

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: P938396

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-5000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938396
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-8-5000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

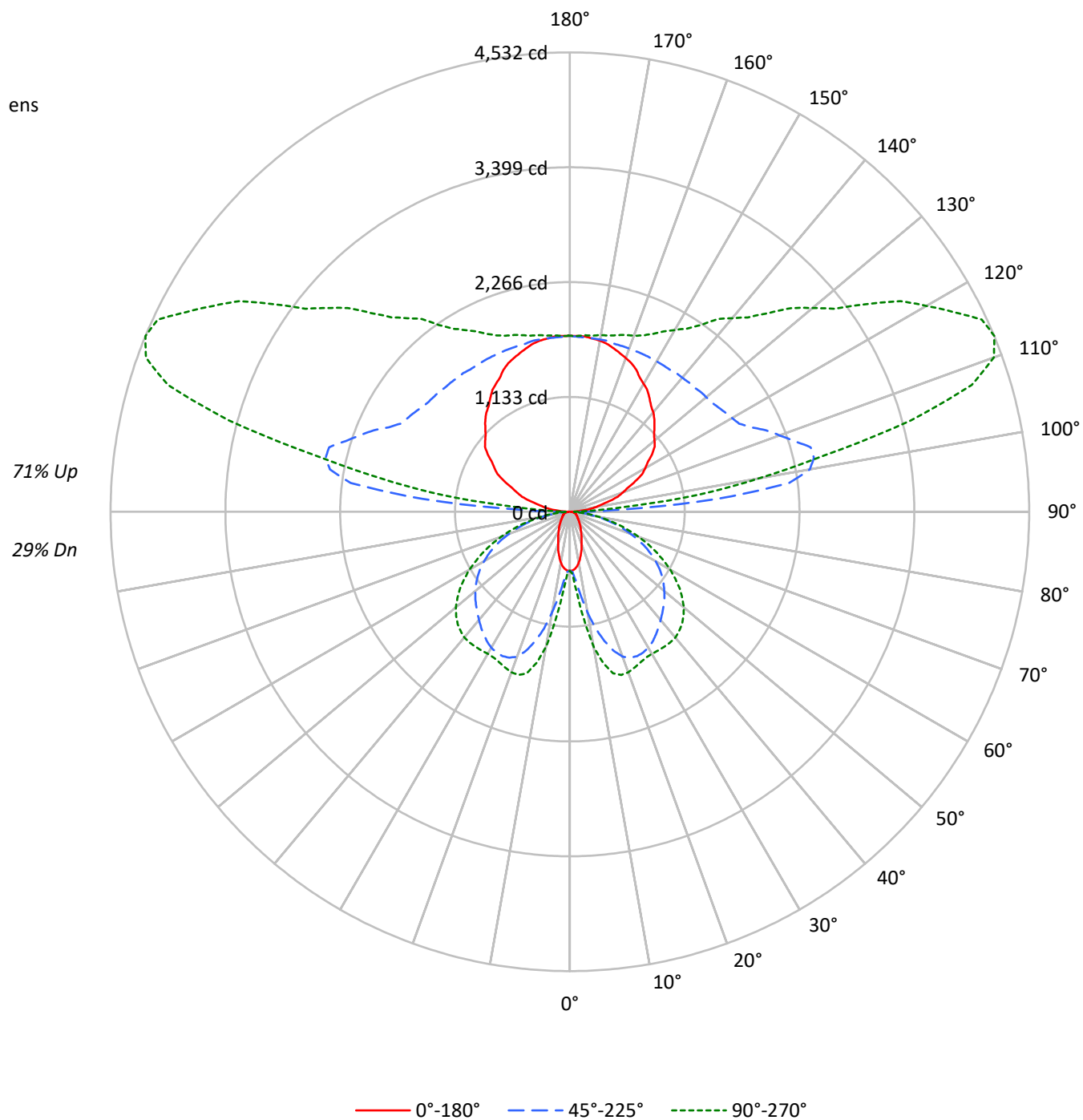
Lumens per Lamp: N/A
Luminaire Lumens: 15754.7 lumens
Efficiency: N/A
Efficacy: 123.9 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

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: P938396

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-5000K

Luminous Intensity Polar Plot



TEST NUMBER: P938396

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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°	2695	2695	2695
5°	2633	3115	3623
10°	2388	4541	6007
15°	2030	5933	7253
20°	1652	6875	7392
25°	1379	7195	7242
30°	1163	7241	7228
35°	1028	7120	7415
40°	895	6964	7608
45°	811	6850	7638
50°	744	6747	7511
55°	713	6596	7179
60°	729	6306	6653
65°	759	5866	5930
70°	808	5116	5010
75°	896	4171	3910
80°	978	2893	2634
85°	871	1535	1349

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7638 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	0.5
10°-20°	333.1	2.1
20°-30°	582.6	3.7
30°-40°	750.0	4.8
40°-50°	837.7	5.3
50°-60°	802.3	5.1
60°-70°	635.8	4.0
70°-80°	373.9	2.4
80°-90°	110.5	0.7
90°-100°	846.2	5.4
100°-110°	2224.7	14.1
110°-120°	2306.8	14.6
120°-130°	1850.3	11.7
130°-140°	1451.9	9.2
140°-150°	1114.3	7.1
150°-160°	802.5	5.1
160°-170°	491.0	3.1
170°-180°	165.9	1.1
0°-30°	990.8	6.3
0°-40°	1740.8	11.0
0°-60°	3380.8	21.5
0°-90°	4501.0	28.6
90°-120°	5377.7	34.1
90°-150°	9794.2	62.2
90°-180°	11254.0	71.4
0°-180°	15754.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	581	581	581	581	581	
5°	566	607	684	773	801	52
15°	424	783	1319	1599	1650	118
25°	271	887	1571	1640	1642	125
35°	183	848	1480	1564	1625	114
45°	125	676	1308	1498	1566	97
55°	90	430	1110	1289	1324	82
65°	71	228	824	926	940	70
75°	52	140	452	497	499	55
85°	19	43	112	123	125	20
90°	12	33	88	44	44	11
95°	112	438	1458	752	512	124
105°	401	607	2460	3734	3484	425
115°	712	864	1970	3930	4486	703
125°	990	1110	1792	3028	3572	879
135°	1180	1299	1736	2444	2772	913
145°	1369	1456	1714	2086	2249	858
155°	1547	1590	1714	1882	1936	711
165°	1670	1692	1714	1781	1804	471
175°	1736	1736	1726	1748	1748	165
180°	1736	1736	1736	1736	1736	

TEST NUMBER: P938396

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9	580.9
2.5°	580.9	580.9	584.7	586.6	590.3	592.2	595.9	599.6	610.8	612.7	616.4
5°	566.0	573.5	597.8	607.1	633.3	668.7	683.7	708.0	758.4	773.4	782.7
7.5°	543.6	560.4	620.2	635.1	700.5	793.9	833.1	885.4	965.8	1005.0	1036.7
10°	508.1	543.6	650.1	685.6	792.0	934.0	1006.9	1079.8	1201.2	1255.4	1275.9
12.5°	468.9	526.8	681.8	730.4	883.6	1091.0	1178.8	1259.1	1397.4	1470.2	1481.4
15°	424.0	502.5	711.7	782.7	980.7	1221.8	1318.9	1417.9	1546.8	1599.1	1612.2
17.5°	384.8	483.8	739.7	814.4	1055.4	1339.4	1438.5	1520.6	1625.3	1660.7	1670.1
20°	336.2	453.9	758.4	855.5	1134.0	1425.4	1520.6	1584.2	1655.1	1677.6	1681.3
22.5°	300.7	422.2	769.6	870.5	1186.3	1477.7	1558.0	1608.4	1657.0	1664.5	1666.3
25°	270.9	386.7	767.7	887.3	1231.1	1509.4	1571.1	1608.4	1636.5	1640.2	1640.2
27.5°	242.8	347.4	760.3	891.0	1264.7	1516.9	1565.5	1591.6	1604.7	1612.2	1612.2
30°	218.6	310.1	741.6	883.6	1279.7	1509.4	1548.7	1561.7	1574.8	1586.0	1591.6
32.5°	199.9	274.6	713.6	868.6	1281.5	1490.8	1518.8	1526.2	1544.9	1571.1	1580.4
35°	183.1	239.1	681.8	848.1	1270.3	1460.9	1479.5	1487.0	1524.4	1563.6	1576.7
37.5°	166.3	213.0	640.7	812.6	1253.5	1425.4	1438.5	1451.5	1509.4	1556.1	1571.1
40°	149.4	190.5	592.2	773.4	1227.4	1382.4	1393.6	1414.2	1490.8	1544.9	1559.9
42.5°	136.4	171.9	539.9	732.3	1193.7	1333.8	1350.7	1380.5	1468.3	1526.2	1543.1
45°	125.2	153.2	483.8	676.2	1150.8	1283.4	1307.7	1348.8	1442.2	1498.2	1513.2
47.5°	113.9	140.1	425.9	618.3	1104.1	1233.0	1264.7	1311.4	1406.7	1460.9	1473.9
50°	104.6	127.0	368.0	556.7	1053.6	1178.8	1216.2	1264.7	1361.9	1412.3	1429.1
52.5°	97.1	115.8	313.8	495.0	995.6	1122.8	1165.7	1216.2	1307.7	1356.3	1367.5
55°	89.7	106.5	267.1	429.6	935.9	1063.0	1109.7	1158.3	1247.9	1289.0	1296.5
57.5°	85.9	99.0	227.9	368.0	872.4	995.6	1047.9	1092.9	1176.9	1208.7	1216.2
60°	80.3	93.4	198.0	315.7	803.2	932.1	977.0	1021.8	1092.9	1119.0	1124.6
62.5°	74.7	89.7	175.6	265.3	732.3	857.4	902.2	943.3	1003.1	1021.8	1029.3
65°	71.0	85.9	158.8	227.9	659.4	779.0	823.8	859.3	907.8	926.5	930.3
67.5°	67.2	82.2	145.7	196.1	586.6	700.5	734.1	767.7	805.1	823.8	825.7
70°	61.6	78.5	134.5	173.7	511.8	610.8	638.9	674.3	704.2	713.6	719.2
72.5°	57.9	72.9	127.0	156.9	435.2	524.9	551.1	571.6	597.8	607.1	607.1
75°	52.3	65.4	119.6	140.1	356.8	429.6	452.1	472.6	493.2	496.9	491.3
77.5°	46.7	57.9	102.7	117.7	278.3	340.0	358.7	369.9	386.7	390.4	392.3
80°	39.2	50.4	80.3	91.5	201.7	250.3	263.4	272.7	287.7	287.7	291.4
82.5°	29.9	39.2	57.9	65.4	136.4	171.9	183.1	188.7	198.0	198.0	198.0
85°	18.7	24.3	37.4	43.0	82.2	104.6	112.1	113.9	121.4	123.3	123.3
87.5°	9.3	13.1	24.3	26.2	43.0	54.2	54.2	57.9	57.9	56.0	54.2
90°	11.7	21.0	30.3	32.6	51.3	76.1	88.5	78.7	59.0	44.3	44.3
92.5°	46.6	125.8	205.1	224.9	316.2	437.9	498.7	437.0	313.8	221.4	212.6
95°	111.9	256.8	401.8	438.0	777.8	1230.9	1457.5	1300.6	986.9	751.5	724.8
97.5°	193.4	321.3	449.3	481.2	1047.9	1803.4	2181.1	2081.9	1883.6	1734.8	1684.1
100°	256.3	372.3	488.3	517.3	1146.1	1984.4	2403.6	2410.8	2425.3	2436.2	2375.7
102.5°	309.9	418.2	526.3	553.4	1191.1	2041.4	2466.5	2592.9	2845.5	3035.0	2983.3
105°	400.8	492.4	584.1	607.0	1224.5	2047.8	2459.5	2742.8	3309.3	3734.1	3706.3
107.5°	494.0	579.5	664.8	686.2	1230.7	1956.7	2319.7	2714.8	3505.0	4097.6	4104.4
110°	556.9	634.1	711.2	730.5	1221.4	1875.9	2203.2	2644.9	3528.3	4190.9	4219.8

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	618.7	692.2	765.7	784.1	1221.8	1805.3	2097.1	2549.2	3453.3	4131.4	4175.9
115°	711.9	779.7	847.5	864.5	1233.1	1724.4	1970.2	2405.6	3276.6	3929.8	3991.5
117.5°	803.9	865.5	927.2	942.6	1255.9	1673.8	1882.8	2275.8	3061.8	3651.4	3719.8
120°	857.5	915.5	973.5	988.0	1274.6	1656.7	1847.8	2206.9	2925.2	3463.8	3530.3
122.5°	909.9	968.5	1026.9	1041.6	1301.4	1647.9	1821.0	2144.4	2791.2	3276.2	3341.9
125°	990.3	1043.7	1097.0	1110.3	1337.5	1640.4	1791.9	2066.6	2615.9	3028.0	3088.5
127.5°	1055.6	1109.4	1163.3	1176.7	1373.6	1636.2	1767.4	2003.2	2475.0	2828.8	2879.8
130°	1090.5	1148.5	1206.5	1221.0	1400.1	1638.7	1758.1	1968.0	2388.1	2703.0	2750.2
132.5°	1126.7	1184.7	1242.7	1257.2	1421.5	1640.5	1749.9	1937.9	2313.8	2595.8	2638.0
135°	1180.2	1233.1	1285.9	1299.1	1444.7	1638.9	1735.9	1893.4	2208.3	2444.4	2480.7
137.5°	1235.0	1287.3	1339.5	1352.6	1479.6	1649.0	1733.7	1866.8	2132.9	2332.5	2362.3
140°	1280.4	1328.6	1376.7	1388.8	1501.0	1650.7	1725.5	1840.4	2070.4	2242.8	2270.6
142.5°	1315.4	1359.9	1404.5	1415.6	1518.9	1656.6	1725.5	1826.4	2028.4	2179.9	2203.8
145°	1369.0	1407.8	1446.7	1456.4	1542.2	1656.6	1713.8	1796.4	1961.6	2085.5	2103.6
147.5°	1422.6	1460.4	1498.2	1507.7	1576.4	1668.0	1713.8	1778.8	1908.7	2006.2	2021.3
150°	1457.5	1491.7	1525.9	1534.4	1594.2	1673.9	1713.8	1768.7	1878.5	1960.8	1973.0
152.5°	1493.7	1519.5	1545.5	1551.9	1605.9	1677.8	1713.8	1760.7	1854.4	1924.7	1933.8
155°	1547.3	1566.4	1585.6	1590.3	1631.5	1686.3	1713.8	1751.1	1825.7	1881.6	1887.7
157.5°	1586.9	1605.5	1624.1	1628.8	1657.1	1694.9	1713.8	1742.8	1800.8	1844.4	1848.7
160°	1613.7	1628.1	1642.6	1646.3	1668.8	1698.8	1713.8	1738.6	1788.4	1825.7	1828.1
162.5°	1640.5	1651.3	1662.2	1664.9	1681.2	1703.0	1713.8	1734.8	1776.7	1808.2	1810.6
165°	1669.5	1679.3	1689.2	1691.7	1699.0	1708.8	1713.8	1728.8	1758.9	1781.4	1783.8
167.5°	1696.3	1701.0	1705.7	1706.9	1713.0	1721.4	1725.5	1735.3	1755.0	1769.7	1770.8
170°	1713.8	1718.5	1723.1	1724.4	1724.7	1725.2	1725.5	1735.3	1755.0	1769.7	1769.7
172.5°	1723.1	1724.2	1725.2	1725.5	1725.5	1725.5	1725.5	1733.2	1748.7	1760.4	1759.5
175°	1735.9	1735.9	1735.9	1735.9	1732.5	1727.8	1725.5	1730.4	1740.2	1747.6	1747.6
177.5°	1735.9	1735.9	1735.9	1735.9	1733.2	1729.6	1727.8	1731.7	1739.5	1745.3	1744.2
180°	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9	1735.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	580.9	580.9
2.5°	620.2	616.4
5°	797.6	801.4
7.5°	1074.2	1072.3
10°	1335.7	1352.5
12.5°	1526.2	1530.0
15°	1642.1	1649.5
17.5°	1686.9	1688.8
20°	1688.8	1685.0
22.5°	1668.2	1664.5
25°	1643.9	1642.1
27.5°	1621.5	1623.4
30°	1612.2	1617.8
32.5°	1612.2	1621.5
35°	1615.9	1625.3
37.5°	1614.0	1625.3
40°	1606.6	1619.6
42.5°	1586.0	1595.4
45°	1554.3	1565.5
47.5°	1513.2	1520.6
50°	1460.9	1468.3
52.5°	1395.5	1397.4
55°	1317.0	1324.5
57.5°	1233.0	1234.8
60°	1139.6	1145.2
62.5°	1040.5	1040.5
65°	935.9	939.6
67.5°	827.5	836.9
70°	717.3	719.2
72.5°	609.0	609.0
75°	496.9	498.8
77.5°	390.4	390.4
80°	289.5	291.4
82.5°	199.9	203.6
85°	125.2	125.2
87.5°	57.9	52.3
90°	44.3	44.3
92.5°	177.4	142.2
95°	618.1	511.5
97.5°	1481.0	1278.1
100°	2133.9	1892.1
102.5°	2776.1	2569.1
105°	3595.0	3483.6
107.5°	4131.3	4158.2
110°	4335.8	4451.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4354.0	4532.1
115°	4238.6	4485.5
117.5°	3993.8	4267.7
120°	3796.5	4062.6
122.5°	3604.4	3866.9
125°	3330.4	3572.2
127.5°	3083.9	3287.9
130°	2938.6	3127.1
132.5°	2806.8	2975.6
135°	2626.2	2771.7
137.5°	2481.4	2600.4
140°	2382.0	2493.3
142.5°	2299.6	2395.4
145°	2176.1	2248.6
147.5°	2081.3	2141.4
150°	2021.7	2070.4
152.5°	1970.6	2007.4
155°	1912.1	1936.4
157.5°	1865.7	1882.8
160°	1838.0	1847.8
162.5°	1819.8	1829.1
165°	1793.7	1803.6
167.5°	1775.0	1779.1
170°	1769.7	1769.7
172.5°	1755.9	1752.3
175°	1747.6	1747.6
177.5°	1740.0	1735.9
180°	1735.9	1735.9

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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	2.06	2.78	3.18	3.89	5.44	15.24	15.96	16.36	17.07	18.62
	3H	2.76	3.40	3.88	4.52	6.08	17.07	17.71	18.19	18.83	20.39
	4H	3.05	3.66	4.18	4.78	6.35	17.71	18.32	18.84	19.44	21.01
	6H	3.29	3.85	4.43	4.98	6.56	18.13	18.69	19.27	19.82	21.40
	8H	3.35	3.89	4.50	5.03	6.60	18.25	18.78	19.39	19.92	21.49
	12H	3.37	3.87	4.52	5.01	6.60	18.31	18.82	19.46	19.95	21.55
4H	2H	9.26	9.87	10.40	10.99	12.56	15.50	16.11	16.64	17.23	18.80
	3H	10.81	11.32	11.96	12.47	14.05	17.53	18.04	18.68	19.19	20.77
	4H	10.90	11.37	12.05	12.51	14.11	18.29	18.76	19.44	19.90	21.49
	6H	10.90	11.30	12.06	12.47	14.05	18.82	19.22	19.98	20.38	21.97
	8H	10.87	11.25	12.03	12.40	14.01	18.98	19.35	20.13	20.51	22.11
	12H	10.82	11.17	12.00	12.33	13.94	19.06	19.40	20.24	20.57	22.18
8H	4H	12.33	12.71	13.49	13.86	15.47	18.34	18.71	19.49	19.86	21.47
	6H	12.57	12.88	13.74	14.07	15.68	18.96	19.27	20.13	20.46	22.07
	8H	12.58	12.85	13.77	14.03	15.65	19.18	19.45	20.36	20.62	22.24
	12H	12.54	12.78	13.73	13.95	15.61	19.31	19.55	20.50	20.72	22.38
12H	4H	12.47	12.81	13.64	13.97	15.58	18.28	18.62	19.45	19.79	21.40
	6H	12.82	13.10	14.01	14.27	15.89	18.94	19.21	20.12	20.38	22.01
	8H	12.89	13.12	14.07	14.30	15.95	19.16	19.40	20.35	20.57	22.23