

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: P855053

Luminaire Tested: SQ2-FA-025U-075D-830-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855053
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-025U-075D-830-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

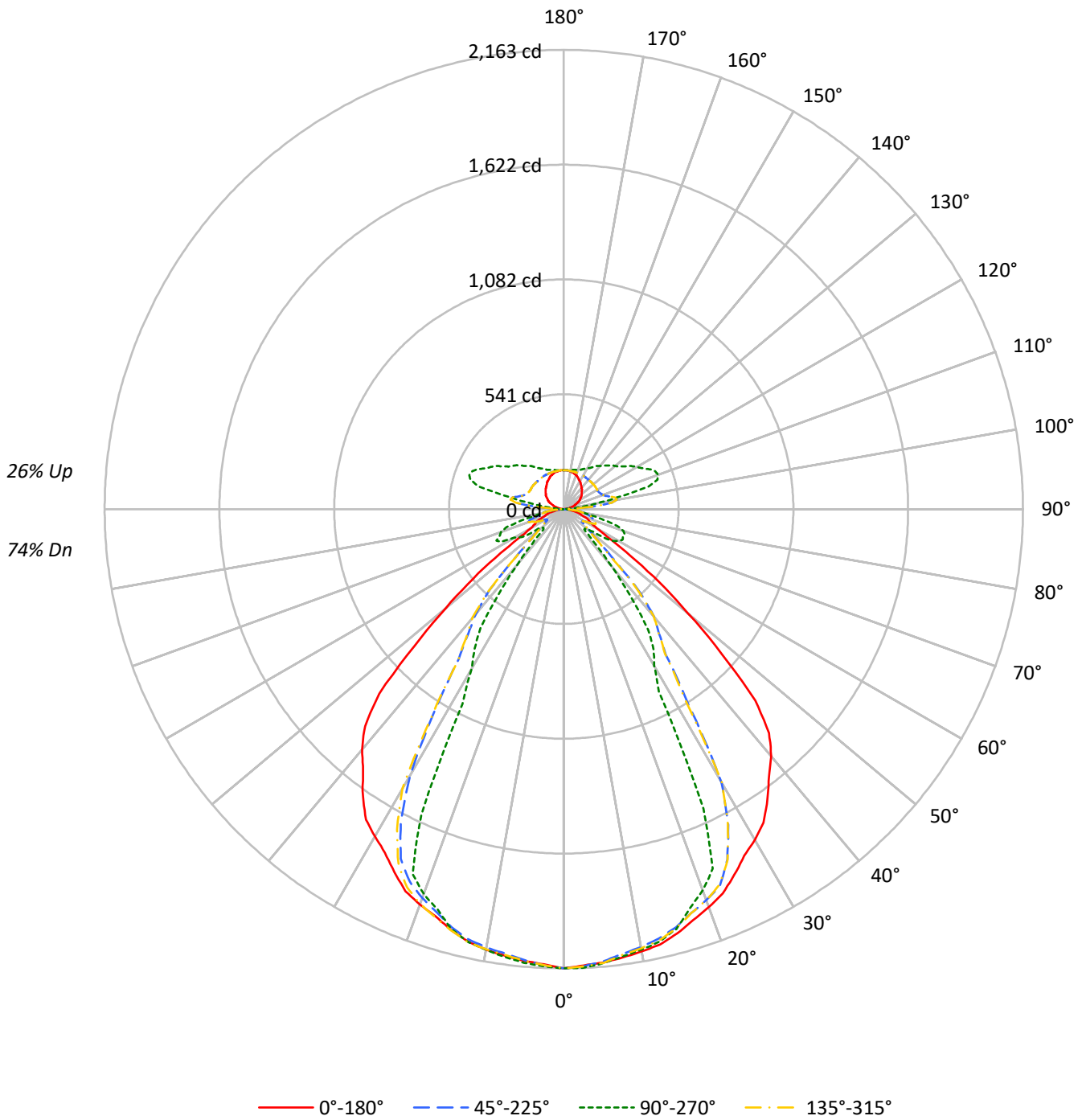
Lumens per Lamp: N/A
Luminaire Lumens: 4295.8 lumens
Efficiency: N/A
Efficacy: 126.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 34.1
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	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	105	101	97	94	99	96	93	90	87	85	83	79	77	75	71	70	69	65
2	97	90	85	80	92	86	81	77	78	75	71	71	69	66	65	63	61	58
3	90	81	75	69	85	78	72	67	71	67	63	65	62	58	60	57	54	51
4	83	74	67	61	79	71	64	59	65	60	56	60	56	52	55	52	49	46
5	78	67	60	54	74	65	58	53	60	54	50	55	51	47	51	47	44	42
6	73	62	54	49	69	59	52	48	55	49	45	51	46	43	47	43	40	38
7	68	57	49	44	65	55	48	43	51	45	41	47	43	39	44	40	37	35
8	64	52	45	40	61	51	44	39	47	42	38	44	39	36	41	37	34	32
9	60	49	42	37	57	47	41	36	44	38	35	41	36	33	39	35	32	30
10	57	45	38	34	54	44	38	33	41	36	32	39	34	31	36	32	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	34920	34920	34920	34920
5°	34734	34788	34603	34762
10°	34682	34549	34549	34549
15°	34571	34215	34298	34215
20°	34302	32845	34050	33154
25°	33852	27720	33620	28303
30°	33542	15905	33176	16117
35°	32952	13663	32534	13470
40°	32039	7185	31147	7116
45°	29124	3089	28081	3089
50°	19216	3730	18231	3481
55°	10745	6888	10193	6244
60°	5793	9691	5690	8690
65°	5112	11775	5360	13398
70°	4773	14091	4541	14861
75°	4479	12108	4579	12514
80°	3794	8638	3794	9103
85°	3335	4835	3020	5743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29124 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.5	4.7
10°-20°	577.4	13.4
20°-30°	787.3	18.3
30°-40°	661.6	15.4
40°-50°	375.8	8.7
50°-60°	199.4	4.6
60°-70°	183.6	4.3
70°-80°	134.8	3.1
80°-90°	35.7	0.8
90°-100°	74.1	1.7
100°-110°	230.6	5.4
110°-120°	225.6	5.3
120°-130°	184.1	4.3
130°-140°	150.6	3.5
140°-150°	117.6	2.7
150°-160°	84.8	2.0
160°-170°	51.9	1.2
170°-180°	17.5	0.4
0°-30°	1568.2	36.5
0°-40°	2229.8	51.9
0°-60°	2805.0	65.3
0°-90°	3159.0	73.5
90°-120°	530.3	12.3
90°-150°	982.7	22.9
90°-180°	1137.0	26.5
0°-180°	4295.8	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2163	2163	2163	2163	2163	
5°	2143	2146	2135	2145	2143	204
15°	2068	2047	2052	2047	2068	583
25°	1900	1556	1887	1589	1900	876
35°	1672	693	1651	683	1672	1044
45°	1276	135	1230	135	1276	933
55°	382	245	362	222	382	368
65°	134	308	140	351	134	134
75°	72	194	73	201	72	74
85°	18	26	16	31	18	20
90°	0	3	0	3	0	1
95°	10	33	10	33	10	12
105°	40	414	40	414	40	43
115°	72	445	72	445	72	71
125°	100	351	100	351	100	89
135°	120	290	120	290	120	93
145°	140	243	140	243	140	88
155°	161	207	161	207	161	74
165°	176	191	176	191	176	50
175°	183	183	183	183	183	17
180°	183	183	183	183	183	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8
2.5°	2151.0	2182.9	2154.9	2151.3	2162.8	2160.2	2156.2	2171.3	2145.8	2171.3	2151.0
5°	2143.1	2179.9	2138.3	2127.3	2146.4	2133.6	2144.8	2166.9	2135.0	2163.7	2131.7
7.5°	2129.8	2162.4	2112.5	2105.5	2124.3	2113.1	2117.7	2148.4	2121.7	2140.5	2111.6
10°	2115.4	2144.2	2094.3	2089.8	2107.3	2096.1	2100.7	2132.8	2107.3	2124.8	2095.9
12.5°	2099.8	2122.1	2072.1	2070.1	2085.1	2077.8	2079.9	2106.8	2086.4	2104.0	2076.3
15°	2068.2	2088.9	2038.8	2031.0	2046.9	2040.6	2043.8	2067.8	2051.9	2063.0	2038.8
17.5°	2029.1	2045.6	1995.7	1972.3	1972.9	1980.9	1995.7	2024.8	2010.4	2025.1	1990.8
20°	1996.4	2015.5	1960.5	1914.7	1911.6	1919.6	1960.5	1989.7	1981.7	1997.6	1949.1
22.5°	1958.5	1971.3	1921.4	1844.1	1833.3	1841.3	1916.1	1950.7	1947.8	1958.6	1898.2
25°	1900.2	1912.9	1821.9	1710.7	1556.0	1701.2	1825.1	1887.2	1887.2	1896.7	1816.9
27.5°	1840.8	1841.1	1676.4	1098.6	969.2	1059.1	1674.1	1808.6	1823.8	1819.1	1662.4
30°	1799.1	1787.9	1485.9	888.1	853.1	875.3	1487.5	1754.0	1779.5	1761.9	1448.4
32.5°	1750.8	1719.1	1097.1	816.6	787.8	807.6	1060.9	1689.2	1733.8	1695.9	1139.1
35°	1671.8	1588.9	836.7	721.9	693.2	718.7	830.2	1561.3	1650.6	1548.5	864.5
37.5°	1586.6	1262.9	736.6	575.0	513.1	562.6	733.0	1249.4	1552.1	1220.4	735.9
40°	1520.1	992.3	662.2	420.6	340.9	396.7	657.4	946.7	1477.8	1018.4	645.9
42.5°	1431.4	871.6	531.7	267.2	209.1	244.6	509.9	851.5	1386.4	882.5	514.1
45°	1275.5	749.2	314.8	146.5	135.3	141.8	290.3	735.4	1229.8	719.4	321.3
47.5°	1010.2	571.4	202.3	124.6	136.7	124.6	196.1	553.2	954.1	552.3	201.9
50°	765.0	446.0	156.6	126.1	148.5	126.1	151.7	430.8	725.8	470.7	154.9
52.5°	566.7	372.7	127.9	138.3	178.4	140.8	124.3	362.8	538.0	379.7	121.0
55°	381.7	292.4	102.8	182.5	244.7	187.2	102.8	283.9	362.1	280.7	99.5
57.5°	242.1	217.5	104.0	234.6	279.3	239.0	105.7	209.6	232.2	210.5	91.4
60°	179.4	171.4	115.8	249.1	300.1	252.2	117.5	165.0	176.2	163.4	97.9
62.5°	148.1	135.0	139.3	269.8	311.8	262.8	142.2	128.8	154.0	123.4	108.3
65°	133.8	87.5	164.7	273.2	308.2	273.2	166.3	82.9	140.3	89.2	146.8
67.5°	120.8	64.9	159.2	271.4	310.2	271.9	155.2	61.8	115.8	60.3	150.0
70°	101.1	58.1	150.0	276.1	298.5	266.6	150.0	56.3	96.2	54.7	176.2
72.5°	84.1	55.2	139.6	255.0	264.6	245.5	140.9	54.8	84.5	49.4	165.8
75°	71.8	54.3	133.8	203.6	194.1	194.1	130.5	52.7	73.4	49.5	128.9
77.5°	53.8	48.1	110.9	133.0	125.6	125.6	109.0	46.5	51.2	43.5	104.7
80°	40.8	44.0	91.4	97.8	92.9	92.9	88.1	42.4	40.8	40.8	86.5
82.5°	31.7	37.4	70.4	71.7	68.2	66.9	68.5	37.1	31.7	34.1	66.8
85°	18.0	25.9	37.5	30.9	26.1	24.5	35.8	24.3	16.3	24.3	35.8
87.5°	6.6	11.9	5.9	5.9	5.9	5.9	5.9	11.9	6.6	10.5	7.2
90°	0.0	1.1	3.4	3.4	3.4	3.4	3.4	1.1	0.0	1.1	3.4
92.5°	3.6	12.6	43.0	14.1	11.4	14.1	43.0	12.6	3.6	12.6	43.0
95°	10.1	29.8	136.0	50.2	32.6	50.2	136.0	29.8	10.1	29.8	136.0
97.5°	18.4	38.9	225.2	140.2	88.3	140.2	225.2	38.9	18.4	38.9	225.2
100°	24.8	43.4	253.9	237.5	158.4	237.5	253.9	43.4	24.8	43.4	253.9
102.5°	31.0	48.8	248.6	339.3	266.4	339.3	248.6	48.8	31.0	48.8	248.6
105°	40.5	57.0	227.0	433.4	413.6	433.4	227.0	57.0	40.5	57.0	227.0
107.5°	49.9	65.2	206.3	440.6	462.3	440.6	206.3	65.2	49.9	65.2	206.3
110°	56.2	71.6	195.5	430.2	473.1	430.2	195.5	71.6	56.2	71.6	195.5



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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°	62.5	77.0	190.2	411.7	465.9	411.7	190.2	77.0	62.5	77.0	190.2
115°	71.9	85.1	184.3	380.2	445.0	380.2	184.3	85.1	71.9	85.1	184.3
117.5°	81.2	93.3	181.8	350.2	416.5	350.2	181.8	93.3	81.2	93.3	181.8
120°	86.5	98.6	180.9	333.0	396.7	333.0	180.9	98.6	86.5	98.6	180.9
122.5°	91.9	104.0	181.8	318.5	377.0	318.5	181.8	104.0	91.9	104.0	181.8
125°	100.1	111.0	182.0	298.9	350.6	298.9	182.0	111.0	100.1	111.0	182.0
127.5°	106.5	117.7	182.0	284.5	328.3	284.5	182.0	117.7	106.5	117.7	182.0
130°	110.1	122.2	182.0	276.2	315.8	276.2	182.0	122.2	110.1	122.2	182.0
132.5°	114.6	126.7	181.1	269.0	305.8	269.0	181.1	126.7	114.6	126.7	181.1
135°	120.3	133.4	180.9	258.1	289.9	258.1	180.9	133.4	120.3	133.4	180.9
137.5°	126.7	138.8	180.9	247.3	276.2	247.3	180.9	138.8	126.7	138.8	180.9
140°	130.4	142.5	180.9	239.9	266.4	239.9	180.9	142.5	130.4	142.5	180.9
142.5°	134.9	146.1	180.9	232.7	256.4	232.7	180.9	146.1	134.9	146.1	180.9
145°	140.4	151.5	180.9	223.0	242.7	223.0	180.9	151.5	140.4	151.5	180.9
147.5°	147.2	156.7	182.0	213.9	229.5	213.9	182.0	156.7	147.2	156.7	182.0
150°	151.7	159.4	182.0	209.3	221.4	209.3	182.0	159.4	151.7	159.4	182.0
152.5°	155.4	162.1	182.0	204.8	215.0	204.8	182.0	162.1	155.4	162.1	182.0
155°	160.7	166.2	182.0	200.2	206.8	200.2	182.0	166.2	160.7	166.2	182.0
157.5°	166.1	170.3	182.0	196.1	200.2	196.1	182.0	170.3	166.1	170.3	182.0
160°	169.7	173.0	182.0	193.3	196.6	193.3	182.0	173.0	169.7	173.0	182.0
162.5°	172.4	174.8	182.0	191.5	194.0	191.5	182.0	174.8	172.4	174.8	182.0
165°	176.4	177.5	183.2	188.8	191.1	188.8	183.2	177.5	176.4	177.5	183.2
167.5°	178.9	179.1	182.0	187.2	188.4	187.2	182.0	179.1	178.9	179.1	182.0
170°	179.8	180.9	182.0	185.4	186.6	185.4	182.0	180.9	179.8	180.9	182.0
172.5°	181.6	181.8	182.9	184.5	184.7	184.5	182.9	181.8	181.6	181.8	182.9
175°	183.2	183.2	183.2	184.3	183.2	184.3	183.2	183.2	183.2	183.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2	183.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2162.8	2162.8	2162.8	2162.8	2162.8	2162.8
2.5°	2146.0	2154.9	2154.9	2149.7	2175.2	2151.0
5°	2124.1	2144.8	2135.2	2135.0	2167.1	2143.1
7.5°	2108.8	2128.2	2119.3	2117.5	2148.9	2129.8
10°	2092.9	2107.3	2101.0	2105.7	2134.7	2115.4
12.5°	2070.8	2087.7	2081.4	2088.7	2115.1	2099.8
15°	2032.6	2046.9	2050.2	2053.5	2084.1	2068.2
17.5°	1969.5	1976.5	1992.4	2015.0	2046.9	2029.1
20°	1919.9	1929.6	1939.1	1978.4	2015.5	1996.4
22.5°	1863.5	1860.4	1882.7	1928.9	1975.1	1958.5
25°	1711.5	1588.7	1724.2	1843.1	1904.9	1900.2
27.5°	1191.7	1034.1	1173.5	1701.2	1831.2	1840.8
30°	937.9	864.5	936.2	1518.5	1776.7	1799.1
32.5°	832.6	782.3	825.9	1155.7	1708.1	1750.8
35°	718.5	683.4	718.5	864.5	1573.0	1671.8
37.5°	575.2	503.4	573.8	747.0	1271.5	1586.6
40°	428.5	337.6	415.7	668.8	1016.2	1520.1
42.5°	285.5	217.5	270.2	526.5	879.0	1431.4
45°	154.6	135.3	148.1	318.0	717.3	1275.5
47.5°	121.2	128.2	121.2	200.6	548.7	1010.2
50°	116.3	138.6	116.3	154.9	454.0	765.0
52.5°	126.7	150.4	125.5	122.3	370.5	566.7
55°	143.7	221.8	145.3	99.5	271.6	381.7
57.5°	204.5	249.5	206.8	94.3	209.2	242.1
60°	210.1	269.1	208.5	99.5	161.9	179.4
62.5°	248.5	333.1	248.2	113.9	120.3	148.1
65°	318.7	350.7	322.0	145.2	85.9	133.8
67.5°	302.6	325.3	299.4	155.6	59.1	120.8
70°	297.2	314.8	294.1	177.7	54.8	101.1
72.5°	277.3	279.6	271.6	164.7	49.4	84.1
75°	214.9	200.6	207.0	141.9	49.4	71.8
77.5°	133.6	127.9	128.8	108.3	43.6	53.8
80°	101.1	97.9	96.2	91.4	40.8	40.8
82.5°	75.0	71.8	70.2	70.4	34.1	31.7
85°	34.1	31.0	29.4	40.8	24.3	18.0
87.5°	7.2	7.2	5.9	7.2	9.3	6.6
90°	3.4	3.4	3.4	3.4	1.1	0.0
92.5°	14.1	11.4	14.1	43.0	12.6	3.6
95°	50.2	32.6	50.2	136.0	29.8	10.1
97.5°	140.2	88.3	140.2	225.2	38.9	18.4
100°	237.5	158.4	237.5	253.9	43.4	24.8
102.5°	339.3	266.4	339.3	248.6	48.8	31.0
105°	433.4	413.6	433.4	227.0	57.0	40.5
107.5°	440.6	462.3	440.6	206.3	65.2	49.9
110°	430.2	473.1	430.2	195.5	71.6	56.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	411.7	465.9	411.7	190.2	77.0	62.5
115°	380.2	445.0	380.2	184.3	85.1	71.9
117.5°	350.2	416.5	350.2	181.8	93.3	81.2
120°	333.0	396.7	333.0	180.9	98.6	86.5
122.5°	318.5	377.0	318.5	181.8	104.0	91.9
125°	298.9	350.6	298.9	182.0	111.0	100.1
127.5°	284.5	328.3	284.5	182.0	117.7	106.5
130°	276.2	315.8	276.2	182.0	122.2	110.1
132.5°	269.0	305.8	269.0	181.1	126.7	114.6
135°	258.1	289.9	258.1	180.9	133.4	120.3
137.5°	247.3	276.2	247.3	180.9	138.8	126.7
140°	239.9	266.4	239.9	180.9	142.5	130.4
142.5°	232.7	256.4	232.7	180.9	146.1	134.9
145°	223.0	242.7	223.0	180.9	151.5	140.4
147.5°	213.9	229.5	213.9	182.0	156.7	147.2
150°	209.3	221.4	209.3	182.0	159.4	151.7
152.5°	204.8	215.0	204.8	182.0	162.1	155.4
155°	200.2	206.8	200.2	182.0	166.2	160.7
157.5°	196.1	200.2	196.1	182.0	170.3	166.1
160°	193.3	196.6	193.3	182.0	173.0	169.7
162.5°	191.5	194.0	191.5	182.0	174.8	172.4
165°	188.8	191.1	188.8	183.2	177.5	176.4
167.5°	187.2	188.4	187.2	182.0	179.1	178.9
170°	185.4	186.6	185.4	182.0	180.9	179.8
172.5°	184.5	184.7	184.5	182.9	181.8	181.6
175°	184.3	183.2	184.3	183.2	183.2	183.2
177.5°	183.2	183.2	183.2	183.2	183.2	183.2
180°	183.2	183.2	183.2	183.2	183.2	183.2



TEST NUMBER: P855053

CATALOG NUMBER: SQ2-FA-025U-075D-830-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	14.29	15.24	15.04	15.99	16.89	13.15	14.09	13.90	14.84	15.74
	3H	15.00	15.84	15.76	16.61	17.54	19.31	20.15	20.07	20.91	21.85
	4H	15.41	16.21	16.19	16.98	17.92	20.59	21.38	21.37	22.15	23.10
	6H	15.77	16.50	16.56	17.29	18.24	21.20	21.93	21.99	22.71	23.67
	8H	15.89	16.59	16.69	17.39	18.34	21.32	22.02	22.12	22.82	23.77
	12H	15.97	16.63	16.77	17.42	18.40	21.37	22.03	22.17	22.82	23.80
4H	2H	14.70	15.49	15.48	16.26	17.21	13.69	14.49	14.47	15.26	16.20
	3H	15.70	16.36	16.49	17.17	18.13	20.02	20.69	20.82	21.49	22.45
	4H	16.26	16.87	17.07	17.67	18.66	21.48	22.08	22.28	22.88	23.87
	6H	16.75	17.27	17.57	18.10	19.09	22.22	22.74	23.04	23.57	24.56
	8H	16.92	17.40	17.74	18.23	19.23	22.39	22.87	23.21	23.70	24.70
	12H	17.04	17.47	17.88	18.32	19.33	22.45	22.88	23.30	23.73	24.74
8H	4H	17.37	17.86	18.20	18.68	19.69	21.61	22.09	22.43	22.92	23.92
	6H	17.98	18.38	18.84	19.25	20.26	22.49	22.89	23.34	23.75	24.76
	8H	18.22	18.57	19.08	19.44	20.46	22.74	23.09	23.60	23.95	24.98
	12H	18.40	18.70	19.26	19.56	20.64	22.86	23.17	23.73	24.03	25.11
12H	4H	17.52	17.95	18.37	18.80	19.81	21.57	22.00	22.41	22.85	23.86
	6H	18.26	18.61	19.12	19.48	20.50	22.50	22.85	23.36	23.71	24.74
	8H	18.56	18.87	19.43	19.73	20.81	22.78	23.09	23.65	23.94	25.03