

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: P162593

Luminaire Tested: **ECM-F01-LED-E1-SL4-HSS-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162593
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-7050
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) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1638.8 lumens
Efficiency: N/A
Efficacy: 63.3 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

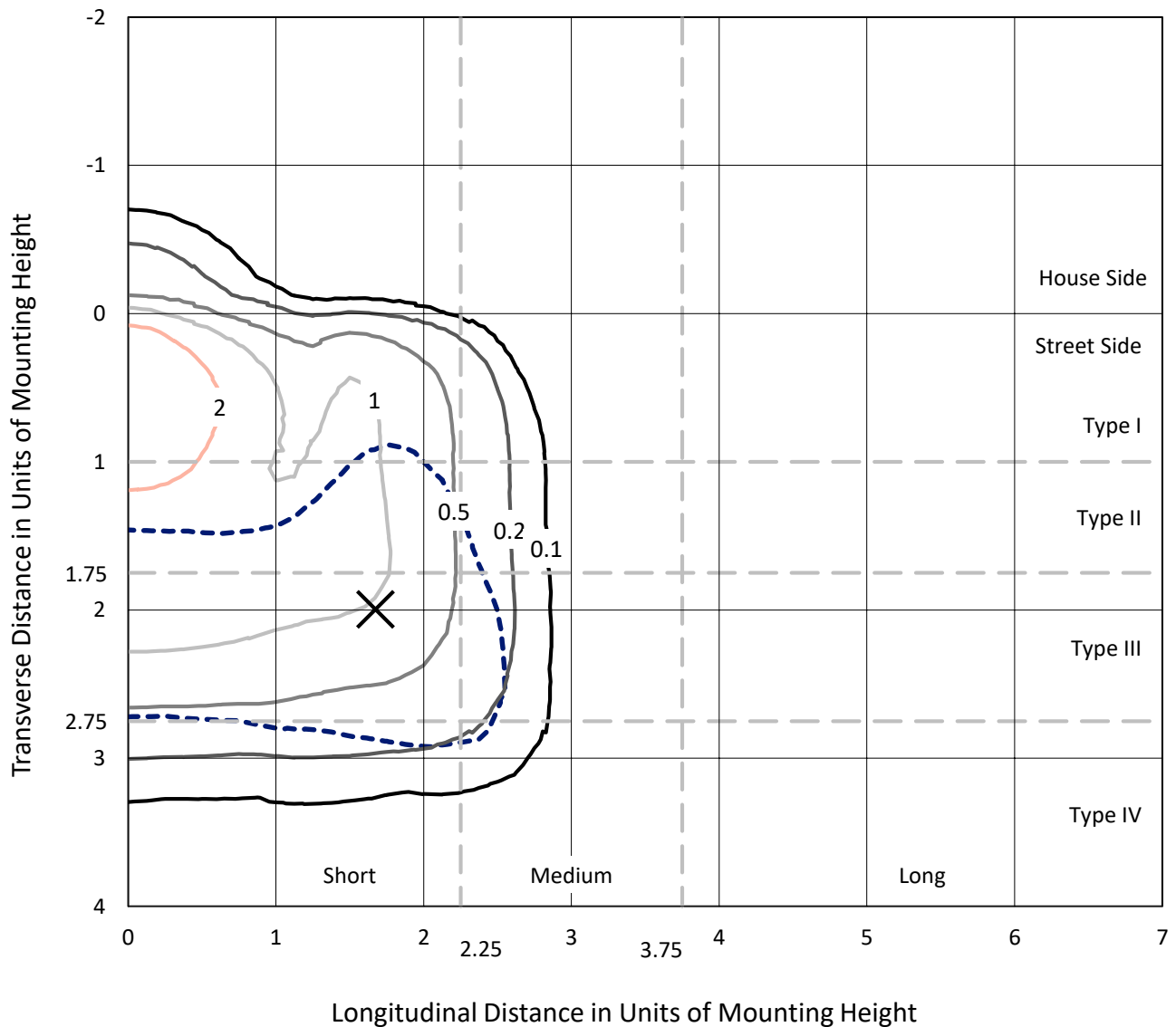
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

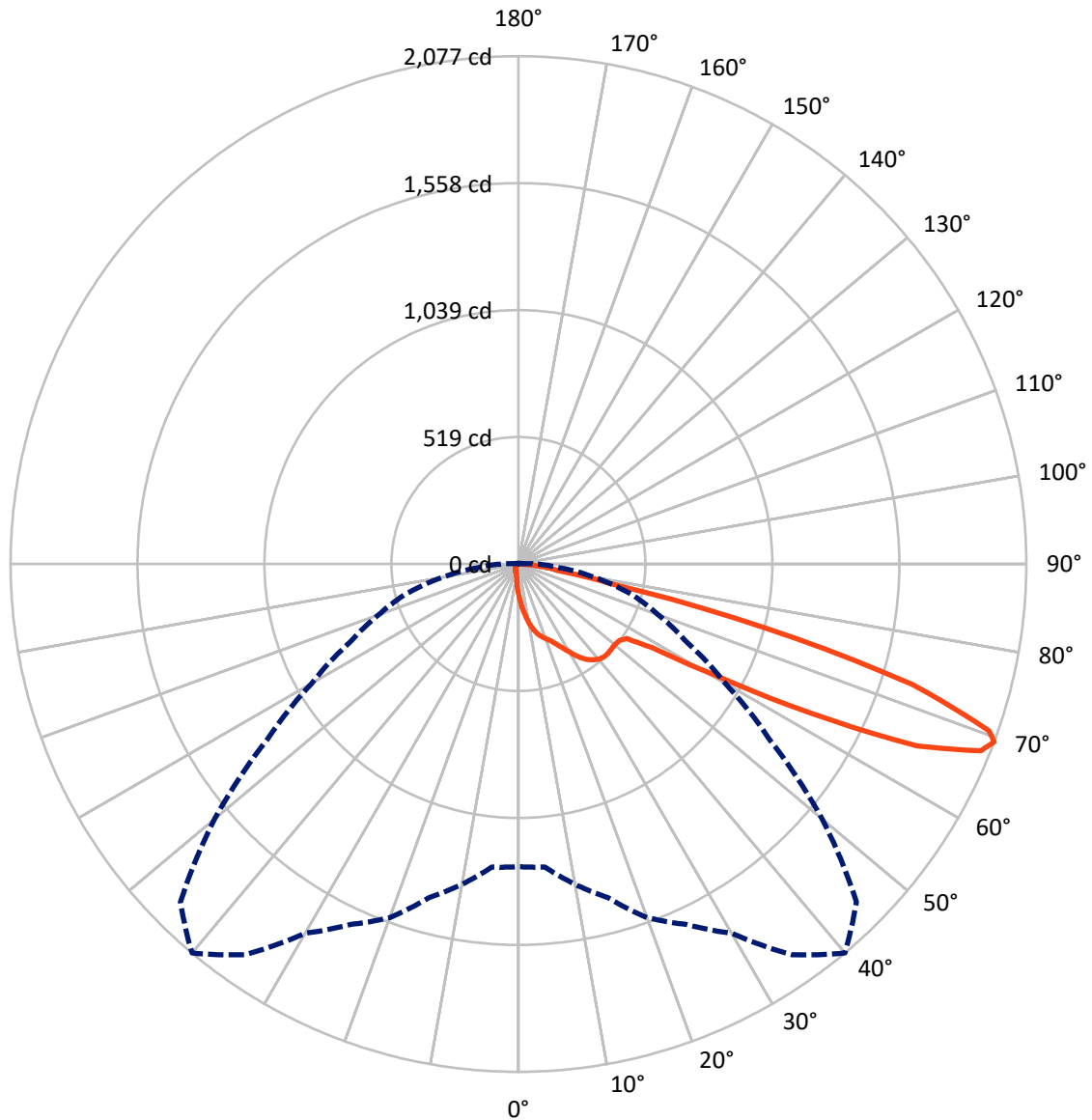
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 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	48.8	0.0	48.8
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	1590.0	0.0	1590.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	1638.8	0.0	1638.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.7	0.8
10°-20°	43.9	2.7
20°-30°	83.9	5.1
30°-40°	139.6	8.5
40°-50°	188.9	11.5
50°-60°	295.4	18.0
60°-70°	607.4	37.1
70°-80°	244.4	14.9
80°-90°	22.6	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°	1638.8	100.0
0°-180°	1638.8	100.0



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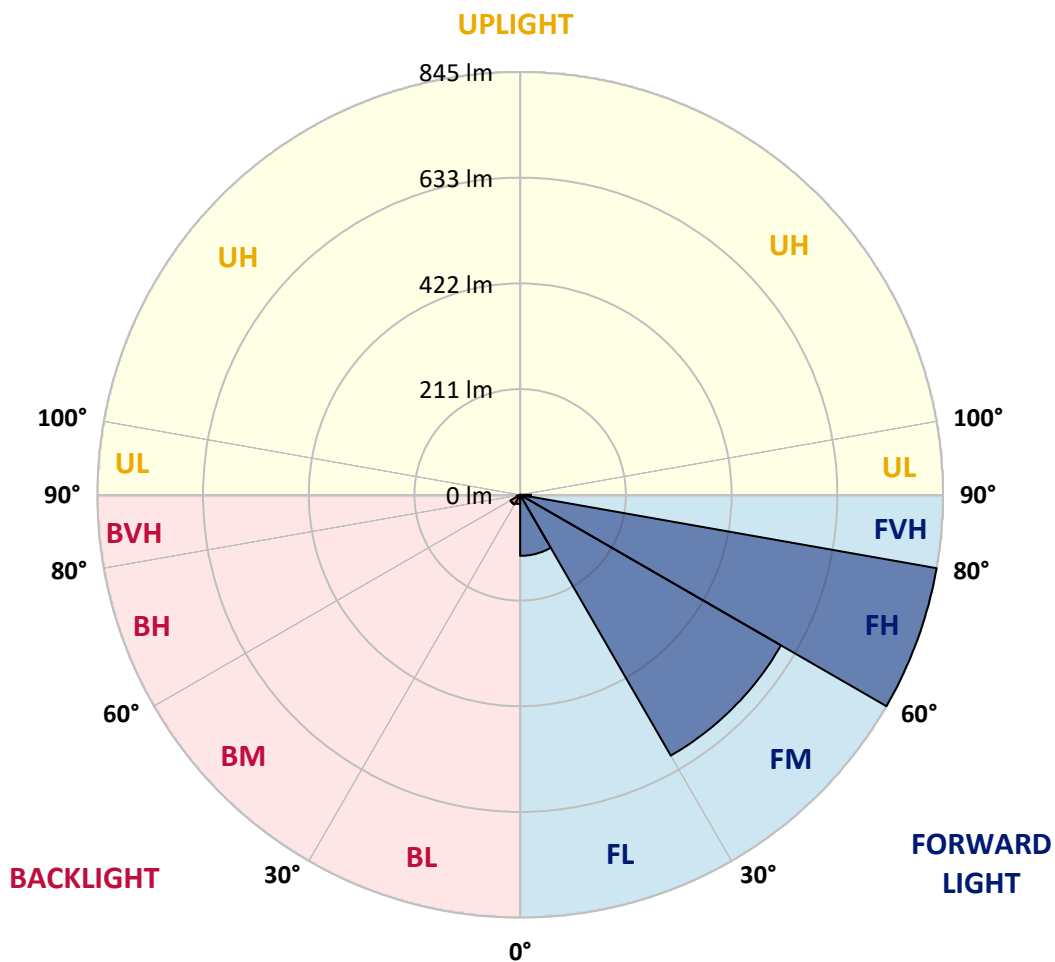
CATALOG NUMBER: ECM-F01-LED-E1-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	122.0	7.4			
FM (30°-60°)	601.6	36.7			
FH (60°-80°)	844.6	51.5			G1/1800
FVH (80°-90°)	21.8	1.3			G1/100
BL (0°-30°)	18.6	1.1	B0/110		
BM (30°-60°)	22.3	1.4	B0/220		
BH (60°-80°)	7.1	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°	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8
2.5°	165.1	163.2	161.1	161.1	158.4	158.4	156.8	152.5	151.9	149.5	147.1
5°	210.7	209.1	206.4	204.0	201.9	198.1	195.4	190.3	184.7	179.3	174.5
7.5°	255.3	254.5	249.7	248.9	245.4	239.2	233.8	226.3	216.7	209.1	200.3
10°	296.6	294.8	293.7	289.1	284.0	277.3	269.0	259.9	248.6	236.8	224.2
12.5°	329.4	328.3	323.5	321.6	316.2	309.5	299.0	287.2	276.0	260.7	245.9
15°	353.8	351.9	348.7	345.8	339.3	333.4	323.8	310.9	297.2	280.5	262.8
17.5°	374.2	370.7	369.9	365.4	358.7	351.7	340.9	329.1	313.0	296.4	277.1
20°	401.6	396.8	395.2	388.4	380.7	371.0	358.7	343.9	327.0	308.7	288.9
22.5°	433.8	430.3	426.8	420.9	411.0	397.3	379.3	363.2	341.7	321.6	300.1
25°	479.5	476.5	470.9	462.8	450.5	434.1	412.4	388.7	363.5	337.7	312.5
27.5°	523.7	521.1	517.1	510.9	496.9	478.9	452.1	422.0	390.1	358.9	331.0
30°	565.4	562.9	558.9	552.7	540.4	522.7	492.3	460.1	420.4	384.1	350.6
32.5°	610.2	609.4	604.8	596.0	585.2	561.3	528.3	493.7	453.4	411.5	372.3
35°	660.9	654.8	650.5	641.6	623.4	597.8	559.2	521.3	478.9	436.0	392.2
37.5°	703.9	698.0	692.6	681.3	659.1	626.6	582.8	541.2	497.5	453.7	409.1
40°	735.3	732.4	725.9	711.1	686.2	647.5	600.3	554.9	510.9	466.9	422.8
42.5°	758.6	754.1	746.8	731.5	702.0	658.0	607.2	560.5	517.1	474.9	431.7
45°	767.3	763.5	756.8	740.1	708.2	660.9	607.0	558.9	517.3	477.3	437.6
47.5°	762.1	758.4	752.5	736.9	705.5	657.4	602.2	554.4	514.6	478.1	443.0
50°	745.2	743.1	738.5	725.4	697.2	650.7	597.8	552.0	514.1	482.2	450.5
52.5°	743.6	742.3	736.6	723.5	694.8	648.6	597.3	553.3	518.7	487.2	455.8
55°	908.7	889.7	847.0	810.7	751.1	680.3	624.4	575.0	538.0	507.4	485.4
57.5°	1291.5	1263.1	1207.0	1138.0	1001.1	866.6	758.9	681.1	642.7	628.7	637.1
60°	1470.9	1465.8	1456.9	1424.2	1354.1	1238.4	1109.5	970.2	914.4	909.5	926.4
62.5°	1556.0	1552.7	1555.4	1551.4	1529.6	1495.8	1458.8	1398.7	1343.3	1307.7	1231.9
65°	1595.2	1597.3	1612.6	1624.7	1627.4	1636.2	1663.3	1738.3	1793.0	1700.9	1490.7
67.5°	1495.6	1508.2	1543.3	1587.4	1638.9	1688.8	1769.4	1927.2	2039.7	1931.5	1633.0
69°	1238.1	1244.3	1330.2	1413.1	1539.1	1627.1	1743.9	1950.9	2077.3	1955.2	1621.7
70°	974.8	980.4	1072.5	1185.2	1398.1	1511.4	1664.2	1910.9	2042.1	1923.7	1563.8
72.5°	439.7	431.7	464.2	524.6	756.0	935.8	1203.0	1548.2	1684.8	1541.2	1169.9
75°	307.1	303.6	307.1	307.4	343.3	443.0	558.9	839.2	1037.8	895.6	558.9
77.5°	237.9	235.4	233.0	230.3	234.6	262.8	274.1	297.7	386.6	365.6	213.2
80°	188.2	186.0	191.9	190.1	190.1	193.3	191.1	182.3	165.6	153.5	137.5
82.5°	87.5	88.0	88.0	95.6	115.2	134.5	140.7	131.8	117.0	99.6	80.3
85°	8.3	9.4	15.8	24.4	48.6	54.8	55.0	45.6	45.6	36.0	29.0
87.5°	0.0	0.3	0.3	0.3	2.4	6.7	5.6	1.6	0.8	0.8	1.4
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°	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8
2.5°	142.8	142.0	138.8	135.6	132.6	129.4	126.4	123.5	120.3	117.9	114.9
5°	167.0	161.1	154.4	147.9	141.5	134.8	127.8	121.6	115.2	109.3	103.6
7.5°	191.4	179.9	170.7	159.2	148.7	138.2	128.6	118.6	109.5	100.9	92.9
10°	212.1	198.1	183.9	169.1	154.1	140.1	126.7	114.9	102.8	92.4	82.4
12.5°	229.0	211.3	193.8	175.3	158.4	140.7	124.0	109.8	95.6	83.7	73.6
15°	244.3	223.9	203.0	181.5	160.0	139.9	121.3	103.6	89.1	75.7	64.2
17.5°	256.6	233.3	209.7	185.5	162.4	138.8	117.9	99.3	82.4	68.4	57.2
20°	267.4	242.9	217.4	190.3	164.0	138.5	114.9	94.0	76.5	61.8	50.7
22.5°	277.3	252.9	225.5	196.5	166.5	138.2	112.2	89.9	71.4	56.6	45.6
25°	288.6	262.8	234.1	203.0	170.7	139.3	110.6	86.7	66.8	51.8	41.6
27.5°	301.2	274.1	244.3	211.0	176.4	141.5	110.1	83.2	62.8	47.2	38.4
30°	318.9	287.5	254.5	219.1	181.5	143.9	109.5	81.1	58.8	43.8	35.2
32.5°	334.5	300.7	265.8	227.4	187.1	146.3	109.3	78.1	55.0	40.3	32.8
35°	350.9	312.7	275.4	235.4	191.9	149.0	109.0	76.0	51.5	36.8	30.3
37.5°	365.1	323.0	283.0	242.4	197.3	151.4	109.3	74.1	48.3	33.8	28.2
40°	377.2	333.4	291.3	248.9	203.0	155.2	109.5	72.2	45.1	31.1	26.3
42.5°	387.9	343.3	300.1	256.1	209.4	159.5	111.1	70.6	42.4	28.7	24.4
45°	396.2	352.5	309.8	266.3	219.9	166.5	114.1	69.5	39.7	26.6	22.8
47.5°	404.8	365.9	326.2	282.4	235.2	177.5	119.2	69.3	37.6	25.0	21.5
50°	416.6	379.3	340.7	298.8	249.1	188.7	125.4	69.5	34.9	23.4	20.1
52.5°	425.2	393.0	359.5	327.3	282.4	223.1	149.3	74.4	33.5	22.0	18.5
55°	476.0	470.3	471.1	476.5	441.9	379.6	249.7	107.4	39.5	25.0	18.3
57.5°	671.1	691.0	702.5	702.3	645.1	535.0	335.3	138.0	44.0	29.0	21.7
60°	927.8	912.8	891.5	839.2	763.2	610.7	375.0	148.5	38.1	23.1	19.9
62.5°	1154.6	1066.6	988.5	903.6	804.0	637.1	383.1	147.6	33.3	17.4	13.9
65°	1296.1	1137.7	1011.5	905.2	787.9	615.0	362.4	135.6	28.2	14.2	11.5
67.5°	1329.9	1099.3	920.8	785.2	658.3	478.7	266.0	102.0	22.0	11.8	10.2
69°	1256.1	977.2	763.0	609.1	478.9	317.6	164.6	64.4	16.9	10.7	9.4
70°	1155.4	849.9	621.5	488.8	354.6	223.1	115.2	45.4	13.7	9.9	8.6
72.5°	743.4	446.4	305.5	212.6	146.3	88.9	45.1	20.4	10.5	8.3	7.0
75°	288.3	165.1	119.7	91.0	71.2	49.4	27.4	13.2	8.9	7.0	5.4
77.5°	142.0	108.7	88.9	60.9	35.4	22.0	14.8	10.2	7.3	5.1	3.5
80°	112.2	74.6	44.6	27.6	21.0	15.8	11.3	8.3	5.4	3.2	2.4
82.5°	57.5	31.4	23.1	18.8	15.6	12.3	9.1	5.9	3.5	2.1	1.9
85°	18.0	13.2	11.8	11.5	10.7	8.9	6.4	3.8	2.1	1.4	1.4
87.5°	1.4	1.9	2.4	1.9	2.1	1.9	2.4	1.6	1.1	1.1	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°	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8	123.8
2.5°	112.7	109.5	106.6	104.7	101.2	99.9	98.5	98.0	95.6	96.1	94.0
5°	98.5	92.9	88.6	84.3	80.3	77.3	74.9	71.9	69.5	68.4	66.3
7.5°	85.6	78.4	72.8	68.2	63.4	59.6	56.4	54.2	52.1	49.9	48.8
10°	74.4	66.6	60.1	55.6	51.0	47.8	45.4	43.8	42.4	41.6	41.3
12.5°	63.9	56.4	50.5	46.4	42.9	41.3	40.3	39.5	39.2	38.9	38.9
15°	55.9	48.3	43.8	40.8	39.2	38.4	38.1	37.6	37.0	36.8	36.8
17.5°	48.3	42.7	39.5	37.9	37.0	36.5	36.0	35.4	34.9	34.6	34.6
20°	43.2	38.7	37.0	36.0	35.2	34.6	33.8	33.3	33.0	32.8	32.5
22.5°	39.2	36.3	35.2	34.4	33.3	32.5	31.9	31.4	30.9	30.6	30.3
25°	36.3	34.4	33.5	32.5	31.4	30.6	29.8	29.0	28.5	28.2	27.6
27.5°	34.1	32.8	31.7	30.3	29.3	28.5	27.6	26.9	26.3	25.8	25.5
30°	32.2	30.9	29.5	28.5	27.1	26.3	25.2	24.4	24.2	23.6	23.1
32.5°	30.3	29.0	27.6	26.3	25.0	23.9	23.4	22.3	21.7	21.5	21.0
35°	28.2	26.9	25.2	24.2	22.8	21.7	21.0	20.1	19.6	19.1	18.8
37.5°	26.3	24.7	23.1	21.7	20.7	19.6	18.8	18.0	17.4	16.9	16.6
40°	24.2	22.6	21.0	19.6	18.5	17.7	16.9	16.1	15.6	15.3	15.3
42.5°	22.3	20.4	18.8	17.7	16.9	15.8	15.0	14.2	13.9	13.7	13.9
45°	20.4	18.5	17.2	16.1	15.3	14.2	13.4	12.9	12.6	12.9	13.2
47.5°	18.8	16.9	15.6	14.8	13.9	13.2	12.3	11.8	11.8	12.3	12.9
50°	17.2	15.3	14.2	13.7	12.9	12.1	11.0	10.7	11.0	11.5	12.1
52.5°	15.6	13.4	12.6	12.3	11.5	10.7	9.9	9.7	9.9	10.5	10.2
55°	13.9	11.8	11.5	11.3	10.5	9.4	8.6	8.6	8.6	8.3	7.8
57.5°	13.4	10.5	10.2	9.9	9.1	8.0	7.5	7.0	6.7	5.9	5.6
60°	13.9	9.4	9.4	8.9	8.0	7.0	6.2	5.4	4.8	4.3	4.3
62.5°	11.3	8.6	8.3	7.8	6.7	5.6	4.8	4.0	3.8	3.5	3.5
65°	9.1	7.8	7.3	6.4	5.6	4.6	3.8	3.2	3.0	3.0	3.2
67.5°	8.3	7.0	6.2	5.4	4.6	3.5	3.0	2.7	2.7	3.0	3.0
69°	7.8	6.4	5.6	4.8	4.0	3.2	2.7	2.7	2.7	2.7	3.0
70°	7.3	6.2	5.4	4.6	3.5	2.7	2.4	2.4	2.7	2.7	3.0
72.5°	5.6	4.8	4.6	3.8	2.7	2.4	2.1	2.4	2.4	2.7	2.7
75°	4.3	3.5	3.5	3.0	2.1	1.9	1.9	2.1	2.1	2.4	2.4
77.5°	3.0	2.4	2.4	2.1	1.9	1.6	1.6	1.9	2.1	2.1	2.4
80°	2.1	1.9	1.6	1.9	1.6	1.4	1.6	1.9	1.9	2.1	2.1
82.5°	1.6	1.6	1.6	1.6	1.4	1.4	1.6	1.6	1.9	2.1	2.1
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.6	1.9	1.9
87.5°	0.8	0.8	0.8	1.1	1.1	1.4	1.4	1.4	1.4	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°	123.8	123.8	123.8	123.8
2.5°	93.4	93.2	92.1	92.4
5°	65.5	63.9	65.0	64.7
7.5°	48.1	47.8	47.5	48.1
10°	41.1	41.1	40.8	41.1
12.5°	38.7	38.7	38.7	38.7
15°	36.8	36.8	36.5	36.5
17.5°	34.6	34.6	34.6	34.4
20°	32.5	32.2	32.2	32.2
22.5°	30.1	29.8	29.8	29.8
25°	27.6	27.4	27.4	27.4
27.5°	25.2	25.0	24.7	24.7
30°	22.8	22.6	22.3	22.3
32.5°	20.4	20.1	19.9	19.9
35°	18.3	18.3	18.0	17.7
37.5°	16.4	16.4	16.4	16.4
40°	15.0	15.3	15.3	15.3
42.5°	14.2	14.5	14.8	15.0
45°	13.7	14.2	14.5	14.5
47.5°	13.4	13.7	13.9	13.9
50°	12.3	12.1	12.1	12.1
52.5°	9.9	9.4	9.1	8.9
55°	7.3	7.0	6.4	6.4
57.5°	5.1	5.1	4.8	4.8
60°	4.0	4.0	3.8	4.0
62.5°	3.5	3.5	3.5	3.5
65°	3.2	3.2	3.2	3.2
67.5°	3.2	3.2	3.2	3.2
69°	3.0	3.0	3.0	3.0
70°	3.0	3.0	3.0	3.0
72.5°	2.7	2.7	2.7	2.7
75°	2.4	2.7	2.7	2.7
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°	1.9	1.9	2.1	2.1
87.5°	1.6	1.6	1.9	1.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)