

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: P173591

Luminaire Tested: **ENT-FXX-LED-E1-BL2-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173591
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33644)
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-BL2-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1463.7 lumens
Efficiency: N/A
Efficacy: 266.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

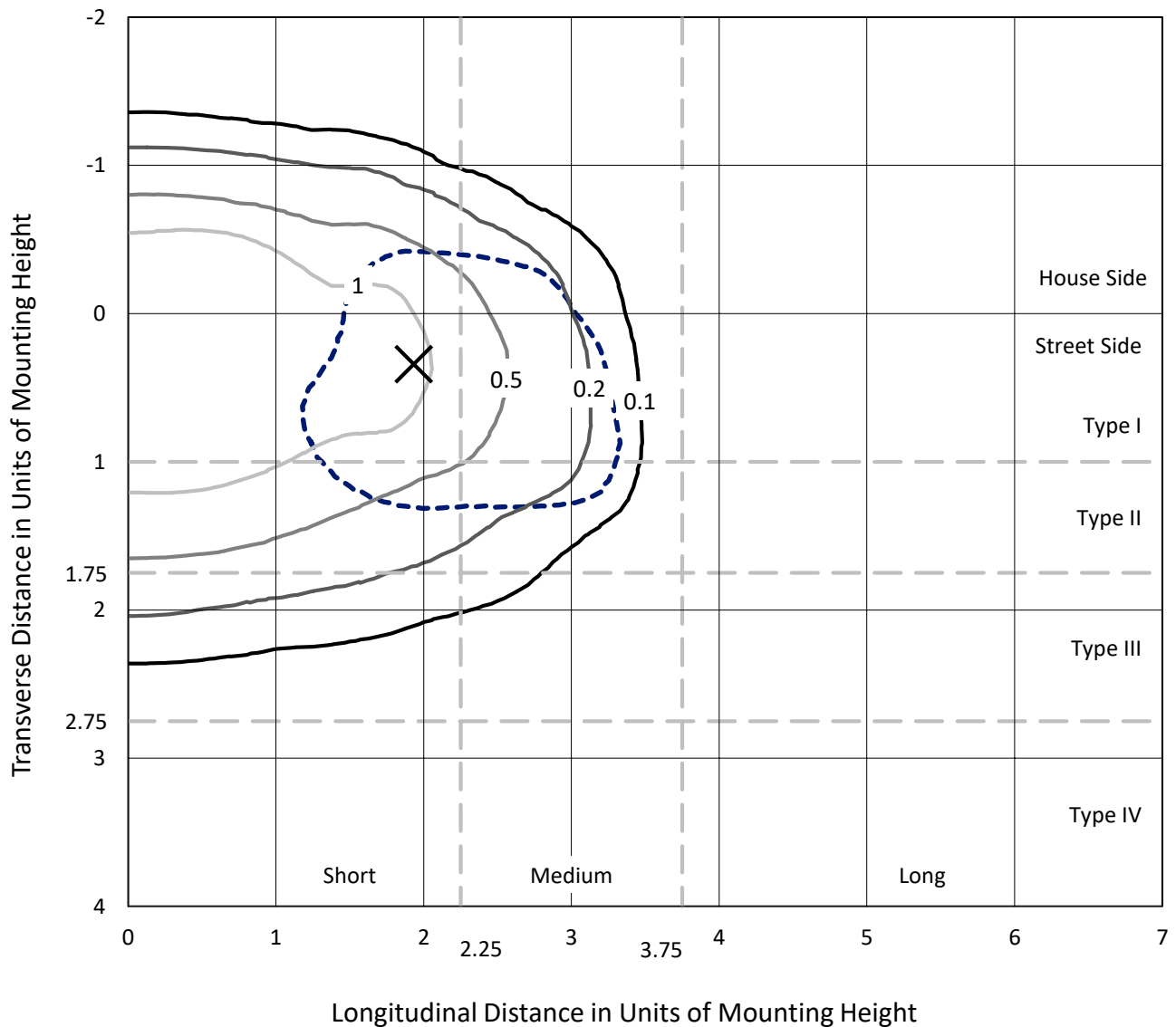
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

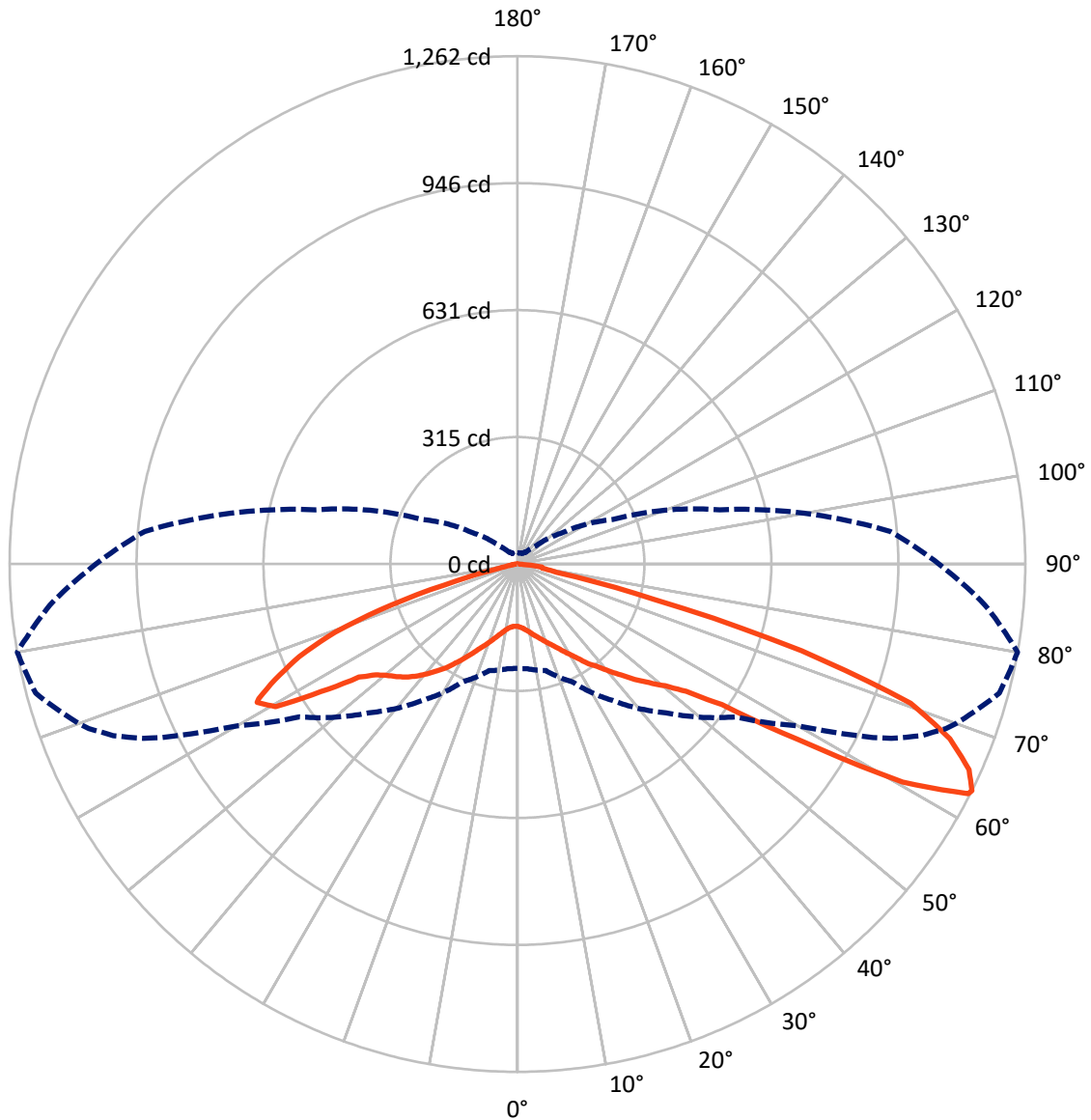
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	455.8	0.0	455.8
	% Fixture	31.1	0.0	31.1
Street Side	Lumens	1007.8	0.0	1007.8
	% Fixture	68.9	0.0	68.9
Total	Lumens	1463.7	0.0	1463.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.5	1.1
10°-20°	53.3	3.6
20°-30°	100.1	6.8
30°-40°	158.9	10.9
40°-50°	239.9	16.4
50°-60°	337.2	23.0
60°-70°	393.4	26.9
70°-80°	152.1	10.4
80°-90°	13.2	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°	1463.7	100.0
0°-180°	1463.7	100.0



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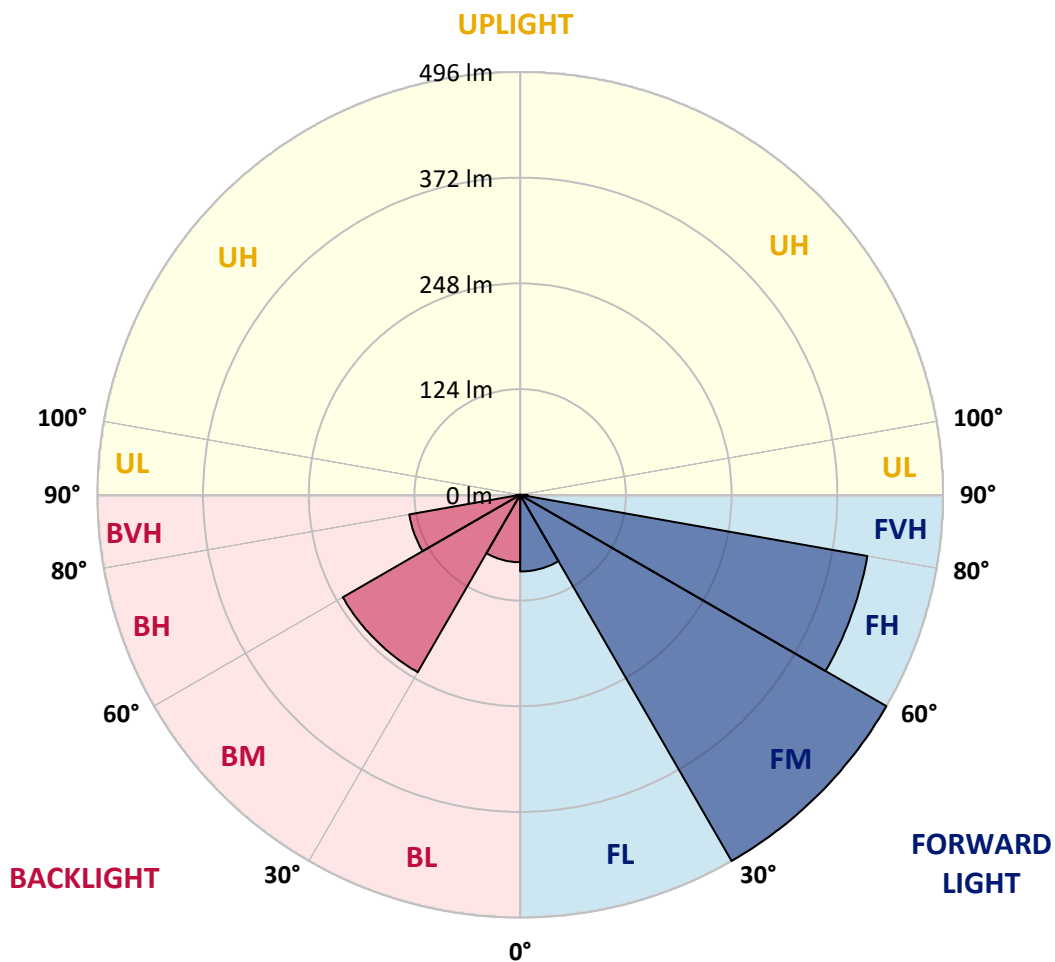
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	89.9	6.1			
FM (30°-60°)	495.8	33.9			
FH (60°-80°)	413.3	28.2			G0/660
FVH (80°-90°)	8.8	0.6			G0/10
BL (0°-30°)	79.1	5.4	B0/110		
BM (30°-60°)	240.2	16.4	B1/1000		
BH (60°-80°)	132.1	9.0	B1/500		G1/500
BVH (80°-90°)	4.4	0.3			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
2.5°	162.8	162.2	162.5	162.2	162.2	161.7	160.1	160.1	159.8	160.1	159.6
5°	171.6	171.3	171.0	170.5	170.5	169.5	166.8	166.3	166.5	166.0	164.9
7.5°	181.5	181.2	180.7	179.6	179.1	177.5	173.7	173.2	172.9	172.4	171.6
10°	191.4	191.1	190.3	188.9	187.6	185.2	181.5	180.1	179.9	179.6	178.8
12.5°	201.5	200.7	201.0	198.6	196.5	193.5	189.2	187.9	187.6	187.4	187.1
15°	212.7	212.5	211.9	208.7	204.7	200.7	196.5	194.8	193.8	194.0	193.8
17.5°	223.4	223.2	221.3	216.8	211.4	206.9	201.5	200.4	200.4	200.2	200.2
20°	231.2	230.9	229.1	223.4	216.5	211.4	207.1	207.1	206.9	207.1	207.4
22.5°	234.7	234.7	232.3	226.1	218.6	214.9	213.6	214.4	214.6	214.9	215.4
25°	236.0	236.0	233.6	226.4	219.4	220.0	221.6	222.9	223.4	223.4	225.3
27.5°	238.4	238.7	235.5	227.7	222.1	227.2	231.2	233.1	233.9	234.4	236.8
30°	245.6	245.3	242.7	234.4	230.1	237.4	244.6	246.4	248.3	248.3	251.0
32.5°	256.3	256.1	254.4	248.0	246.2	255.3	261.7	265.7	265.4	265.9	267.8
35°	270.5	270.8	271.8	270.2	271.8	280.9	288.1	289.7	290.0	290.3	290.5
37.5°	286.5	286.8	292.6	297.7	305.0	318.3	322.6	323.4	321.5	321.5	321.0
40°	298.5	299.9	313.0	326.4	341.6	359.8	366.2	364.6	363.2	362.2	359.0
42.5°	323.1	323.9	337.8	357.1	378.4	403.6	414.8	409.5	409.2	404.4	402.0
45°	347.7	349.9	364.8	386.5	412.1	446.9	463.5	458.9	458.1	456.0	449.3
47.5°	367.2	370.2	386.7	412.4	441.8	481.9	511.6	514.8	512.9	510.5	505.1
50°	383.8	386.2	403.1	431.1	464.8	508.6	551.1	562.6	564.2	563.2	561.8
52.5°	394.5	396.9	413.5	443.4	478.2	528.4	580.5	603.2	608.1	607.8	613.4
55°	394.8	397.5	414.5	447.4	485.6	542.0	607.8	643.6	649.5	656.7	668.7
57.5°	380.1	382.8	404.1	442.1	487.8	552.7	634.3	697.3	713.3	727.5	760.6
60°	339.2	340.2	363.7	414.5	477.6	550.3	654.3	743.6	766.3	797.0	850.5
62.5°	276.4	278.5	292.9	342.4	430.3	529.2	662.3	795.1	832.6	877.5	963.0
63°	259.0	260.9	274.2	323.1	414.3	522.5	662.0	803.4	844.6	890.8	983.0
65°	199.9	200.4	210.3	247.2	340.0	473.9	647.6	791.7	843.8	897.8	994.5
67.5°	161.2	163.0	172.9	198.9	268.6	398.0	582.9	685.8	721.4	774.6	889.8
70°	126.1	129.4	138.7	168.1	229.1	320.5	490.4	572.5	594.4	619.8	717.6
72.5°	83.4	84.2	85.8	102.1	159.8	249.4	408.1	464.0	472.5	490.7	538.5
75°	39.3	42.2	44.6	52.9	77.2	163.3	295.9	329.6	339.7	358.7	376.0
77.5°	17.1	16.8	17.9	24.3	40.6	72.7	184.2	243.5	247.0	242.7	235.2
80°	5.3	5.6	5.9	6.4	12.8	34.7	79.6	163.6	180.7	192.2	188.9
82.5°	0.6	0.3	0.8	1.6	2.7	5.1	29.9	76.7	96.5	118.4	146.5
85°	0.0	0.0	0.3	0.3	0.6	1.1	1.9	8.0	13.4	15.5	30.7
87.5°	0.0	0.0	0.3	0.3	0.6	0.8	0.8	1.1	1.1	1.1	1.1
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°	75°	80°	85°	90°	95°
0°	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
2.5°	159.3	159.3	158.8	159.0	158.8	158.8	158.2	157.7	157.4	156.1	155.3
5°	164.9	164.9	164.6	164.1	164.1	163.8	162.5	161.2	160.4	158.8	157.2
7.5°	171.3	171.0	170.5	170.0	170.0	169.7	167.8	166.5	164.9	162.5	160.6
10°	178.8	178.6	178.0	177.2	177.2	176.9	175.1	172.9	171.6	168.6	166.3
12.5°	186.8	186.0	185.7	185.2	184.7	184.7	183.1	181.0	179.9	176.7	174.2
15°	193.5	193.0	192.7	192.4	192.2	191.6	190.3	188.4	187.6	185.0	183.1
17.5°	199.9	199.9	200.2	199.7	199.4	198.9	198.0	197.5	196.7	194.3	193.3
20°	207.4	207.4	208.0	207.7	207.4	208.2	208.0	207.7	207.7	205.5	204.7
22.5°	216.2	215.9	216.8	216.5	216.8	217.6	218.6	218.1	219.2	217.8	217.3
25°	226.4	226.1	226.9	227.4	228.0	228.5	230.6	231.2	232.5	232.3	231.2
27.5°	237.9	238.1	238.4	239.7	240.6	241.1	244.0	245.6	248.3	247.2	248.3
30°	251.2	252.6	253.6	255.0	255.3	255.8	260.6	262.2	263.5	264.3	265.9
32.5°	269.7	270.5	270.8	272.3	272.9	273.7	278.8	280.9	282.8	283.0	286.0
35°	292.1	292.6	293.5	294.3	295.3	294.8	300.7	303.9	306.3	306.6	309.8
37.5°	321.8	319.9	320.7	319.7	318.1	318.1	319.9	323.1	325.8	327.9	331.1
40°	357.3	356.0	355.7	353.3	350.7	348.3	347.2	349.0	351.2	353.1	357.1
42.5°	398.0	396.6	392.1	390.5	386.0	383.3	376.0	376.9	380.6	381.7	384.1
45°	445.6	440.7	439.1	429.2	427.4	423.6	410.0	408.9	412.1	412.4	410.8
47.5°	499.8	496.3	492.6	485.6	478.4	472.3	451.4	440.5	443.9	443.7	435.9
50°	558.9	558.3	552.7	548.2	541.8	532.9	495.8	475.7	478.4	476.0	461.8
52.5°	615.3	613.7	613.4	609.9	607.5	604.6	559.4	524.9	518.8	513.7	495.5
55°	674.6	678.6	676.0	681.6	685.8	685.3	666.6	616.1	584.8	580.8	553.0
57.5°	773.5	783.1	795.9	796.5	808.0	824.5	858.2	821.9	743.6	728.0	690.9
60°	886.8	911.7	943.7	959.5	984.1	1009.7	1094.2	1099.8	990.3	930.4	862.2
62.5°	1000.7	1033.3	1071.2	1095.8	1126.3	1146.3	1235.6	1257.0	1157.0	1046.7	934.4
63°	1024.7	1058.2	1091.0	1115.1	1140.7	1159.2	1239.4	1261.8	1166.1	1046.9	929.8
65°	1037.3	1068.5	1094.2	1115.6	1132.7	1145.3	1208.6	1232.9	1154.1	1008.2	878.8
67.5°	941.9	992.1	1024.4	1050.4	1067.8	1085.1	1143.4	1158.6	1102.8	932.8	801.3
70°	779.7	837.6	888.7	929.0	959.0	985.4	1046.7	1036.2	988.1	810.6	679.7
72.5°	573.6	624.1	673.8	719.5	758.5	792.2	832.6	738.2	665.0	539.1	470.4
75°	385.7	396.6	419.3	442.1	456.2	465.9	441.0	351.5	285.5	256.1	224.0
77.5°	227.7	220.2	221.0	215.4	211.7	210.9	176.9	98.4	51.9	52.9	55.6
80°	181.8	173.5	164.6	154.8	148.3	141.4	115.2	63.1	22.4	18.2	19.0
82.5°	147.0	144.9	140.1	129.9	119.7	107.7	82.3	60.7	12.8	10.2	10.9
85°	28.6	32.1	28.9	31.5	23.5	22.2	13.1	14.2	5.1	4.5	5.6
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.1
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):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0	155.0
2.5°	153.9	152.9	152.1	151.0	150.5	149.7	149.4	148.6	148.9
5°	154.5	152.6	151.0	149.4	148.3	147.8	147.3	146.7	146.7
7.5°	157.2	154.8	152.9	151.0	150.2	149.1	148.9	148.1	148.1
10°	162.8	160.1	157.7	155.6	154.5	153.1	152.6	151.8	151.8
12.5°	171.0	168.6	166.0	162.8	160.6	159.0	157.7	157.2	157.2
15°	180.4	178.6	176.4	172.1	168.6	165.7	163.0	162.0	161.7
17.5°	191.6	190.0	187.9	183.1	177.5	171.3	166.8	164.6	164.4
20°	205.3	203.6	200.4	193.8	185.0	175.3	168.1	164.9	164.6
22.5°	219.2	219.2	213.8	202.9	189.8	176.9	167.3	163.0	162.2
25°	234.4	235.2	227.2	210.1	192.4	176.1	163.8	158.5	157.4
27.5°	252.8	252.0	238.7	215.7	192.7	172.9	158.2	151.8	150.7
30°	273.2	267.8	248.0	218.9	190.8	167.1	150.7	143.5	142.7
32.5°	293.5	282.0	255.0	219.4	185.5	158.5	140.9	133.4	132.3
35°	315.1	294.5	259.3	216.5	176.7	147.0	128.6	121.3	120.3
37.5°	333.3	304.1	260.6	208.7	163.3	133.6	117.3	109.9	108.0
40°	349.9	311.1	258.2	196.2	148.3	120.5	105.6	99.2	98.6
42.5°	365.1	314.3	249.6	179.9	133.4	109.3	95.7	89.6	89.0
45°	376.9	312.2	235.2	162.0	121.1	99.7	86.9	81.3	80.2
47.5°	384.3	304.4	215.4	147.0	110.9	89.8	77.2	71.4	70.3
50°	390.2	292.9	195.4	135.5	101.0	79.6	67.3	62.0	61.2
52.5°	398.0	278.2	178.0	125.1	89.6	68.2	57.2	52.1	51.3
55°	415.1	265.7	165.7	113.6	77.2	56.1	47.0	43.8	42.8
57.5°	473.1	270.0	158.0	99.7	63.1	45.2	39.0	37.1	36.9
60°	534.0	288.1	154.2	83.7	48.9	36.6	33.2	32.6	32.3
62.5°	530.8	271.8	138.7	65.8	37.7	30.2	28.6	28.9	28.9
63°	520.1	261.9	133.6	61.7	35.8	29.4	27.8	27.8	27.8
65°	455.4	222.1	108.5	46.8	29.9	26.2	24.9	25.1	25.4
67.5°	376.0	160.4	71.4	32.6	27.0	23.8	22.2	21.7	21.7
70°	287.6	108.0	42.2	28.3	26.7	22.2	19.5	19.0	19.0
72.5°	188.7	66.0	28.6	28.3	26.5	21.1	18.2	17.1	17.1
75°	86.6	32.6	23.8	27.3	25.1	19.5	16.0	14.7	14.4
77.5°	33.7	20.6	21.4	23.0	19.5	16.0	14.4	13.4	13.1
80°	19.5	16.6	18.7	16.6	14.2	12.3	12.3	11.5	11.2
82.5°	14.2	14.2	14.4	12.0	10.7	10.2	10.2	9.4	9.1
85°	10.2	10.4	12.0	9.6	8.3	7.2	6.7	6.7	6.4
87.5°	5.1	8.3	6.7	4.0	3.8	3.5	3.5	3.5	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)