

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: P855456

Luminaire Tested: SQ2-FA-075U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P855456
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-840-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

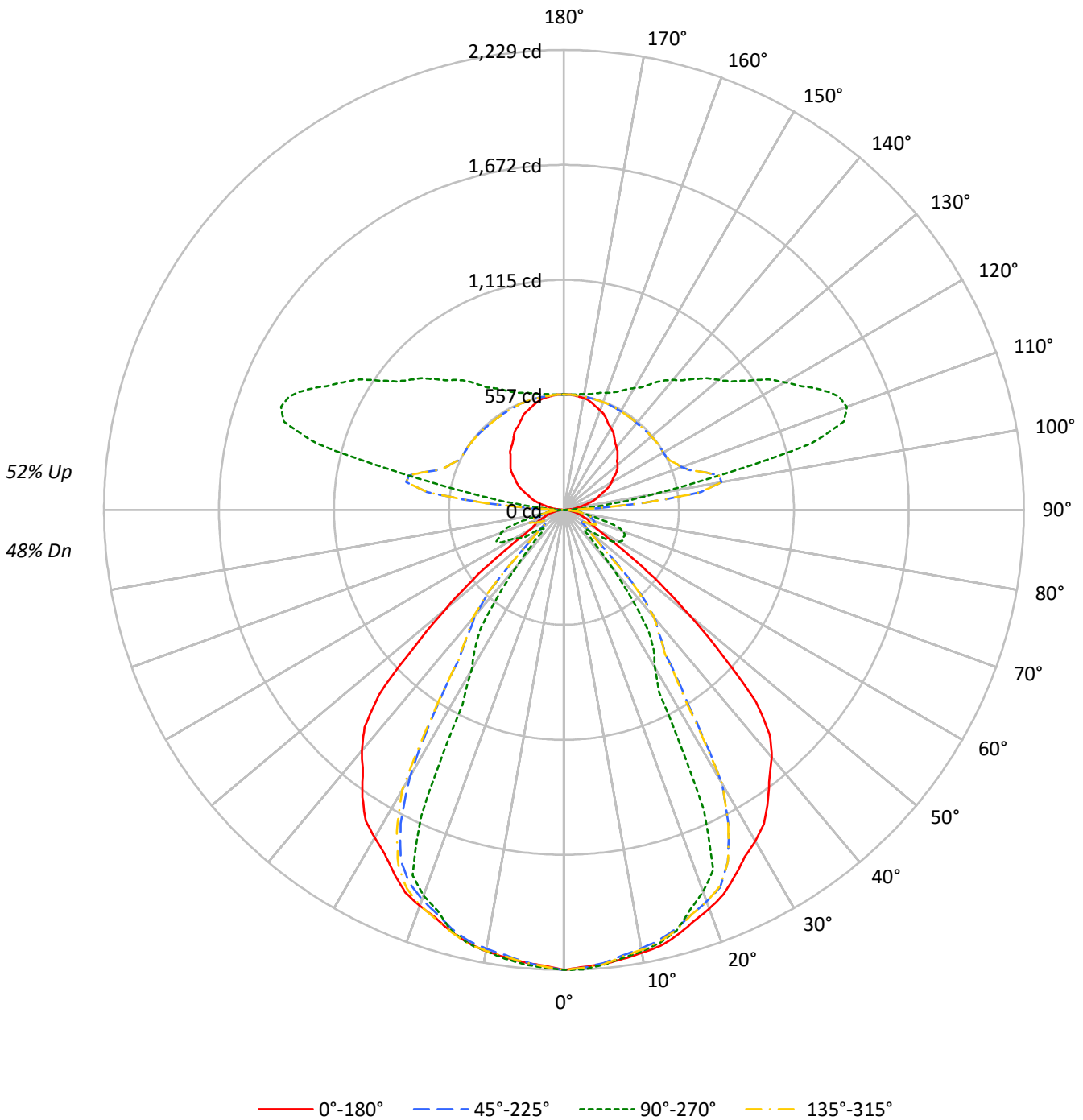
Lumens per Lamp: N/A
Luminaire Lumens: 6725.1 lumens
Efficiency: N/A
Efficacy: 134.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 0.95 / 0.95
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	35994	35994	35994	35994
5°	35802	35858	35666	35832
10°	35749	35611	35611	35611
15°	35634	35266	35353	35266
20°	35355	33854	35096	34173
25°	34892	28572	34654	29172
30°	34573	16393	34196	16613
35°	33965	14083	33535	13884
40°	33025	7406	32104	7335
45°	30019	3185	28944	3185
50°	19806	3843	18791	3589
55°	11074	7099	10508	6438
60°	5971	9988	5864	8958
65°	5268	12138	5524	13811
70°	4919	14526	4683	15314
75°	4616	12483	4716	12895
80°	3914	8908	3914	9382
85°	3427	4983	3112	5910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 30019 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.8	3.1
10°-20°	595.2	8.8
20°-30°	811.5	12.1
30°-40°	681.9	10.1
40°-50°	387.3	5.8
50°-60°	205.5	3.1
60°-70°	189.2	2.8
70°-80°	138.9	2.1
80°-90°	36.9	0.5
90°-100°	211.9	3.2
100°-110°	702.4	10.4
110°-120°	697.1	10.4
120°-130°	567.8	8.4
130°-140°	461.5	6.9
140°-150°	358.4	5.3
150°-160°	258.2	3.8
160°-170°	158.1	2.4
170°-180°	53.4	0.8
0°-30°	1616.4	24.0
0°-40°	2298.4	34.2
0°-60°	2891.2	43.0
0°-90°	3256.2	48.4
90°-120°	1611.4	24.0
90°-150°	2999.1	44.6
90°-180°	3469.0	51.6
0°-180°	6725.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2229	2229	2229	2229	2229	
5°	2209	2212	2201	2211	2209	210
15°	2132	2110	2115	2110	2132	601
25°	1959	1604	1945	1638	1959	903
35°	1723	714	1701	704	1723	1076
45°	1315	140	1268	140	1315	961
55°	393	252	373	229	393	379
65°	138	318	145	362	138	138
75°	74	200	76	207	74	76
85°	18	27	17	32	18	21
90°	0	5	0	5	0	2
95°	30	92	30	92	30	35
105°	123	1240	123	1240	123	130
115°	219	1378	219	1378	219	217
125°	306	1092	306	1092	306	272
135°	366	897	366	897	366	284
145°	426	748	426	748	426	267
155°	486	633	486	633	486	224
165°	534	583	534	583	534	150
175°	558	561	558	561	558	53
180°	560	560	560	560	560	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3
2.5°	2217.2	2250.0	2221.1	2217.4	2229.3	2226.6	2222.5	2238.0	2211.8	2238.0	2217.2
5°	2209.0	2246.9	2204.0	2192.7	2212.4	2199.2	2210.8	2233.5	2200.6	2230.2	2197.2
7.5°	2195.3	2228.8	2177.4	2170.2	2189.6	2178.0	2182.8	2214.5	2186.9	2206.3	2176.5
10°	2180.5	2210.1	2158.7	2154.0	2172.1	2160.5	2165.3	2198.4	2172.1	2190.1	2160.3
12.5°	2164.4	2187.3	2135.8	2133.7	2149.2	2141.7	2143.9	2171.6	2150.5	2168.7	2140.1
15°	2131.8	2153.1	2101.5	2093.4	2109.8	2103.3	2106.6	2131.4	2115.0	2126.4	2101.5
17.5°	2091.4	2108.4	2057.0	2032.9	2033.5	2041.8	2057.0	2087.0	2072.2	2087.4	2052.0
20°	2057.7	2077.4	2020.8	1973.6	1970.3	1978.6	2020.8	2050.9	2042.6	2059.0	2009.0
22.5°	2018.7	2031.9	1980.5	1900.8	1889.7	1897.9	1975.0	2010.7	2007.6	2018.8	1956.6
25°	1958.6	1971.7	1877.9	1763.3	1603.8	1753.5	1881.2	1945.2	1945.2	1955.0	1872.8
27.5°	1897.4	1897.7	1727.9	1132.4	999.0	1091.6	1725.6	1864.2	1879.9	1875.0	1713.5
30°	1854.4	1842.8	1531.6	915.4	879.3	902.3	1533.2	1807.9	1834.2	1816.0	1492.9
32.5°	1804.6	1772.0	1130.8	841.7	812.1	832.4	1093.5	1741.1	1787.1	1748.0	1174.1
35°	1723.2	1637.7	862.4	744.1	714.5	740.8	855.8	1609.3	1701.4	1596.1	891.1
37.5°	1635.4	1301.8	759.3	592.7	528.9	579.9	755.5	1287.8	1599.9	1257.9	758.6
40°	1566.9	1022.8	682.6	433.5	351.4	408.9	677.6	975.8	1523.2	1049.7	665.8
42.5°	1475.4	898.4	548.1	275.4	215.5	252.1	525.6	877.7	1429.0	909.6	529.9
45°	1314.7	772.2	324.4	151.0	139.5	146.1	299.3	758.0	1267.6	741.5	331.2
47.5°	1041.3	589.0	208.5	128.4	140.9	128.4	202.1	570.2	983.5	569.3	208.1
50°	788.5	459.8	161.4	129.9	153.0	129.9	156.4	444.0	748.1	485.2	159.7
52.5°	584.1	384.1	131.8	142.5	183.9	145.1	128.1	374.0	554.5	391.3	124.7
55°	393.4	301.4	105.9	188.1	252.2	193.0	105.9	292.6	373.3	289.4	102.6
57.5°	249.5	224.2	107.2	241.8	287.9	246.4	109.0	216.1	239.4	217.0	94.2
60°	184.9	176.7	119.3	256.7	309.3	260.0	121.1	170.0	181.6	168.4	100.9
62.5°	152.7	139.1	143.6	278.1	321.4	270.8	146.6	132.7	158.7	127.1	111.6
65°	137.9	90.2	169.8	281.6	317.7	281.6	171.4	85.4	144.6	92.0	151.3
67.5°	124.5	66.9	164.1	279.7	319.8	280.3	160.0	63.7	119.3	62.1	154.6
70°	104.2	59.9	154.6	284.6	307.7	274.8	154.6	58.0	99.2	56.4	181.6
72.5°	86.7	56.9	143.9	262.8	272.7	253.0	145.2	56.5	87.1	50.9	170.8
75°	74.0	55.9	137.9	209.9	200.1	200.1	134.5	54.3	75.6	51.0	132.9
77.5°	55.5	49.5	114.3	137.1	129.5	129.5	112.3	47.9	52.8	44.9	107.9
80°	42.1	45.3	94.2	100.8	95.8	95.8	90.8	43.7	42.1	42.1	89.2
82.5°	32.6	38.6	72.6	73.9	70.3	69.0	70.6	38.2	32.6	35.2	68.9
85°	18.5	26.7	38.7	31.8	26.9	25.3	36.9	25.1	16.8	25.1	36.9
87.5°	6.8	12.2	6.1	6.3	6.3	6.3	6.1	12.2	6.8	11.0	7.5
90°	0.0	1.2	3.5	4.7	4.7	4.7	3.5	1.2	0.0	1.2	3.5
92.5°	9.3	35.8	105.6	34.3	28.8	34.3	105.6	35.8	9.3	35.8	105.6
95°	30.2	89.2	384.0	137.1	91.6	137.1	384.0	89.2	30.2	89.2	384.0
97.5°	55.5	117.1	670.2	390.9	247.1	390.9	670.2	117.1	55.5	117.1	670.2
100°	73.1	132.0	776.0	666.5	441.9	666.5	776.0	132.0	73.1	132.0	776.0
102.5°	92.5	149.8	769.5	1018.6	769.5	1018.6	769.5	149.8	92.5	149.8	769.5
105°	122.9	175.2	703.0	1326.2	1240.0	1326.2	703.0	175.2	122.9	175.2	703.0
107.5°	154.1	200.6	639.1	1357.5	1423.1	1357.5	639.1	200.6	154.1	200.6	639.1
110°	171.7	218.2	606.7	1326.5	1459.2	1326.5	606.7	218.2	171.7	218.2	606.7



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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°	190.2	235.9	587.1	1271.7	1440.7	1271.7	587.1	235.9	190.2	235.9	587.1
115°	219.2	262.3	566.0	1178.5	1378.0	1178.5	566.0	262.3	219.2	262.3	566.0
117.5°	248.0	286.3	558.3	1089.3	1298.7	1089.3	558.3	286.3	248.0	286.3	558.3
120°	265.6	303.0	555.7	1033.5	1236.5	1033.5	555.7	303.0	265.6	303.0	555.7
122.5°	281.4	317.9	555.7	987.7	1175.3	987.7	555.7	317.9	281.4	317.9	555.7
125°	306.3	340.3	555.7	925.9	1091.5	925.9	555.7	340.3	306.3	340.3	555.7
127.5°	326.7	360.0	554.3	879.2	1020.8	879.2	554.3	360.0	326.7	360.0	554.3
130°	338.7	373.9	553.3	851.9	978.9	851.9	553.3	373.9	338.7	373.9	553.3
132.5°	349.9	385.9	552.4	829.4	943.7	829.4	552.4	385.9	349.9	385.9	552.4
135°	366.5	403.9	551.0	794.6	896.7	794.6	551.0	403.9	366.5	403.9	551.0
137.5°	384.6	420.7	549.6	760.9	851.0	760.9	549.6	420.7	384.6	420.7	549.6
140°	396.7	431.9	548.7	738.4	821.3	738.4	548.7	431.9	396.7	431.9	548.7
142.5°	407.9	442.0	549.6	716.0	789.7	716.0	549.6	442.0	407.9	442.0	549.6
145°	425.7	457.4	549.8	683.5	748.2	683.5	549.8	457.4	425.7	457.4	549.8
147.5°	445.0	471.5	550.1	656.0	704.1	656.0	550.1	471.5	445.0	471.5	550.1
150°	457.1	480.8	551.0	640.0	680.9	640.0	551.0	480.8	457.1	480.8	551.0
152.5°	468.1	491.1	551.9	626.9	659.5	626.9	551.9	491.1	468.1	491.1	551.9
155°	486.0	503.0	553.3	610.7	633.3	610.7	553.3	503.0	486.0	503.0	553.3
157.5°	503.5	516.6	554.7	599.1	615.2	599.1	554.7	516.6	503.5	516.6	554.7
160°	512.7	524.1	555.7	590.7	603.2	590.7	555.7	524.1	512.7	524.1	555.7
162.5°	522.0	530.6	555.7	585.0	594.8	585.0	555.7	530.6	522.0	530.6	555.7
165°	533.5	539.2	555.7	577.8	583.4	577.8	555.7	539.2	533.5	539.2	555.7
167.5°	544.2	547.2	556.8	571.3	574.2	571.3	556.8	547.2	544.2	547.2	556.8
170°	549.8	551.0	556.8	568.4	569.5	568.4	556.8	551.0	549.8	551.0	556.8
172.5°	553.6	554.6	557.6	565.6	565.8	565.6	557.6	554.6	553.6	554.6	557.6
175°	557.9	557.9	559.0	562.5	561.4	562.5	559.0	557.9	557.9	557.9	559.0
177.5°	560.2	560.2	559.3	561.1	559.3	561.1	559.3	560.2	560.2	560.2	559.3
180°	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2	560.2



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2229.3	2229.3	2229.3	2229.3	2229.3	2229.3
2.5°	2211.9	2221.1	2221.1	2215.8	2242.1	2217.2
5°	2189.4	2210.8	2200.9	2200.6	2233.7	2209.0
7.5°	2173.6	2193.6	2184.4	2182.6	2215.0	2195.3
10°	2157.3	2172.1	2165.5	2170.4	2200.3	2180.5
12.5°	2134.4	2151.9	2145.4	2153.0	2180.1	2164.4
15°	2095.0	2109.8	2113.2	2116.6	2148.2	2131.8
17.5°	2030.0	2037.2	2053.7	2077.0	2109.8	2091.4
20°	1979.0	1988.9	1998.7	2039.2	2077.4	2057.7
22.5°	1920.8	1917.6	1940.6	1988.2	2035.8	2018.7
25°	1764.1	1637.5	1777.2	1899.7	1963.5	1958.6
27.5°	1228.3	1065.9	1209.6	1753.5	1887.5	1897.4
30°	966.7	891.1	965.0	1565.1	1831.3	1854.4
32.5°	858.2	806.3	851.3	1191.3	1760.6	1804.6
35°	740.6	704.4	740.6	891.1	1621.3	1723.2
37.5°	592.8	518.8	591.4	770.0	1310.6	1635.4
40°	441.7	348.0	428.5	689.3	1047.5	1566.9
42.5°	294.3	224.2	278.5	542.7	906.0	1475.4
45°	159.3	139.5	152.7	327.8	739.3	1314.7
47.5°	124.9	132.2	124.9	206.7	565.6	1041.3
50°	119.9	142.9	119.9	159.7	467.9	788.5
52.5°	130.6	155.0	129.4	126.1	381.9	584.1
55°	148.1	228.7	149.8	102.6	279.9	393.4
57.5°	210.8	257.2	213.2	97.2	215.6	249.5
60°	216.5	277.4	214.9	102.6	166.9	184.9
62.5°	256.2	343.3	255.8	117.4	124.0	152.7
65°	328.5	361.5	331.9	149.6	88.6	137.9
67.5°	311.9	335.3	308.6	160.4	61.0	124.5
70°	306.4	324.4	303.1	183.2	56.5	104.2
72.5°	285.9	288.2	279.9	169.8	50.9	86.7
75°	221.5	206.7	213.4	146.3	50.9	74.0
77.5°	137.8	131.8	132.7	111.6	45.0	55.5
80°	104.2	100.9	99.2	94.2	42.1	42.1
82.5°	77.3	74.0	72.4	72.6	35.2	32.6
85°	35.2	31.9	30.3	42.1	25.1	18.5
87.5°	7.7	7.7	6.3	7.5	9.6	6.8
90°	4.7	4.7	4.7	3.5	1.2	0.0
92.5°	34.3	28.8	34.3	105.6	35.8	9.3
95°	137.1	91.6	137.1	384.0	89.2	30.2
97.5°	390.9	247.1	390.9	670.2	117.1	55.5
100°	666.5	441.9	666.5	776.0	132.0	73.1
102.5°	1018.6	769.5	1018.6	769.5	149.8	92.5
105°	1326.2	1240.0	1326.2	703.0	175.2	122.9
107.5°	1357.5	1423.1	1357.5	639.1	200.6	154.1
110°	1326.5	1459.2	1326.5	606.7	218.2	171.7



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
112.5°	1271.7	1440.7	1271.7	587.1	235.9	190.2
115°	1178.5	1378.0	1178.5	566.0	262.3	219.2
117.5°	1089.3	1298.7	1089.3	558.3	286.3	248.0
120°	1033.5	1236.5	1033.5	555.7	303.0	265.6
122.5°	987.7	1175.3	987.7	555.7	317.9	281.4
125°	925.9	1091.5	925.9	555.7	340.3	306.3
127.5°	879.2	1020.8	879.2	554.3	360.0	326.7
130°	851.9	978.9	851.9	553.3	373.9	338.7
132.5°	829.4	943.7	829.4	552.4	385.9	349.9
135°	794.6	896.7	794.6	551.0	403.9	366.5
137.5°	760.9	851.0	760.9	549.6	420.7	384.6
140°	738.4	821.3	738.4	548.7	431.9	396.7
142.5°	716.0	789.7	716.0	549.6	442.0	407.9
145°	683.5	748.2	683.5	549.8	457.4	425.7
147.5°	656.0	704.1	656.0	550.1	471.5	445.0
150°	640.0	680.9	640.0	551.0	480.8	457.1
152.5°	626.9	659.5	626.9	551.9	491.1	468.1
155°	610.7	633.3	610.7	553.3	503.0	486.0
157.5°	599.1	615.2	599.1	554.7	516.6	503.5
160°	590.7	603.2	590.7	555.7	524.1	512.7
162.5°	585.0	594.8	585.0	555.7	530.6	522.0
165°	577.8	583.4	577.8	555.7	539.2	533.5
167.5°	571.3	574.2	571.3	556.8	547.2	544.2
170°	568.4	569.5	568.4	556.8	551.0	549.8
172.5°	565.6	565.8	565.6	557.6	554.6	553.6
175°	562.5	561.4	562.5	559.0	557.9	557.9
177.5°	561.1	559.3	561.1	559.3	560.2	560.2
180°	560.2	560.2	560.2	560.2	560.2	560.2



TEST NUMBER: P855456

CATALOG NUMBER: SQ2-FA-075U-075D-840-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	12.21	12.96	13.21	13.95	15.25	11.07	11.82	12.06	12.81	14.11
	3H	12.91	13.58	13.91	14.58	15.90	17.22	17.89	18.22	18.89	20.21
	4H	13.32	13.95	14.33	14.95	16.28	18.49	19.12	19.50	20.13	21.46
	6H	13.67	14.25	14.69	15.26	16.60	19.09	19.68	20.12	20.68	22.03
	8H	13.78	14.34	14.81	15.36	16.70	19.21	19.77	20.24	20.79	22.13
	12H	13.85	14.38	14.89	15.40	16.76	19.25	19.78	20.29	20.80	22.16
4H	2H	12.60	13.24	13.62	14.24	15.57	11.60	12.23	12.62	13.23	14.56
	3H	13.59	14.12	14.62	15.15	16.50	17.92	18.44	18.94	19.47	20.82
	4H	14.15	14.64	15.19	15.66	17.03	19.36	19.85	20.40	20.87	22.24
	6H	14.63	15.04	15.67	16.09	17.45	20.10	20.51	21.14	21.56	22.92
	8H	14.80	15.18	15.84	16.22	17.60	20.26	20.65	21.31	21.69	23.07
	12H	14.91	15.26	15.97	16.31	17.69	20.32	20.67	21.38	21.72	23.10
8H	4H	15.25	15.64	16.29	16.67	18.05	19.48	19.87	20.53	20.91	22.29
	6H	15.86	16.17	16.92	17.25	18.63	20.36	20.68	21.43	21.76	23.13
	8H	16.09	16.37	17.17	17.44	18.83	20.61	20.89	21.68	21.95	23.35
	12H	16.26	16.50	17.34	17.56	19.00	20.73	20.97	21.80	22.03	23.47
12H	4H	15.39	15.74	16.45	16.79	18.17	19.44	19.79	20.50	20.84	22.22
	6H	16.13	16.41	17.21	17.48	18.87	20.37	20.65	21.44	21.71	23.11
	8H	16.43	16.67	17.50	17.73	19.17	20.65	20.89	21.72	21.95	23.39