

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: P855198

Luminaire Tested: SQ2-FA-075U-075D-835-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855198
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-FA-075U-075D-835-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

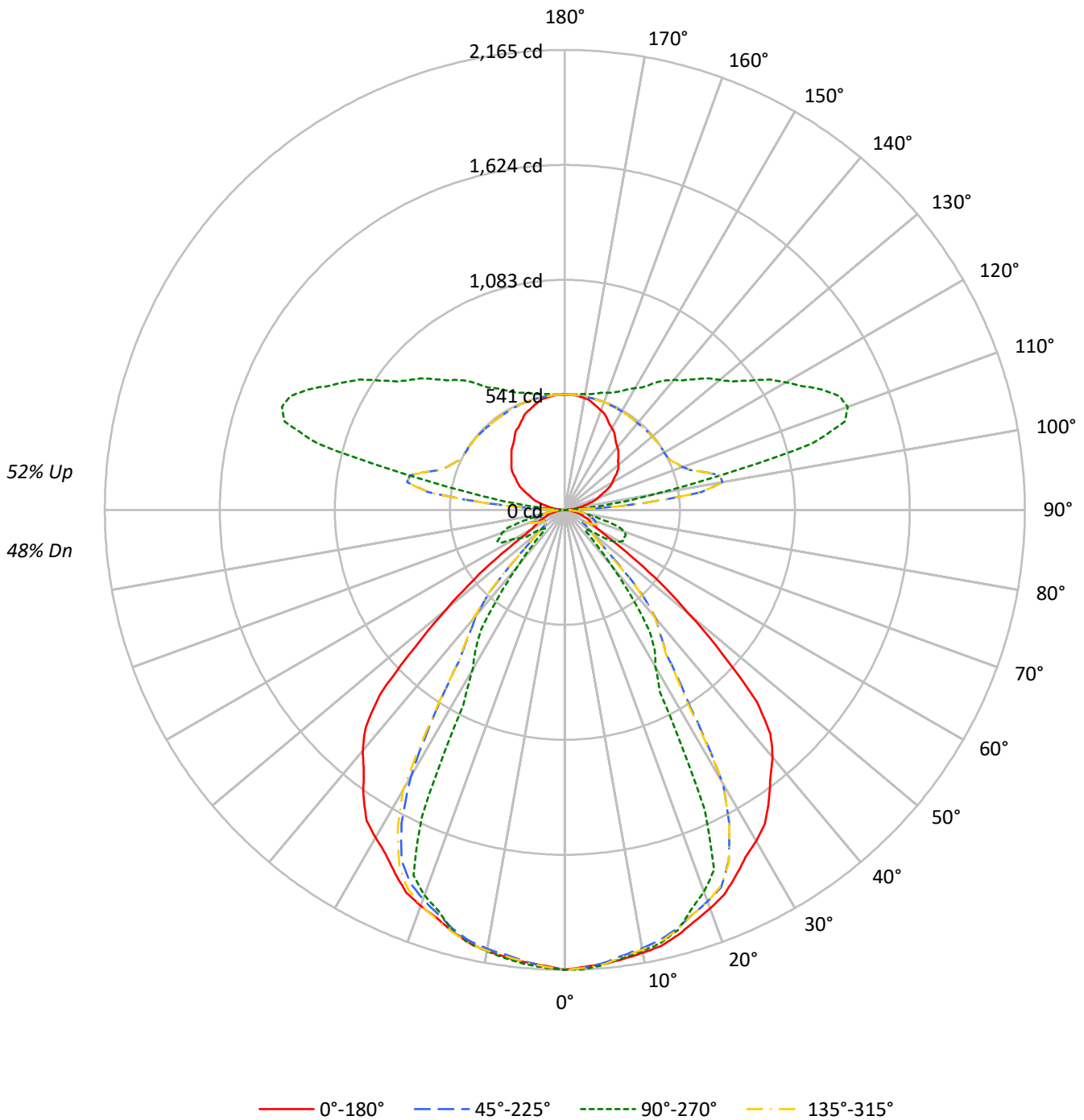
Lumens per Lamp: N/A
Luminaire Lumens: 6530.3 lumens
Efficiency: N/A
Efficacy: 130.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	34953	34953	34953	34953
5°	34767	34820	34634	34794
10°	34713	34580	34580	34580
15°	34601	34247	34328	34247
20°	34333	32874	34081	33184
25°	33882	27745	33651	28328
30°	33572	15918	33206	16132
35°	32981	13675	32564	13482
40°	32068	7191	31175	7122
45°	29149	3094	28106	3094
50°	19233	3733	18246	3484
55°	10753	6894	10204	6249
60°	5800	9697	5693	8696
65°	5116	11786	5364	13410
70°	4777	14106	4546	14875
75°	4485	12121	4579	12526
80°	3803	8647	3803	9112
85°	3335	4835	3020	5743

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 29149 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.7	3.1
10°-20°	577.9	8.8
20°-30°	788.0	12.1
30°-40°	662.2	10.1
40°-50°	376.1	5.8
50°-60°	199.6	3.1
60°-70°	183.7	2.8
70°-80°	134.9	2.1
80°-90°	35.8	0.5
90°-100°	205.8	3.2
100°-110°	682.1	10.4
110°-120°	676.9	10.4
120°-130°	551.4	8.4
130°-140°	448.1	6.9
140°-150°	348.0	5.3
150°-160°	250.7	3.8
160°-170°	153.6	2.4
170°-180°	51.9	0.8
0°-30°	1569.6	24.0
0°-40°	2231.8	34.2
0°-60°	2807.5	43.0
0°-90°	3161.9	48.4
90°-120°	1564.8	24.0
90°-150°	2912.3	44.6
90°-180°	3368.0	51.6
0°-180°	6530.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2165	2165	2165	2165	2165	
5°	2145	2148	2137	2147	2145	204
15°	2070	2049	2054	2049	2070	584
25°	1902	1557	1889	1590	1902	877
35°	1673	694	1652	684	1673	1045
45°	1277	136	1231	136	1277	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	4	0	4	0	2
95°	29	89	29	89	29	34
105°	119	1204	119	1204	119	126
115°	213	1338	213	1338	213	210
125°	297	1060	297	1060	297	264
135°	356	871	356	871	356	275
145°	413	726	413	726	413	259
155°	472	615	472	615	472	217
165°	518	566	518	566	518	146
175°	542	545	542	545	542	51
180°	544	544	544	544	544	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8
2.5°	2153.0	2184.9	2156.8	2153.2	2164.8	2162.2	2158.2	2173.2	2147.8	2173.2	2153.0
5°	2145.1	2181.8	2140.2	2129.2	2148.4	2135.6	2146.8	2168.8	2136.9	2165.7	2133.6
7.5°	2131.7	2164.3	2114.4	2107.4	2126.2	2115.0	2119.6	2150.4	2123.6	2142.5	2113.5
10°	2117.3	2146.1	2096.2	2091.7	2109.2	2098.0	2102.6	2134.8	2109.2	2126.7	2097.8
12.5°	2101.7	2124.0	2074.0	2072.0	2087.0	2079.7	2081.8	2108.7	2088.3	2105.9	2078.2
15°	2070.0	2090.7	2040.6	2032.8	2048.8	2042.4	2045.6	2069.7	2053.7	2064.8	2040.6
17.5°	2030.9	2047.4	1997.5	1974.1	1974.6	1982.7	1997.5	2026.6	2012.2	2026.9	1992.6
20°	1998.2	2017.3	1962.3	1916.5	1913.3	1921.3	1962.3	1991.5	1983.5	1999.4	1950.9
22.5°	1960.3	1973.1	1923.1	1845.7	1835.0	1842.9	1917.8	1952.5	1949.5	1960.4	1900.0
25°	1901.9	1914.7	1823.6	1712.2	1557.4	1702.7	1826.7	1888.9	1888.9	1898.4	1818.6
27.5°	1842.5	1842.8	1677.9	1099.6	970.1	1060.0	1675.7	1810.2	1825.5	1820.7	1663.9
30°	1800.7	1789.5	1487.2	888.9	853.8	876.1	1488.8	1755.5	1781.1	1763.5	1449.7
32.5°	1752.4	1720.7	1098.1	817.3	788.5	808.3	1061.8	1690.7	1735.4	1697.4	1140.2
35°	1673.3	1590.3	837.4	722.6	693.8	719.4	831.0	1562.7	1652.1	1549.9	865.3
37.5°	1588.1	1264.1	737.3	575.6	513.5	563.1	733.7	1250.5	1553.5	1221.5	736.6
40°	1521.5	993.1	662.8	421.0	341.2	397.1	657.9	947.5	1479.1	1019.3	646.5
42.5°	1432.7	872.4	532.2	267.4	209.2	244.8	510.4	852.3	1387.6	883.3	514.6
45°	1276.6	749.8	315.1	146.7	135.5	141.9	290.6	736.0	1230.9	720.1	321.6
47.5°	1011.1	571.9	202.5	124.7	136.8	124.7	196.2	553.7	955.0	552.8	202.1
50°	765.7	446.4	156.7	126.2	148.6	126.2	151.9	431.2	726.4	471.1	155.0
52.5°	567.2	373.0	128.0	138.4	178.6	140.9	124.4	363.2	538.4	380.0	121.1
55°	382.0	292.6	102.9	182.7	244.9	187.4	102.9	284.2	362.5	281.0	99.6
57.5°	242.3	217.7	104.1	234.8	279.5	239.2	105.8	209.8	232.4	210.7	91.4
60°	179.6	171.6	115.9	249.3	300.3	252.5	117.6	165.1	176.3	163.5	98.0
62.5°	148.2	135.1	139.4	270.0	312.1	263.0	142.4	128.9	154.1	123.5	108.4
65°	133.9	87.6	164.9	273.4	308.5	273.4	166.5	83.0	140.4	89.3	146.9
67.5°	120.9	65.0	159.3	271.6	310.5	272.2	155.4	61.9	115.9	60.3	150.2
70°	101.2	58.2	150.2	276.4	298.8	266.8	150.2	56.4	96.3	54.8	176.3
72.5°	84.2	55.2	139.8	255.2	264.8	245.7	141.0	54.9	84.5	49.5	165.9
75°	71.9	54.3	133.9	203.8	194.3	194.3	130.6	52.7	73.4	49.6	129.0
77.5°	53.9	48.1	111.0	133.1	125.7	125.7	109.1	46.5	51.3	43.6	104.8
80°	40.9	44.0	91.4	97.9	93.0	93.0	88.2	42.4	40.9	40.9	86.6
82.5°	31.7	37.5	70.5	71.7	68.2	67.0	68.6	37.1	31.7	34.2	66.9
85°	18.0	25.9	37.6	30.9	26.1	24.6	35.9	24.3	16.3	24.3	35.9
87.5°	6.6	11.9	5.9	6.1	6.1	6.1	5.9	11.9	6.6	10.6	7.2
90°	0.0	1.1	3.4	4.5	4.5	4.5	3.4	1.1	0.0	1.1	3.4
92.5°	9.1	34.7	102.5	33.3	28.0	33.3	102.5	34.7	9.1	34.7	102.5
95°	29.3	86.6	372.9	133.1	88.9	133.1	372.9	86.6	29.3	86.6	372.9
97.5°	53.9	113.7	650.8	379.6	239.9	379.6	650.8	113.7	53.9	113.7	650.8
100°	71.0	128.2	753.6	647.2	429.1	647.2	753.6	128.2	71.0	128.2	753.6
102.5°	89.9	145.4	747.2	989.1	747.2	989.1	747.2	145.4	89.9	145.4	747.2
105°	119.4	170.1	682.6	1287.8	1204.1	1287.8	682.6	170.1	119.4	170.1	682.6
107.5°	149.6	194.8	620.6	1318.2	1381.9	1318.2	620.6	194.8	149.6	194.8	620.6
110°	166.7	211.8	589.1	1288.1	1417.0	1288.1	589.1	211.8	166.7	211.8	589.1



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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°	184.7	229.0	570.1	1234.9	1399.0	1234.9	570.1	229.0	184.7	229.0	570.1
115°	212.9	254.7	549.6	1144.3	1338.1	1144.3	549.6	254.7	212.9	254.7	549.6
117.5°	240.8	278.0	542.2	1057.8	1261.1	1057.8	542.2	278.0	240.8	278.0	542.2
120°	257.9	294.2	539.6	1003.6	1200.7	1003.6	539.6	294.2	257.9	294.2	539.6
122.5°	273.3	308.7	539.6	959.1	1141.3	959.1	539.6	308.7	273.3	308.7	539.6
125°	297.4	330.4	539.6	899.1	1059.9	899.1	539.6	330.4	297.4	330.4	539.6
127.5°	317.2	349.6	538.2	853.7	991.2	853.7	538.2	349.6	317.2	349.6	538.2
130°	328.9	363.0	537.3	827.2	950.6	827.2	537.3	363.0	328.9	363.0	537.3
132.5°	339.7	374.7	536.4	805.4	916.4	805.4	536.4	374.7	339.7	374.7	536.4
135°	355.9	392.2	535.1	771.6	870.7	771.6	535.1	392.2	355.9	392.2	535.1
137.5°	373.4	408.5	533.7	738.9	826.3	738.9	533.7	408.5	373.4	408.5	533.7
140°	385.2	419.4	532.8	717.0	797.5	717.0	532.8	419.4	385.2	419.4	532.8
142.5°	396.1	429.2	533.7	695.3	766.8	695.3	533.7	429.2	396.1	429.2	533.7
145°	413.4	444.2	533.9	663.7	726.5	663.7	533.9	444.2	413.4	444.2	533.9
147.5°	432.1	457.9	534.1	637.0	683.8	637.0	534.1	457.9	432.1	457.9	534.1
150°	443.8	466.9	535.1	621.5	661.2	621.5	535.1	466.9	443.8	466.9	535.1
152.5°	454.6	476.9	536.0	608.7	640.4	608.7	536.0	476.9	454.6	476.9	536.0
155°	471.9	488.4	537.3	593.0	614.9	593.0	537.3	488.4	471.9	488.4	537.3
157.5°	488.9	501.7	538.7	581.8	597.4	581.8	538.7	501.7	488.9	501.7	538.7
160°	497.8	508.9	539.6	573.6	585.7	573.6	539.6	508.9	497.8	508.9	539.6
162.5°	506.9	515.2	539.6	568.1	577.6	568.1	539.6	515.2	506.9	515.2	539.6
165°	518.1	523.6	539.6	561.1	566.5	561.1	539.6	523.6	518.1	523.6	539.6
167.5°	528.5	531.3	540.7	554.7	557.6	554.7	540.7	531.3	528.5	531.3	540.7
170°	533.9	535.1	540.7	551.9	553.0	551.9	540.7	535.1	533.9	535.1	540.7
172.5°	537.5	538.6	541.5	549.2	549.4	549.2	541.5	538.6	537.5	538.6	541.5
175°	541.7	541.7	542.9	546.3	545.1	546.3	542.9	541.7	541.7	541.7	542.9
177.5°	544.0	544.0	543.1	544.9	543.1	544.9	543.1	544.0	544.0	544.0	543.1
180°	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0	544.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2164.8	2164.8	2164.8	2164.8	2164.8	2164.8
2.5°	2147.9	2156.8	2156.8	2151.6	2177.2	2153.0
5°	2126.1	2146.8	2137.1	2136.9	2169.1	2145.1
7.5°	2110.7	2130.1	2121.2	2119.4	2150.8	2131.7
10°	2094.8	2109.2	2102.9	2107.6	2136.6	2117.3
12.5°	2072.6	2089.6	2083.3	2090.6	2117.0	2101.7
15°	2034.4	2048.8	2052.0	2055.3	2086.0	2070.0
17.5°	1971.2	1978.3	1994.2	2016.9	2048.8	2030.9
20°	1921.7	1931.3	1940.8	1980.2	2017.3	1998.2
22.5°	1865.2	1862.0	1884.4	1930.6	1976.9	1960.3
25°	1713.0	1590.1	1725.8	1844.7	1906.6	1901.9
27.5°	1192.8	1035.0	1174.6	1702.7	1832.8	1842.5
30°	938.7	865.3	937.0	1519.8	1778.3	1800.7
32.5°	833.4	783.0	826.7	1156.8	1709.6	1752.4
35°	719.2	684.0	719.2	865.3	1574.4	1673.3
37.5°	575.7	503.8	574.3	747.7	1272.7	1588.1
40°	428.9	337.9	416.1	669.4	1017.1	1521.5
42.5°	285.7	217.7	270.5	527.0	879.8	1432.7
45°	154.7	135.5	148.2	318.3	717.9	1276.6
47.5°	121.3	128.3	121.3	200.8	549.2	1011.1
50°	116.4	138.7	116.4	155.0	454.4	765.7
52.5°	126.9	150.5	125.6	122.4	370.8	567.2
55°	143.8	222.0	145.4	99.6	271.8	382.0
57.5°	204.7	249.8	207.0	94.4	209.4	242.3
60°	210.3	269.3	208.7	99.6	162.1	179.6
62.5°	248.7	333.4	248.4	114.0	120.4	148.2
65°	319.0	351.0	322.3	145.3	86.0	133.9
67.5°	302.8	325.6	299.7	155.7	59.2	120.9
70°	297.5	315.1	294.3	177.9	54.9	101.2
72.5°	277.6	279.9	271.8	164.9	49.5	84.2
75°	215.1	200.8	207.2	142.0	49.5	71.9
77.5°	133.8	128.0	128.9	108.4	43.7	53.9
80°	101.2	98.0	96.3	91.4	40.9	40.9
82.5°	75.0	71.9	70.3	70.5	34.2	31.7
85°	34.2	31.0	29.4	40.9	24.3	18.0
87.5°	7.5	7.5	6.1	7.2	9.3	6.6
90°	4.5	4.5	4.5	3.4	1.1	0.0
92.5°	33.3	28.0	33.3	102.5	34.7	9.1
95°	133.1	88.9	133.1	372.9	86.6	29.3
97.5°	379.6	239.9	379.6	650.8	113.7	53.9
100°	647.2	429.1	647.2	753.6	128.2	71.0
102.5°	989.1	747.2	989.1	747.2	145.4	89.9
105°	1287.8	1204.1	1287.8	682.6	170.1	119.4
107.5°	1318.2	1381.9	1318.2	620.6	194.8	149.6
110°	1288.1	1417.0	1288.1	589.1	211.8	166.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1234.9	1399.0	1234.9	570.1	229.0	184.7
115°	1144.3	1338.1	1144.3	549.6	254.7	212.9
117.5°	1057.8	1261.1	1057.8	542.2	278.0	240.8
120°	1003.6	1200.7	1003.6	539.6	294.2	257.9
122.5°	959.1	1141.3	959.1	539.6	308.7	273.3
125°	899.1	1059.9	899.1	539.6	330.4	297.4
127.5°	853.7	991.2	853.7	538.2	349.6	317.2
130°	827.2	950.6	827.2	537.3	363.0	328.9
132.5°	805.4	916.4	805.4	536.4	374.7	339.7
135°	771.6	870.7	771.6	535.1	392.2	355.9
137.5°	738.9	826.3	738.9	533.7	408.5	373.4
140°	717.0	797.5	717.0	532.8	419.4	385.2
142.5°	695.3	766.8	695.3	533.7	429.2	396.1
145°	663.7	726.5	663.7	533.9	444.2	413.4
147.5°	637.0	683.8	637.0	534.1	457.9	432.1
150°	621.5	661.2	621.5	535.1	466.9	443.8
152.5°	608.7	640.4	608.7	536.0	476.9	454.6
155°	593.0	614.9	593.0	537.3	488.4	471.9
157.5°	581.8	597.4	581.8	538.7	501.7	488.9
160°	573.6	585.7	573.6	539.6	508.9	497.8
162.5°	568.1	577.6	568.1	539.6	515.2	506.9
165°	561.1	566.5	561.1	539.6	523.6	518.1
167.5°	554.7	557.6	554.7	540.7	531.3	528.5
170°	551.9	553.0	551.9	540.7	535.1	533.9
172.5°	549.2	549.4	549.2	541.5	538.6	537.5
175°	546.3	545.1	546.3	542.9	541.7	541.7
177.5°	544.9	543.1	544.9	543.1	544.0	544.0
180°	544.0	544.0	544.0	544.0	544.0	544.0

TEST NUMBER: P855198

CATALOG NUMBER: SQ2-FA-075U-075D-835-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	12.11	12.86	13.10	13.85	15.15	10.97	11.72	11.96	12.71	14.01
	3H	12.81	13.48	13.81	14.48	15.80	17.12	17.79	18.12	18.78	20.11
	4H	13.21	13.85	14.23	14.85	16.18	18.39	19.02	19.40	20.02	21.36
	6H	13.57	14.15	14.59	15.16	16.50	18.99	19.58	20.02	20.58	21.92
	8H	13.68	14.24	14.71	15.26	16.60	19.11	19.67	20.14	20.69	22.03
	12H	13.75	14.28	14.79	15.30	16.66	19.15	19.68	20.19	20.69	22.06
4H	2H	12.50	13.13	13.52	14.14	15.47	11.49	12.13	12.51	13.13	14.46
	3H	13.49	14.02	14.52	15.05	16.39	17.81	18.34	18.84	19.37	20.72
	4H	14.05	14.54	15.08	15.56	16.93	19.26	19.75	20.29	20.77	22.14
	6H	14.53	14.94	15.57	15.99	17.35	19.99	20.41	21.04	21.46	22.82
	8H	14.70	15.08	15.74	16.12	17.50	20.16	20.55	21.21	21.59	22.96
	12H	14.81	15.16	15.87	16.21	17.59	20.22	20.57	21.28	21.62	23.00
8H	4H	15.15	15.53	16.19	16.57	17.95	19.38	19.77	20.42	20.81	22.18
	6H	15.75	16.07	16.82	17.15	18.53	20.26	20.58	21.32	21.66	23.03
	8H	15.99	16.27	17.06	17.33	18.73	20.51	20.79	21.58	21.85	23.25
	12H	16.16	16.40	17.23	17.46	18.90	20.63	20.87	21.70	21.93	23.37
12H	4H	15.29	15.64	16.35	16.69	18.07	19.34	19.69	20.40	20.74	22.12
	6H	16.03	16.31	17.10	17.37	18.77	20.27	20.55	21.34	21.61	23.01
	8H	16.33	16.57	17.40	17.63	19.07	20.55	20.79	21.62	21.85	23.29