

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: P89413

Luminaire Tested: **ENV-CXX-LED-E1-BL2-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P89413
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21305)
Test Lab: INNOVATION CENTER P2
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-CXX-LED-E1-BL2-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1146 lumens
Efficiency: N/A
Efficacy: 208.4 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Full 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



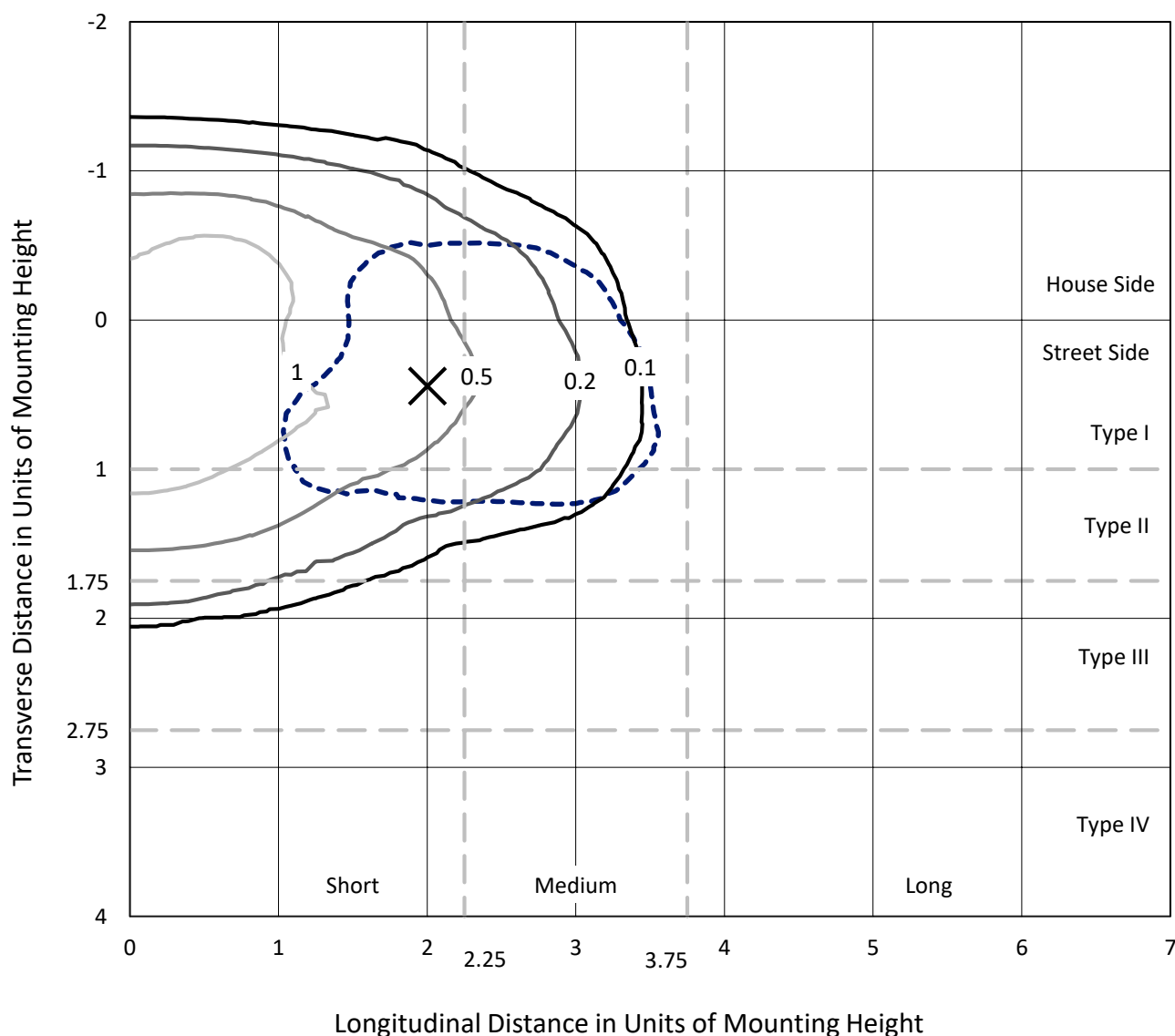
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

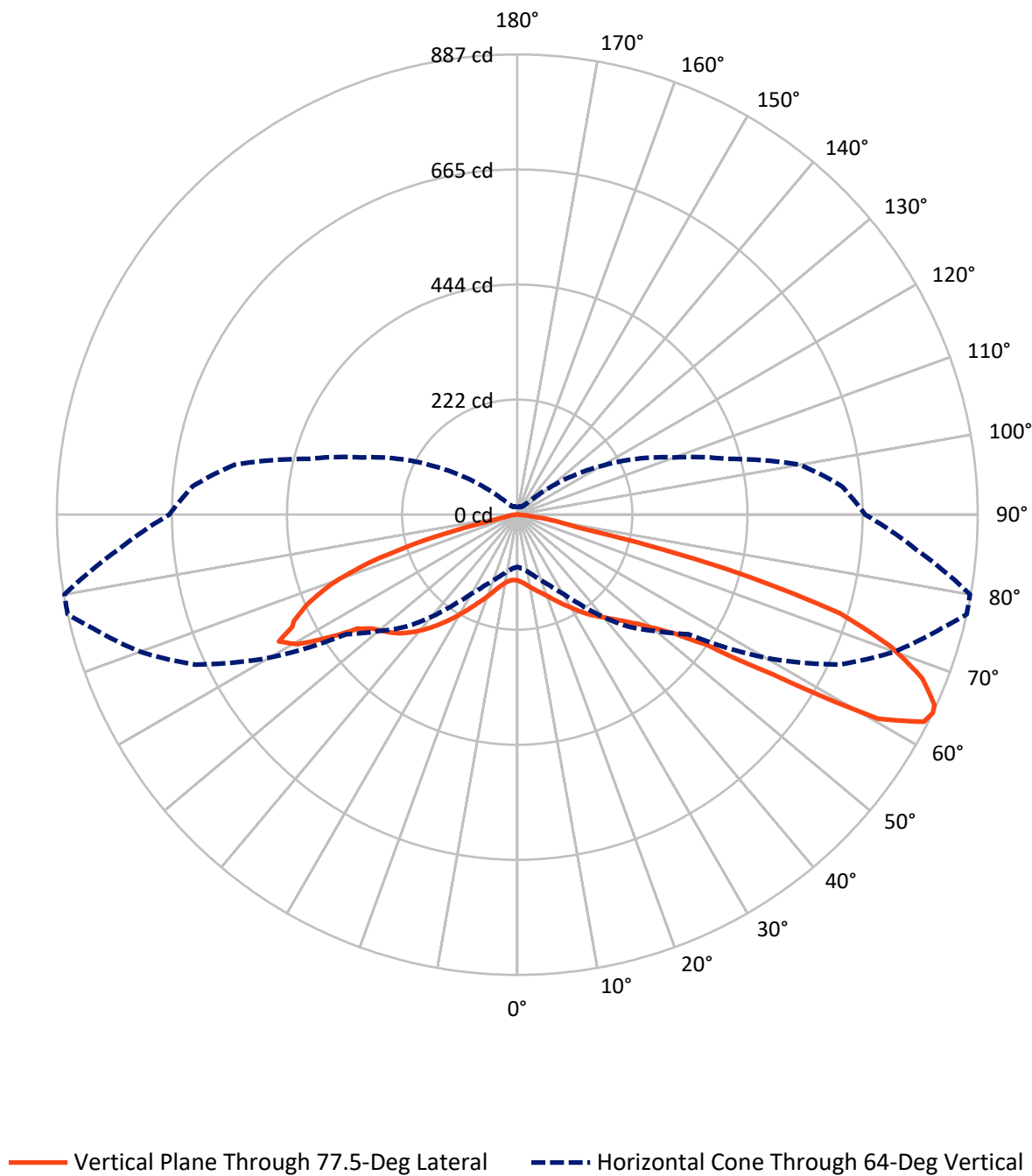


Based on 10 foot mounting height. Maximum calculated value = 1.5 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



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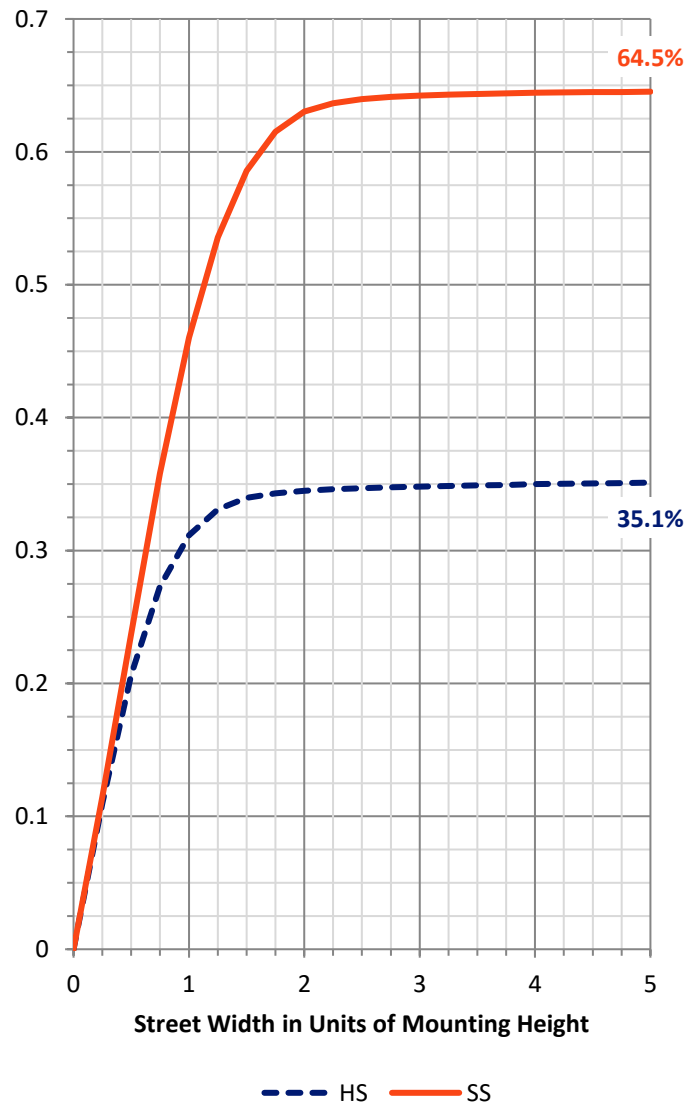
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	406.5	0.0	406.5
	% Fixture	35.5	0.0	35.5
Street Side	Lumens	739.5	0.0	739.5
	% Fixture	64.5	0.0	64.5
Total	Lumens	1146.0	0.0	1146.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.6	1.1
10°-20°	42.6	3.7
20°-30°	82.6	7.2
30°-40°	141.3	12.3
40°-50°	211.0	18.4
50°-60°	275.3	24.0
60°-70°	272.1	23.7
70°-80°	100.0	8.7
80°-90°	8.7	0.8
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°	1146.0	100.0
0°-180°	1146.0	100.0

Coefficient of Utilization



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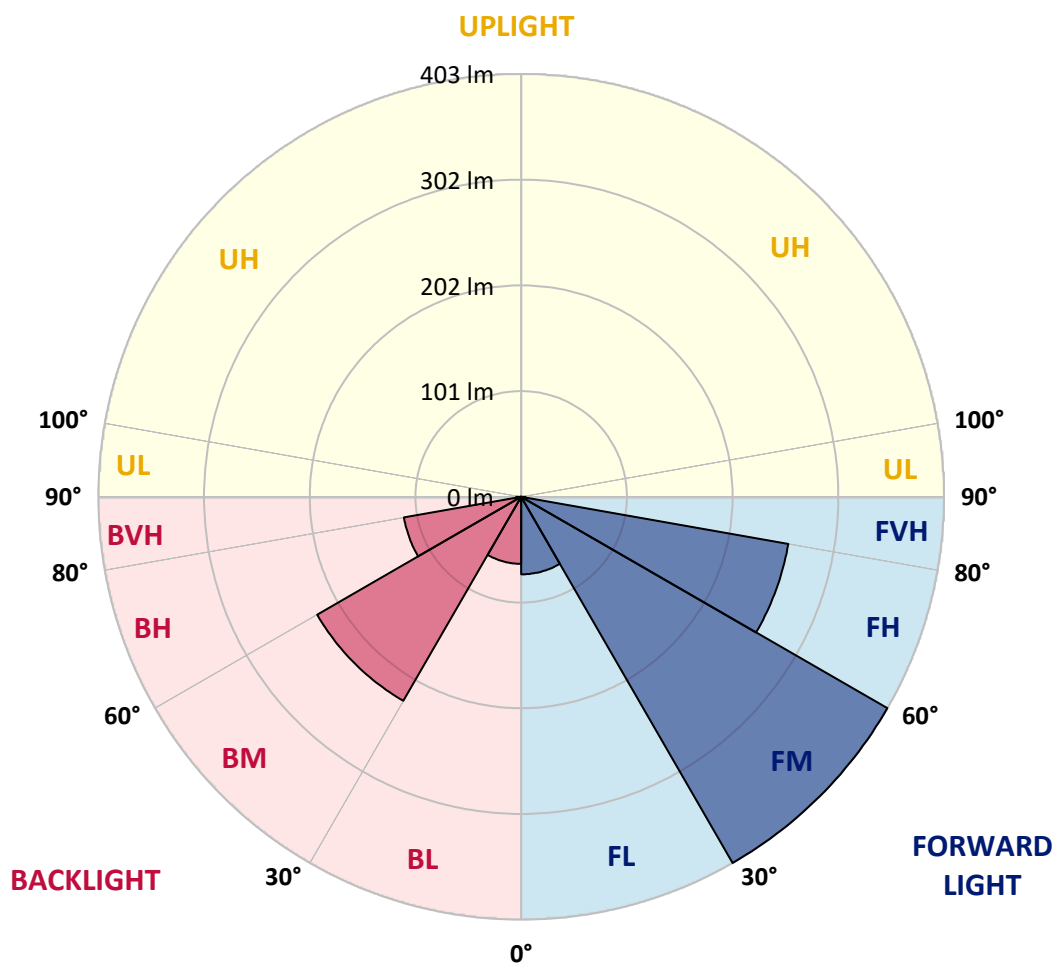
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	73.9	6.4			
FM	(30°-60°)	403.1	35.2			
FH	(60°-80°)	258.6	22.6			G0/660
FVH	(80°-90°)	4.0	0.4			G0/10
BL	(0°-30°)	63.9	5.6	B0/110		
BM	(30°-60°)	224.5	19.6	B1/1000		
BH	(60°-80°)	113.5	9.9	B1/500		G1/500
BVH	(80°-90°)	4.6	0.4			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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	134.0	133.4	133.7	133.1	133.1	133.1	133.1	132.4	132.7	132.7	132.1
5°	142.1	141.5	141.2	141.2	140.8	140.5	140.5	139.5	139.5	139.2	137.9
7.5°	150.5	149.9	149.9	149.6	149.3	148.3	148.3	147.3	147.0	146.3	145.0
10°	157.3	156.7	156.7	156.1	156.1	155.1	154.4	154.4	153.5	152.5	150.9
12.5°	163.8	163.5	163.5	162.5	162.2	160.9	160.6	159.9	159.3	158.0	156.4
15°	171.6	171.6	171.3	169.7	169.0	167.1	166.4	165.1	164.5	162.5	160.9
17.5°	179.7	179.4	179.4	177.4	176.1	174.2	172.9	170.9	169.0	166.4	165.1
20°	186.5	186.5	186.2	184.5	182.9	180.3	178.4	176.1	173.5	170.9	169.3
22.5°	190.7	190.0	189.7	188.8	187.8	185.2	183.2	181.3	178.7	175.8	173.9
25°	193.3	192.6	192.6	192.3	192.0	190.4	189.1	187.5	185.5	182.6	180.7
27.5°	197.8	197.5	197.8	198.5	199.1	198.8	197.8	197.2	195.6	193.0	191.3
30°	209.2	209.2	209.8	210.8	211.7	212.7	213.0	213.0	211.4	209.5	206.9
32.5°	229.2	229.5	230.2	231.8	233.8	234.1	234.1	233.8	232.8	231.2	226.6
35°	254.8	254.8	255.8	257.7	259.3	260.6	261.3	260.0	258.0	255.1	252.9
37.5°	281.7	281.7	282.6	285.6	287.2	288.1	288.8	288.5	286.9	283.3	280.1
40°	306.6	307.6	308.9	312.4	314.4	315.0	315.3	314.4	315.3	313.7	311.1
42.5°	327.0	328.3	329.6	332.2	334.8	336.1	337.4	338.3	341.6	342.5	342.2
45°	345.8	346.7	346.7	347.4	350.6	351.9	355.2	357.8	364.2	367.5	370.4
47.5°	360.0	361.6	361.0	360.7	363.9	364.6	367.1	373.0	381.7	388.2	395.6
50°	360.3	362.9	364.9	367.1	371.4	373.6	376.2	382.4	394.3	404.1	415.1
52.5°	353.2	356.8	359.4	363.3	371.0	376.5	382.4	388.5	399.8	415.1	431.6
55°	338.7	343.2	348.4	355.8	366.2	375.2	385.0	394.3	405.0	423.5	445.2
57.5°	303.7	307.9	315.3	327.3	344.5	362.6	382.0	398.9	411.8	430.0	456.2
60°	259.0	262.2	269.4	281.0	300.8	324.7	351.0	377.8	400.5	423.5	451.3
62.5°	204.3	205.3	208.5	214.7	227.9	248.0	276.2	314.4	347.7	379.1	412.1
64°	100.7	103.9	111.1	121.1	134.7	151.8	175.8	210.4	256.7	306.0	348.7
65°	88.1	90.0	97.5	107.5	123.0	139.5	162.9	198.8	244.1	295.6	341.6
67.5°	38.5	38.9	40.5	43.1	47.9	56.7	69.3	89.4	122.4	174.2	240.2
70°	23.3	23.0	24.0	24.6	26.5	29.5	34.3	45.3	64.8	89.7	136.3
72.5°	16.2	16.2	16.2	16.2	17.2	17.8	19.1	21.4	27.2	45.0	82.9
75°	11.7	11.3	12.3	12.6	13.3	13.3	13.9	14.6	16.5	20.7	38.9
77.5°	8.4	8.1	8.4	8.7	9.1	9.4	10.0	11.0	12.6	14.6	18.5
80°	3.2	2.9	3.6	3.9	4.5	4.9	5.2	6.2	7.8	8.7	10.4
82.5°	1.0	0.6	1.0	1.0	1.3	1.3	1.9	2.3	2.9	3.9	5.5
85°	0.6	0.3	0.6	0.6	1.0	1.0	1.0	1.0	1.3	1.3	1.9
87.5°	0.6	0.3	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.0	1.3
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°	77.5°	80°	85°	90°	95°	100°
0°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	131.4	131.4	130.8	130.2	129.8	129.5	128.5	128.2	128.2	127.2	126.9
5°	137.0	136.3	135.7	134.4	133.4	132.7	132.1	130.5	129.5	128.9	127.2
7.5°	143.4	142.8	141.8	139.5	138.2	137.6	136.6	134.4	133.1	132.1	129.8
10°	149.6	148.6	147.3	145.0	143.4	142.5	141.2	138.9	137.0	135.7	133.7
12.5°	155.1	154.4	152.8	150.2	148.6	148.3	146.7	144.4	142.1	140.8	139.2
15°	159.9	159.3	157.7	156.1	154.4	153.8	152.8	150.2	148.0	147.3	146.0
17.5°	164.1	163.8	162.5	161.6	160.6	160.3	159.3	157.7	156.1	155.7	155.1
20°	168.7	169.0	168.0	168.0	168.0	167.7	167.7	166.4	165.4	165.1	165.4
22.5°	173.5	174.5	174.5	175.5	176.8	177.1	176.8	175.5	175.5	175.8	176.8
25°	181.0	182.0	182.9	184.2	185.8	187.1	187.1	186.5	186.5	186.8	188.8
27.5°	190.7	191.7	193.0	194.6	196.5	197.8	198.1	198.1	198.1	199.4	201.7
30°	204.6	204.3	205.3	206.9	208.5	209.2	210.1	211.1	210.8	212.7	216.9
32.5°	222.7	220.2	219.5	220.2	221.5	222.4	222.7	223.4	223.7	227.0	232.5
35°	246.1	240.6	236.3	234.1	234.4	235.7	236.3	235.7	236.3	241.5	249.3
37.5°	274.2	265.5	256.4	250.3	248.0	248.0	248.6	248.3	249.9	256.4	267.1
40°	306.0	295.9	281.3	268.7	262.6	261.3	261.3	261.6	264.2	272.0	284.3
42.5°	338.7	328.3	310.5	290.7	278.8	276.2	275.5	275.5	279.1	289.8	303.0
45°	371.4	363.9	344.5	318.6	298.8	293.7	291.1	289.8	295.3	308.2	320.2
47.5°	402.4	399.2	383.7	351.3	325.4	315.0	309.8	306.9	313.4	326.0	335.1
50°	427.4	434.5	423.8	393.7	357.4	344.5	332.2	326.7	331.9	344.5	348.7
52.5°	448.7	465.2	469.1	442.6	399.8	381.1	366.8	353.2	359.1	368.1	365.2
55°	475.9	506.0	523.8	516.7	471.1	441.9	424.1	403.1	404.1	407.3	395.3
57.5°	501.2	576.0	636.5	650.4	625.2	579.9	537.4	507.7	504.4	504.1	473.0
60°	504.1	600.6	700.0	772.8	814.3	798.4	756.0	665.0	620.3	599.0	544.6
62.5°	470.8	606.4	716.5	796.1	864.1	879.3	851.2	740.8	679.6	649.5	580.5
64°	401.5	551.7	683.8	772.8	846.6	887.1	885.8	771.5	670.2	627.8	553.3
65°	396.9	548.1	669.5	767.6	844.7	883.2	879.3	776.1	673.1	626.5	541.3
67.5°	283.6	457.5	604.1	724.3	786.7	841.8	853.4	785.1	662.1	597.3	508.3
70°	186.2	314.4	484.3	649.5	704.5	764.7	782.2	735.9	609.3	540.4	452.3
72.5°	137.9	192.6	374.3	538.4	603.2	650.8	650.4	615.5	495.0	438.4	360.7
75°	90.7	145.4	268.7	351.0	402.8	412.5	373.6	329.6	283.3	276.8	232.8
77.5°	46.0	92.3	147.6	125.6	111.4	117.2	113.3	75.4	44.4	41.8	51.8
80°	19.1	45.0	84.8	70.3	61.8	71.9	76.1	54.7	29.8	26.2	24.0
82.5°	8.4	15.2	29.8	35.6	25.6	30.4	36.6	26.9	20.1	18.8	17.8
85°	2.3	2.9	4.9	7.4	8.4	9.1	11.3	10.0	9.4	10.4	11.3
87.5°	1.3	1.6	1.3	1.3	1.3	1.6	1.3	1.0	1.0	2.3	3.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	125.9	125.0	125.0	123.7	123.0	122.7	122.1	122.1	121.4	121.1	120.1
5°	125.6	124.3	123.7	122.4	121.1	120.1	119.1	118.5	117.5	117.2	115.6
7.5°	127.6	126.3	125.3	123.7	122.1	120.8	119.5	119.1	117.8	117.2	115.6
10°	131.1	129.8	128.9	126.9	125.6	124.3	123.0	122.4	121.1	120.1	118.8
12.5°	137.0	136.0	135.0	133.4	131.8	130.5	129.2	127.9	126.3	124.6	122.7
15°	144.1	143.4	142.8	141.2	139.5	137.9	136.3	134.4	132.1	129.5	126.6
17.5°	153.5	152.5	152.2	150.9	148.9	146.7	144.4	141.2	138.2	134.7	130.5
20°	164.8	163.8	164.1	162.5	159.6	157.0	152.8	148.9	145.0	140.5	135.7
22.5°	176.5	176.5	176.5	174.5	171.6	167.4	162.5	157.0	151.8	146.0	140.5
25°	189.7	190.7	190.7	188.4	184.2	179.0	172.6	165.8	159.0	152.2	145.0
27.5°	204.9	205.9	206.6	203.3	198.8	191.7	183.6	174.5	165.8	157.7	148.9
30°	221.1	222.7	223.7	218.9	213.0	204.3	193.6	182.0	171.3	161.6	151.5
32.5°	239.3	241.5	240.9	234.7	227.0	216.3	202.4	188.4	175.2	162.9	151.5
35°	257.1	260.0	257.1	249.0	238.9	225.7	208.8	192.0	175.2	161.2	148.9
37.5°	274.6	277.1	272.0	261.3	248.6	231.8	210.4	191.0	172.2	157.3	144.1
40°	292.7	292.7	283.6	271.6	255.1	232.8	208.8	186.8	167.4	151.5	138.2
42.5°	307.3	304.3	292.7	276.8	255.8	230.2	204.0	179.7	159.6	142.8	129.5
45°	320.8	313.1	297.9	277.5	251.6	222.4	194.3	170.0	149.6	133.1	119.8
47.5°	331.5	318.6	299.2	273.9	243.1	211.1	182.3	158.3	138.6	122.1	108.8
50°	339.3	321.2	296.6	266.1	230.8	197.5	169.3	146.0	125.9	109.1	95.2
52.5°	347.1	320.5	289.8	255.1	217.6	183.6	155.7	131.8	110.4	92.6	79.0
55°	361.6	323.1	283.3	242.8	204.0	170.3	140.5	114.0	91.6	74.5	61.5
57.5°	397.3	335.1	281.0	233.1	190.7	154.8	121.4	92.6	70.3	54.7	44.7
60°	440.0	352.3	284.9	225.7	175.5	134.4	97.1	68.6	49.2	37.9	31.1
62.5°	459.7	355.5	278.1	212.1	155.1	107.2	69.6	45.0	31.4	24.9	21.4
64°	415.7	321.8	254.8	188.1	129.5	79.0	45.3	28.2	21.0	18.1	16.8
65°	411.5	316.0	249.9	184.9	125.9	75.4	43.1	27.2	20.1	17.8	16.2
67.5°	366.8	256.7	189.1	133.1	83.9	43.7	24.0	17.2	14.9	14.2	13.6
70°	313.1	204.9	136.3	81.6	41.8	22.3	15.5	13.9	13.3	13.0	12.0
72.5°	242.5	141.8	80.0	41.1	21.7	14.6	13.3	12.6	12.3	12.0	11.3
75°	139.5	70.3	37.9	22.0	15.9	13.9	12.6	12.3	12.0	11.3	10.7
77.5°	42.4	22.7	18.5	16.5	14.9	14.2	13.0	11.7	10.7	10.4	9.7
80°	20.1	16.2	14.6	14.6	14.6	13.9	12.3	11.0	10.0	9.7	9.4
82.5°	15.5	13.6	12.6	12.6	12.3	12.0	11.0	10.7	9.7	9.1	8.7
85°	11.0	10.4	9.4	10.7	11.3	11.0	9.7	9.4	8.4	7.8	7.1
87.5°	5.2	7.4	8.4	9.1	10.0	8.4	6.8	6.8	5.5	5.2	4.5
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):

	160°	165°	170°	175°	180°
0°	126.6	126.6	126.6	126.6	126.6
2.5°	119.5	119.1	119.1	118.5	118.5
5°	114.9	114.6	114.3	113.6	113.6
7.5°	115.3	114.6	114.3	113.6	113.6
10°	117.8	117.2	116.6	116.2	116.2
12.5°	121.7	120.4	119.5	118.8	118.8
15°	125.0	123.0	121.4	120.8	120.4
17.5°	128.2	125.6	123.7	122.7	122.1
20°	132.4	128.9	126.6	125.0	124.6
22.5°	136.3	131.8	129.5	127.6	126.9
25°	139.9	135.0	132.1	129.5	128.9
27.5°	143.1	137.3	133.4	130.5	129.8
30°	144.4	137.6	132.7	129.5	129.2
32.5°	143.4	136.0	130.5	126.9	126.6
35°	140.5	133.1	127.2	123.4	123.0
37.5°	135.7	127.6	122.7	118.8	117.8
40°	128.9	121.7	116.2	112.7	112.0
42.5°	120.1	113.3	108.1	104.9	104.3
45°	110.7	103.6	98.7	95.8	94.9
47.5°	99.7	92.3	87.1	83.9	82.9
50°	85.5	78.0	73.2	69.9	69.0
52.5°	69.3	62.2	57.6	54.7	54.1
55°	52.8	46.9	43.7	41.4	40.8
57.5°	38.2	34.6	33.0	31.4	31.4
60°	27.5	25.9	24.9	24.3	24.0
62.5°	20.1	19.1	18.8	18.5	18.5
64°	16.2	15.5	15.2	14.9	14.9
65°	15.5	15.2	14.9	14.6	14.2
67.5°	13.3	12.6	12.6	12.0	12.0
70°	11.7	11.3	11.0	10.7	10.7
72.5°	11.3	10.7	10.7	10.4	10.4
75°	10.4	10.0	10.0	10.0	10.0
77.5°	9.4	9.4	9.7	9.4	9.1
80°	9.1	9.1	9.4	9.1	8.7
82.5°	8.4	8.7	9.1	8.4	7.8
85°	7.1	8.1	9.1	7.8	7.1
87.5°	4.2	4.9	5.2	4.2	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)