

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: P937578

Luminaire Tested: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-12-3000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937578
REPORT IS A COMBINATION OF REPORTS P933558 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-075D-B2750-1D-UNV-W2A-W-12-3000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

Summary

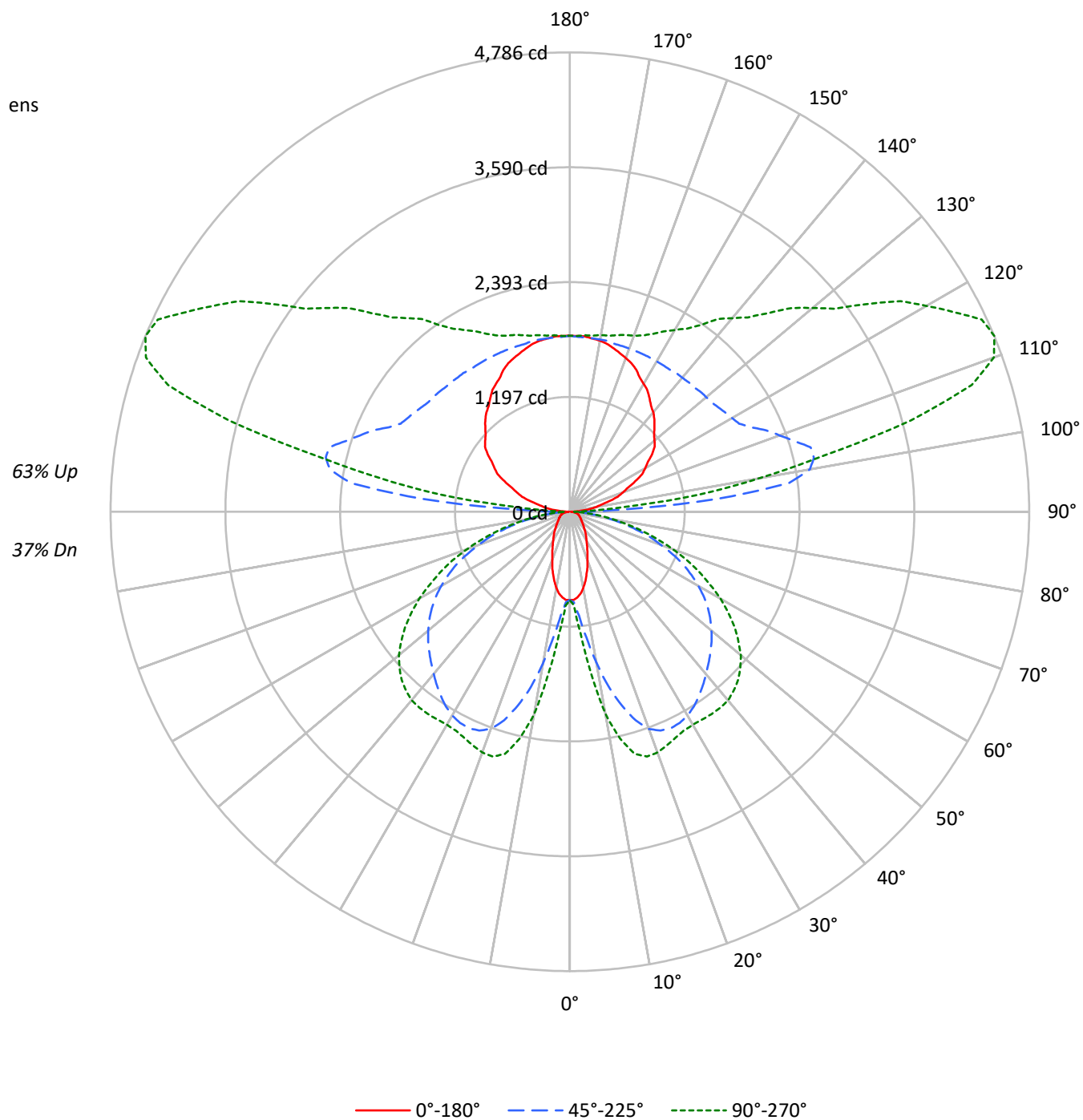
Lumens per Lamp: N/A
Luminaire Lumens: 19008.1 lumens
Efficiency: N/A
Efficacy: 128.8 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 12' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 147.6
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

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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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2845	2845	2845
5°	2781	3289	3825
10°	2523	4797	6341
15°	2145	6268	7657
20°	1747	7265	7803
25°	1458	7605	7645
30°	1230	7655	7630
35°	1088	7530	7828
40°	949	7367	8032
45°	860	7248	8063
50°	789	7142	7930
55°	757	6985	7578
60°	776	6681	7023
65°	808	6218	6261
70°	863	5426	5289
75°	960	4428	4127
80°	1056	3075	2781
85°	959	1634	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8063 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	0.6
10°-20°	527.4	2.8
20°-30°	922.5	4.9
30°-40°	1187.6	6.2
40°-50°	1326.5	7.0
50°-60°	1270.5	6.7
60°-70°	1006.9	5.3
70°-80°	592.0	3.1
80°-90°	171.5	0.9
90°-100°	893.6	4.7
100°-110°	2349.4	12.4
110°-120°	2436.0	12.8
120°-130°	1954.0	10.3
130°-140°	1533.2	8.1
140°-150°	1176.8	6.2
150°-160°	847.5	4.5
160°-170°	518.5	2.7
170°-180°	175.2	0.9
0°-30°	1569.0	8.3
0°-40°	2756.6	14.5
0°-60°	5353.6	28.2
0°-90°	7123.9	37.5
90°-120°	5679.0	29.9
90°-150°	10343.0	54.4
90°-180°	11884.0	62.5
0°-180°	19008.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	896	961	1083	1225	1269	83
15°	672	1240	2088	2532	2612	187
25°	429	1405	2488	2597	2600	198
35°	290	1343	2343	2476	2574	181
45°	198	1071	2071	2372	2479	153
55°	142	680	1757	2041	2097	129
65°	112	361	1305	1467	1488	111
75°	83	222	716	787	790	87
85°	30	68	178	195	198	31
90°	12	34	94	47	47	12
95°	118	463	1539	794	540	131
105°	423	641	2597	3943	3679	449
115°	752	913	2081	4150	4737	742
125°	1046	1173	1892	3198	3772	929
135°	1246	1372	1833	2581	2927	964
145°	1446	1538	1810	2202	2375	906
155°	1634	1680	1810	1987	2045	751
165°	1763	1786	1810	1881	1905	498
175°	1833	1833	1822	1846	1846	174
180°	1833	1833	1833	1833	1833	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9	919.9
2.5°	919.9	919.9	925.9	928.8	934.7	937.7	943.6	949.5	967.3	970.2	976.1
5°	896.3	908.1	946.6	961.4	1002.8	1059.0	1082.6	1121.2	1201.0	1224.7	1239.5
7.5°	860.8	887.4	982.1	1005.7	1109.2	1257.2	1319.4	1402.2	1529.4	1591.5	1641.8
10°	804.6	860.8	1029.4	1085.6	1254.3	1479.1	1594.5	1709.8	1902.1	1987.9	2020.4
12.5°	742.5	834.2	1079.7	1156.7	1399.2	1727.6	1866.6	1993.8	2212.7	2328.0	2345.8
15°	671.5	795.7	1127.1	1239.5	1553.0	1934.6	2088.4	2245.2	2449.3	2532.1	2552.9
17.5°	609.3	766.1	1171.5	1289.8	1671.4	2121.0	2277.8	2407.9	2573.6	2629.8	2644.6
20°	532.4	718.8	1201.0	1354.9	1795.6	2257.1	2407.9	2508.5	2620.9	2656.4	2662.3
22.5°	476.2	668.5	1218.8	1378.5	1878.4	2339.9	2467.1	2546.9	2623.8	2635.7	2638.6
25°	428.9	612.3	1215.8	1405.1	1949.4	2390.2	2487.8	2546.9	2591.3	2597.2	2597.2
27.5°	384.5	550.2	1204.0	1411.1	2002.7	2402.0	2478.9	2520.3	2541.0	2552.9	2552.9
30°	346.1	491.0	1174.4	1399.2	2026.3	2390.2	2452.3	2473.0	2493.7	2511.4	2520.3
32.5°	316.5	434.8	1130.1	1375.6	2029.3	2360.6	2405.0	2416.8	2446.4	2487.8	2502.6
35°	289.9	378.6	1079.7	1343.0	2011.5	2313.3	2342.8	2354.7	2413.8	2475.9	2496.7
37.5°	263.3	337.2	1014.6	1286.8	1984.9	2257.1	2277.8	2298.5	2390.2	2464.1	2487.8
40°	236.6	301.7	937.7	1224.7	1943.5	2189.0	2206.8	2239.3	2360.6	2446.4	2470.0
42.5°	215.9	272.1	854.9	1159.6	1890.3	2112.1	2138.7	2186.1	2325.1	2416.8	2443.4
45°	198.2	242.6	766.1	1070.8	1822.2	2032.2	2070.7	2135.8	2283.7	2372.4	2396.1
47.5°	180.4	221.8	674.4	979.1	1748.3	1952.4	2002.7	2076.6	2227.5	2313.3	2334.0
50°	165.6	201.1	582.7	881.5	1668.4	1866.6	1925.8	2002.7	2156.5	2236.3	2263.0
52.5°	153.8	183.4	496.9	783.9	1576.7	1777.9	1845.9	1925.8	2070.7	2147.6	2165.4
55°	142.0	168.6	423.0	680.3	1482.1	1683.2	1757.2	1834.1	1976.0	2041.1	2053.0
57.5°	136.1	156.8	360.9	582.7	1381.5	1576.7	1659.5	1730.5	1863.6	1913.9	1925.8
60°	127.2	147.9	313.5	499.9	1272.0	1476.1	1547.1	1618.1	1730.5	1771.9	1780.8
62.5°	118.3	142.0	278.1	420.0	1159.6	1357.8	1428.8	1493.9	1588.5	1618.1	1630.0
65°	112.4	136.1	251.4	360.9	1044.2	1233.6	1304.6	1360.8	1437.7	1467.3	1473.2
67.5°	106.5	130.2	230.7	310.6	928.8	1109.2	1162.6	1215.8	1275.0	1304.6	1307.5
70°	97.6	124.2	213.0	275.1	810.5	967.3	1011.6	1067.8	1115.2	1130.1	1138.9
72.5°	91.7	115.4	201.1	248.5	689.2	831.2	872.6	905.1	946.6	961.4	961.4
75°	82.8	103.5	189.3	221.8	565.0	680.3	715.8	748.4	780.9	786.8	778.0
77.5°	74.0	91.7	162.7	186.4	440.7	538.4	567.9	585.7	612.3	618.2	621.2
80°	62.1	79.9	127.2	144.9	319.5	396.4	417.1	431.9	455.5	455.5	461.4
82.5°	47.3	62.1	91.7	103.5	215.9	272.1	289.9	298.8	313.5	313.5	313.5
85°	29.6	38.5	59.2	68.0	130.2	165.6	177.5	180.4	192.3	195.2	195.2
87.5°	14.8	20.7	38.5	41.4	68.0	85.8	85.8	91.7	91.7	88.7	85.8
90°	12.3	22.2	31.9	34.4	54.1	80.4	93.5	83.1	62.3	46.7	46.7
92.5°	49.2	132.8	216.5	237.4	333.9	462.3	526.6	461.5	331.4	233.8	224.5
95°	118.1	271.2	424.4	462.6	821.4	1299.9	1539.1	1373.5	1042.1	793.5	765.3
97.5°	204.2	339.3	474.4	508.2	1106.5	1904.3	2303.2	2198.5	1989.1	1832.0	1778.4
100°	270.7	393.1	515.6	546.2	1210.2	2095.5	2538.3	2546.0	2561.2	2572.7	2508.9
102.5°	327.3	441.5	555.8	584.4	1257.8	2155.8	2604.7	2738.1	3004.9	3205.1	3150.4
105°	423.3	520.0	616.8	641.0	1293.1	2162.6	2597.3	2896.5	3494.7	3943.3	3913.9
107.5°	521.7	611.9	702.1	724.7	1299.6	2066.3	2449.6	2866.9	3701.3	4327.2	4334.3
110°	588.1	669.6	751.0	771.4	1289.8	1981.0	2326.6	2793.0	3725.9	4425.6	4456.2

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	653.3	731.0	808.6	828.0	1290.3	1906.5	2214.7	2692.1	3646.8	4362.9	4409.9
115°	751.7	823.4	895.0	912.9	1302.1	1821.0	2080.6	2540.4	3460.2	4150.0	4215.2
117.5°	848.9	914.0	979.1	995.4	1326.4	1767.6	1988.3	2403.3	3233.4	3856.0	3928.2
120°	905.5	966.8	1028.1	1043.4	1346.1	1749.7	1951.4	2330.6	3089.0	3657.9	3728.2
122.5°	961.0	1022.8	1084.5	1100.0	1374.4	1740.2	1923.1	2264.5	2947.5	3459.8	3529.1
125°	1045.9	1102.2	1158.5	1172.6	1412.4	1732.4	1892.3	2182.4	2762.6	3197.7	3261.5
127.5°	1114.7	1171.6	1228.5	1242.7	1450.6	1727.9	1866.5	2115.6	2613.7	2987.3	3041.1
130°	1151.6	1212.9	1274.1	1289.4	1478.5	1730.6	1856.6	2078.4	2521.9	2854.5	2904.3
132.5°	1189.8	1251.0	1312.3	1327.6	1501.0	1732.3	1848.0	2046.4	2443.5	2741.3	2785.8
135°	1246.4	1302.1	1357.9	1371.8	1525.6	1730.7	1833.3	1999.5	2331.9	2581.2	2619.7
137.5°	1304.2	1359.4	1414.6	1428.4	1562.5	1741.4	1830.8	1971.3	2252.4	2463.2	2494.7
140°	1352.2	1403.1	1453.9	1466.6	1585.1	1743.1	1822.1	1943.5	2186.4	2368.5	2397.9
142.5°	1389.1	1436.1	1483.1	1494.9	1603.9	1749.4	1822.1	1928.8	2142.1	2302.0	2327.3
145°	1445.7	1486.7	1527.7	1538.0	1628.6	1749.5	1809.9	1897.1	2071.5	2202.3	2221.5
147.5°	1502.3	1542.2	1582.1	1592.1	1664.7	1761.5	1809.9	1878.5	2015.8	2118.7	2134.6
150°	1539.1	1575.2	1611.3	1620.4	1683.6	1767.8	1809.9	1867.9	1983.7	2070.7	2083.5
152.5°	1577.3	1604.6	1632.0	1638.8	1695.8	1771.8	1809.9	1859.4	1958.3	2032.5	2042.2
155°	1633.9	1654.1	1674.4	1679.5	1722.9	1780.9	1809.9	1849.2	1927.9	1987.0	1993.4
157.5°	1675.7	1695.4	1715.1	1720.1	1750.1	1790.0	1809.9	1840.5	1901.7	1947.6	1952.2
160°	1704.0	1719.4	1734.7	1738.5	1762.3	1794.0	1809.9	1836.1	1888.6	1927.9	1930.5
162.5°	1732.3	1743.7	1755.3	1758.1	1775.4	1798.4	1809.9	1832.0	1876.3	1909.5	1912.0
165°	1763.1	1773.4	1783.9	1786.4	1794.2	1804.7	1809.9	1825.8	1857.4	1881.2	1883.8
167.5°	1791.4	1796.3	1801.2	1802.5	1809.0	1817.8	1822.1	1832.6	1853.4	1869.0	1870.0
170°	1809.9	1814.8	1819.8	1820.9	1821.3	1821.8	1822.1	1832.6	1853.4	1869.0	1869.0
172.5°	1819.7	1820.7	1821.8	1822.1	1822.1	1822.1	1822.1	1830.3	1846.8	1859.1	1858.1
175°	1833.3	1833.3	1833.3	1833.3	1829.5	1824.6	1822.1	1827.4	1837.7	1845.5	1845.5
177.5°	1833.3	1833.3	1833.3	1833.3	1830.4	1826.6	1824.6	1828.7	1836.9	1843.0	1841.9
180°	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3	1833.3

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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	919.9	919.9
2.5°	982.1	976.1
5°	1263.2	1269.1
7.5°	1700.9	1698.0
10°	2115.1	2141.7
12.5°	2416.8	2422.7
15°	2600.2	2612.0
17.5°	2671.2	2674.1
20°	2674.1	2668.2
22.5°	2641.6	2635.7
25°	2603.1	2600.2
27.5°	2567.6	2570.6
30°	2552.9	2561.7
32.5°	2552.9	2567.6
35°	2558.8	2573.6
37.5°	2555.8	2573.6
40°	2544.0	2564.7
42.5°	2511.4	2526.2
45°	2461.2	2478.9
47.5°	2396.1	2407.9
50°	2313.3	2325.1
52.5°	2209.7	2212.7
55°	2085.5	2097.3
57.5°	1952.4	1955.3
60°	1804.5	1813.4
62.5°	1647.7	1647.7
65°	1482.1	1488.0
67.5°	1310.5	1325.3
70°	1136.0	1138.9
72.5°	964.3	964.3
75°	786.8	789.8
77.5°	618.2	618.2
80°	458.5	461.4
82.5°	316.5	322.4
85°	198.2	198.2
87.5°	91.7	82.8
90°	46.7	46.7
92.5°	187.2	150.1
95°	652.7	540.1
97.5°	1564.1	1349.7
100°	2253.5	1998.1
102.5°	2931.7	2713.0
105°	3796.3	3678.8
107.5°	4362.8	4391.2
110°	4578.7	4701.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4598.0	4786.1
115°	4476.0	4736.8
117.5°	4217.5	4506.8
120°	4009.2	4290.3
122.5°	3806.3	4083.5
125°	3516.9	3772.2
127.5°	3256.7	3472.1
130°	3103.2	3302.3
132.5°	2964.1	3142.4
135°	2773.3	2927.0
137.5°	2620.4	2746.2
140°	2515.5	2633.0
142.5°	2428.4	2529.6
145°	2298.1	2374.6
147.5°	2198.0	2261.4
150°	2135.0	2186.4
152.5°	2081.1	2119.9
155°	2019.1	2044.9
157.5°	1970.2	1988.3
160°	1940.9	1951.4
162.5°	1921.8	1931.7
165°	1894.2	1904.6
167.5°	1874.4	1878.7
170°	1869.0	1869.0
172.5°	1854.3	1850.4
175°	1845.5	1845.5
177.5°	1837.6	1833.3
180°	1833.3	1833.3

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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	3.38	4.16	4.43	5.22	6.66	16.57	17.35	17.62	18.41	19.85
	3H	4.08	4.78	5.14	5.85	7.30	18.41	19.11	19.47	20.18	21.64
	4H	4.37	5.04	5.44	6.11	7.57	19.05	19.72	20.12	20.79	22.25
	6H	4.62	5.23	5.70	6.31	7.78	19.48	20.10	20.56	21.17	22.65
	8H	4.68	5.27	5.77	6.36	7.83	19.60	20.19	20.69	21.28	22.75
	12H	4.70	5.26	5.79	6.34	7.83	19.67	20.23	20.76	21.31	22.81
4H	2H	10.59	11.26	11.67	12.33	13.79	16.83	17.50	17.91	18.57	20.03
	3H	12.15	12.71	13.24	13.81	15.28	18.88	19.44	19.96	20.53	22.01
	4H	12.24	12.76	13.33	13.84	15.34	19.64	20.16	20.74	21.25	22.74
	6H	12.25	12.69	13.35	13.80	15.29	20.18	20.62	21.28	21.74	23.22
	8H	12.22	12.64	13.32	13.74	15.24	20.34	20.76	21.45	21.86	23.37
	12H	12.17	12.55	13.29	13.67	15.18	20.44	20.81	21.56	21.93	23.44
8H	4H	13.68	14.10	14.78	15.20	16.70	19.70	20.11	20.80	21.21	22.72
	6H	13.92	14.26	15.04	15.41	16.91	20.33	20.67	21.45	21.81	23.32
	8H	13.94	14.24	15.07	15.36	16.89	20.55	20.85	21.68	21.97	23.50
	12H	13.90	14.17	15.04	15.29	16.85	20.69	20.96	21.83	22.08	23.64
12H	4H	13.82	14.20	14.94	15.31	16.82	19.65	20.02	20.76	21.14	22.65
	6H	14.18	14.48	15.31	15.61	17.13	20.31	20.61	21.44	21.73	23.26
	8H	14.25	14.51	15.38	15.63	17.19	20.54	20.80	21.67	21.92	23.48