

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: P938412

Luminaire Tested: SQ4-FB-150U-100D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938412
REPORT IS A COMBINATION OF REPORTS P933647 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-100D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

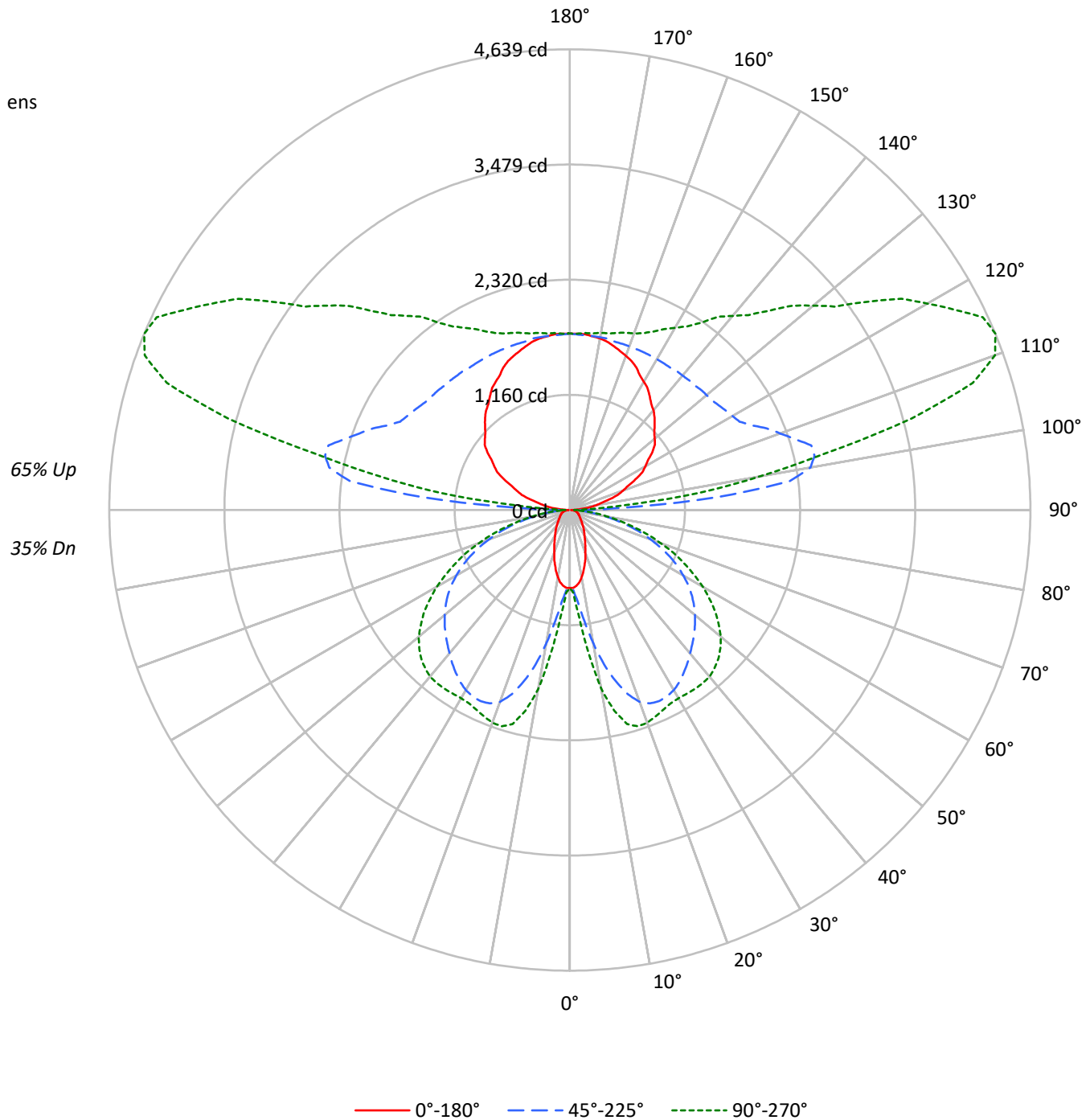
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17603.8 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 144.8
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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	42	42	42	35
1	94	90	86	82	85	81	78	75	65	63	60	50	49	47	36	35	35	36	35	35	28
2	85	78	72	66	77	70	65	61	56	53	49	43	41	39	32	30	29	32	30	29	23
3	77	68	61	55	69	61	55	50	49	45	41	38	35	32	28	26	24	28	26	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	24	22	20	16
5	64	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	22	19	17	14
6	59	47	39	33	53	43	36	30	34	29	25	27	23	20	19	17	15	19	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	13	11	16	13	11	9
9	47	35	27	22	42	31	25	20	26	20	17	20	16	14	15	12	10	15	12	10	8
10	43	31	24	20	39	29	22	18	23	18	15	18	15	12	13	11	9	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3645	3645	3645
5°	3561	4213	4900
10°	3230	6142	8123
15°	2745	8024	9809
20°	2235	9299	9997
25°	1864	9730	9794
30°	1572	9792	9775
35°	1390	9629	10028
40°	1211	9418	10289
45°	1097	9263	10330
50°	1006	9124	10158
55°	963	8920	9709
60°	986	8528	8997
65°	1026	7933	8020
70°	1094	6918	6775
75°	1211	5641	5288
80°	1325	3912	3564
85°	1174	2076	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°	101.6	0.6
10°-20°	450.4	2.6
20°-30°	787.9	4.5
30°-40°	1014.3	5.8
40°-50°	1132.9	6.4
50°-60°	1085.1	6.2
60°-70°	859.9	4.9
70°-80°	505.7	2.9
80°-90°	147.3	0.8
90°-100°	866.1	4.9
100°-110°	2277.1	12.9
110°-120°	2361.1	13.4
120°-130°	1893.9	10.8
130°-140°	1486.0	8.4
140°-150°	1140.6	6.5
150°-160°	821.4	4.7
160°-170°	502.6	2.9
170°-180°	169.8	1.0
0°-30°	1340.0	7.6
0°-40°	2354.3	13.4
0°-60°	4572.2	26.0
0°-90°	6085.0	34.6
90°-120°	5504.4	31.3
90°-150°	10024.9	56.9
90°-180°	11519.0	65.4
0°-180°	17603.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	766	821	925	1046	1084	71
15°	574	1059	1784	2163	2231	160
25°	366	1200	2125	2218	2221	169
35°	248	1147	2001	2115	2198	155
45°	169	914	1768	2026	2117	131
55°	121	581	1501	1743	1791	110
65°	96	308	1114	1253	1271	95
75°	71	190	611	672	675	74
85°	25	58	152	167	169	27
90°	12	33	91	45	45	12
95°	114	448	1492	769	524	127
105°	410	621	2517	3822	3566	435
115°	729	885	2017	4022	4591	720
125°	1014	1136	1834	3099	3656	900
135°	1208	1330	1777	2502	2837	935
145°	1401	1491	1754	2135	2302	878
155°	1584	1628	1754	1926	1982	728
165°	1709	1732	1754	1823	1846	482
175°	1777	1777	1766	1789	1789	169
180°	1777	1777	1777	1777	1777	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7	785.7
2.5°	785.7	785.7	790.8	793.3	798.4	800.8	805.9	811.0	826.2	828.7	833.7
5°	765.5	775.6	808.5	821.1	856.5	904.5	924.6	957.5	1025.7	1046.0	1058.6
7.5°	735.2	757.9	838.8	859.0	947.4	1073.7	1126.7	1197.5	1306.2	1359.2	1402.2
10°	687.2	735.2	879.2	927.2	1071.2	1263.2	1361.7	1460.3	1624.4	1697.8	1725.5
12.5°	634.1	712.4	922.2	987.8	1195.0	1475.4	1594.1	1702.8	1889.7	1988.3	2003.4
15°	573.5	679.6	962.6	1058.6	1326.4	1652.3	1783.6	1917.5	2091.8	2162.6	2180.3
17.5°	520.4	654.4	1000.5	1101.5	1427.4	1811.4	1945.4	2056.5	2197.9	2245.9	2258.6
20°	454.8	613.9	1025.7	1157.0	1533.5	1927.7	2056.5	2142.4	2238.4	2268.7	2273.8
22.5°	406.8	570.9	1040.9	1177.3	1604.3	1998.4	2107.0	2175.2	2241.0	2251.0	2253.6
25°	366.3	522.9	1038.3	1200.1	1664.9	2041.3	2124.7	2175.2	2213.1	2218.2	2218.2
27.5°	328.4	469.9	1028.3	1205.1	1710.4	2051.5	2117.2	2152.5	2170.2	2180.3	2180.3
30°	295.6	419.4	1002.9	1195.0	1730.6	2041.3	2094.4	2112.1	2129.8	2144.9	2152.5
32.5°	270.4	371.4	965.1	1174.7	1733.1	2016.1	2054.0	2064.1	2089.3	2124.7	2137.3
35°	247.6	323.4	922.2	1147.0	1717.9	1975.7	2000.9	2011.0	2061.5	2114.6	2132.3
37.5°	224.9	288.0	866.5	1099.0	1695.2	1927.7	1945.4	1963.1	2041.3	2104.4	2124.7
40°	202.1	257.7	800.8	1046.0	1659.8	1869.6	1884.7	1912.5	2016.1	2089.3	2109.5
42.5°	184.4	232.4	730.1	990.3	1614.4	1803.9	1826.6	1867.0	1985.7	2064.1	2086.9
45°	169.3	207.2	654.4	914.5	1556.3	1735.6	1768.5	1824.0	1950.3	2026.1	2046.4
47.5°	154.1	189.5	576.0	836.2	1493.1	1667.5	1710.4	1773.6	1902.3	1975.7	1993.4
50°	141.5	171.8	497.7	752.8	1424.9	1594.1	1644.7	1710.4	1841.7	1910.0	1932.6
52.5°	131.4	156.6	424.5	669.5	1346.5	1518.3	1576.4	1644.7	1768.5	1834.2	1849.3
55°	121.2	144.0	361.3	581.1	1265.7	1437.5	1500.6	1566.4	1687.6	1743.2	1753.3
57.5°	116.2	133.9	308.2	497.7	1179.8	1346.5	1417.3	1478.0	1591.6	1634.6	1644.7
60°	108.6	126.3	267.8	426.9	1086.4	1260.7	1321.3	1381.9	1478.0	1513.3	1520.9
62.5°	101.0	121.2	237.5	358.8	990.3	1159.6	1220.2	1275.9	1356.7	1381.9	1392.0
65°	96.0	116.2	214.7	308.2	891.9	1053.5	1114.1	1162.1	1227.8	1253.1	1258.2
67.5°	90.9	111.2	197.0	265.3	793.3	947.4	992.9	1038.3	1088.9	1114.1	1116.7
70°	83.4	106.1	181.9	235.0	692.2	826.2	864.0	912.0	952.5	965.1	972.6
72.5°	78.3	98.6	171.8	212.2	588.6	709.9	745.3	773.1	808.5	821.1	821.1
75°	70.7	88.4	161.7	189.5	482.6	581.1	611.4	639.2	667.0	672.1	664.4
77.5°	63.2	78.3	138.9	159.2	376.5	459.8	485.1	500.2	522.9	528.0	530.6
80°	53.1	68.3	108.6	123.8	272.8	338.5	356.2	368.8	389.1	389.1	394.2
82.5°	40.4	53.1	78.3	88.4	184.4	232.4	247.6	255.2	267.8	267.8	267.8
85°	25.2	32.9	50.6	58.1	111.2	141.5	151.6	154.1	164.2	166.7	166.7
87.5°	12.6	17.7	32.9	35.4	58.1	73.2	73.2	78.3	78.3	75.8	73.2
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	323.6	448.2	510.4	447.3	321.2	226.6	217.6
95°	114.5	262.9	411.3	448.4	796.2	1259.9	1491.8	1331.2	1010.1	769.2	741.9
97.5°	198.0	328.9	459.8	492.5	1072.5	1845.8	2232.5	2130.9	1928.0	1775.7	1723.8
100°	262.3	381.1	499.8	529.5	1173.1	2031.1	2460.2	2467.6	2482.4	2493.5	2431.7
102.5°	317.2	428.0	538.7	566.4	1219.2	2089.4	2524.6	2654.0	2912.5	3106.5	3053.6
105°	410.2	504.0	597.9	621.3	1253.3	2096.0	2517.4	2807.4	3387.2	3822.1	3793.6
107.5°	505.6	593.1	680.5	702.4	1259.7	2002.8	2374.3	2778.7	3587.6	4194.2	4201.0
110°	570.1	649.0	728.0	747.7	1250.2	1920.1	2255.1	2707.2	3611.4	4289.6	4319.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.3	708.5	783.7	802.6	1250.5	1847.9	2146.5	2609.2	3534.6	4228.7	4274.3
115°	728.7	798.1	867.5	884.9	1262.1	1765.1	2016.6	2462.3	3353.7	4022.4	4085.6
117.5°	822.8	885.9	949.0	964.8	1285.5	1713.2	1927.1	2329.4	3134.0	3737.4	3807.5
120°	877.7	937.1	996.4	1011.3	1304.7	1695.8	1891.4	2258.9	2994.1	3545.4	3613.5
122.5°	931.3	991.3	1051.1	1066.1	1332.1	1686.7	1863.9	2194.9	2856.9	3353.4	3420.6
125°	1013.6	1068.2	1122.8	1136.5	1369.0	1679.0	1834.1	2115.2	2677.6	3099.4	3161.2
127.5°	1080.5	1135.5	1190.7	1204.5	1406.0	1674.7	1809.0	2050.4	2533.3	2895.4	2947.6
130°	1116.2	1175.6	1235.0	1249.8	1433.0	1677.3	1799.5	2014.4	2444.3	2766.7	2814.9
132.5°	1153.2	1212.6	1272.0	1286.8	1454.9	1679.1	1791.2	1983.5	2368.3	2656.9	2700.1
135°	1208.0	1262.1	1316.2	1329.7	1478.7	1677.5	1776.8	1938.0	2260.3	2501.9	2539.1
137.5°	1264.1	1317.7	1371.1	1384.5	1514.5	1687.8	1774.5	1910.8	2183.1	2387.4	2417.9
140°	1310.6	1359.9	1409.1	1421.5	1536.4	1689.5	1766.1	1883.8	2119.2	2295.6	2324.1
142.5°	1346.3	1391.9	1437.5	1448.9	1554.6	1695.7	1766.1	1869.5	2076.1	2231.2	2255.7
145°	1401.2	1441.0	1480.7	1490.7	1578.5	1695.7	1754.2	1838.7	2007.8	2134.7	2153.2
147.5°	1456.1	1494.8	1533.5	1543.2	1613.5	1707.3	1754.2	1820.7	1953.7	2053.5	2068.9
150°	1491.8	1526.8	1561.8	1570.5	1631.7	1713.3	1754.2	1810.4	1922.7	2007.0	2019.5
152.5°	1528.8	1555.3	1581.9	1588.5	1643.7	1717.4	1754.2	1802.2	1898.0	1970.0	1979.4
155°	1583.7	1603.3	1622.9	1627.8	1669.9	1726.1	1754.2	1792.3	1868.7	1926.0	1932.2
157.5°	1624.2	1643.4	1662.4	1667.2	1696.1	1734.9	1754.2	1783.9	1843.3	1887.8	1892.2
160°	1651.7	1666.5	1681.3	1685.0	1708.1	1738.8	1754.2	1779.6	1830.5	1868.7	1871.2
162.5°	1679.1	1690.2	1701.4	1704.2	1720.8	1743.1	1754.2	1775.7	1818.6	1850.8	1853.2
165°	1708.8	1718.9	1729.0	1731.5	1739.1	1749.1	1754.2	1769.6	1800.3	1823.4	1825.9
167.5°	1736.3	1741.1	1745.8	1747.1	1753.4	1761.9	1766.1	1776.2	1796.3	1811.4	1812.5
170°	1754.2	1758.9	1763.7	1765.0	1765.3	1765.8	1766.1	1776.2	1796.3	1811.4	1811.4
172.5°	1763.7	1764.8	1765.8	1766.1	1766.1	1766.1	1766.1	1774.0	1789.9	1801.9	1800.9
175°	1776.8	1776.8	1776.8	1776.8	1773.3	1768.5	1766.1	1771.2	1781.2	1788.8	1788.8
177.5°	1776.8	1776.8	1776.8	1776.8	1774.0	1770.3	1768.5	1772.5	1780.5	1786.4	1785.3
180°	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	785.7	785.7
2.5°	838.8	833.7
5°	1078.8	1083.8
7.5°	1452.6	1450.2
10°	1806.4	1829.1
12.5°	2064.1	2069.2
15°	2220.7	2230.8
17.5°	2281.3	2283.9
20°	2283.9	2278.8
22.5°	2256.1	2251.0
25°	2223.3	2220.7
27.5°	2192.9	2195.5
30°	2180.3	2187.9
32.5°	2180.3	2192.9
35°	2185.3	2197.9
37.5°	2182.8	2197.9
40°	2172.7	2190.4
42.5°	2144.9	2157.5
45°	2102.0	2117.2
47.5°	2046.4	2056.5
50°	1975.7	1985.7
52.5°	1887.2	1889.7
55°	1781.1	1791.3
57.5°	1667.5	1669.9
60°	1541.1	1548.7
62.5°	1407.2	1407.2
65°	1265.7	1270.8
67.5°	1119.2	1131.8
70°	970.1	972.6
72.5°	823.6	823.6
75°	672.1	674.6
77.5°	528.0	528.0
80°	391.6	394.2
82.5°	270.4	275.4
85°	169.3	169.3
87.5°	78.3	70.7
90°	45.3	45.3
92.5°	181.5	145.5
95°	632.7	523.5
97.5°	1515.9	1308.2
100°	2184.2	1936.7
102.5°	2841.5	2629.6
105°	3679.6	3565.7
107.5°	4228.6	4256.1
110°	4437.9	4556.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4456.6	4638.9
115°	4338.4	4591.2
117.5°	4087.9	4368.3
120°	3885.9	4158.3
122.5°	3689.3	3958.0
125°	3408.8	3656.3
127.5°	3156.5	3365.3
130°	3007.9	3200.8
132.5°	2872.9	3045.7
135°	2688.1	2837.0
137.5°	2539.8	2661.7
140°	2438.1	2552.0
142.5°	2353.8	2451.9
145°	2227.4	2301.6
147.5°	2130.4	2191.8
150°	2069.4	2119.2
152.5°	2017.1	2054.7
155°	1957.1	1982.0
157.5°	1909.6	1927.1
160°	1881.3	1891.4
162.5°	1862.7	1872.2
165°	1836.0	1846.0
167.5°	1816.8	1821.0
170°	1811.4	1811.4
172.5°	1797.3	1793.6
175°	1788.8	1788.8
177.5°	1781.0	1776.8
180°	1776.8	1776.8



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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	3.89	4.65	4.96	5.73	7.20	17.07	17.83	18.14	18.91	20.38
	3H	4.59	5.27	5.67	6.36	7.85	18.90	19.59	19.98	20.67	22.16
	4H	4.88	5.53	5.98	6.62	8.12	19.54	20.19	20.64	21.28	22.78
	6H	5.13	5.73	6.23	6.82	8.33	19.97	20.57	21.07	21.66	23.17
	8H	5.19	5.76	6.30	6.87	8.37	20.09	20.66	21.19	21.76	23.27
	12H	5.21	5.75	6.32	6.85	8.38	20.15	20.69	21.26	21.79	23.32
4H	2H	11.09	11.74	12.19	12.83	14.33	17.33	17.98	18.43	19.07	20.57
	3H	12.65	13.20	13.76	14.31	15.82	19.37	19.91	20.48	21.03	22.54
	4H	12.74	13.24	13.85	14.35	15.88	20.13	20.63	21.24	21.73	23.27
	6H	12.75	13.18	13.87	14.30	15.83	20.66	21.09	21.78	22.22	23.74
	8H	12.72	13.12	13.84	14.24	15.78	20.82	21.22	21.94	22.34	23.88
	12H	12.67	13.04	13.81	14.17	15.71	20.91	21.28	22.05	22.41	23.95
8H	4H	14.18	14.58	15.30	15.70	17.24	20.18	20.58	21.30	21.70	23.24
	6H	14.42	14.75	15.56	15.91	17.45	20.81	21.14	21.95	22.30	23.84
	8H	14.43	14.72	15.58	15.86	17.42	21.03	21.32	22.17	22.46	24.01
	12H	14.40	14.65	15.55	15.79	17.38	21.17	21.42	22.32	22.56	24.15
12H	4H	14.32	14.68	15.45	15.81	17.36	20.13	20.49	21.27	21.63	23.17
	6H	14.67	14.96	15.82	16.11	17.66	20.79	21.08	21.94	22.22	23.78
	8H	14.74	14.99	15.89	16.13	17.72	21.01	21.27	22.17	22.41	24.00