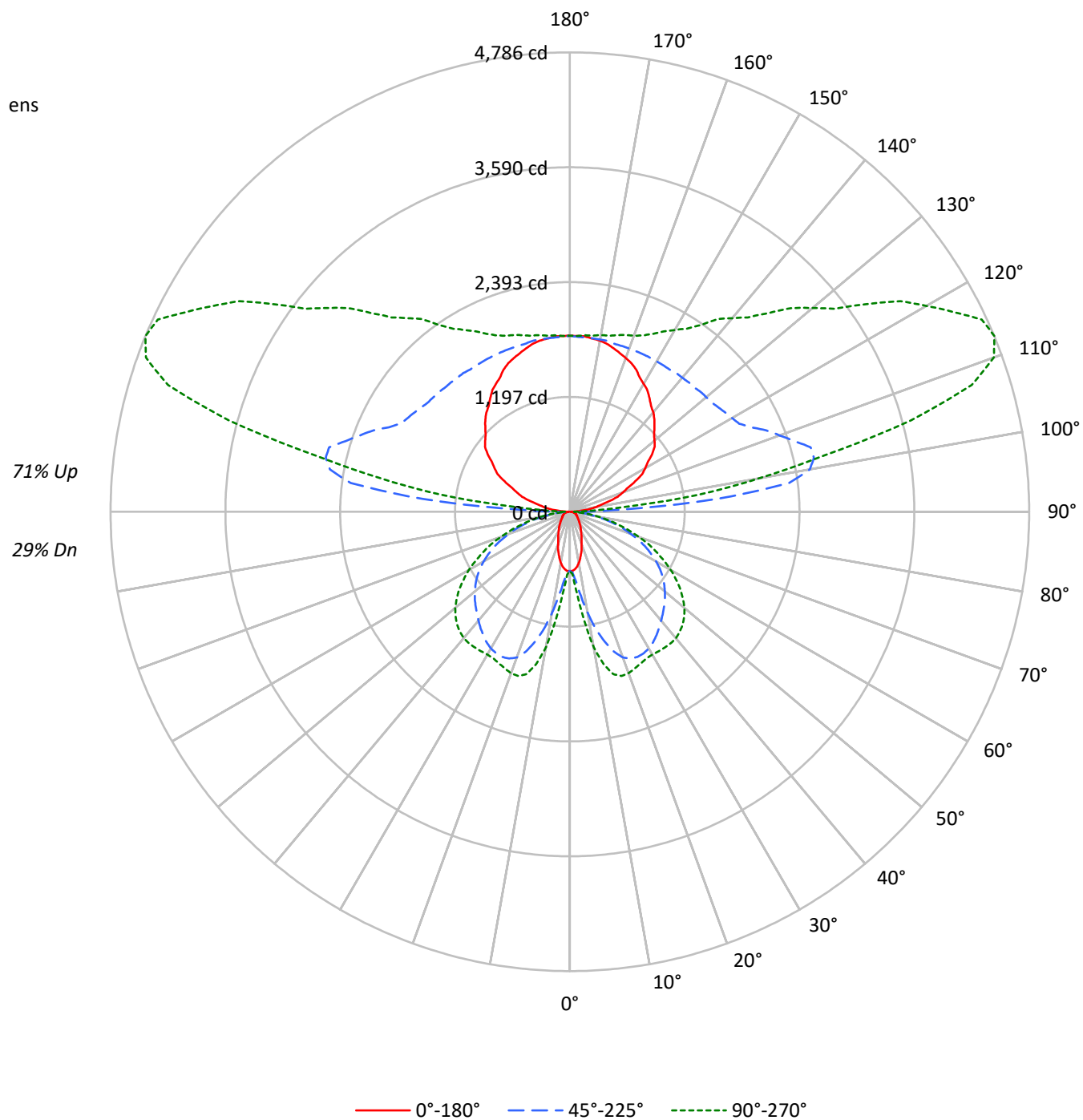
Lumens per Lamp: N/A
Luminaire Lumens: 16664.4 lumens
Efficiency: N/A
Efficacy: 134.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 123.6
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: P937478

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-12-3000K

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
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	37	37	37			29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	44	32	31	30			23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	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	18			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	11	9			7
10	43	31	24	19	38	28	22	18	22	18	14	17	14	11	12	10	8			6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1908	1908	1908
5°	1865	2206	2565
10°	1692	3217	4253
15°	1439	4204	5135
20°	1172	4873	5234
25°	978	5100	5127
30°	825	5134	5118
35°	730	5050	5250
40°	636	4941	5387
45°	577	4861	5408
50°	529	4790	5318
55°	507	4685	5082
60°	520	4481	4710
65°	542	4171	4199
70°	579	3640	3547
75°	643	2970	2768
80°	709	2062	1865
85°	642	1096	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5408 cd/sqm

TEST NUMBER: P937478

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-W2A-W-12-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	0.5
10°-20°	353.7	2.1
20°-30°	618.7	3.7
30°-40°	796.5	4.8
40°-50°	889.7	5.3
50°-60°	852.1	5.1
60°-70°	675.3	4.1
70°-80°	397.1	2.4
80°-90°	117.3	0.7
90°-100°	893.6	5.4
100°-110°	2349.4	14.1
110°-120°	2436.0	14.6
120°-130°	1954.0	11.7
130°-140°	1533.2	9.2
140°-150°	1176.8	7.1
150°-160°	847.5	5.1
160°-170°	518.5	3.1
170°-180°	175.2	1.1
0°-30°	1052.3	6.3
0°-40°	1848.8	11.1
0°-60°	3590.5	21.5
0°-90°	4780.2	28.7
90°-120°	5679.0	34.1
90°-150°	10343.0	62.1
90°-180°	11884.0	71.3
0°-180°	16664.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	617	617	617	617	617	
5°	601	645	726	821	851	55
15°	450	831	1401	1698	1752	125
25°	288	942	1668	1742	1744	133
35°	194	901	1571	1661	1726	121
45°	133	718	1389	1591	1663	103
55°	95	456	1178	1369	1407	87
65°	75	242	875	984	998	75
75°	56	149	480	528	530	58
85°	20	46	119	131	133	21
90°	12	34	94	47	47	11
95°	118	463	1539	794	540	131
105°	423	641	2597	3943	3679	449
115°	752	913	2081	4150	4737	742
125°	1046	1173	1892	3198	3772	929
135°	1246	1372	1833	2581	2927	964
145°	1446	1538	1810	2202	2375	906
155°	1634	1680	1810	1987	2045	751
165°	1763	1786	1810	1881	1905	498
175°	1833	1833	1822	1846	1846	174
180°	1833	1833	1833	1833	1833	

TEST NUMBER: P937478

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0	617.0
2.5°	617.0	617.0	621.0	623.0	626.9	628.9	632.9	636.9	648.8	650.8	654.7
5°	601.2	609.1	634.9	644.7	672.6	710.2	726.1	751.9	805.5	821.3	831.3
7.5°	577.3	595.1	658.6	674.5	744.0	843.2	884.8	940.4	1025.7	1067.3	1101.1
10°	539.6	577.3	690.4	728.2	841.2	992.0	1069.3	1146.7	1275.7	1333.3	1355.1
12.5°	497.9	559.5	724.1	775.7	938.4	1158.6	1251.9	1337.2	1484.0	1561.4	1573.3
15°	450.4	533.7	755.9	831.3	1041.6	1297.5	1400.7	1505.8	1642.8	1698.3	1712.2
17.5°	408.7	513.8	785.6	865.0	1121.0	1422.5	1527.6	1615.0	1726.1	1763.8	1773.7
20°	357.1	482.2	805.5	908.7	1204.3	1513.8	1615.0	1682.4	1757.8	1781.6	1785.5
22.5°	319.5	448.3	817.4	924.6	1259.8	1569.3	1654.6	1708.2	1759.8	1767.7	1769.7
25°	287.7	410.7	815.4	942.4	1307.4	1603.0	1668.5	1708.2	1737.9	1742.0	1742.0
27.5°	257.9	369.1	807.4	946.4	1343.1	1611.0	1662.6	1690.3	1704.2	1712.2	1712.2
30°	232.1	329.3	787.6	938.4	1359.0	1603.0	1644.7	1658.6	1672.5	1684.4	1690.3
32.5°	212.3	291.7	757.8	922.5	1361.0	1583.2	1613.0	1620.9	1640.7	1668.5	1678.5
35°	194.4	254.0	724.1	900.7	1349.1	1551.5	1571.3	1579.3	1618.9	1660.6	1674.4
37.5°	176.6	226.2	680.5	863.0	1331.2	1513.8	1527.6	1541.5	1603.0	1652.6	1668.5
40°	158.7	202.3	628.9	821.3	1303.5	1468.2	1480.1	1501.9	1583.2	1640.7	1656.6
42.5°	144.8	182.5	573.4	777.8	1267.8	1416.6	1434.4	1466.2	1559.4	1620.9	1638.7
45°	132.9	162.7	513.8	718.2	1222.1	1362.9	1388.8	1432.5	1531.7	1591.1	1607.0
47.5°	121.0	148.8	452.4	656.7	1172.6	1309.4	1343.1	1392.7	1493.9	1551.5	1565.4
50°	111.1	134.9	390.9	591.2	1118.9	1251.9	1291.6	1343.1	1446.4	1499.9	1517.7
52.5°	103.1	123.1	333.3	525.7	1057.5	1192.4	1238.0	1291.6	1388.8	1440.3	1452.3
55°	95.2	113.1	283.7	456.3	994.0	1128.9	1178.5	1230.0	1325.3	1369.0	1376.9
57.5°	91.3	105.1	242.1	390.9	926.5	1057.5	1113.0	1160.6	1249.9	1283.7	1291.6
60°	85.3	99.2	210.3	335.3	853.1	990.0	1037.7	1085.2	1160.6	1188.4	1194.3
62.5°	79.4	95.2	186.5	281.7	777.8	910.7	958.3	1001.9	1065.4	1085.2	1093.2
65°	75.4	91.3	168.6	242.1	700.4	827.4	875.0	912.6	964.2	984.0	988.0
67.5°	71.4	87.3	154.7	208.3	623.0	744.0	779.7	815.4	855.1	875.0	876.9
70°	65.5	83.3	142.9	184.5	543.6	648.8	678.6	716.2	748.0	757.8	763.9
72.5°	61.5	77.4	134.9	166.6	462.2	557.5	585.3	607.1	634.9	644.7	644.7
75°	55.5	69.4	127.0	148.8	378.9	456.3	480.1	502.0	523.8	527.7	521.8
77.5°	49.6	61.5	109.2	125.0	295.6	361.1	380.9	392.8	410.7	414.6	416.6
80°	41.7	53.5	85.3	97.2	214.3	265.8	279.7	289.7	305.6	305.6	309.5
82.5°	31.7	41.7	61.5	69.4	144.8	182.5	194.4	200.4	210.3	210.3	210.3
85°	19.8	25.8	39.6	45.7	87.3	111.1	119.0	121.0	129.0	130.9	130.9
87.5°	10.0	13.9	25.8	27.8	45.7	57.6	57.6	61.5	61.5	59.6	57.6
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.9	462.3	526.6	461.5	331.4	233.8	224.5
95°	118.1	271.2	424.4	462.6	821.4	1299.9	1539.1	1373.5	1042.1	793.5	765.3
97.5°	204.2	339.3	474.4	508.2	1106.5	1904.3	2303.2	2198.5	1989.1	1832.0	1778.4
100°	270.7	393.1	515.6	546.2	1210.2	2095.5	2538.3	2546.0	2561.2	2572.7	2508.9
102.5°	327.3	441.5	555.8	584.4	1257.8	2155.8	2604.7	2738.1	3004.9	3205.1	3150.4
105°	423.3	520.0	616.8	641.0	1293.1	2162.6	2597.3	2896.5	3494.7	3943.3	3913.9
107.5°	521.7	611.9	702.1	724.7	1299.6	2066.3	2449.6	2866.9	3701.3	4327.2	4334.3
110°	588.1	669.6	751.0	771.4	1289.8	1981.0	2326.6	2793.0	3725.9	4425.6	4456.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.3	731.0	808.6	828.0	1290.3	1906.5	2214.7	2692.1	3646.8	4362.9	4409.9
115°	751.7	823.4	895.0	912.9	1302.1	1821.0	2080.6	2540.4	3460.2	4150.0	4215.2
117.5°	848.9	914.0	979.1	995.4	1326.4	1767.6	1988.3	2403.3	3233.4	3856.0	3928.2
120°	905.5	966.8	1028.1	1043.4	1346.1	1749.7	1951.4	2330.6	3089.0	3657.9	3728.2
122.5°	961.0	1022.8	1084.5	1100.0	1374.4	1740.2	1923.1	2264.5	2947.5	3459.8	3529.1
125°	1045.9	1102.2	1158.5	1172.6	1412.4	1732.4	1892.3	2182.4	2762.6	3197.7	3261.5
127.5°	1114.7	1171.6	1228.5	1242.7	1450.6	1727.9	1866.5	2115.6	2613.7	2987.3	3041.1
130°	1151.6	1212.9	1274.1	1289.4	1478.5	1730.6	1856.6	2078.4	2521.9	2854.5	2904.3
132.5°	1189.8	1251.0	1312.3	1327.6	1501.0	1732.3	1848.0	2046.4	2443.5	2741.3	2785.8
135°	1246.4	1302.1	1357.9	1371.8	1525.6	1730.7	1833.3	1999.5	2331.9	2581.2	2619.7
137.5°	1304.2	1359.4	1414.6	1428.4	1562.5	1741.4	1830.8	1971.3	2252.4	2463.2	2494.7
140°	1352.2	1403.1	1453.9	1466.6	1585.1	1743.1	1822.1	1943.5	2186.4	2368.5	2397.9
142.5°	1389.1	1436.1	1483.1	1494.9	1603.9	1749.4	1822.1	1928.8	2142.1	2302.0	2327.3
145°	1445.7	1486.7	1527.7	1538.0	1628.6	1749.5	1809.9	1897.1	2071.5	2202.3	2221.5
147.5°	1502.3	1542.2	1582.1	1592.1	1664.7	1761.5	1809.9	1878.5	2015.8	2118.7	2134.6
150°	1539.1	1575.2	1611.3	1620.4	1683.6	1767.8	1809.9	1867.9	1983.7	2070.7	2083.5
152.5°	1577.3	1604.6	1632.0	1638.8	1695.8	1771.8	1809.9	1859.4	1958.3	2032.5	2042.2
155°	1633.9	1654.1	1674.4	1679.5	1722.9	1780.9	1809.9	1849.2	1927.9	1987.0	1993.4
157.5°	1675.7	1695.4	1715.1	1720.1	1750.1	1790.0	1809.9	1840.5	1901.7	1947.6	1952.2
160°	1704.0	1719.4	1734.7	1738.5	1762.3	1794.0	1809.9	1836.1	1888.6	1927.9	1930.5
162.5°	1732.3	1743.7	1755.3	1758.1	1775.4	1798.4	1809.9	1832.0	1876.3	1909.5	1912.0
165°	1763.1	1773.4	1783.9	1786.4	1794.2	1804.7	1809.9	1825.8	1857.4	1881.2	1883.8
167.5°	1791.4	1796.3	1801.2	1802.5	1809.0	1817.8	1822.1	1832.6	1853.4	1869.0	1870.0
170°	1809.9	1814.8	1819.8	1820.9	1821.3	1821.8	1822.1	1832.6	1853.4	1869.0	1869.0
172.5°	1819.7	1820.7	1821.8	1822.1	1822.1	1822.1	1822.1	1830.3	1846.8	1859.1	1858.1
175°	1833.3	1833.3	1833.3	1833.3	1829.5	1824.6	1822.1	1827.4	1837.7	1845.5	1845.5
177.5°	1833.3	1833.3	1833.3	1833.3	1830.4	1826.6	1824.6	1828.7	1836.9	1843.0	1841.9
180°	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	617.0	617.0
2.5°	658.6	654.7
5°	847.2	851.1
7.5°	1140.8	1138.8
10°	1418.6	1436.4
12.5°	1620.9	1624.8
15°	1743.9	1751.8
17.5°	1791.6	1793.5
20°	1793.5	1789.6
22.5°	1771.6	1767.7
25°	1745.9	1743.9
27.5°	1722.0	1724.1
30°	1712.2	1718.1
32.5°	1712.2	1722.0
35°	1716.1	1726.1
37.5°	1714.2	1726.1
40°	1706.2	1720.1
42.5°	1684.4	1694.3
45°	1650.7	1662.6
47.5°	1607.0	1615.0
50°	1551.5	1559.4
52.5°	1482.1	1484.0
55°	1398.7	1406.6
57.5°	1309.4	1311.4
60°	1210.2	1216.1
62.5°	1105.1	1105.1
65°	994.0	997.9
67.5°	878.9	888.8
70°	761.9	763.9
72.5°	646.8	646.8
75°	527.7	529.7
77.5°	414.6	414.6
80°	307.5	309.5
82.5°	212.3	216.2
85°	132.9	132.9
87.5°	61.5	55.5
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.7	540.1
97.5°	1564.1	1349.7
100°	2253.5	1998.1
102.5°	2931.7	2713.0
105°	3796.3	3678.8
107.5°	4362.8	4391.2
110°	4578.7	4701.2

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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4598.0	4786.1
115°	4476.0	4736.8
117.5°	4217.5	4506.8
120°	4009.2	4290.3
122.5°	3806.3	4083.5
125°	3516.9	3772.2
127.5°	3256.7	3472.1
130°	3103.2	3302.3
132.5°	2964.1	3142.4
135°	2773.3	2927.0
137.5°	2620.4	2746.2
140°	2515.5	2633.0
142.5°	2428.4	2529.6
145°	2298.1	2374.6
147.5°	2198.0	2261.4
150°	2135.0	2186.4
152.5°	2081.1	2119.9
155°	2019.1	2044.9
157.5°	1970.2	1988.3
160°	1940.9	1951.4
162.5°	1921.8	1931.7
165°	1894.2	1904.6
167.5°	1874.4	1878.7
170°	1869.0	1869.0
172.5°	1854.3	1850.4
175°	1845.5	1845.5
177.5°	1837.6	1833.3
180°	1833.3	1833.3

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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	0.88	1.60	2.00	2.71	4.26	14.07	14.79	15.19	15.90	17.45
	3H	1.58	2.22	2.70	3.34	4.90	15.91	16.55	17.03	17.67	19.23
	4H	1.87	2.48	3.00	3.60	5.17	16.55	17.16	17.68	18.28	19.85
	6H	2.11	2.67	3.25	3.80	5.38	16.98	17.54	18.12	18.66	20.24
	8H	2.17	2.71	3.32	3.85	5.42	17.10	17.63	18.24	18.77	20.34
	12H	2.19	2.70	3.34	3.83	5.42	17.16	17.67	18.31	18.80	20.40
4H	2H	8.09	8.70	9.23	9.82	11.39	14.33	14.94	15.47	16.06	17.63
	3H	9.64	10.15	10.79	11.30	12.88	16.37	16.88	17.51	18.03	19.60
	4H	9.73	10.20	10.88	11.34	12.93	17.13	17.60	18.28	18.74	20.34
	6H	9.73	10.13	10.89	11.30	12.88	17.67	18.07	18.82	19.23	20.82
	8H	9.70	10.08	10.86	11.23	12.84	17.83	18.20	18.98	19.36	20.96
	12H	9.65	10.00	10.83	11.16	12.77	17.92	18.26	19.09	19.42	21.03
8H	4H	11.17	11.54	12.32	12.69	14.30	17.18	17.56	18.33	18.71	20.31
	6H	11.40	11.71	12.58	12.91	14.51	17.81	18.12	18.98	19.31	20.91
	8H	11.42	11.69	12.60	12.86	14.48	18.03	18.30	19.21	19.47	21.09
	12H	11.38	11.62	12.56	12.79	14.44	18.17	18.41	19.35	19.58	21.23
12H	4H	11.30	11.64	12.47	12.81	14.42	17.12	17.47	18.30	18.63	20.24
	6H	11.66	11.93	12.84	13.10	14.72	17.79	18.06	18.97	19.23	20.85
	8H	11.72	11.96	12.91	13.13	14.78	18.01	18.25	19.20	19.42	21.08