

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: P173647

Luminaire Tested: **ENT-FXX-LED-E1-GZW-8030-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173647
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33649)
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-GZW-8030-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1256.4 lumens
Efficiency: N/A
Efficacy: 228.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type I - 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

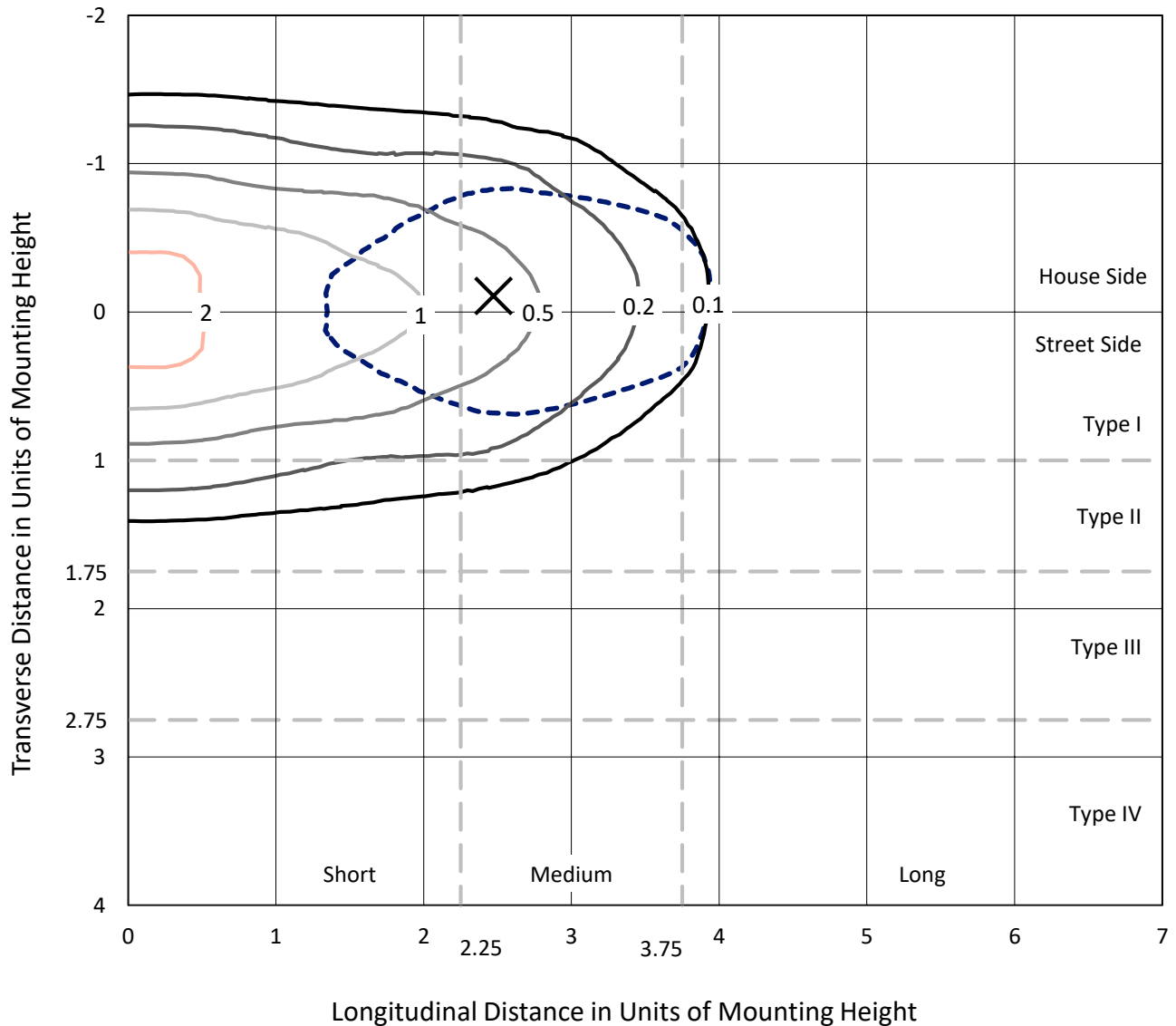


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

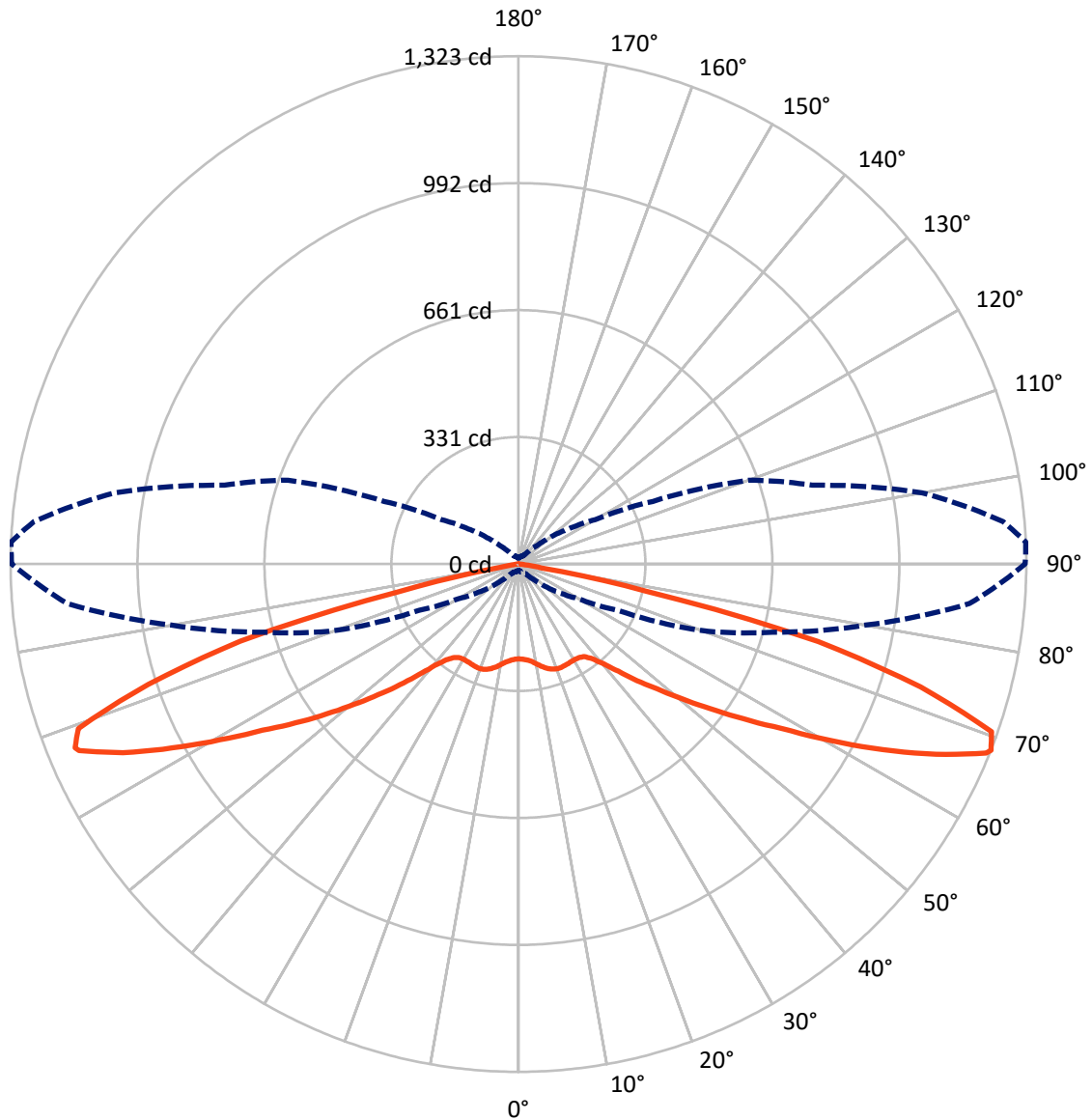


Based on 10 foot mounting height. Maximum calculated value = 2.5 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 92.5-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	656.3	0.0	656.3
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	600.0	0.0	600.0
	% Fixture	47.8	0.0	47.8
Total	Lumens	1256.4	0.0	1256.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.3	1.9
10°-20°	76.8	6.1
20°-30°	124.6	9.9
30°-40°	154.9	12.3
40°-50°	192.6	15.3
50°-60°	236.9	18.9
60°-70°	280.0	22.3
70°-80°	156.8	12.5
80°-90°	9.5	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°	1256.4	100.0
0°-180°	1256.4	100.0



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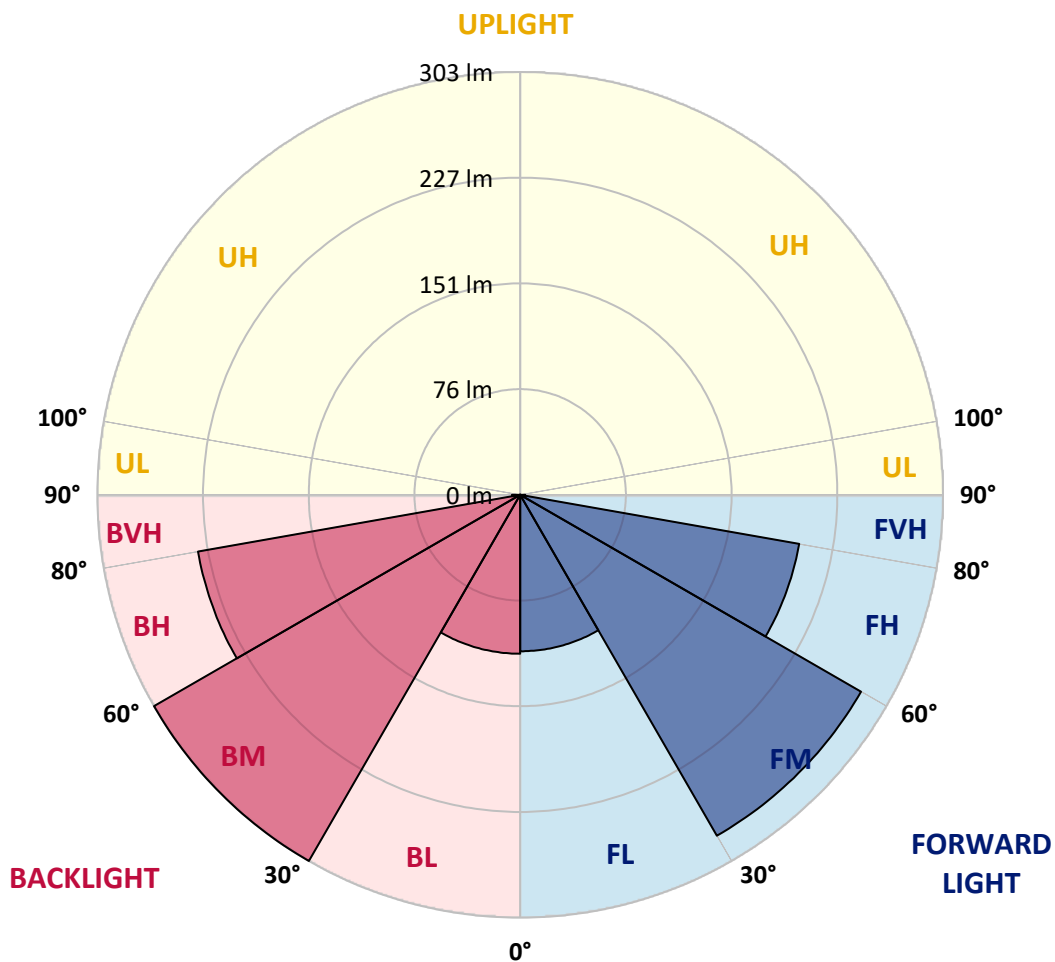
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	112.0	8.9			
FM	(30°-60°)	281.7	22.4			
FH	(60°-80°)	202.8	16.1			G0/660
FVH	(80°-90°)	3.6	0.3			G0/10
BL	(0°-30°)	113.7	9.1	B1/500		
BM	(30°-60°)	302.6	24.1	B1/1000		
BH	(60°-80°)	234.1	18.6	B1/500		G1/500
BVH	(80°-90°)	5.9	0.5			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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
2.5°	248.1	248.1	248.1	248.4	248.6	249.0	248.8	249.3	248.6	249.5	249.5
5°	251.1	251.3	251.5	251.5	252.0	252.2	252.0	252.6	252.0	252.9	253.1
7.5°	253.8	253.8	254.0	254.2	254.7	255.1	255.4	256.0	255.8	256.7	257.6
10°	255.8	255.6	255.8	256.3	257.4	258.1	259.0	259.9	260.3	261.2	262.6
12.5°	256.7	256.5	257.2	258.3	259.4	260.8	262.1	264.2	265.5	266.8	268.9
15°	256.3	256.3	257.2	258.5	260.8	263.3	265.7	268.4	270.9	273.8	275.9
17.5°	252.0	252.4	253.8	256.0	259.4	263.3	267.3	271.8	275.9	279.9	282.6
20°	244.3	244.8	247.2	249.9	254.4	260.1	266.4	273.0	279.3	284.7	288.5
22.5°	234.8	234.4	236.6	240.2	246.3	253.1	261.2	270.9	279.5	287.1	292.6
25°	220.2	220.2	222.7	227.2	233.7	242.0	252.0	264.4	275.9	285.8	293.5
27.5°	204.6	204.8	208.0	211.8	219.3	227.2	238.6	253.1	267.1	280.2	291.5
30°	189.0	189.7	192.4	196.3	204.1	212.5	224.2	238.4	253.5	269.8	285.1
32.5°	173.0	173.9	176.2	180.7	189.3	198.5	210.5	223.1	237.5	255.4	275.2
35°	157.9	158.6	160.4	165.8	174.6	184.5	197.8	210.0	224.7	241.1	263.0
37.5°	143.7	144.4	146.4	152.0	160.8	170.8	183.8	197.6	212.7	229.0	250.6
40°	128.3	129.9	132.6	138.1	146.2	157.4	170.8	185.2	201.2	219.7	241.8
42.5°	114.4	115.7	118.2	122.9	131.1	143.0	157.0	171.9	189.3	210.3	235.3
45°	101.5	102.6	105.1	109.4	118.0	127.5	140.1	155.6	173.7	197.8	228.3
47.5°	89.1	90.2	93.0	98.1	105.1	114.4	125.7	139.4	156.1	180.7	215.0
50°	76.7	77.8	80.5	85.7	92.5	101.5	111.9	124.3	140.8	162.0	195.6
52.5°	63.2	64.3	67.0	72.2	78.7	87.3	97.9	110.8	126.1	146.2	173.9
55°	48.5	50.1	52.5	56.9	63.8	72.4	83.0	97.0	112.6	132.2	157.9
57.5°	35.0	36.1	39.0	42.4	48.3	57.3	66.8	81.2	98.6	118.7	144.1
60°	25.5	26.6	28.7	31.3	35.4	42.0	50.3	63.8	83.0	105.6	131.7
62.5°	21.2	22.1	24.2	26.8	29.1	32.2	37.2	47.6	66.3	91.4	118.9
65°	18.7	19.4	21.2	23.9	25.7	27.1	29.1	36.1	51.4	76.0	106.3
67.5°	16.7	17.4	18.7	21.0	23.0	23.7	24.8	29.6	40.4	61.8	93.0
68°	16.5	17.2	18.3	20.3	22.3	23.0	24.2	28.9	39.2	58.9	89.3
70°	15.3	15.8	16.9	18.5	20.1	20.5	21.9	26.6	36.8	51.4	72.4
72.5°	14.0	14.2	14.9	16.3	17.8	18.0	19.4	23.2	28.9	37.9	53.9
75°	11.7	11.9	12.9	14.0	14.9	15.3	15.8	17.6	19.6	23.5	31.8
77.5°	9.0	9.5	10.2	10.8	12.2	12.6	12.2	13.5	14.4	16.0	19.4
80°	5.4	5.4	6.1	6.8	7.4	8.6	8.1	9.5	10.2	11.0	13.1
82.5°	0.9	1.1	1.1	1.6	2.0	2.5	2.7	3.4	4.3	5.2	7.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	92.5°	95°	100°
0°	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
2.5°	248.1	248.8	248.8	248.6	248.6	248.6	247.9	248.1	248.4	249.0	248.1
5°	251.8	252.4	252.2	252.0	252.0	252.0	251.1	251.3	251.5	252.0	251.1
7.5°	256.5	257.2	257.4	257.4	257.4	257.8	256.5	256.5	256.9	257.4	256.0
10°	263.5	263.5	264.2	264.6	265.1	265.5	264.6	264.2	265.1	265.1	263.5
12.5°	270.0	270.5	271.6	272.5	272.7	273.6	273.6	273.4	274.1	273.8	272.1
15°	277.5	277.9	278.8	279.9	280.2	281.1	281.1	281.3	282.0	282.4	279.7
17.5°	284.5	285.1	285.1	285.4	285.8	286.5	286.9	287.1	287.8	288.3	285.6
20°	290.3	291.0	289.9	289.0	288.1	288.5	289.4	290.3	290.8	291.0	287.6
22.5°	294.8	295.0	293.3	290.8	288.3	288.1	289.2	290.8	291.2	291.0	286.3
25°	297.3	298.0	296.2	292.4	287.8	286.3	287.4	289.4	290.3	289.4	283.8
27.5°	297.3	299.8	298.9	294.8	288.7	284.5	285.1	288.3	289.0	287.8	281.3
30°	295.0	300.3	301.4	298.9	292.6	285.1	284.2	287.8	288.7	286.7	280.2
32.5°	290.5	300.0	304.5	304.8	299.8	290.5	286.0	289.6	290.3	287.8	282.4
35°	284.2	299.8	308.6	312.9	311.3	302.0	294.1	296.4	296.0	293.3	291.2
37.5°	277.2	299.8	314.4	324.4	328.0	323.2	312.9	311.8	312.9	308.8	307.7
40°	269.6	300.5	322.8	340.4	351.2	352.8	343.5	340.4	341.8	337.9	339.5
42.5°	265.1	301.4	333.9	359.1	380.1	396.1	392.0	382.6	381.9	382.4	385.7
45°	262.8	303.6	344.9	380.3	409.7	445.3	449.1	432.2	433.1	435.6	440.8
47.5°	260.3	307.9	357.8	402.4	441.9	492.0	510.7	487.9	486.1	495.4	496.9
50°	251.3	313.1	372.4	427.2	475.7	544.5	574.1	550.8	551.3	559.9	556.7
52.5°	230.6	313.3	388.0	452.1	509.6	596.4	641.3	626.0	624.9	633.2	616.5
55°	201.9	299.1	400.6	476.4	541.6	644.7	710.8	714.2	711.9	713.3	677.2
57.5°	178.9	264.2	402.0	496.9	568.7	690.5	782.1	806.4	806.7	800.8	736.7
60°	164.0	224.9	384.4	513.9	600.3	748.9	875.0	929.6	932.8	908.8	816.4
62.5°	151.6	205.0	348.1	531.2	636.6	808.0	975.2	1065.0	1065.2	1025.3	904.1
65°	141.9	194.2	308.1	524.7	664.6	865.3	1081.2	1201.2	1195.3	1151.3	987.3
67.5°	131.1	184.5	289.6	514.6	688.4	918.3	1174.6	1312.4	1314.0	1259.9	1064.5
68°	128.8	180.9	284.9	506.0	685.8	916.5	1179.5	1319.8	1322.6	1266.8	1067.9
70°	111.0	157.9	247.9	441.9	637.0	867.6	1148.0	1298.9	1307.2	1245.0	1030.2
72.5°	74.0	109.2	165.6	312.2	490.9	689.4	939.8	1088.0	1095.0	1053.0	855.6
75°	46.9	66.3	88.0	180.0	329.8	494.7	708.5	794.9	806.4	792.7	640.6
77.5°	28.4	46.5	54.1	87.3	173.7	231.5	320.1	325.7	338.8	330.7	332.1
80°	18.7	32.2	39.5	59.3	60.2	49.9	56.6	57.1	60.4	64.3	67.0
82.5°	10.6	19.6	27.5	40.6	35.9	18.5	15.8	16.5	16.9	17.4	20.5
85°	1.6	3.6	7.7	12.6	12.9	6.1	5.6	5.2	5.4	5.9	7.4
87.5°	0.0	0.0	0.0	0.0	0.2	0.5	0.7	0.7	0.7	1.4	1.4
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°	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0	247.0
2.5°	247.9	247.7	247.9	247.2	247.9	247.7	247.7	247.7	247.5	247.7	247.7
5°	250.6	250.6	250.6	250.2	250.6	250.6	250.6	250.6	250.4	250.6	250.9
7.5°	255.8	255.8	255.6	254.9	255.4	255.4	255.1	254.7	254.2	254.4	254.2
10°	262.8	263.3	261.9	261.9	261.2	260.3	259.6	259.0	258.8	258.3	257.4
12.5°	271.4	271.2	269.3	268.7	268.2	266.4	265.1	264.4	263.5	262.3	261.0
15°	279.1	278.1	276.8	276.1	275.4	273.4	271.6	270.0	268.9	267.3	265.3
17.5°	284.2	283.3	282.6	282.4	282.4	280.6	279.1	277.0	274.5	271.6	268.2
20°	285.4	285.4	285.6	286.9	288.3	287.6	285.8	283.3	279.7	275.0	269.8
22.5°	283.8	284.7	286.7	290.1	293.0	293.3	291.5	287.8	281.7	275.0	267.3
25°	281.1	283.6	287.8	292.6	296.6	296.6	293.5	288.3	279.9	270.2	260.1
27.5°	279.7	284.7	290.8	295.7	298.4	296.9	291.2	283.8	272.3	259.9	248.1
30°	281.3	289.0	295.5	298.9	299.4	294.1	284.5	273.4	259.9	245.0	233.0
32.5°	287.1	296.4	301.4	302.0	298.9	289.2	274.1	258.8	243.6	229.9	217.7
35°	299.1	307.0	308.8	306.1	298.2	282.0	260.3	242.3	228.7	215.7	203.0
37.5°	318.5	322.1	318.7	310.8	296.0	273.2	247.7	230.1	215.7	202.8	188.8
40°	346.0	342.0	332.3	316.7	293.5	263.5	237.8	220.2	204.1	190.0	176.0
42.5°	380.3	366.1	346.0	323.5	290.8	257.2	230.6	210.3	192.6	176.8	162.2
45°	418.7	392.3	365.0	331.1	289.9	253.3	222.0	198.0	177.5	161.8	147.3
47.5°	457.7	420.0	384.1	339.5	291.0	246.5	208.9	182.1	160.6	145.3	131.7
50°	497.2	451.2	406.5	350.3	290.3	232.8	191.1	163.8	143.9	130.2	118.0
52.5°	536.9	484.3	429.5	360.0	281.3	211.1	171.4	148.2	129.0	115.7	103.8
55°	575.9	516.6	452.1	362.9	255.1	188.4	155.0	132.6	113.7	100.2	87.1
57.5°	612.9	545.7	467.8	345.8	222.9	170.5	140.3	118.4	98.4	82.8	69.9
60°	658.9	573.4	472.4	304.3	197.1	155.6	127.0	102.0	79.4	62.9	51.2
62.5°	709.2	611.1	465.4	264.6	182.1	142.6	110.5	82.6	60.7	44.7	35.9
65°	746.2	626.6	430.0	243.4	172.6	129.7	93.0	64.1	42.0	30.7	27.3
67.5°	795.4	642.0	393.4	233.0	162.2	113.0	71.7	46.2	32.5	25.5	23.5
68°	792.0	637.7	385.7	230.3	159.0	107.1	67.7	45.3	31.6	24.8	22.8
70°	746.2	585.1	335.0	204.1	131.7	83.5	58.2	41.3	29.1	22.6	20.8
72.5°	612.2	453.8	240.2	134.5	85.7	61.1	43.1	31.1	24.2	19.8	18.5
75°	433.3	283.8	120.5	77.4	53.9	35.4	24.3	20.1	17.8	15.8	15.8
77.5°	243.6	148.4	63.6	53.0	30.5	20.5	16.3	15.1	14.0	12.9	14.2
80°	79.4	77.4	46.9	36.3	21.2	15.1	12.6	11.9	11.3	10.2	12.6
82.5°	42.9	53.0	33.8	25.9	15.6	10.8	9.5	9.7	8.8	7.9	9.5
85°	19.2	25.3	22.6	18.0	9.7	6.1	5.0	5.9	5.2	4.7	4.5
87.5°	7.4	12.4	9.0	5.2	2.3	1.4	1.4	1.1	0.9	0.9	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):

	160°	165°	170°	175°	180°
0°	247.0	247.0	247.0	247.0	247.0
2.5°	247.0	247.0	246.8	246.5	246.1
5°	250.2	250.2	249.9	249.7	249.3
7.5°	253.5	253.3	253.1	252.9	252.4
10°	257.2	256.7	256.7	256.9	256.7
12.5°	260.8	260.1	259.4	259.2	259.9
15°	264.4	263.0	261.9	261.7	261.7
17.5°	266.4	264.2	262.1	261.4	261.4
20°	266.0	261.9	259.2	257.8	258.1
22.5°	261.7	256.0	252.4	250.6	249.9
25°	252.6	245.9	241.4	238.9	239.1
27.5°	239.1	231.9	226.9	225.6	224.2
30°	223.1	215.9	210.9	208.0	208.2
32.5°	207.3	199.4	194.9	191.5	191.1
35°	192.2	183.6	178.2	175.7	175.3
37.5°	177.3	168.3	163.3	161.1	159.5
40°	163.5	155.4	149.5	146.2	145.5
42.5°	150.0	140.8	134.9	132.4	131.7
45°	134.7	125.9	120.7	118.7	118.2
47.5°	120.9	112.6	108.3	105.6	104.7
50°	107.6	99.7	94.7	92.3	91.8
52.5°	93.6	85.7	80.5	78.5	76.7
55°	78.3	69.9	64.8	61.1	59.8
57.5°	60.4	53.0	47.6	45.1	42.6
60°	43.3	36.8	32.5	30.5	28.7
62.5°	30.7	26.4	23.7	21.7	20.5
65°	25.3	23.2	20.3	18.5	17.6
67.5°	22.3	20.3	18.0	16.5	15.8
68°	21.9	19.8	17.6	16.0	15.6
70°	20.1	18.0	16.0	14.9	14.4
72.5°	17.8	16.3	14.4	13.3	12.9
75°	15.3	13.8	12.6	11.7	11.0
77.5°	13.5	11.3	10.8	9.9	9.5
80°	11.3	10.2	9.3	8.6	8.1
82.5°	9.3	7.7	6.5	5.9	5.6
85°	5.2	4.7	3.8	2.9	2.7
87.5°	0.5	0.2	0.2	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)