

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: P173630

Luminaire Tested: **ENT-FXX-LED-E1-BL4-BBB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173630
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33646)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-FXX-LED-E1-BL4-BBB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1396.5 lumens
Efficiency: N/A
Efficacy: 253.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B0 - U0 - G0

Input Watts (W): 5.5
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

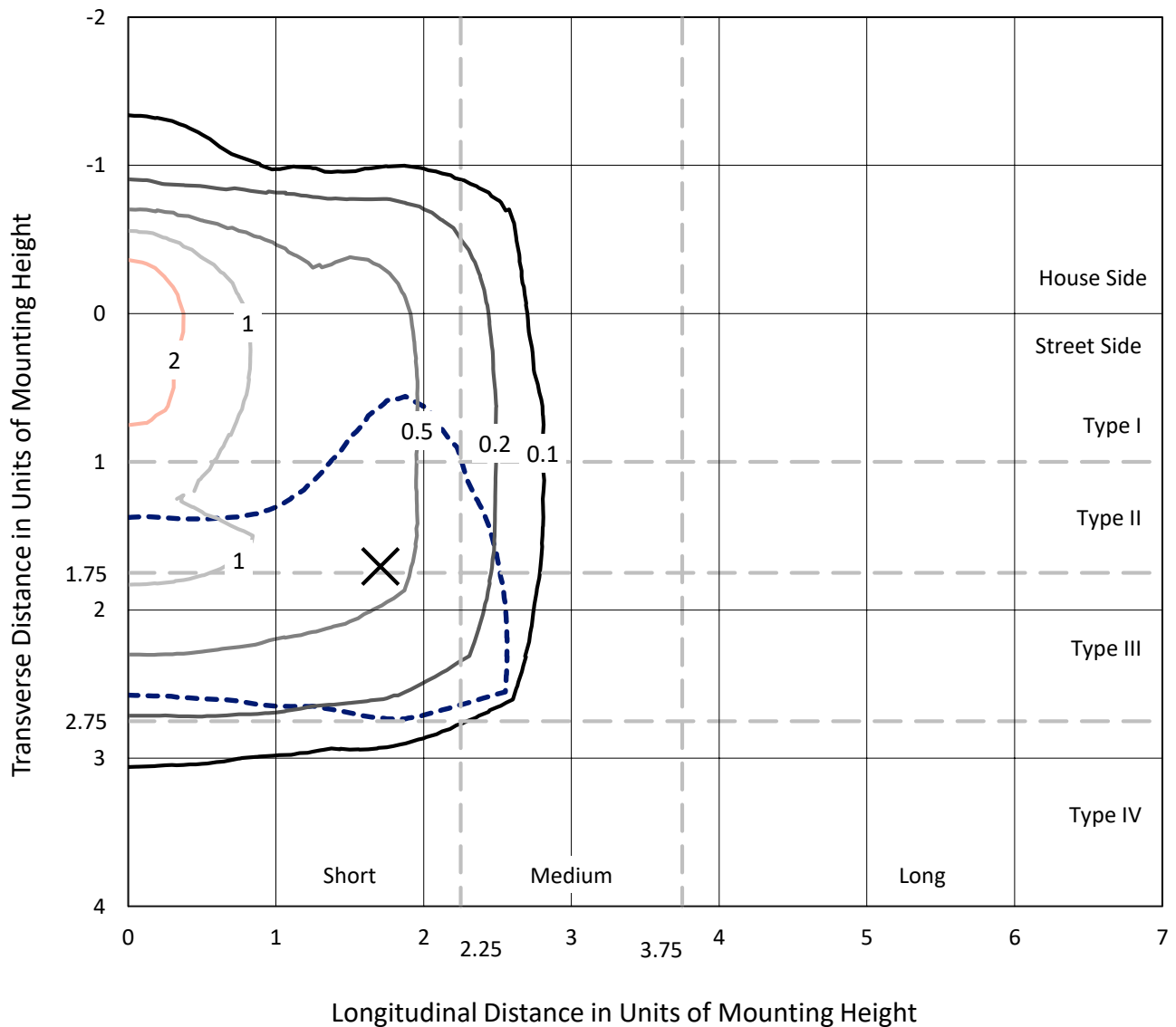


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

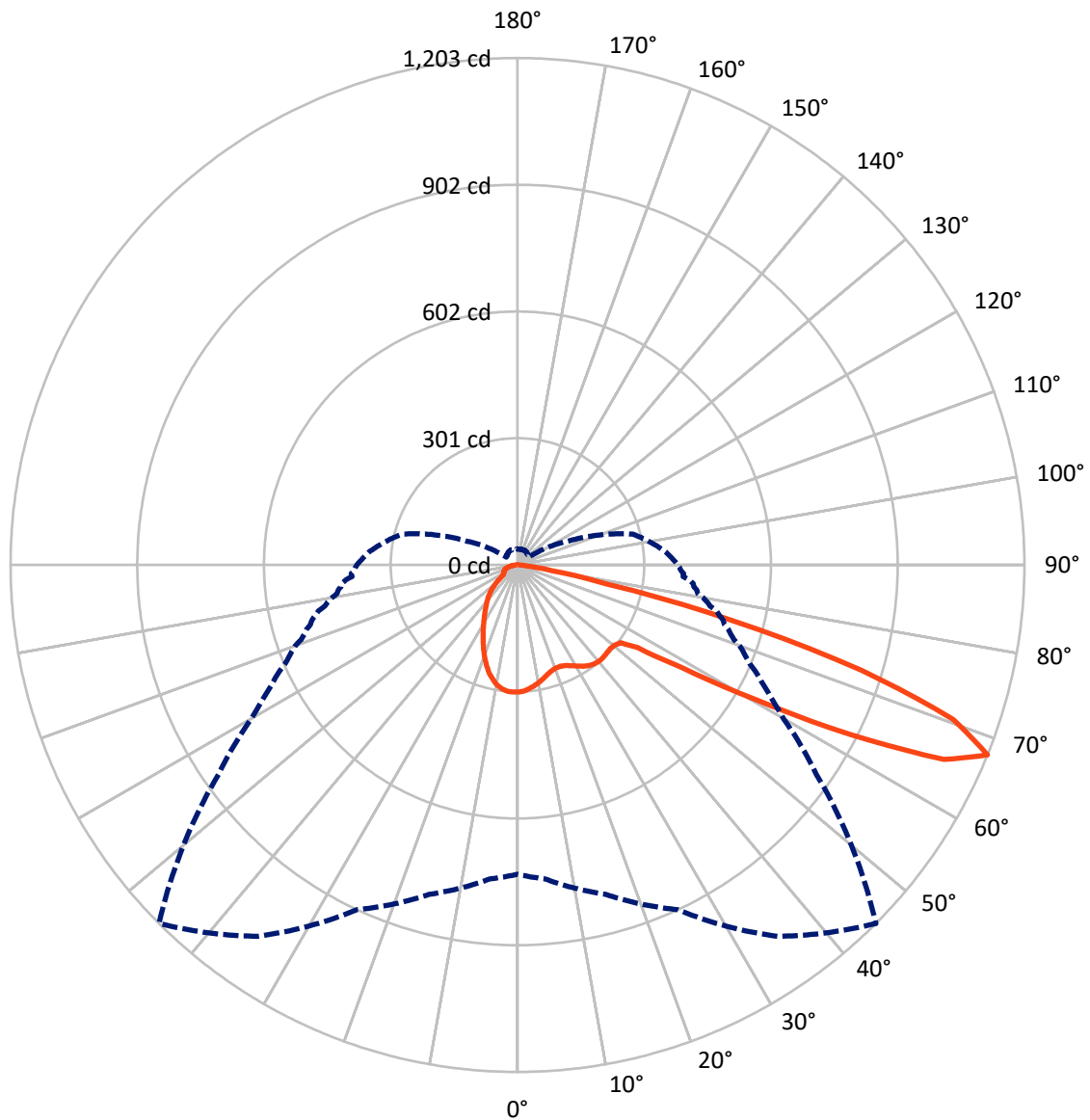


Based on 10 foot mounting height. Maximum calculated value = 3 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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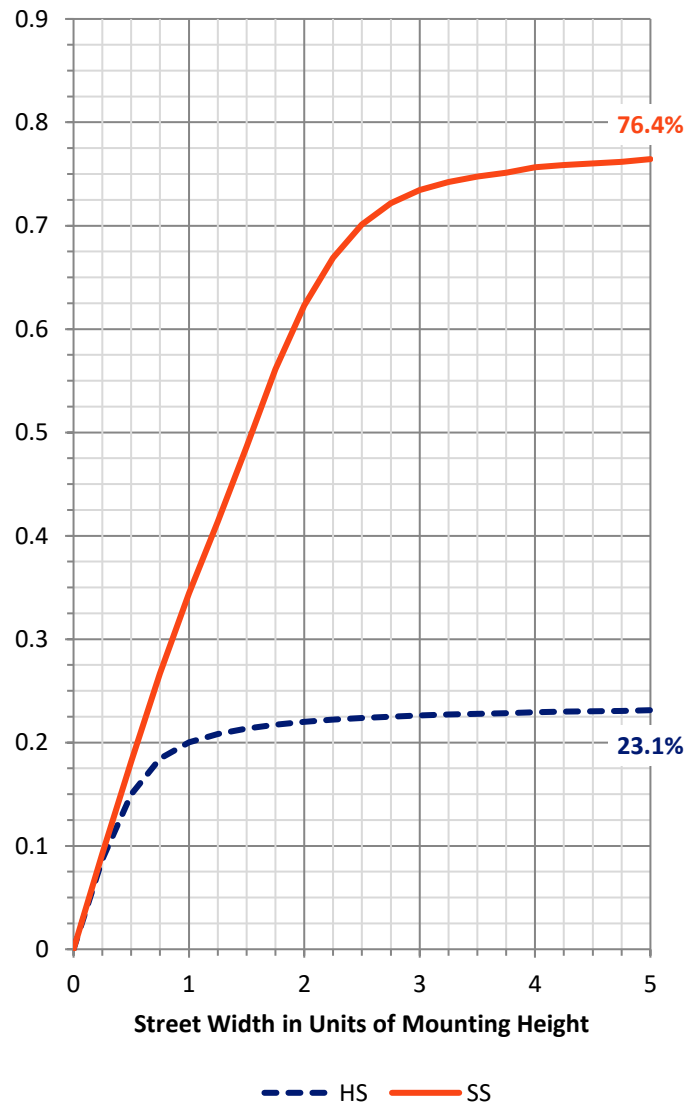
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	327.3	0.0	327.3
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	1069.3	0.0	1069.3
	% Fixture	76.6	0.0	76.6
Total	Lumens	1396.5	0.0	1396.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.0	2.0
10°-20°	75.5	5.4
20°-30°	108.8	7.8
30°-40°	138.8	9.9
40°-50°	163.8	11.7
50°-60°	262.7	18.8
60°-70°	442.1	31.7
70°-80°	164.4	11.8
80°-90°	12.5	0.9
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°	1396.5	100.0
0°-180°	1396.5	100.0



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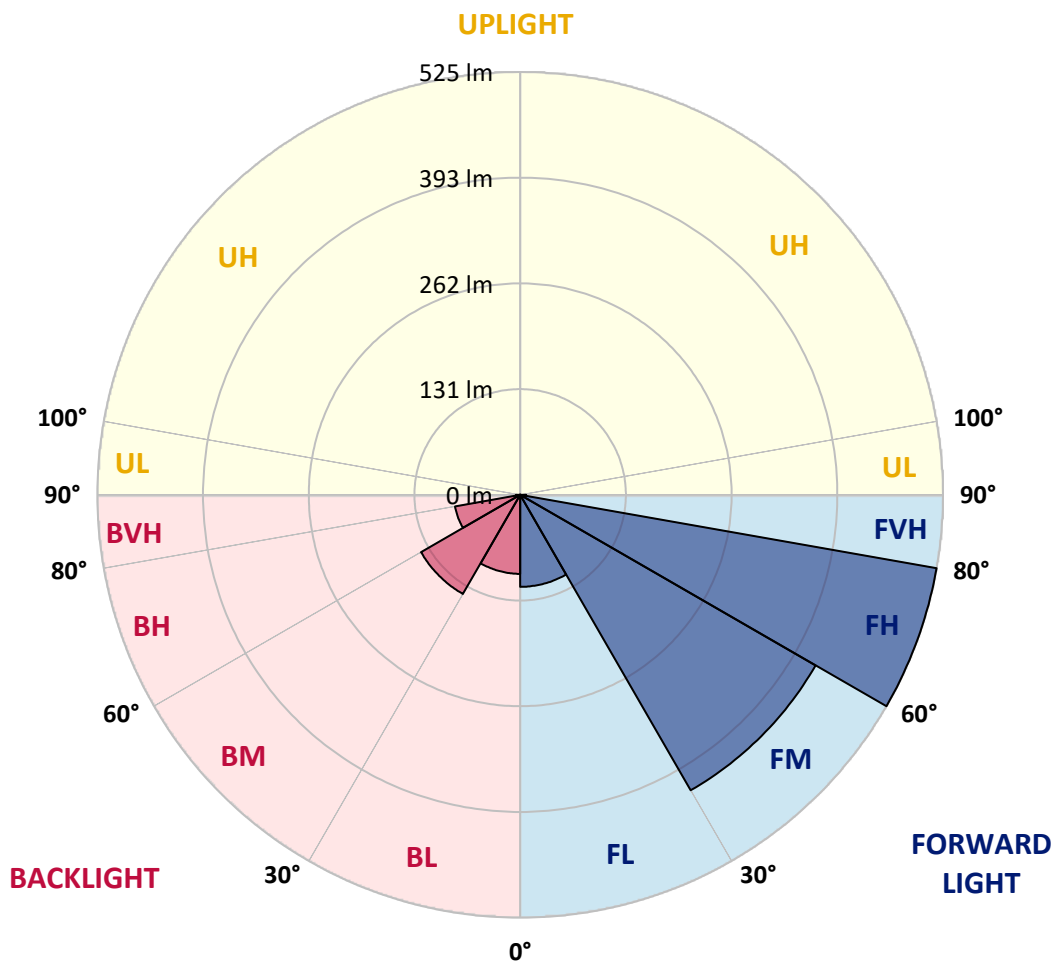
CATALOG NUMBER: ENT-FXX-LED-E1-BL4-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	114.2	8.2			
FM (30°-60°)	423.2	30.3			
FH (60°-80°)	524.5	37.6			G0/660
FVH (80°-90°)	7.4	0.5			G0/10
BL (0°-30°)	98.1	7.0	B0/110		
BM (30°-60°)	142.1	10.2	B0/220		
BH (60°-80°)	82.0	5.9	B0/110		G0/110
BVH (80°-90°)	5.1	0.4			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G0

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7
2.5°	297.5	297.5	298.0	298.0	298.8	299.4	298.8	299.9	299.9	299.6	300.2
5°	293.2	293.2	293.5	293.5	294.0	294.8	294.3	295.3	295.1	295.3	295.3
7.5°	288.1	288.1	288.7	288.4	288.7	289.2	287.9	288.7	288.7	288.9	288.7
10°	281.7	282.3	282.8	282.5	282.5	282.8	280.6	281.4	281.2	281.2	280.9
12.5°	275.8	275.3	275.8	276.4	276.1	276.1	274.0	273.4	273.4	273.4	273.7
15°	269.7	270.2	271.0	270.2	269.7	268.6	266.5	265.9	265.9	265.9	266.2
17.5°	268.3	268.3	268.9	268.1	265.9	263.8	259.5	258.7	258.7	258.5	258.5
20°	272.1	271.8	272.6	271.0	266.2	260.6	253.9	252.6	252.6	252.6	252.3
22.5°	279.8	279.8	281.2	279.3	271.5	260.9	251.0	248.8	248.6	248.3	247.8
25°	294.8	294.5	295.3	290.5	279.3	264.3	250.2	247.0	246.7	246.2	245.6
27.5°	312.2	312.7	314.3	307.1	290.5	270.5	253.6	248.3	247.8	247.0	245.9
30°	329.3	330.9	333.8	326.1	303.4	278.2	259.0	252.8	251.8	250.7	248.8
32.5°	350.9	350.4	355.2	343.4	314.6	286.5	264.6	257.1	255.8	254.2	251.8
35°	373.9	375.0	376.0	357.1	323.9	293.2	268.1	259.5	257.9	256.3	252.8
37.5°	396.9	397.2	394.8	368.0	329.6	297.2	270.0	260.0	257.9	255.5	251.5
40°	418.0	417.2	410.0	376.3	332.8	299.4	270.8	259.0	256.3	253.9	249.4
42.5°	430.1	429.2	420.1	380.1	333.0	299.1	270.8	257.9	255.0	252.0	247.0
45°	435.1	434.6	424.2	380.6	331.1	297.5	269.1	256.8	253.9	251.2	245.9
47.5°	435.7	435.7	425.0	379.8	329.6	296.4	269.1	258.2	255.8	253.6	249.6
50°	433.3	433.5	425.2	381.9	330.9	298.8	271.8	261.4	259.0	256.8	252.3
52.5°	461.6	458.9	440.5	391.6	339.7	306.6	280.9	271.5	270.8	269.4	265.9
55°	678.1	680.2	579.4	451.7	376.9	346.4	335.7	333.8	339.7	341.8	341.8
57.5°	860.9	854.0	816.0	659.1	492.9	456.2	460.5	465.1	473.6	477.4	480.0
60°	905.5	906.0	905.0	860.4	727.5	644.1	623.3	603.5	602.7	595.8	590.4
62.5°	900.2	904.5	924.5	934.7	947.7	886.6	759.3	704.5	693.9	680.7	662.0
65°	861.4	867.8	899.9	949.4	1062.1	1112.4	851.0	752.9	736.3	720.6	689.0
67.5°	733.9	747.8	809.3	902.6	1075.8	1203.0	866.0	729.4	707.5	686.9	649.5
70°	453.0	460.3	555.1	728.3	974.8	1096.9	786.3	619.0	591.2	565.0	514.0
72.5°	292.4	290.0	306.0	410.3	716.3	852.3	540.7	411.6	388.9	368.0	335.2
75°	204.7	205.0	197.8	195.6	332.2	527.9	244.8	175.9	165.7	161.4	154.5
77.5°	133.4	135.0	133.1	138.2	133.1	219.4	112.5	82.6	78.6	75.9	71.6
80°	80.5	85.8	87.4	88.5	89.8	82.9	66.8	48.6	43.8	39.3	32.3
82.5°	14.2	13.9	19.2	25.9	33.9	38.8	28.1	17.6	16.6	16.0	14.7
85°	0.0	0.0	0.3	0.3	0.6	1.9	2.9	3.5	3.2	3.5	3.8
87.5°	0.0	0.0	0.0	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.6
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7
2.5°	300.2	299.9	299.6	299.6	300.2	300.2	299.9	299.9	300.2	299.9	300.4
5°	295.6	295.3	295.3	295.1	295.3	295.6	295.3	295.3	295.6	295.3	295.9
7.5°	288.4	288.7	288.4	288.4	288.7	288.9	288.7	288.7	288.7	288.7	288.4
10°	280.9	280.9	280.6	280.6	281.2	280.9	280.6	280.6	280.9	281.2	280.6
12.5°	273.4	274.0	274.0	272.9	273.2	273.4	273.4	273.2	273.2	274.0	273.2
15°	265.9	266.2	265.9	266.2	265.7	265.4	265.7	265.7	265.1	264.9	264.9
17.5°	258.5	258.2	258.2	257.6	257.4	257.4	257.1	257.4	256.8	257.1	256.3
20°	251.8	251.5	251.2	251.2	250.4	250.4	250.4	250.2	249.6	249.6	249.4
22.5°	247.8	247.5	247.2	246.7	246.4	246.2	246.2	245.9	245.3	245.1	244.8
25°	245.6	245.3	244.8	244.3	244.0	243.8	243.8	243.5	243.0	242.4	242.1
27.5°	245.9	245.3	244.8	244.3	244.0	243.5	243.2	243.0	242.4	241.9	241.3
30°	248.3	247.2	246.2	245.3	244.6	243.8	243.2	243.0	242.1	241.3	240.6
32.5°	250.7	249.4	247.8	246.2	244.8	243.5	242.7	241.9	240.8	239.5	238.7
35°	251.5	249.9	247.5	246.2	244.3	242.7	241.3	240.3	238.4	236.8	235.5
37.5°	249.6	247.8	245.3	243.5	241.6	239.5	237.9	236.3	234.9	233.1	231.7
40°	246.7	244.6	242.1	239.5	237.6	235.5	233.9	232.5	230.6	229.1	228.0
42.5°	244.3	241.9	239.2	237.1	234.9	232.8	230.9	229.6	227.7	225.9	224.5
45°	243.5	241.1	238.9	236.3	234.1	232.5	230.9	229.1	227.4	225.9	224.2
47.5°	247.8	245.6	243.5	241.3	239.5	237.6	236.0	234.1	232.3	230.1	228.5
50°	250.2	247.8	245.9	243.5	241.3	239.5	237.9	236.0	234.7	232.5	230.9
52.5°	267.6	264.3	264.9	262.7	262.7	260.6	262.2	259.8	261.1	259.5	261.9
55°	341.1	342.1	348.8	349.9	352.5	352.3	353.9	360.8	358.1	354.7	355.7
57.5°	472.8	475.2	478.7	475.5	477.9	478.4	483.0	481.1	479.5	478.4	475.0
60°	587.2	584.0	578.9	572.8	570.4	567.7	563.2	563.2	557.3	555.4	550.8
62.5°	654.3	644.9	638.5	628.6	621.7	616.9	608.8	602.7	594.7	588.5	581.3
65°	676.2	660.4	649.2	636.9	626.0	615.5	604.0	595.2	585.3	578.7	567.2
67.5°	633.7	617.7	598.7	585.6	574.1	561.0	543.1	532.1	523.6	510.8	505.1
70°	493.4	476.5	452.7	446.3	428.7	408.4	390.2	379.3	366.7	357.9	348.5
72.5°	313.0	294.0	283.6	275.8	264.3	247.5	231.7	225.3	214.4	211.9	205.8
75°	147.0	134.2	131.5	129.6	117.1	114.7	109.9	107.7	102.6	99.9	98.9
77.5°	65.8	62.8	58.0	56.7	52.6	48.6	43.8	41.7	39.0	37.4	35.3
80°	29.9	27.0	25.1	23.8	23.2	21.9	20.9	20.0	19.2	19.2	17.9
82.5°	14.4	13.9	13.4	13.4	12.6	12.6	11.8	11.5	11.2	10.9	10.9
85°	4.0	4.0	4.0	4.3	4.3	4.3	4.3	4.3	4.3	4.5	4.5
87.5°	0.6	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7
2.5°	300.2	300.2	300.2	300.7	300.4	301.2	301.2	301.2	301.7	302.0	301.7
5°	295.9	295.9	295.9	296.1	296.1	296.7	296.7	297.2	297.2	297.5	297.5
7.5°	288.9	289.2	289.2	289.7	289.4	289.7	289.7	290.5	290.5	290.8	290.8
10°	280.9	281.2	281.2	281.2	281.4	281.7	281.7	282.3	282.5	282.5	283.0
12.5°	273.4	273.2	273.4	273.2	274.0	274.0	274.2	274.0	274.2	274.5	274.7
15°	265.1	265.1	264.9	265.1	265.1	264.9	264.6	264.9	265.4	265.4	265.4
17.5°	256.8	256.1	256.1	256.1	255.8	255.3	255.8	255.5	255.5	255.8	255.5
20°	249.1	248.8	248.6	248.3	248.0	247.2	247.2	247.2	247.0	247.0	247.0
22.5°	244.3	244.0	243.8	243.5	242.4	241.9	241.6	241.3	240.8	240.6	240.3
25°	241.6	241.1	240.6	240.0	239.2	238.4	237.6	237.4	236.8	236.3	235.5
27.5°	240.8	240.3	239.2	238.7	237.6	236.8	236.0	235.2	234.4	233.6	232.8
30°	239.5	238.7	237.6	236.8	236.0	234.7	233.6	232.8	231.5	230.6	229.6
32.5°	237.6	236.5	235.5	234.4	233.3	232.0	230.6	229.6	228.5	227.4	226.1
35°	234.4	233.1	231.5	230.4	229.1	227.7	226.6	224.8	224.0	222.7	221.3
37.5°	230.1	228.8	227.4	226.1	224.5	223.4	221.8	220.2	219.4	218.6	216.8
40°	226.4	224.8	223.4	222.4	220.5	219.7	218.1	216.5	215.4	214.6	213.0
42.5°	222.9	221.3	220.0	218.4	217.0	215.9	214.6	213.0	211.9	211.4	210.1
45°	222.9	221.0	219.4	218.1	216.8	215.4	214.4	212.7	211.9	210.9	210.1
47.5°	226.6	224.5	222.7	220.8	218.9	217.6	215.9	214.4	213.0	212.2	211.2
50°	229.3	227.2	226.1	224.0	222.9	221.0	219.2	218.4	217.0	216.2	215.9
52.5°	261.9	260.6	260.9	255.5	254.4	257.1	252.8	256.6	255.5	252.3	252.3
55°	361.9	361.4	363.7	357.1	354.1	359.5	361.6	353.9	355.7	355.7	355.2
57.5°	478.4	475.0	471.5	472.3	468.0	471.2	467.2	462.4	464.2	462.7	457.0
60°	547.9	545.8	540.7	535.9	531.3	527.1	523.3	519.1	516.9	513.2	509.1
62.5°	576.0	570.4	564.2	557.8	550.6	543.6	539.4	533.8	527.9	524.1	519.8
65°	561.0	552.7	546.0	536.7	528.9	520.4	514.8	508.3	503.0	496.6	491.2
67.5°	494.2	484.6	466.9	458.4	446.9	433.5	429.8	422.0	419.1	409.5	393.7
70°	336.5	326.9	316.2	298.8	287.6	276.1	263.5	254.4	253.1	245.3	233.9
72.5°	197.8	191.1	184.2	174.2	166.0	161.4	152.6	143.5	143.3	134.4	129.9
75°	93.5	90.1	83.1	80.7	73.2	72.7	67.1	66.0	67.1	64.4	63.9
77.5°	31.8	31.0	29.4	27.3	25.7	25.1	23.8	23.0	22.4	21.9	21.4
80°	17.4	16.8	16.6	15.8	15.2	15.0	14.2	13.9	13.6	13.4	13.1
82.5°	10.4	10.7	10.2	9.6	9.6	9.1	8.8	8.5	8.3	8.3	8.3
85°	4.3	4.5	4.3	4.0	3.8	4.0	4.0	3.8	3.5	3.8	3.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7	301.7
2.5°	301.2	300.9	300.9	300.7	300.4	300.9	301.5	302.3	301.7	302.3	302.6
5°	297.0	297.0	297.0	297.2	297.0	297.7	298.8	300.4	300.7	301.7	302.6
7.5°	290.0	290.0	290.3	290.5	290.3	291.3	293.2	295.1	296.4	298.3	299.9
10°	282.0	282.0	282.0	282.0	282.3	283.6	284.9	287.0	289.2	292.1	294.5
12.5°	274.7	274.0	274.2	274.7	274.2	274.2	275.6	277.2	278.5	282.3	286.5
15°	265.1	265.1	264.6	264.9	263.5	263.3	263.8	264.9	265.9	269.1	273.7
17.5°	255.0	255.0	255.0	254.2	253.1	250.4	250.2	250.2	250.2	252.6	257.9
20°	245.9	245.9	245.3	244.8	242.4	237.9	234.1	232.5	232.0	236.0	238.4
22.5°	239.5	239.2	238.1	237.6	233.9	226.6	220.8	216.2	214.9	216.2	217.0
25°	234.4	233.9	232.8	231.7	226.6	216.8	207.4	199.7	195.9	194.8	192.2
27.5°	231.5	230.6	229.1	228.0	221.3	208.7	196.5	186.3	179.3	174.2	169.5
30°	228.3	226.9	225.3	223.7	216.2	202.3	188.2	175.6	163.3	154.5	147.5
32.5°	224.5	223.2	221.6	220.0	211.7	196.5	181.5	166.0	148.9	136.9	126.4
35°	220.0	218.6	217.0	215.1	206.9	191.6	176.9	156.6	136.0	120.5	106.9
37.5°	215.4	214.1	212.5	210.6	202.3	189.2	174.2	147.8	124.3	105.3	87.4
40°	211.9	210.6	209.0	207.4	199.9	188.2	172.9	140.3	113.9	90.3	69.8
42.5°	209.0	207.7	206.3	204.7	198.3	188.7	170.0	133.9	103.7	75.4	54.8
45°	208.7	208.0	206.3	205.0	198.9	191.1	167.6	128.3	93.3	60.9	46.2
47.5°	210.6	209.5	208.5	207.4	202.6	197.2	166.0	122.4	81.5	49.2	44.1
50°	215.1	214.1	213.6	213.0	210.1	205.5	166.0	116.3	67.9	43.3	43.8
52.5°	251.8	248.8	248.0	250.2	242.1	219.4	167.1	108.8	53.2	41.4	44.1
55°	354.1	357.1	349.6	345.8	332.0	253.9	167.8	97.5	43.3	41.2	43.6
57.5°	457.6	457.6	454.9	449.0	431.9	312.7	171.6	79.6	39.6	40.6	43.0
60°	508.1	504.9	502.2	498.7	472.8	353.6	177.2	58.8	37.9	40.4	42.5
62.5°	517.2	512.1	508.6	504.1	469.6	355.7	179.6	44.1	36.4	40.4	41.2
65°	487.2	481.9	477.4	469.9	427.9	322.1	167.6	36.1	35.3	39.3	39.8
67.5°	394.8	388.4	384.9	381.1	353.3	282.8	135.5	32.3	33.9	37.4	38.5
70°	225.9	218.9	214.9	215.7	198.9	223.7	108.2	29.7	32.1	35.3	36.9
72.5°	121.6	114.1	111.7	104.0	88.7	112.8	83.4	27.3	29.7	32.1	33.7
75°	60.1	57.5	58.3	54.5	46.2	34.7	53.7	24.3	26.5	28.9	29.9
77.5°	20.9	20.3	20.0	19.8	19.2	18.5	24.6	20.9	22.7	24.6	25.7
80°	12.8	12.6	12.8	12.6	12.3	14.2	15.8	16.6	18.2	20.6	20.9
82.5°	7.7	7.7	7.7	7.7	7.7	9.9	11.2	12.8	14.2	15.8	17.1
85°	3.8	3.8	3.8	3.8	4.0	6.7	7.5	9.4	9.9	11.2	12.3
87.5°	0.8	0.8	0.8	0.8	1.1	3.5	4.5	5.6	5.9	5.9	6.7
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):

	165°	175°	180°
0°	301.7	301.7	301.7
2.5°	302.3	301.7	301.5
5°	303.1	302.6	302.3
7.5°	300.9	301.2	300.9
10°	296.4	297.2	297.5
12.5°	289.2	290.8	291.9
15°	277.2	279.6	279.0
17.5°	261.1	264.1	264.1
20°	241.1	242.4	241.6
22.5°	216.5	217.0	216.2
25°	190.6	190.6	189.5
27.5°	166.5	165.2	164.4
30°	143.5	140.1	139.0
32.5°	119.2	113.3	113.3
35°	94.6	89.8	88.5
37.5°	73.5	68.2	66.6
40°	56.4	52.4	52.1
42.5°	47.6	46.8	47.0
45°	45.4	46.5	46.5
47.5°	45.7	47.0	47.3
50°	46.0	47.3	47.6
52.5°	46.0	46.8	46.8
55°	45.4	45.4	45.4
57.5°	44.4	44.1	44.6
60°	43.6	43.6	43.6
62.5°	42.2	42.2	42.2
65°	40.1	40.4	40.4
67.5°	37.9	37.9	37.9
70°	35.3	35.3	35.8
72.5°	32.6	33.7	34.2
75°	30.7	32.6	33.4
77.5°	27.0	28.9	29.9
80°	22.2	22.4	22.4
82.5°	17.6	17.1	16.3
85°	12.6	11.8	11.8
87.5°	6.7	6.4	6.7
90°	0.0	0.0	0.0

(END OF REPORT)