

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: P938394

Luminaire Tested: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938394
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-8-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

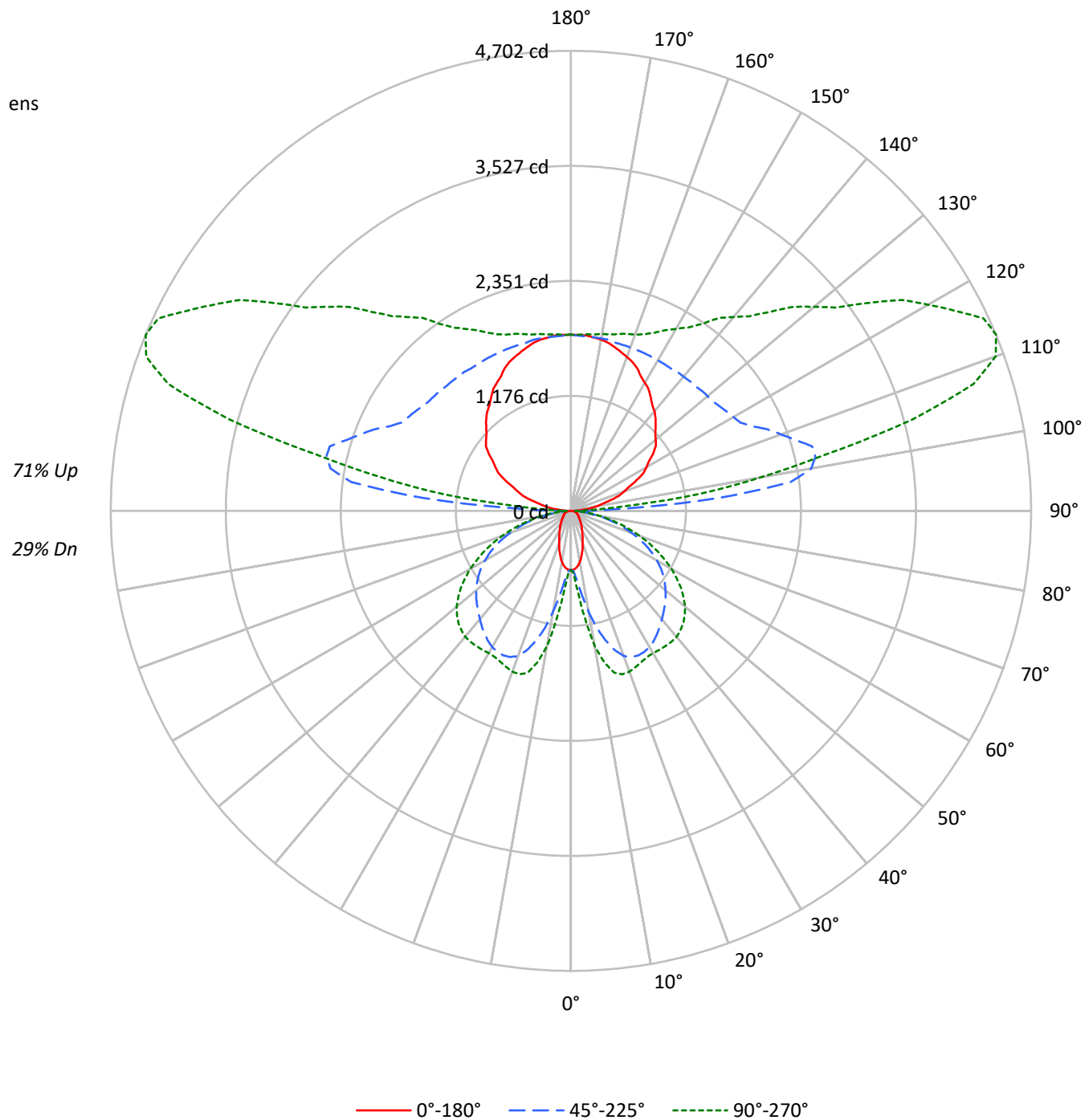
Lumens per Lamp: N/A
Luminaire Lumens: 16345.1 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

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: P938394

CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2796	2796	2796
5°	2732	3232	3759
10°	2478	4711	6232
15°	2106	6156	7525
20°	1714	7133	7669
25°	1430	7465	7513
30°	1206	7512	7499
35°	1066	7387	7693
40°	929	7225	7893
45°	841	7106	7924
50°	772	6999	7793
55°	739	6843	7447
60°	757	6542	6902
65°	787	6086	6152
70°	839	5307	5197
75°	930	4327	4056
80°	1015	3001	2733
85°	904	1592	1398

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7924 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.0	0.5
10°-20°	345.6	2.1
20°-30°	604.4	3.7
30°-40°	778.1	4.8
40°-50°	869.1	5.3
50°-60°	832.4	5.1
60°-70°	659.6	4.0
70°-80°	387.9	2.4
80°-90°	114.6	0.7
90°-100°	877.9	5.4
100°-110°	2308.1	14.1
110°-120°	2393.2	14.6
120°-130°	1919.7	11.7
130°-140°	1506.3	9.2
140°-150°	1156.1	7.1
150°-160°	832.6	5.1
160°-170°	509.4	3.1
170°-180°	172.1	1.1
0°-30°	1028.0	6.3
0°-40°	1806.0	11.0
0°-60°	3507.5	21.5
0°-90°	4669.7	28.6
90°-120°	5579.2	34.1
90°-150°	10161.3	62.2
90°-180°	11675.0	71.4
0°-180°	16345.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	603	603	603	603	603	
5°	587	630	709	802	831	54
15°	440	812	1368	1659	1711	122
25°	281	921	1630	1702	1704	129
35°	190	880	1535	1622	1686	119
45°	130	702	1357	1554	1624	100
55°	93	446	1151	1337	1374	85
65°	74	236	855	961	975	73
75°	54	145	469	516	517	57
85°	19	45	116	128	130	21
90°	12	34	92	46	46	11
95°	116	454	1512	780	531	129
105°	416	630	2552	3874	3614	441
115°	739	897	2044	4077	4654	729
125°	1027	1152	1859	3142	3706	912
135°	1224	1348	1801	2536	2876	947
145°	1420	1511	1778	2164	2333	890
155°	1605	1650	1778	1952	2009	738
165°	1732	1755	1778	1848	1871	489
175°	1801	1801	1790	1813	1813	171
180°	1801	1801	1801	1801	1801	

TEST NUMBER: P938394

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7	602.7
2.5°	602.7	602.7	606.6	608.5	612.4	614.3	618.2	622.1	633.7	635.7	639.5
5°	587.2	595.0	620.2	629.8	657.0	693.8	709.3	734.5	786.8	802.3	812.0
7.5°	564.0	581.4	643.4	658.9	726.8	823.6	864.3	918.6	1001.9	1042.6	1075.6
10°	527.1	564.0	674.4	711.2	821.7	969.0	1044.6	1120.3	1246.2	1302.4	1323.8
12.5°	486.4	546.5	707.4	757.8	916.7	1131.9	1223.0	1306.3	1449.7	1525.3	1536.9
15°	439.9	521.3	738.4	812.0	1017.4	1267.5	1368.3	1471.0	1604.8	1659.0	1672.6
17.5°	399.2	501.9	767.4	845.0	1095.0	1389.6	1492.4	1577.6	1686.2	1723.0	1732.7
20°	348.8	470.9	786.8	887.6	1176.5	1478.8	1577.6	1643.5	1717.2	1740.4	1744.3
22.5°	312.0	438.0	798.5	903.1	1230.7	1533.1	1616.4	1668.7	1719.1	1726.9	1728.8
25°	281.0	401.2	796.5	920.6	1277.2	1566.0	1630.0	1668.7	1697.8	1701.7	1701.7
27.5°	251.9	360.5	788.8	924.4	1312.1	1573.8	1624.1	1651.3	1664.8	1672.6	1672.6
30°	226.7	321.7	769.4	916.7	1327.6	1566.0	1606.7	1620.3	1633.8	1645.5	1651.3
32.5°	207.4	284.9	740.3	901.2	1329.6	1546.6	1575.7	1583.4	1602.8	1630.0	1639.6
35°	189.9	248.1	707.4	879.9	1317.9	1515.6	1535.0	1542.7	1581.5	1622.2	1635.8
37.5°	172.5	220.9	664.7	843.0	1300.5	1478.8	1492.4	1505.9	1566.0	1614.5	1630.0
40°	155.0	197.7	614.3	802.3	1273.4	1434.2	1445.8	1467.2	1546.6	1602.8	1618.3
42.5°	141.5	178.3	560.1	759.7	1238.5	1383.8	1401.3	1432.3	1523.4	1583.4	1600.9
45°	129.8	158.9	501.9	701.6	1193.9	1331.5	1356.7	1399.3	1496.2	1554.4	1569.9
47.5°	118.2	145.4	441.9	641.5	1145.5	1279.2	1312.1	1360.6	1459.4	1515.6	1529.2
50°	108.5	131.8	381.8	577.5	1093.0	1223.0	1261.7	1312.1	1412.9	1465.2	1482.7
52.5°	100.8	120.2	325.6	513.6	1033.0	1164.8	1209.4	1261.7	1356.7	1407.1	1418.7
55°	93.0	110.5	277.1	445.7	970.9	1102.8	1151.3	1201.7	1294.7	1337.3	1345.1
57.5°	89.1	102.7	236.4	381.8	905.0	1033.0	1087.2	1133.8	1221.0	1254.0	1261.7
60°	83.3	96.9	205.4	327.5	833.3	967.1	1013.6	1060.1	1133.8	1161.0	1166.8
62.5°	77.5	93.0	182.2	275.2	759.7	889.5	936.1	978.7	1040.7	1060.1	1067.8
65°	73.6	89.1	164.7	236.4	684.1	808.1	854.7	891.5	941.9	961.2	965.1
67.5°	69.8	85.3	151.2	203.5	608.5	726.8	761.6	796.5	835.3	854.7	856.6
70°	64.0	81.4	139.5	180.2	531.0	633.7	662.8	699.6	730.6	740.3	746.1
72.5°	60.1	75.6	131.8	162.8	451.6	544.6	571.7	593.0	620.2	629.8	629.8
75°	54.3	67.8	124.0	145.4	370.2	445.7	469.0	490.3	511.6	515.5	509.7
77.5°	48.4	60.1	106.6	122.1	288.8	352.7	372.1	383.7	401.2	405.0	407.0
80°	40.7	52.3	83.3	95.0	209.3	259.7	273.3	282.9	298.5	298.5	302.3
82.5°	31.0	40.7	60.1	67.8	141.5	178.3	189.9	195.7	205.4	205.4	205.4
85°	19.4	25.2	38.8	44.6	85.3	108.5	116.3	118.2	126.0	127.9	127.9
87.5°	9.7	13.6	25.2	27.1	44.6	56.2	56.2	60.1	60.1	58.1	56.2
90°	12.1	21.8	31.4	33.8	53.2	79.0	91.9	81.7	61.2	45.9	45.9
92.5°	48.4	130.5	212.8	233.3	328.0	454.3	517.3	453.4	325.6	229.7	220.5
95°	116.1	266.5	416.9	454.5	807.0	1277.0	1512.1	1349.3	1023.8	779.7	751.9
97.5°	200.7	333.3	466.1	499.2	1087.1	1870.9	2262.8	2159.9	1954.2	1799.8	1747.2
100°	265.9	386.2	506.6	536.7	1189.1	2058.7	2493.6	2501.2	2516.2	2527.4	2464.7
102.5°	321.5	433.8	546.0	574.1	1235.8	2117.8	2558.9	2690.0	2952.2	3148.8	3095.1
105°	415.8	510.9	606.0	629.8	1270.4	2124.5	2551.7	2845.6	3433.3	3874.1	3845.2
107.5°	512.5	601.2	689.7	711.9	1276.9	2030.1	2406.6	2816.5	3636.4	4251.2	4258.2
110°	577.8	657.9	737.9	757.9	1267.2	1946.2	2285.8	2744.0	3660.5	4347.9	4377.9

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CATALOG NUMBER: SQ4-FB-150U-075D-B2750-1D-UNV-W2A-W-8-3500K

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	641.9	718.1	794.4	813.5	1267.5	1873.0	2175.7	2644.7	3582.7	4286.2	4332.4
115°	738.6	808.9	879.3	896.9	1279.3	1789.1	2044.0	2495.8	3399.3	4077.1	4141.1
117.5°	834.0	898.0	961.9	977.9	1303.0	1736.5	1953.3	2361.1	3176.6	3788.2	3859.2
120°	889.6	949.8	1010.0	1025.0	1322.4	1718.8	1917.1	2289.7	3034.8	3593.6	3662.6
122.5°	944.0	1004.8	1065.4	1080.6	1350.2	1709.6	1889.3	2224.7	2895.8	3399.0	3467.1
125°	1027.4	1082.8	1138.1	1151.9	1387.6	1701.9	1859.0	2144.0	2714.0	3141.5	3204.2
127.5°	1095.2	1151.0	1206.9	1220.8	1425.1	1697.5	1833.6	2078.3	2567.8	2934.8	2987.7
130°	1131.4	1191.6	1251.8	1266.8	1452.5	1700.1	1823.9	2041.8	2477.5	2804.3	2853.2
132.5°	1168.9	1229.1	1289.3	1304.3	1474.7	1702.0	1815.5	2010.5	2400.5	2693.0	2736.8
135°	1224.4	1279.3	1334.1	1347.8	1498.8	1700.3	1801.0	1964.4	2291.0	2536.0	2573.7
137.5°	1281.3	1335.6	1389.7	1403.3	1535.1	1710.8	1798.7	1936.7	2212.8	2419.9	2450.8
140°	1328.4	1378.4	1428.3	1440.8	1557.3	1712.5	1790.1	1909.4	2148.0	2326.9	2355.7
142.5°	1364.6	1410.9	1457.1	1468.6	1575.8	1718.7	1790.1	1894.9	2104.4	2261.5	2286.4
145°	1420.3	1460.6	1500.9	1511.0	1600.0	1718.7	1778.0	1863.7	2035.1	2163.7	2182.5
147.5°	1475.9	1515.1	1554.4	1564.2	1635.5	1730.5	1778.0	1845.5	1980.2	2081.4	2097.0
150°	1512.1	1547.6	1583.1	1591.9	1653.9	1736.6	1778.0	1835.0	1948.9	2034.3	2046.9
152.5°	1549.6	1576.5	1603.4	1610.1	1666.1	1740.7	1778.0	1826.7	1923.9	1996.8	2006.3
155°	1605.2	1625.1	1645.0	1649.9	1692.6	1749.5	1778.0	1816.7	1894.1	1952.1	1958.4
157.5°	1646.3	1665.7	1685.0	1689.8	1719.2	1758.4	1778.0	1808.2	1868.3	1913.5	1917.9
160°	1674.1	1689.2	1704.2	1708.0	1731.3	1762.4	1778.0	1803.8	1855.4	1894.1	1896.6
162.5°	1702.0	1713.2	1724.5	1727.3	1744.2	1766.8	1778.0	1799.8	1843.3	1876.0	1878.4
165°	1732.1	1742.3	1752.5	1755.1	1762.7	1772.9	1778.0	1793.6	1824.8	1848.2	1850.7
167.5°	1759.9	1764.7	1769.6	1770.8	1777.2	1785.9	1790.1	1800.3	1820.8	1836.1	1837.1
170°	1778.0	1782.9	1787.7	1789.0	1789.4	1789.8	1790.1	1800.3	1820.8	1836.1	1836.1
172.5°	1787.7	1788.8	1789.8	1790.1	1790.1	1790.1	1790.1	1798.2	1814.3	1826.4	1825.4
175°	1801.0	1801.0	1801.0	1801.0	1797.4	1792.6	1790.1	1795.3	1805.4	1813.1	1813.1
177.5°	1801.0	1801.0	1801.0	1801.0	1798.2	1794.4	1792.6	1796.6	1804.7	1810.7	1809.6
180°	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0	1801.0

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	602.7	602.7
2.5°	643.4	639.5
5°	827.5	831.4
7.5°	1114.4	1112.5
10°	1385.8	1403.2
12.5°	1583.4	1587.3
15°	1703.6	1711.4
17.5°	1750.1	1752.0
20°	1752.0	1748.2
22.5°	1730.7	1726.9
25°	1705.5	1703.6
27.5°	1682.3	1684.2
30°	1672.6	1678.4
32.5°	1672.6	1682.3
35°	1676.5	1686.2
37.5°	1674.5	1686.2
40°	1666.8	1680.3
42.5°	1645.5	1655.1
45°	1612.5	1624.1
47.5°	1569.9	1577.6
50°	1515.6	1523.4
52.5°	1447.8	1449.7
55°	1366.4	1374.1
57.5°	1279.2	1281.1
60°	1182.3	1188.1
62.5°	1079.5	1079.5
65°	970.9	974.8
67.5°	858.5	868.2
70°	744.2	746.1
72.5°	631.8	631.8
75°	515.5	517.4
77.5°	405.0	405.0
80°	300.4	302.3
82.5°	207.4	211.2
85°	129.8	129.8
87.5°	60.1	54.3
90°	45.9	45.9
92.5°	184.0	147.5
95°	641.3	530.6
97.5°	1536.5	1326.0
100°	2213.9	1963.0
102.5°	2880.2	2665.3
105°	3729.7	3614.2
107.5°	4286.1	4314.0
110°	4498.3	4618.6



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4517.2	4702.0
115°	4397.4	4653.6
117.5°	4143.4	4427.7
120°	3938.8	4214.9
122.5°	3739.5	4011.9
125°	3455.2	3706.0
127.5°	3199.4	3411.1
130°	3048.8	3244.3
132.5°	2911.9	3087.1
135°	2724.6	2875.6
137.5°	2574.3	2697.9
140°	2471.2	2586.7
142.5°	2385.8	2485.2
145°	2257.7	2332.9
147.5°	2159.3	2221.6
150°	2097.5	2148.0
152.5°	2044.5	2082.7
155°	1983.7	2008.9
157.5°	1935.6	1953.3
160°	1906.9	1917.1
162.5°	1888.0	1897.7
165°	1861.0	1871.1
167.5°	1841.5	1845.8
170°	1836.1	1836.1
172.5°	1821.7	1817.9
175°	1813.1	1813.1
177.5°	1805.2	1801.0
180°	1801.0	1801.0

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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	2.19	2.90	3.30	4.02	5.56	15.37	16.08	16.48	17.20	18.74
	3H	2.88	3.52	4.01	4.65	6.21	17.20	17.84	18.32	18.96	20.52
	4H	3.17	3.78	4.31	4.91	6.47	17.83	18.44	18.97	19.57	21.13
	6H	3.42	3.98	4.56	5.10	6.68	18.26	18.82	19.40	19.94	21.52
	8H	3.48	4.01	4.63	5.16	6.73	18.37	18.91	19.52	20.05	21.62
	12H	3.49	4.00	4.64	5.14	6.73	18.44	18.94	19.59	20.08	21.67
4H	2H	9.39	10.00	10.53	11.12	12.69	15.62	16.23	16.77	17.36	18.92
	3H	10.94	11.45	12.09	12.60	14.18	17.66	18.17	18.80	19.31	20.89
	4H	11.03	11.50	12.18	12.64	14.23	18.42	18.89	19.57	20.02	21.62
	6H	11.03	11.43	12.19	12.59	14.18	18.95	19.35	20.10	20.51	22.10
	8H	11.00	11.38	12.16	12.53	14.14	19.10	19.48	20.26	20.63	22.24
	12H	10.95	11.29	12.13	12.46	14.07	19.19	19.53	20.36	20.70	22.31
8H	4H	12.46	12.84	13.62	13.99	15.60	18.46	18.84	19.62	19.99	21.60
	6H	12.70	13.01	13.87	14.20	15.80	19.09	19.40	20.26	20.59	22.19
	8H	12.71	12.98	13.89	14.16	15.78	19.30	19.57	20.49	20.75	22.37
	12H	12.67	12.91	13.86	14.08	15.74	19.44	19.68	20.63	20.85	22.51
12H	4H	12.60	12.94	13.77	14.10	15.71	18.41	18.75	19.58	19.91	21.53
	6H	12.95	13.22	14.13	14.40	16.02	19.07	19.34	20.25	20.51	22.13
	8H	13.01	13.25	14.20	14.42	16.08	19.29	19.53	20.48	20.70	22.35