

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: P937628

Luminaire Tested: SQ4-FB-100U-100D-92765-1D-UNV-STD-W-12-4000K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937628
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-12-4000K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

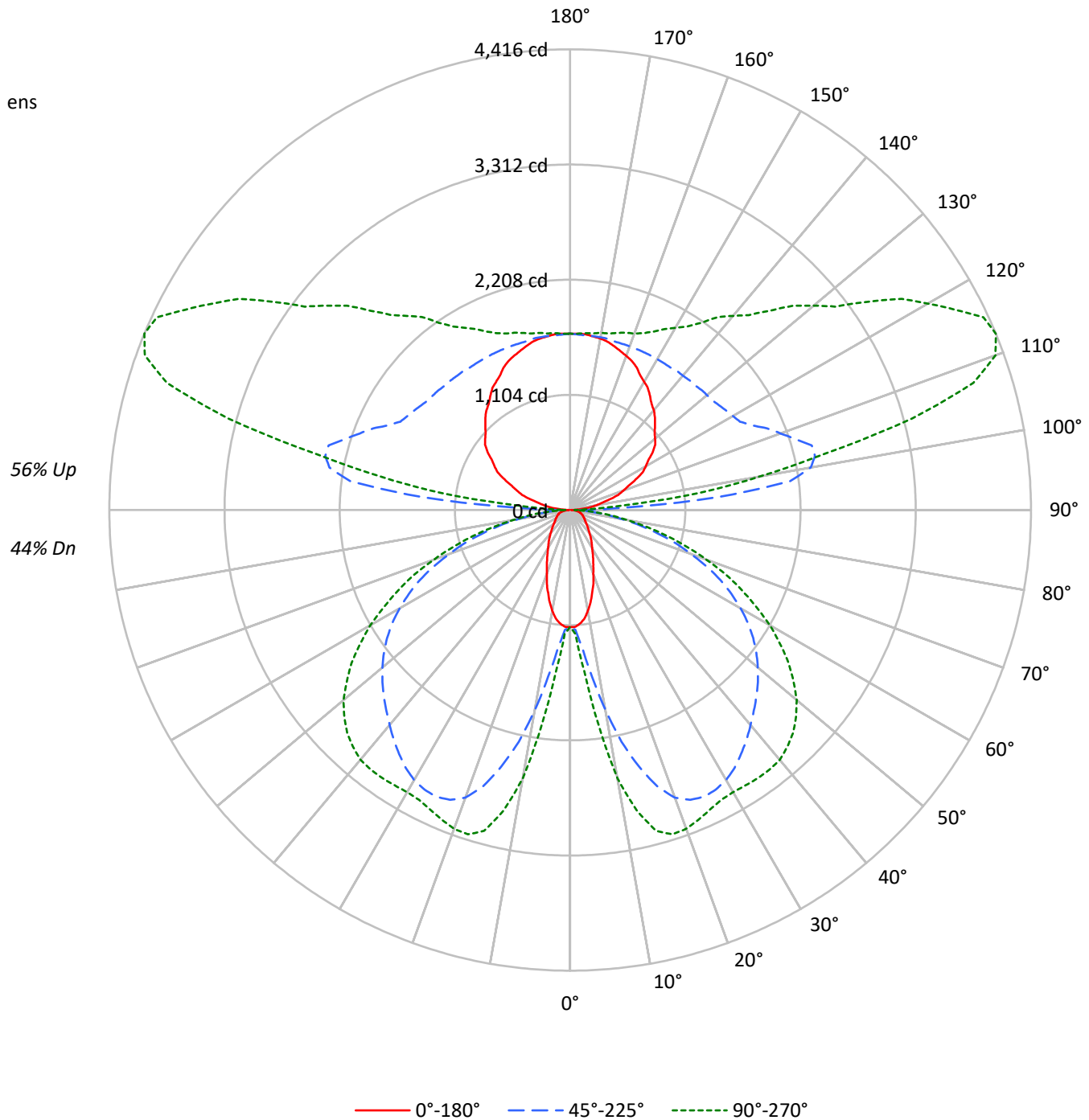
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19644.5 lumens
Efficiency: N/A
Efficacy: 112.9 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: General Diffuse

Input Watts (W): 174
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	
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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44				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°	3468	3468	3468
5°	3390	4010	4662
10°	3076	5846	7729
15°	2615	7640	9332
20°	2129	8856	9511
25°	1777	9269	9318
30°	1499	9330	9300
35°	1326	9177	9540
40°	1156	8978	9789
45°	1048	8834	9828
50°	962	8704	9665
55°	922	8513	9236
60°	945	8143	8560
65°	985	7578	7630
70°	1052	6614	6446
75°	1171	5397	5031
80°	1288	3748	3389
85°	1166	1992	1735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.0	0.7
10°-20°	642.8	3.3
20°-30°	1124.4	5.7
30°-40°	1447.5	7.4
40°-50°	1616.8	8.2
50°-60°	1548.5	7.9
60°-70°	1227.2	6.2
70°-80°	721.6	3.7
80°-90°	206.9	1.1
90°-100°	824.4	4.2
100°-110°	2167.4	11.0
110°-120°	2247.4	11.4
120°-130°	1802.7	9.2
130°-140°	1414.5	7.2
140°-150°	1085.6	5.5
150°-160°	781.8	4.0
160°-170°	478.4	2.4
170°-180°	161.6	0.8
0°-30°	1912.3	9.7
0°-40°	3359.8	17.1
0°-60°	6525.0	33.2
0°-90°	8680.7	44.2
90°-120°	5239.2	26.7
90°-150°	9541.9	48.6
90°-180°	10964.0	55.8
0°-180°	19644.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1092	1172	1320	1493	1547	101
15°	818	1511	2545	3086	3184	228
25°	523	1713	3032	3166	3169	241
35°	353	1637	2856	3018	3137	221
45°	242	1305	2524	2892	3021	187
55°	173	829	2142	2488	2556	158
65°	137	440	1590	1788	1814	136
75°	101	270	872	959	963	106
85°	36	83	216	238	242	38
90°	11	32	86	43	43	12
95°	109	427	1420	732	498	121
105°	390	591	2396	3638	3394	414
115°	694	842	1919	3829	4370	685
125°	965	1082	1746	2950	3480	857
135°	1150	1266	1691	2381	2700	890
145°	1334	1419	1670	2032	2191	836
155°	1507	1549	1670	1833	1886	693
165°	1626	1648	1670	1736	1757	459
175°	1691	1691	1681	1703	1703	161
180°	1691	1691	1691	1691	1691	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3	1121.3
2.5°	1121.3	1121.3	1128.5	1132.1	1139.3	1143.0	1150.1	1157.3	1179.0	1182.6	1189.8
5°	1092.5	1106.8	1153.8	1171.8	1222.3	1290.8	1319.6	1366.5	1463.8	1492.6	1510.6
7.5°	1049.2	1081.6	1197.0	1225.8	1352.0	1532.3	1608.1	1708.9	1864.0	1939.7	2001.0
10°	980.7	1049.2	1254.7	1323.2	1528.7	1802.7	1943.3	2084.0	2318.3	2422.8	2462.5
12.5°	905.0	1016.7	1316.0	1409.8	1705.4	2105.5	2275.0	2430.1	2696.9	2837.5	2859.1
15°	818.4	969.9	1373.6	1510.6	1892.9	2358.0	2545.4	2736.6	2985.3	3086.2	3111.5
17.5°	742.7	933.8	1427.8	1571.9	2037.0	2585.1	2776.2	2934.9	3136.7	3205.2	3223.3
20°	648.9	876.2	1463.8	1651.3	2188.5	2750.9	2934.9	3057.4	3194.4	3237.7	3244.9
22.5°	580.4	814.9	1485.4	1680.1	2289.5	2851.9	3006.9	3104.3	3198.0	3212.5	3216.0
25°	522.8	746.4	1481.8	1712.6	2376.0	2913.2	3032.2	3104.3	3158.4	3165.5	3165.5
27.5°	468.7	670.6	1467.4	1719.8	2440.9	2927.6	3021.4	3071.8	3097.0	3111.5	3111.5
30°	421.8	598.5	1431.3	1705.4	2469.8	2913.2	2988.9	3014.2	3039.4	3061.0	3071.8
32.5°	385.8	530.0	1377.3	1676.6	2473.3	2877.2	2931.2	2945.7	2981.7	3032.2	3050.2
35°	353.3	461.5	1316.0	1636.9	2451.7	2819.4	2855.5	2869.9	2942.0	3017.7	3043.0
37.5°	320.9	411.1	1236.7	1568.4	2419.3	2750.9	2776.2	2801.4	2913.2	3003.3	3032.2
40°	288.4	367.8	1143.0	1492.6	2368.8	2668.1	2689.6	2729.3	2877.2	2981.7	3010.5
42.5°	263.2	331.7	1042.0	1413.3	2303.8	2574.3	2606.7	2664.4	2833.9	2945.7	2978.1
45°	241.6	295.6	933.8	1305.1	2221.0	2476.9	2523.8	2603.1	2783.4	2891.6	2920.4
47.5°	220.0	270.4	822.0	1193.4	2130.8	2379.6	2440.9	2531.0	2714.9	2819.4	2844.7
50°	201.9	245.1	710.2	1074.5	2033.5	2275.0	2347.1	2440.9	2628.4	2725.7	2758.2
52.5°	187.5	223.5	605.7	955.5	1921.7	2166.8	2249.8	2347.1	2523.8	2617.6	2639.2
55°	173.1	205.5	515.6	829.2	1806.4	2051.5	2141.6	2235.3	2408.4	2487.8	2502.1
57.5°	165.8	191.1	439.9	710.2	1683.7	1921.7	2022.7	2109.2	2271.5	2332.7	2347.1
60°	155.0	180.3	382.1	609.3	1550.3	1799.1	1885.7	1972.2	2109.2	2159.7	2170.5
62.5°	144.2	173.1	338.9	511.9	1413.3	1654.9	1741.4	1820.7	1936.2	1972.2	1986.6
65°	137.0	165.8	306.5	439.9	1272.8	1503.4	1590.0	1658.5	1752.2	1788.3	1795.5
67.5°	129.8	158.6	281.3	378.6	1132.1	1352.0	1416.9	1481.8	1553.9	1590.0	1593.6
70°	119.0	151.5	259.6	335.3	987.9	1179.0	1233.1	1301.6	1359.3	1377.3	1388.1
72.5°	111.8	140.6	245.1	302.8	840.0	1013.2	1063.6	1103.3	1153.8	1171.8	1171.8
75°	101.0	126.2	230.8	270.4	688.6	829.2	872.5	912.2	951.8	959.0	948.2
77.5°	90.1	111.8	198.3	227.1	537.2	656.2	692.2	713.9	746.4	753.5	757.2
80°	75.7	97.3	155.0	176.7	389.4	483.1	508.4	526.4	555.2	555.2	562.4
82.5°	57.7	75.7	111.8	126.2	263.2	331.7	353.3	364.1	382.1	382.1	382.1
85°	36.0	46.8	72.1	83.0	158.6	201.9	216.3	220.0	234.3	238.0	238.0
87.5°	18.0	25.2	46.8	50.5	83.0	104.5	104.5	111.8	111.8	108.2	104.5
90°	11.4	20.5	29.5	31.7	49.9	74.1	86.2	76.7	57.5	43.1	43.1
92.5°	45.4	122.5	199.8	219.0	308.0	426.5	485.8	425.8	305.7	215.7	207.1
95°	109.0	250.2	391.5	426.8	757.8	1199.3	1419.9	1267.1	961.4	732.1	706.1
97.5°	188.4	313.0	437.6	468.8	1020.8	1756.8	2124.8	2028.2	1835.0	1690.1	1640.7
100°	249.7	362.7	475.6	503.9	1116.5	1933.3	2341.7	2348.8	2362.9	2373.4	2314.6
102.5°	301.9	407.3	512.8	539.1	1160.4	1988.8	2403.0	2526.1	2772.2	2956.9	2906.4
105°	390.5	479.7	569.1	591.4	1193.0	1995.1	2396.2	2672.1	3224.0	3637.9	3610.8
107.5°	481.3	564.5	647.8	668.6	1199.0	1906.2	2259.9	2644.9	3414.7	3992.0	3998.6
110°	542.6	617.7	692.9	711.7	1189.9	1827.6	2146.4	2576.7	3437.3	4082.8	4111.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	602.7	674.4	746.0	763.9	1190.4	1758.9	2043.1	2483.6	3364.4	4025.0	4068.4
115°	693.5	759.6	825.7	842.2	1201.3	1680.0	1919.4	2343.7	3192.2	3828.6	3888.7
117.5°	783.2	843.2	903.3	918.3	1223.6	1630.7	1834.3	2217.1	2983.0	3557.3	3624.0
120°	835.4	891.9	948.5	962.6	1241.8	1614.2	1800.3	2150.1	2849.8	3374.6	3439.4
122.5°	886.5	943.6	1000.5	1014.8	1267.9	1605.4	1774.2	2089.2	2719.3	3191.8	3255.8
125°	964.9	1016.8	1068.7	1081.7	1303.1	1598.2	1745.8	2013.4	2548.6	2950.0	3008.9
127.5°	1028.3	1080.8	1133.3	1146.4	1338.3	1594.0	1721.9	1951.7	2411.3	2755.9	2805.6
130°	1062.5	1118.9	1175.4	1189.5	1364.0	1596.6	1712.8	1917.4	2326.6	2633.4	2679.3
132.5°	1097.7	1154.1	1210.6	1224.7	1384.7	1598.1	1704.8	1888.0	2254.3	2529.0	2570.1
135°	1149.9	1201.3	1252.8	1265.6	1407.5	1596.7	1691.3	1844.7	2151.3	2381.3	2416.8
137.5°	1203.2	1254.1	1305.1	1317.8	1441.5	1606.5	1689.0	1818.6	2078.0	2272.5	2301.5
140°	1247.5	1294.4	1341.3	1353.0	1462.3	1608.1	1681.0	1793.0	2017.0	2185.0	2212.1
142.5°	1281.5	1324.9	1368.3	1379.1	1479.7	1613.9	1681.0	1779.4	1976.2	2123.7	2147.0
145°	1333.7	1371.6	1409.4	1418.9	1502.4	1614.0	1669.7	1750.1	1911.1	2031.8	2049.4
147.5°	1385.9	1422.8	1459.6	1468.8	1535.7	1625.1	1669.7	1733.0	1859.7	1954.6	1969.3
150°	1419.9	1453.2	1486.5	1494.9	1553.2	1630.9	1669.7	1723.2	1830.1	1910.3	1922.2
152.5°	1455.1	1480.3	1505.6	1511.9	1564.5	1634.6	1669.7	1715.4	1806.6	1875.1	1884.0
155°	1507.4	1526.0	1544.7	1549.4	1589.5	1643.0	1669.7	1706.0	1778.6	1833.1	1839.0
157.5°	1545.9	1564.1	1582.3	1586.9	1614.5	1651.4	1669.7	1697.9	1754.4	1796.8	1801.0
160°	1572.0	1586.2	1600.3	1603.9	1625.8	1655.1	1669.7	1693.9	1742.3	1778.6	1781.0
162.5°	1598.1	1608.7	1619.3	1622.0	1637.9	1659.1	1669.7	1690.1	1730.9	1761.6	1763.9
165°	1626.5	1636.1	1645.7	1648.1	1655.3	1664.9	1669.7	1684.4	1713.6	1735.5	1737.9
167.5°	1652.6	1657.2	1661.7	1662.9	1668.9	1677.0	1681.0	1690.7	1709.8	1724.2	1725.2
170°	1669.7	1674.3	1678.8	1679.9	1680.3	1680.7	1681.0	1690.7	1709.8	1724.2	1724.2
172.5°	1678.7	1679.7	1680.7	1681.0	1681.0	1681.0	1681.0	1688.6	1703.8	1715.1	1714.2
175°	1691.3	1691.3	1691.3	1691.3	1687.8	1683.3	1681.0	1685.8	1695.4	1702.6	1702.6
177.5°	1691.3	1691.3	1691.3	1691.3	1688.7	1685.1	1683.3	1687.1	1694.7	1700.3	1699.3
180°	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3	1691.3



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1121.3	1121.3
2.5°	1197.0	1189.8
5°	1539.6	1546.7
7.5°	2073.2	2069.5
10°	2577.9	2610.3
12.5°	2945.7	2952.9
15°	3169.2	3183.6
17.5°	3255.7	3259.3
20°	3259.3	3252.1
22.5°	3219.7	3212.5
25°	3172.8	3169.2
27.5°	3129.5	3133.2
30°	3111.5	3122.3
32.5°	3111.5	3129.5
35°	3118.7	3136.7
37.5°	3115.1	3136.7
40°	3100.7	3125.9
42.5°	3061.0	3079.0
45°	2999.7	3021.4
47.5°	2920.4	2934.9
50°	2819.4	2833.9
52.5°	2693.3	2696.9
55°	2541.8	2556.3
57.5°	2379.6	2383.2
60°	2199.3	2210.1
62.5°	2008.2	2008.2
65°	1806.4	1813.5
67.5°	1597.2	1615.2
70°	1384.5	1388.1
72.5°	1175.3	1175.3
75°	959.0	962.7
77.5°	753.5	753.5
80°	558.9	562.4
82.5°	385.8	393.0
85°	241.6	241.6
87.5°	111.8	101.0
90°	43.1	43.1
92.5°	172.7	138.4
95°	602.2	498.3
97.5°	1443.0	1245.2
100°	2079.0	1843.4
102.5°	2704.6	2502.9
105°	3502.3	3393.9
107.5°	4024.9	4051.1
110°	4224.1	4337.1



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4241.9	4415.5
115°	4129.4	4370.0
117.5°	3890.9	4157.8
120°	3698.7	3958.0
122.5°	3511.5	3767.3
125°	3244.5	3480.1
127.5°	3004.4	3203.2
130°	2862.9	3046.6
132.5°	2734.6	2899.0
135°	2558.5	2700.3
137.5°	2417.5	2533.5
140°	2320.7	2429.1
142.5°	2240.3	2333.7
145°	2120.1	2190.7
147.5°	2027.8	2086.3
150°	1969.6	2017.0
152.5°	1919.9	1955.7
155°	1862.8	1886.5
157.5°	1817.6	1834.3
160°	1790.6	1800.3
162.5°	1773.0	1782.1
165°	1747.5	1757.1
167.5°	1729.2	1733.2
170°	1724.2	1724.2
172.5°	1710.7	1707.1
175°	1702.6	1702.6
177.5°	1695.3	1691.3
180°	1691.3	1691.3



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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	4.78	5.62	5.77	6.63	7.98	17.97	18.81	18.97	19.83	21.18
	3H	5.48	6.24	6.49	7.26	8.63	19.81	20.57	20.82	21.59	22.96
	4H	5.78	6.50	6.80	7.52	8.90	20.46	21.18	21.48	22.20	23.58
	6H	6.03	6.69	7.06	7.72	9.11	20.89	21.56	21.93	22.59	23.98
	8H	6.09	6.73	7.13	7.77	9.16	21.02	21.65	22.05	22.70	24.08
	12H	6.11	6.71	7.15	7.75	9.16	21.09	21.69	22.13	22.73	24.14
4H	2H	12.00	12.72	13.02	13.74	15.12	18.24	18.96	19.27	19.98	21.36
	3H	13.56	14.16	14.60	15.22	16.61	20.29	20.89	21.33	21.94	23.34
	4H	13.66	14.21	14.70	15.25	16.67	21.06	21.61	22.10	22.66	24.07
	6H	13.67	14.14	14.72	15.21	16.62	21.60	22.08	22.65	23.15	24.55
	8H	13.64	14.09	14.70	15.15	16.57	21.77	22.21	22.82	23.27	24.70
	12H	13.60	14.00	14.67	15.08	16.51	21.86	22.26	22.93	23.34	24.77
8H	4H	15.10	15.55	16.16	16.61	18.03	21.12	21.56	22.17	22.62	24.05
	6H	15.34	15.71	16.42	16.82	18.24	21.75	22.12	22.83	23.22	24.64
	8H	15.36	15.69	16.45	16.77	18.21	21.97	22.30	23.06	23.38	24.82
	12H	15.33	15.61	16.42	16.70	18.18	22.12	22.40	23.21	23.49	24.97
12H	4H	15.25	15.65	16.32	16.73	18.16	21.07	21.47	22.14	22.55	23.98
	6H	15.60	15.93	16.69	17.02	18.46	21.73	22.06	22.82	23.14	24.58
	8H	15.67	15.96	16.76	17.04	18.52	21.96	22.25	23.06	23.33	24.81