

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: P937679

Luminaire Tested: SQ4-FB-100U-100D-B2750-1D-UNV-STD-W-12-3500K

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P937679
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-B2750-1D-UNV-STD-W-12-3500K
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

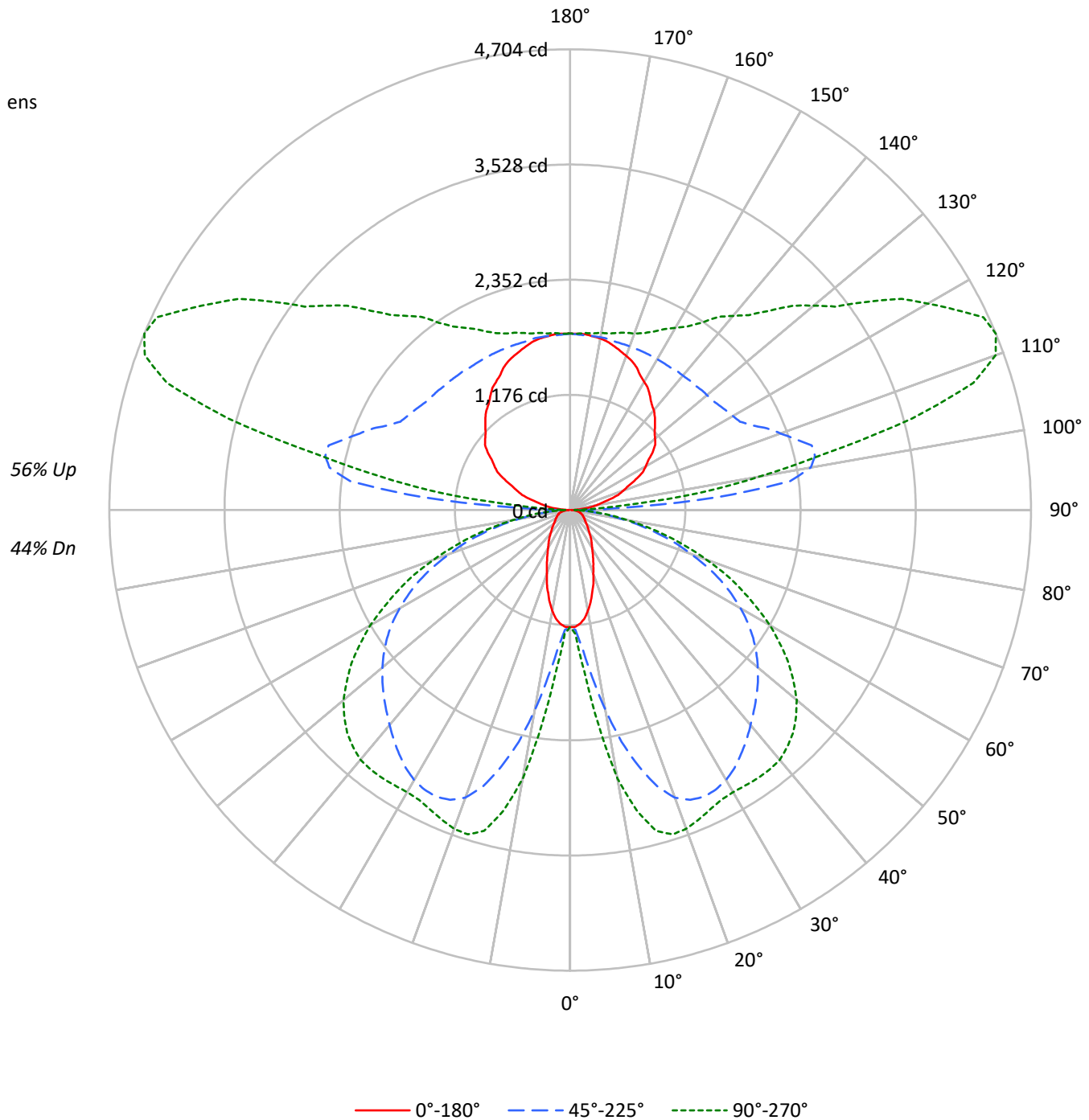
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20926.5 lumens
Efficiency: N/A
Efficacy: 120.3 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°	3695	3695	3695
5°	3611	4271	4966
10°	3276	6228	8233
15°	2785	8138	9941
20°	2269	9433	10132
25°	1893	9874	9926
30°	1597	9939	9907
35°	1413	9777	10163
40°	1232	9564	10428
45°	1117	9410	10469
50°	1025	9272	10295
55°	983	9069	9839
60°	1007	8674	9119
65°	1049	8073	8128
70°	1120	7046	6867
75°	1247	5750	5359
80°	1371	3993	3611
85°	1244	2121	1849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10469 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.5	0.7
10°-20°	684.8	3.3
20°-30°	1197.8	5.7
30°-40°	1541.9	7.4
40°-50°	1722.3	8.2
50°-60°	1649.5	7.9
60°-70°	1307.3	6.2
70°-80°	768.7	3.7
80°-90°	220.4	1.1
90°-100°	878.2	4.2
100°-110°	2308.8	11.0
110°-120°	2394.0	11.4
120°-130°	1920.3	9.2
130°-140°	1506.8	7.2
140°-150°	1156.5	5.5
150°-160°	832.9	4.0
160°-170°	509.6	2.4
170°-180°	172.2	0.8
0°-30°	2037.1	9.7
0°-40°	3579.0	17.1
0°-60°	6950.9	33.2
0°-90°	9247.3	44.2
90°-120°	5581.1	26.7
90°-150°	10164.6	48.6
90°-180°	11679.0	55.8
0°-180°	20926.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1194	1194	1194	1194	1194	
5°	1164	1248	1406	1590	1648	107
15°	872	1609	2712	3288	3391	243
25°	557	1824	3230	3372	3376	257
35°	376	1744	3042	3215	3341	235
45°	257	1390	2688	3080	3218	199
55°	184	883	2281	2650	2723	168
65°	146	469	1694	1905	1932	145
75°	108	288	930	1022	1026	113
85°	38	88	230	254	257	41
90°	12	34	92	46	46	13
95°	116	455	1513	780	531	129
105°	416	630	2552	3875	3615	441
115°	739	897	2045	4078	4655	730
125°	1028	1152	1860	3143	3707	913
135°	1225	1348	1802	2537	2877	948
145°	1421	1511	1779	2164	2334	890
155°	1606	1650	1779	1953	2010	738
165°	1733	1756	1779	1849	1872	489
175°	1802	1802	1791	1814	1814	171
180°	1802	1802	1802	1802	1802	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5
2.5°	1194.5	1194.5	1202.1	1206.0	1213.7	1217.5	1225.2	1232.9	1255.9	1259.8	1267.5
5°	1163.8	1179.1	1229.1	1248.3	1302.0	1375.0	1405.7	1455.6	1559.3	1590.0	1609.2
7.5°	1117.6	1152.2	1275.1	1305.8	1440.2	1632.3	1713.0	1820.5	1985.7	2066.3	2131.6
10°	1044.7	1117.6	1336.5	1409.5	1628.5	1920.4	2070.2	2220.0	2469.6	2580.9	2623.2
12.5°	964.1	1083.1	1401.9	1501.8	1816.7	2242.9	2423.5	2588.7	2872.9	3022.7	3045.7
15°	871.8	1033.1	1463.3	1609.2	2016.4	2511.8	2711.6	2915.1	3180.2	3287.6	3314.6
17.5°	791.2	994.8	1520.9	1674.5	2170.0	2753.8	2957.4	3126.4	3341.4	3414.4	3433.7
20°	691.3	933.3	1559.3	1759.0	2331.3	2930.4	3126.4	3256.9	3402.8	3449.0	3456.6
22.5°	618.3	868.0	1582.4	1789.7	2438.9	3038.0	3203.1	3306.9	3406.7	3422.1	3425.9
25°	556.9	795.1	1578.5	1824.3	2531.0	3103.3	3230.1	3306.9	3364.5	3372.1	3372.1
27.5°	499.3	714.3	1563.2	1832.0	2600.2	3118.6	3218.5	3272.3	3299.2	3314.6	3314.6
30°	449.3	637.6	1524.7	1816.7	2630.9	3103.3	3183.9	3210.9	3237.7	3260.8	3272.3
32.5°	411.0	564.5	1467.2	1786.0	2634.7	3064.9	3122.5	3137.9	3176.3	3230.1	3249.3
35°	376.4	491.6	1401.9	1743.7	2611.6	3003.4	3041.9	3057.2	3134.0	3214.7	3241.6
37.5°	341.9	437.9	1317.4	1670.7	2577.2	2930.4	2957.4	2984.2	3103.3	3199.3	3230.1
40°	307.3	391.8	1217.5	1590.0	2523.4	2842.2	2865.1	2907.4	3064.9	3176.3	3207.0
42.5°	280.3	353.4	1110.0	1505.5	2454.2	2742.3	2776.9	2838.3	3018.8	3137.9	3172.4
45°	257.4	314.9	994.8	1390.3	2365.9	2638.6	2688.5	2773.0	2965.0	3080.3	3111.0
47.5°	234.3	288.1	875.7	1271.3	2269.9	2534.9	2600.2	2696.1	2892.1	3003.4	3030.4
50°	215.1	261.1	756.6	1144.6	2166.2	2423.5	2500.3	2600.2	2799.9	2903.6	2938.2
52.5°	199.7	238.1	645.3	1017.8	2047.1	2308.3	2396.6	2500.3	2688.5	2788.4	2811.5
55°	184.4	218.9	549.2	883.3	1924.2	2185.4	2281.4	2381.2	2565.6	2650.1	2665.4
57.5°	176.6	203.6	468.6	756.6	1793.6	2047.1	2154.7	2246.8	2419.7	2484.9	2500.3
60°	165.1	192.1	407.1	649.0	1651.5	1916.5	2008.7	2100.9	2246.8	2300.6	2312.1
62.5°	153.6	184.4	361.0	545.4	1505.5	1762.9	1855.1	1939.6	2062.5	2100.9	2116.2
65°	145.9	176.6	326.5	468.6	1355.8	1601.6	1693.7	1766.8	1866.6	1905.0	1912.7
67.5°	138.3	169.0	299.6	403.3	1206.0	1440.2	1509.4	1578.5	1655.3	1693.7	1697.6
70°	126.7	161.3	276.6	357.2	1052.3	1255.9	1313.6	1386.5	1448.0	1467.2	1478.7
72.5°	119.1	149.8	261.1	322.6	894.9	1079.3	1133.1	1175.3	1229.1	1248.3	1248.3
75°	107.6	134.4	245.8	288.1	733.5	883.3	929.5	971.7	1014.0	1021.6	1010.1
77.5°	96.0	119.1	211.2	242.0	572.3	699.0	737.4	760.5	795.1	802.7	806.6
80°	80.6	103.7	165.1	188.2	414.8	514.6	541.6	560.8	591.5	591.5	599.1
82.5°	61.4	80.6	119.1	134.4	280.3	353.4	376.4	387.9	407.1	407.1	407.1
85°	38.4	49.9	76.8	88.4	169.0	215.1	230.4	234.3	249.6	253.5	253.5
87.5°	19.2	26.8	49.9	53.8	88.4	111.3	111.3	119.1	119.1	115.2	111.3
90°	12.1	21.8	31.4	33.8	53.2	79.0	91.9	81.7	61.2	45.9	45.9
92.5°	48.4	130.5	212.8	233.3	328.1	454.4	517.5	453.6	325.7	229.7	220.6
95°	116.1	266.6	417.1	454.7	807.3	1277.5	1512.6	1349.8	1024.1	779.9	752.1
97.5°	200.7	333.4	466.2	499.4	1087.4	1871.4	2263.5	2160.6	1954.8	1800.4	1747.8
100°	266.0	386.3	506.7	536.8	1189.4	2059.4	2494.5	2502.1	2517.1	2528.3	2465.6
102.5°	321.6	433.9	546.2	574.3	1236.2	2118.6	2559.8	2690.9	2953.1	3149.8	3096.1
105°	416.0	511.1	606.2	629.9	1270.8	2125.3	2552.5	2846.5	3434.4	3875.3	3846.4
107.5°	512.7	601.4	690.0	712.2	1277.2	2030.6	2407.4	2817.5	3637.5	4252.6	4259.5
110°	578.0	658.0	738.1	758.1	1267.5	1946.8	2286.5	2744.9	3661.7	4349.3	4379.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	642.1	718.4	794.7	813.8	1268.0	1873.7	2176.5	2645.7	3583.9	4287.6	4333.9
115°	738.8	809.2	879.6	897.2	1279.7	1789.6	2044.7	2496.6	3400.5	4078.4	4142.5
117.5°	834.3	898.3	962.2	978.2	1303.5	1737.1	1954.0	2361.8	3177.6	3789.5	3860.5
120°	889.9	950.1	1010.4	1025.4	1322.9	1719.5	1917.7	2290.4	3035.8	3594.8	3663.9
122.5°	944.4	1005.1	1065.8	1081.0	1350.7	1710.2	1889.9	2225.5	2896.7	3400.1	3468.2
125°	1027.8	1083.1	1138.5	1152.3	1388.1	1702.5	1859.7	2144.8	2714.9	3142.6	3205.3
127.5°	1095.5	1151.4	1207.3	1221.2	1425.6	1698.1	1834.3	2079.1	2568.6	2935.8	2988.7
130°	1131.8	1192.0	1252.1	1267.2	1453.0	1700.8	1824.6	2042.6	2478.4	2805.3	2854.2
132.5°	1169.3	1229.5	1289.6	1304.7	1475.1	1702.4	1816.1	2011.2	2401.4	2694.0	2737.8
135°	1224.9	1279.7	1334.5	1348.2	1499.3	1700.9	1801.7	1965.0	2291.7	2536.7	2574.5
137.5°	1281.7	1336.0	1390.2	1403.8	1535.6	1711.4	1799.2	1937.3	2213.6	2420.8	2451.7
140°	1328.9	1378.9	1428.8	1441.3	1557.8	1713.1	1790.7	1910.0	2148.7	2327.6	2356.5
142.5°	1365.1	1411.3	1457.6	1469.1	1576.3	1719.2	1790.7	1895.6	2105.2	2262.3	2287.1
145°	1420.7	1461.1	1501.4	1511.4	1600.5	1719.3	1778.7	1864.4	2035.8	2164.4	2183.2
147.5°	1476.4	1515.6	1554.9	1564.6	1636.0	1731.1	1778.7	1846.1	1981.0	2082.2	2097.8
150°	1512.6	1548.1	1583.5	1592.5	1654.6	1737.3	1778.7	1835.7	1949.5	2035.0	2047.6
152.5°	1550.1	1577.0	1603.9	1610.6	1666.6	1741.3	1778.7	1827.3	1924.5	1997.5	2007.0
155°	1605.7	1625.6	1645.6	1650.5	1693.2	1750.2	1778.7	1817.4	1894.7	1952.7	1959.0
157.5°	1646.8	1666.2	1685.6	1690.4	1719.9	1759.1	1778.7	1808.7	1868.9	1914.1	1918.5
160°	1674.6	1689.7	1704.8	1708.5	1731.9	1763.1	1778.7	1804.5	1856.0	1894.7	1897.2
162.5°	1702.4	1713.7	1725.0	1727.8	1744.8	1767.4	1778.7	1800.4	1843.9	1876.6	1879.0
165°	1732.7	1742.8	1753.1	1755.6	1763.3	1773.6	1778.7	1794.3	1825.4	1848.8	1851.3
167.5°	1760.5	1765.3	1770.2	1771.4	1777.8	1786.4	1790.7	1801.0	1821.4	1836.7	1837.8
170°	1778.7	1783.5	1788.4	1789.5	1789.9	1790.4	1790.7	1801.0	1821.4	1836.7	1836.7
172.5°	1788.3	1789.4	1790.4	1790.7	1790.7	1790.7	1790.7	1798.8	1814.9	1827.0	1826.1
175°	1801.7	1801.7	1801.7	1801.7	1798.0	1793.1	1790.7	1795.8	1806.0	1813.7	1813.7
177.5°	1801.7	1801.7	1801.7	1801.7	1798.9	1795.1	1793.1	1797.2	1805.2	1811.3	1810.2
180°	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7	1801.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	1194.5	1194.5
2.5°	1275.1	1267.5
5°	1640.0	1647.7
7.5°	2208.4	2204.6
10°	2746.1	2780.6
12.5°	3137.9	3145.6
15°	3376.0	3391.4
17.5°	3468.1	3472.0
20°	3472.0	3464.4
22.5°	3429.8	3422.1
25°	3379.9	3376.0
27.5°	3333.7	3337.6
30°	3314.6	3326.1
32.5°	3314.6	3333.7
35°	3322.2	3341.4
37.5°	3318.3	3341.4
40°	3303.0	3329.9
42.5°	3260.8	3280.0
45°	3195.5	3218.5
47.5°	3111.0	3126.4
50°	3003.4	3018.8
52.5°	2869.0	2872.9
55°	2707.7	2723.1
57.5°	2534.9	2538.7
60°	2342.8	2354.4
62.5°	2139.3	2139.3
65°	1924.2	1931.9
67.5°	1701.5	1720.7
70°	1474.8	1478.7
72.5°	1252.0	1252.0
75°	1021.6	1025.5
77.5°	802.7	802.7
80°	595.4	599.1
82.5°	411.0	418.6
85°	257.4	257.4
87.5°	119.1	107.6
90°	45.9	45.9
92.5°	184.0	147.5
95°	641.5	530.8
97.5°	1537.1	1326.5
100°	2214.6	1963.7
102.5°	2881.1	2666.2
105°	3730.8	3615.3
107.5°	4287.5	4315.4
110°	4499.7	4620.2



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4518.7	4703.6
115°	4398.9	4655.2
117.5°	4144.8	4429.1
120°	3940.1	4216.3
122.5°	3740.6	4013.1
125°	3456.2	3707.2
127.5°	3200.5	3412.2
130°	3049.7	3245.4
132.5°	2913.0	3088.2
135°	2725.5	2876.6
137.5°	2575.2	2698.9
140°	2472.1	2587.6
142.5°	2386.6	2486.0
145°	2258.4	2333.6
147.5°	2160.1	2222.4
150°	2098.2	2148.7
152.5°	2045.2	2083.4
155°	1984.3	2009.6
157.5°	1936.3	1954.0
160°	1907.5	1917.7
162.5°	1888.7	1898.4
165°	1861.5	1871.7
167.5°	1842.1	1846.3
170°	1836.7	1836.7
172.5°	1822.3	1818.5
175°	1813.7	1813.7
177.5°	1805.9	1801.7
180°	1801.7	1801.7



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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	5.00	5.84	5.99	6.85	8.20	18.19	19.03	19.19	20.05	21.39
	3H	5.70	6.46	6.71	7.48	8.85	20.03	20.79	21.04	21.81	23.18
	4H	6.00	6.72	7.02	7.74	9.12	20.68	21.40	21.70	22.42	23.80
	6H	6.25	6.91	7.28	7.94	9.33	21.11	21.78	22.14	22.81	24.20
	8H	6.31	6.95	7.35	7.99	9.38	21.24	21.87	22.27	22.91	24.30
	12H	6.33	6.93	7.37	7.97	9.38	21.31	21.91	22.35	22.95	24.36
4H	2H	12.22	12.94	13.24	13.96	15.34	18.46	19.18	19.49	20.20	21.58
	3H	13.78	14.38	14.82	15.44	16.83	20.51	21.11	21.54	22.16	23.56
	4H	13.88	14.43	14.92	15.47	16.89	21.28	21.83	22.32	22.88	24.29
	6H	13.89	14.36	14.94	15.43	16.84	21.82	22.30	22.87	23.37	24.77
	8H	13.86	14.31	14.92	15.37	16.79	21.99	22.43	23.04	23.49	24.92
	12H	13.82	14.22	14.89	15.30	16.73	22.08	22.48	23.15	23.56	24.99
8H	4H	15.32	15.77	16.38	16.83	18.25	21.34	21.78	22.39	22.84	24.27
	6H	15.56	15.93	16.64	17.04	18.46	21.97	22.34	23.05	23.44	24.86
	8H	15.58	15.91	16.67	16.99	18.43	22.19	22.52	23.28	23.60	25.04
	12H	15.55	15.83	16.64	16.92	18.40	22.34	22.62	23.43	23.71	25.19
12H	4H	15.47	15.87	16.54	16.95	18.37	21.29	21.69	22.36	22.77	24.20
	6H	15.82	16.15	16.91	17.24	18.68	21.95	22.28	23.04	23.36	24.80
	8H	15.89	16.18	16.98	17.26	18.74	22.18	22.47	23.27	23.55	25.03