

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: P162587

Luminaire Tested: **ECM-E01-LED-E1-SL4-HSS**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162587
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-E01-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: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1934.6 lumens
Efficiency: N/A
Efficacy: 78.3 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

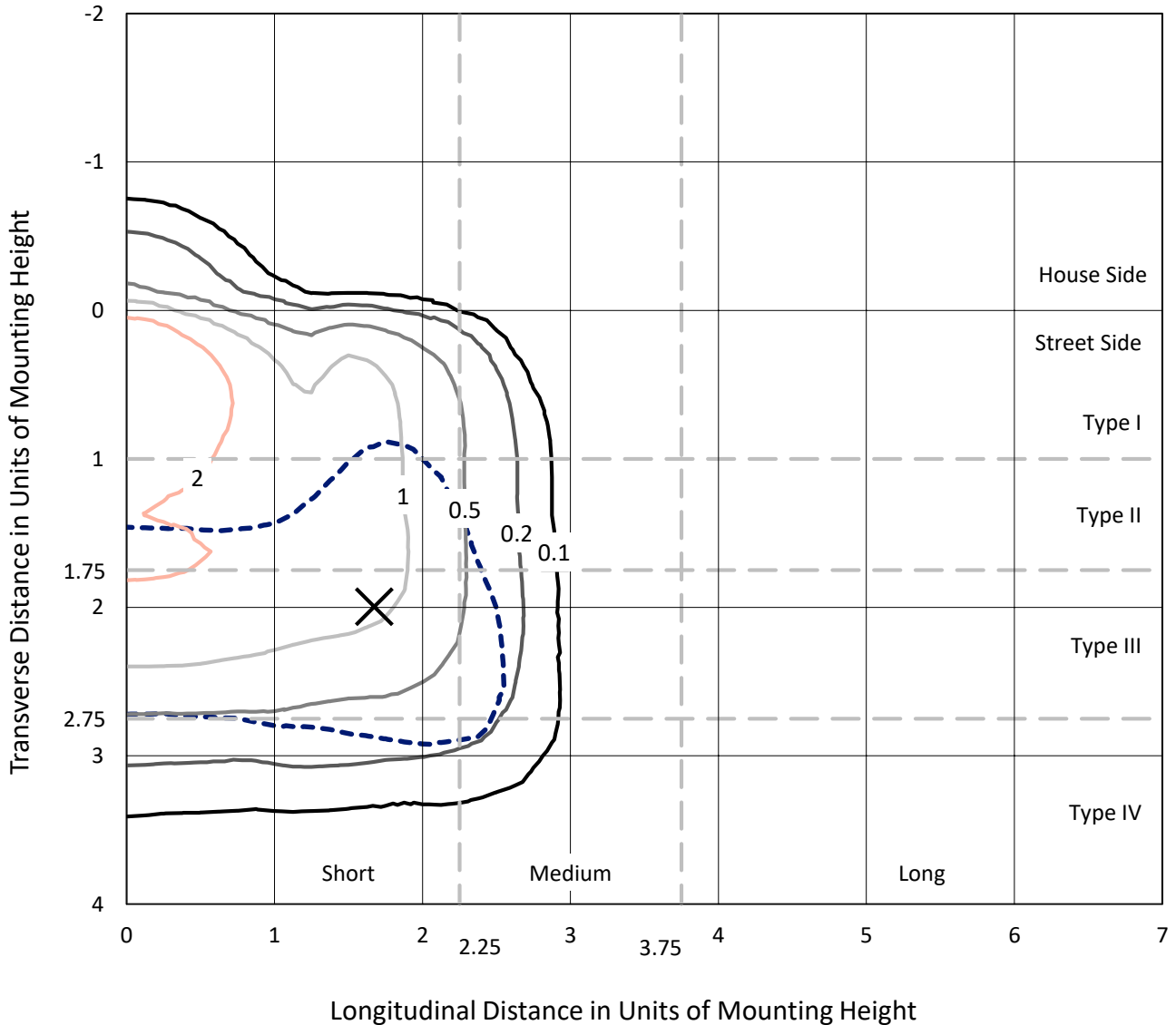
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

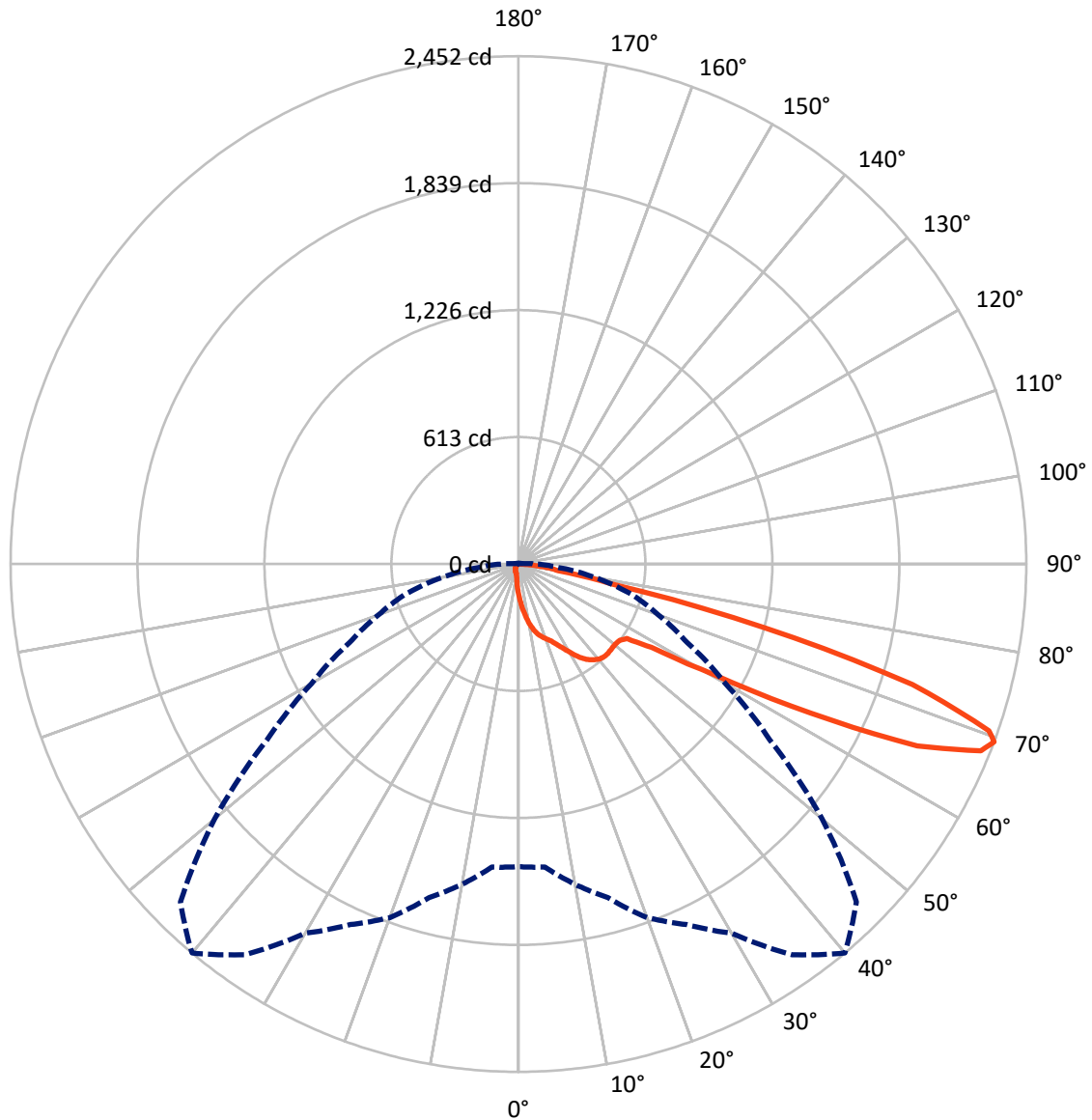


Based on 10 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Semi-Cutoff

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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	57.6	0.0	57.6
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	1877.0	0.0	1877.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	1934.6	0.0	1934.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.0	0.8
10°-20°	51.8	2.7
20°-30°	99.1	5.1
30°-40°	164.8	8.5
40°-50°	223.0	11.5
50°-60°	348.7	18.0
60°-70°	717.0	37.1
70°-80°	288.5	14.9
80°-90°	26.7	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°	1934.6	100.0
0°-180°	1934.6	100.0



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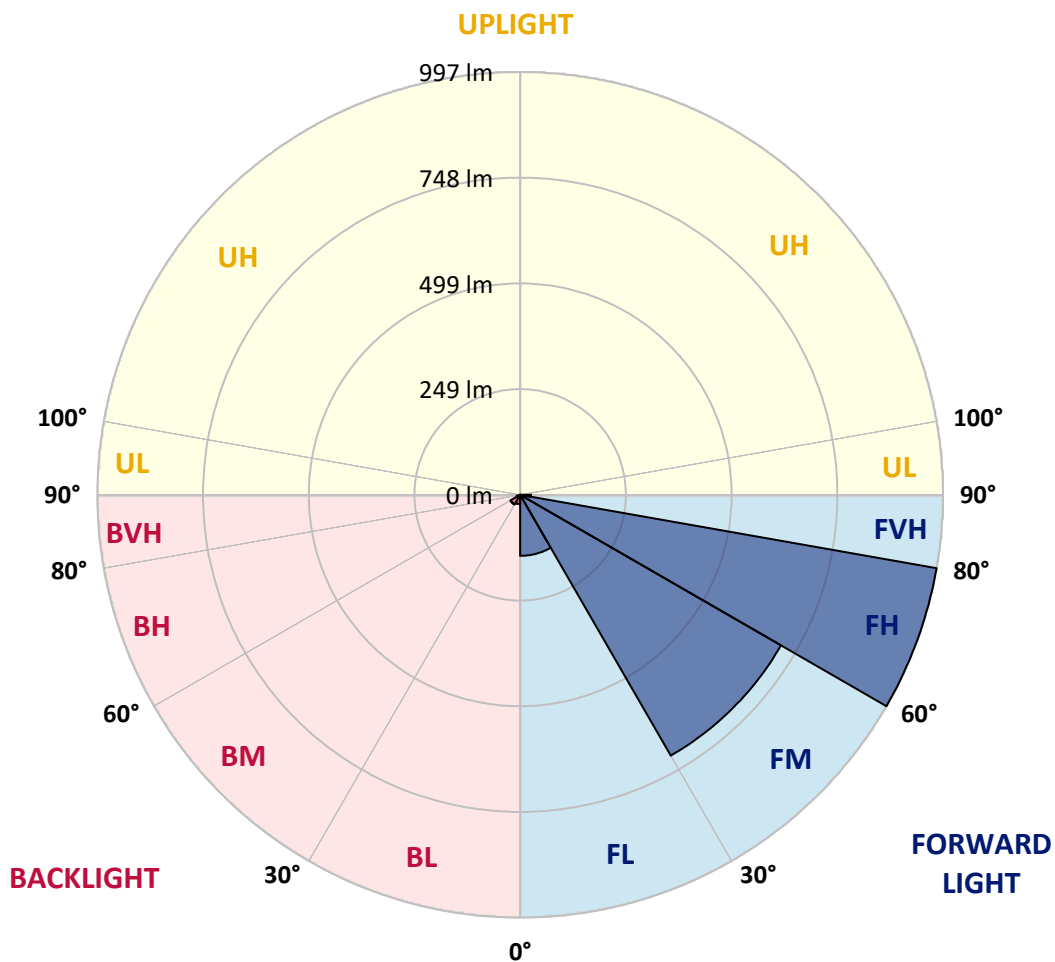
CATALOG NUMBER: ECM-E01-LED-E1-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	144.0	7.4			
FM (30°-60°)	710.2	36.7			
FH (60°-80°)	997.1	51.5			G1/1800
FVH (80°-90°)	25.7	1.3			G1/100
BL (0°-30°)	21.9	1.1	B0/110		
BM (30°-60°)	26.3	1.4	B0/220		
BH (60°-80°)	8.4	0.4	B0/110		G0/110
BVH (80°-90°)	1.0	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°	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1
2.5°	194.9	192.7	190.2	190.2	187.0	187.0	185.1	180.0	179.4	176.5	173.7
5°	248.8	246.9	243.7	240.9	238.3	233.9	230.7	224.7	218.0	211.7	206.0
7.5°	301.4	300.4	294.7	293.8	289.7	282.4	276.0	267.2	255.8	246.9	236.4
10°	350.2	348.0	346.7	341.3	335.3	327.4	317.6	306.8	293.5	279.5	264.6
12.5°	388.9	387.6	381.9	379.7	373.3	365.4	353.0	339.1	325.8	307.7	290.3
15°	417.7	415.5	411.7	408.2	400.6	393.6	382.2	367.0	350.8	331.2	310.3
17.5°	441.8	437.7	436.7	431.3	423.4	415.2	402.5	388.5	369.5	349.9	327.1
20°	474.1	468.4	466.5	458.6	449.4	438.0	423.4	406.0	386.0	364.5	341.0
22.5°	512.1	508.0	503.9	496.9	485.2	469.0	447.8	428.8	403.4	379.7	354.3
25°	566.0	562.5	555.9	546.4	531.8	512.5	486.8	458.9	429.1	398.7	368.9
27.5°	618.3	615.1	610.4	603.1	586.6	565.4	533.7	498.2	460.5	423.7	390.8
30°	667.4	664.6	659.8	652.5	638.0	617.0	581.2	543.2	496.3	453.5	413.9
32.5°	720.4	719.4	714.0	703.6	690.9	662.7	623.7	582.8	535.3	485.8	439.6
35°	780.3	773.0	767.9	757.4	735.9	705.8	660.1	615.5	565.4	514.7	463.0
37.5°	831.0	824.0	817.7	804.3	778.0	739.7	688.0	638.9	587.3	535.6	483.0
40°	868.0	864.6	857.0	839.5	810.0	764.4	708.6	655.1	603.1	551.1	499.1
42.5°	895.6	890.2	881.7	863.6	828.7	776.8	716.9	661.7	610.4	560.6	509.6
45°	905.8	901.3	893.4	873.7	836.0	780.3	716.6	659.8	610.7	563.5	516.6
47.5°	899.7	895.3	888.3	869.9	832.9	776.1	710.9	654.4	607.5	564.4	522.9
50°	879.8	877.2	871.8	856.3	823.0	768.2	705.8	651.6	606.9	569.2	531.8
52.5°	877.9	876.3	869.6	854.1	820.2	765.7	705.1	653.2	612.3	575.2	538.1
55°	1072.8	1050.3	999.9	957.1	886.7	803.1	737.2	678.8	635.1	599.0	573.0
57.5°	1524.7	1491.1	1424.9	1343.4	1181.8	1023.0	895.9	804.0	758.7	742.2	752.1
60°	1736.4	1730.4	1719.9	1681.3	1598.5	1462.0	1309.8	1145.3	1079.4	1073.7	1093.7
62.5°	1836.9	1833.1	1836.2	1831.5	1805.8	1765.9	1722.1	1651.2	1585.9	1543.7	1454.3
65°	1883.1	1885.7	1903.7	1918.0	1921.2	1931.6	1963.6	2052.1	2116.7	2008.0	1759.9
67.5°	1765.6	1780.5	1822.0	1873.9	1934.8	1993.7	2088.8	2275.2	2408.0	2280.2	1927.8
69°	1461.6	1468.9	1570.3	1668.3	1816.9	1920.9	2058.7	2303.1	2452.3	2308.1	1914.5
70°	1150.7	1157.4	1266.1	1399.2	1650.5	1784.3	1964.6	2255.8	2410.8	2271.0	1846.1
72.5°	519.1	509.6	548.0	619.3	892.4	1104.8	1420.1	1827.7	1989.0	1819.4	1381.1
75°	362.6	358.4	362.6	362.9	405.3	522.9	659.8	990.7	1225.2	1057.2	659.8
77.5°	280.8	277.9	275.1	271.9	277.0	310.3	323.6	351.5	456.4	431.6	251.6
80°	222.2	219.6	226.6	224.4	224.4	228.2	225.6	215.2	195.5	181.3	162.3
82.5°	103.3	103.9	103.9	112.8	136.0	158.8	166.1	155.6	138.2	117.6	94.8
85°	9.8	11.1	18.7	28.8	57.4	64.7	65.0	53.9	53.9	42.5	34.2
87.5°	0.0	0.3	0.3	0.3	2.9	7.9	6.7	1.9	1.0	1.0	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1
2.5°	168.6	167.7	163.8	160.0	156.6	152.8	149.3	145.8	142.0	139.1	135.6
5°	197.1	190.2	182.2	174.6	167.0	159.1	150.9	143.6	136.0	129.0	122.3
7.5°	226.0	212.3	201.6	187.9	175.6	163.2	151.8	140.1	129.3	119.2	109.7
10°	250.4	233.9	217.1	199.7	181.9	165.4	149.6	135.6	121.4	109.0	97.3
12.5°	270.3	249.4	228.8	206.9	187.0	166.1	146.4	129.6	112.8	98.9	86.8
15°	288.4	264.3	239.6	214.2	188.9	165.1	143.2	122.3	105.2	89.4	75.7
17.5°	303.0	275.4	247.5	219.0	191.7	163.8	139.1	117.3	97.3	80.8	67.5
20°	315.7	286.8	256.7	224.7	193.6	163.5	135.6	110.9	90.3	72.9	59.9
22.5°	327.4	298.5	266.2	232.0	196.5	163.2	132.5	106.2	84.3	66.9	53.9
25°	340.7	310.3	276.4	239.6	201.6	164.5	130.6	102.4	78.9	61.2	49.1
27.5°	355.6	323.6	288.4	249.1	208.2	167.0	129.9	98.2	74.2	55.8	45.3
30°	376.5	339.4	300.4	258.6	214.2	169.9	129.3	95.7	69.4	51.7	41.5
32.5°	394.9	355.0	313.8	268.4	220.9	172.7	129.0	92.2	65.0	47.5	38.7
35°	414.2	369.2	325.2	277.9	226.6	175.9	128.7	89.7	60.8	43.4	35.8
37.5°	431.0	381.3	334.0	286.2	232.9	178.7	129.0	87.5	57.0	39.9	33.3
40°	445.3	393.6	343.9	293.8	239.6	183.2	129.3	85.3	53.2	36.8	31.1
42.5°	457.9	405.3	354.3	302.3	247.2	188.3	131.2	83.3	50.1	33.9	28.8
45°	467.8	416.1	365.7	314.4	259.6	196.5	134.7	82.1	46.9	31.4	26.9
47.5°	477.9	432.0	385.1	333.4	277.6	209.5	140.7	81.8	44.4	29.5	25.4
50°	491.9	447.8	402.2	352.7	294.1	222.8	148.0	82.1	41.2	27.6	23.8
52.5°	502.0	464.0	424.4	386.3	333.4	263.4	176.2	87.8	39.6	26.0	21.9
55°	561.9	555.2	556.2	562.5	521.7	448.1	294.7	126.8	46.6	29.5	21.6
57.5°	792.3	815.8	829.4	829.1	761.6	631.6	395.8	162.9	52.0	34.2	25.7
60°	1095.3	1077.5	1052.5	990.7	901.0	721.0	442.7	175.3	45.0	27.3	23.5
62.5°	1363.1	1259.1	1166.9	1066.8	949.2	752.1	452.2	174.3	39.3	20.6	16.5
65°	1530.1	1343.1	1194.2	1068.7	930.2	726.1	427.8	160.0	33.3	16.8	13.6
67.5°	1570.0	1297.8	1087.0	927.0	777.1	565.1	314.1	120.4	26.0	13.9	12.0
69°	1482.9	1153.6	900.7	719.1	565.4	374.9	194.3	76.1	20.0	12.7	11.1
70°	1364.0	1003.4	733.7	577.1	418.7	263.4	136.0	53.6	16.2	11.7	10.1
72.5°	877.6	527.0	360.7	251.0	172.7	104.9	53.2	24.1	12.4	9.8	8.2
75°	340.4	194.9	141.3	107.4	84.0	58.3	32.3	15.5	10.5	8.2	6.3
77.5°	167.7	128.4	104.9	71.9	41.8	26.0	17.4	12.0	8.6	6.0	4.1
80°	132.5	88.1	52.6	32.6	24.7	18.7	13.3	9.8	6.3	3.8	2.9
82.5°	67.8	37.1	27.3	22.2	18.4	14.6	10.8	7.0	4.1	2.5	2.2
85°	21.2	15.5	13.9	13.6	12.7	10.5	7.6	4.4	2.5	1.6	1.6
87.5°	1.6	2.2	2.9	2.2	2.5	2.2	2.9	1.9	1.3	1.3	1.0
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°	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1	146.1
2.5°	133.1	129.3	125.8	123.6	119.5	117.9	116.3	115.7	112.8	113.5	110.9
5°	116.3	109.7	104.6	99.5	94.8	91.3	88.4	84.9	82.1	80.8	78.3
7.5°	101.1	92.5	85.9	80.5	74.8	70.4	66.6	64.0	61.5	58.9	57.7
10°	87.8	78.6	71.0	65.6	60.2	56.4	53.6	51.7	50.1	49.1	48.8
12.5°	75.4	66.6	59.6	54.8	50.7	48.8	47.5	46.6	46.3	46.0	46.0
15°	65.9	57.0	51.7	48.2	46.3	45.3	45.0	44.4	43.7	43.4	43.4
17.5°	57.0	50.4	46.6	44.7	43.7	43.1	42.5	41.8	41.2	40.9	40.9
20°	51.0	45.6	43.7	42.5	41.5	40.9	39.9	39.3	39.0	38.7	38.3
22.5°	46.3	42.8	41.5	40.6	39.3	38.3	37.7	37.1	36.4	36.1	35.8
25°	42.8	40.6	39.6	38.3	37.1	36.1	35.2	34.2	33.6	33.3	32.6
27.5°	40.2	38.7	37.4	35.8	34.5	33.6	32.6	31.7	31.1	30.4	30.1
30°	38.0	36.4	34.9	33.6	32.0	31.1	29.8	28.8	28.5	27.9	27.3
32.5°	35.8	34.2	32.6	31.1	29.5	28.2	27.6	26.3	25.7	25.4	24.7
35°	33.3	31.7	29.8	28.5	26.9	25.7	24.7	23.8	23.1	22.5	22.2
37.5°	31.1	29.2	27.3	25.7	24.4	23.1	22.2	21.2	20.6	20.0	19.6
40°	28.5	26.6	24.7	23.1	21.9	20.9	20.0	19.0	18.4	18.1	18.1
42.5°	26.3	24.1	22.2	20.9	20.0	18.7	17.7	16.8	16.5	16.2	16.5
45°	24.1	21.9	20.3	19.0	18.1	16.8	15.8	15.2	14.9	15.2	15.5
47.5°	22.2	20.0	18.4	17.4	16.5	15.5	14.6	13.9	13.9	14.6	15.2
50°	20.3	18.1	16.8	16.2	15.2	14.3	13.0	12.7	13.0	13.6	14.3
52.5°	18.4	15.8	14.9	14.6	13.6	12.7	11.7	11.4	11.7	12.4	12.0
55°	16.5	13.9	13.6	13.3	12.4	11.1	10.1	10.1	10.1	9.8	9.2
57.5°	15.8	12.4	12.0	11.7	10.8	9.5	8.9	8.2	7.9	7.0	6.7
60°	16.5	11.1	11.1	10.5	9.5	8.2	7.3	6.3	5.7	5.1	5.1
62.5°	13.3	10.1	9.8	9.2	7.9	6.7	5.7	4.8	4.4	4.1	4.1
65°	10.8	9.2	8.6	7.6	6.7	5.4	4.4	3.8	3.5	3.5	3.8
67.5°	9.8	8.2	7.3	6.3	5.4	4.1	3.5	3.2	3.2	3.5	3.5
69°	9.2	7.6	6.7	5.7	4.8	3.8	3.2	3.2	3.2	3.2	3.5
70°	8.6	7.3	6.3	5.4	4.1	3.2	2.9	2.9	3.2	3.2	3.5
72.5°	6.7	5.7	5.4	4.4	3.2	2.9	2.5	2.9	2.9	3.2	3.2
75°	5.1	4.1	4.1	3.5	2.5	2.2	2.2	2.5	2.5	2.9	2.9
77.5°	3.5	2.9	2.9	2.5	2.2	1.9	1.9	2.2	2.5	2.5	2.9
80°	2.5	2.2	1.9	2.2	1.9	1.6	1.9	2.2	2.2	2.5	2.5
82.5°	1.9	1.9	1.9	1.9	1.6	1.6	1.9	1.9	2.2	2.5	2.5
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.9	2.2	2.2
87.5°	1.0	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6	1.9	1.9
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°	146.1	146.1	146.1	146.1
2.5°	110.3	110.0	108.7	109.0
5°	77.3	75.4	76.7	76.4
7.5°	56.7	56.4	56.1	56.7
10°	48.5	48.5	48.2	48.5
12.5°	45.6	45.6	45.6	45.6
15°	43.4	43.4	43.1	43.1
17.5°	40.9	40.9	40.9	40.6
20°	38.3	38.0	38.0	38.0
22.5°	35.5	35.2	35.2	35.2
25°	32.6	32.3	32.3	32.3
27.5°	29.8	29.5	29.2	29.2
30°	26.9	26.6	26.3	26.3
32.5°	24.1	23.8	23.5	23.5
35°	21.6	21.6	21.2	20.9
37.5°	19.3	19.3	19.3	19.3
40°	17.7	18.1	18.1	18.1
42.5°	16.8	17.1	17.4	17.7
45°	16.2	16.8	17.1	17.1
47.5°	15.8	16.2	16.5	16.5
50°	14.6	14.3	14.3	14.3
52.5°	11.7	11.1	10.8	10.5
55°	8.6	8.2	7.6	7.6
57.5°	6.0	6.0	5.7	5.7
60°	4.8	4.8	4.4	4.8
62.5°	4.1	4.1	4.1	4.1
65°	3.8	3.8	3.8	3.8
67.5°	3.8	3.8	3.8	3.8
69°	3.5	3.5	3.5	3.5
70°	3.5	3.5	3.5	3.5
72.5°	3.2	3.2	3.2	3.2
75°	2.9	3.2	3.2	3.2
77.5°	2.9	2.9	2.9	2.9
80°	2.5	2.5	2.9	2.9
82.5°	2.5	2.5	2.5	2.5
85°	2.2	2.2	2.5	2.5
87.5°	1.9	1.9	2.2	2.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)