

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: P937479

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937479
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-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

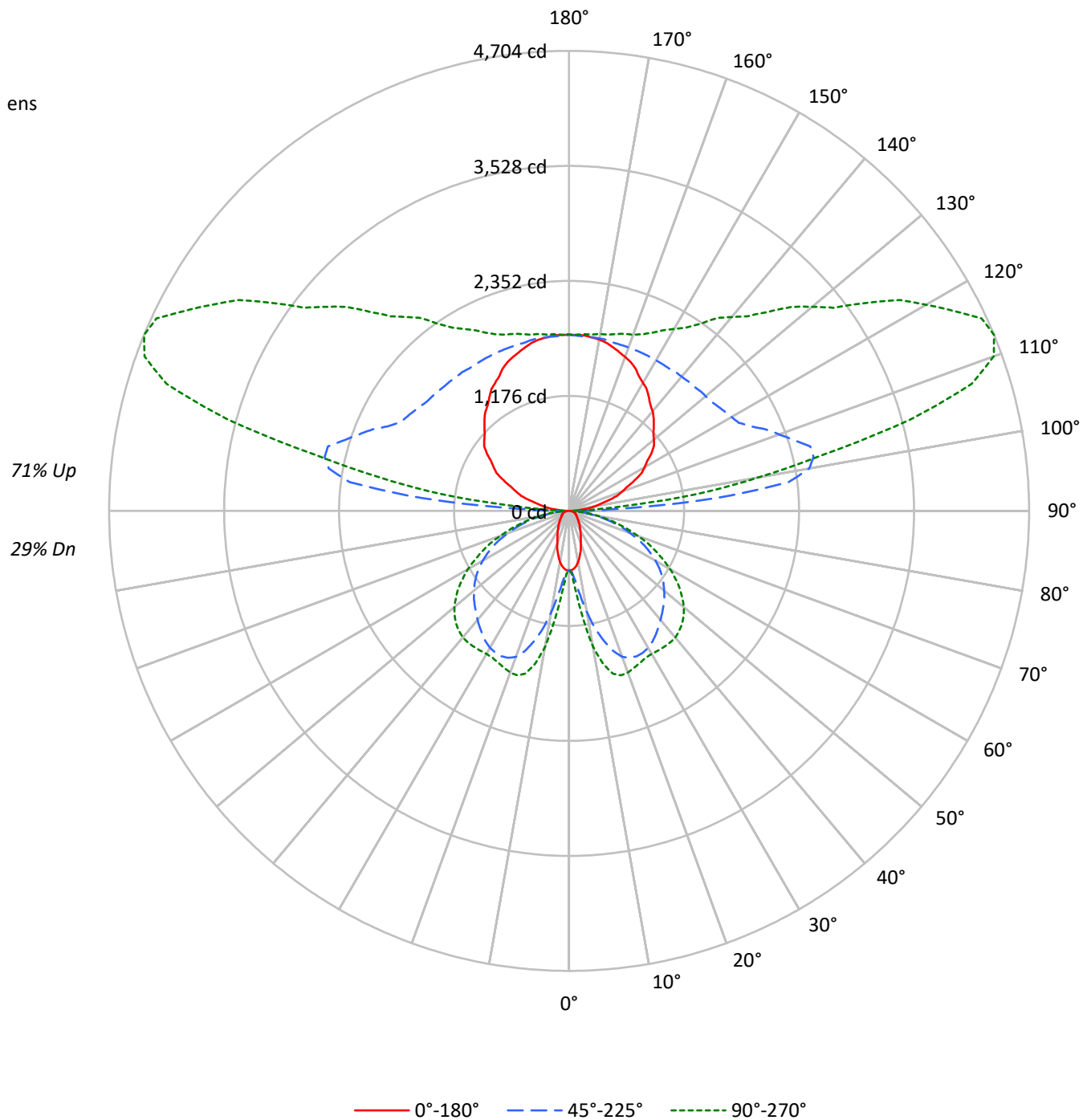
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16377.1 lumens
Efficiency: N/A
Efficacy: 132.5 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 (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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CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-12-3500K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1876	1876	1876
5°	1833	2168	2521
10°	1663	3161	4179
15°	1414	4132	5047
20°	1152	4789	5143
25°	961	5012	5039
30°	811	5046	5029
35°	717	4963	5159
40°	626	4856	5294
45°	567	4777	5315
50°	520	4707	5227
55°	499	4603	4995
60°	511	4404	4629
65°	533	4099	4126
70°	568	3577	3486
75°	633	2918	2720
80°	697	2027	1833
85°	632	1077	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5315 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	0.5
10°-20°	347.6	2.1
20°-30°	608.1	3.7
30°-40°	782.8	4.8
40°-50°	874.3	5.3
50°-60°	837.4	5.1
60°-70°	663.6	4.1
70°-80°	390.2	2.4
80°-90°	115.3	0.7
90°-100°	878.2	5.4
100°-110°	2308.8	14.1
110°-120°	2394.0	14.6
120°-130°	1920.3	11.7
130°-140°	1506.8	9.2
140°-150°	1156.5	7.1
150°-160°	832.9	5.1
160°-170°	509.6	3.1
170°-180°	172.2	1.1
0°-30°	1034.2	6.3
0°-40°	1816.9	11.1
0°-60°	3528.6	21.5
0°-90°	4697.8	28.7
90°-120°	5581.1	34.1
90°-150°	10164.6	62.1
90°-180°	11679.0	71.3
0°-180°	16377.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	591	634	714	807	836	55
15°	443	817	1377	1669	1722	123
25°	283	926	1640	1712	1714	130
35°	191	885	1544	1632	1696	119
45°	131	706	1365	1564	1634	101
55°	94	448	1158	1345	1382	85
65°	74	238	860	967	981	73
75°	55	146	472	519	520	57
85°	20	45	117	129	131	21
90°	12	34	92	46	46	11
95°	116	455	1513	780	531	129
105°	416	630	2552	3875	3615	441
115°	739	897	2045	4078	4655	730
125°	1028	1152	1860	3143	3707	913
135°	1225	1348	1802	2537	2877	948
145°	1421	1511	1779	2164	2334	890
155°	1606	1650	1779	1953	2010	738
165°	1733	1756	1779	1849	1872	489
175°	1802	1802	1791	1814	1814	171
180°	1802	1802	1802	1802	1802	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4	606.4
2.5°	606.4	606.4	610.3	612.2	616.1	618.0	622.0	625.9	637.6	639.5	643.4
5°	590.8	598.6	623.9	633.6	661.0	698.0	713.6	739.0	791.6	807.2	817.0
7.5°	567.3	584.9	647.3	662.9	731.2	828.7	869.6	924.2	1008.1	1048.9	1082.1
10°	530.3	567.3	678.5	715.6	826.7	974.9	1050.9	1126.9	1253.7	1310.3	1331.7
12.5°	489.3	549.8	711.6	762.3	922.2	1138.7	1230.3	1314.2	1458.4	1534.5	1546.1
15°	442.6	524.5	742.8	817.0	1023.7	1275.1	1376.6	1479.9	1614.5	1669.0	1682.7
17.5°	401.7	504.9	772.1	850.1	1101.7	1398.0	1501.3	1587.1	1696.3	1733.3	1743.1
20°	351.0	473.8	791.6	893.0	1183.5	1487.7	1587.1	1653.4	1727.5	1750.9	1754.8
22.5°	314.0	440.6	803.3	908.6	1238.1	1542.3	1626.1	1678.8	1729.5	1737.2	1739.2
25°	282.8	403.6	801.4	926.2	1284.9	1575.4	1639.7	1678.8	1708.0	1711.9	1711.9
27.5°	253.5	362.7	793.5	930.0	1320.0	1583.2	1633.9	1661.2	1674.8	1682.7	1682.7
30°	228.1	323.6	774.0	922.2	1335.6	1575.4	1616.4	1630.1	1643.6	1655.3	1661.2
32.5°	208.6	286.6	744.8	906.6	1337.5	1555.9	1585.2	1592.9	1612.4	1639.7	1649.5
35°	191.1	249.6	711.6	885.2	1325.9	1524.7	1544.2	1552.0	1591.0	1632.0	1645.6
37.5°	173.5	222.3	668.8	848.2	1308.2	1487.7	1501.3	1514.9	1575.4	1624.1	1639.7
40°	156.0	198.8	618.0	807.2	1281.0	1442.8	1454.6	1476.0	1555.9	1612.4	1628.0
42.5°	142.3	179.4	563.5	764.3	1245.9	1392.2	1409.7	1440.9	1532.5	1592.9	1610.5
45°	130.6	159.9	504.9	705.8	1201.1	1339.4	1364.8	1407.8	1505.2	1563.7	1579.3
47.5°	118.9	146.2	444.6	645.4	1152.3	1286.8	1320.0	1368.7	1468.1	1524.7	1538.4
50°	109.2	132.6	384.1	581.0	1099.6	1230.3	1269.3	1320.0	1421.4	1474.0	1491.6
52.5°	101.4	120.9	327.5	516.7	1039.3	1171.8	1216.7	1269.3	1364.8	1415.5	1427.2
55°	93.6	111.1	278.8	448.5	976.8	1109.4	1158.1	1208.8	1302.4	1345.4	1353.1
57.5°	89.7	103.3	237.9	384.1	910.6	1039.3	1093.8	1140.6	1228.3	1261.5	1269.3
60°	83.8	97.5	206.7	329.6	838.4	973.0	1019.8	1066.5	1140.6	1167.9	1173.7
62.5°	78.0	93.6	183.2	276.8	764.3	895.0	941.8	984.6	1047.0	1066.5	1074.3
65°	74.1	89.7	165.7	237.9	688.3	813.1	859.9	896.9	947.6	967.1	970.9
67.5°	70.2	85.8	152.0	204.7	612.2	731.2	766.3	801.4	840.3	859.9	861.8
70°	64.3	81.9	140.4	181.3	534.2	637.6	666.9	703.9	735.1	744.8	750.7
72.5°	60.5	76.1	132.6	163.8	454.3	547.9	575.2	596.6	623.9	633.6	633.6
75°	54.6	68.2	124.8	146.2	372.4	448.5	471.8	493.3	514.7	518.6	512.8
77.5°	48.7	60.5	107.3	122.9	290.5	354.8	374.3	386.0	403.6	407.5	409.4
80°	41.0	52.6	83.8	95.5	210.6	261.2	274.9	284.7	300.3	300.3	304.2
82.5°	31.2	41.0	60.5	68.2	142.3	179.4	191.1	196.9	206.7	206.7	206.7
85°	19.5	25.4	39.0	44.9	85.8	109.2	117.0	118.9	126.7	128.7	128.7
87.5°	9.8	13.7	25.4	27.3	44.9	56.6	56.6	60.5	60.5	58.5	56.6
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	328.1	454.4	517.5	453.6	325.7	229.7	220.6
95°	116.1	266.6	417.1	454.7	807.3	1277.5	1512.6	1349.8	1024.1	779.9	752.1
97.5°	200.7	333.4	466.2	499.4	1087.4	1871.4	2263.5	2160.6	1954.8	1800.4	1747.8
100°	266.0	386.3	506.7	536.8	1189.4	2059.4	2494.5	2502.1	2517.1	2528.3	2465.6
102.5°	321.6	433.9	546.2	574.3	1236.2	2118.6	2559.8	2690.9	2953.1	3149.8	3096.1
105°	416.0	511.1	606.2	629.9	1270.8	2125.3	2552.5	2846.5	3434.4	3875.3	3846.4
107.5°	512.7	601.4	690.0	712.2	1277.2	2030.6	2407.4	2817.5	3637.5	4252.6	4259.5
110°	578.0	658.0	738.1	758.1	1267.5	1946.8	2286.5	2744.9	3661.7	4349.3	4379.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	642.1	718.4	794.7	813.8	1268.0	1873.7	2176.5	2645.7	3583.9	4287.6	4333.9
115°	738.8	809.2	879.6	897.2	1279.7	1789.6	2044.7	2496.6	3400.5	4078.4	4142.5
117.5°	834.3	898.3	962.2	978.2	1303.5	1737.1	1954.0	2361.8	3177.6	3789.5	3860.5
120°	889.9	950.1	1010.4	1025.4	1322.9	1719.5	1917.7	2290.4	3035.8	3594.8	3663.9
122.5°	944.4	1005.1	1065.8	1081.0	1350.7	1710.2	1889.9	2225.5	2896.7	3400.1	3468.2
125°	1027.8	1083.1	1138.5	1152.3	1388.1	1702.5	1859.7	2144.8	2714.9	3142.6	3205.3
127.5°	1095.5	1151.4	1207.3	1221.2	1425.6	1698.1	1834.3	2079.1	2568.6	2935.8	2988.7
130°	1131.8	1192.0	1252.1	1267.2	1453.0	1700.8	1824.6	2042.6	2478.4	2805.3	2854.2
132.5°	1169.3	1229.5	1289.6	1304.7	1475.1	1702.4	1816.1	2011.2	2401.4	2694.0	2737.8
135°	1224.9	1279.7	1334.5	1348.2	1499.3	1700.9	1801.7	1965.0	2291.7	2536.7	2574.5
137.5°	1281.7	1336.0	1390.2	1403.8	1535.6	1711.4	1799.2	1937.3	2213.6	2420.8	2451.7
140°	1328.9	1378.9	1428.8	1441.3	1557.8	1713.1	1790.7	1910.0	2148.7	2327.6	2356.5
142.5°	1365.1	1411.3	1457.6	1469.1	1576.3	1719.2	1790.7	1895.6	2105.2	2262.3	2287.1
145°	1420.7	1461.1	1501.4	1511.4	1600.5	1719.3	1778.7	1864.4	2035.8	2164.4	2183.2
147.5°	1476.4	1515.6	1554.9	1564.6	1636.0	1731.1	1778.7	1846.1	1981.0	2082.2	2097.8
150°	1512.6	1548.1	1583.5	1592.5	1654.6	1737.3	1778.7	1835.7	1949.5	2035.0	2047.6
152.5°	1550.1	1577.0	1603.9	1610.6	1666.6	1741.3	1778.7	1827.3	1924.5	1997.5	2007.0
155°	1605.7	1625.6	1645.6	1650.5	1693.2	1750.2	1778.7	1817.4	1894.7	1952.7	1959.0
157.5°	1646.8	1666.2	1685.6	1690.4	1719.9	1759.1	1778.7	1808.7	1868.9	1914.1	1918.5
160°	1674.6	1689.7	1704.8	1708.5	1731.9	1763.1	1778.7	1804.5	1856.0	1894.7	1897.2
162.5°	1702.4	1713.7	1725.0	1727.8	1744.8	1767.4	1778.7	1800.4	1843.9	1876.6	1879.0
165°	1732.7	1742.8	1753.1	1755.6	1763.3	1773.6	1778.7	1794.3	1825.4	1848.8	1851.3
167.5°	1760.5	1765.3	1770.2	1771.4	1777.8	1786.4	1790.7	1801.0	1821.4	1836.7	1837.8
170°	1778.7	1783.5	1788.4	1789.5	1789.9	1790.4	1790.7	1801.0	1821.4	1836.7	1836.7
172.5°	1788.3	1789.4	1790.4	1790.7	1790.7	1790.7	1790.7	1798.8	1814.9	1827.0	1826.1
175°	1801.7	1801.7	1801.7	1801.7	1798.0	1793.1	1790.7	1795.8	1806.0	1813.7	1813.7
177.5°	1801.7	1801.7	1801.7	1801.7	1798.9	1795.1	1793.1	1797.2	1805.2	1811.3	1810.2
180°	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	606.4	606.4
2.5°	647.3	643.4
5°	832.6	836.4
7.5°	1121.1	1119.2
10°	1394.1	1411.6
12.5°	1592.9	1596.8
15°	1713.9	1721.6
17.5°	1760.7	1762.6
20°	1762.6	1758.7
22.5°	1741.1	1737.2
25°	1715.8	1713.9
27.5°	1692.4	1694.4
30°	1682.7	1688.5
32.5°	1682.7	1692.4
35°	1686.5	1696.3
37.5°	1684.6	1696.3
40°	1676.8	1690.4
42.5°	1655.3	1665.1
45°	1622.2	1633.9
47.5°	1579.3	1587.1
50°	1524.7	1532.5
52.5°	1456.5	1458.4
55°	1374.6	1382.4
57.5°	1286.8	1288.8
60°	1189.4	1195.2
62.5°	1086.1	1086.1
65°	976.8	980.7
67.5°	863.8	873.5
70°	748.7	750.7
72.5°	635.7	635.7
75°	518.6	520.5
77.5°	407.5	407.5
80°	302.2	304.2
82.5°	208.6	212.5
85°	130.6	130.6
87.5°	60.5	54.6
90°	45.9	45.9
92.5°	184.0	147.5
95°	641.5	530.8
97.5°	1537.1	1326.5
100°	2214.6	1963.7
102.5°	2881.1	2666.2
105°	3730.8	3615.3
107.5°	4287.5	4315.4
110°	4499.7	4620.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4518.7	4703.6
115°	4398.9	4655.2
117.5°	4144.8	4429.1
120°	3940.1	4216.3
122.5°	3740.6	4013.1
125°	3456.2	3707.2
127.5°	3200.5	3412.2
130°	3049.7	3245.4
132.5°	2913.0	3088.2
135°	2725.5	2876.6
137.5°	2575.2	2698.9
140°	2472.1	2587.6
142.5°	2386.6	2486.0
145°	2258.4	2333.6
147.5°	2160.1	2222.4
150°	2098.2	2148.7
152.5°	2045.2	2083.4
155°	1984.3	2009.6
157.5°	1936.3	1954.0
160°	1907.5	1917.7
162.5°	1888.7	1898.4
165°	1861.5	1871.7
167.5°	1842.1	1846.3
170°	1836.7	1836.7
172.5°	1822.3	1818.5
175°	1813.7	1813.7
177.5°	1805.9	1801.7
180°	1801.7	1801.7



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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	0.82	1.54	1.94	2.65	4.20	14.01	14.73	15.13	15.84	17.39
	3H	1.52	2.16	2.64	3.28	4.84	15.85	16.49	16.97	17.61	19.17
	4H	1.81	2.42	2.94	3.54	5.11	16.49	17.10	17.62	18.22	19.79
	6H	2.05	2.61	3.19	3.74	5.32	16.92	17.48	18.06	18.60	20.18
	8H	2.11	2.65	3.26	3.79	5.36	17.04	17.57	18.18	18.71	20.28
	12H	2.13	2.64	3.28	3.77	5.36	17.10	17.61	18.25	18.74	20.34
4H	2H	8.03	8.64	9.17	9.76	11.33	14.27	14.88	15.41	16.00	17.57
	3H	9.58	10.09	10.73	11.24	12.82	16.31	16.82	17.45	17.97	19.54
	4H	9.67	10.14	10.82	11.28	12.87	17.07	17.54	18.22	18.68	20.28
	6H	9.67	10.07	10.83	11.23	12.82	17.61	18.01	18.76	19.17	20.76
	8H	9.64	10.02	10.80	11.17	12.78	17.77	18.14	18.92	19.30	20.90
	12H	9.59	9.94	10.77	11.10	12.71	17.86	18.20	19.03	19.36	20.97
8H	4H	11.10	11.48	12.26	12.63	14.24	17.12	17.50	18.27	18.65	20.25
	6H	11.34	11.65	12.52	12.84	14.45	17.75	18.06	18.92	19.25	20.85
	8H	11.36	11.63	12.54	12.80	14.42	17.97	18.24	19.15	19.41	21.03
	12H	11.32	11.56	12.50	12.73	14.38	18.11	18.35	19.29	19.52	21.17
12H	4H	11.24	11.58	12.41	12.75	14.36	17.06	17.41	18.24	18.57	20.18
	6H	11.60	11.87	12.78	13.04	14.66	17.73	18.00	18.91	19.17	20.79
	8H	11.66	11.90	12.85	13.07	14.72	17.95	18.19	19.14	19.36	21.02