

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: P938320

Luminaire Tested: SQ4-FB-150U-075D-840-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938320
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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

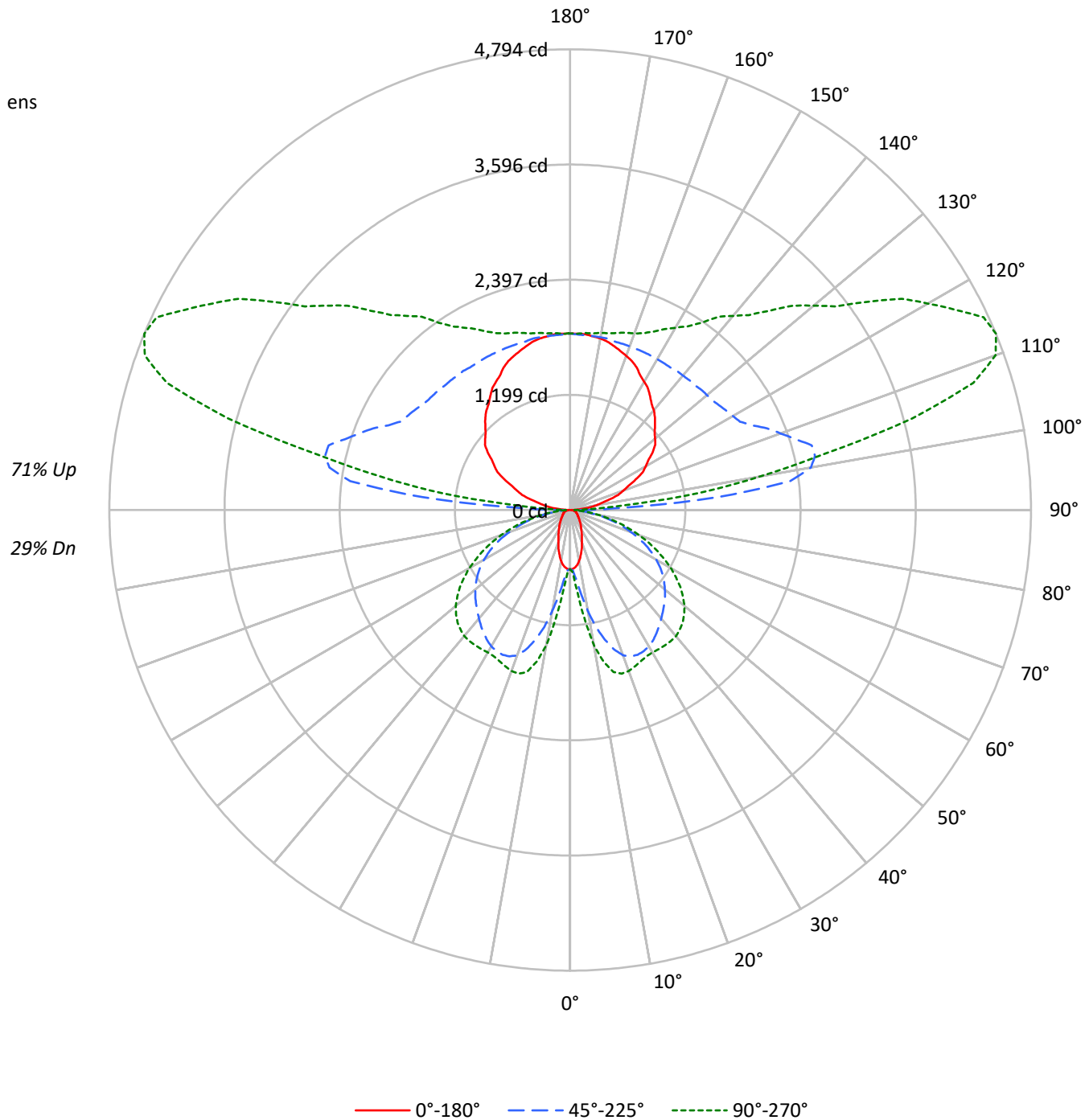
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16665.6 lumens
Efficiency: N/A
Efficacy: 131.0 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 (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	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°	2851	2851	2851
5°	2785	3295	3832
10°	2527	4804	6354
15°	2148	6277	7672
20°	1748	7273	7819
25°	1458	7611	7660
30°	1230	7659	7646
35°	1087	7532	7844
40°	948	7367	8048
45°	858	7246	8080
50°	787	7137	7946
55°	753	6977	7594
60°	772	6670	7038
65°	803	6205	6273
70°	855	5411	5300
75°	947	4412	4136
80°	1035	3060	2787
85°	922	1624	1426

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8080 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	0.5
10°-20°	352.3	2.1
20°-30°	616.3	3.7
30°-40°	793.3	4.8
40°-50°	886.1	5.3
50°-60°	848.7	5.1
60°-70°	672.6	4.0
70°-80°	395.5	2.4
80°-90°	116.9	0.7
90°-100°	895.1	5.4
100°-110°	2353.4	14.1
110°-120°	2440.2	14.6
120°-130°	1957.3	11.7
130°-140°	1535.8	9.2
140°-150°	1178.8	7.1
150°-160°	848.9	5.1
160°-170°	519.4	3.1
170°-180°	175.5	1.1
0°-30°	1048.1	6.3
0°-40°	1841.5	11.0
0°-60°	3576.3	21.5
0°-90°	4761.3	28.6
90°-120°	5688.7	34.1
90°-150°	10360.5	62.2
90°-180°	11904.0	71.4
0°-180°	16665.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	614	614	614	614	614	
5°	599	642	723	818	848	55
15°	449	828	1395	1692	1745	125
25°	286	939	1662	1735	1737	132
35°	194	897	1565	1654	1719	121
45°	132	715	1383	1585	1656	102
55°	95	454	1174	1364	1401	86
65°	75	241	871	980	994	74
75°	55	148	478	526	528	58
85°	20	45	119	130	132	21
90°	12	34	94	47	47	12
95°	118	463	1542	795	541	131
105°	424	642	2602	3950	3685	449
115°	753	914	2084	4157	4745	744
125°	1048	1174	1896	3203	3779	930
135°	1248	1374	1836	2586	2932	966
145°	1448	1541	1813	2206	2379	907
155°	1637	1682	1813	1990	2048	752
165°	1766	1790	1813	1884	1908	498
175°	1836	1836	1825	1849	1849	174
180°	1836	1836	1836	1836	1836	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5	614.5
2.5°	614.5	614.5	618.5	620.5	624.4	626.4	630.3	634.3	646.2	648.1	652.1
5°	598.7	606.6	632.3	642.2	669.9	707.4	723.2	748.9	802.3	818.1	827.9
7.5°	575.0	592.8	656.0	671.8	741.0	839.8	881.3	936.6	1021.6	1063.1	1096.7
10°	537.5	575.0	687.6	725.2	837.8	988.0	1065.1	1142.2	1270.7	1328.0	1349.7
12.5°	496.0	557.2	721.2	772.6	934.6	1154.1	1247.0	1331.9	1478.1	1555.2	1567.1
15°	448.6	531.5	752.9	827.9	1037.4	1292.4	1395.2	1499.9	1636.2	1691.6	1705.4
17.5°	407.1	511.8	782.5	861.5	1116.4	1416.9	1521.6	1608.6	1719.2	1756.8	1766.6
20°	355.7	480.2	802.3	905.0	1199.5	1507.8	1608.6	1675.7	1750.8	1774.5	1778.5
22.5°	318.1	446.6	814.1	920.8	1254.9	1563.1	1648.1	1701.4	1752.8	1760.7	1762.7
25°	286.5	409.0	812.1	938.6	1302.3	1596.7	1661.9	1701.4	1731.1	1735.0	1735.0
27.5°	256.9	367.5	804.2	942.6	1337.9	1604.6	1656.0	1683.7	1697.5	1705.4	1705.4
30°	231.2	328.0	784.5	934.6	1353.7	1596.7	1638.2	1652.0	1665.9	1677.7	1683.7
32.5°	211.4	290.5	754.8	918.8	1355.6	1576.9	1606.6	1614.5	1634.3	1661.9	1671.8
35°	193.6	252.9	721.2	897.1	1343.8	1545.3	1565.1	1573.0	1612.5	1654.0	1667.8
37.5°	175.9	225.3	677.8	859.6	1326.0	1507.8	1521.6	1535.5	1596.7	1646.1	1661.9
40°	158.1	201.6	626.4	818.1	1298.3	1462.3	1474.2	1495.9	1576.9	1634.3	1650.1
42.5°	144.2	181.8	571.1	774.6	1262.8	1411.0	1428.7	1460.4	1553.2	1614.5	1632.3
45°	132.4	162.0	511.8	715.3	1217.3	1357.6	1383.3	1426.8	1525.6	1584.9	1600.7
47.5°	120.5	148.2	450.5	654.1	1167.9	1304.3	1337.9	1387.3	1488.0	1545.3	1559.2
50°	110.7	134.4	389.3	588.8	1114.5	1247.0	1286.5	1337.9	1440.6	1494.0	1511.7
52.5°	102.8	122.5	332.0	523.6	1053.2	1187.7	1233.1	1286.5	1383.3	1434.7	1446.5
55°	94.8	112.6	282.6	454.5	990.0	1124.4	1173.8	1225.2	1320.1	1363.5	1371.4
57.5°	90.9	104.7	241.1	389.3	922.8	1053.2	1108.5	1156.1	1245.0	1278.6	1286.5
60°	85.0	98.8	209.5	333.9	849.7	986.0	1033.4	1080.9	1156.1	1183.7	1189.7
62.5°	79.0	94.8	185.7	280.6	774.6	907.0	954.4	997.9	1061.1	1080.9	1088.8
65°	75.1	90.9	168.0	241.1	697.5	824.0	871.4	909.0	960.3	980.1	984.0
67.5°	71.1	86.9	154.1	207.5	620.5	741.0	776.6	812.1	851.7	871.4	873.4
70°	65.2	83.0	142.3	183.8	541.4	646.2	675.8	713.3	745.0	754.8	760.8
72.5°	61.3	77.1	134.4	166.0	460.4	555.3	582.9	604.7	632.3	642.2	642.2
75°	55.3	69.2	126.5	148.2	377.4	454.5	478.2	499.9	521.7	525.6	519.7
77.5°	49.4	61.3	108.7	124.5	294.4	359.6	379.4	391.2	409.0	413.0	415.0
80°	41.5	53.4	85.0	96.8	213.4	264.8	278.6	288.5	304.3	304.3	308.3
82.5°	31.6	41.5	61.3	69.2	144.2	181.8	193.6	199.6	209.5	209.5	209.5
85°	19.8	25.7	39.5	45.4	86.9	110.7	118.6	120.5	128.4	130.4	130.4
87.5°	9.9	13.8	25.7	27.7	45.4	57.3	57.3	61.3	61.3	59.3	57.3
90°	12.4	22.2	32.0	34.5	54.2	80.5	93.7	83.3	62.4	46.8	46.8
92.5°	49.3	133.1	217.0	237.9	334.4	463.2	527.5	462.3	332.0	234.2	224.9
95°	118.4	271.7	425.0	463.4	822.8	1302.1	1541.8	1375.8	1043.9	794.9	766.7
97.5°	204.6	339.9	475.2	509.0	1108.4	1907.6	2307.2	2202.3	1992.5	1835.1	1781.5
100°	271.1	393.8	516.5	547.3	1212.4	2099.1	2542.5	2550.2	2565.5	2577.0	2513.1
102.5°	327.8	442.3	556.7	585.4	1260.0	2159.4	2609.1	2742.8	3010.0	3210.5	3155.8
105°	424.0	520.9	617.9	642.1	1295.3	2166.2	2601.7	2901.4	3500.6	3950.0	3920.6
107.5°	522.6	613.0	703.3	725.9	1301.9	2069.9	2453.8	2871.7	3707.7	4334.6	4341.7
110°	589.1	670.8	752.4	772.7	1292.0	1984.4	2330.6	2797.8	3732.3	4433.2	4463.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	654.5	732.2	810.0	829.4	1292.4	1909.7	2218.4	2696.5	3652.9	4370.2	4417.3
115°	753.1	824.8	896.5	914.5	1304.4	1824.1	2084.1	2544.7	3466.0	4157.0	4222.3
117.5°	850.4	915.6	980.8	997.1	1328.6	1770.6	1991.6	2407.4	3238.9	3862.5	3934.9
120°	907.1	968.4	1029.8	1045.1	1348.3	1752.5	1954.7	2334.5	3094.3	3664.1	3734.4
122.5°	962.5	1024.5	1086.3	1101.8	1376.7	1743.1	1926.3	2268.3	2952.5	3465.6	3535.1
125°	1047.6	1104.0	1160.4	1174.5	1414.8	1735.2	1895.5	2186.0	2767.2	3203.1	3267.0
127.5°	1116.6	1173.5	1230.6	1244.8	1453.1	1730.8	1869.6	2119.1	2618.1	2992.4	3046.3
130°	1153.6	1214.9	1276.3	1291.6	1481.0	1733.4	1859.7	2081.8	2526.1	2859.3	2909.2
132.5°	1191.8	1253.2	1314.5	1329.8	1503.6	1735.3	1851.1	2049.9	2447.6	2745.8	2790.5
135°	1248.4	1304.4	1360.3	1374.2	1528.2	1733.6	1836.3	2002.9	2335.9	2585.7	2624.1
137.5°	1306.4	1361.8	1417.0	1430.8	1565.2	1744.3	1833.9	1974.7	2256.2	2467.3	2498.8
140°	1354.4	1405.4	1456.3	1469.1	1587.8	1746.1	1825.2	1946.9	2190.1	2372.5	2401.9
142.5°	1391.4	1438.5	1485.7	1497.4	1606.7	1752.4	1825.2	1932.0	2145.6	2305.9	2331.2
145°	1448.1	1489.2	1530.3	1540.6	1631.4	1752.4	1812.9	1900.2	2075.0	2206.1	2225.3
147.5°	1504.8	1544.8	1584.9	1594.8	1667.5	1764.5	1812.9	1881.6	2019.1	2122.2	2138.1
150°	1541.8	1577.9	1614.1	1623.1	1686.3	1770.7	1812.9	1871.0	1987.1	2074.2	2087.1
152.5°	1580.0	1607.4	1634.8	1641.7	1698.8	1774.8	1812.9	1862.5	1961.6	2036.0	2045.7
155°	1636.7	1657.0	1677.2	1682.3	1725.8	1783.8	1812.9	1852.3	1931.2	1990.4	1996.8
157.5°	1678.6	1698.4	1718.0	1723.0	1752.9	1792.9	1812.9	1843.6	1905.0	1951.0	1955.5
160°	1707.0	1722.3	1737.6	1741.4	1765.3	1797.0	1812.9	1839.2	1891.8	1931.2	1933.8
162.5°	1735.3	1746.8	1758.3	1761.2	1778.4	1801.4	1812.9	1835.1	1879.5	1912.8	1915.2
165°	1766.0	1776.4	1786.9	1789.5	1797.3	1807.6	1812.9	1828.8	1860.6	1884.4	1887.0
167.5°	1794.4	1799.3	1804.3	1805.6	1812.1	1820.9	1825.2	1835.6	1856.5	1872.1	1873.1
170°	1812.9	1817.8	1822.8	1824.0	1824.4	1824.9	1825.2	1835.6	1856.5	1872.1	1872.1
172.5°	1822.8	1823.8	1824.9	1825.2	1825.2	1825.2	1825.2	1833.4	1849.8	1862.2	1861.2
175°	1836.3	1836.3	1836.3	1836.3	1832.6	1827.7	1825.2	1830.5	1840.8	1848.6	1848.6
177.5°	1836.3	1836.3	1836.3	1836.3	1833.4	1829.6	1827.7	1831.9	1840.1	1846.2	1845.1
180°	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3	1836.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	614.5	614.5
2.5°	656.0	652.1
5°	843.8	847.7
7.5°	1136.3	1134.3
10°	1412.9	1430.7
12.5°	1614.5	1618.4
15°	1737.0	1744.9
17.5°	1784.4	1786.4
20°	1786.4	1782.5
22.5°	1764.7	1760.7
25°	1739.0	1737.0
27.5°	1715.3	1717.2
30°	1705.4	1711.3
32.5°	1705.4	1715.3
35°	1709.3	1719.2
37.5°	1707.4	1719.2
40°	1699.5	1713.3
42.5°	1677.7	1687.6
45°	1644.1	1656.0
47.5°	1600.7	1608.6
50°	1545.3	1553.2
52.5°	1476.2	1478.1
55°	1393.2	1401.1
57.5°	1304.3	1306.2
60°	1205.5	1211.4
62.5°	1100.6	1100.6
65°	990.0	993.9
67.5°	875.4	885.2
70°	758.8	760.8
72.5°	644.2	644.2
75°	525.6	527.6
77.5°	413.0	413.0
80°	306.3	308.3
82.5°	211.4	215.4
85°	132.4	132.4
87.5°	61.3	55.3
90°	46.8	46.8
92.5°	187.6	150.4
95°	653.9	541.0
97.5°	1566.7	1352.0
100°	2257.3	2001.5
102.5°	2936.6	2717.6
105°	3802.8	3685.0
107.5°	4370.1	4398.6
110°	4586.5	4709.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4605.8	4794.2
115°	4483.6	4744.9
117.5°	4224.7	4514.5
120°	4016.0	4297.5
122.5°	3812.8	4090.5
125°	3522.9	3778.7
127.5°	3262.2	3478.0
130°	3108.5	3307.9
132.5°	2969.0	3147.7
135°	2778.1	2932.0
137.5°	2624.8	2750.8
140°	2519.7	2637.5
142.5°	2432.6	2533.9
145°	2301.9	2378.6
147.5°	2201.7	2265.2
150°	2138.6	2190.1
152.5°	2084.6	2123.5
155°	2022.6	2048.3
157.5°	1973.5	1991.6
160°	1944.3	1954.7
162.5°	1925.0	1934.9
165°	1897.5	1907.8
167.5°	1877.6	1881.9
170°	1872.1	1872.1
172.5°	1857.4	1853.6
175°	1848.6	1848.6
177.5°	1840.6	1836.3
180°	1836.3	1836.3



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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	2.26	2.97	3.37	4.09	5.63	15.44	16.15	16.55	17.27	18.81
	3H	2.95	3.59	4.07	4.72	6.28	17.26	17.91	18.39	19.03	20.59
	4H	3.24	3.85	4.38	4.98	6.54	17.90	18.51	19.04	19.63	21.20
	6H	3.49	4.05	4.63	5.17	6.75	18.32	18.89	19.47	20.01	21.59
	8H	3.55	4.08	4.69	5.22	6.80	18.44	18.98	19.59	20.12	21.69
	12H	3.56	4.07	4.71	5.20	6.80	18.50	19.01	19.65	20.15	21.74
4H	2H	9.45	10.06	10.60	11.19	12.75	15.69	16.30	16.83	17.42	18.99
	3H	11.01	11.52	12.15	12.67	14.25	17.72	18.23	18.87	19.38	20.96
	4H	11.10	11.57	12.25	12.70	14.30	18.48	18.95	19.63	20.09	21.69
	6H	11.10	11.50	12.25	12.66	14.25	19.01	19.42	20.17	20.58	22.17
	8H	11.07	11.45	12.23	12.60	14.21	19.17	19.55	20.33	20.70	22.31
	12H	11.02	11.36	12.19	12.52	14.14	19.26	19.60	20.43	20.76	22.37
8H	4H	12.53	12.90	13.68	14.06	15.66	18.53	18.91	19.69	20.06	21.67
	6H	12.76	13.07	13.94	14.27	15.87	19.15	19.46	20.33	20.66	22.26
	8H	12.78	13.05	13.96	14.22	15.85	19.37	19.64	20.55	20.82	22.44
	12H	12.74	12.98	13.93	14.15	15.80	19.51	19.75	20.70	20.92	22.57
12H	4H	12.66	13.01	13.84	14.17	15.78	18.48	18.82	19.65	19.98	21.59
	6H	13.02	13.29	14.20	14.46	16.09	19.13	19.41	20.32	20.58	22.20
	8H	13.08	13.32	14.27	14.49	16.15	19.36	19.60	20.54	20.77	22.42