

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: P853794

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853794
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

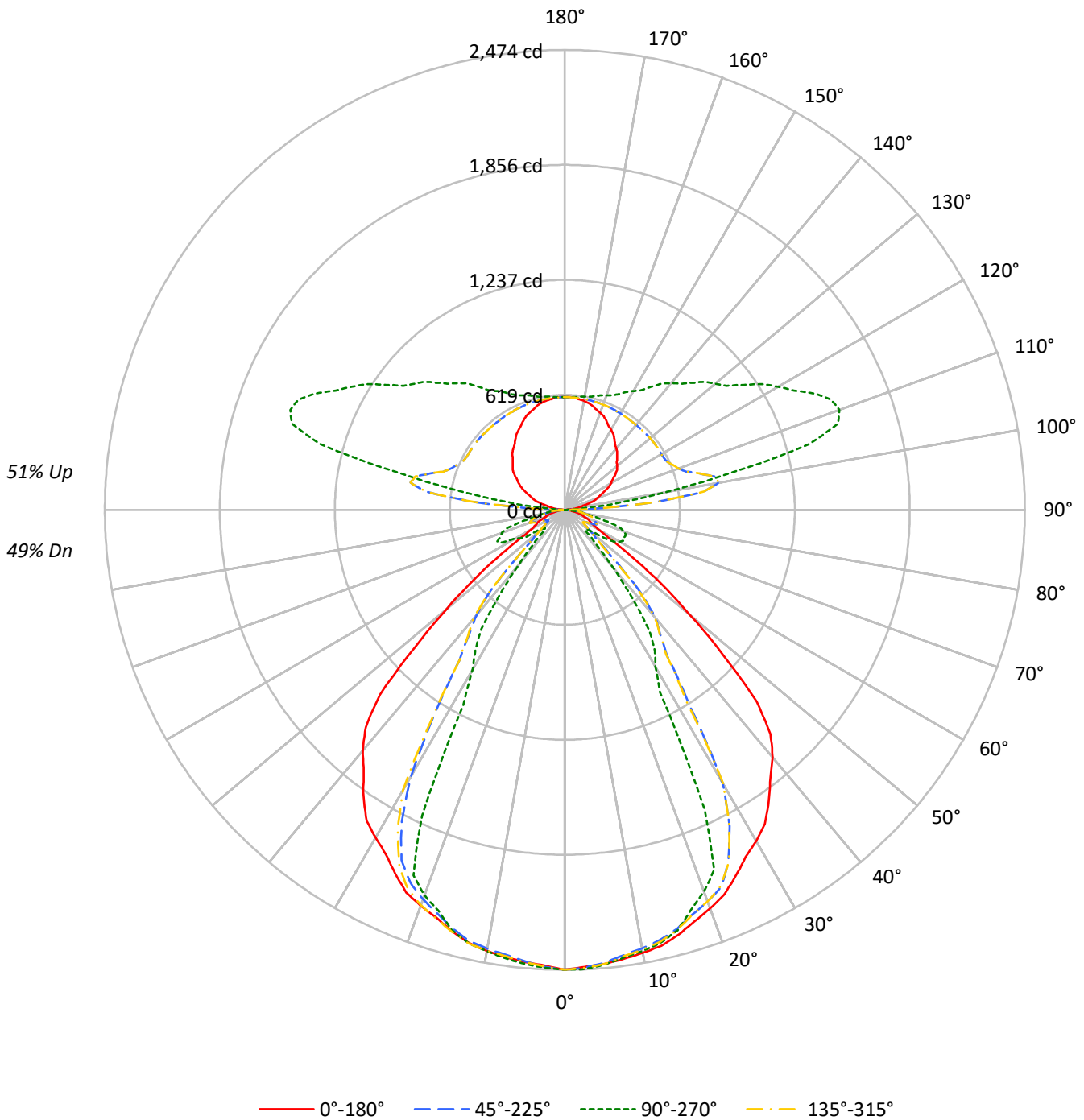
Lumens per Lamp: N/A
Luminaire Lumens: 7391.1 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.2
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

TEST NUMBER: P853794

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

Luminous Intensity Polar Plot





TEST NUMBER: P853794

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

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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	99	95	91	88	91	87	84	82	74	72	70	62	60	59	50	49	49	43
2	91	84	79	74	84	78	73	69	66	63	60	56	53	51	46	44	43	38
3	84	75	69	63	77	70	64	60	60	56	52	51	48	45	42	40	38	34
4	77	68	60	55	71	63	57	52	54	50	46	46	43	40	39	36	34	31
5	72	61	54	48	66	57	51	46	49	44	41	42	39	36	36	33	31	28
6	67	56	48	43	62	52	45	41	45	40	36	39	35	32	33	30	28	25
7	62	51	43	38	57	48	41	37	42	37	33	36	32	29	31	28	26	23
8	58	47	39	35	54	44	37	33	38	33	30	33	30	27	29	26	24	21
9	54	43	36	31	50	40	34	30	36	31	27	31	27	25	27	24	22	20
10	51	40	33	29	47	38	31	27	33	28	25	29	25	23	25	22	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	39938	39938	39938	39938
5°	39728	39789	39577	39759
10°	39667	39515	39515	39515
15°	39539	39134	39228	39134
20°	39232	37565	38943	37917
25°	38717	31705	38450	32370
30°	38361	18189	37943	18433
35°	37688	15626	37211	15406
40°	36644	8218	35622	8140
45°	33310	3535	32118	3535
50°	21976	4265	20851	3984
55°	12287	7876	11657	7142
60°	6626	11083	6507	9939
65°	5845	13471	6128	15324
70°	5462	16117	5198	16995
75°	5122	13849	5234	14317
80°	4333	9884	4333	10404
85°	3798	5521	3464	6558

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 33310 cd/sqm



TEST NUMBER: P853794

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	232.8	3.1
10°-20°	660.4	8.9
20°-30°	900.4	12.2
30°-40°	756.7	10.2
40°-50°	429.8	5.8
50°-60°	228.0	3.1
60°-70°	210.0	2.8
70°-80°	154.1	2.1
80°-90°	41.3	0.6
90°-100°	253.5	3.4
100°-110°	766.7	10.4
110°-120°	748.4	10.1
120°-130°	611.6	8.3
130°-140°	499.2	6.8
140°-150°	388.6	5.3
150°-160°	280.2	3.8
160°-170°	171.5	2.3
170°-180°	57.9	0.8
0°-30°	1793.6	24.3
0°-40°	2550.3	34.5
0°-60°	3208.1	43.4
0°-90°	3613.6	48.9
90°-120°	1768.6	23.9
90°-150°	3268.0	44.2
90°-180°	3778.0	51.1
0°-180°	7391.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2474	2474	2474	2474	2474	
5°	2451	2455	2442	2453	2451	233
15°	2365	2341	2347	2341	2365	667
25°	2173	1780	2158	1817	2173	1002
35°	1912	793	1888	782	1912	1194
45°	1459	155	1407	155	1459	1067
55°	436	280	414	254	436	420
65°	153	353	160	401	153	154
75°	82	222	84	230	82	85
85°	20	30	19	35	20	23
90°	0	6	0	6	0	2
95°	31	112	31	112	31	37
105°	133	1359	133	1359	133	140
115°	237	1480	237	1480	237	235
125°	332	1171	332	1171	332	295
135°	397	965	397	965	397	308
145°	464	807	464	807	464	291
155°	529	687	529	687	529	243
165°	578	634	578	634	578	163
175°	605	609	605	609	605	57
180°	607	607	607	607	607	



TEST NUMBER: P853794

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

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6
2.5°	2460.2	2496.7	2464.7	2460.5	2473.6	2470.7	2466.1	2483.4	2454.2	2483.4	2460.2
5°	2451.2	2493.2	2445.6	2433.1	2455.0	2440.4	2453.1	2478.4	2441.9	2474.7	2438.2
7.5°	2435.9	2473.1	2416.2	2408.1	2429.6	2416.8	2422.1	2457.2	2426.6	2448.1	2415.0
10°	2419.5	2452.3	2395.3	2390.1	2410.2	2397.4	2402.7	2439.4	2410.2	2430.2	2397.1
12.5°	2401.6	2427.1	2369.9	2367.7	2384.8	2376.4	2378.8	2409.7	2386.3	2406.4	2374.7
15°	2365.4	2389.1	2331.8	2322.9	2341.2	2333.9	2337.4	2365.0	2346.8	2359.5	2331.8
17.5°	2320.6	2339.6	2282.6	2255.7	2256.5	2265.6	2282.6	2315.8	2299.4	2316.2	2277.0
20°	2283.3	2305.2	2242.3	2190.0	2186.3	2195.4	2242.3	2275.7	2266.5	2284.8	2229.2
22.5°	2240.1	2254.6	2197.5	2109.2	2096.8	2105.9	2191.6	2231.0	2227.7	2240.1	2171.0
25°	2173.3	2187.9	2083.7	1956.6	1779.7	1945.6	2087.5	2158.3	2158.3	2169.3	2078.1
27.5°	2105.4	2105.7	1917.3	1256.6	1108.5	1211.3	1914.7	2068.5	2086.0	2080.5	1901.3
30°	2057.6	2044.8	1699.4	1015.8	975.6	1001.2	1701.3	2006.0	2035.2	2015.2	1656.5
32.5°	2002.4	1966.3	1254.7	933.9	901.0	923.6	1213.3	1931.9	1983.0	1939.6	1302.8
35°	1912.1	1817.3	957.0	825.7	792.8	822.0	949.5	1785.7	1887.9	1771.1	988.7
37.5°	1814.7	1444.5	842.4	657.6	586.9	643.4	838.3	1429.0	1775.2	1395.8	841.7
40°	1738.6	1134.9	757.4	481.1	389.9	453.7	751.8	1082.7	1690.1	1164.8	738.7
42.5°	1637.1	996.9	608.1	305.5	239.2	279.6	583.1	973.9	1585.6	1009.3	588.0
45°	1458.8	856.9	360.0	167.6	154.8	162.1	332.1	841.1	1406.6	822.9	367.5
47.5°	1155.5	653.5	231.3	142.5	156.3	142.5	224.2	632.7	1091.3	631.6	230.9
50°	874.9	510.1	179.1	144.2	169.8	144.2	173.5	492.7	830.1	538.3	177.2
52.5°	648.1	426.3	146.3	158.1	204.1	161.0	142.1	415.0	615.2	434.3	138.4
55°	436.5	334.4	117.5	208.7	279.8	214.2	117.5	324.8	414.1	321.1	113.8
57.5°	276.8	248.7	119.0	268.3	319.4	273.4	120.9	239.7	265.6	240.8	104.5
60°	205.2	196.1	132.4	284.9	343.2	288.5	134.3	188.7	201.5	186.9	111.9
62.5°	169.4	154.4	159.3	308.5	356.7	300.5	162.7	147.3	176.1	141.1	123.9
65°	153.0	100.1	188.4	312.4	352.6	312.4	190.3	94.8	160.4	102.1	167.9
67.5°	138.0	74.2	182.1	310.3	354.8	311.0	177.6	70.8	132.4	69.0	171.6
70°	115.7	66.4	171.6	315.8	341.4	304.9	171.6	64.5	110.1	62.6	201.5
72.5°	96.3	63.1	159.7	291.6	302.6	280.7	161.2	62.7	96.6	56.5	189.5
75°	82.1	62.0	153.0	232.9	222.0	222.0	149.2	60.2	83.9	56.6	147.4
77.5°	61.6	55.0	126.9	152.0	143.6	143.6	124.6	53.1	58.6	49.8	119.8
80°	46.6	50.3	104.5	111.8	106.3	106.3	100.7	48.5	46.6	46.6	98.9
82.5°	36.2	42.8	80.6	82.0	78.0	76.5	78.3	42.4	36.2	39.1	76.5
85°	20.5	29.6	42.9	35.3	29.8	28.0	41.0	27.8	18.7	27.8	41.0
87.5°	7.5	13.7	8.3	7.3	7.1	7.3	8.3	13.7	7.5	12.2	9.7
90°	0.0	1.9	11.4	6.6	5.7	6.6	11.4	1.9	0.0	1.9	11.4
92.5°	10.7	43.1	154.7	51.3	37.0	51.3	154.7	43.1	10.7	43.1	154.7
95°	31.4	99.5	478.3	176.7	111.5	176.7	478.3	99.5	31.4	99.5	478.3
97.5°	60.8	126.6	753.9	498.9	303.8	498.9	753.9	126.6	60.8	126.6	753.9
100°	79.1	143.4	842.3	814.3	546.9	814.3	842.3	143.4	79.1	143.4	842.3
102.5°	99.7	161.7	824.0	1142.2	910.5	1142.2	824.0	161.7	99.7	161.7	824.0
105°	133.4	187.4	752.8	1429.6	1358.8	1429.6	752.8	187.4	133.4	187.4	752.8
107.5°	165.4	217.0	684.1	1458.0	1540.0	1458.0	684.1	217.0	165.4	217.0	684.1
110°	186.8	236.1	649.8	1422.2	1571.2	1422.2	649.8	236.1	186.8	236.1	649.8



TEST NUMBER: P853794

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

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
112.5°	207.3	255.2	629.3	1362.1	1550.7	1362.1	629.3	255.2	207.3	255.2	629.3
115°	237.3	282.9	608.9	1259.9	1479.8	1259.9	608.9	282.9	237.3	282.9	608.9
117.5°	267.0	310.2	601.6	1164.2	1389.3	1164.2	601.6	310.2	267.0	310.2	601.6
120°	286.8	327.8	599.3	1108.3	1324.5	1108.3	599.3	327.8	286.8	327.8	599.3
122.5°	305.1	343.9	599.3	1059.2	1258.9	1059.2	599.3	343.9	305.1	343.9	599.3
125°	331.6	367.9	600.3	995.0	1171.1	995.0	600.3	367.9	331.6	367.9	600.3
127.5°	353.1	390.8	599.3	946.5	1096.7	946.5	599.3	390.8	353.1	390.8	599.3
130°	366.8	406.0	599.3	918.8	1054.8	918.8	599.3	406.0	366.8	406.0	599.3
132.5°	379.0	418.9	598.6	893.4	1019.0	893.4	598.6	418.9	379.0	418.9	598.6
135°	397.3	439.3	596.5	858.1	965.2	858.1	596.5	439.3	397.3	439.3	596.5
137.5°	417.7	457.6	596.5	820.4	919.7	820.4	596.5	457.6	417.7	457.6	596.5
140°	430.7	469.8	596.5	795.9	890.0	795.9	596.5	469.8	430.7	469.8	596.5
142.5°	443.6	481.3	595.7	773.5	855.7	773.5	595.7	481.3	443.6	481.3	595.7
145°	464.0	498.5	596.5	738.1	807.1	738.1	596.5	498.5	464.0	498.5	596.5
147.5°	484.4	513.7	597.6	709.0	761.9	709.0	597.6	513.7	484.4	513.7	597.6
150°	497.4	524.4	598.4	692.8	737.5	692.8	598.4	524.4	497.4	524.4	598.4
152.5°	509.6	533.6	599.2	678.9	715.4	678.9	599.2	533.6	509.6	533.6	599.2
155°	528.8	546.5	600.3	661.8	687.0	661.8	600.3	546.5	528.8	546.5	600.3
157.5°	545.6	559.9	601.4	649.3	666.8	649.3	601.4	559.9	545.6	559.9	601.4
160°	555.5	567.6	602.2	641.6	654.6	641.6	602.2	567.6	555.5	567.6	602.2
162.5°	565.4	574.6	603.0	634.7	645.5	634.7	603.0	574.6	565.4	574.6	603.0
165°	578.4	584.9	603.2	626.2	633.6	626.2	603.2	584.9	578.4	584.9	603.2
167.5°	589.4	592.8	604.3	619.6	622.8	619.6	604.3	592.8	589.4	592.8	604.3
170°	595.5	597.4	605.1	616.5	617.4	616.5	605.1	597.4	595.5	597.4	605.1
172.5°	599.3	600.5	605.1	613.4	613.6	613.4	605.1	600.5	599.3	600.5	605.1
175°	605.1	605.1	606.0	610.7	608.9	610.7	606.0	605.1	605.1	605.1	606.0
177.5°	607.7	607.0	606.2	608.5	607.0	608.5	606.2	607.0	607.7	607.0	606.2
180°	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0	607.0



TEST NUMBER: P853794

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2473.6	2473.6	2473.6	2473.6	2473.6	2473.6
2.5°	2454.4	2464.7	2464.7	2458.7	2487.9	2460.2
5°	2429.4	2453.1	2442.1	2441.9	2478.6	2451.2
7.5°	2411.8	2434.1	2423.8	2421.8	2457.8	2435.9
10°	2393.8	2410.2	2402.9	2408.3	2441.4	2419.5
12.5°	2368.5	2387.8	2380.5	2388.9	2419.1	2401.6
15°	2324.7	2341.2	2344.8	2348.6	2383.7	2365.4
17.5°	2252.5	2260.6	2278.8	2304.6	2341.1	2320.6
20°	2195.9	2206.8	2217.8	2262.8	2305.2	2283.3
22.5°	2131.4	2127.8	2153.3	2206.1	2259.0	2240.1
25°	1957.4	1817.0	1972.0	2108.0	2178.7	2173.3
27.5°	1362.9	1182.7	1342.1	1945.7	2094.4	2105.4
30°	1072.6	988.7	1070.8	1736.8	2032.1	2057.6
32.5°	952.3	894.7	944.7	1321.9	1953.5	2002.4
35°	821.8	781.6	821.8	988.7	1799.0	1912.1
37.5°	657.8	575.7	656.3	854.4	1454.3	1814.7
40°	490.1	386.2	475.5	764.8	1162.2	1738.6
42.5°	326.6	248.9	309.0	602.2	1005.3	1637.1
45°	176.7	154.8	169.4	363.8	820.4	1458.8
47.5°	138.6	146.6	138.6	229.5	627.6	1155.5
50°	133.0	158.6	133.0	177.2	519.2	874.9
52.5°	145.0	172.0	143.5	139.9	423.7	648.1
55°	164.3	253.7	166.2	113.8	310.7	436.5
57.5°	234.0	285.4	236.5	107.8	239.3	276.8
60°	240.3	307.8	238.5	113.8	185.1	205.2
62.5°	284.3	380.9	283.9	130.2	137.6	169.4
65°	364.6	401.1	368.2	166.0	98.2	153.0
67.5°	346.1	372.0	342.4	178.0	67.6	138.0
70°	340.0	360.0	336.3	203.3	62.8	115.7
72.5°	317.2	319.7	310.6	188.4	56.5	96.3
75°	245.9	229.5	236.7	162.3	56.5	82.1
77.5°	152.8	146.3	147.3	123.9	49.9	61.6
80°	115.6	111.9	110.1	104.5	46.6	46.6
82.5°	85.7	82.1	80.3	80.6	39.1	36.2
85°	39.1	35.4	33.6	46.6	27.8	20.5
87.5°	8.8	8.6	7.3	9.7	10.8	7.5
90°	6.6	5.7	6.6	11.4	1.9	0.0
92.5°	51.3	37.0	51.3	154.7	43.1	10.7
95°	176.7	111.5	176.7	478.3	99.5	31.4
97.5°	498.9	303.8	498.9	753.9	126.6	60.8
100°	814.3	546.9	814.3	842.3	143.4	79.1
102.5°	1142.2	910.5	1142.2	824.0	161.7	99.7
105°	1429.6	1358.8	1429.6	752.8	187.4	133.4
107.5°	1458.0	1540.0	1458.0	684.1	217.0	165.4
110°	1422.2	1571.2	1422.2	649.8	236.1	186.8



TEST NUMBER: P853794

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

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1362.1	1550.7	1362.1	629.3	255.2	207.3
115°	1259.9	1479.8	1259.9	608.9	282.9	237.3
117.5°	1164.2	1389.3	1164.2	601.6	310.2	267.0
120°	1108.3	1324.5	1108.3	599.3	327.8	286.8
122.5°	1059.2	1258.9	1059.2	599.3	343.9	305.1
125°	995.0	1171.1	995.0	600.3	367.9	331.6
127.5°	946.5	1096.7	946.5	599.3	390.8	353.1
130°	918.8	1054.8	918.8	599.3	406.0	366.8
132.5°	893.4	1019.0	893.4	598.6	418.9	379.0
135°	858.1	965.2	858.1	596.5	439.3	397.3
137.5°	820.4	919.7	820.4	596.5	457.6	417.7
140°	795.9	890.0	795.9	596.5	469.8	430.7
142.5°	773.5	855.7	773.5	595.7	481.3	443.6
145°	738.1	807.1	738.1	596.5	498.5	464.0
147.5°	709.0	761.9	709.0	597.6	513.7	484.4
150°	692.8	737.5	692.8	598.4	524.4	497.4
152.5°	678.9	715.4	678.9	599.2	533.6	509.6
155°	661.8	687.0	661.8	600.3	546.5	528.8
157.5°	649.3	666.8	649.3	601.4	559.9	545.6
160°	641.6	654.6	641.6	602.2	567.6	555.5
162.5°	634.7	645.5	634.7	603.0	574.6	565.4
165°	626.2	633.6	626.2	603.2	584.9	578.4
167.5°	619.6	622.8	619.6	604.3	592.8	589.4
170°	616.5	617.4	616.5	605.1	597.4	595.5
172.5°	613.4	613.6	613.4	605.1	600.5	599.3
175°	610.7	608.9	610.7	606.0	605.1	605.1
177.5°	608.5	607.0	608.5	606.2	607.0	607.7
180°	607.0	607.0	607.0	607.0	607.0	607.0



TEST NUMBER: P853794

CATALOG NUMBER: SQ2-FA-100U-100D-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	12.62	13.37	13.61	14.36	15.65	11.48	12.23	12.47	13.22	14.51
	3H	13.32	13.99	14.32	14.99	16.30	17.62	18.30	18.62	19.29	20.61
	4H	13.72	14.36	14.74	15.36	16.68	18.90	19.53	19.91	20.53	21.86
	6H	14.08	14.66	15.10	15.66	17.00	19.50	20.09	20.52	21.09	22.43
	8H	14.19	14.75	15.22	15.76	17.10	19.62	20.18	20.65	21.20	22.53
	12H	14.26	14.79	15.29	15.80	17.16	19.66	20.19	20.69	21.20	22.56
4H	2H	13.01	13.65	14.03	14.64	15.97	12.00	12.64	13.02	13.64	14.96
	3H	14.00	14.53	15.02	15.56	16.90	18.32	18.85	19.35	19.88	21.22
	4H	14.56	15.05	15.59	16.07	17.43	19.77	20.26	20.80	21.28	22.64
	6H	15.03	15.45	16.07	16.49	17.85	20.50	20.92	21.54	21.96	23.32
	8H	15.20	15.59	16.24	16.63	18.00	20.67	21.06	21.71	22.10	23.47
	12H	15.31	15.66	16.37	16.71	18.09	20.73	21.08	21.79	22.13	23.50
8H	4H	15.66	16.05	16.70	17.08	18.45	19.89	20.28	20.93	21.31	22.69
	6H	16.26	16.58	17.33	17.66	19.03	20.77	21.09	21.83	22.17	23.53
	8H	16.50	16.78	17.57	17.84	19.23	21.02	21.30	22.09	22.36	23.75
	12H	16.67	16.91	17.74	17.97	19.40	21.14	21.38	22.21	22.44	23.87
12H	4H	15.80	16.15	16.85	17.20	18.57	19.85	20.20	20.91	21.25	22.62
	6H	16.54	16.82	17.61	17.88	19.27	20.78	21.06	21.85	22.12	23.51
	8H	16.83	17.08	17.91	18.14	19.57	21.06	21.30	22.13	22.36	23.79