

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: P937509

Luminaire Tested: SQ4-FB-100U-075D-830-1D-UNV-STD-W-12

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937509
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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

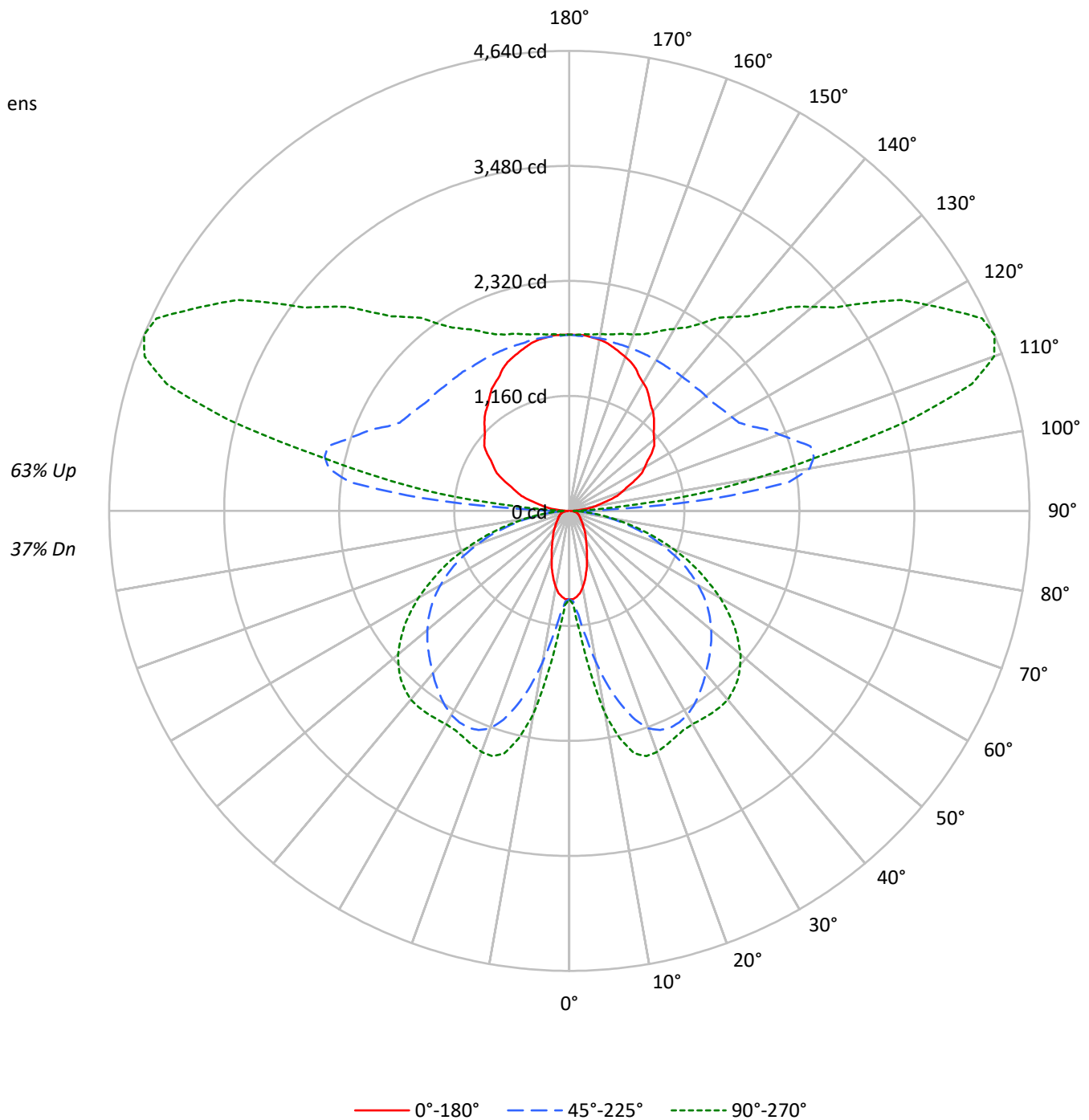
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18429.8 lumens
Efficiency: N/A
Efficacy: 124.9 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 (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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	45	45	45	37				37
1	95	90	86	83	86	82	78	75	66	64	62	52	50	49	39	38	37	31				31
2	86	78	72	67	77	71	66	61	58	54	50	45	42	40	34	32	30	25				25
3	78	68	61	55	70	62	56	50	50	46	42	39	36	33	29	27	25	21				21
4	71	60	52	46	64	55	48	42	44	39	35	35	31	28	26	23	21	17				17
5	65	53	45	39	58	48	41	36	39	34	30	31	27	24	23	20	18	15				15
6	60	47	39	33	54	43	36	31	35	30	26	28	24	21	21	18	16	13				13
7	55	42	34	29	49	39	32	27	32	26	22	25	21	18	19	16	14	11				11
8	51	38	31	25	46	35	28	23	29	23	20	23	19	16	17	14	12	10				10
9	47	35	27	22	42	32	25	21	26	21	17	21	17	14	16	13	11	9				9
10	44	32	24	20	40	29	23	18	24	19	15	19	15	12	14	12	10	8				8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2759	2759	2759
5°	2696	3190	3709
10°	2447	4651	6148
15°	2080	6077	7424
20°	1694	7044	7566
25°	1414	7373	7412
30°	1193	7422	7398
35°	1055	7301	7590
40°	920	7142	7787
45°	834	7027	7818
50°	765	6924	7688
55°	734	6772	7348
60°	752	6478	6809
65°	784	6029	6070
70°	836	5261	5128
75°	931	4294	4002
80°	1024	2981	2696
85°	930	1585	1380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.4	0.6
10°-20°	511.4	2.8
20°-30°	894.5	4.9
30°-40°	1151.5	6.2
40°-50°	1286.1	7.0
50°-60°	1231.8	6.7
60°-70°	976.2	5.3
70°-80°	574.0	3.1
80°-90°	166.3	0.9
90°-100°	866.4	4.7
100°-110°	2277.9	12.4
110°-120°	2361.9	12.8
120°-130°	1894.6	10.3
130°-140°	1486.5	8.1
140°-150°	1141.0	6.2
150°-160°	821.7	4.5
160°-170°	502.8	2.7
170°-180°	169.9	0.9
0°-30°	1521.2	8.3
0°-40°	2672.7	14.5
0°-60°	5190.7	28.2
0°-90°	6907.2	37.5
90°-120°	5506.2	29.9
90°-150°	10028.3	54.4
90°-180°	11523.0	62.5
0°-180°	18429.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	892	892	892	892	892	
5°	869	932	1050	1187	1230	80
15°	651	1202	2025	2455	2532	181
25°	416	1362	2412	2518	2521	192
35°	281	1302	2272	2401	2495	176
45°	192	1038	2008	2300	2404	149
55°	138	660	1704	1979	2034	125
65°	109	350	1265	1423	1443	108
75°	80	215	694	763	766	84
85°	29	66	172	189	192	30
90°	12	33	91	45	45	12
95°	114	449	1492	769	524	127
105°	410	622	2518	3823	3567	435
115°	729	885	2017	4024	4593	720
125°	1014	1137	1835	3100	3658	900
135°	1208	1330	1778	2503	2838	935
145°	1402	1491	1755	2135	2302	878
155°	1584	1628	1755	1926	1983	728
165°	1709	1732	1755	1824	1847	482
175°	1778	1778	1767	1789	1789	169
180°	1778	1778	1778	1778	1778	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9	891.9
2.5°	891.9	891.9	897.7	900.6	906.3	909.2	914.9	920.6	937.8	940.7	946.4
5°	869.0	880.5	917.8	932.1	972.3	1026.7	1049.7	1087.1	1164.5	1187.4	1201.8
7.5°	834.6	860.4	952.2	975.1	1075.5	1219.0	1279.2	1359.5	1482.9	1543.1	1591.8
10°	780.1	834.6	998.1	1052.6	1216.1	1434.1	1545.9	1657.8	1844.2	1927.4	1958.9
12.5°	719.9	808.8	1046.8	1121.5	1356.7	1675.0	1809.8	1933.1	2145.4	2257.2	2274.4
15°	651.0	771.5	1092.8	1201.8	1505.8	1875.8	2024.9	2176.9	2374.8	2455.1	2475.2
17.5°	590.8	742.8	1135.8	1250.5	1620.5	2056.5	2208.5	2334.6	2495.3	2549.7	2564.1
20°	516.2	696.9	1164.5	1313.6	1741.0	2188.4	2334.6	2432.2	2541.1	2575.6	2581.3
22.5°	461.7	648.2	1181.7	1336.6	1821.3	2268.7	2392.0	2469.4	2544.0	2555.5	2558.4
25°	415.9	593.7	1178.8	1362.4	1890.1	2317.4	2412.1	2469.4	2512.5	2518.2	2518.2
27.5°	372.8	533.4	1167.4	1368.1	1941.7	2328.9	2403.5	2443.6	2463.7	2475.2	2475.2
30°	335.6	476.1	1138.7	1356.7	1964.7	2317.4	2377.7	2397.7	2417.8	2435.0	2443.6
32.5°	306.9	421.6	1095.7	1333.7	1967.5	2288.8	2331.8	2343.3	2371.9	2412.1	2426.4
35°	281.1	367.1	1046.8	1302.2	1950.3	2242.9	2271.6	2283.0	2340.4	2400.6	2420.7
37.5°	255.3	327.0	983.7	1247.7	1924.5	2188.4	2208.5	2228.5	2317.4	2389.1	2412.1
40°	229.4	292.5	909.2	1187.4	1884.4	2122.4	2139.6	2171.2	2288.8	2371.9	2394.9
42.5°	209.4	263.9	828.9	1124.4	1832.7	2047.8	2073.7	2119.5	2254.3	2343.3	2369.1
45°	192.2	235.2	742.8	1038.2	1766.8	1970.4	2007.7	2070.8	2214.2	2300.2	2323.2
47.5°	174.9	215.1	653.9	949.3	1695.1	1893.0	1941.7	2013.4	2159.7	2242.9	2262.9
50°	160.6	195.0	565.0	854.7	1617.6	1809.8	1867.2	1941.7	2090.9	2168.3	2194.1
52.5°	149.1	177.8	481.8	760.0	1528.7	1723.8	1789.7	1867.2	2007.7	2082.3	2099.5
55°	137.7	163.5	410.1	659.6	1437.0	1632.0	1703.7	1778.3	1915.9	1979.0	1990.5
57.5°	131.9	152.0	349.9	565.0	1339.5	1528.7	1609.0	1677.9	1806.9	1855.7	1867.2
60°	123.3	143.4	304.0	484.7	1233.3	1431.2	1500.1	1568.9	1677.9	1718.0	1726.6
62.5°	114.7	137.7	269.6	407.3	1124.4	1316.5	1385.3	1448.4	1540.2	1568.9	1580.4
65°	109.0	131.9	243.8	349.9	1012.4	1196.1	1264.9	1319.4	1393.9	1422.6	1428.4
67.5°	103.2	126.2	223.7	301.1	900.6	1075.5	1127.2	1178.8	1236.2	1264.9	1267.8
70°	94.6	120.5	206.5	266.7	785.8	937.8	980.9	1035.3	1081.2	1095.7	1104.3
72.5°	88.9	111.9	195.0	240.9	668.2	805.9	846.1	877.6	917.8	932.1	932.1
75°	80.3	100.4	183.6	215.1	547.8	659.6	694.1	725.6	757.2	762.9	754.3
77.5°	71.7	88.9	157.7	180.7	427.3	522.0	550.7	567.9	593.7	599.4	602.3
80°	60.2	77.4	123.3	140.5	309.7	384.3	404.4	418.7	441.7	441.7	447.4
82.5°	45.9	60.2	88.9	100.4	209.4	263.9	281.1	289.7	304.0	304.0	304.0
85°	28.7	37.3	57.4	66.0	126.2	160.6	172.1	174.9	186.4	189.3	189.3
87.5°	14.3	20.1	37.3	40.2	66.0	83.2	83.2	88.9	88.9	86.0	83.2
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	209.9	230.2	323.7	448.3	510.6	447.5	321.3	226.7	217.7
95°	114.5	263.0	411.5	448.6	796.4	1260.4	1492.3	1331.7	1010.4	769.4	742.0
97.5°	198.0	329.0	459.9	492.7	1072.8	1846.3	2233.1	2131.6	1928.5	1776.2	1724.3
100°	262.4	381.2	499.9	529.6	1173.4	2031.8	2461.0	2468.5	2483.3	2494.4	2432.5
102.5°	317.3	428.1	538.9	566.6	1219.6	2090.2	2525.5	2654.8	2913.5	3107.6	3054.5
105°	410.4	504.2	598.1	621.5	1253.8	2096.8	2518.3	2808.3	3388.4	3823.3	3794.8
107.5°	505.8	593.3	680.8	702.7	1260.1	2003.4	2375.1	2779.7	3588.7	4195.5	4202.4
110°	570.3	649.2	728.2	748.0	1250.5	1920.7	2255.8	2708.1	3612.5	4290.9	4320.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.4	708.8	784.0	802.8	1251.0	1848.5	2147.3	2610.2	3535.9	4230.1	4275.7
115°	728.9	798.4	867.8	885.2	1262.5	1765.6	2017.3	2463.1	3354.9	4023.7	4086.9
117.5°	823.1	886.2	949.3	965.1	1286.0	1713.8	1927.8	2330.2	3135.0	3738.6	3808.7
120°	878.0	937.4	996.8	1011.6	1305.1	1696.4	1892.0	2259.7	2995.1	3546.6	3614.7
122.5°	931.7	991.7	1051.5	1066.5	1332.6	1687.2	1864.6	2195.6	2857.9	3354.5	3421.7
125°	1014.0	1068.6	1123.2	1136.9	1369.5	1679.7	1834.8	2116.0	2678.5	3100.4	3162.3
127.5°	1080.8	1135.9	1191.1	1204.8	1406.5	1675.3	1809.7	2051.2	2534.2	2896.4	2948.6
130°	1116.6	1176.0	1235.3	1250.2	1433.5	1678.0	1800.1	2015.2	2445.2	2767.6	2815.9
132.5°	1153.6	1213.0	1272.3	1287.2	1455.3	1679.6	1791.7	1984.2	2369.2	2657.9	2701.1
135°	1208.5	1262.5	1316.6	1330.1	1479.2	1678.1	1777.5	1938.7	2260.9	2502.7	2540.0
137.5°	1264.5	1318.0	1371.6	1385.0	1515.0	1688.4	1775.1	1911.3	2183.9	2388.3	2418.8
140°	1311.1	1360.4	1409.6	1422.0	1536.9	1690.1	1766.7	1884.4	2119.8	2296.4	2324.9
142.5°	1346.8	1392.4	1438.0	1449.4	1555.1	1696.1	1766.7	1870.1	2076.9	2232.0	2256.4
145°	1401.7	1441.5	1481.2	1491.2	1579.0	1696.2	1754.8	1839.3	2008.5	2135.3	2153.9
147.5°	1456.6	1495.3	1534.0	1543.7	1614.0	1707.9	1754.8	1821.4	1954.4	2054.3	2069.6
150°	1492.3	1527.3	1562.3	1571.1	1632.4	1714.0	1754.8	1811.0	1923.4	2007.7	2020.1
152.5°	1529.3	1555.8	1582.4	1589.0	1644.2	1717.9	1754.8	1802.8	1898.7	1970.7	1980.1
155°	1584.2	1603.8	1623.5	1628.4	1670.5	1726.7	1754.8	1793.0	1869.3	1926.5	1932.7
157.5°	1624.7	1643.8	1663.0	1667.7	1696.8	1735.5	1754.8	1784.5	1843.8	1888.4	1892.8
160°	1652.2	1667.1	1681.9	1685.6	1708.7	1739.4	1754.8	1780.3	1831.1	1869.3	1871.8
162.5°	1679.6	1690.7	1701.9	1704.6	1721.4	1743.6	1754.8	1776.2	1819.2	1851.4	1853.8
165°	1709.4	1719.5	1729.6	1732.1	1739.6	1749.8	1754.8	1770.2	1800.9	1824.0	1826.4
167.5°	1736.9	1741.6	1746.4	1747.7	1754.0	1762.5	1766.7	1776.8	1797.0	1812.1	1813.1
170°	1754.8	1759.6	1764.4	1765.5	1765.9	1766.4	1766.7	1776.8	1797.0	1812.1	1812.1
172.5°	1764.3	1765.3	1766.4	1766.7	1766.7	1766.7	1766.7	1774.6	1790.6	1802.5	1801.6
175°	1777.5	1777.5	1777.5	1777.5	1773.9	1769.1	1766.7	1771.8	1781.8	1789.3	1789.3
177.5°	1777.5	1777.5	1777.5	1777.5	1774.7	1771.0	1769.1	1773.1	1781.0	1787.0	1785.9
180°	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5	1777.5



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	891.9	891.9
2.5°	952.2	946.4
5°	1224.7	1230.5
7.5°	1649.2	1646.3
10°	2050.7	2076.5
12.5°	2343.3	2349.0
15°	2521.1	2532.5
17.5°	2589.9	2592.8
20°	2592.8	2587.0
22.5°	2561.2	2555.5
25°	2523.9	2521.1
27.5°	2489.5	2492.4
30°	2475.2	2483.8
32.5°	2475.2	2489.5
35°	2480.9	2495.3
37.5°	2478.0	2495.3
40°	2466.6	2486.7
42.5°	2435.0	2449.4
45°	2386.3	2403.5
47.5°	2323.2	2334.6
50°	2242.9	2254.3
52.5°	2142.5	2145.4
55°	2022.0	2033.5
57.5°	1893.0	1895.8
60°	1749.6	1758.2
62.5°	1597.6	1597.6
65°	1437.0	1442.7
67.5°	1270.6	1285.0
70°	1101.4	1104.3
72.5°	935.0	935.0
75°	762.9	765.8
77.5°	599.4	599.4
80°	444.5	447.4
82.5°	306.9	312.6
85°	192.2	192.2
87.5°	88.9	80.3
90°	45.3	45.3
92.5°	181.5	145.5
95°	632.9	523.7
97.5°	1516.5	1308.7
100°	2184.9	1937.3
102.5°	2842.5	2630.4
105°	3680.8	3566.8
107.5°	4230.0	4257.5
110°	4439.4	4558.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4458.1	4640.5
115°	4339.9	4592.7
117.5°	4089.2	4369.7
120°	3887.2	4159.7
122.5°	3690.4	3959.3
125°	3409.9	3657.5
127.5°	3157.6	3366.5
130°	3008.8	3201.8
132.5°	2873.9	3046.8
135°	2688.9	2838.0
137.5°	2540.7	2662.7
140°	2438.9	2552.9
142.5°	2354.5	2452.6
145°	2228.1	2302.3
147.5°	2131.1	2192.6
150°	2070.0	2119.8
152.5°	2017.7	2055.4
155°	1957.7	1982.6
157.5°	1910.3	1927.8
160°	1881.9	1892.0
162.5°	1863.3	1872.9
165°	1836.6	1846.6
167.5°	1817.4	1821.6
170°	1812.1	1812.1
172.5°	1797.9	1794.1
175°	1789.3	1789.3
177.5°	1781.7	1777.5
180°	1777.5	1777.5



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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	3.27	4.05	4.32	5.11	6.55	16.46	17.25	17.51	18.31	19.74
	3H	3.97	4.67	5.03	5.74	7.20	18.30	19.00	19.36	20.07	21.53
	4H	4.26	4.93	5.33	6.00	7.46	18.94	19.61	20.02	20.68	22.15
	6H	4.51	5.13	5.59	6.20	7.67	19.38	19.99	20.46	21.07	22.54
	8H	4.57	5.16	5.66	6.25	7.72	19.50	20.08	20.58	21.17	22.64
	12H	4.59	5.15	5.68	6.23	7.72	19.56	20.12	20.66	21.21	22.70
4H	2H	10.48	11.15	11.56	12.22	13.68	16.73	17.39	17.80	18.46	19.93
	3H	12.04	12.60	13.13	13.70	15.17	18.77	19.33	19.86	20.43	21.90
	4H	12.13	12.65	13.23	13.74	15.23	19.54	20.05	20.63	21.14	22.63
	6H	12.14	12.58	13.24	13.69	15.18	20.07	20.52	21.18	21.63	23.12
	8H	12.11	12.53	13.21	13.63	15.14	20.24	20.65	21.34	21.75	23.26
	12H	12.07	12.44	13.19	13.56	15.07	20.33	20.70	21.45	21.82	23.33
8H	4H	13.58	13.99	14.68	15.09	16.60	19.59	20.00	20.69	21.11	22.61
	6H	13.81	14.16	14.94	15.30	16.80	20.22	20.56	21.34	21.71	23.21
	8H	13.83	14.13	14.96	15.26	16.78	20.44	20.74	21.57	21.87	23.39
	12H	13.80	14.06	14.93	15.18	16.74	20.58	20.85	21.72	21.97	23.53
12H	4H	13.72	14.09	14.83	15.21	16.72	19.54	19.91	20.66	21.03	22.54
	6H	14.07	14.37	15.20	15.50	17.02	20.20	20.50	21.33	21.63	23.15
	8H	14.14	14.40	15.27	15.52	17.08	20.43	20.69	21.56	21.82	23.38