

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: P937477

Luminaire Tested: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-12-2700K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937477
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-12-2700K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

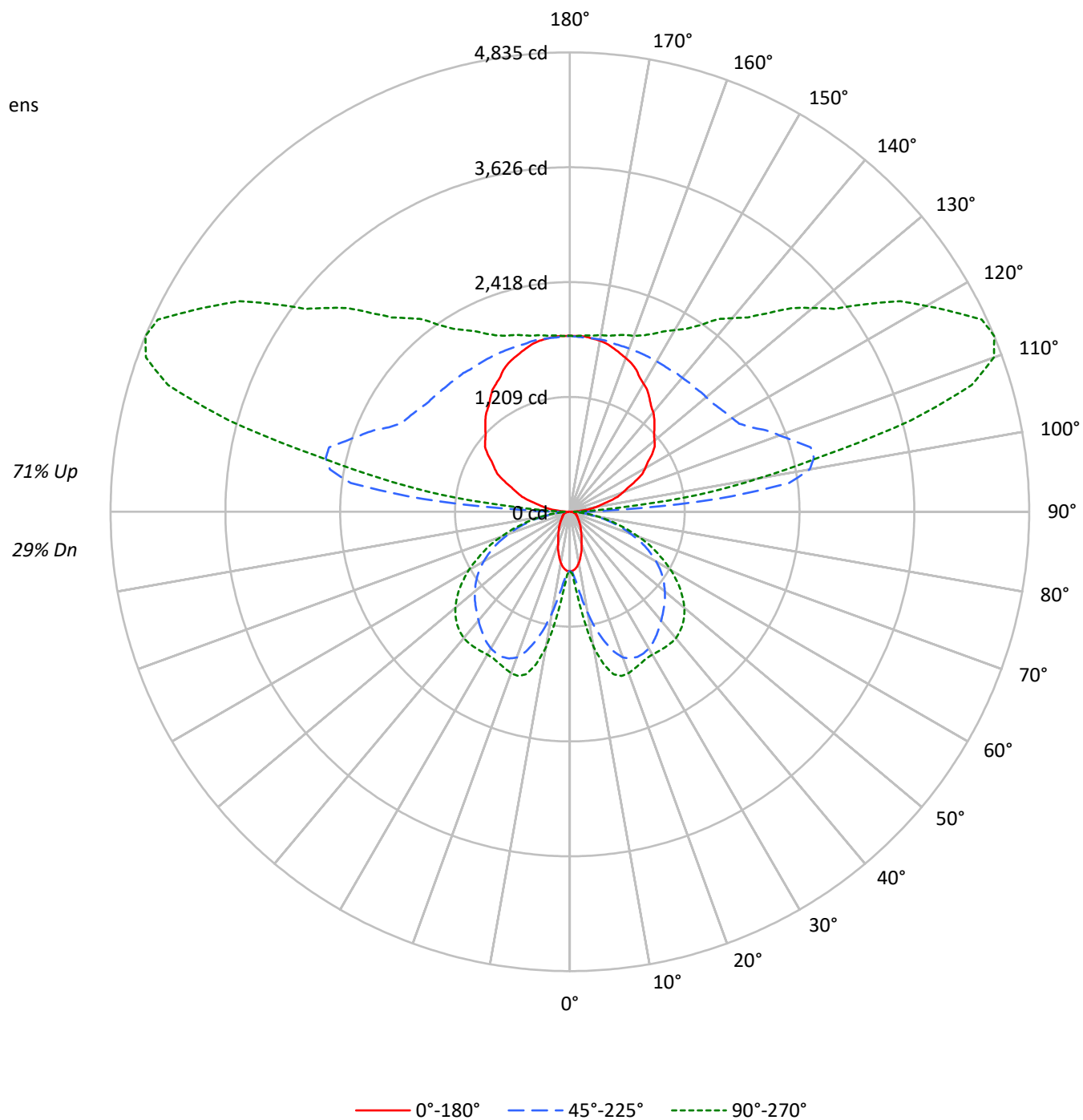
Lumens per Lamp: N/A
Luminaire Lumens: 16833.4 lumens
Efficiency: N/A
Efficacy: 136.2 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

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: P937477

CATALOG NUMBER: SQ4-FB-100U-050D-B2750-1D-UNV-STD-W-12-2700K

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1928	1928	1928
5°	1884	2229	2591
10°	1710	3250	4296
15°	1454	4247	5187
20°	1184	4922	5287
25°	988	5152	5179
30°	834	5186	5169
35°	737	5101	5303
40°	643	4991	5441
45°	583	4910	5463
50°	535	4838	5372
55°	513	4732	5134
60°	526	4526	4758
65°	548	4213	4242
70°	584	3676	3583
75°	650	3000	2796
80°	716	2083	1884
85°	648	1107	965

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5463 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	0.5
10°-20°	357.3	2.1
20°-30°	625.0	3.7
30°-40°	804.6	4.8
40°-50°	898.7	5.3
50°-60°	860.7	5.1
60°-70°	682.1	4.1
70°-80°	401.1	2.4
80°-90°	118.5	0.7
90°-100°	902.7	5.4
100°-110°	2373.2	14.1
110°-120°	2460.7	14.6
120°-130°	1973.8	11.7
130°-140°	1548.7	9.2
140°-150°	1188.7	7.1
150°-160°	856.1	5.1
160°-170°	523.8	3.1
170°-180°	177.0	1.1
0°-30°	1063.0	6.3
0°-40°	1867.5	11.1
0°-60°	3627.0	21.5
0°-90°	4828.7	28.7
90°-120°	5736.6	34.1
90°-150°	10447.9	62.1
90°-180°	12005.0	71.3
0°-180°	16833.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	607	651	734	830	860	56
15°	455	840	1415	1716	1770	127
25°	291	952	1685	1760	1762	134
35°	196	910	1587	1678	1744	123
45°	134	726	1403	1607	1680	104
55°	96	461	1190	1383	1421	88
65°	76	244	884	994	1008	75
75°	56	150	485	533	535	59
85°	20	46	120	132	134	21
90°	12	35	94	47	47	12
95°	119	467	1555	802	546	132
105°	428	648	2624	3983	3716	453
115°	759	922	2102	4192	4785	750
125°	1056	1184	1912	3230	3810	938
135°	1259	1386	1852	2607	2957	974
145°	1460	1554	1828	2225	2399	915
155°	1650	1696	1828	2007	2066	758
165°	1781	1805	1828	1900	1924	503
175°	1852	1852	1841	1864	1864	176
180°	1852	1852	1852	1852	1852	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3	623.3
2.5°	623.3	623.3	627.3	629.3	633.3	635.2	639.3	643.3	655.4	657.4	661.3
5°	607.3	615.2	641.3	651.3	679.4	717.4	733.5	759.5	813.6	829.7	839.7
7.5°	583.2	601.2	665.3	681.4	751.6	851.8	893.8	950.0	1036.1	1078.2	1112.2
10°	545.1	583.2	697.4	735.5	849.7	1002.1	1080.2	1158.3	1288.6	1346.8	1368.8
12.5°	503.0	565.1	731.5	783.6	947.9	1170.4	1264.6	1350.8	1499.1	1577.3	1589.2
15°	455.0	539.1	763.5	839.7	1052.2	1310.6	1414.9	1521.1	1659.4	1715.5	1729.6
17.5°	412.8	519.0	793.6	873.8	1132.4	1436.9	1543.1	1631.3	1743.6	1781.6	1791.7
20°	360.8	487.0	813.6	917.9	1216.5	1529.2	1631.3	1699.5	1775.7	1799.7	1803.7
22.5°	322.7	452.9	825.7	933.9	1272.6	1585.2	1671.4	1725.6	1777.7	1785.6	1787.6
25°	290.6	414.8	823.7	952.0	1320.7	1619.3	1685.4	1725.6	1755.5	1759.6	1759.6
27.5°	260.6	372.8	815.6	956.0	1356.8	1627.4	1679.5	1707.4	1721.5	1729.6	1729.6
30°	234.5	332.7	795.6	947.9	1372.8	1619.3	1661.4	1675.5	1689.4	1701.5	1707.4
32.5°	214.4	294.6	765.5	931.9	1374.8	1599.3	1629.4	1637.3	1657.3	1685.4	1695.5
35°	196.4	256.6	731.5	909.8	1362.8	1567.2	1587.2	1595.3	1635.3	1677.5	1691.4
37.5°	178.4	228.5	687.4	871.8	1344.7	1529.2	1543.1	1557.1	1619.3	1669.4	1685.4
40°	160.4	204.4	635.2	829.7	1316.7	1483.0	1495.1	1517.1	1599.3	1657.3	1673.4
42.5°	146.3	184.4	579.2	785.6	1280.7	1431.0	1449.0	1481.1	1575.2	1637.3	1655.4
45°	134.3	164.3	519.0	725.5	1234.5	1376.8	1402.9	1447.0	1547.2	1607.2	1623.3
47.5°	122.2	150.3	457.0	663.3	1184.4	1322.7	1356.8	1406.8	1509.0	1567.2	1581.2
50°	112.2	136.3	394.8	597.2	1130.3	1264.6	1304.7	1356.8	1461.0	1515.1	1533.1
52.5°	104.2	124.3	336.6	531.1	1068.2	1204.5	1250.6	1304.7	1402.9	1455.0	1467.0
55°	96.2	114.2	286.5	460.9	1004.1	1140.3	1190.4	1242.5	1338.7	1382.8	1390.8
57.5°	92.2	106.2	244.5	394.8	935.9	1068.2	1124.3	1172.4	1262.5	1296.7	1304.7
60°	86.2	100.2	212.4	338.7	861.7	1000.1	1048.2	1096.2	1172.4	1200.5	1206.5
62.5°	80.2	96.2	188.3	284.6	785.6	919.9	968.0	1012.0	1076.2	1096.2	1104.3
65°	76.2	92.2	170.3	244.5	707.5	835.7	883.9	921.9	974.0	994.0	998.0
67.5°	72.1	88.1	156.3	210.5	629.3	751.6	787.6	823.7	863.7	883.9	885.8
70°	66.1	84.2	144.3	186.4	549.1	655.4	685.4	723.5	755.6	765.5	771.6
72.5°	62.2	78.2	136.3	168.3	466.9	563.1	591.2	613.2	641.3	651.3	651.3
75°	56.1	70.1	128.3	150.3	382.8	460.9	485.0	507.1	529.1	533.1	527.1
77.5°	50.1	62.2	110.3	126.3	298.6	364.7	384.8	396.8	414.8	418.8	420.8
80°	42.1	54.1	86.2	98.2	216.4	268.5	282.6	292.6	308.7	308.7	312.6
82.5°	32.1	42.1	62.2	70.1	146.3	184.4	196.4	202.4	212.4	212.4	212.4
85°	20.0	26.1	40.0	46.1	88.1	112.2	120.2	122.2	130.3	132.3	132.3
87.5°	10.1	14.0	26.1	28.1	46.1	58.2	58.2	62.2	62.2	60.2	58.2
90°	12.4	22.4	32.3	34.8	54.7	81.2	94.4	84.0	62.9	47.2	47.2
92.5°	49.7	134.2	218.7	239.8	337.2	467.0	532.0	466.2	334.8	236.2	226.8
95°	119.3	274.0	428.7	467.3	829.8	1313.1	1554.8	1387.4	1052.7	801.6	773.1
97.5°	206.3	342.7	479.2	513.3	1117.7	1923.6	2326.6	2220.8	2009.2	1850.6	1796.5
100°	273.4	397.1	520.8	551.8	1222.5	2116.8	2564.0	2571.8	2587.2	2598.8	2534.3
102.5°	330.6	446.0	561.4	590.3	1270.6	2177.7	2631.1	2765.9	3035.4	3237.6	3182.3
105°	427.6	525.3	623.1	647.5	1306.3	2184.5	2623.7	2925.8	3530.1	3983.3	3953.6
107.5°	527.0	618.1	709.3	732.1	1312.8	2087.2	2474.5	2896.0	3738.9	4371.0	4378.2
110°	594.1	676.4	758.7	779.3	1302.9	2001.1	2350.2	2821.4	3763.7	4470.4	4501.4

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	659.9	738.4	816.8	836.4	1303.4	1925.9	2237.1	2719.4	3683.8	4407.1	4454.6
115°	759.4	831.8	904.1	922.2	1315.3	1839.5	2101.7	2566.2	3495.3	4192.1	4257.9
117.5°	857.6	923.3	989.0	1005.5	1339.8	1785.5	2008.4	2427.7	3266.2	3895.1	3968.1
120°	914.7	976.6	1038.5	1054.0	1359.7	1767.4	1971.2	2354.2	3120.4	3695.0	3766.0
122.5°	970.7	1033.2	1095.5	1111.1	1388.3	1757.8	1942.6	2287.5	2977.4	3494.9	3564.9
125°	1056.5	1113.3	1170.2	1184.4	1426.8	1750.0	1911.5	2204.5	2790.6	3230.1	3294.6
127.5°	1126.0	1183.4	1240.9	1255.3	1465.3	1745.4	1885.4	2137.0	2640.2	3017.6	3072.0
130°	1163.3	1225.2	1287.0	1302.5	1493.5	1748.2	1875.5	2099.5	2547.5	2883.4	2933.7
132.5°	1201.9	1263.7	1325.6	1341.0	1516.2	1749.9	1866.7	2067.2	2468.3	2769.1	2814.1
135°	1259.0	1315.3	1371.7	1385.7	1541.1	1748.3	1851.9	2019.8	2355.5	2607.4	2646.3
137.5°	1317.4	1373.2	1429.0	1442.9	1578.4	1759.0	1849.4	1991.3	2275.3	2488.2	2520.0
140°	1365.9	1417.3	1468.6	1481.5	1601.2	1760.8	1840.6	1963.2	2208.5	2392.5	2422.2
142.5°	1403.2	1450.7	1498.2	1510.0	1620.2	1767.1	1840.6	1948.4	2163.8	2325.4	2350.9
145°	1460.3	1501.8	1543.2	1553.6	1645.1	1767.2	1828.3	1916.3	2092.5	2224.7	2244.0
147.5°	1517.5	1557.8	1598.2	1608.2	1681.5	1779.4	1828.3	1897.6	2036.2	2140.2	2156.2
150°	1554.8	1591.2	1627.7	1636.8	1700.7	1785.7	1828.3	1886.8	2003.9	2091.7	2104.6
152.5°	1593.3	1620.9	1648.6	1655.5	1713.0	1789.8	1828.3	1878.3	1978.2	2053.2	2062.9
155°	1650.5	1670.9	1691.4	1696.5	1740.4	1799.0	1828.3	1868.0	1947.5	2007.1	2013.6
157.5°	1692.7	1712.6	1732.5	1737.5	1767.8	1808.1	1828.3	1859.1	1921.0	1967.4	1972.0
160°	1721.3	1736.8	1752.3	1756.1	1780.2	1812.2	1828.3	1854.8	1907.7	1947.5	1950.1
162.5°	1749.9	1761.4	1773.1	1776.0	1793.4	1816.6	1828.3	1850.6	1895.3	1928.9	1931.3
165°	1780.9	1791.4	1802.0	1804.6	1812.4	1823.0	1828.3	1844.3	1876.3	1900.3	1902.9
167.5°	1809.5	1814.5	1819.5	1820.8	1827.4	1836.2	1840.6	1851.2	1872.2	1887.9	1889.0
170°	1828.3	1833.2	1838.2	1839.4	1839.8	1840.3	1840.6	1851.2	1872.2	1887.9	1887.9
172.5°	1838.1	1839.2	1840.3	1840.6	1840.6	1840.6	1840.6	1848.9	1865.5	1878.0	1877.0
175°	1851.9	1851.9	1851.9	1851.9	1848.1	1843.1	1840.6	1845.9	1856.3	1864.2	1864.2
177.5°	1851.9	1851.9	1851.9	1851.9	1849.0	1845.1	1843.1	1847.3	1855.5	1861.7	1860.6
180°	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9	1851.9

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	623.3	623.3
2.5°	665.3	661.3
5°	855.8	859.7
7.5°	1152.4	1150.4
10°	1432.9	1451.0
12.5°	1637.3	1641.3
15°	1761.6	1769.6
17.5°	1809.7	1811.7
20°	1811.7	1807.7
22.5°	1789.6	1785.6
25°	1763.6	1761.6
27.5°	1739.5	1741.6
30°	1729.6	1735.5
32.5°	1729.6	1739.5
35°	1733.5	1743.6
37.5°	1731.5	1743.6
40°	1723.5	1737.5
42.5°	1701.5	1711.5
45°	1667.4	1679.5
47.5°	1623.3	1631.3
50°	1567.2	1575.2
52.5°	1497.1	1499.1
55°	1412.9	1420.9
57.5°	1322.7	1324.7
60°	1222.5	1228.5
62.5°	1116.3	1116.3
65°	1004.1	1008.1
67.5°	887.8	897.8
70°	769.6	771.6
72.5°	653.4	653.4
75°	533.1	535.1
77.5°	418.8	418.8
80°	310.7	312.6
82.5°	214.4	218.4
85°	134.3	134.3
87.5°	62.2	56.1
90°	47.2	47.2
92.5°	189.1	151.6
95°	659.4	545.6
97.5°	1580.0	1363.4
100°	2276.4	2018.4
102.5°	2961.4	2740.5
105°	3834.8	3716.1
107.5°	4407.0	4435.7
110°	4625.1	4748.9



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4644.6	4834.7
115°	4521.4	4784.9
117.5°	4260.3	4552.5
120°	4049.8	4333.8
122.5°	3844.9	4124.9
125°	3552.5	3810.5
127.5°	3289.7	3507.3
130°	3134.7	3335.8
132.5°	2994.2	3174.3
135°	2801.4	2956.7
137.5°	2647.0	2774.1
140°	2541.0	2659.7
142.5°	2453.0	2555.2
145°	2321.4	2398.7
147.5°	2220.3	2284.3
150°	2156.6	2208.5
152.5°	2102.2	2141.4
155°	2039.6	2065.6
157.5°	1990.2	2008.4
160°	1960.6	1971.2
162.5°	1941.3	1951.3
165°	1913.4	1923.9
167.5°	1893.4	1897.8
170°	1887.9	1887.9
172.5°	1873.1	1869.2
175°	1864.2	1864.2
177.5°	1856.2	1851.9
180°	1851.9	1851.9

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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	0.92	1.63	2.03	2.75	4.29	14.11	14.83	15.23	15.94	17.48
	3H	1.61	2.25	2.73	3.38	4.94	15.94	16.59	17.07	17.71	19.27
	4H	1.90	2.51	3.04	3.64	5.20	16.59	17.20	17.72	18.32	19.88
	6H	2.15	2.71	3.29	3.83	5.41	17.01	17.58	18.15	18.70	20.28
	8H	2.21	2.74	3.35	3.89	5.46	17.13	17.67	18.28	18.81	20.38
	12H	2.22	2.73	3.37	3.86	5.46	17.20	17.71	18.35	18.84	20.43
4H	2H	8.12	8.74	9.26	9.86	11.42	14.37	14.98	15.51	16.10	17.66
	3H	9.68	10.19	10.82	11.34	12.91	16.40	16.91	17.55	18.06	19.64
	4H	9.76	10.24	10.91	11.37	12.97	17.17	17.64	18.32	18.77	20.37
	6H	9.77	10.17	10.92	11.33	12.92	17.70	18.11	18.86	19.27	20.85
	8H	9.74	10.12	10.89	11.27	12.87	17.86	18.24	19.02	19.39	21.00
	12H	9.69	10.03	10.86	11.19	12.80	17.95	18.29	19.12	19.46	21.07
8H	4H	11.20	11.58	12.36	12.73	14.33	17.21	17.59	18.37	18.74	20.35
	6H	11.44	11.75	12.61	12.94	14.54	17.84	18.15	19.02	19.35	20.95
	8H	11.45	11.72	12.63	12.90	14.52	18.06	18.33	19.24	19.51	21.13
	12H	11.41	11.65	12.60	12.82	14.48	18.20	18.44	19.39	19.61	21.27
12H	4H	11.34	11.68	12.51	12.84	14.45	17.16	17.50	18.33	18.66	20.27
	6H	11.69	11.97	12.88	13.14	14.76	17.82	18.09	19.00	19.27	20.89
	8H	11.76	11.99	12.94	13.16	14.82	18.05	18.29	19.23	19.46	21.11