

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: P937630

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-6500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937630
REPORT IS A COMBINATION OF REPORTS P933559 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-6500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

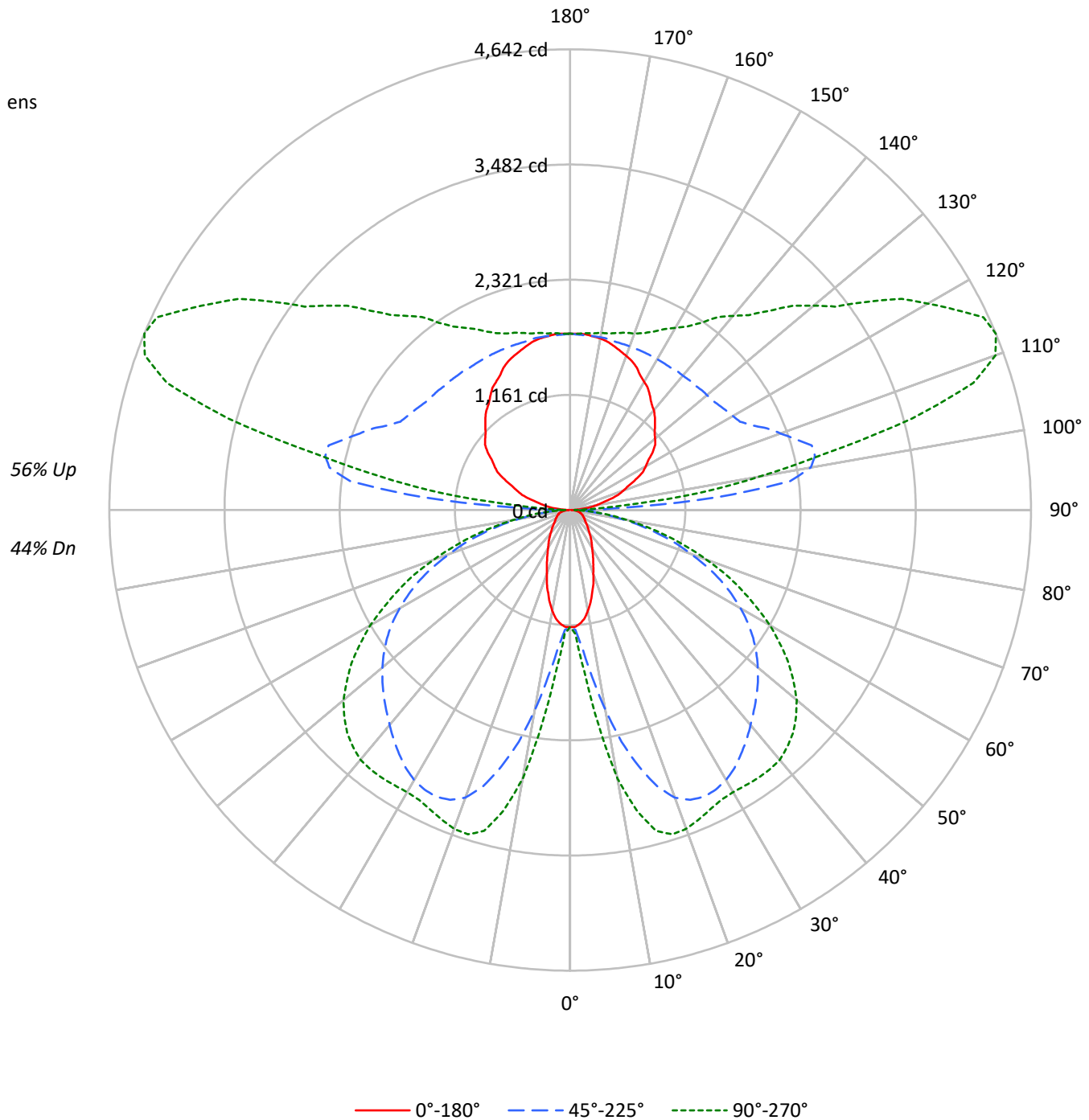
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20649.9 lumens
Efficiency: N/A
Efficacy: 118.7 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: General Diffuse

Input Watts (W): 174
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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	43	38	36	34	30
3	79	69	62	56	72	63	57	52	53	48	44	43	39	36	33	31	29	24
4	72	61	53	46	65	56	49	43	46	41	37	38	34	30	29	27	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	31	37	31	27	30	26	22	24	20	18	15
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13
8	51	39	31	26	47	36	29	24	30	24	20	25	20	17	19	16	14	11
9	48	35	28	23	44	33	26	21	27	22	18	22	18	15	18	15	12	10
10	44	32	25	20	41	30	23	19	25	20	16	21	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3646	3646	3646
5°	3563	4215	4900
10°	3233	6145	8124
15°	2749	8031	9810
20°	2238	9309	9998
25°	1868	9743	9795
30°	1576	9808	9776
35°	1394	9647	10029
40°	1216	9438	10290
45°	1102	9286	10330
50°	1012	9150	10159
55°	970	8949	9709
60°	993	8560	8998
65°	1035	7966	8021
70°	1106	6952	6776
75°	1230	5674	5288
80°	1354	3940	3563
85°	1228	2094	1824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10330 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	0.7
10°-20°	675.7	3.3
20°-30°	1182.0	5.7
30°-40°	1521.5	7.4
40°-50°	1699.5	8.2
50°-60°	1627.7	7.9
60°-70°	1290.0	6.2
70°-80°	758.6	3.7
80°-90°	217.5	1.1
90°-100°	866.6	4.2
100°-110°	2278.3	11.0
110°-120°	2362.4	11.4
120°-130°	1894.9	9.2
130°-140°	1486.8	7.2
140°-150°	1141.2	5.5
150°-160°	821.9	4.0
160°-170°	502.9	2.4
170°-180°	169.9	0.8
0°-30°	2010.2	9.7
0°-40°	3531.7	17.1
0°-60°	6859.0	33.2
0°-90°	9125.0	44.2
90°-120°	5507.3	26.7
90°-150°	10030.3	48.6
90°-180°	11525.0	55.8
0°-180°	20649.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1179	1179	1179	1179	1179	
5°	1148	1232	1387	1569	1626	106
15°	860	1588	2676	3244	3347	239
25°	550	1800	3187	3328	3331	253
35°	371	1721	3002	3172	3297	232
45°	254	1372	2653	3040	3176	196
55°	182	872	2251	2615	2687	166
65°	144	462	1671	1880	1906	143
75°	106	284	917	1008	1012	111
85°	38	87	227	250	254	40
90°	12	33	91	45	45	12
95°	115	449	1493	770	524	127
105°	410	622	2519	3824	3568	435
115°	729	885	2018	4024	4594	720
125°	1014	1137	1835	3101	3658	900
135°	1209	1330	1778	2503	2839	935
145°	1402	1492	1755	2136	2303	878
155°	1584	1629	1755	1927	1983	728
165°	1710	1732	1755	1824	1847	483
175°	1778	1778	1767	1790	1790	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°	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7	1178.7
2.5°	1178.7	1178.7	1186.3	1190.1	1197.6	1201.5	1209.0	1216.6	1239.3	1243.1	1250.7
5°	1148.4	1163.5	1212.8	1231.8	1284.8	1356.8	1387.1	1436.4	1538.7	1569.0	1587.9
7.5°	1102.9	1137.0	1258.3	1288.6	1421.2	1610.7	1690.4	1796.4	1959.4	2039.0	2103.4
10°	1030.9	1102.9	1318.9	1390.9	1607.0	1895.0	2042.8	2190.6	2437.0	2546.8	2588.5
12.5°	951.3	1068.7	1383.3	1481.9	1792.7	2213.3	2391.4	2554.5	2834.9	2982.7	3005.4
15°	860.3	1019.5	1443.9	1587.9	1989.7	2478.6	2675.7	2876.6	3138.1	3244.2	3270.8
17.5°	780.7	981.6	1500.8	1652.4	2141.3	2717.4	2918.3	3085.1	3297.2	3369.2	3388.3
20°	682.1	921.0	1538.7	1735.8	2300.5	2891.7	3085.1	3213.9	3357.9	3403.4	3410.9
22.5°	610.1	856.6	1561.5	1766.1	2406.6	2997.9	3160.8	3263.2	3361.7	3376.9	3380.6
25°	549.5	784.6	1557.6	1800.2	2497.6	3062.3	3187.4	3263.2	3320.0	3327.6	3327.6
27.5°	492.7	704.9	1542.5	1807.8	2565.8	3077.4	3176.0	3229.1	3255.6	3270.8	3270.8
30°	443.4	629.2	1504.6	1792.7	2596.2	3062.3	3141.9	3168.4	3194.9	3217.7	3229.1
32.5°	405.5	557.1	1447.8	1762.4	2599.9	3024.4	3081.2	3096.4	3134.3	3187.4	3206.3
35°	371.4	485.1	1383.3	1720.7	2577.1	2963.7	3001.7	3016.8	3092.6	3172.2	3198.8
37.5°	337.3	432.1	1299.9	1648.7	2543.1	2891.7	2918.3	2944.8	3062.3	3157.1	3187.4
40°	303.2	386.6	1201.5	1569.0	2490.0	2804.6	2827.3	2869.0	3024.4	3134.3	3164.6
42.5°	276.6	348.7	1095.3	1485.6	2421.8	2706.0	2740.2	2800.8	2978.9	3096.4	3130.5
45°	254.0	310.8	981.6	1371.9	2334.6	2603.7	2653.0	2736.3	2925.9	3039.5	3069.9
47.5°	231.2	284.3	864.1	1254.5	2239.9	2501.4	2565.8	2660.5	2853.9	2963.7	2990.3
50°	212.3	257.7	746.6	1129.5	2137.6	2391.4	2467.3	2565.8	2762.9	2865.2	2899.4
52.5°	197.1	234.9	636.7	1004.4	2020.1	2277.7	2365.0	2467.3	2653.0	2751.5	2774.3
55°	182.0	216.0	542.0	871.7	1898.8	2156.5	2251.3	2349.7	2531.7	2615.1	2630.2
57.5°	174.3	200.9	462.4	746.6	1769.9	2020.1	2126.2	2217.1	2387.7	2452.1	2467.3
60°	162.9	189.5	401.7	640.5	1629.6	1891.2	1982.2	2073.1	2217.1	2270.2	2281.6
62.5°	151.6	182.0	356.3	538.1	1485.6	1739.6	1830.5	1913.9	2035.3	2073.1	2088.2
65°	144.0	174.3	322.1	462.4	1337.9	1580.4	1671.3	1743.4	1841.9	1879.8	1887.4
67.5°	136.4	166.8	295.7	398.0	1190.1	1421.2	1489.5	1557.6	1633.5	1671.3	1675.2
70°	125.1	159.2	272.9	352.5	1038.4	1239.3	1296.2	1368.2	1428.8	1447.8	1459.2
72.5°	117.5	147.8	257.7	318.3	883.0	1065.0	1118.1	1159.8	1212.8	1231.8	1231.8
75°	106.1	132.6	242.6	284.3	723.8	871.7	917.2	958.9	1000.6	1008.1	996.7
77.5°	94.8	117.5	208.5	238.8	564.7	689.8	727.7	750.4	784.6	792.1	795.9
80°	79.6	102.3	162.9	185.7	409.3	507.8	534.4	553.3	583.7	583.7	591.2
82.5°	60.6	79.6	117.5	132.6	276.6	348.7	371.4	382.8	401.7	401.7	401.7
85°	37.9	49.2	75.8	87.2	166.8	212.3	227.4	231.2	246.3	250.1	250.1
87.5°	18.9	26.5	49.2	53.1	87.2	109.9	109.9	117.5	117.5	113.7	109.9
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	210.0	230.3	323.8	448.4	510.7	447.6	321.4	226.7	217.7
95°	114.6	263.0	411.5	448.6	796.6	1260.6	1492.6	1332.0	1010.6	769.5	742.2
97.5°	198.0	329.0	460.0	492.8	1073.0	1846.7	2233.6	2132.0	1928.9	1776.6	1724.7
100°	262.5	381.2	500.0	529.7	1173.6	2032.2	2461.5	2469.0	2483.8	2494.9	2433.0
102.5°	317.4	428.2	539.0	566.7	1219.8	2090.6	2526.0	2655.3	2914.1	3108.2	3055.1
105°	410.5	504.3	598.2	621.6	1254.0	2097.2	2518.8	2808.9	3389.0	3824.1	3795.6
107.5°	505.9	593.4	680.9	702.8	1260.4	2003.8	2375.6	2780.2	3589.5	4196.3	4203.2
110°	570.4	649.4	728.3	748.1	1250.8	1921.1	2256.2	2708.6	3613.3	4291.8	4321.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.6	708.9	784.2	803.0	1251.3	1848.9	2147.7	2610.7	3536.6	4231.0	4276.6
115°	729.0	798.5	867.9	885.3	1262.7	1766.0	2017.7	2463.6	3355.6	4024.5	4087.7
117.5°	823.3	886.4	949.5	965.3	1286.3	1714.2	1928.2	2330.6	3135.6	3739.4	3809.5
120°	878.2	937.5	997.0	1011.8	1305.4	1696.8	1892.4	2260.2	2995.7	3547.3	3615.5
122.5°	931.9	991.9	1051.7	1066.7	1332.8	1687.6	1865.0	2196.1	2858.4	3355.2	3422.4
125°	1014.2	1068.8	1123.4	1137.1	1369.7	1680.0	1835.1	2116.4	2679.1	3101.0	3162.9
127.5°	1081.0	1136.1	1191.3	1205.1	1406.8	1675.6	1810.1	2051.6	2534.7	2897.0	2949.2
130°	1116.8	1176.2	1235.6	1250.4	1433.8	1678.3	1800.5	2015.6	2445.7	2768.2	2816.5
132.5°	1153.8	1213.2	1272.6	1287.4	1455.6	1679.9	1792.1	1984.6	2369.6	2658.4	2701.6
135°	1208.7	1262.7	1316.9	1330.4	1479.5	1678.4	1777.8	1939.1	2261.4	2503.2	2540.5
137.5°	1264.8	1318.3	1371.9	1385.2	1515.3	1688.7	1775.5	1911.7	2184.3	2388.8	2419.3
140°	1311.3	1360.7	1409.9	1422.2	1537.2	1690.5	1767.0	1884.8	2120.3	2296.9	2325.4
142.5°	1347.1	1392.7	1438.3	1449.7	1555.4	1696.5	1767.0	1870.5	2077.3	2232.4	2256.9
145°	1402.0	1441.7	1481.5	1491.5	1579.3	1696.6	1755.2	1839.7	2008.9	2135.8	2154.3
147.5°	1456.9	1495.6	1534.3	1544.0	1614.3	1708.2	1755.2	1821.7	1954.8	2054.7	2070.1
150°	1492.6	1527.6	1562.6	1571.4	1632.7	1714.4	1755.2	1811.4	1923.8	2008.1	2020.5
152.5°	1529.6	1556.1	1582.7	1589.3	1644.6	1718.3	1755.2	1803.2	1899.1	1971.1	1980.5
155°	1584.5	1604.1	1623.8	1628.7	1670.9	1727.1	1755.2	1793.3	1869.6	1926.9	1933.1
157.5°	1625.1	1644.2	1663.3	1668.1	1697.1	1735.9	1755.2	1784.8	1844.2	1888.8	1893.2
160°	1652.5	1667.4	1682.2	1686.0	1709.0	1739.8	1755.2	1780.6	1831.5	1869.6	1872.1
162.5°	1679.9	1691.0	1702.2	1705.0	1721.7	1744.0	1755.2	1776.6	1819.5	1851.8	1854.2
165°	1709.8	1719.8	1729.9	1732.4	1740.0	1750.1	1755.2	1770.6	1801.3	1824.3	1826.8
167.5°	1737.2	1742.0	1746.8	1748.0	1754.3	1762.8	1767.0	1777.2	1797.4	1812.5	1813.5
170°	1755.2	1760.0	1764.7	1765.9	1766.3	1766.8	1767.0	1777.2	1797.4	1812.5	1812.5
172.5°	1764.7	1765.7	1766.8	1767.0	1767.0	1767.0	1767.0	1775.0	1790.9	1802.9	1801.9
175°	1777.8	1777.8	1777.8	1777.8	1774.2	1769.4	1767.0	1772.1	1782.2	1789.7	1789.7
177.5°	1777.8	1777.8	1777.8	1777.8	1775.1	1771.3	1769.4	1773.5	1781.4	1787.3	1786.3
180°	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8	1777.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1178.7	1178.7
2.5°	1258.3	1250.7
5°	1618.4	1625.9
7.5°	2179.3	2175.4
10°	2709.9	2743.9
12.5°	3096.4	3104.0
15°	3331.4	3346.6
17.5°	3422.3	3426.1
20°	3426.1	3418.6
22.5°	3384.4	3376.9
25°	3335.2	3331.4
27.5°	3289.7	3293.5
30°	3270.8	3282.1
32.5°	3270.8	3289.7
35°	3278.3	3297.2
37.5°	3274.5	3297.2
40°	3259.4	3285.9
42.5°	3217.7	3236.6
45°	3153.2	3176.0
47.5°	3069.9	3085.1
50°	2963.7	2978.9
52.5°	2831.1	2834.9
55°	2671.9	2687.1
57.5°	2501.4	2505.1
60°	2311.9	2323.3
62.5°	2111.0	2111.0
65°	1898.8	1906.4
67.5°	1679.0	1697.9
70°	1455.3	1459.2
72.5°	1235.5	1235.5
75°	1008.1	1011.9
77.5°	792.1	792.1
80°	587.5	591.2
82.5°	405.5	413.1
85°	254.0	254.0
87.5°	117.5	106.1
90°	45.3	45.3
92.5°	181.6	145.5
95°	633.0	523.8
97.5°	1516.8	1308.9
100°	2185.4	1937.7
102.5°	2843.0	2631.0
105°	3681.5	3567.6
107.5°	4230.9	4258.4
110°	4440.3	4559.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4459.0	4641.5
115°	4340.7	4593.6
117.5°	4090.0	4370.6
120°	3888.0	4160.6
122.5°	3691.2	3960.1
125°	3410.5	3658.2
127.5°	3158.2	3367.1
130°	3009.4	3202.5
132.5°	2874.5	3047.4
135°	2689.5	2838.6
137.5°	2541.2	2663.2
140°	2439.4	2553.4
142.5°	2355.0	2453.1
145°	2228.6	2302.8
147.5°	2131.5	2193.0
150°	2070.4	2120.3
152.5°	2018.1	2055.8
155°	1958.1	1983.0
157.5°	1910.7	1928.2
160°	1882.3	1892.4
162.5°	1863.7	1873.3
165°	1836.9	1847.0
167.5°	1817.7	1821.9
170°	1812.5	1812.5
172.5°	1798.2	1794.5
175°	1789.7	1789.7
177.5°	1782.1	1777.8
180°	1777.8	1777.8



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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	4.95	5.79	5.95	6.81	8.16	18.14	18.99	19.14	20.00	21.35
	3H	5.65	6.41	6.66	7.44	8.80	19.99	20.74	20.99	21.77	23.14
	4H	5.95	6.67	6.97	7.70	9.07	20.63	21.35	21.65	22.38	23.75
	6H	6.20	6.86	7.23	7.89	9.28	21.07	21.73	22.10	22.76	24.15
	8H	6.27	6.90	7.30	7.95	9.33	21.19	21.82	22.23	22.87	24.25
	12H	6.28	6.89	7.33	7.93	9.34	21.26	21.86	22.30	22.90	24.31
4H	2H	12.17	12.89	13.20	13.92	15.29	18.41	19.13	19.44	20.16	21.53
	3H	13.74	14.34	14.77	15.39	16.78	20.46	21.06	21.50	22.12	23.51
	4H	13.83	14.38	14.87	15.43	16.84	21.23	21.78	22.28	22.83	24.24
	6H	13.84	14.32	14.89	15.38	16.79	21.77	22.25	22.83	23.32	24.73
	8H	13.82	14.26	14.87	15.32	16.75	21.94	22.38	22.99	23.45	24.87
	12H	13.77	14.17	14.84	15.25	16.68	22.03	22.44	23.11	23.51	24.94
8H	4H	15.28	15.72	16.33	16.78	18.21	21.29	21.73	22.35	22.80	24.22
	6H	15.52	15.89	16.60	16.99	18.41	21.92	22.29	23.00	23.40	24.82
	8H	15.54	15.86	16.62	16.95	18.39	22.15	22.47	23.23	23.56	25.00
	12H	15.50	15.79	16.59	16.87	18.35	22.29	22.58	23.38	23.66	25.14
12H	4H	15.42	15.82	16.49	16.90	18.33	21.24	21.64	22.32	22.72	24.15
	6H	15.78	16.10	16.86	17.19	18.63	21.91	22.23	22.99	23.32	24.76
	8H	15.85	16.13	16.94	17.21	18.69	22.14	22.42	23.23	23.51	24.99