

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: P853804

Luminaire Tested: SQ2-FA-125U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853804
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-125U-075D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

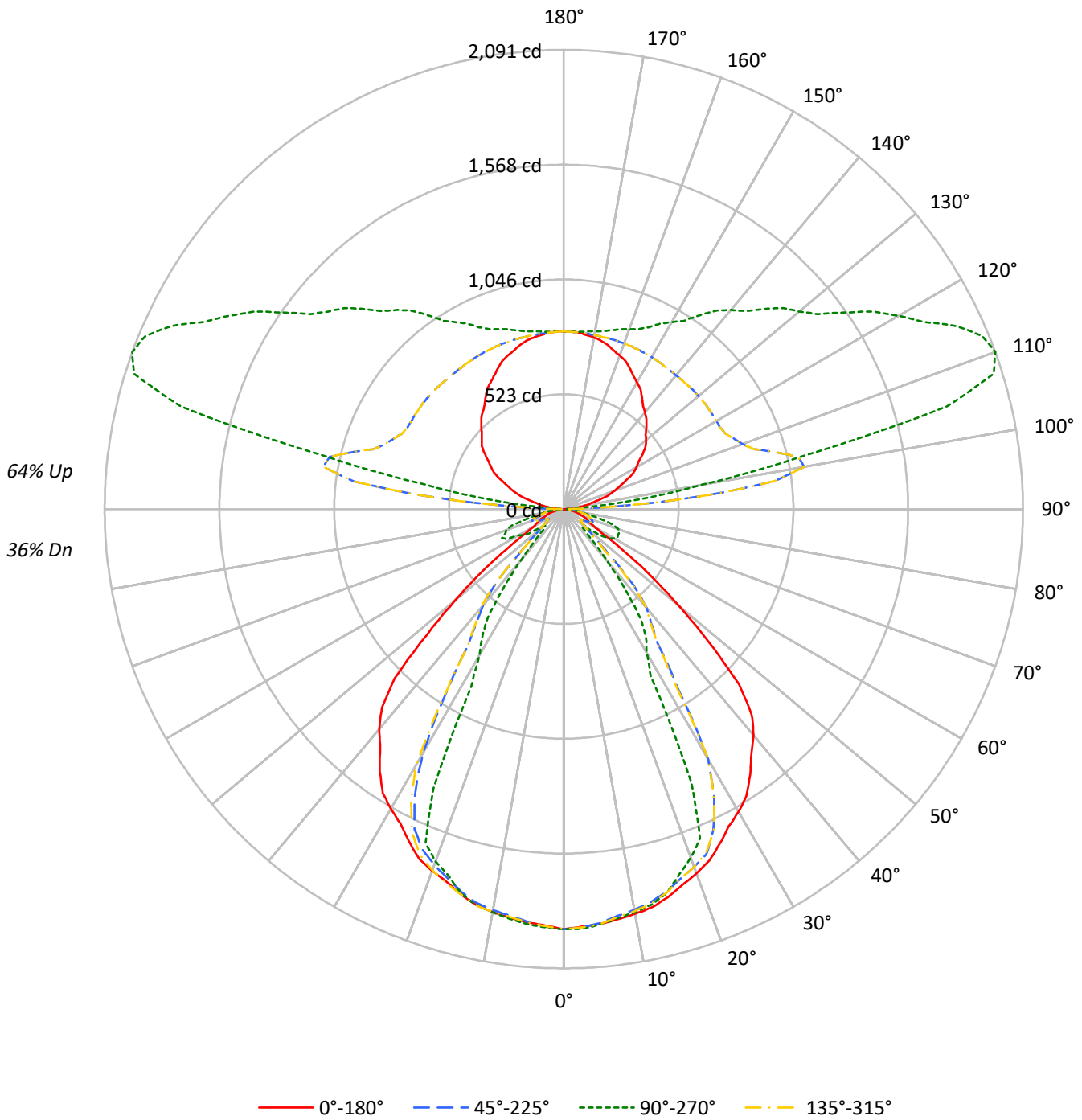
Lumens per Lamp: N/A
Luminaire Lumens: 7787.1 lumens
Efficiency: N/A
Efficacy: 110.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 70.6
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	0
RCR																		
0	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	95	91	88	85	86	83	80	77	67	65	63	53	51	50	39	39	38	32
2	88	81	75	71	79	74	69	65	60	57	54	47	45	43	36	34	33	28
3	81	72	65	60	73	66	60	56	54	50	47	43	40	38	33	31	30	25
4	74	64	57	52	67	59	53	48	49	44	41	39	36	33	30	28	26	23
5	69	58	51	45	62	53	47	42	44	39	36	36	32	30	28	26	24	20
6	64	52	45	40	58	48	42	37	40	35	32	33	29	27	26	23	22	19
7	59	48	40	35	54	44	38	33	37	32	29	30	27	24	24	21	20	17
8	55	44	36	32	50	40	34	30	34	29	26	28	24	22	22	20	18	16
9	51	40	33	28	47	37	31	27	31	27	23	26	22	20	21	18	17	15
10	48	37	30	26	44	34	28	24	29	24	21	24	21	18	19	17	15	14

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	2.3
10°-20°	510.7	6.6
20°-30°	696.3	8.9
30°-40°	585.2	7.5
40°-50°	332.4	4.3
50°-60°	176.3	2.3
60°-70°	162.4	2.1
70°-80°	119.2	1.5
80°-90°	32.0	0.4
90°-100°	309.5	4.0
100°-110°	1007.8	12.9
110°-120°	996.9	12.8
120°-130°	814.6	10.5
130°-140°	665.8	8.6
140°-150°	518.6	6.7
150°-160°	373.8	4.8
160°-170°	228.5	2.9
170°-180°	77.1	1.0
0°-30°	1387.0	17.8
0°-40°	1972.2	25.3
0°-60°	2480.9	31.9
0°-90°	2794.5	35.9
90°-120°	2314.2	29.7
90°-150°	4313.2	55.4
90°-180°	4993.0	64.1
0°-180°	7787.1	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	3
95°	42	124	42	124	42	49
105°	171	1806	171	1806	171	183
115°	316	1972	316	1972	316	313
125°	440	1560	440	1560	440	392
135°	532	1288	532	1288	532	411
145°	621	1077	621	1077	621	389
155°	709	914	709	914	709	326
165°	773	843	773	843	773	218
175°	806	810	806	810	806	76
180°	809	809	809	809	809	



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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	10.9	6.0	5.8	5.8	5.8	6.0	10.9	5.8	9.7	7.2
90°	0.0	2.9	7.0	6.0	6.0	6.0	7.0	2.9	0.0	2.9	7.0
92.5°	14.3	51.5	164.6	54.3	41.8	54.3	164.6	51.5	14.3	51.5	164.6
95°	41.8	127.4	567.3	202.3	124.4	202.3	567.3	127.4	41.8	127.4	567.3
97.5°	78.6	165.8	962.9	586.4	357.9	586.4	962.9	165.8	78.6	165.8	962.9
100°	102.5	188.2	1111.8	991.4	643.0	991.4	1111.8	188.2	102.5	188.2	1111.8
102.5°	129.6	212.1	1093.5	1466.7	1115.2	1466.7	1093.5	212.1	129.6	212.1	1093.5
105°	171.2	247.1	998.3	1906.7	1805.5	1906.7	998.3	247.1	171.2	247.1	998.3
107.5°	216.2	287.6	907.9	1944.9	2052.2	1944.9	907.9	287.6	216.2	287.6	907.9
110°	248.8	314.0	864.9	1897.5	2091.2	1897.5	864.9	314.0	248.8	314.0	864.9



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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°	275.9	340.3	837.9	1812.0	2061.7	1812.0	837.9	340.3	275.9	340.3	837.9
115°	316.5	377.8	813.2	1675.9	1971.7	1675.9	813.2	377.8	316.5	377.8	813.2
117.5°	358.3	413.6	803.6	1551.2	1845.7	1551.2	803.6	413.6	358.3	413.6	803.6
120°	382.2	436.7	801.2	1474.6	1759.7	1474.6	801.2	436.7	382.2	436.7	801.2
122.5°	405.3	459.0	802.0	1408.1	1673.7	1408.1	802.0	459.0	405.3	459.0	802.0
125°	439.9	490.5	802.2	1323.2	1559.7	1323.2	802.2	490.5	439.9	490.5	802.2
127.5°	469.6	521.4	802.0	1259.6	1456.8	1259.6	802.0	521.4	469.6	521.4	802.0
130°	488.7	541.3	801.2	1223.3	1399.4	1223.3	801.2	541.3	488.7	541.3	801.2
132.5°	505.4	560.3	800.4	1189.6	1354.8	1189.6	800.4	560.3	505.4	560.3	800.4
135°	531.5	587.0	798.3	1142.0	1288.0	1142.0	798.3	587.0	531.5	587.0	798.3
137.5°	557.0	612.8	796.1	1093.6	1223.3	1093.6	796.1	612.8	557.0	612.8	796.1
140°	575.3	628.8	795.3	1060.8	1183.4	1060.8	795.3	628.8	575.3	628.8	795.3
142.5°	592.8	644.0	795.3	1029.5	1138.9	1029.5	795.3	644.0	592.8	644.0	795.3
145°	621.1	666.8	796.3	983.5	1076.9	983.5	796.3	666.8	621.1	666.8	796.3
147.5°	648.6	688.3	797.7	944.4	1016.6	944.4	797.7	688.3	648.6	688.3	797.7
150°	666.9	701.9	799.2	921.1	982.4	921.1	799.2	701.9	666.9	701.9	799.2
152.5°	685.2	714.0	800.0	903.3	952.1	903.3	800.0	714.0	685.2	714.0	800.0
155°	708.7	732.0	801.2	880.6	913.7	880.6	801.2	732.0	708.7	732.0	801.2
157.5°	731.0	747.7	802.4	863.9	887.0	863.9	802.4	747.7	731.0	747.7	802.4
160°	744.5	758.1	803.2	853.4	871.9	853.4	803.2	758.1	744.5	758.1	803.2
162.5°	756.4	767.0	803.2	844.6	858.4	844.6	803.2	767.0	756.4	767.0	803.2
165°	773.4	780.2	803.2	833.3	843.0	833.3	803.2	780.2	773.4	780.2	803.2
167.5°	785.3	789.6	803.4	824.8	829.9	824.8	803.4	789.6	785.3	789.6	803.4
170°	793.3	795.2	804.2	819.2	821.1	819.2	804.2	795.2	793.3	795.2	804.2
172.5°	798.9	800.0	805.8	816.0	815.6	816.0	805.8	800.0	798.9	800.0	805.8
175°	806.2	806.2	806.2	812.1	810.2	812.1	806.2	806.2	806.2	806.2	806.2
177.5°	809.2	808.4	807.6	811.5	808.4	811.5	807.6	808.4	809.2	808.4	807.6
180°	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2	809.2



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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°	7.0	7.0	5.8	7.2	8.6	5.8
90°	6.0	6.0	6.0	7.0	2.9	0.0
92.5°	54.3	41.8	54.3	164.6	51.5	14.3
95°	202.3	124.4	202.3	567.3	127.4	41.8
97.5°	586.4	357.9	586.4	962.9	165.8	78.6
100°	991.4	643.0	991.4	1111.8	188.2	102.5
102.5°	1466.7	1115.2	1466.7	1093.5	212.1	129.6
105°	1906.7	1805.5	1906.7	998.3	247.1	171.2
107.5°	1944.9	2052.2	1944.9	907.9	287.6	216.2
110°	1897.5	2091.2	1897.5	864.9	314.0	248.8



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1812.0	2061.7	1812.0	837.9	340.3	275.9
115°	1675.9	1971.7	1675.9	813.2	377.8	316.5
117.5°	1551.2	1845.7	1551.2	803.6	413.6	358.3
120°	1474.6	1759.7	1474.6	801.2	436.7	382.2
122.5°	1408.1	1673.7	1408.1	802.0	459.0	405.3
125°	1323.2	1559.7	1323.2	802.2	490.5	439.9
127.5°	1259.6	1456.8	1259.6	802.0	521.4	469.6
130°	1223.3	1399.4	1223.3	801.2	541.3	488.7
132.5°	1189.6	1354.8	1189.6	800.4	560.3	505.4
135°	1142.0	1288.0	1142.0	798.3	587.0	531.5
137.5°	1093.6	1223.3	1093.6	796.1	612.8	557.0
140°	1060.8	1183.4	1060.8	795.3	628.8	575.3
142.5°	1029.5	1138.9	1029.5	795.3	644.0	592.8
145°	983.5	1076.9	983.5	796.3	666.8	621.1
147.5°	944.4	1016.6	944.4	797.7	688.3	648.6
150°	921.1	982.4	921.1	799.2	701.9	666.9
152.5°	903.3	952.1	903.3	800.0	714.0	685.2
155°	880.6	913.7	880.6	801.2	732.0	708.7
157.5°	863.9	887.0	863.9	802.4	747.7	731.0
160°	853.4	871.9	853.4	803.2	758.1	744.5
162.5°	844.6	858.4	844.6	803.2	767.0	756.4
165°	833.3	843.0	833.3	803.2	780.2	773.4
167.5°	824.8	829.9	824.8	803.4	789.6	785.3
170°	819.2	821.1	819.2	804.2	795.2	793.3
172.5°	816.0	815.6	816.0	805.8	800.0	798.9
175°	812.1	810.2	812.1	806.2	806.2	806.2
177.5°	811.5	808.4	811.5	807.6	808.4	809.2
180°	809.2	809.2	809.2	809.2	809.2	809.2

TEST NUMBER: P853804

CATALOG NUMBER: SQ2-FA-125U-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	10.33	11.01	11.41	12.08	13.55	9.18	9.86	10.27	10.94	12.40
	3H	11.02	11.63	12.11	12.71	14.19	15.33	15.93	16.42	17.02	18.50
	4H	11.42	12.00	12.53	13.08	14.57	16.60	17.17	17.70	18.26	19.75
	6H	11.77	12.30	12.89	13.39	14.89	17.20	17.73	18.31	18.82	20.32
	8H	11.89	12.39	13.00	13.49	14.99	17.32	17.82	18.43	18.92	20.42
	12H	11.95	12.43	13.07	13.53	15.04	17.35	17.83	18.47	18.93	20.45
4H	2H	10.71	11.28	11.82	12.37	13.86	9.70	10.28	10.81	11.36	12.85
	3H	11.69	12.18	12.81	13.29	14.79	16.02	16.50	17.13	17.61	19.11
	4H	12.25	12.70	13.37	13.80	15.32	17.46	17.91	18.58	19.01	20.53
	6H	12.72	13.10	13.85	14.23	15.74	18.19	18.57	19.32	19.70	21.21
	8H	12.89	13.25	14.02	14.36	15.89	18.36	18.71	19.49	19.83	21.36
	12H	13.00	13.32	14.14	14.45	15.98	18.41	18.73	19.56	19.86	21.40
8H	4H	13.35	13.70	14.47	14.81	16.34	17.58	17.93	18.71	19.05	20.58
	6H	13.95	14.24	15.10	15.40	16.93	18.45	18.75	19.60	19.90	21.43
	8H	14.19	14.44	15.34	15.58	17.13	18.71	18.96	19.86	20.10	21.64
	12H	14.35	14.57	15.51	15.71	17.29	18.82	19.04	19.98	20.18	21.76
12H	4H	13.48	13.80	14.63	14.93	16.47	17.53	17.85	18.68	18.98	20.52
	6H	14.23	14.48	15.38	15.62	17.17	18.47	18.72	19.62	19.86	21.40
	8H	14.52	14.74	15.67	15.87	17.46	18.74	18.96	19.89	20.09	21.68