

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P162590

Luminaire Tested: **ECM-F01-LED-E1-SL4-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162590
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F01-LED-E1-SL4-HSS-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (7) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1347.9 lumens
Efficiency: N/A
Efficacy: 52.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G1

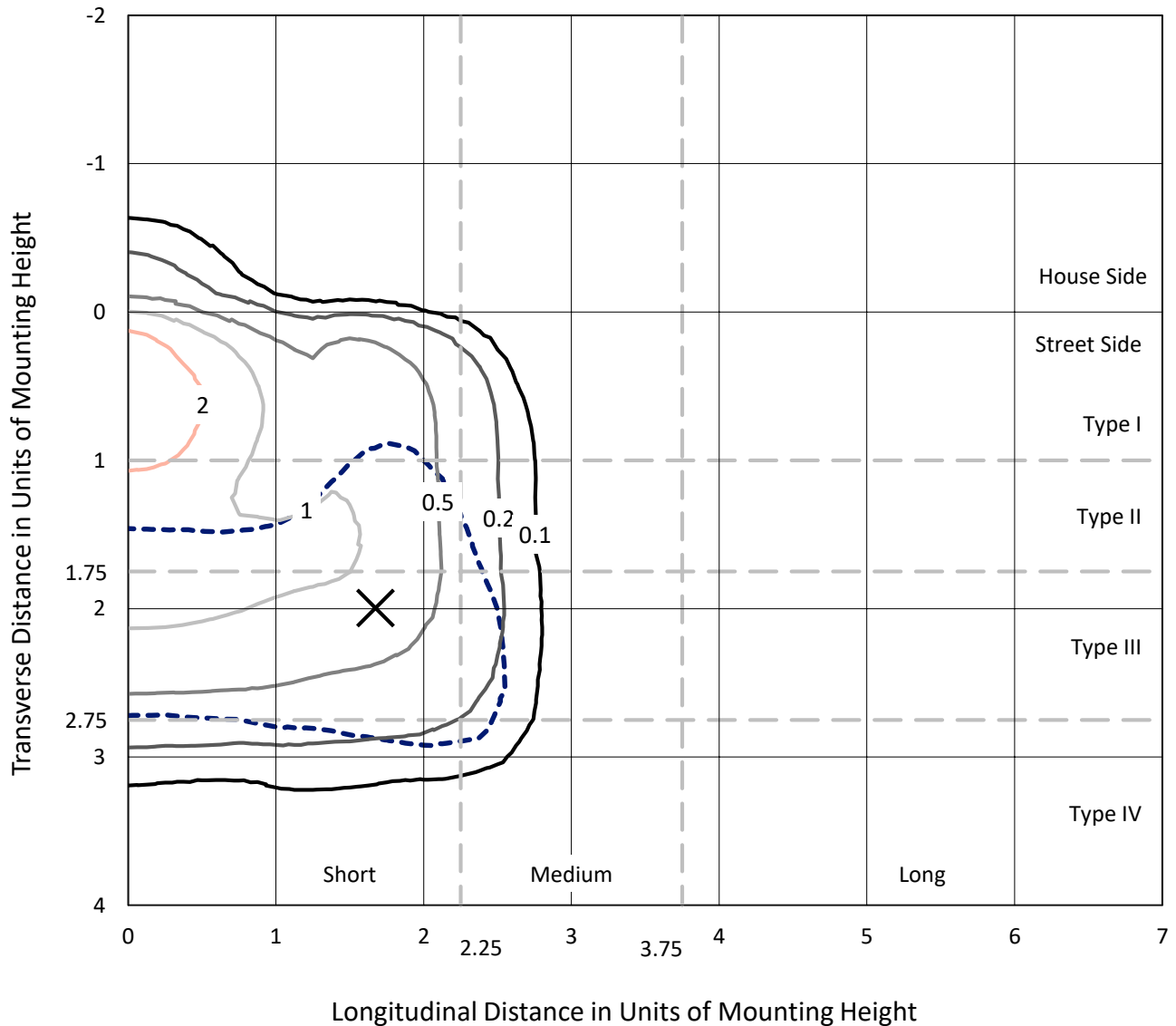
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

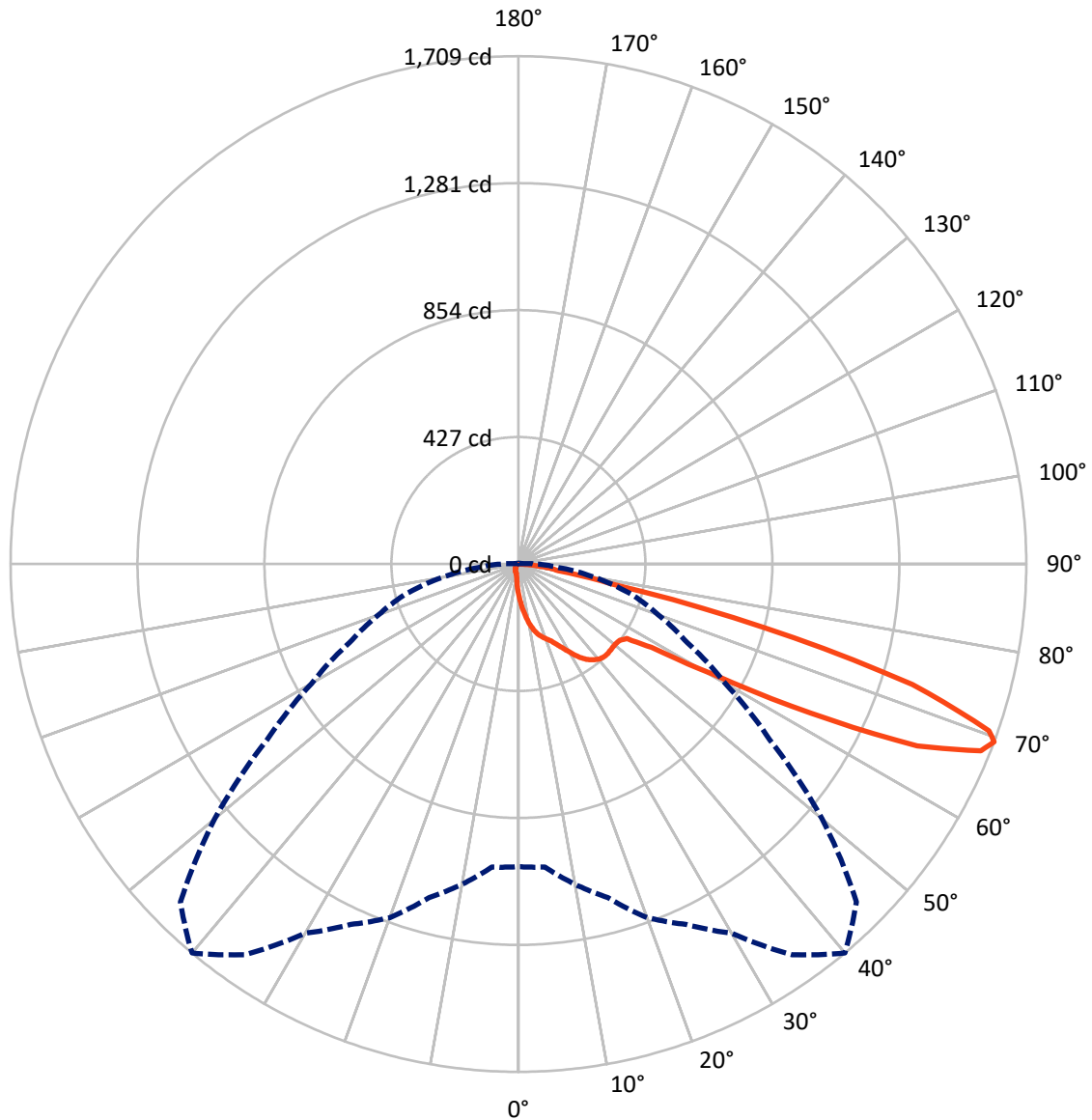
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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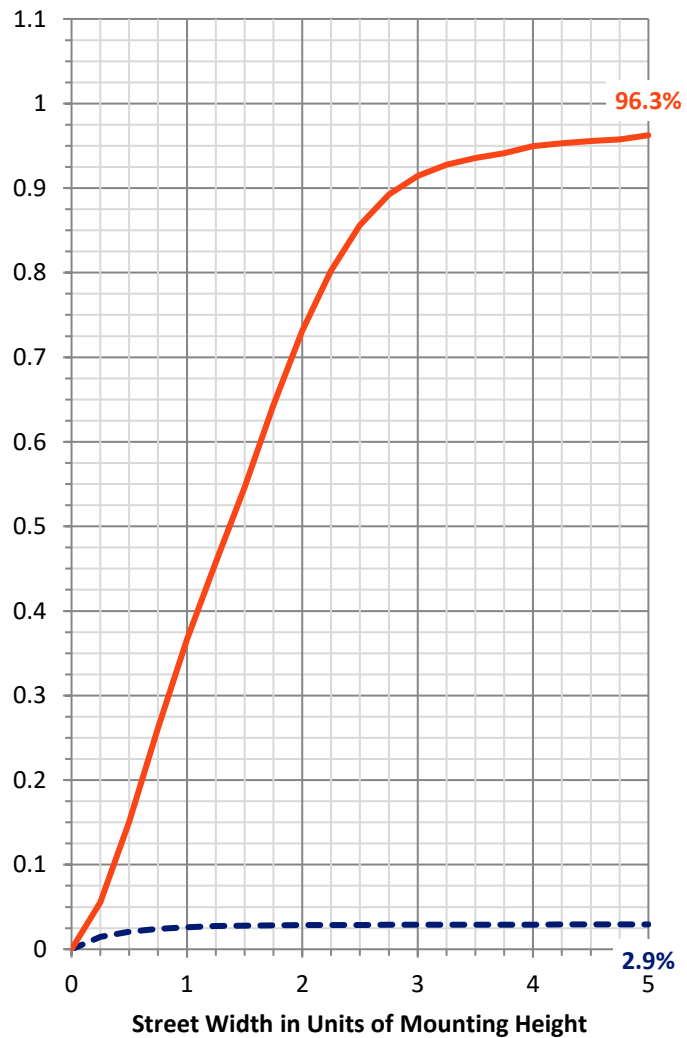
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	40.1	0.0	40.1
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	1307.8	0.0	1307.8
	% Fixture	97.0	0.0	97.0
Total	Lumens	1347.9	0.0	1347.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.5	0.8
10°-20°	36.1	2.7
20°-30°	69.0	5.1
30°-40°	114.8	8.5
40°-50°	155.4	11.5
50°-60°	243.0	18.0
60°-70°	499.6	37.1
70°-80°	201.0	14.9
80°-90°	18.6	1.4
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°-90°	1347.9	100.0
0°-180°	1347.9	100.0



--- HS — SS

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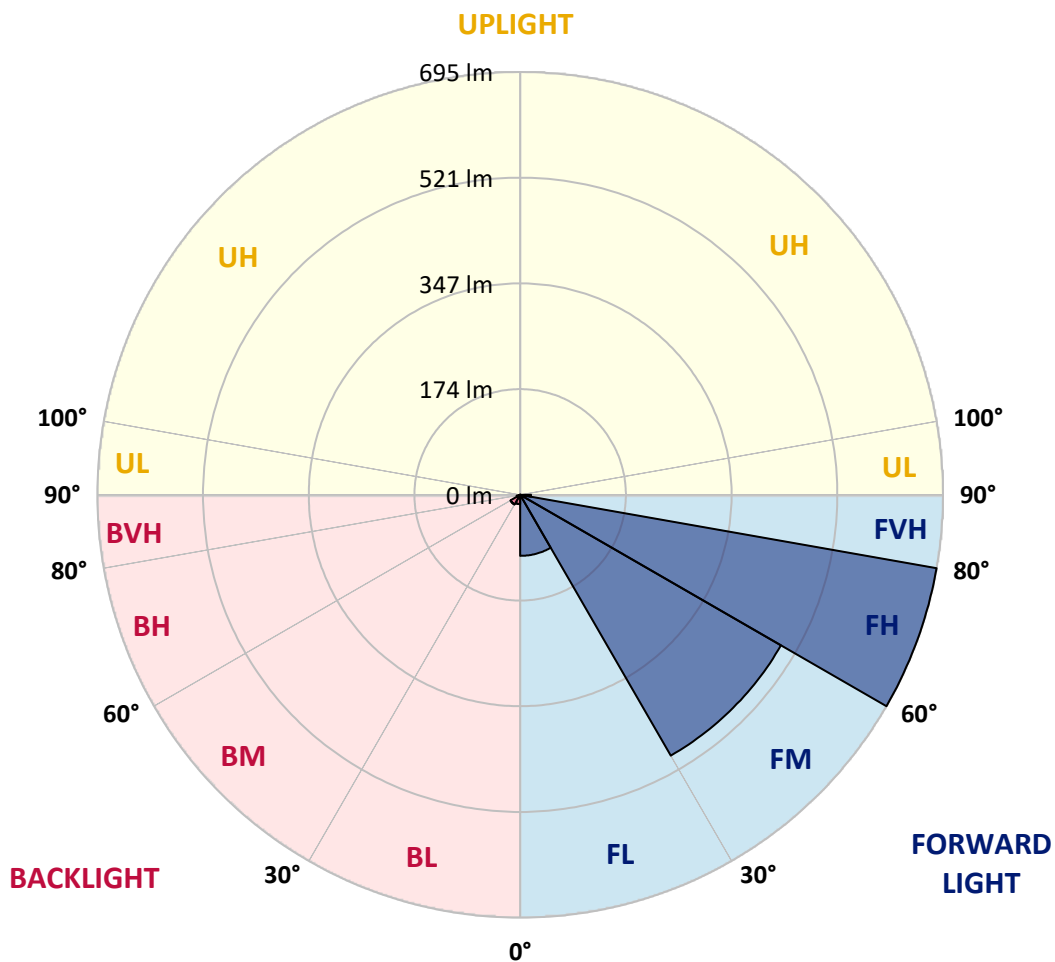
CATALOG NUMBER: ECM-F01-LED-E1-SL4-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	100.3	7.4			
FM (30°-60°)	494.8	36.7			
FH (60°-80°)	694.7	51.5			G1/1800
FVH (80°-90°)	17.9	1.3			G1/100
BL (0°-30°)	15.3	1.1	B0/110		
BM (30°-60°)	18.3	1.4	B0/220		
BH (60°-80°)	5.9	0.4	B0/110		G0/110
BVH (80°-90°)	0.7	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
2.5°	135.8	134.3	132.5	132.5	130.3	130.3	128.9	125.4	125.0	123.0	121.0
5°	173.3	172.0	169.8	167.8	166.1	163.0	160.8	156.6	151.9	147.5	143.5
7.5°	210.0	209.3	205.4	204.7	201.8	196.7	192.3	186.1	178.2	172.0	164.7
10°	244.0	242.4	241.6	237.8	233.6	228.1	221.3	213.7	204.5	194.8	184.4
12.5°	270.9	270.1	266.1	264.5	260.1	254.6	246.0	236.3	227.0	214.4	202.3
15°	291.0	289.5	286.8	284.4	279.1	274.2	266.3	255.7	244.4	230.7	216.2
17.5°	307.8	304.9	304.3	300.5	295.0	289.3	280.4	270.7	257.5	243.8	227.9
20°	330.3	326.4	325.0	319.5	313.1	305.2	295.0	282.9	268.9	253.9	237.6
22.5°	356.8	354.0	351.1	346.2	338.1	326.8	312.0	298.8	281.1	264.5	246.9
25°	394.4	391.9	387.3	380.7	370.5	357.1	339.2	319.7	299.0	277.8	257.0
27.5°	430.8	428.6	425.3	420.2	408.7	393.9	371.8	347.1	320.8	295.2	272.3
30°	465.0	463.0	459.7	454.6	444.5	429.9	405.0	378.5	345.8	316.0	288.4
32.5°	501.9	501.2	497.5	490.2	481.4	461.7	434.6	406.1	372.9	338.5	306.3
35°	543.6	538.6	535.0	527.7	512.7	491.7	459.9	428.8	393.9	358.6	322.6
37.5°	579.0	574.1	569.7	560.4	542.1	515.4	479.4	445.1	409.2	373.2	336.5
40°	604.8	602.4	597.1	584.9	564.4	532.6	493.7	456.4	420.2	384.0	347.8
42.5°	624.0	620.3	614.3	601.7	577.4	541.2	499.5	461.1	425.3	390.6	355.1
45°	631.1	628.0	622.5	608.8	582.5	543.6	499.3	459.7	425.5	392.6	359.9
47.5°	626.9	623.8	618.9	606.1	580.3	540.8	495.3	456.0	423.3	393.3	364.3
50°	613.0	611.2	607.4	596.6	573.4	535.2	491.7	454.0	422.8	396.6	370.5
52.5°	611.6	610.5	605.9	595.1	571.5	533.5	491.3	455.1	426.6	400.8	374.9
55°	747.4	731.8	696.6	666.8	617.8	559.5	513.6	473.0	442.5	417.3	399.2
57.5°	1062.3	1038.9	992.8	936.0	823.4	712.8	624.2	560.2	528.6	517.1	524.0
60°	1209.8	1205.6	1198.3	1171.4	1113.8	1018.6	912.6	798.0	752.1	748.1	762.0
62.5°	1279.8	1277.2	1279.4	1276.0	1258.2	1230.3	1199.9	1150.4	1104.9	1075.6	1013.3
65°	1312.0	1313.8	1326.4	1336.3	1338.5	1345.8	1368.1	1429.7	1474.8	1399.0	1226.2
67.5°	1230.1	1240.5	1269.4	1305.6	1348.0	1389.1	1455.4	1585.2	1677.7	1588.7	1343.2
69°	1018.4	1023.5	1094.1	1162.3	1265.9	1338.3	1434.4	1604.6	1708.6	1608.2	1333.9
70°	801.8	806.4	882.1	974.9	1150.0	1243.2	1368.8	1571.7	1679.7	1582.3	1286.2
72.5°	361.7	355.1	381.8	431.5	621.8	769.7	989.5	1273.4	1385.8	1267.7	962.3
75°	252.6	249.7	252.6	252.8	282.4	364.3	459.7	690.3	853.6	736.6	459.7
77.5°	195.6	193.6	191.7	189.5	193.0	216.2	225.4	244.9	318.0	300.7	175.3
80°	154.8	153.0	157.9	156.3	156.3	159.0	157.2	149.9	136.2	126.3	113.1
82.5°	72.0	72.4	72.4	78.6	94.7	110.6	115.7	108.4	96.3	81.9	66.0
85°	6.9	7.7	13.0	20.1	40.0	45.1	45.3	37.5	37.5	29.6	23.9
87.5°	0.0	0.2	0.2	0.2	2.0	5.5	4.6	1.3	0.7	0.7	1.1
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
2.5°	117.5	116.8	114.1	111.5	109.1	106.4	104.0	101.6	98.9	96.9	94.5
5°	137.3	132.5	127.0	121.7	116.4	110.9	105.1	100.0	94.7	89.9	85.2
7.5°	157.4	147.9	140.4	130.9	122.3	113.7	105.8	97.6	90.1	83.0	76.4
10°	174.4	163.0	151.3	139.1	126.7	115.3	104.2	94.5	84.6	76.0	67.8
12.5°	188.4	173.8	159.4	144.2	130.3	115.7	102.0	90.3	78.6	68.9	60.5
15°	200.9	184.1	166.9	149.3	131.6	115.0	99.8	85.2	73.3	62.3	52.8
17.5°	211.1	191.9	172.4	152.6	133.6	114.1	96.9	81.7	67.8	56.3	47.0
20°	219.9	199.8	178.9	156.6	134.9	113.9	94.5	77.3	62.9	50.8	41.7
22.5°	228.1	208.0	185.5	161.6	136.9	113.7	92.3	74.0	58.7	46.6	37.5
25°	237.4	216.2	192.6	166.9	140.4	114.6	91.0	71.3	55.0	42.6	34.2
27.5°	247.8	225.4	200.9	173.6	145.1	116.4	90.5	68.4	51.7	38.9	31.6
30°	262.3	236.5	209.3	180.2	149.3	118.4	90.1	66.7	48.4	36.0	28.9
32.5°	275.1	247.3	218.6	187.0	153.9	120.3	89.9	64.3	45.3	33.1	26.9
35°	288.6	257.2	226.6	193.6	157.9	122.6	89.6	62.5	42.4	30.3	24.9
37.5°	300.3	265.6	232.7	199.4	162.3	124.5	89.9	60.9	39.7	27.8	23.2
40°	310.2	274.2	239.6	204.7	166.9	127.6	90.1	59.4	37.1	25.6	21.6
42.5°	319.1	282.4	246.9	210.6	172.2	131.2	91.4	58.1	34.9	23.6	20.1
45°	325.9	289.9	254.8	219.1	180.8	136.9	93.9	57.2	32.7	21.9	18.8
47.5°	333.0	301.0	268.3	232.3	193.4	146.0	98.0	57.0	30.9	20.5	17.7
50°	342.7	312.0	280.2	245.8	204.9	155.2	103.1	57.2	28.7	19.2	16.6
52.5°	349.8	323.3	295.7	269.2	232.3	183.5	122.8	61.2	27.6	18.1	15.2
55°	391.5	386.9	387.5	391.9	363.5	312.2	205.4	88.3	32.5	20.5	15.0
57.5°	552.0	568.4	577.8	577.6	530.6	440.1	275.8	113.5	36.2	23.9	17.9
60°	763.1	750.8	733.3	690.3	627.8	502.3	308.5	122.1	31.4	19.0	16.4
62.5°	949.7	877.3	813.0	743.3	661.3	524.0	315.1	121.4	27.4	14.4	11.5
65°	1066.1	935.8	832.0	744.6	648.1	505.9	298.1	111.5	23.2	11.7	9.5
67.5°	1093.9	904.2	757.4	645.9	541.4	393.7	218.8	83.9	18.1	9.7	8.4
69°	1033.2	803.8	627.5	501.0	393.9	261.2	135.4	53.0	13.9	8.8	7.7
70°	950.4	699.1	511.2	402.1	291.7	183.5	94.7	37.3	11.3	8.2	7.1
72.5°	611.4	367.2	251.3	174.9	120.3	73.1	37.1	16.8	8.6	6.9	5.7
75°	237.1	135.8	98.5	74.9	58.5	40.6	22.5	10.8	7.3	5.7	4.4
77.5°	116.8	89.4	73.1	50.1	29.1	18.1	12.1	8.4	6.0	4.2	2.9
80°	92.3	61.4	36.6	22.7	17.2	13.0	9.3	6.9	4.4	2.6	2.0
82.5°	47.3	25.8	19.0	15.5	12.8	10.1	7.5	4.9	2.9	1.8	1.6
85°	14.8	10.8	9.7	9.5	8.8	7.3	5.3	3.1	1.8	1.1	1.1
87.5°	1.1	1.6	2.0	1.6	1.8	1.6	2.0	1.3	0.9	0.9	0.7
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°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
2.5°	92.7	90.1	87.7	86.1	83.2	82.1	81.0	80.6	78.6	79.1	77.3
5°	81.0	76.4	72.9	69.3	66.0	63.6	61.6	59.2	57.2	56.3	54.5
7.5°	70.4	64.5	59.8	56.1	52.1	49.0	46.4	44.6	42.8	41.1	40.2
10°	61.2	54.8	49.5	45.7	41.9	39.3	37.3	36.0	34.9	34.2	34.0
12.5°	52.6	46.4	41.5	38.2	35.3	34.0	33.1	32.5	32.2	32.0	32.0
15°	45.9	39.7	36.0	33.6	32.2	31.6	31.4	30.9	30.5	30.3	30.3
17.5°	39.7	35.1	32.5	31.1	30.5	30.0	29.6	29.1	28.7	28.5	28.5
20°	35.6	31.8	30.5	29.6	28.9	28.5	27.8	27.4	27.1	26.9	26.7
22.5°	32.2	29.8	28.9	28.3	27.4	26.7	26.3	25.8	25.4	25.2	24.9
25°	29.8	28.3	27.6	26.7	25.8	25.2	24.5	23.9	23.4	23.2	22.7
27.5°	28.0	26.9	26.1	24.9	24.1	23.4	22.7	22.1	21.6	21.2	21.0
30°	26.5	25.4	24.3	23.4	22.3	21.6	20.8	20.1	19.9	19.4	19.0
32.5°	24.9	23.9	22.7	21.6	20.5	19.6	19.2	18.3	17.9	17.7	17.2
35°	23.2	22.1	20.8	19.9	18.8	17.9	17.2	16.6	16.1	15.7	15.5
37.5°	21.6	20.3	19.0	17.9	17.0	16.1	15.5	14.8	14.4	13.9	13.7
40°	19.9	18.6	17.2	16.1	15.2	14.6	13.9	13.2	12.8	12.6	12.6
42.5°	18.3	16.8	15.5	14.6	13.9	13.0	12.4	11.7	11.5	11.3	11.5
45°	16.8	15.2	14.1	13.2	12.6	11.7	11.0	10.6	10.4	10.6	10.8
47.5°	15.5	13.9	12.8	12.1	11.5	10.8	10.1	9.7	9.7	10.1	10.6
50°	14.1	12.6	11.7	11.3	10.6	9.9	9.1	8.8	9.1	9.5	9.9
52.5°	12.8	11.0	10.4	10.1	9.5	8.8	8.2	7.9	8.2	8.6	8.4
55°	11.5	9.7	9.5	9.3	8.6	7.7	7.1	7.1	7.1	6.9	6.4
57.5°	11.0	8.6	8.4	8.2	7.5	6.6	6.2	5.7	5.5	4.9	4.6
60°	11.5	7.7	7.7	7.3	6.6	5.7	5.1	4.4	4.0	3.5	3.5
62.5°	9.3	7.1	6.9	6.4	5.5	4.6	4.0	3.3	3.1	2.9	2.9
65°	7.5	6.4	6.0	5.3	4.6	3.8	3.1	2.6	2.4	2.4	2.6
67.5°	6.9	5.7	5.1	4.4	3.8	2.9	2.4	2.2	2.2	2.4	2.4
69°	6.4	5.3	4.6	4.0	3.3	2.6	2.2	2.2	2.2	2.2	2.4
70°	6.0	5.1	4.4	3.8	2.9	2.2	2.0	2.0	2.2	2.2	2.4
72.5°	4.6	4.0	3.8	3.1	2.2	2.0	1.8	2.0	2.0	2.2	2.2
75°	3.5	2.9	2.9	2.4	1.8	1.6	1.6	1.8	1.8	2.0	2.0
77.5°	2.4	2.0	2.0	1.8	1.6	1.3	1.3	1.6	1.8	1.8	2.0
80°	1.8	1.6	1.3	1.6	1.3	1.1	1.3	1.6	1.6	1.8	1.8
82.5°	1.3	1.3	1.3	1.3	1.1	1.1	1.3	1.3	1.6	1.8	1.8
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.3	1.3	1.6	1.6
87.5°	0.7	0.7	0.7	0.9	0.9	1.1	1.1	1.1	1.1	1.3	1.3
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):

	165°	170°	175°	180°
0°	101.8	101.8	101.8	101.8
2.5°	76.8	76.6	75.7	76.0
5°	53.9	52.6	53.4	53.2
7.5°	39.5	39.3	39.1	39.5
10°	33.8	33.8	33.6	33.8
12.5°	31.8	31.8	31.8	31.8
15°	30.3	30.3	30.0	30.0
17.5°	28.5	28.5	28.5	28.3
20°	26.7	26.5	26.5	26.5
22.5°	24.7	24.5	24.5	24.5
25°	22.7	22.5	22.5	22.5
27.5°	20.8	20.5	20.3	20.3
30°	18.8	18.6	18.3	18.3
32.5°	16.8	16.6	16.4	16.4
35°	15.0	15.0	14.8	14.6
37.5°	13.5	13.5	13.5	13.5
40°	12.4	12.6	12.6	12.6
42.5°	11.7	11.9	12.1	12.4
45°	11.3	11.7	11.9	11.9
47.5°	11.0	11.3	11.5	11.5
50°	10.1	9.9	9.9	9.9
52.5°	8.2	7.7	7.5	7.3
55°	6.0	5.7	5.3	5.3
57.5°	4.2	4.2	4.0	4.0
60°	3.3	3.3	3.1	3.3
62.5°	2.9	2.9	2.9	2.9
65°	2.6	2.6	2.6	2.6
67.5°	2.6	2.6	2.6	2.6
69°	2.4	2.4	2.4	2.4
70°	2.4	2.4	2.4	2.4
72.5°	2.2	2.2	2.2	2.2
75°	2.0	2.2	2.2	2.2
77.5°	2.0	2.0	2.0	2.0
80°	1.8	1.8	2.0	2.0
82.5°	1.8	1.8	1.8	1.8
85°	1.6	1.6	1.8	1.8
87.5°	1.3	1.3	1.6	1.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)