

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: P173626

Luminaire Tested: **ENT-FXX-LED-E1-BL4-8030-BBB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173626
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-BL4-8030-BBB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1178.7 lumens
Efficiency: N/A
Efficacy: 214.3 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

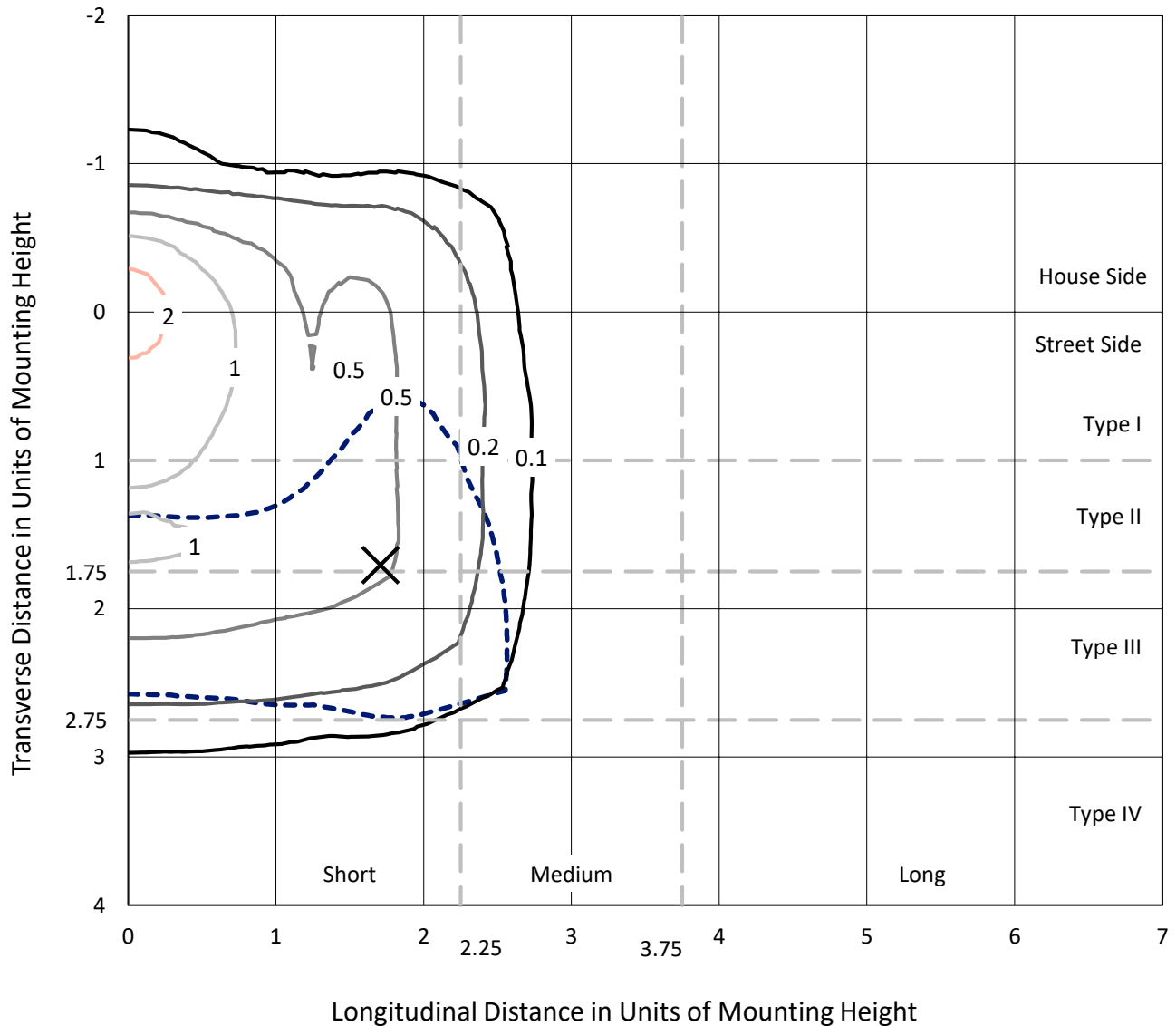
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

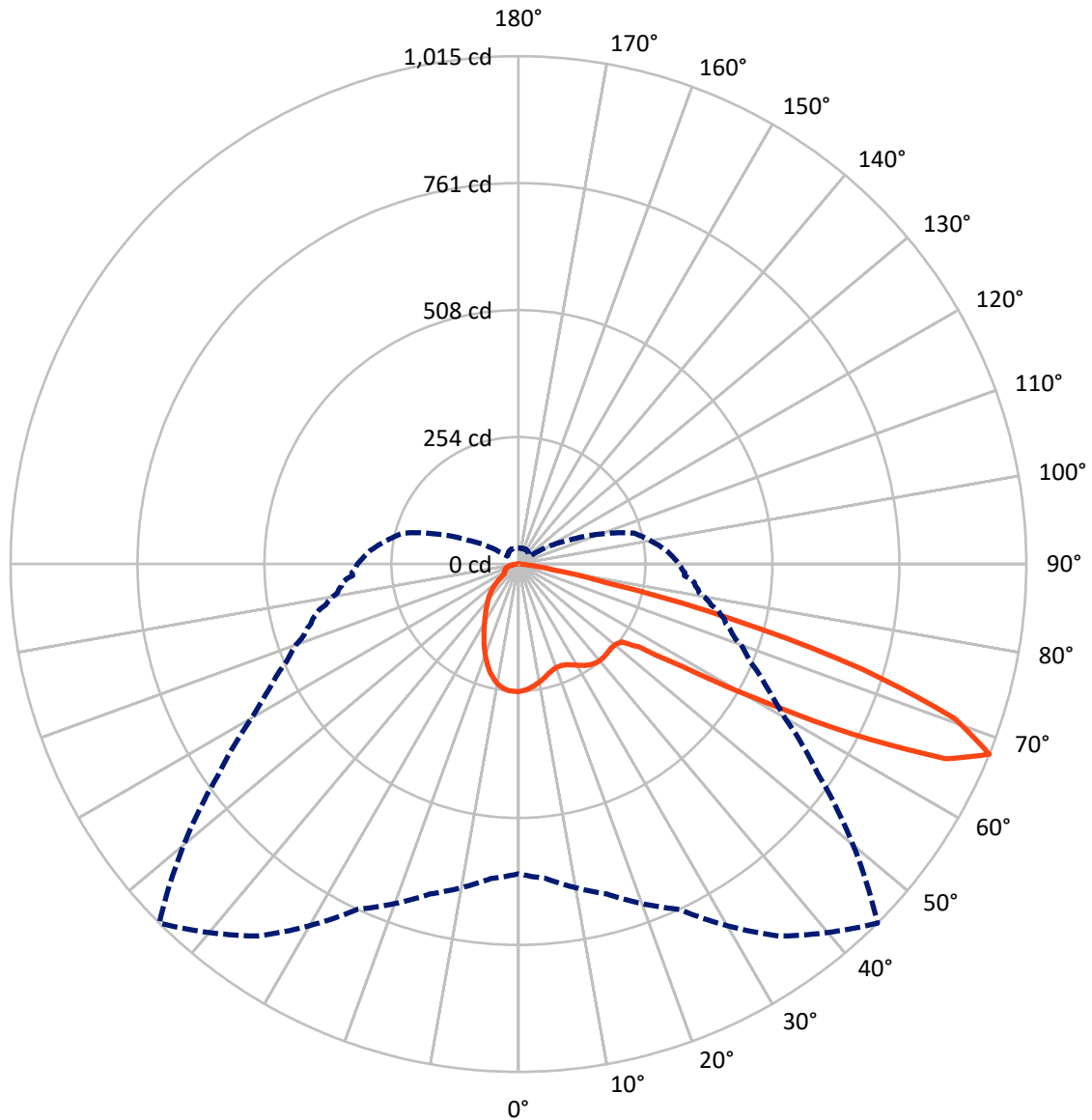
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.5 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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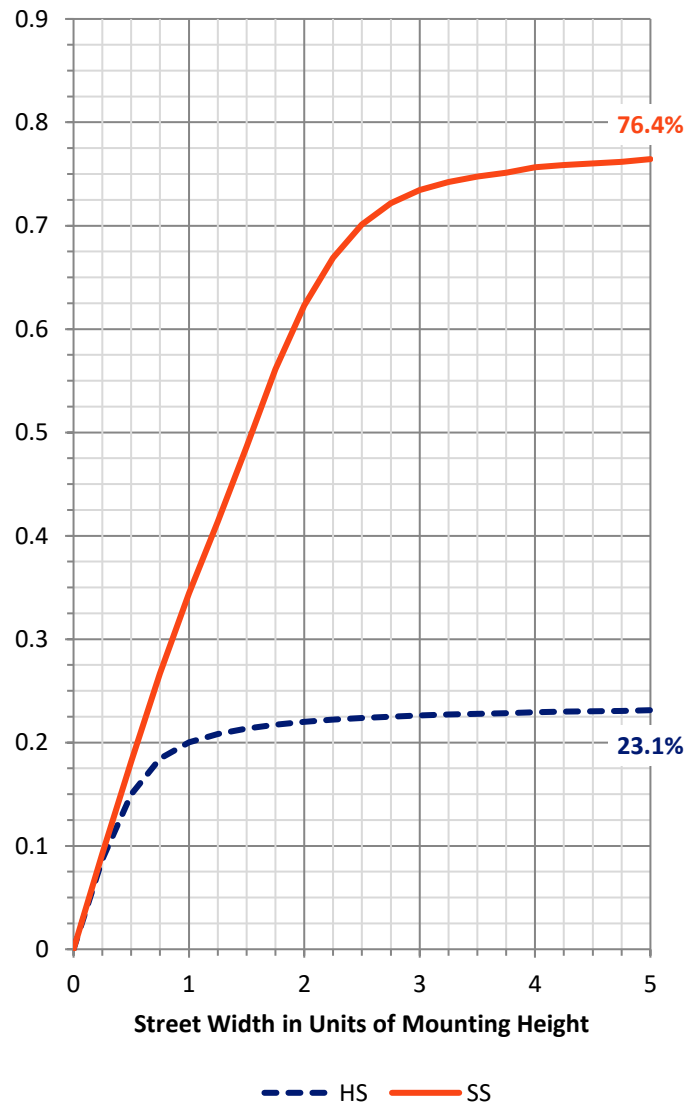
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	276.2	0.0	276.2
	% Fixture	23.4	0.0	23.4
Street Side	Lumens	902.5	0.0	902.5
	% Fixture	76.6	0.0	76.6
Total	Lumens	1178.7	0.0	1178.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.7	2.0
10°-20°	63.7	5.4
20°-30°	91.8	7.8
30°-40°	117.1	9.9
40°-50°	138.2	11.7
50°-60°	221.7	18.8
60°-70°	373.1	31.7
70°-80°	138.8	11.8
80°-90°	10.6	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°	1178.7	100.0
0°-180°	1178.7	100.0



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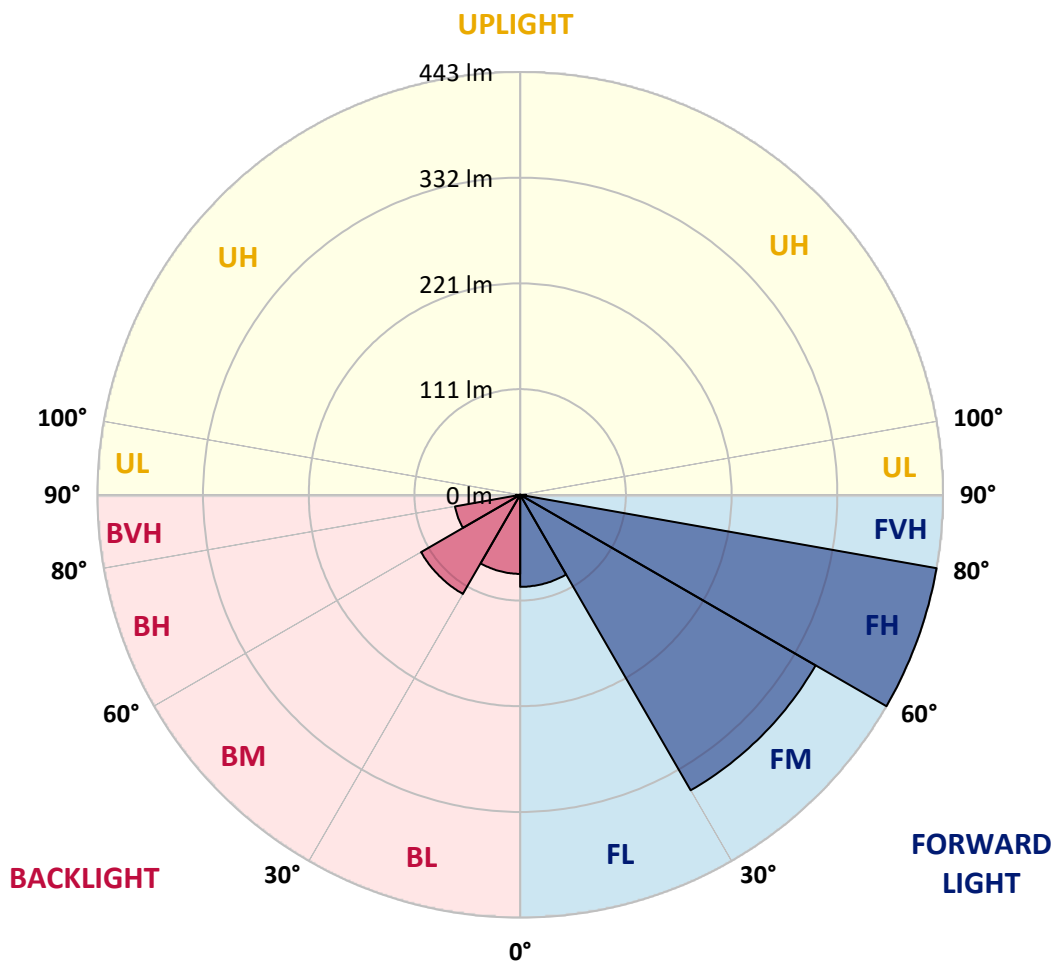
CATALOG NUMBER: ENT-FXX-LED-E1-BL4-8030-BBB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	96.3	8.2			
FM	(30°-60°)	357.2	30.3			
FH	(60°-80°)	442.7	37.6			G0/660
FVH	(80°-90°)	6.3	0.5			G0/10
BL	(0°-30°)	82.8	7.0	B0/110		
BM	(30°-60°)	119.9	10.2	B0/220		
BH	(60°-80°)	69.2	5.9	B0/110		G0/110
BVH	(80°-90°)	4.3	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°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	251.1	251.1	251.5	251.5	252.2	252.6	252.2	253.1	253.1	252.9	253.3
5°	247.5	247.5	247.7	247.7	248.1	248.8	248.4	249.3	249.0	249.3	249.3
7.5°	243.2	243.2	243.6	243.4	243.6	244.1	243.0	243.6	243.6	243.9	243.6
10°	237.8	238.2	238.6	238.4	238.4	238.6	236.9	237.5	237.3	237.3	237.1
12.5°	232.8	232.3	232.8	233.2	233.0	233.0	231.2	230.8	230.8	230.8	231.0
15°	227.6	228.1	228.7	228.1	227.6	226.7	224.9	224.5	224.5	224.5	224.7
17.5°	226.5	226.5	226.9	226.2	224.5	222.7	219.0	218.3	218.3	218.1	218.1
20°	229.6	229.4	230.1	228.7	224.7	219.9	214.3	213.2	213.2	213.2	212.9
22.5°	236.2	236.2	237.3	235.7	229.2	220.2	211.8	210.0	209.8	209.6	209.1
25°	248.8	248.6	249.3	245.2	235.7	223.1	211.1	208.4	208.2	207.8	207.3
27.5°	263.5	263.9	265.3	259.2	245.2	228.3	214.1	209.6	209.1	208.4	207.5
30°	277.9	279.3	281.7	275.2	256.0	234.8	218.6	213.4	212.5	211.6	210.0
32.5°	296.2	295.7	299.8	289.9	265.5	241.8	223.3	217.0	215.9	214.5	212.5
35°	315.6	316.5	317.4	301.4	273.4	247.5	226.2	219.0	217.7	216.3	213.4
37.5°	335.0	335.2	333.2	310.6	278.1	250.9	227.8	219.5	217.7	215.7	212.3
40°	352.8	352.1	346.0	317.6	280.8	252.6	228.5	218.6	216.3	214.3	210.5
42.5°	362.9	362.3	354.6	320.8	281.1	252.4	228.5	217.7	215.2	212.7	208.4
45°	367.2	366.8	358.0	321.2	279.5	251.1	227.2	216.8	214.3	212.0	207.5
47.5°	367.7	367.7	358.7	320.6	278.1	250.2	227.2	217.9	215.9	214.1	210.7
50°	365.7	365.9	358.9	322.3	279.3	252.2	229.4	220.6	218.6	216.8	212.9
52.5°	389.6	387.3	371.7	330.5	286.7	258.8	237.1	229.2	228.5	227.4	224.5
55°	572.3	574.1	489.0	381.2	318.1	292.4	283.3	281.7	286.7	288.5	288.5
57.5°	726.6	720.7	688.7	556.3	416.0	385.1	388.7	392.5	399.7	402.9	405.1
60°	764.2	764.7	763.8	726.1	614.0	543.6	526.0	509.3	508.7	502.8	498.3
62.5°	759.7	763.4	780.3	788.8	799.9	748.2	640.9	594.6	585.6	574.5	558.7
65°	727.0	732.4	759.5	801.2	896.4	938.8	718.2	635.4	621.5	608.2	581.5
67.5°	619.4	631.2	683.0	761.8	908.0	1015.3	730.9	615.6	597.1	579.7	548.2
70°	382.4	388.4	468.5	614.7	822.7	925.8	663.6	522.4	499.0	476.9	433.8
72.5°	246.8	244.8	258.3	346.3	604.6	719.4	456.3	347.4	328.2	310.6	282.9
75°	172.8	173.0	166.9	165.1	280.4	445.5	206.6	148.4	139.9	136.2	130.4
77.5°	112.6	113.9	112.3	116.6	112.3	185.2	95.0	69.7	66.3	64.1	60.4
80°	67.9	72.4	73.8	74.7	75.8	69.9	56.4	41.1	37.0	33.2	27.3
82.5°	11.9	11.7	16.3	21.9	28.7	32.7	23.7	14.9	14.0	13.5	12.4
85°	0.0	0.0	0.2	0.2	0.5	1.6	2.5	2.9	2.7	2.9	3.2
87.5°	0.0	0.0	0.0	0.2	0.2	0.5	0.5	0.5	0.5	0.5	0.5
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°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	253.3	253.1	252.9	252.9	253.3	253.3	253.1	253.1	253.3	253.1	253.5
5°	249.5	249.3	249.3	249.0	249.3	249.5	249.3	249.3	249.5	249.3	249.7
7.5°	243.4	243.6	243.4	243.4	243.6	243.9	243.6	243.6	243.6	243.6	243.4
10°	237.1	237.1	236.9	236.9	237.3	237.1	236.9	236.9	237.1	237.3	236.9
12.5°	230.8	231.2	231.2	230.3	230.6	230.8	230.8	230.6	230.6	231.2	230.6
15°	224.5	224.7	224.5	224.7	224.2	224.0	224.2	224.2	223.8	223.6	223.6
17.5°	218.1	217.9	217.9	217.5	217.2	217.2	217.0	217.2	216.8	217.0	216.3
20°	212.5	212.3	212.0	212.0	211.4	211.4	211.4	211.1	210.7	210.7	210.5
22.5°	209.1	208.9	208.7	208.2	208.0	207.8	207.8	207.5	207.1	206.9	206.6
25°	207.3	207.1	206.6	206.2	205.9	205.7	205.7	205.5	205.0	204.6	204.4
27.5°	207.5	207.1	206.6	206.2	205.9	205.5	205.3	205.0	204.6	204.1	203.7
30°	209.6	208.7	207.8	207.1	206.4	205.7	205.3	205.0	204.4	203.7	203.0
32.5°	211.6	210.5	209.1	207.8	206.6	205.5	204.8	204.1	203.3	202.1	201.4
35°	212.3	210.9	208.9	207.8	206.2	204.8	203.7	202.8	201.2	199.9	198.7
37.5°	210.7	209.1	207.1	205.5	203.9	202.1	200.8	199.4	198.3	196.7	195.6
40°	208.2	206.4	204.4	202.1	200.5	198.7	197.4	196.3	194.7	193.3	192.4
42.5°	206.2	204.1	201.9	200.1	198.3	196.5	194.9	193.8	192.2	190.6	189.5
45°	205.5	203.5	201.7	199.4	197.6	196.3	194.9	193.3	192.0	190.6	189.3
47.5°	209.1	207.3	205.5	203.7	202.1	200.5	199.2	197.6	196.0	194.2	192.9
50°	211.1	209.1	207.5	205.5	203.7	202.1	200.8	199.2	198.0	196.3	194.9
52.5°	225.8	223.1	223.6	221.7	221.7	219.9	221.3	219.3	220.4	219.0	221.1
55°	287.8	288.7	294.4	295.3	297.5	297.3	298.7	304.5	302.3	299.4	300.3
57.5°	399.0	401.1	404.0	401.3	403.3	403.8	407.6	406.0	404.7	403.8	400.9
60°	495.6	492.9	488.6	483.4	481.4	479.1	475.3	475.3	470.3	468.7	464.9
62.5°	552.2	544.3	538.9	530.5	524.7	520.6	513.9	508.7	501.9	496.7	490.6
65°	570.7	557.4	547.9	537.5	528.3	519.5	509.8	502.3	494.0	488.4	478.7
67.5°	534.9	521.3	505.3	494.2	484.5	473.5	458.4	449.1	441.9	431.1	426.3
70°	416.4	402.2	382.1	376.7	361.8	344.7	329.3	320.1	309.5	302.0	294.1
72.5°	264.2	248.1	239.3	232.8	223.1	208.9	195.6	190.1	180.9	178.9	173.7
75°	124.1	113.3	111.0	109.4	98.8	96.8	92.7	90.9	86.6	84.4	83.5
77.5°	55.5	53.0	49.0	47.8	44.5	41.1	37.0	35.2	32.9	31.6	29.8
80°	25.3	22.8	21.2	20.1	19.6	18.5	17.6	16.9	16.3	16.3	15.1
82.5°	12.2	11.7	11.3	11.3	10.6	10.6	9.9	9.7	9.5	9.3	9.3
85°	3.4	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.6	3.8	3.8
87.5°	0.5	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	253.3	253.3	253.3	253.8	253.5	254.2	254.2	254.2	254.7	254.9	254.7
5°	249.7	249.7	249.7	249.9	249.9	250.4	250.4	250.9	250.9	251.1	251.1
7.5°	243.9	244.1	244.1	244.5	244.3	244.5	244.5	245.2	245.2	245.4	245.4
10°	237.1	237.3	237.3	237.3	237.5	237.8	237.8	238.2	238.4	238.4	238.9
12.5°	230.8	230.6	230.8	230.6	231.2	231.2	231.5	231.2	231.5	231.7	231.9
15°	223.8	223.8	223.6	223.8	223.8	223.6	223.3	223.6	224.0	224.0	224.0
17.5°	216.8	216.1	216.1	216.1	215.9	215.4	215.9	215.7	215.7	215.9	215.7
20°	210.3	210.0	209.8	209.6	209.3	208.7	208.7	208.7	208.4	208.4	208.4
22.5°	206.2	205.9	205.7	205.5	204.6	204.1	203.9	203.7	203.3	203.0	202.8
25°	203.9	203.5	203.0	202.6	201.9	201.2	200.5	200.3	199.9	199.4	198.7
27.5°	203.3	202.8	201.9	201.4	200.5	199.9	199.2	198.5	197.8	197.1	196.5
30°	202.1	201.4	200.5	199.9	199.2	198.0	197.1	196.5	195.4	194.7	193.8
32.5°	200.5	199.6	198.7	197.8	196.9	195.8	194.7	193.8	192.9	192.0	190.8
35°	197.8	196.7	195.4	194.5	193.3	192.2	191.3	189.7	189.0	187.9	186.8
37.5°	194.2	193.1	192.0	190.8	189.5	188.6	187.2	185.9	185.2	184.5	183.0
40°	191.1	189.7	188.6	187.7	186.1	185.4	184.1	182.7	181.8	181.1	179.8
42.5°	188.1	186.8	185.6	184.3	183.2	182.3	181.1	179.8	178.9	178.4	177.3
45°	188.1	186.6	185.2	184.1	183.0	181.8	180.9	179.6	178.9	178.0	177.3
47.5°	191.3	189.5	187.9	186.3	184.7	183.6	182.3	180.9	179.8	179.1	178.2
50°	193.5	191.7	190.8	189.0	188.1	186.6	185.0	184.3	183.2	182.5	182.3
52.5°	221.1	219.9	220.2	215.7	214.8	217.0	213.4	216.6	215.7	212.9	212.9
55°	305.4	305.0	307.0	301.4	298.9	303.4	305.2	298.7	300.3	300.3	299.8
57.5°	403.8	400.9	397.9	398.6	395.0	397.7	394.3	390.3	391.8	390.5	385.7
60°	462.4	460.6	456.3	452.3	448.4	444.8	441.7	438.1	436.3	433.1	429.7
62.5°	486.1	481.4	476.2	470.8	464.7	458.8	455.2	450.5	445.5	442.4	438.8
65°	473.5	466.5	460.8	452.9	446.4	439.2	434.5	429.0	424.5	419.1	414.6
67.5°	417.1	409.0	394.1	386.9	377.2	365.9	362.7	356.2	353.7	345.6	332.3
70°	284.0	275.9	266.8	252.2	242.7	233.0	222.4	214.8	213.6	207.1	197.4
72.5°	166.9	161.3	155.4	147.1	140.1	136.2	128.8	121.1	120.9	113.5	109.6
75°	79.0	76.0	70.2	68.1	61.8	61.4	56.6	55.7	56.6	54.4	53.9
77.5°	26.8	26.2	24.8	23.0	21.7	21.2	20.1	19.4	18.9	18.5	18.0
80°	14.7	14.2	14.0	13.3	12.9	12.6	11.9	11.7	11.5	11.3	11.0
82.5°	8.8	9.0	8.6	8.1	8.1	7.7	7.4	7.2	7.0	7.0	7.0
85°	3.6	3.8	3.6	3.4	3.2	3.4	3.4	3.2	2.9	3.2	3.2
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7	254.7
2.5°	254.2	254.0	254.0	253.8	253.5	254.0	254.4	255.1	254.7	255.1	255.4
5°	250.6	250.6	250.6	250.9	250.6	251.3	252.2	253.5	253.8	254.7	255.4
7.5°	244.8	244.8	245.0	245.2	245.0	245.9	247.5	249.0	250.2	251.8	253.1
10°	238.0	238.0	238.0	238.0	238.2	239.3	240.5	242.3	244.1	246.5	248.6
12.5°	231.9	231.2	231.5	231.9	231.5	231.5	232.6	233.9	235.1	238.2	241.8
15°	223.8	223.8	223.3	223.6	222.4	222.2	222.7	223.6	224.5	227.2	231.0
17.5°	215.2	215.2	215.2	214.5	213.6	211.4	211.1	211.1	211.1	213.2	217.7
20°	207.5	207.5	207.1	206.6	204.6	200.8	197.6	196.3	195.8	199.2	201.2
22.5°	202.1	201.9	201.0	200.5	197.4	191.3	186.3	182.5	181.4	182.5	183.2
25°	197.8	197.4	196.5	195.6	191.3	183.0	175.1	168.5	165.3	164.4	162.2
27.5°	195.4	194.7	193.3	192.4	186.8	176.2	165.8	157.2	151.4	147.1	143.0
30°	192.6	191.5	190.1	188.8	182.5	170.8	158.8	148.2	137.8	130.4	124.5
32.5°	189.5	188.4	187.0	185.6	178.7	165.8	153.2	140.1	125.7	115.5	106.7
35°	185.6	184.5	183.2	181.6	174.6	161.8	149.3	132.2	114.8	101.7	90.2
37.5°	181.8	180.7	179.3	177.7	170.8	159.7	147.1	124.7	104.9	88.9	73.8
40°	178.9	177.7	176.4	175.1	168.7	158.8	146.0	118.4	96.1	76.2	58.9
42.5°	176.4	175.3	174.2	172.8	167.4	159.3	143.5	113.0	87.5	63.6	46.2
45°	176.2	175.5	174.2	173.0	167.8	161.3	141.5	108.3	78.7	51.4	39.0
47.5°	177.7	176.8	176.0	175.1	171.0	166.5	140.1	103.3	68.8	41.5	37.2
50°	181.6	180.7	180.2	179.8	177.3	173.5	140.1	98.1	57.3	36.6	37.0
52.5°	212.5	210.0	209.3	211.1	204.4	185.2	141.0	91.8	44.9	35.0	37.2
55°	298.9	301.4	295.0	291.9	280.2	214.3	141.6	82.3	36.6	34.7	36.8
57.5°	386.2	386.2	383.9	379.0	364.5	263.9	144.8	67.2	33.4	34.3	36.3
60°	428.8	426.1	423.9	420.9	399.0	298.4	149.5	49.6	32.0	34.1	35.9
62.5°	436.5	432.2	429.3	425.4	396.3	300.3	151.6	37.2	30.7	34.1	34.7
65°	411.2	406.7	402.9	396.6	361.2	271.8	141.5	30.5	29.8	33.2	33.6
67.5°	333.2	327.8	324.8	321.7	298.2	238.6	114.4	27.3	28.7	31.6	32.5
70°	190.6	184.7	181.4	182.1	167.8	188.8	91.4	25.0	27.1	29.8	31.1
72.5°	102.6	96.3	94.3	87.7	74.9	95.2	70.4	23.0	25.0	27.1	28.4
75°	50.8	48.5	49.2	46.0	39.0	29.3	45.3	20.5	22.3	24.3	25.3
77.5°	17.6	17.2	16.9	16.7	16.3	15.6	20.8	17.6	19.2	20.8	21.7
80°	10.8	10.6	10.8	10.6	10.4	11.9	13.3	14.0	15.3	17.4	17.6
82.5°	6.5	6.5	6.5	6.5	6.5	8.4	9.5	10.8	11.9	13.3	14.4
85°	3.2	3.2	3.2	3.2	3.4	5.6	6.3	7.9	8.4	9.5	10.4
87.5°	0.7	0.7	0.7	0.7	0.9	2.9	3.8	4.7	5.0	5.0	5.6
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°	175°	180°
0°	254.7	254.7	254.7
2.5°	255.1	254.7	254.4
5°	255.8	255.4	255.1
7.5°	254.0	254.2	254.0
10°	250.2	250.9	251.1
12.5°	244.1	245.4	246.3
15°	233.9	236.0	235.5
17.5°	220.4	222.9	222.9
20°	203.5	204.6	203.9
22.5°	182.7	183.2	182.5
25°	160.8	160.8	159.9
27.5°	140.5	139.4	138.7
30°	121.1	118.2	117.3
32.5°	100.6	95.6	95.6
35°	79.8	75.8	74.7
37.5°	62.0	57.5	56.2
40°	47.6	44.2	44.0
42.5°	40.1	39.5	39.7
45°	38.3	39.2	39.2
47.5°	38.6	39.7	39.9
50°	38.8	39.9	40.1
52.5°	38.8	39.5	39.5
55°	38.3	38.3	38.3
57.5°	37.5	37.2	37.7
60°	36.8	36.8	36.8
62.5°	35.6	35.6	35.6
65°	33.8	34.1	34.1
67.5°	32.0	32.0	32.0
70°	29.8	29.8	30.2
72.5°	27.5	28.4	28.9
75°	25.9	27.5	28.2
77.5°	22.8	24.3	25.3
80°	18.7	18.9	18.9
82.5°	14.9	14.4	13.8
85°	10.6	9.9	9.9
87.5°	5.6	5.4	5.6
90°	0.0	0.0	0.0

(END OF REPORT)