

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: P937413

Luminaire Tested: SQ4-FB-100U-050D-835-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937413
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-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

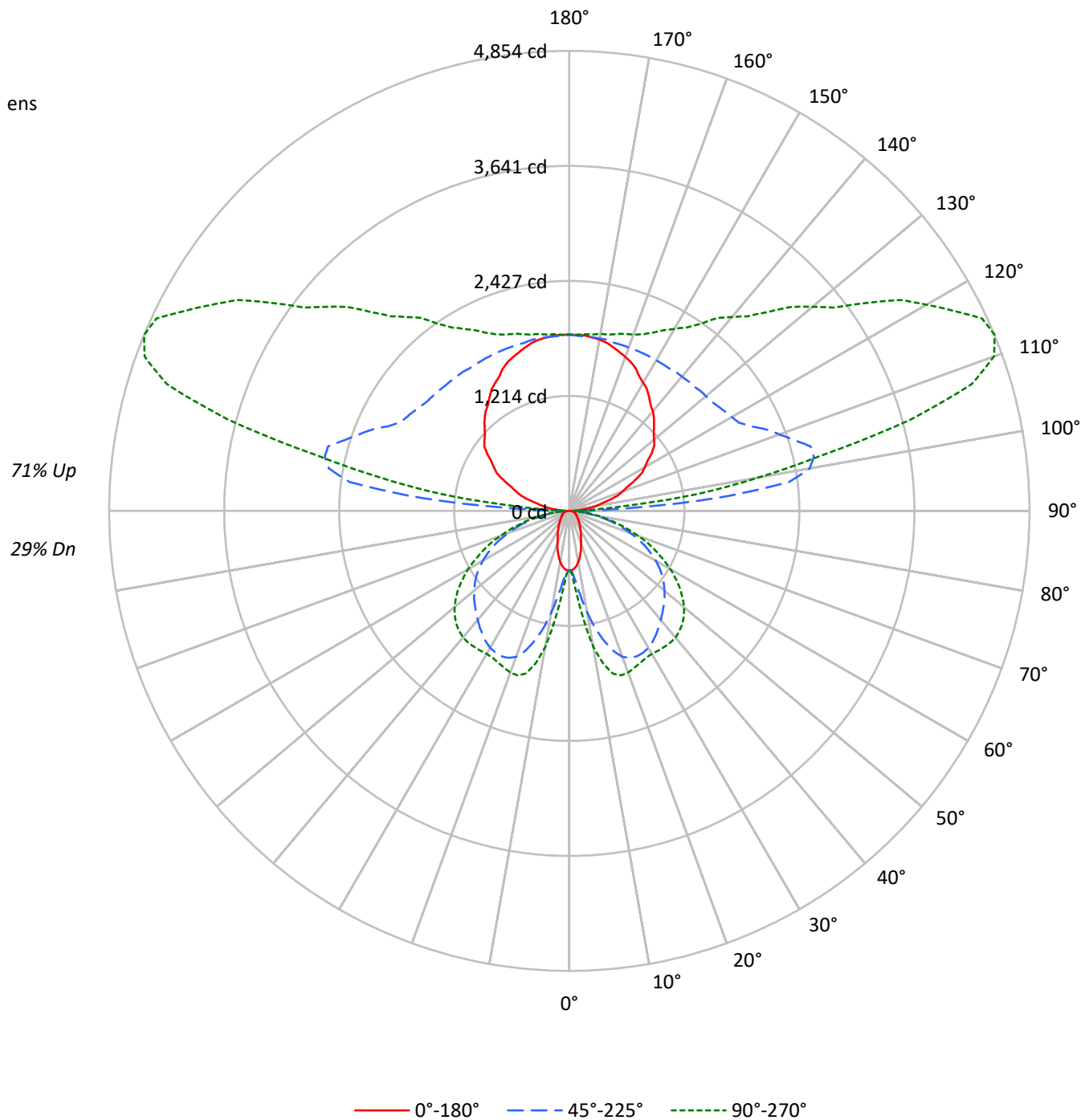
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16901.0 lumens
Efficiency: N/A
Efficacy: 136.7 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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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°	1936	1936	1936
5°	1892	2238	2602
10°	1716	3263	4313
15°	1460	4264	5208
20°	1189	4942	5308
25°	992	5173	5200
30°	837	5207	5190
35°	740	5122	5325
40°	646	5011	5463
45°	585	4930	5485
50°	537	4858	5394
55°	515	4751	5155
60°	527	4545	4777
65°	550	4230	4258
70°	587	3691	3598
75°	653	3012	2807
80°	719	2091	1892
85°	651	1111	968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5485 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	0.5
10°-20°	358.8	2.1
20°-30°	627.5	3.7
30°-40°	807.8	4.8
40°-50°	902.3	5.3
50°-60°	864.2	5.1
60°-70°	684.9	4.1
70°-80°	402.7	2.4
80°-90°	119.0	0.7
90°-100°	906.3	5.4
100°-110°	2382.7	14.1
110°-120°	2470.6	14.6
120°-130°	1981.7	11.7
130°-140°	1555.0	9.2
140°-150°	1193.5	7.1
150°-160°	859.5	5.1
160°-170°	525.9	3.1
170°-180°	177.7	1.1
0°-30°	1067.2	6.3
0°-40°	1875.0	11.1
0°-60°	3641.5	21.5
0°-90°	4848.1	28.7
90°-120°	5759.6	34.1
90°-150°	10489.8	62.1
90°-180°	12053.0	71.3
0°-180°	16901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	626	626	626	626	626	
5°	610	654	736	833	863	56
15°	457	843	1421	1722	1777	127
25°	292	956	1692	1767	1769	134
35°	197	914	1594	1684	1751	123
45°	135	728	1408	1614	1686	104
55°	97	463	1195	1388	1427	88
65°	76	246	887	998	1012	76
75°	56	151	487	535	537	59
85°	20	46	121	133	135	21
90°	12	35	95	47	47	12
95°	120	469	1561	805	548	133
105°	429	650	2634	3999	3731	455
115°	762	926	2110	4209	4804	753
125°	1061	1189	1919	3243	3826	942
135°	1264	1391	1859	2618	2969	978
145°	1466	1560	1836	2234	2408	919
155°	1657	1703	1836	2015	2074	761
165°	1788	1812	1836	1908	1932	505
175°	1859	1859	1848	1872	1872	176
180°	1859	1859	1859	1859	1859	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8	625.8
2.5°	625.8	625.8	629.8	631.8	635.8	637.8	641.9	645.9	658.0	660.0	664.0
5°	609.7	617.7	643.9	653.9	682.1	720.3	736.4	762.6	816.9	833.0	843.1
7.5°	585.5	603.6	668.0	684.1	754.6	855.2	897.4	953.8	1040.3	1082.5	1116.7
10°	547.3	585.5	700.2	738.5	853.1	1006.1	1084.5	1163.0	1293.8	1352.2	1374.3
12.5°	505.0	567.4	734.4	786.7	951.7	1175.1	1269.7	1356.2	1505.1	1583.6	1595.6
15°	456.8	541.3	766.6	843.1	1056.4	1315.9	1420.6	1527.2	1666.1	1722.4	1736.5
17.5°	414.5	521.1	796.8	877.3	1136.9	1442.7	1549.3	1637.9	1750.6	1788.8	1798.9
20°	362.2	489.0	816.9	921.6	1221.4	1535.3	1637.9	1706.3	1782.8	1806.9	1810.9
22.5°	324.0	454.7	829.0	937.7	1277.7	1591.6	1678.1	1732.5	1784.8	1792.8	1794.8
25°	291.8	416.5	827.0	955.8	1326.0	1625.8	1692.2	1732.5	1762.6	1766.7	1766.7
27.5°	261.6	374.3	818.9	959.8	1362.2	1633.9	1686.2	1714.3	1728.4	1736.5	1736.5
30°	235.4	334.0	798.8	951.7	1378.3	1625.8	1668.1	1682.2	1696.2	1708.3	1714.3
32.5°	215.3	295.8	768.6	935.6	1380.3	1605.7	1635.9	1643.9	1664.0	1692.2	1702.3
35°	197.2	257.6	734.4	913.5	1368.3	1573.5	1593.6	1601.7	1641.9	1684.2	1698.2
37.5°	179.1	229.4	690.2	875.3	1350.1	1535.3	1549.3	1563.4	1625.8	1676.1	1692.2
40°	161.0	205.2	637.8	833.0	1322.0	1489.0	1501.1	1523.2	1605.7	1664.0	1680.1
42.5°	146.9	185.1	581.5	788.8	1285.8	1436.7	1454.8	1487.0	1581.5	1643.9	1662.0
45°	134.8	165.0	521.1	728.4	1239.5	1382.3	1408.5	1452.8	1553.4	1613.7	1629.8
47.5°	122.7	150.9	458.8	666.0	1189.2	1328.0	1362.2	1412.5	1515.1	1573.5	1587.6
50°	112.7	136.8	396.4	599.6	1134.8	1269.7	1309.9	1362.2	1466.9	1521.2	1539.3
52.5°	104.6	124.8	338.0	533.2	1072.5	1209.3	1255.6	1309.9	1408.5	1460.8	1472.9
55°	96.6	114.7	287.7	462.8	1008.1	1144.9	1195.2	1247.5	1344.1	1388.4	1396.4
57.5°	92.6	106.6	245.5	396.4	939.7	1072.5	1128.8	1177.1	1267.6	1301.9	1309.9
60°	86.5	100.6	213.3	340.1	865.2	1004.1	1052.4	1100.6	1177.1	1205.3	1211.3
62.5°	80.5	96.6	189.1	285.7	788.8	923.6	971.9	1016.1	1080.5	1100.6	1108.7
65°	76.5	92.6	171.0	245.5	710.3	839.1	887.4	925.6	977.9	998.0	1002.0
67.5°	72.4	88.5	156.9	211.3	631.8	754.6	790.8	827.0	867.2	887.4	889.4
70°	66.4	84.5	144.9	187.1	551.3	658.0	688.2	726.4	758.6	768.6	774.7
72.5°	62.4	78.5	136.8	169.0	468.8	565.4	593.6	615.7	643.9	653.9	653.9
75°	56.3	70.4	128.8	150.9	384.3	462.8	486.9	509.1	531.2	535.2	529.2
77.5°	50.3	62.4	110.7	126.8	299.8	366.2	386.3	398.4	416.5	420.5	422.5
80°	42.3	54.3	86.5	98.6	217.3	269.6	283.7	293.8	309.9	309.9	313.9
82.5°	32.2	42.3	62.4	70.4	146.9	185.1	197.2	203.2	213.3	213.3	213.3
85°	20.1	26.2	40.2	46.3	88.5	112.7	120.7	122.7	130.8	132.8	132.8
87.5°	10.1	14.1	26.2	28.2	46.3	58.4	58.4	62.4	62.4	60.4	58.4
90°	12.5	22.5	32.4	34.9	54.9	81.5	94.8	84.3	63.2	47.4	47.4
92.5°	49.9	134.7	219.6	240.8	338.6	468.9	534.1	468.1	336.1	237.1	227.7
95°	119.8	275.1	430.4	469.2	833.1	1318.4	1561.0	1393.0	1056.9	804.8	776.2
97.5°	207.1	344.1	481.1	515.4	1122.2	1931.3	2335.9	2229.7	2017.3	1858.0	1803.7
100°	274.5	398.7	522.9	554.0	1227.4	2125.3	2574.3	2582.1	2597.6	2609.2	2544.5
102.5°	331.9	447.8	563.7	592.7	1275.7	2186.4	2641.7	2777.0	3047.6	3250.6	3195.1
105°	429.3	527.4	625.6	650.1	1311.5	2193.3	2634.2	2937.6	3544.3	3999.3	3969.5
107.5°	529.1	620.6	712.1	735.0	1318.1	2095.6	2484.4	2907.6	3753.9	4388.6	4395.8
110°	596.5	679.1	761.7	782.4	1308.1	2009.1	2359.6	2832.7	3778.8	4488.4	4519.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	662.6	741.4	820.1	839.8	1308.6	1933.6	2246.1	2730.3	3698.6	4424.8	4472.5
115°	762.4	835.1	907.7	925.9	1320.6	1846.9	2110.1	2576.5	3509.3	4208.9	4275.0
117.5°	861.0	927.0	993.0	1009.5	1345.2	1792.7	2016.5	2437.4	3279.3	3910.7	3984.0
120°	918.4	980.5	1042.7	1058.2	1365.2	1774.5	1979.1	2363.7	3132.9	3709.8	3781.1
122.5°	974.6	1037.3	1099.9	1115.6	1393.9	1764.9	1950.4	2296.7	2989.4	3508.9	3579.2
125°	1060.7	1117.8	1174.9	1189.2	1432.5	1757.0	1919.2	2213.4	2801.8	3243.1	3307.8
127.5°	1130.5	1188.2	1245.9	1260.3	1471.2	1752.4	1893.0	2145.6	2650.8	3029.7	3084.3
130°	1168.0	1230.1	1292.2	1307.7	1499.5	1755.2	1883.0	2107.9	2557.7	2895.0	2945.5
132.5°	1206.7	1268.8	1330.9	1346.4	1522.3	1756.9	1874.2	2075.5	2478.2	2780.2	2825.4
135°	1264.1	1320.6	1377.2	1391.3	1547.3	1755.3	1859.3	2027.9	2365.0	2617.9	2656.9
137.5°	1322.7	1378.7	1434.7	1448.7	1584.7	1766.1	1856.8	1999.3	2284.4	2498.2	2530.1
140°	1371.4	1423.0	1474.5	1487.4	1607.6	1767.9	1848.0	1971.1	2217.4	2402.1	2431.9
142.5°	1408.8	1456.5	1504.2	1516.1	1626.7	1774.2	1848.0	1956.2	2172.5	2334.7	2360.3
145°	1466.2	1507.8	1549.4	1559.8	1651.7	1774.3	1835.6	1924.0	2100.9	2233.6	2253.0
147.5°	1523.6	1564.1	1604.6	1614.7	1688.3	1786.5	1835.6	1905.2	2044.4	2148.8	2164.9
150°	1561.0	1597.6	1634.2	1643.4	1707.5	1792.9	1835.6	1894.4	2011.9	2100.1	2113.1
152.5°	1599.7	1627.4	1655.2	1662.1	1719.9	1797.0	1835.6	1885.8	1986.1	2061.4	2071.2
155°	1657.1	1677.6	1698.2	1703.3	1747.4	1806.2	1835.6	1875.5	1955.3	2015.2	2021.7
157.5°	1699.5	1719.5	1739.5	1744.5	1774.9	1815.4	1835.6	1866.6	1928.7	1975.3	1979.9
160°	1728.2	1743.8	1759.3	1763.2	1787.3	1819.5	1835.6	1862.2	1915.4	1955.3	1957.9
162.5°	1756.9	1768.5	1780.2	1783.1	1800.6	1823.9	1835.6	1858.0	1902.9	1936.6	1939.1
165°	1788.1	1798.6	1809.2	1811.8	1819.7	1830.3	1835.6	1851.7	1883.8	1907.9	1910.5
167.5°	1816.8	1821.8	1826.8	1828.1	1834.7	1843.6	1848.0	1858.6	1879.7	1895.5	1896.6
170°	1835.6	1840.6	1845.6	1846.8	1847.2	1847.7	1848.0	1858.6	1879.7	1895.5	1895.5
172.5°	1845.5	1846.6	1847.7	1848.0	1848.0	1848.0	1848.0	1856.3	1873.0	1885.5	1884.5
175°	1859.3	1859.3	1859.3	1859.3	1855.5	1850.5	1848.0	1853.3	1863.8	1871.7	1871.7
177.5°	1859.3	1859.3	1859.3	1859.3	1856.4	1852.5	1850.5	1854.7	1863.0	1869.2	1868.1
180°	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3	1859.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	625.8	625.8
2.5°	668.0	664.0
5°	859.2	863.2
7.5°	1157.0	1155.0
10°	1438.7	1456.8
12.5°	1643.9	1647.9
15°	1768.7	1776.7
17.5°	1817.0	1819.0
20°	1819.0	1815.0
22.5°	1796.8	1792.8
25°	1770.7	1768.7
27.5°	1746.5	1748.6
30°	1736.5	1742.5
32.5°	1736.5	1746.5
35°	1740.5	1750.6
37.5°	1738.5	1750.6
40°	1730.4	1744.5
42.5°	1708.3	1718.4
45°	1674.1	1686.2
47.5°	1629.8	1637.9
50°	1573.5	1581.5
52.5°	1503.1	1505.1
55°	1418.6	1426.6
57.5°	1328.0	1330.0
60°	1227.4	1233.4
62.5°	1120.8	1120.8
65°	1008.1	1012.1
67.5°	891.4	901.4
70°	772.7	774.7
72.5°	656.0	656.0
75°	535.2	537.2
77.5°	420.5	420.5
80°	311.9	313.9
82.5°	215.3	219.3
85°	134.8	134.8
87.5°	62.4	56.3
90°	47.4	47.4
92.5°	189.9	152.2
95°	662.0	547.8
97.5°	1586.3	1368.9
100°	2285.5	2026.5
102.5°	2973.3	2751.5
105°	3850.2	3731.0
107.5°	4424.7	4453.5
110°	4643.7	4768.0



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4663.3	4854.1
115°	4539.6	4804.1
117.5°	4277.4	4570.8
120°	4066.1	4351.2
122.5°	3860.3	4141.5
125°	3566.8	3825.8
127.5°	3302.9	3521.4
130°	3147.3	3349.2
132.5°	3006.2	3187.0
135°	2812.7	2968.6
137.5°	2657.6	2785.2
140°	2551.2	2670.4
142.5°	2462.9	2565.5
145°	2330.7	2408.3
147.5°	2229.2	2293.5
150°	2165.3	2217.4
152.5°	2110.6	2150.0
155°	2047.8	2073.9
157.5°	1998.2	2016.5
160°	1968.5	1979.1
162.5°	1949.1	1959.1
165°	1921.1	1931.6
167.5°	1901.0	1905.4
170°	1895.5	1895.5
172.5°	1880.6	1876.7
175°	1871.7	1871.7
177.5°	1863.7	1859.3
180°	1859.3	1859.3



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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	0.93	1.65	2.05	2.76	4.31	14.12	14.84	15.24	15.95	17.50
	3H	1.63	2.27	2.75	3.39	4.95	15.96	16.60	17.08	17.72	19.28
	4H	1.92	2.53	3.05	3.65	5.22	16.60	17.21	17.73	18.33	19.90
	6H	2.16	2.72	3.30	3.85	5.42	17.03	17.59	18.17	18.71	20.29
	8H	2.22	2.76	3.37	3.90	5.47	17.14	17.68	18.29	18.82	20.39
	12H	2.24	2.74	3.39	3.88	5.47	17.21	17.72	18.36	18.85	20.45
4H	2H	8.14	8.75	9.28	9.87	11.44	14.38	14.99	15.52	16.11	17.68
	3H	9.69	10.20	10.84	11.35	12.93	16.42	16.93	17.56	18.08	19.65
	4H	9.78	10.25	10.93	11.39	12.98	17.18	17.65	18.33	18.79	20.39
	6H	9.78	10.18	10.94	11.34	12.93	17.72	18.12	18.87	19.28	20.87
	8H	9.75	10.13	10.91	11.28	12.89	17.88	18.25	19.03	19.40	21.01
	12H	9.70	10.04	10.87	11.21	12.82	17.97	18.31	19.14	19.47	21.08
8H	4H	11.21	11.59	12.37	12.74	14.35	17.23	17.60	18.38	18.76	20.36
	6H	11.45	11.76	12.63	12.95	14.56	17.85	18.17	19.03	19.36	20.96
	8H	11.47	11.74	12.65	12.91	14.53	18.08	18.35	19.26	19.52	21.14
	12H	11.43	11.67	12.61	12.83	14.49	18.22	18.45	19.40	19.62	21.28
12H	4H	11.35	11.69	12.52	12.86	14.47	17.17	17.52	18.35	18.68	20.29
	6H	11.71	11.98	12.89	13.15	14.77	17.84	18.11	19.02	19.28	20.90
	8H	11.77	12.01	12.96	13.18	14.83	18.06	18.30	19.25	19.47	21.12