

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: P853791

Luminaire Tested: SQ2-FA-100U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853791
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-930-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

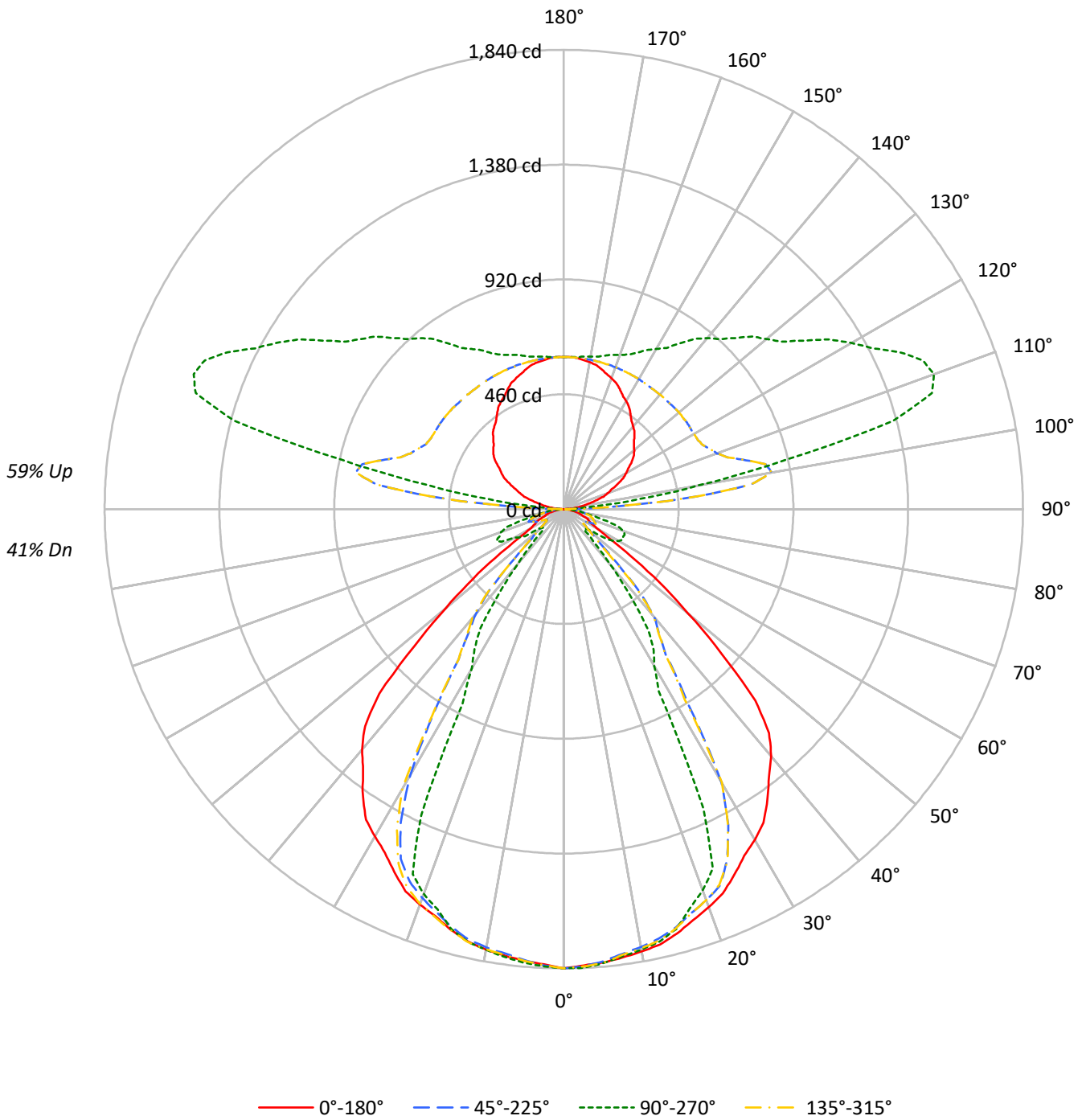
Lumens per Lamp: N/A
Luminaire Lumens: 6482.5 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	29705	29705	29705	29705
5°	29548	29593	29436	29571
10°	29503	29390	29390	29390
15°	29407	29107	29175	29107
20°	29180	27940	28965	28203
25°	28796	23580	28598	24075
30°	28532	13528	28221	13711
35°	28032	11623	27675	11458
40°	27255	6112	26494	6053
45°	24775	2630	23889	2630
50°	16345	3172	15508	2961
55°	9140	5858	8670	5312
60°	4928	8244	4837	7392
65°	4348	10017	4558	11396
70°	4060	11986	3866	12642
75°	3805	10299	3893	10649
80°	3226	7355	3226	7736
85°	2834	4113	2575	4891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 24775 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.1	2.7
10°-20°	491.2	7.6
20°-30°	669.7	10.3
30°-40°	562.8	8.7
40°-50°	319.7	4.9
50°-60°	169.6	2.6
60°-70°	156.2	2.4
70°-80°	114.6	1.8
80°-90°	31.0	0.5
90°-100°	254.6	3.9
100°-110°	770.1	11.9
110°-120°	751.8	11.6
120°-130°	614.3	9.5
130°-140°	501.5	7.7
140°-150°	390.4	6.0
150°-160°	281.4	4.3
160°-170°	172.3	2.7
170°-180°	58.2	0.9
0°-30°	1334.0	20.6
0°-40°	1896.8	29.3
0°-60°	2386.1	36.8
0°-90°	2687.9	41.5
90°-120°	1776.6	27.4
90°-150°	3282.7	50.6
90°-180°	3795.0	58.5
0°-180°	6482.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1840	1840	1840	1840	1840	
5°	1823	1826	1816	1824	1823	173
15°	1759	1741	1745	1741	1759	496
25°	1616	1324	1605	1351	1616	745
35°	1422	590	1404	581	1422	888
45°	1085	115	1046	115	1085	793
55°	325	208	308	189	325	313
65°	114	262	119	298	114	114
75°	61	165	62	171	61	63
85°	15	22	14	26	15	17
90°	0	6	0	6	0	2
95°	32	112	32	112	32	37
105°	134	1365	134	1365	134	141
115°	238	1486	238	1486	238	236
125°	333	1176	333	1176	333	296
135°	399	970	399	970	399	309
145°	466	811	466	811	466	292
155°	531	690	531	690	531	244
165°	581	636	581	636	581	164
175°	608	612	608	612	608	58
180°	610	610	610	610	610	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1829.8	1856.9	1833.1	1830.0	1839.8	1837.6	1834.2	1847.1	1825.4	1847.1	1829.8
5°	1823.1	1854.3	1819.0	1809.6	1825.9	1815.1	1824.5	1843.3	1816.2	1840.6	1813.4
7.5°	1811.8	1839.4	1797.0	1791.0	1807.0	1797.5	1801.5	1827.6	1804.8	1820.8	1796.2
10°	1799.5	1824.0	1781.5	1777.7	1792.6	1783.1	1787.1	1814.3	1792.6	1807.5	1782.9
12.5°	1786.2	1805.2	1762.6	1761.0	1773.7	1767.5	1769.3	1792.2	1774.8	1789.8	1766.2
15°	1759.3	1776.9	1734.3	1727.7	1741.3	1735.8	1738.5	1759.0	1745.4	1754.9	1734.3
17.5°	1726.0	1740.1	1697.7	1677.7	1678.3	1685.1	1697.7	1722.4	1710.2	1722.7	1693.5
20°	1698.3	1714.5	1667.7	1628.8	1626.1	1632.9	1667.7	1692.6	1685.8	1699.3	1658.0
22.5°	1666.1	1676.9	1634.4	1568.7	1559.5	1566.3	1630.0	1659.4	1656.9	1666.1	1614.7
25°	1616.4	1627.3	1549.8	1455.2	1323.6	1447.1	1552.6	1605.3	1605.3	1613.4	1545.6
27.5°	1565.9	1566.2	1426.0	934.6	824.4	900.9	1424.1	1538.4	1551.5	1547.4	1414.1
30°	1530.4	1520.9	1264.0	755.5	725.6	744.6	1265.4	1492.0	1513.7	1498.8	1232.1
32.5°	1489.3	1462.4	933.2	694.6	670.1	687.0	902.4	1436.9	1474.9	1442.6	969.0
35°	1422.2	1351.6	711.8	614.1	589.7	611.4	706.2	1328.1	1404.1	1317.3	735.4
37.5°	1349.7	1074.3	626.6	489.1	436.5	478.6	623.5	1062.8	1320.3	1038.1	626.0
40°	1293.1	844.1	563.3	357.8	290.0	337.5	559.1	805.3	1257.0	866.3	549.4
42.5°	1217.6	741.5	452.3	227.3	177.9	208.0	433.7	724.3	1179.3	750.7	437.3
45°	1085.0	637.3	267.8	124.7	115.2	120.6	247.0	625.6	1046.2	612.0	273.3
47.5°	859.4	486.1	172.0	106.0	116.3	106.0	166.8	470.6	811.7	469.8	171.8
50°	650.7	379.4	133.2	107.3	126.3	107.3	129.0	366.4	617.4	400.4	131.8
52.5°	482.0	317.0	108.8	117.6	151.8	119.8	105.7	308.6	457.6	323.0	103.0
55°	324.7	248.7	87.4	155.2	208.1	159.3	87.4	241.5	308.0	238.8	84.6
57.5°	205.9	185.0	88.5	199.5	237.5	203.3	89.9	178.3	197.6	179.1	77.7
60°	152.6	145.8	98.5	211.9	255.3	214.6	99.9	140.4	149.8	139.0	83.2
62.5°	126.0	114.9	118.5	229.5	265.3	223.5	121.0	109.5	131.0	104.9	92.1
65°	113.8	74.4	140.1	232.4	262.2	232.4	141.5	70.5	119.3	75.9	124.9
67.5°	102.7	55.2	135.4	230.8	263.9	231.3	132.1	52.7	98.5	51.3	127.6
70°	86.0	49.4	127.6	234.9	253.9	226.8	127.6	47.9	81.9	46.6	149.8
72.5°	71.6	46.9	118.8	216.9	225.0	208.8	119.9	46.6	71.9	42.0	141.0
75°	61.0	46.1	113.8	173.2	165.1	165.1	111.0	44.8	62.4	42.1	109.6
77.5°	45.8	40.9	94.3	113.1	106.8	106.8	92.7	39.5	43.6	37.1	89.1
80°	34.7	37.4	77.7	83.2	79.1	79.1	74.9	36.0	34.7	34.7	73.5
82.5°	26.9	31.8	59.9	61.0	58.0	56.9	58.3	31.5	26.9	29.1	56.9
85°	15.3	22.0	31.9	26.3	22.2	20.8	30.5	20.7	13.9	20.7	30.5
87.5°	5.5	10.3	6.7	5.8	5.6	5.8	6.7	10.3	5.5	9.2	7.8
90°	0.0	1.9	11.5	6.7	5.7	6.7	11.5	1.9	0.0	1.9	11.5
92.5°	10.7	43.3	155.4	51.6	37.1	51.6	155.4	43.3	10.7	43.3	155.4
95°	31.6	99.9	480.5	177.5	112.0	177.5	480.5	99.9	31.6	99.9	480.5
97.5°	61.1	127.1	757.3	501.1	305.1	501.1	757.3	127.1	61.1	127.1	757.3
100°	79.4	144.0	846.1	818.0	549.4	818.0	846.1	144.0	79.4	144.0	846.1
102.5°	100.1	162.4	827.8	1147.3	914.7	1147.3	827.8	162.4	100.1	162.4	827.8
105°	134.0	188.3	756.2	1436.0	1364.9	1436.0	756.2	188.3	134.0	188.3	756.2
107.5°	166.2	218.0	687.2	1464.6	1547.0	1464.6	687.2	218.0	166.2	218.0	687.2
110°	187.6	237.2	652.8	1428.6	1578.4	1428.6	652.8	237.2	187.6	237.2	652.8



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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°	208.3	256.4	632.1	1368.3	1557.7	1368.3	632.1	256.4	208.3	256.4	632.1
115°	238.3	284.2	611.6	1265.6	1486.5	1265.6	611.6	284.2	238.3	284.2	611.6
117.5°	268.2	311.6	604.4	1169.4	1395.5	1169.4	604.4	311.6	268.2	311.6	604.4
120°	288.1	329.3	602.1	1113.3	1330.5	1113.3	602.1	329.3	288.1	329.3	602.1
122.5°	306.5	345.4	602.1	1063.9	1264.6	1063.9	602.1	345.4	306.5	345.4	602.1
125°	333.1	369.6	603.0	999.5	1176.3	999.5	603.0	369.6	333.1	369.6	603.0
127.5°	354.7	392.5	602.1	950.8	1101.7	950.8	602.1	392.5	354.7	392.5	602.1
130°	368.5	407.8	602.1	922.9	1059.6	922.9	602.1	407.8	368.5	407.8	602.1
132.5°	380.8	420.8	601.3	897.4	1023.6	897.4	601.3	420.8	380.8	420.8	601.3
135°	399.1	441.3	599.2	862.0	969.6	862.0	599.2	441.3	399.1	441.3	599.2
137.5°	419.6	459.7	599.2	824.1	923.8	824.1	599.2	459.7	419.6	459.7	599.2
140°	432.6	471.9	599.2	799.5	894.0	799.5	599.2	471.9	432.6	471.9	599.2
142.5°	445.7	483.5	598.4	777.0	859.5	777.0	598.4	483.5	445.7	483.5	598.4
145°	466.1	500.8	599.2	741.5	810.7	741.5	599.2	500.8	466.1	500.8	599.2
147.5°	486.6	516.0	600.3	712.2	765.3	712.2	600.3	516.0	486.6	516.0	600.3
150°	499.6	526.8	601.1	695.9	740.8	695.9	601.1	526.8	499.6	526.8	601.1
152.5°	511.9	536.0	601.9	681.9	718.6	681.9	601.9	536.0	511.9	536.0	601.9
155°	531.2	549.0	603.0	664.8	690.1	664.8	603.0	549.0	531.2	549.0	603.0
157.5°	548.1	562.5	604.2	652.2	669.8	652.2	604.2	562.5	548.1	562.5	604.2
160°	558.0	570.2	604.9	644.5	657.6	644.5	604.9	570.2	558.0	570.2	604.9
162.5°	568.0	577.1	605.7	637.5	648.4	637.5	605.7	577.1	568.0	577.1	605.7
165°	581.0	587.5	605.9	629.0	636.5	629.0	605.9	587.5	581.0	587.5	605.9
167.5°	592.1	595.5	607.0	622.4	625.6	622.4	607.0	595.5	592.1	595.5	607.0
170°	598.2	600.1	607.8	619.3	620.2	619.3	607.8	600.1	598.2	600.1	607.8
172.5°	602.1	603.2	607.8	616.2	616.4	616.2	607.8	603.2	602.1	603.2	607.8
175°	607.8	607.8	608.8	613.5	611.6	613.5	608.8	607.8	607.8	607.8	608.8
177.5°	610.5	609.7	608.9	611.2	609.7	611.2	608.9	609.7	610.5	609.7	608.9
180°	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7	609.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1839.8	1839.8	1839.8	1839.8	1839.8	1839.8
2.5°	1825.5	1833.1	1833.1	1828.7	1850.4	1829.8
5°	1806.9	1824.5	1816.4	1816.2	1843.5	1823.1
7.5°	1793.8	1810.4	1802.8	1801.2	1828.0	1811.8
10°	1780.4	1792.6	1787.2	1791.2	1815.8	1799.5
12.5°	1761.6	1776.0	1770.5	1776.8	1799.3	1786.2
15°	1729.1	1741.3	1744.0	1746.8	1772.9	1759.3
17.5°	1675.4	1681.3	1694.9	1714.1	1741.2	1726.0
20°	1633.2	1641.4	1649.5	1683.0	1714.5	1698.3
22.5°	1585.3	1582.5	1601.5	1640.8	1680.2	1666.1
25°	1455.9	1351.4	1466.7	1567.8	1620.5	1616.4
27.5°	1013.7	879.7	998.2	1447.1	1557.8	1565.9
30°	797.8	735.4	796.4	1291.7	1511.4	1530.4
32.5°	708.3	665.4	702.6	983.2	1453.0	1489.3
35°	611.2	581.3	611.2	735.4	1338.0	1422.2
37.5°	489.2	428.2	488.1	635.5	1081.7	1349.7
40°	364.5	287.2	353.7	568.9	864.4	1293.1
42.5°	242.9	185.1	229.9	447.9	747.7	1217.6
45°	131.4	115.2	126.0	270.6	610.2	1085.0
47.5°	103.1	109.1	103.1	170.7	466.8	859.4
50°	98.9	117.9	98.9	131.8	386.2	650.7
52.5°	107.8	127.9	106.8	104.1	315.1	482.0
55°	122.2	188.7	123.6	84.6	231.1	324.7
57.5°	174.0	212.3	175.9	80.2	178.0	205.9
60°	178.7	228.9	177.4	84.6	137.7	152.6
62.5°	211.4	283.3	211.1	96.8	102.4	126.0
65°	271.2	298.3	273.9	123.5	73.1	113.8
67.5°	257.4	276.7	254.7	132.4	50.3	102.7
70°	252.9	267.8	250.1	151.2	46.7	86.0
72.5°	235.9	237.8	231.0	140.1	42.0	71.6
75°	182.9	170.7	176.1	120.7	42.1	61.0
77.5°	113.7	108.8	109.6	92.1	37.1	45.8
80°	86.0	83.2	81.9	77.7	34.7	34.7
82.5°	63.8	61.0	59.7	59.9	29.1	26.9
85°	29.1	26.4	25.0	34.7	20.7	15.3
87.5°	6.9	6.7	5.8	7.8	8.1	5.5
90°	6.7	5.7	6.7	11.5	1.9	0.0
92.5°	51.6	37.1	51.6	155.4	43.3	10.7
95°	177.5	112.0	177.5	480.5	99.9	31.6
97.5°	501.1	305.1	501.1	757.3	127.1	61.1
100°	818.0	549.4	818.0	846.1	144.0	79.4
102.5°	1147.3	914.7	1147.3	827.8	162.4	100.1
105°	1436.0	1364.9	1436.0	756.2	188.3	134.0
107.5°	1464.6	1547.0	1464.6	687.2	218.0	166.2
110°	1428.6	1578.4	1428.6	652.8	237.2	187.6



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CATALOG NUMBER: SQ2-FA-100U-075D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1368.3	1557.7	1368.3	632.1	256.4	208.3
115°	1265.6	1486.5	1265.6	611.6	284.2	238.3
117.5°	1169.4	1395.5	1169.4	604.4	311.6	268.2
120°	1113.3	1330.5	1113.3	602.1	329.3	288.1
122.5°	1063.9	1264.6	1063.9	602.1	345.4	306.5
125°	999.5	1176.3	999.5	603.0	369.6	333.1
127.5°	950.8	1101.7	950.8	602.1	392.5	354.7
130°	922.9	1059.6	922.9	602.1	407.8	368.5
132.5°	897.4	1023.6	897.4	601.3	420.8	380.8
135°	862.0	969.6	862.0	599.2	441.3	399.1
137.5°	824.1	923.8	824.1	599.2	459.7	419.6
140°	799.5	894.0	799.5	599.2	471.9	432.6
142.5°	777.0	859.5	777.0	598.4	483.5	445.7
145°	741.5	810.7	741.5	599.2	500.8	466.1
147.5°	712.2	765.3	712.2	600.3	516.0	486.6
150°	695.9	740.8	695.9	601.1	526.8	499.6
152.5°	681.9	718.6	681.9	601.9	536.0	511.9
155°	664.8	690.1	664.8	603.0	549.0	531.2
157.5°	652.2	669.8	652.2	604.2	562.5	548.1
160°	644.5	657.6	644.5	604.9	570.2	558.0
162.5°	637.5	648.4	637.5	605.7	577.1	568.0
165°	629.0	636.5	629.0	605.9	587.5	581.0
167.5°	622.4	625.6	622.4	607.0	595.5	592.1
170°	619.3	620.2	619.3	607.8	600.1	598.2
172.5°	616.2	616.4	616.2	607.8	603.2	602.1
175°	613.5	611.6	613.5	608.8	607.8	607.8
177.5°	611.2	609.7	611.2	608.9	609.7	610.5
180°	609.7	609.7	609.7	609.7	609.7	609.7

TEST NUMBER: P853791

CATALOG NUMBER: SQ2-FA-100U-075D-930-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	10.83	11.54	11.88	12.58	13.97	9.68	10.39	10.73	11.43	12.83
	3H	11.52	12.16	12.58	13.21	14.62	15.83	16.47	16.89	17.51	18.93
	4H	11.93	12.53	12.99	13.58	15.00	17.10	17.70	18.17	18.75	20.18
	6H	12.28	12.83	13.35	13.88	15.32	17.70	18.26	18.78	19.31	20.74
	8H	12.39	12.92	13.47	13.99	15.41	17.82	18.35	18.90	19.42	20.85
	12H	12.46	12.96	13.54	14.02	15.47	17.86	18.36	18.95	19.42	20.87
4H	2H	11.21	11.81	12.29	12.86	14.29	10.21	10.81	11.28	11.86	13.28
	3H	12.20	12.70	13.28	13.78	15.21	16.52	17.03	17.60	18.10	19.54
	4H	12.76	13.22	13.84	14.29	15.74	17.97	18.43	19.06	19.50	20.96
	6H	13.23	13.63	14.32	14.72	16.17	18.70	19.10	19.80	20.19	21.64
	8H	13.40	13.77	14.49	14.85	16.32	18.87	19.24	19.96	20.32	21.78
	12H	13.51	13.84	14.62	14.94	16.41	18.93	19.26	20.03	20.35	21.82
8H	4H	13.85	14.22	14.95	15.30	16.77	18.09	18.46	19.18	19.54	21.00
	6H	14.46	14.76	15.57	15.89	17.35	18.97	19.27	20.08	20.39	21.85
	8H	14.70	14.96	15.82	16.07	17.55	19.22	19.48	20.34	20.59	22.07
	12H	14.86	15.09	15.98	16.20	17.72	19.33	19.56	20.45	20.67	22.19
12H	4H	13.99	14.33	15.10	15.42	16.89	18.04	18.38	19.15	19.47	20.94
	6H	14.74	15.00	15.85	16.11	17.59	18.98	19.24	20.09	20.35	21.83
	8H	15.03	15.26	16.15	16.36	17.88	19.25	19.48	20.37	20.58	22.11