

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: P853792

Luminaire Tested: SQ2-FA-100U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853792  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FA-100U-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

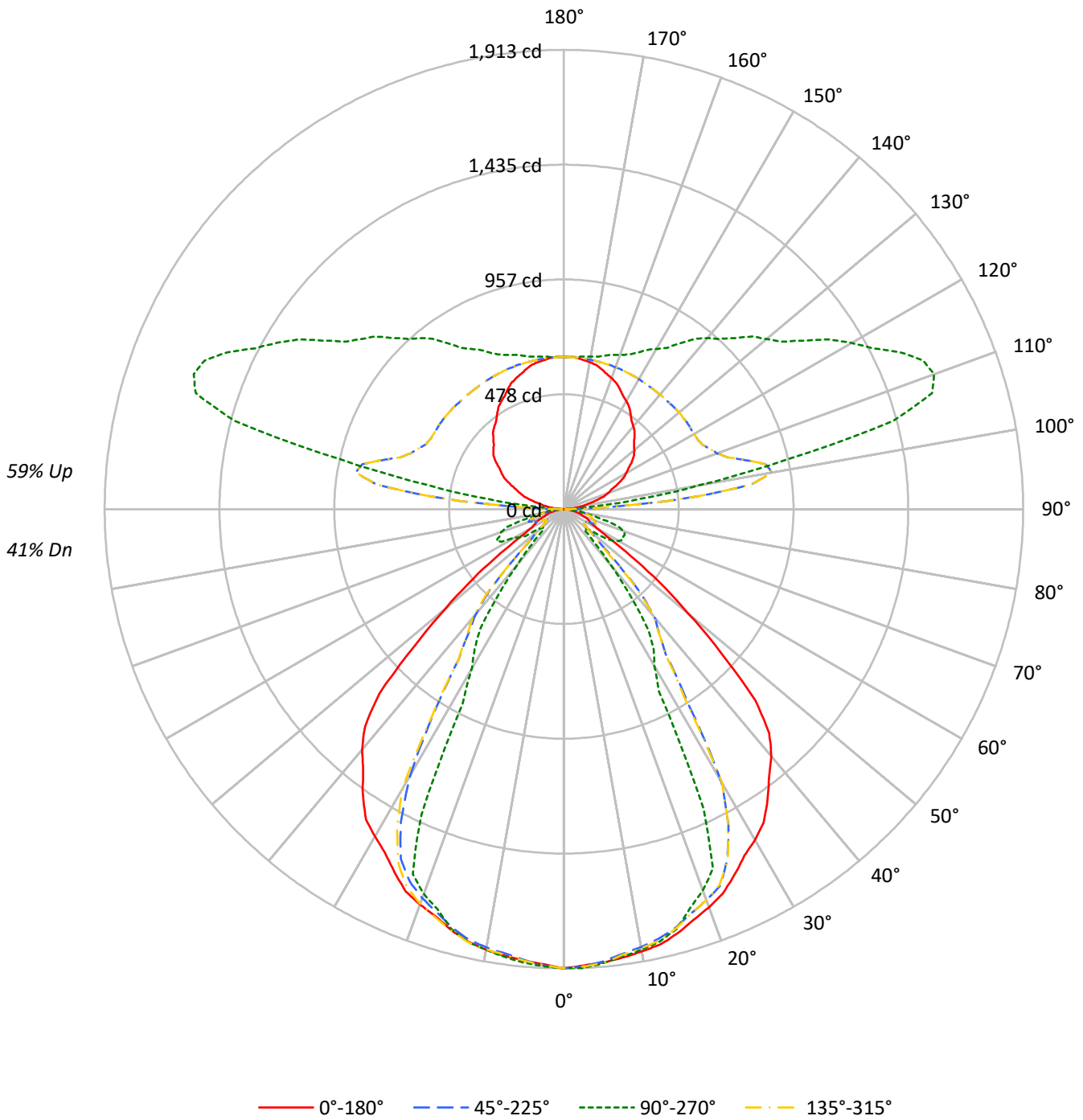
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6740.0 lumens  
Efficiency: N/A  
Efficacy: 113.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 59.3  
Input Voltage (V): 120  
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	50	30	10	0	
RCR																						
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	48	48	48	41				
1	97	93	89	86	88	85	82	79	70	68	66	57	55	54	44	43	42	37				
2	89	82	77	72	81	75	71	67	63	59	57	51	49	47	40	39	37	32				
3	82	73	67	61	75	67	62	57	56	52	49	46	43	41	37	35	33	29				
4	76	66	59	53	69	61	54	50	51	46	43	42	39	36	34	32	30	26				
5	70	59	52	46	64	55	48	44	46	42	38	38	35	32	31	29	27	24				
6	65	54	46	41	59	50	43	39	42	37	34	35	32	29	29	26	24	22				
7	60	49	42	37	55	46	39	35	39	34	30	33	29	26	27	24	22	20				
8	56	45	38	33	52	42	35	31	36	31	28	30	27	24	25	22	21	18				
9	53	41	34	30	48	38	32	28	33	28	25	28	25	22	23	21	19	17				
10	49	38	31	27	45	36	30	26	31	26	23	26	23	20	22	19	18	16				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	30885	30885	30885	30885
5°	30721	30768	30605	30746
10°	30675	30557	30557	30557
15°	30576	30262	30335	30262
20°	30338	29050	30115	29323
25°	29940	24517	29735	25032
30°	29666	14067	29343	14255
35°	29144	12084	28775	11913
40°	28338	6355	27548	6294
45°	25759	2733	24836	2733
50°	16995	3298	16124	3080
55°	9503	6092	9016	5523
60°	5125	8570	5031	7685
65°	4520	10414	4741	11851
70°	4220	12463	4017	13143
75°	3961	10711	4049	11067
80°	3357	7643	3357	8052
85°	2946	4279	2668	5076

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25759 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	180.0	2.7
10°-20°	510.7	7.6
20°-30°	696.3	10.3
30°-40°	585.2	8.7
40°-50°	332.4	4.9
50°-60°	176.3	2.6
60°-70°	162.4	2.4
70°-80°	119.2	1.8
80°-90°	32.3	0.5
90°-100°	264.7	3.9
100°-110°	800.7	11.9
110°-120°	781.7	11.6
120°-130°	638.8	9.5
130°-140°	521.4	7.7
140°-150°	405.9	6.0
150°-160°	292.6	4.3
160°-170°	179.1	2.7
170°-180°	60.5	0.9
0°-30°	1387.0	20.6
0°-40°	1972.2	29.3
0°-60°	2480.9	36.8
0°-90°	2794.7	41.5
90°-120°	1847.1	27.4
90°-150°	3413.2	50.6
90°-180°	3945.0	58.5
0°-180°	6740.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1913	1913	1913	1913	1913	
5°	1896	1898	1888	1897	1896	180
15°	1829	1810	1815	1810	1829	516
25°	1681	1376	1669	1405	1681	775
35°	1479	613	1460	604	1479	923
45°	1128	120	1088	120	1128	825
55°	338	216	320	196	338	325
65°	118	273	124	310	118	119
75°	64	172	65	177	64	65
85°	16	23	14	27	16	18
90°	0	6	0	6	0	2
95°	33	116	33	116	33	39
105°	139	1419	139	1419	139	146
115°	248	1546	248	1546	248	245
125°	346	1223	346	1223	346	308
135°	415	1008	415	1008	415	321
145°	485	843	485	843	485	304
155°	552	718	552	718	552	254
165°	604	662	604	662	604	170
175°	632	636	632	636	632	60
180°	634	634	634	634	634	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9
2.5°	1902.5	1930.7	1905.9	1902.7	1912.9	1910.6	1907.1	1920.4	1897.9	1920.4	1902.5
5°	1895.5	1928.0	1891.2	1881.5	1898.4	1887.1	1897.0	1916.5	1888.3	1913.7	1885.4
7.5°	1883.7	1912.5	1868.4	1862.2	1878.8	1868.9	1873.0	1900.2	1876.5	1893.2	1867.6
10°	1871.0	1896.4	1852.3	1848.3	1863.8	1853.9	1858.0	1886.4	1863.8	1879.3	1853.7
12.5°	1857.2	1876.9	1832.7	1830.9	1844.2	1837.7	1839.6	1863.4	1845.3	1860.9	1836.4
15°	1829.2	1847.5	1803.2	1796.3	1810.4	1804.8	1807.6	1828.9	1814.8	1824.6	1803.2
17.5°	1794.6	1809.2	1765.1	1744.4	1744.9	1752.0	1765.1	1790.8	1778.1	1791.1	1760.8
20°	1765.7	1782.6	1734.0	1693.5	1690.7	1697.8	1734.0	1759.8	1752.7	1766.8	1723.9
22.5°	1732.2	1743.5	1699.4	1631.0	1621.5	1628.5	1694.7	1725.3	1722.7	1732.3	1678.9
25°	1680.6	1691.9	1611.4	1513.0	1376.2	1504.6	1614.2	1669.1	1669.1	1677.5	1607.0
27.5°	1628.1	1628.4	1482.7	971.7	857.2	936.7	1480.7	1599.6	1613.1	1608.9	1470.3
30°	1591.2	1581.3	1314.2	785.5	754.5	774.2	1315.6	1551.3	1573.9	1558.3	1281.0
32.5°	1548.5	1520.5	970.3	722.2	696.8	714.3	938.3	1494.0	1533.5	1499.9	1007.5
35°	1478.6	1405.3	740.0	638.5	613.1	635.7	734.3	1380.9	1459.9	1369.6	764.6
37.5°	1403.3	1117.0	651.5	508.6	453.8	497.6	648.3	1105.0	1372.8	1079.4	650.9
40°	1344.5	877.6	585.7	372.0	301.5	350.9	581.4	837.3	1307.0	900.7	571.3
42.5°	1266.0	770.9	470.3	236.3	184.9	216.3	451.0	753.1	1226.2	780.5	454.7
45°	1128.1	662.6	278.4	129.6	119.7	125.4	256.8	650.4	1087.7	636.3	284.2
47.5°	893.5	505.4	178.9	110.2	120.9	110.2	173.4	489.3	843.9	488.5	178.6
50°	676.6	394.5	138.5	111.5	131.3	111.5	134.2	381.0	641.9	416.3	137.0
52.5°	501.2	329.6	113.1	122.3	157.8	124.5	109.9	320.9	475.8	335.8	107.0
55°	337.6	258.6	90.9	161.4	216.4	165.6	90.9	251.1	320.3	248.3	88.0
57.5°	214.1	192.4	92.0	207.5	247.0	211.4	93.5	185.4	205.4	186.2	80.8
60°	158.7	151.6	102.4	220.3	265.4	223.1	103.9	145.9	155.8	144.5	86.6
62.5°	131.0	119.4	123.2	238.6	275.8	232.4	125.8	113.9	136.2	109.1	95.8
65°	118.3	77.4	145.7	241.6	272.6	241.6	147.1	73.3	124.1	78.9	129.8
67.5°	106.8	57.4	140.8	240.0	274.4	240.5	137.3	54.7	102.4	53.3	132.7
70°	89.4	51.4	132.7	244.2	264.0	235.8	132.7	49.8	85.1	48.4	155.8
72.5°	74.4	48.8	123.5	225.5	234.0	217.1	124.6	48.5	74.7	43.7	146.6
75°	63.5	48.0	118.3	180.1	171.7	171.7	115.4	46.6	64.9	43.8	114.0
77.5°	47.6	42.5	98.1	117.6	111.1	111.1	96.4	41.1	45.3	38.5	92.6
80°	36.1	38.9	80.8	86.5	82.2	82.2	77.9	37.5	36.1	36.1	76.5
82.5°	28.0	33.1	62.3	63.4	60.3	59.2	60.6	32.8	28.0	30.2	59.1
85°	15.9	22.9	33.2	27.3	23.1	21.7	31.7	21.5	14.4	21.5	31.7
87.5°	5.8	10.7	7.0	6.0	5.8	6.0	7.0	10.7	5.8	9.5	8.2
90°	0.0	1.9	11.9	6.9	6.0	6.9	11.9	1.9	0.0	1.9	11.9
92.5°	11.1	45.0	161.6	53.6	38.6	53.6	161.6	45.0	11.1	45.0	161.6
95°	32.8	103.9	499.6	184.6	116.4	184.6	499.6	103.9	32.8	103.9	499.6
97.5°	63.5	132.2	787.4	521.0	317.3	521.0	787.4	132.2	63.5	132.2	787.4
100°	82.6	149.7	879.7	850.5	571.2	850.5	879.7	149.7	82.6	149.7	879.7
102.5°	104.1	168.9	860.6	1192.9	951.0	1192.9	860.6	168.9	104.1	168.9	860.6
105°	139.3	195.8	786.2	1493.1	1419.1	1493.1	786.2	195.8	139.3	195.8	786.2
107.5°	172.8	226.7	714.5	1522.8	1608.4	1522.8	714.5	226.7	172.8	226.7	714.5
110°	195.1	246.6	678.7	1485.4	1641.0	1485.4	678.7	246.6	195.1	246.6	678.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	216.6	266.6	657.2	1422.6	1619.6	1422.6	657.2	266.6	216.6	266.6	657.2
115°	247.8	295.5	635.9	1315.9	1545.5	1315.9	635.9	295.5	247.8	295.5	635.9
117.5°	278.8	324.0	628.4	1215.9	1451.0	1215.9	628.4	324.0	278.8	324.0	628.4
120°	299.5	342.4	626.0	1157.5	1383.3	1157.5	626.0	342.4	299.5	342.4	626.0
122.5°	318.7	359.1	626.0	1106.2	1314.8	1106.2	626.0	359.1	318.7	359.1	626.0
125°	346.3	384.3	627.0	1039.2	1223.1	1039.2	627.0	384.3	346.3	384.3	627.0
127.5°	368.8	408.1	626.0	988.6	1145.4	988.6	626.0	408.1	368.8	408.1	626.0
130°	383.1	424.0	626.0	959.6	1101.7	959.6	626.0	424.0	383.1	424.0	626.0
132.5°	395.9	437.5	625.2	933.1	1064.2	933.1	625.2	437.5	395.9	437.5	625.2
135°	415.0	458.8	623.0	896.2	1008.1	896.2	623.0	458.8	415.0	458.8	623.0
137.5°	436.3	477.9	623.0	856.8	960.5	856.8	623.0	477.9	436.3	477.9	623.0
140°	449.8	490.7	623.0	831.2	929.5	831.2	623.0	490.7	449.8	490.7	623.0
142.5°	463.4	502.7	622.2	807.8	893.7	807.8	622.2	502.7	463.4	502.7	622.2
145°	484.7	520.7	623.0	770.9	842.9	770.9	623.0	520.7	484.7	520.7	623.0
147.5°	505.9	536.5	624.2	740.5	795.7	740.5	624.2	536.5	505.9	536.5	624.2
150°	519.5	547.7	625.0	723.6	770.3	723.6	625.0	547.7	519.5	547.7	625.0
152.5°	532.2	557.3	625.8	709.0	747.2	709.0	625.8	557.3	532.2	557.3	625.8
155°	552.3	570.8	627.0	691.2	717.5	691.2	627.0	570.8	552.3	570.8	627.0
157.5°	569.8	584.8	628.2	678.1	696.4	678.1	628.2	584.8	569.8	584.8	628.2
160°	580.2	592.8	629.0	670.1	683.7	670.1	629.0	592.8	580.2	592.8	629.0
162.5°	590.5	600.1	629.7	662.8	674.1	662.8	629.7	600.1	590.5	600.1	629.7
165°	604.1	610.9	629.9	654.0	661.8	654.0	629.9	610.9	604.1	610.9	629.9
167.5°	615.6	619.1	631.1	647.1	650.4	647.1	631.1	619.1	615.6	619.1	631.1
170°	622.0	623.9	631.9	643.9	644.9	643.9	631.9	623.9	622.0	623.9	631.9
172.5°	626.0	627.1	631.9	640.7	640.9	640.7	631.9	627.1	626.0	627.1	631.9
175°	631.9	631.9	632.9	637.9	635.9	637.9	632.9	631.9	631.9	631.9	632.9
177.5°	634.7	633.9	633.1	635.5	633.9	635.5	633.1	633.9	634.7	633.9	633.1
180°	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9	633.9



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1912.9	1912.9	1912.9	1912.9	1912.9	1912.9
2.5°	1898.0	1905.9	1905.9	1901.3	1923.9	1902.5
5°	1878.7	1897.0	1888.5	1888.3	1916.7	1895.5
7.5°	1865.1	1882.3	1874.4	1872.8	1900.6	1883.7
10°	1851.1	1863.8	1858.2	1862.4	1888.0	1871.0
12.5°	1831.5	1846.5	1840.9	1847.4	1870.7	1857.2
15°	1797.7	1810.4	1813.3	1816.2	1843.3	1829.2
17.5°	1741.9	1748.1	1762.2	1782.2	1810.4	1794.6
20°	1698.1	1706.6	1715.0	1749.8	1782.6	1765.7
22.5°	1648.2	1645.4	1665.2	1706.0	1746.9	1732.2
25°	1513.7	1405.1	1525.0	1630.1	1684.8	1680.6
27.5°	1054.0	914.6	1037.9	1504.6	1619.6	1628.1
30°	829.5	764.6	828.0	1343.0	1571.4	1591.2
32.5°	736.4	691.9	730.5	1022.2	1510.7	1548.5
35°	635.5	604.4	635.5	764.6	1391.2	1478.6
37.5°	508.7	445.2	507.5	660.7	1124.6	1403.3
40°	379.0	298.6	367.7	591.5	898.8	1344.5
42.5°	252.5	192.4	239.0	465.7	777.4	1266.0
45°	136.7	119.7	131.0	281.3	634.4	1128.1
47.5°	107.2	113.4	107.2	177.4	485.3	893.5
50°	102.9	122.6	102.9	137.0	401.5	676.6
52.5°	112.1	133.0	111.0	108.2	327.7	501.2
55°	127.1	196.2	128.5	88.0	240.2	337.6
57.5°	180.9	220.7	182.9	83.4	185.0	214.1
60°	185.8	238.0	184.4	88.0	143.2	158.7
62.5°	219.8	294.6	219.5	100.7	106.4	131.0
65°	281.9	310.2	284.8	128.4	76.0	118.3
67.5°	267.6	287.7	264.8	137.6	52.3	106.8
70°	262.9	278.4	260.1	157.2	48.5	89.4
72.5°	245.3	247.3	240.2	145.7	43.7	74.4
75°	190.1	177.4	183.1	125.5	43.7	63.5
77.5°	118.2	113.1	113.9	95.8	38.6	47.6
80°	89.4	86.6	85.1	80.8	36.1	36.1
82.5°	66.3	63.5	62.1	62.3	30.2	28.0
85°	30.2	27.4	26.0	36.1	21.5	15.9
87.5°	7.2	7.0	6.0	8.2	8.4	5.8
90°	6.9	6.0	6.9	11.9	1.9	0.0
92.5°	53.6	38.6	53.6	161.6	45.0	11.1
95°	184.6	116.4	184.6	499.6	103.9	32.8
97.5°	521.0	317.3	521.0	787.4	132.2	63.5
100°	850.5	571.2	850.5	879.7	149.7	82.6
102.5°	1192.9	951.0	1192.9	860.6	168.9	104.1
105°	1493.1	1419.1	1493.1	786.2	195.8	139.3
107.5°	1522.8	1608.4	1522.8	714.5	226.7	172.8
110°	1485.4	1641.0	1485.4	678.7	246.6	195.1





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CATALOG NUMBER: SQ2-FA-100U-075D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1422.6	1619.6	1422.6	657.2	266.6	216.6
115°	1315.9	1545.5	1315.9	635.9	295.5	247.8
117.5°	1215.9	1451.0	1215.9	628.4	324.0	278.8
120°	1157.5	1383.3	1157.5	626.0	342.4	299.5
122.5°	1106.2	1314.8	1106.2	626.0	359.1	318.7
125°	1039.2	1223.1	1039.2	627.0	384.3	346.3
127.5°	988.6	1145.4	988.6	626.0	408.1	368.8
130°	959.6	1101.7	959.6	626.0	424.0	383.1
132.5°	933.1	1064.2	933.1	625.2	437.5	395.9
135°	896.2	1008.1	896.2	623.0	458.8	415.0
137.5°	856.8	960.5	856.8	623.0	477.9	436.3
140°	831.2	929.5	831.2	623.0	490.7	449.8
142.5°	807.8	893.7	807.8	622.2	502.7	463.4
145°	770.9	842.9	770.9	623.0	520.7	484.7
147.5°	740.5	795.7	740.5	624.2	536.5	505.9
150°	723.6	770.3	723.6	625.0	547.7	519.5
152.5°	709.0	747.2	709.0	625.8	557.3	532.2
155°	691.2	717.5	691.2	627.0	570.8	552.3
157.5°	678.1	696.4	678.1	628.2	584.8	569.8
160°	670.1	683.7	670.1	629.0	592.8	580.2
162.5°	662.8	674.1	662.8	629.7	600.1	590.5
165°	654.0	661.8	654.0	629.9	610.9	604.1
167.5°	647.1	650.4	647.1	631.1	619.1	615.6
170°	643.9	644.9	643.9	631.9	623.9	622.0
172.5°	640.7	640.9	640.7	631.9	627.1	626.0
175°	637.9	635.9	637.9	632.9	631.9	631.9
177.5°	635.5	633.9	635.5	633.1	633.9	634.7
180°	633.9	633.9	633.9	633.9	633.9	633.9



TEST NUMBER: P853792

CATALOG NUMBER: SQ2-FA-100U-075D-935-UNV-STD-W-4

**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	10.96	11.67	12.01	12.71	14.11	9.82	10.53	10.87	11.57	12.96
	3H	11.66	12.29	12.71	13.34	14.76	15.97	16.60	17.02	17.65	19.06
	4H	12.06	12.66	13.13	13.71	15.14	17.24	17.84	18.30	18.89	20.31
	6H	12.41	12.97	13.49	14.02	15.45	17.84	18.39	18.91	19.45	20.88
	8H	12.53	13.05	13.61	14.12	15.55	17.96	18.49	19.04	19.55	20.98
	12H	12.60	13.10	13.68	14.16	15.61	18.00	18.50	19.08	19.56	21.01
4H	2H	11.35	11.95	12.42	13.00	14.42	10.34	10.94	11.42	11.99	13.42
	3H	12.34	12.84	13.42	13.92	15.35	16.66	17.16	17.74	18.24	19.67
	4H	12.90	13.36	13.98	14.42	15.88	18.11	18.57	19.19	19.63	21.09
	6H	13.37	13.76	14.46	14.85	16.30	18.84	19.23	19.93	20.32	21.77
	8H	13.54	13.91	14.63	14.99	16.45	19.01	19.37	20.10	20.46	21.92
	12H	13.65	13.98	14.75	15.08	16.54	19.06	19.39	20.17	20.49	21.96
8H	4H	13.99	14.36	15.08	15.44	16.90	18.22	18.59	19.32	19.67	21.14
	6H	14.60	14.90	15.71	16.02	17.48	19.10	19.40	20.21	20.53	21.99
	8H	14.83	15.10	15.95	16.20	17.69	19.35	19.62	20.47	20.72	22.20
	12H	15.00	15.23	16.12	16.33	17.85	19.47	19.70	20.59	20.80	22.32
12H	4H	14.13	14.46	15.24	15.56	17.03	18.18	18.51	19.29	19.61	21.08
	6H	14.87	15.14	15.99	16.24	17.72	19.11	19.37	20.23	20.48	21.96
	8H	15.17	15.40	16.29	16.50	18.02	19.39	19.62	20.51	20.72	22.24