

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:

Luminaire Tested: SQ4-FA-0U-050D-840-1D-UNV-STD-W-4

Issue Date: 8/1/2024

Test Information

Test Method: LM-79-2019
Report Number:
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-892-4)
Test Lab: INNOVATION CENTER
Issue Date: 8/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FA-0U-050D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

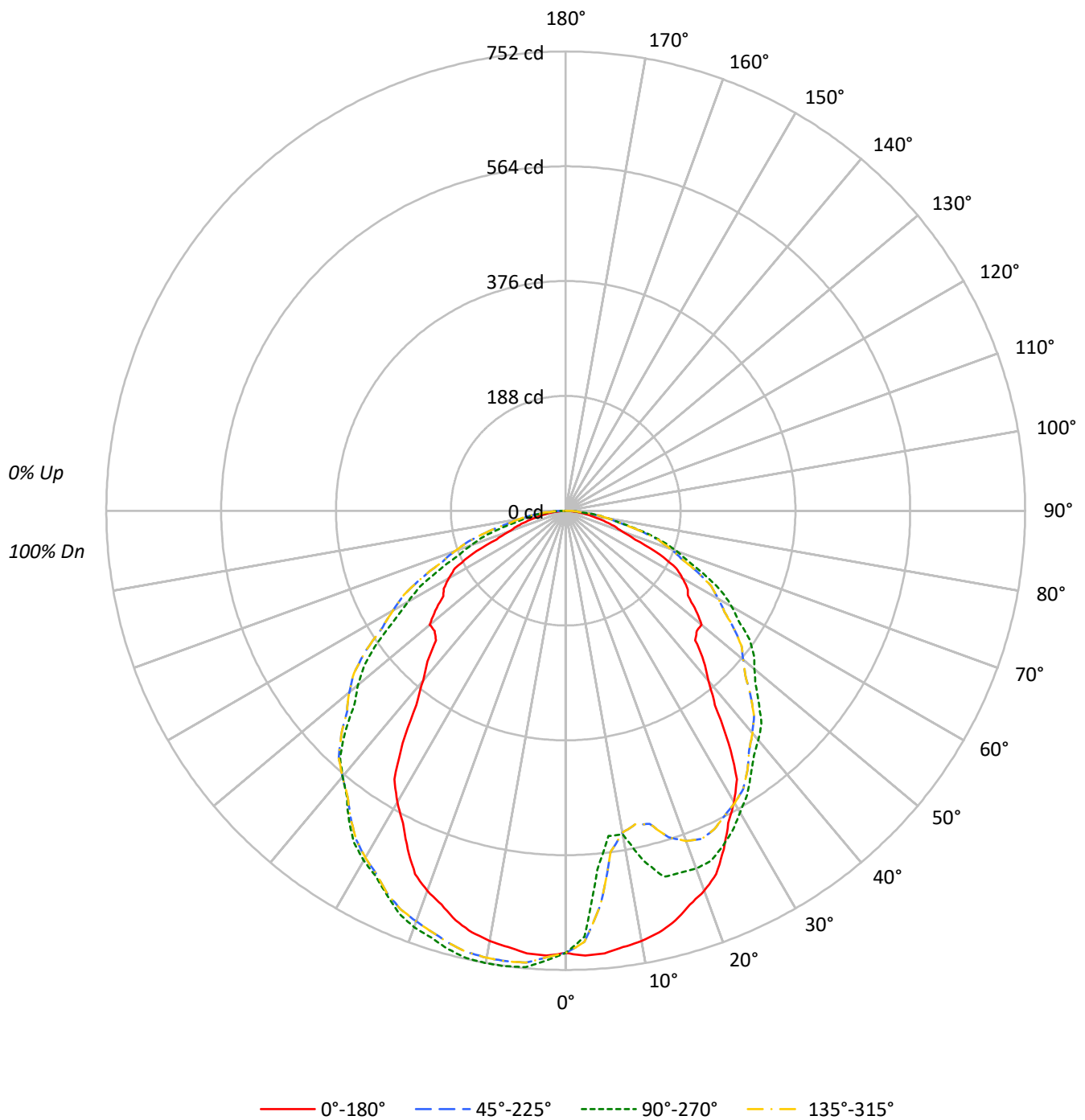
Lumens per Lamp: N/A
Luminaire Lumens: 1876.7 lumens
Efficiency: N/A
Efficacy: 115.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.2
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

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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6682	6682	6682	6682
5°	6739	5463	6739	6948
10°	6701	5038	6701	7048
15°	6636	5929	6636	7101
20°	6505	6122	6505	7124
25°	6228	6179	6228	7059
30°	5869	6080	5869	7044
35°	5240	5949	5240	6968
40°	4373	5909	4373	6841
45°	3916	5838	3916	6650
50°	4170	5783	4170	6373
55°	3934	5907	3934	6050
60°	4071	5790	4071	5499
65°	3709	5534	3709	4951
70°	2587	5193	2587	4416
75°	2296	4591	2296	3836
80°	1891	3565	1891	3278
85°	1164	2467	1164	2901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6794 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	3.5
10°-20°	185.5	9.9
20°-30°	286.7	15.3
30°-40°	342.6	18.3
40°-50°	344.8	18.4
50°-60°	299.3	16.0
60°-70°	211.9	11.3
70°-80°	112.1	6.0
80°-90°	28.5	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	537.5	28.6
0°-40°	880.1	46.9
0°-60°	1524.2	81.2
0°-90°	1876.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1876.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	724	724	724	724	724	
5°	728	590	728	750	728	69
15°	695	621	695	743	695	195
25°	612	607	612	693	612	281
35°	465	528	465	619	465	287
45°	300	447	300	510	300	242
55°	245	367	245	376	245	225
65°	170	254	170	227	170	162
75°	64	129	64	108	64	68
85°	11	23	11	27	11	16
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2
2.5°	729.1	723.6	721.5	717.1	708.9	704.5	707.8	702.3	704.5	698.4	704.5
5°	727.6	715.3	705.0	687.9	663.2	634.4	627.6	609.8	598.8	589.9	598.8
7.5°	720.8	699.7	668.3	615.9	573.9	553.3	548.3	543.2	541.8	537.3	541.8
10°	715.3	686.5	628.3	569.4	539.9	530.3	532.4	534.4	538.5	537.8	538.5
12.5°	707.6	663.5	586.6	545.8	526.2	525.9	541.1	568.4	587.3	586.1	587.3
15°	694.7	619.4	547.4	521.4	515.2	546.7	602.2	615.3	620.1	620.7	620.1
17.5°	676.2	576.2	522.4	505.2	526.2	594.7	611.6	617.5	621.6	621.8	621.6
20°	662.5	554.3	509.7	498.1	553.6	597.4	607.7	615.3	622.1	623.5	622.1
22.5°	643.9	538.9	496.6	493.2	568.9	594.7	603.9	615.3	621.0	620.7	621.0
25°	611.8	520.0	480.3	487.8	570.7	580.3	598.1	605.7	606.4	607.0	606.4
27.5°	576.6	503.4	461.2	491.4	559.6	566.5	585.7	589.5	592.1	591.0	592.1
30°	550.9	491.9	448.1	491.9	550.9	555.0	574.2	576.9	573.5	570.7	573.5
32.5°	521.8	477.7	435.5	488.1	537.7	543.5	558.8	557.7	554.3	552.1	554.3
35°	465.2	453.6	412.5	475.5	515.2	522.8	531.7	531.0	530.3	528.2	530.3
37.5°	401.5	425.1	389.7	455.9	493.6	493.0	506.3	509.2	508.5	505.9	508.5
40°	363.1	401.5	375.5	440.5	478.2	472.7	489.9	493.3	492.6	490.6	492.6
42.5°	334.6	370.3	359.0	421.9	459.6	453.0	474.0	477.4	475.6	474.1	475.6
45°	300.1	306.3	333.7	391.9	428.2	427.5	450.1	453.6	449.5	447.4	449.5
47.5°	291.0	246.9	306.0	357.1	397.1	399.7	424.0	427.0	423.3	421.5	423.3
50°	290.5	217.9	285.7	330.2	376.8	381.6	407.0	408.3	403.6	402.9	403.6
52.5°	269.1	201.4	262.1	306.7	359.3	365.2	388.3	388.1	387.7	388.6	387.7
55°	244.6	181.6	221.3	272.0	332.3	339.8	360.4	361.1	365.9	367.2	365.9
57.5°	236.5	159.1	183.5	242.0	305.2	311.1	330.4	332.0	335.3	335.2	335.3
60°	220.6	143.2	161.0	223.4	284.3	291.9	309.0	311.7	314.5	313.8	314.5
62.5°	204.2	132.2	150.0	208.0	264.6	272.7	284.3	289.3	290.4	289.1	290.4
65°	169.9	117.8	132.9	183.6	234.3	243.2	250.8	254.2	254.9	253.5	254.9
67.5°	122.8	104.6	119.5	159.5	199.5	209.5	213.9	216.0	215.3	217.7	215.3
70°	95.9	95.2	109.6	142.5	178.1	187.0	189.8	191.8	191.2	192.5	191.2
72.5°	82.8	87.6	99.2	125.0	154.0	162.9	164.6	165.0	167.0	165.7	167.0
75°	64.4	74.7	82.2	98.7	120.6	126.8	127.4	128.1	126.8	128.8	126.8
77.5°	44.9	56.9	63.6	73.0	87.8	91.7	91.5	91.9	90.9	90.7	90.9
80°	35.6	43.2	49.3	55.5	66.5	69.2	68.5	67.8	67.8	67.1	67.8
82.5°	26.3	30.6	36.2	40.7	47.8	48.4	49.3	48.1	48.1	49.1	48.1
85°	11.0	14.4	18.5	20.6	23.3	24.0	22.6	24.7	23.3	23.3	23.3
87.5°	2.7	4.4	6.6	7.7	8.2	7.7	7.7	6.6	6.6	6.6	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2
2.5°	702.3	707.8	704.5	708.9	717.1	721.5	723.6	729.1	729.1	732.4	733.5
5°	609.8	627.6	634.4	663.2	687.9	705.0	715.3	727.6	733.1	740.6	743.4
7.5°	543.2	548.3	553.3	573.9	615.9	668.3	699.7	720.8	731.9	741.7	745.7
10°	534.4	532.4	530.3	539.9	569.4	628.3	686.5	715.3	729.7	740.6	744.1
12.5°	568.4	541.1	525.9	526.2	545.8	586.6	663.5	707.6	726.4	736.8	740.8
15°	615.3	602.2	546.7	515.2	521.4	547.4	619.4	694.7	718.0	727.6	733.8
17.5°	617.5	611.6	594.7	526.2	505.2	522.4	576.2	676.2	705.8	717.2	722.7
20°	615.3	607.7	597.4	553.6	498.1	509.7	554.3	662.5	695.4	708.4	713.9
22.5°	615.3	603.9	594.7	568.9	493.2	496.6	538.9	643.9	684.5	698.0	703.5
25°	605.7	598.1	580.3	570.7	487.8	480.3	520.0	611.8	666.6	678.3	686.5
27.5°	589.5	585.7	566.5	559.6	491.4	461.2	503.4	576.6	642.1	658.7	667.6
30°	576.9	574.2	555.0	550.9	491.9	448.1	491.9	550.9	620.7	643.4	655.0
32.5°	557.7	558.8	543.5	537.7	488.1	435.5	477.7	521.8	589.0	627.5	641.3
35°	531.0	531.7	522.8	515.2	475.5	412.5	453.6	465.2	550.2	605.0	616.6
37.5°	509.2	506.3	493.0	493.6	455.9	389.7	425.1	401.5	515.1	581.3	589.8
40°	493.3	489.9	472.7	478.2	440.5	375.5	401.5	363.1	481.7	563.2	570.0
42.5°	477.4	474.0	453.0	459.6	421.9	359.0	370.3	334.6	444.9	544.0	545.9
45°	453.6	450.1	427.5	428.2	391.9	333.7	306.3	300.1	423.4	513.2	513.2
47.5°	427.0	424.0	399.7	397.1	357.1	306.0	246.9	291.0	393.3	480.0	479.7
50°	408.3	407.0	381.6	376.8	330.2	285.7	217.9	290.5	371.3	451.5	458.4
52.5°	388.1	388.3	365.2	359.3	306.7	262.1	201.4	269.1	344.5	414.8	436.4
55°	361.1	360.4	339.8	332.3	272.0	221.3	181.6	244.6	302.8	363.8	400.1
57.5°	332.0	330.4	311.1	305.2	242.0	183.5	159.1	236.5	238.2	317.2	363.5
60°	311.7	309.0	291.9	284.3	223.4	161.0	143.2	220.6	182.2	284.3	335.0
62.5°	289.3	284.3	272.7	264.6	208.0	150.0	132.2	204.2	142.2	247.1	307.6
65°	254.2	250.8	243.2	234.3	183.6	132.9	117.8	169.9	111.0	169.2	267.2
67.5°	216.0	213.9	209.5	199.5	159.5	119.5	104.6	122.8	84.4	107.4	228.7
70°	191.8	189.8	187.0	178.1	142.5	109.6	95.2	95.9	60.3	79.5	203.5
72.5°	165.0	164.6	162.9	154.0	125.0	99.2	87.6	82.8	51.0	62.5	177.7
75°	128.1	127.4	126.8	120.6	98.7	82.2	74.7	64.4	51.4	44.5	139.1
77.5°	91.9	91.5	91.7	87.8	73.0	63.6	56.9	44.9	45.9	33.8	104.1
80°	67.8	68.5	69.2	66.5	55.5	49.3	43.2	35.6	37.7	26.7	79.5
82.5°	48.1	49.3	48.4	47.8	40.7	36.2	30.6	26.3	26.7	21.2	59.2
85°	24.7	22.6	24.0	23.3	20.6	18.5	14.4	11.0	13.7	12.3	29.5
87.5°	6.6	7.7	7.7	8.2	7.7	6.6	4.4	2.7	4.9	6.0	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2	724.2
2.5°	731.9	731.9	736.8	737.9	739.0	737.4	739.0	737.9	736.8	731.9	731.9
5°	742.7	742.7	749.5	751.6	751.6	750.2	751.6	751.6	749.5	742.7	742.7
7.5°	743.7	744.8	751.6	753.1	754.3	752.3	754.3	753.1	751.6	744.8	743.7
10°	742.0	744.8	751.6	753.7	754.3	752.3	754.3	753.7	751.6	744.8	742.0
12.5°	739.8	742.0	748.9	750.4	751.6	750.1	751.6	750.4	748.9	742.0	739.8
15°	732.4	735.2	742.7	744.1	745.4	743.4	745.4	744.1	742.7	735.2	732.4
17.5°	722.1	725.6	732.4	734.6	735.3	732.7	735.3	734.6	732.4	725.6	722.1
20°	713.9	717.3	724.2	726.9	727.6	725.6	727.6	726.9	724.2	717.3	713.9
22.5°	703.5	709.1	715.4	716.5	715.6	713.5	715.6	716.5	715.4	709.1	703.5
25°	688.6	693.4	695.4	695.4	695.4	693.4	695.4	695.4	695.4	693.4	688.6
27.5°	669.5	672.0	673.2	674.3	675.7	674.3	675.7	674.3	673.2	672.0	669.5
30°	656.4	655.0	658.4	661.2	662.5	661.2	662.5	661.2	658.4	655.0	656.4
32.5°	638.3	639.1	644.2	645.8	646.1	644.7	646.1	645.8	644.2	639.1	638.3
35°	611.8	615.3	618.7	620.1	620.7	618.7	620.7	620.1	618.7	615.3	611.8
37.5°	583.9	589.9	592.4	590.9	591.0	588.8	591.0	590.9	592.4	589.9	583.9
40°	565.2	570.7	572.1	570.0	570.7	568.0	570.7	570.0	572.1	570.7	565.2
42.5°	547.7	552.1	550.7	548.1	547.7	546.6	547.7	548.1	550.7	552.1	547.7
45°	518.7	520.7	514.5	512.5	511.1	509.7	511.1	512.5	514.5	520.7	518.7
47.5°	486.9	484.1	478.2	475.1	471.2	468.6	471.2	475.1	478.2	484.1	486.9
50°	466.6	458.4	453.6	446.0	443.3	444.0	443.3	446.0	453.6	458.4	466.6
52.5°	441.9	432.1	424.5	418.1	415.9	415.5	415.9	418.1	424.5	432.1	441.9
55°	406.3	391.2	378.9	375.5	374.8	376.1	374.8	375.5	378.9	391.2	406.3
57.5°	362.6	347.8	337.6	334.9	332.6	330.4	332.6	334.9	337.6	347.8	362.6
60°	333.0	319.3	309.7	306.9	300.8	298.0	300.8	306.9	309.7	319.3	333.0
62.5°	306.7	290.2	282.8	277.3	272.8	268.4	272.8	277.3	282.8	290.2	306.7
65°	268.6	249.4	241.9	237.1	228.8	226.8	228.8	237.1	241.9	249.4	268.6
67.5°	226.9	210.2	200.7	194.3	189.1	189.0	189.1	194.3	200.7	210.2	226.9
70°	200.1	185.0	176.1	168.5	164.4	163.7	164.4	168.5	176.1	185.0	200.1
72.5°	173.8	159.2	151.4	144.4	140.9	140.2	140.9	144.4	151.4	159.2	173.8
75°	136.3	122.6	116.5	111.7	108.9	107.6	108.9	111.7	116.5	122.6	136.3
77.5°	100.9	89.8	86.6	81.7	79.3	79.2	79.3	81.7	86.6	89.8	100.9
80°	79.5	70.6	65.8	63.0	62.3	61.7	62.3	63.0	65.8	70.6	79.5
82.5°	57.6	52.5	49.3	47.7	47.5	46.3	47.5	47.7	49.3	52.5	57.6
85°	30.8	29.5	28.8	28.1	27.4	27.4	27.4	28.1	28.8	29.5	30.8
87.5°	12.6	13.2	13.2	13.7	14.3	13.7	14.3	13.7	13.2	13.2	12.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER:

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CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	724.2	724.2	724.2	724.2
2.5°	733.5	732.4	729.1	729.1
5°	743.4	740.6	733.1	727.6
7.5°	745.7	741.7	731.9	720.8
10°	744.1	740.6	729.7	715.3
12.5°	740.8	736.8	726.4	707.6
15°	733.8	727.6	718.0	694.7
17.5°	722.7	717.2	705.8	676.2
20°	713.9	708.4	695.4	662.5
22.5°	703.5	698.0	684.5	643.9
25°	686.5	678.3	666.6	611.8
27.5°	667.6	658.7	642.1	576.6
30°	655.0	643.4	620.7	550.9
32.5°	641.3	627.5	589.0	521.8
35°	616.6	605.0	550.2	465.2
37.5°	589.8	581.3	515.1	401.5
40°	570.0	563.2	481.7	363.1
42.5°	545.9	544.0	444.9	334.6
45°	513.2	513.2	423.4	300.1
47.5°	479.7	480.0	393.3	291.0
50°	458.4	451.5	371.3	290.5
52.5°	436.4	414.8	344.5	269.1
55°	400.1	363.8	302.8	244.6
57.5°	363.5	317.2	238.2	236.5
60°	335.0	284.3	182.2	220.6
62.5°	307.6	247.1	142.2	204.2
65°	267.2	169.2	111.0	169.9
67.5°	228.7	107.4	84.4	122.8
70°	203.5	79.5	60.3	95.9
72.5°	177.7	62.5	51.0	82.8
75°	139.1	44.5	51.4	64.4
77.5°	104.1	33.8	45.9	44.9
80°	79.5	26.7	37.7	35.6
82.5°	59.2	21.2	26.7	26.3
85°	29.5	12.3	13.7	11.0
87.5°	12.1	6.0	4.9	2.7
90°	0.0	0.0	0.0	0.0

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