

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: P162592

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162592
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
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) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1597.1 lumens
Efficiency: N/A
Efficacy: 61.7 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

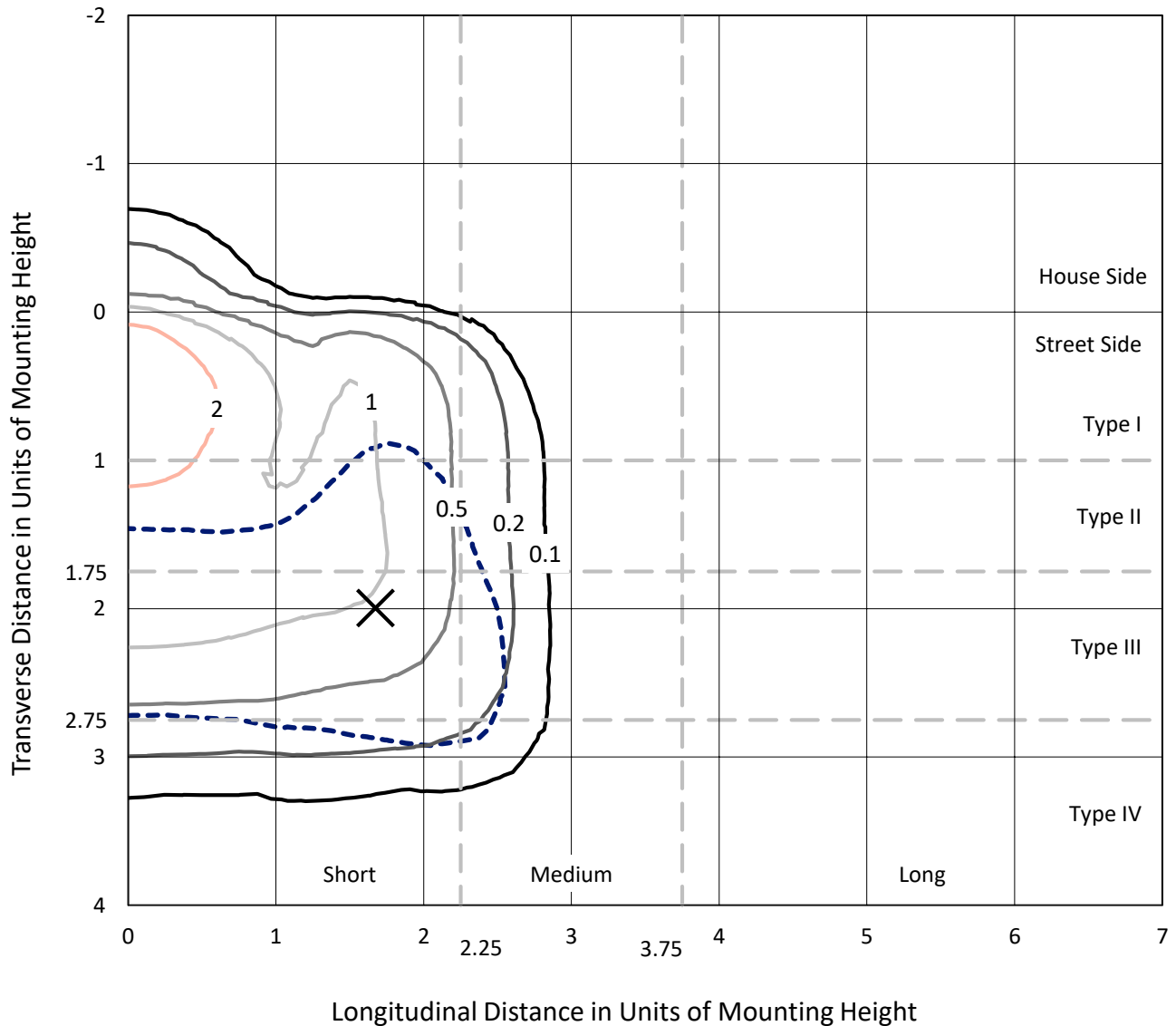


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

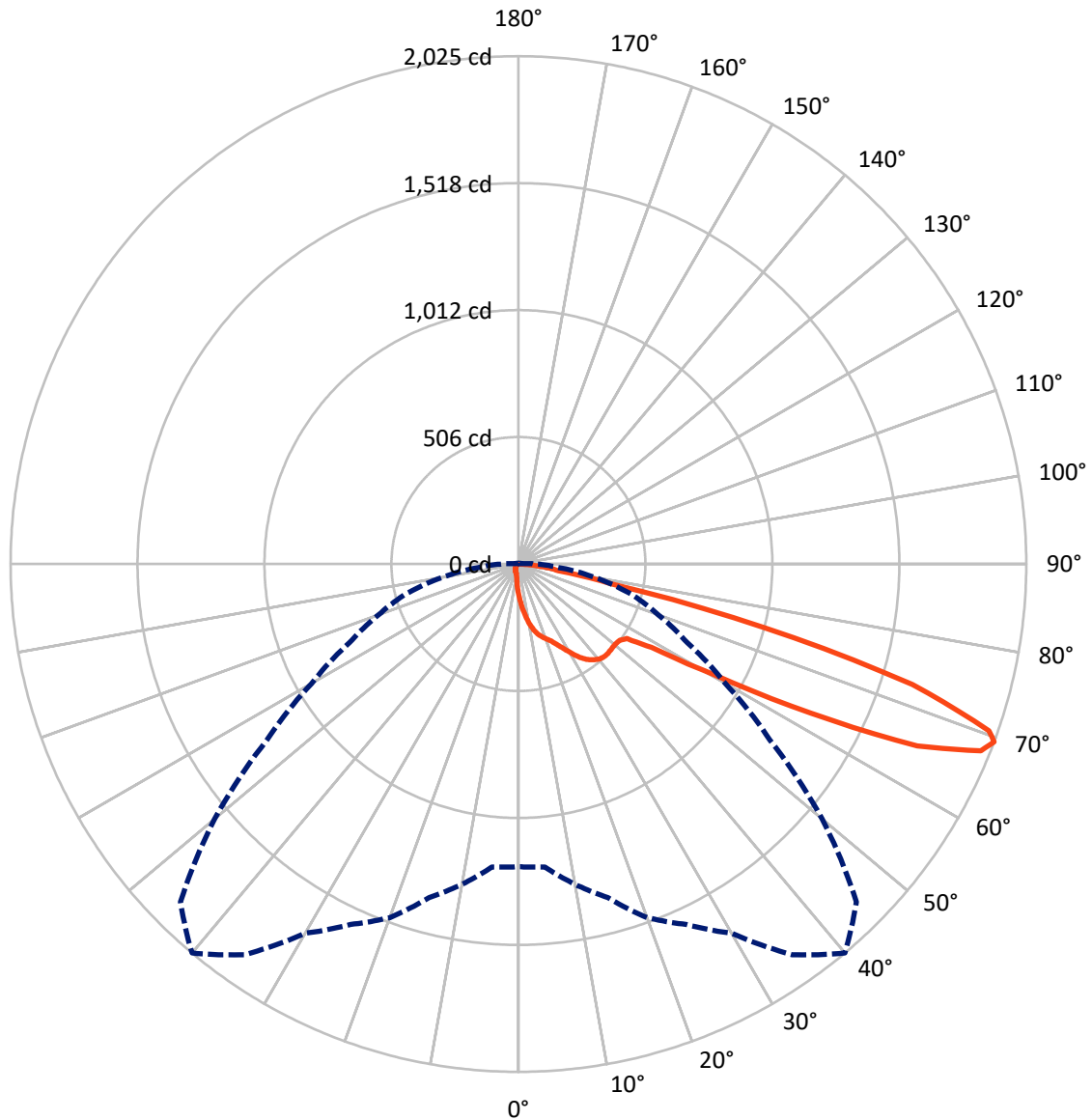


Based on 10 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

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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	47.6	0.0	47.6
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	1549.5	0.0	1549.5
	% Fixture	97.0	0.0	97.0
Total	Lumens	1597.1	0.0	1597.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.4	0.8
10°-20°	42.7	2.7
20°-30°	81.8	5.1
30°-40°	136.0	8.5
40°-50°	184.1	11.5
50°-60°	287.9	18.0
60°-70°	591.9	37.1
70°-80°	238.2	14.9
80°-90°	22.0	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°	1597.1	100.0
0°-180°	1597.1	100.0



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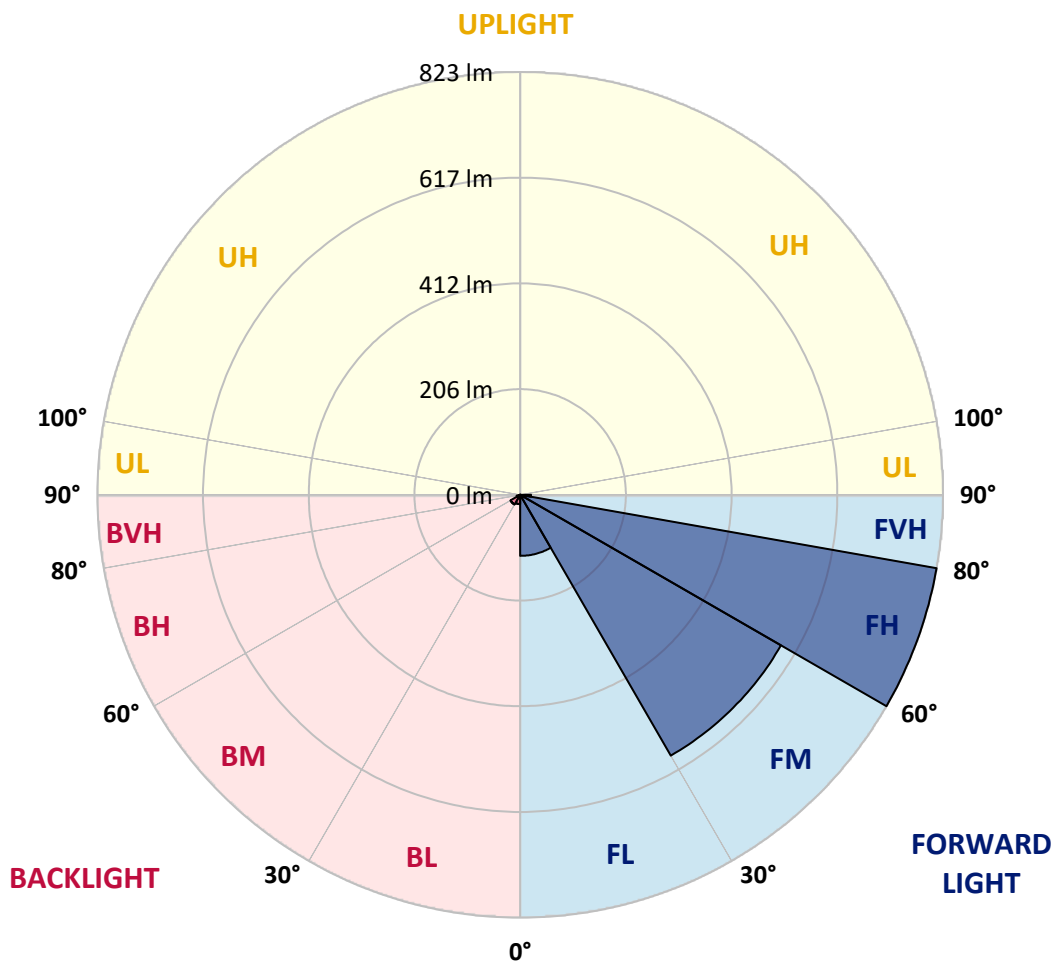
CATALOG NUMBER: ECM-F01-LED-E1-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	118.9	7.4			
FM (30°-60°)	586.3	36.7			
FH (60°-80°)	823.1	51.5			G1/1800
FVH (80°-90°)	21.2	1.3			G1/100
BL (0°-30°)	18.1	1.1	B0/110		
BM (30°-60°)	21.7	1.4	B0/220		
BH (60°-80°)	6.9	0.4	B0/110		G0/110
BVH (80°-90°)	0.8	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°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
2.5°	160.9	159.1	157.0	157.0	154.3	154.3	152.8	148.6	148.1	145.7	143.4
5°	205.4	203.8	201.2	198.8	196.8	193.1	190.5	185.5	180.0	174.8	170.1
7.5°	248.8	248.0	243.3	242.5	239.1	233.1	227.9	220.6	211.1	203.8	195.2
10°	289.1	287.3	286.2	281.8	276.8	270.2	262.2	253.2	242.3	230.8	218.5
12.5°	321.0	320.0	315.3	313.4	308.2	301.6	291.4	279.9	269.0	254.0	239.6
15°	344.8	343.0	339.8	337.0	330.7	324.9	315.5	303.0	289.6	273.4	256.1
17.5°	364.7	361.3	360.5	356.1	349.5	342.7	332.3	320.7	305.1	288.8	270.0
20°	391.4	386.7	385.1	378.6	371.0	361.6	349.5	335.1	318.7	300.9	281.5
22.5°	422.8	419.4	416.0	410.2	400.5	387.2	369.7	354.0	333.0	313.4	292.5
25°	467.3	464.4	458.9	451.0	439.0	423.1	401.9	378.8	354.2	329.1	304.5
27.5°	510.4	507.8	503.9	497.9	484.3	466.8	440.6	411.3	380.2	349.8	322.6
30°	551.0	548.6	544.7	538.7	526.7	509.4	479.8	448.4	409.7	374.4	341.7
32.5°	594.7	593.9	589.5	580.8	570.4	547.0	514.9	481.1	441.9	401.1	362.9
35°	644.1	638.1	633.9	625.3	607.5	582.6	545.0	508.1	466.8	424.9	382.2
37.5°	686.0	680.2	675.0	664.0	642.3	610.6	568.0	527.4	484.8	442.2	398.7
40°	716.6	713.7	707.4	693.1	668.7	631.0	585.0	540.8	497.9	455.0	412.0
42.5°	739.3	734.9	727.8	712.9	684.1	641.2	591.8	546.3	503.9	462.8	420.7
45°	747.7	744.1	737.5	721.3	690.2	644.1	591.5	544.7	504.1	465.2	426.4
47.5°	742.8	739.1	733.3	718.2	687.6	640.7	586.8	540.3	501.5	466.0	431.7
50°	726.3	724.2	719.7	706.9	679.4	634.2	582.6	537.9	501.0	469.9	439.0
52.5°	724.7	723.4	717.9	705.1	677.1	632.1	582.1	539.2	505.5	474.8	444.2
55°	885.6	867.0	825.4	790.1	732.0	663.0	608.5	560.4	524.3	494.5	473.0
57.5°	1258.7	1230.9	1176.3	1109.0	975.6	844.5	739.6	663.7	626.3	612.7	620.8
60°	1433.4	1428.5	1419.8	1387.9	1319.6	1206.9	1081.3	945.5	891.1	886.4	902.9
62.5°	1516.4	1513.2	1515.9	1511.9	1490.7	1457.8	1421.7	1363.1	1309.2	1274.4	1200.6
65°	1554.6	1556.7	1571.6	1583.4	1586.0	1594.6	1621.0	1694.0	1747.4	1657.7	1452.8
67.5°	1457.5	1469.8	1504.1	1547.0	1597.2	1645.9	1724.4	1878.2	1987.8	1882.4	1591.5
69°	1206.6	1212.6	1296.3	1377.2	1499.9	1585.7	1699.5	1901.2	2024.5	1905.4	1580.5
70°	950.0	955.5	1045.2	1155.1	1362.6	1473.0	1621.8	1862.2	1990.2	1874.8	1524.0
72.5°	428.5	420.7	452.4	511.2	736.7	912.0	1172.4	1508.8	1642.0	1502.0	1140.2
75°	299.3	295.9	299.3	299.6	334.6	431.7	544.7	817.8	1011.4	872.8	544.7
77.5°	231.8	229.4	227.1	224.5	228.7	256.1	267.1	290.1	376.7	356.3	207.7
80°	183.4	181.3	187.1	185.2	185.2	188.4	186.3	177.7	161.4	149.6	134.0
82.5°	85.3	85.8	85.8	93.1	112.2	131.1	137.1	128.5	114.1	97.1	78.2
85°	8.1	9.2	15.4	23.8	47.4	53.4	53.6	44.5	44.5	35.1	28.3
87.5°	0.0	0.3	0.3	0.3	2.4	6.5	5.5	1.6	0.8	0.8	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
2.5°	139.2	138.4	135.2	132.1	129.2	126.1	123.2	120.3	117.2	114.9	112.0
5°	162.7	157.0	150.4	144.2	137.9	131.3	124.5	118.5	112.2	106.5	101.0
7.5°	186.5	175.3	166.4	155.1	144.9	134.7	125.3	115.6	106.7	98.4	90.5
10°	206.7	193.1	179.2	164.8	150.2	136.6	123.5	112.0	100.2	90.0	80.3
12.5°	223.2	205.9	188.9	170.8	154.3	137.1	120.9	107.0	93.1	81.6	71.7
15°	238.1	218.2	197.8	176.9	155.9	136.3	118.2	101.0	86.9	73.8	62.5
17.5°	250.1	227.3	204.3	180.8	158.3	135.2	114.9	96.8	80.3	66.7	55.7
20°	260.6	236.8	211.9	185.5	159.8	135.0	112.0	91.6	74.6	60.2	49.4
22.5°	270.2	246.4	219.8	191.5	162.2	134.7	109.4	87.6	69.6	55.2	44.5
25°	281.3	256.1	228.1	197.8	166.4	135.8	107.8	84.5	65.1	50.5	40.6
27.5°	293.6	267.1	238.1	205.6	171.9	137.9	107.3	81.1	61.2	46.0	37.4
30°	310.8	280.2	248.0	213.5	176.9	140.2	106.7	79.0	57.3	42.7	34.3
32.5°	326.0	293.0	259.0	221.6	182.4	142.6	106.5	76.1	53.6	39.2	31.9
35°	341.9	304.8	268.4	229.4	187.1	145.2	106.2	74.0	50.2	35.9	29.6
37.5°	355.8	314.7	275.8	236.2	192.3	147.5	106.5	72.2	47.1	33.0	27.5
40°	367.6	324.9	283.9	242.5	197.8	151.2	106.7	70.4	43.9	30.4	25.6
42.5°	378.0	334.6	292.5	249.6	204.1	155.4	108.3	68.8	41.3	28.0	23.8
45°	386.2	343.5	301.9	259.5	214.3	162.2	111.2	67.7	38.7	25.9	22.2
47.5°	394.5	356.6	317.9	275.2	229.2	172.9	116.2	67.5	36.6	24.3	20.9
50°	406.0	369.7	332.0	291.2	242.8	183.9	122.2	67.7	34.0	22.8	19.6
52.5°	414.4	383.0	350.3	318.9	275.2	217.4	145.5	72.5	32.7	21.5	18.1
55°	463.9	458.4	459.2	464.4	430.6	369.9	243.3	104.6	38.5	24.3	17.8
57.5°	654.1	673.4	684.7	684.4	628.7	521.4	326.8	134.5	42.9	28.3	21.2
60°	904.2	889.5	868.9	817.8	743.8	595.2	365.5	144.7	37.1	22.5	19.4
62.5°	1125.2	1039.4	963.3	880.6	783.6	620.8	373.3	143.9	32.4	17.0	13.6
65°	1263.1	1108.8	985.8	882.2	767.9	599.4	353.2	132.1	27.5	13.9	11.3
67.5°	1296.1	1071.4	897.4	765.3	641.5	466.5	259.3	99.4	21.5	11.5	9.9
69°	1224.1	952.3	743.6	593.6	466.8	309.5	160.4	62.8	16.5	10.5	9.2
70°	1126.0	828.3	605.7	476.4	345.6	217.4	112.2	44.2	13.3	9.7	8.4
72.5°	724.5	435.1	297.7	207.2	142.6	86.6	43.9	19.9	10.2	8.1	6.8
75°	281.0	160.9	116.7	88.7	69.3	48.1	26.7	12.8	8.6	6.8	5.2
77.5°	138.4	106.0	86.6	59.4	34.5	21.5	14.4	9.9	7.1	5.0	3.4
80°	109.4	72.7	43.4	26.9	20.4	15.4	11.0	8.1	5.2	3.1	2.4
82.5°	56.0	30.6	22.5	18.3	15.2	12.0	8.9	5.8	3.4	2.1	1.8
85°	17.5	12.8	11.5	11.3	10.5	8.6	6.3	3.7	2.1	1.3	1.3
87.5°	1.3	1.8	2.4	1.8	2.1	1.8	2.4	1.6	1.0	1.0	0.8
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°	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
2.5°	109.9	106.7	103.9	102.0	98.6	97.3	96.0	95.5	93.1	93.7	91.6
5°	96.0	90.5	86.3	82.1	78.2	75.3	73.0	70.1	67.7	66.7	64.6
7.5°	83.5	76.4	70.9	66.5	61.7	58.1	55.0	52.9	50.7	48.7	47.6
10°	72.5	64.9	58.6	54.2	49.7	46.6	44.2	42.7	41.3	40.6	40.3
12.5°	62.3	55.0	49.2	45.3	41.9	40.3	39.2	38.5	38.2	37.9	37.9
15°	54.4	47.1	42.7	39.8	38.2	37.4	37.1	36.6	36.1	35.9	35.9
17.5°	47.1	41.6	38.5	36.9	36.1	35.6	35.1	34.5	34.0	33.7	33.7
20°	42.1	37.7	36.1	35.1	34.3	33.7	33.0	32.4	32.2	31.9	31.6
22.5°	38.2	35.3	34.3	33.5	32.4	31.6	31.1	30.6	30.1	29.8	29.6
25°	35.3	33.5	32.7	31.6	30.6	29.8	29.0	28.3	27.7	27.5	26.9
27.5°	33.2	31.9	30.9	29.6	28.5	27.7	26.9	26.2	25.6	25.1	24.8
30°	31.4	30.1	28.8	27.7	26.4	25.6	24.6	23.8	23.6	23.0	22.5
32.5°	29.6	28.3	26.9	25.6	24.3	23.3	22.8	21.7	21.2	20.9	20.4
35°	27.5	26.2	24.6	23.6	22.2	21.2	20.4	19.6	19.1	18.6	18.3
37.5°	25.6	24.1	22.5	21.2	20.1	19.1	18.3	17.5	17.0	16.5	16.2
40°	23.6	22.0	20.4	19.1	18.1	17.3	16.5	15.7	15.2	14.9	14.9
42.5°	21.7	19.9	18.3	17.3	16.5	15.4	14.6	13.9	13.6	13.3	13.6
45°	19.9	18.1	16.7	15.7	14.9	13.9	13.1	12.5	12.3	12.5	12.8
47.5°	18.3	16.5	15.2	14.4	13.6	12.8	12.0	11.5	11.5	12.0	12.5
50°	16.7	14.9	13.9	13.3	12.5	11.8	10.7	10.5	10.7	11.3	11.8
52.5°	15.2	13.1	12.3	12.0	11.3	10.5	9.7	9.4	9.7	10.2	9.9
55°	13.6	11.5	11.3	11.0	10.2	9.2	8.4	8.4	8.4	8.1	7.6
57.5°	13.1	10.2	9.9	9.7	8.9	7.8	7.3	6.8	6.5	5.8	5.5
60°	13.6	9.2	9.2	8.6	7.8	6.8	6.0	5.2	4.7	4.2	4.2
62.5°	11.0	8.4	8.1	7.6	6.5	5.5	4.7	3.9	3.7	3.4	3.4
65°	8.9	7.6	7.1	6.3	5.5	4.5	3.7	3.1	2.9	2.9	3.1
67.5°	8.1	6.8	6.0	5.2	4.5	3.4	2.9	2.6	2.6	2.9	2.9
69°	7.6	6.3	5.5	4.7	3.9	3.1	2.6	2.6	2.6	2.6	2.9
70°	7.1	6.0	5.2	4.5	3.4	2.6	2.4	2.4	2.6	2.6	2.9
72.5°	5.5	4.7	4.5	3.7	2.6	2.4	2.1	2.4	2.4	2.6	2.6
75°	4.2	3.4	3.4	2.9	2.1	1.8	1.8	2.1	2.1	2.4	2.4
77.5°	2.9	2.4	2.4	2.1	1.8	1.6	1.6	1.8	2.1	2.1	2.4
80°	2.1	1.8	1.6	1.8	1.6	1.3	1.6	1.8	1.8	2.1	2.1
82.5°	1.6	1.6	1.6	1.6	1.3	1.3	1.6	1.6	1.8	2.1	2.1
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.6	1.6	1.8	1.8
87.5°	0.8	0.8	0.8	1.0	1.0	1.3	1.3	1.3	1.3	1.6	1.6
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):

	165°	170°	175°	180°
0°	120.6	120.6	120.6	120.6
2.5°	91.1	90.8	89.7	90.0
5°	63.8	62.3	63.3	63.0
7.5°	46.8	46.6	46.3	46.8
10°	40.0	40.0	39.8	40.0
12.5°	37.7	37.7	37.7	37.7
15°	35.9	35.9	35.6	35.6
17.5°	33.7	33.7	33.7	33.5
20°	31.6	31.4	31.4	31.4
22.5°	29.3	29.0	29.0	29.0
25°	26.9	26.7	26.7	26.7
27.5°	24.6	24.3	24.1	24.1
30°	22.2	22.0	21.7	21.7
32.5°	19.9	19.6	19.4	19.4
35°	17.8	17.8	17.5	17.3
37.5°	16.0	16.0	16.0	16.0
40°	14.6	14.9	14.9	14.9
42.5°	13.9	14.1	14.4	14.6
45°	13.3	13.9	14.1	14.1
47.5°	13.1	13.3	13.6	13.6
50°	12.0	11.8	11.8	11.8
52.5°	9.7	9.2	8.9	8.6
55°	7.1	6.8	6.3	6.3
57.5°	5.0	5.0	4.7	4.7
60°	3.9	3.9	3.7	3.9
62.5°	3.4	3.4	3.4	3.4
65°	3.1	3.1	3.1	3.1
67.5°	3.1	3.1	3.1	3.1
69°	2.9	2.9	2.9	2.9
70°	2.9	2.9	2.9	2.9
72.5°	2.6	2.6	2.6	2.6
75°	2.4	2.6	2.6	2.6
77.5°	2.4	2.4	2.4	2.4
80°	2.1	2.1	2.4	2.4
82.5°	2.1	2.1	2.1	2.1
85°	1.8	1.8	2.1	2.1
87.5°	1.6	1.6	1.8	1.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)