

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-830-1D-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-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

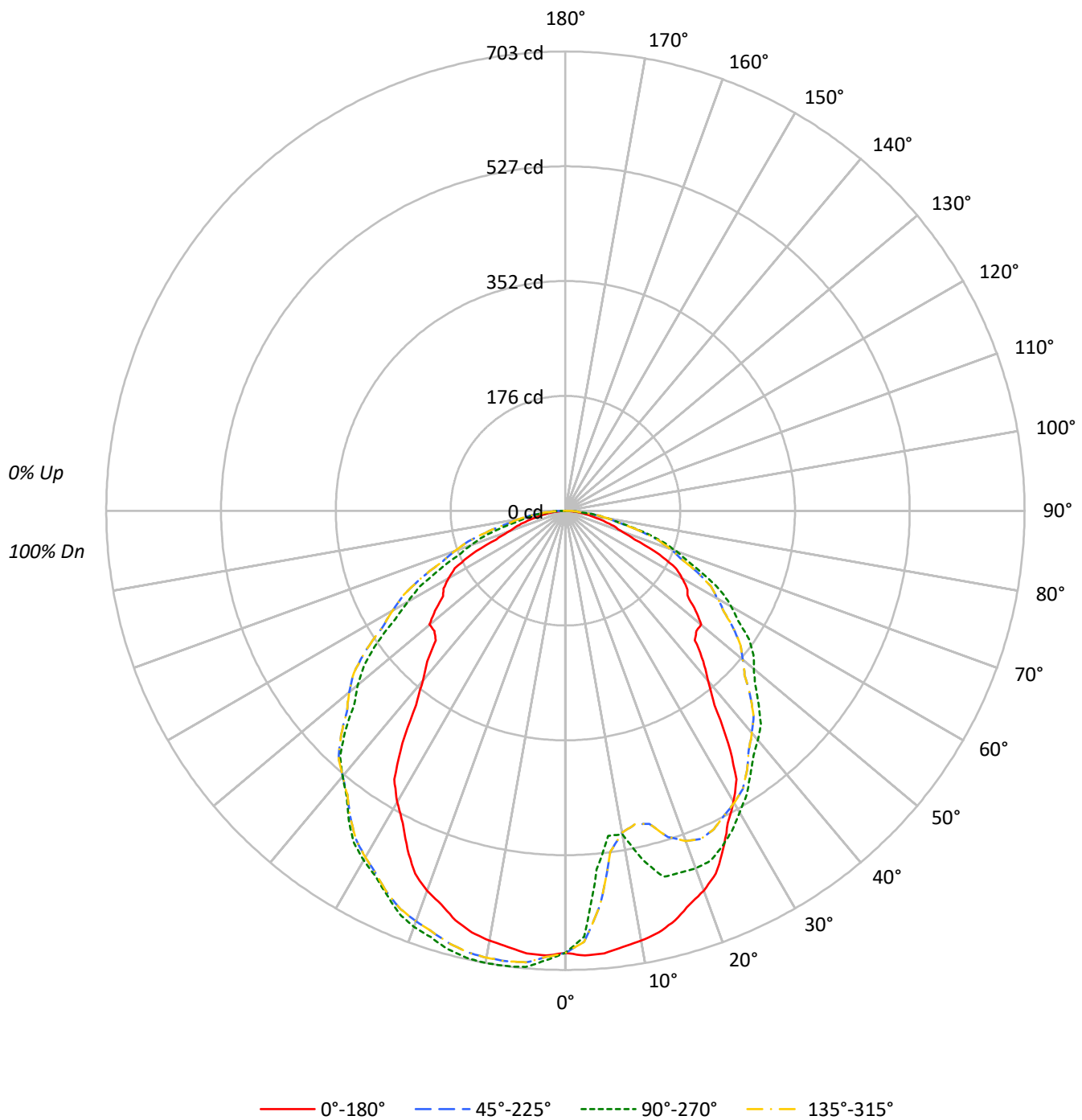
Lumens per Lamp: N/A
Luminaire Lumens: 1753.7 lumens
Efficiency: N/A
Efficacy: 108.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER:

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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°	6244	6244	6244	6244
5°	6298	5106	6298	6493
10°	6262	4709	6262	6586
15°	6201	5541	6201	6636
20°	6079	5720	6079	6657
25°	5821	5775	5821	6596
30°	5484	5682	5484	6583
35°	4896	5559	4896	6512
40°	4087	5521	4087	6393
45°	3659	5455	3659	6216
50°	3897	5404	3897	5955
55°	3677	5521	3677	5654
60°	3805	5410	3805	5139
65°	3467	5172	3467	4626
70°	2417	4853	2417	4127
75°	2146	4292	2146	3583
80°	1769	3331	1769	3060
85°	1080	2308	1080	2710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6349 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	3.5
10°-20°	173.4	9.9
20°-30°	267.9	15.3
30°-40°	320.1	18.3
40°-50°	322.2	18.4
50°-60°	279.7	16.0
60°-70°	198.0	11.3
70°-80°	104.7	6.0
80°-90°	26.6	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°	502.3	28.6
0°-40°	822.4	46.9
0°-60°	1424.3	81.2
0°-90°	1753.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1753.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	677	677	677	677	677	
5°	680	551	680	701	680	64
15°	649	580	649	695	649	183
25°	572	567	572	648	572	262
35°	435	494	435	578	435	268
45°	280	418	280	476	280	226
55°	229	343	229	352	229	210
65°	159	237	159	212	159	151
75°	60	120	60	100	60	63
85°	10	22	10	26	10	15
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°	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8
2.5°	681.4	676.2	674.2	670.1	662.4	658.3	661.4	656.3	658.3	652.7	658.3
5°	680.0	668.4	658.8	642.8	619.8	592.9	586.5	569.8	559.6	551.3	559.6
7.5°	673.6	653.8	624.5	575.6	536.3	517.1	512.3	507.6	506.3	502.1	506.3
10°	668.4	641.5	587.1	532.1	504.5	495.6	497.5	499.4	503.2	502.6	503.2
12.5°	661.3	620.0	548.2	510.0	491.7	491.5	505.7	531.2	548.8	547.7	548.8
15°	649.2	578.8	511.6	487.2	481.5	510.9	562.8	575.0	579.4	580.1	579.4
17.5°	631.9	538.5	488.1	472.1	491.7	555.7	571.5	577.0	580.8	581.1	580.8
20°	619.1	518.0	476.4	465.5	517.3	558.3	567.9	575.0	581.4	582.6	581.4
22.5°	601.7	503.6	464.1	460.9	531.7	555.7	564.3	575.0	580.3	580.1	580.3
25°	571.8	486.0	448.8	455.9	533.3	542.3	558.9	566.0	566.6	567.3	566.6
27.5°	538.8	470.5	431.0	459.2	523.0	529.4	547.3	550.9	553.3	552.3	553.3
30°	514.8	459.7	418.7	459.7	514.8	518.6	536.5	539.1	535.9	533.3	535.9
32.5°	487.6	446.4	406.9	456.1	502.5	507.9	522.2	521.2	518.0	515.9	518.0
35°	434.7	423.9	385.4	444.3	481.5	488.5	496.8	496.2	495.6	493.6	495.6
37.5°	375.2	397.2	364.2	426.0	461.2	460.7	473.2	475.8	475.2	472.8	475.2
40°	339.3	375.2	350.9	411.7	446.9	441.8	457.8	461.0	460.3	458.4	460.3
42.5°	312.7	346.0	335.5	394.3	429.5	423.3	442.9	446.1	444.5	443.1	444.5
45°	280.4	286.2	311.8	366.2	400.2	399.5	420.7	423.9	420.0	418.1	420.0
47.5°	272.0	230.7	285.9	333.7	371.1	373.5	396.2	399.0	395.6	393.9	395.6
50°	271.5	203.6	267.0	308.6	352.1	356.6	380.3	381.6	377.1	376.5	377.1
52.5°	251.5	188.2	245.0	286.6	335.8	341.3	362.9	362.6	362.3	363.2	362.3
55°	228.6	169.7	206.8	254.2	310.5	317.6	336.8	337.4	341.9	343.2	341.9
57.5°	221.0	148.7	171.5	226.1	285.2	290.7	308.7	310.3	313.3	313.2	313.3
60°	206.2	133.8	150.5	208.7	265.7	272.8	288.8	291.3	293.9	293.2	293.9
62.5°	190.8	123.6	140.2	194.4	247.3	254.8	265.7	270.3	271.3	270.2	271.3
65°	158.8	110.1	124.2	171.6	219.0	227.3	234.3	237.5	238.2	236.9	238.2
67.5°	114.7	97.7	111.7	149.1	186.4	195.8	199.9	201.8	201.2	203.5	201.2
70°	89.6	89.0	102.4	133.2	166.5	174.8	177.4	179.3	178.6	179.9	178.6
72.5°	77.3	81.8	92.7	116.8	143.9	152.3	153.8	154.2	156.1	154.8	156.1
75°	60.2	69.8	76.8	92.2	112.7	118.4	119.1	119.7	118.4	120.4	118.4
77.5°	42.0	53.1	59.4	68.3	82.1	85.7	85.5	85.9	84.9	84.8	84.9
80°	33.3	40.3	46.1	51.9	62.1	64.7	64.0	63.4	63.4	62.7	63.4
82.5°	24.6	28.6	33.8	38.0	44.7	45.2	46.1	44.9	44.9	45.8	44.9
85°	10.2	13.4	17.3	19.2	21.8	22.4	21.1	23.0	21.8	21.8	21.8
87.5°	2.6	4.1	6.1	7.2	7.7	7.2	7.2	6.1	6.1	6.1	6.1
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8
2.5°	656.3	661.4	658.3	662.4	670.1	674.2	676.2	681.4	681.4	684.4	685.5
5°	569.8	586.5	592.9	619.8	642.8	658.8	668.4	680.0	685.1	692.1	694.7
7.5°	507.6	512.3	517.1	536.3	575.6	624.5	653.8	673.6	683.9	693.1	696.9
10°	499.4	497.5	495.6	504.5	532.1	587.1	641.5	668.4	681.9	692.1	695.3
12.5°	531.2	505.7	491.5	491.7	510.0	548.2	620.0	661.3	678.8	688.5	692.2
15°	575.0	562.8	510.9	481.5	487.2	511.6	578.8	649.2	671.0	680.0	685.7
17.5°	577.0	571.5	555.7	491.7	472.1	488.1	538.5	631.9	659.6	670.2	675.3
20°	575.0	567.9	558.3	517.3	465.5	476.4	518.0	619.1	649.9	662.0	667.2
22.5°	575.0	564.3	555.7	531.7	460.9	464.1	503.6	601.7	639.6	652.3	657.4
25°	566.0	558.9	542.3	533.3	455.9	448.8	486.0	571.8	623.0	633.9	641.5
27.5°	550.9	547.3	529.4	523.0	459.2	431.0	470.5	538.8	600.1	615.5	623.9
30°	539.1	536.5	518.6	514.8	459.7	418.7	459.7	514.8	580.1	601.2	612.1
32.5°	521.2	522.2	507.9	502.5	456.1	406.9	446.4	487.6	550.4	586.4	599.3
35°	496.2	496.8	488.5	481.5	444.3	385.4	423.9	434.7	514.1	565.3	576.2
37.5°	475.8	473.2	460.7	461.2	426.0	364.2	397.2	375.2	481.3	543.2	551.1
40°	461.0	457.8	441.8	446.9	411.7	350.9	375.2	339.3	450.1	526.3	532.7
42.5°	446.1	442.9	423.3	429.5	394.3	335.5	346.0	312.7	415.8	508.4	510.2
45°	423.9	420.7	399.5	400.2	366.2	311.8	286.2	280.4	395.7	479.6	479.6
47.5°	399.0	396.2	373.5	371.1	333.7	285.9	230.7	272.0	367.5	448.6	448.3
50°	381.6	380.3	356.6	352.1	308.6	267.0	203.6	271.5	347.0	421.9	428.3
52.5°	362.6	362.9	341.3	335.8	286.6	245.0	188.2	251.5	321.9	387.6	407.8
55°	337.4	336.8	317.6	310.5	254.2	206.8	169.7	228.6	283.0	340.0	373.9
57.5°	310.3	308.7	290.7	285.2	226.1	171.5	148.7	221.0	222.6	296.4	339.7
60°	291.3	288.8	272.8	265.7	208.7	150.5	133.8	206.2	170.3	265.7	313.1
62.5°	270.3	265.7	254.8	247.3	194.4	140.2	123.6	190.8	132.9	230.9	287.5
65°	237.5	234.3	227.3	219.0	171.6	124.2	110.1	158.8	103.7	158.1	249.7
67.5°	201.8	199.9	195.8	186.4	149.1	111.7	97.7	114.7	78.9	100.4	213.7
70°	179.3	177.4	174.8	166.5	133.2	102.4	89.0	89.6	56.3	74.3	190.2
72.5°	154.2	153.8	152.3	143.9	116.8	92.7	81.8	77.3	47.6	58.4	166.1
75°	119.7	119.1	118.4	112.7	92.2	76.8	69.8	60.2	48.0	41.6	130.0
77.5°	85.9	85.5	85.7	82.1	68.3	59.4	53.1	42.0	42.9	31.6	97.3
80°	63.4	64.0	64.7	62.1	51.9	46.1	40.3	33.3	35.2	25.0	74.3
82.5°	44.9	46.1	45.2	44.7	38.0	33.8	28.6	24.6	25.0	19.8	55.3
85°	23.0	21.1	22.4	21.8	19.2	17.3	13.4	10.2	12.8	11.5	27.5
87.5°	6.1	7.2	7.2	7.7	7.2	6.1	4.1	2.6	4.6	5.6	11.3
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°	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8	676.8
2.5°	683.9	683.9	688.5	689.6	690.6	689.0	690.6	689.6	688.5	683.9	683.9
5°	694.0	694.0	700.4	702.4	702.4	701.1	702.4	702.4	700.4	694.0	694.0
7.5°	694.9	696.0	702.4	703.8	704.9	703.0	704.9	703.8	702.4	696.0	694.9
10°	693.4	696.0	702.4	704.3	704.9	703.0	704.9	704.3	702.4	696.0	693.4
12.5°	691.4	693.4	699.8	701.2	702.4	701.0	702.4	701.2	699.8	693.4	691.4
15°	684.4	687.0	694.0	695.3	696.6	694.7	696.6	695.3	694.0	687.0	684.4
17.5°	674.8	678.0	684.4	686.5	687.1	684.7	687.1	686.5	684.4	678.0	674.8
20°	667.2	670.4	676.8	679.3	680.0	678.0	680.0	679.3	676.8	670.4	667.2
22.5°	657.4	662.7	668.6	669.6	668.7	666.8	668.7	669.6	668.6	662.7	657.4
25°	643.5	647.9	649.9	649.9	649.9	647.9	649.9	649.9	649.9	647.9	643.5
27.5°	625.7	628.0	629.1	630.1	631.4	630.1	631.4	630.1	629.1	628.0	625.7
30°	613.4	612.1	615.3	617.9	619.1	617.9	619.1	617.9	615.3	612.1	613.4
32.5°	596.5	597.2	602.0	603.5	603.8	602.5	603.8	603.5	602.0	597.2	596.5
35°	571.8	575.0	578.2	579.4	580.1	578.2	580.1	579.4	578.2	575.0	571.8
37.5°	545.6	551.3	553.6	552.2	552.3	550.2	552.3	552.2	553.6	551.3	545.6
40°	528.2	533.3	534.6	532.7	533.3	530.8	533.3	532.7	534.6	533.3	528.2
42.5°	511.8	515.9	514.6	512.2	511.8	510.8	511.8	512.2	514.6	515.9	511.8
45°	484.7	486.6	480.8	478.9	477.6	476.4	477.6	478.9	480.8	486.6	484.7
47.5°	455.0	452.4	446.9	444.0	440.4	437.9	440.4	444.0	446.9	452.4	455.0
50°	436.0	428.3	423.9	416.8	414.2	414.9	414.2	416.8	423.9	428.3	436.0
52.5°	413.0	403.7	396.7	390.7	388.6	388.3	388.6	390.7	396.7	403.7	413.0
55°	379.7	365.6	354.1	350.9	350.2	351.5	350.2	350.9	354.1	365.6	379.7
57.5°	338.8	325.0	315.5	313.0	310.8	308.7	310.8	313.0	315.5	325.0	338.8
60°	311.2	298.4	289.4	286.8	281.1	278.5	281.1	286.8	289.4	298.4	311.2
62.5°	286.6	271.2	264.3	259.2	255.0	250.9	255.0	259.2	264.3	271.2	286.6
65°	251.0	233.1	226.0	221.5	213.8	211.9	213.8	221.5	226.0	233.1	251.0
67.5°	212.1	196.4	187.6	181.6	176.7	176.6	176.7	181.6	187.6	196.4	212.1
70°	187.0	172.9	164.5	157.5	153.7	153.0	153.7	157.5	164.5	172.9	187.0
72.5°	162.4	148.8	141.5	135.0	131.6	131.0	131.6	135.0	141.5	148.8	162.4
75°	127.4	114.6	108.8	104.4	101.8	100.5	101.8	104.4	108.8	114.6	127.4
77.5°	94.2	83.9	80.9	76.3	74.1	74.0	74.1	76.3	80.9	83.9	94.2
80°	74.3	65.9	61.5	58.9	58.3	57.6	58.3	58.9	61.5	65.9	74.3
82.5°	53.8	49.0	46.1	44.6	44.4	43.3	44.4	44.6	46.1	49.0	53.8
85°	28.8	27.5	26.9	26.3	25.6	25.6	25.6	26.3	26.9	27.5	28.8
87.5°	11.8	12.3	12.3	12.8	13.3	12.8	13.3	12.8	12.3	12.3	11.8
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°	676.8	676.8	676.8	676.8
2.5°	685.5	684.4	681.4	681.4
5°	694.7	692.1	685.1	680.0
7.5°	696.9	693.1	683.9	673.6
10°	695.3	692.1	681.9	668.4
12.5°	692.2	688.5	678.8	661.3
15°	685.7	680.0	671.0	649.2
17.5°	675.3	670.2	659.6	631.9
20°	667.2	662.0	649.9	619.1
22.5°	657.4	652.3	639.6	601.7
25°	641.5	633.9	623.0	571.8
27.5°	623.9	615.5	600.1	538.8
30°	612.1	601.2	580.1	514.8
32.5°	599.3	586.4	550.4	487.6
35°	576.2	565.3	514.1	434.7
37.5°	551.1	543.2	481.3	375.2
40°	532.7	526.3	450.1	339.3
42.5°	510.2	508.4	415.8	312.7
45°	479.6	479.6	395.7	280.4
47.5°	448.3	448.6	367.5	272.0
50°	428.3	421.9	347.0	271.5
52.5°	407.8	387.6	321.9	251.5
55°	373.9	340.0	283.0	228.6
57.5°	339.7	296.4	222.6	221.0
60°	313.1	265.7	170.3	206.2
62.5°	287.5	230.9	132.9	190.8
65°	249.7	158.1	103.7	158.8
67.5°	213.7	100.4	78.9	114.7
70°	190.2	74.3	56.3	89.6
72.5°	166.1	58.4	47.6	77.3
75°	130.0	41.6	48.0	60.2
77.5°	97.3	31.6	42.9	42.0
80°	74.3	25.0	35.2	33.3
82.5°	55.3	19.8	25.0	24.6
85°	27.5	11.5	12.8	10.2
87.5°	11.3	5.6	4.6	2.6
90°	0.0	0.0	0.0	0.0

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