

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: P173635

Luminaire Tested: **ENT-FXX-LED-E1-GZW-7030-CWB**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173635
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-7030-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1359.6 lumens
Efficiency: N/A
Efficacy: 247.2 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

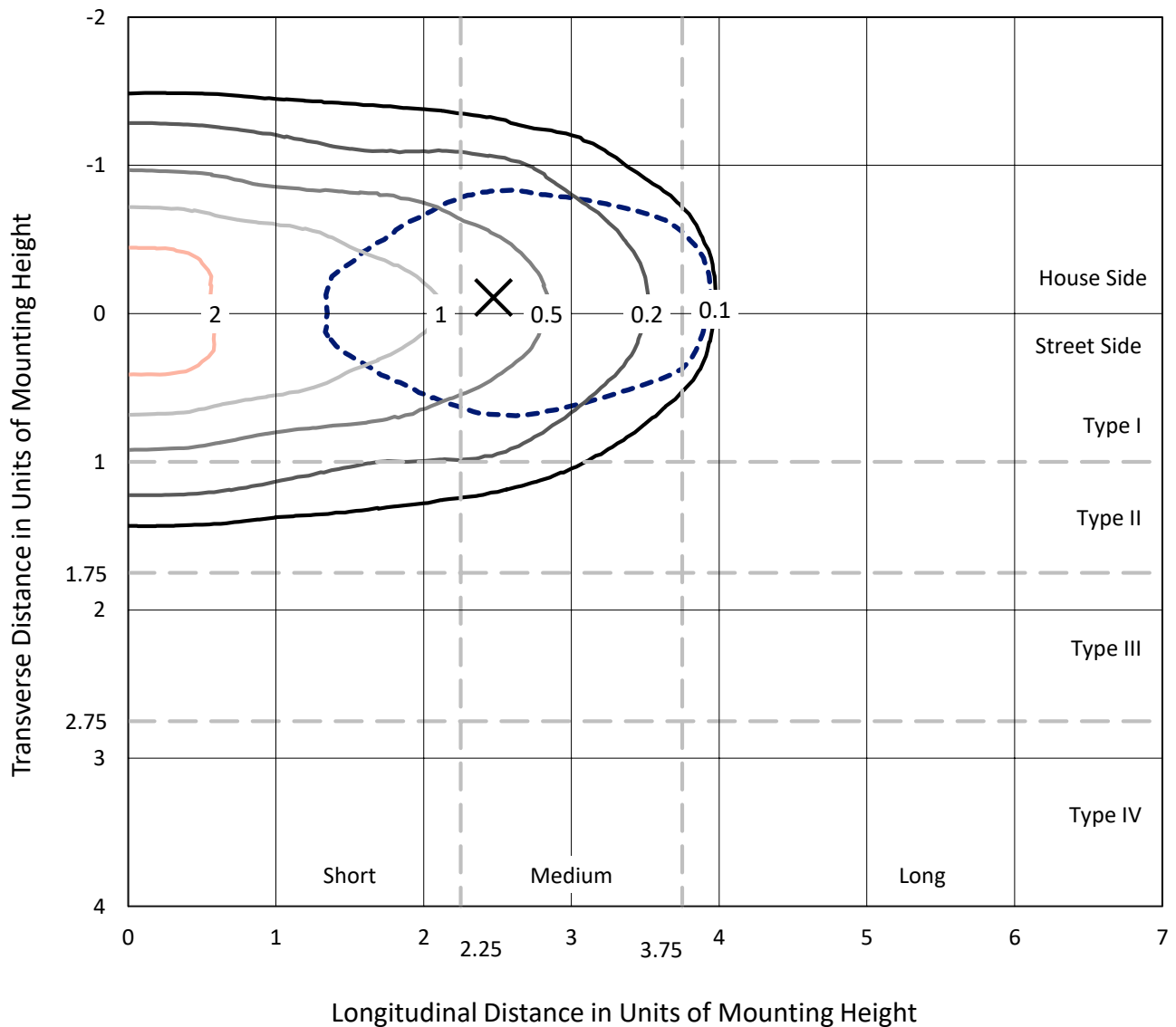


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Iso-Footcandle Lines of Horizontal Illumination

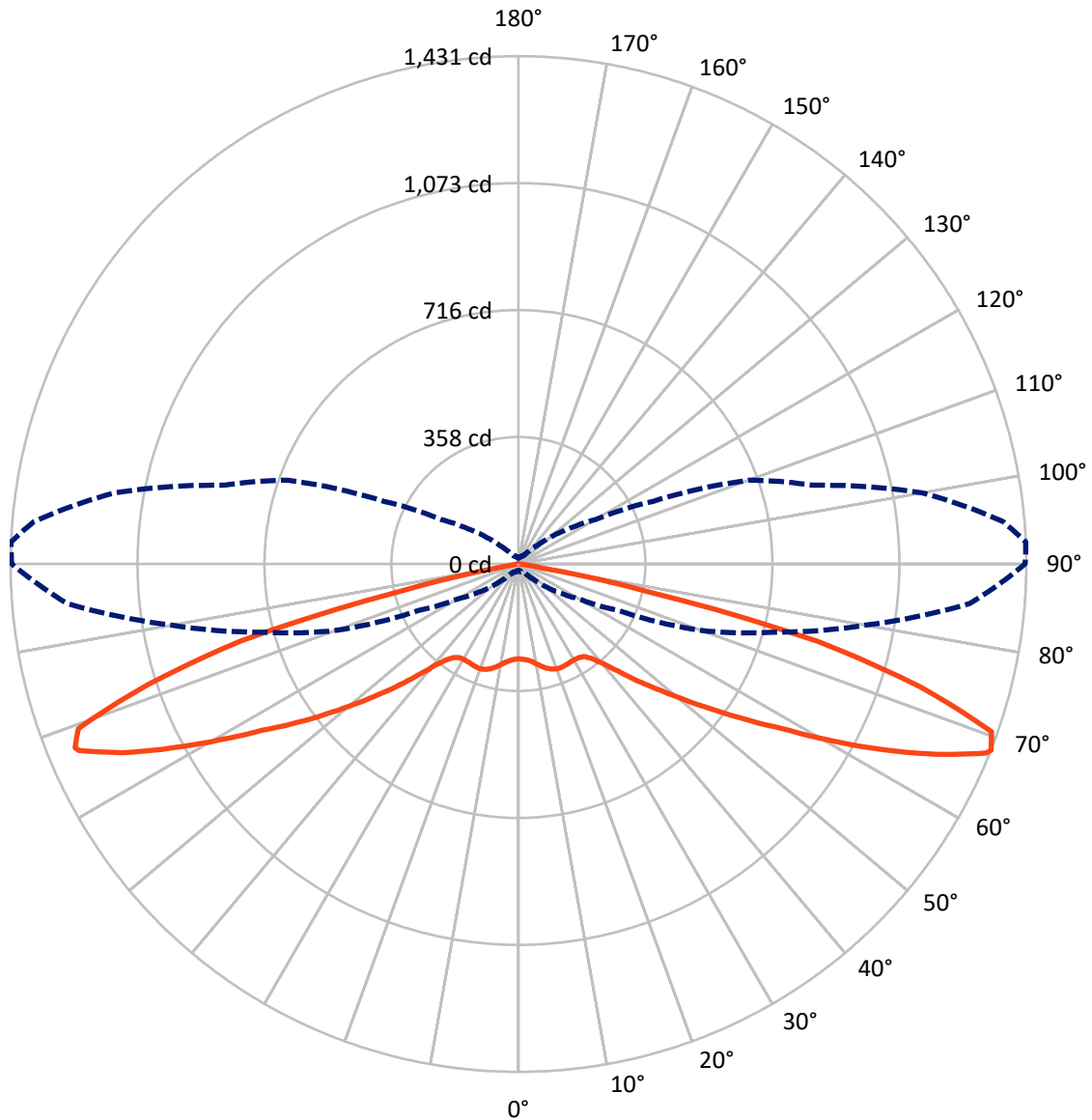
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 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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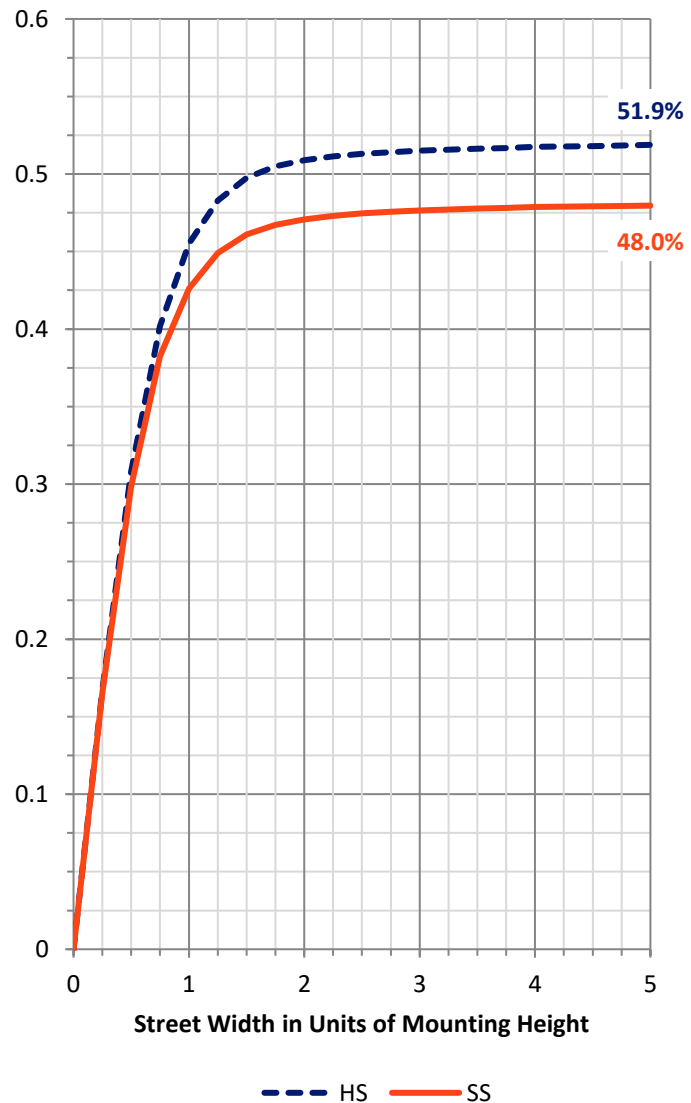
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	710.3	0.0	710.3
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	649.4	0.0	649.4
	% Fixture	47.8	0.0	47.8
Total	Lumens	1359.6	0.0	1359.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.3	1.9
10°-20°	83.1	6.1
20°-30°	134.8	9.9
30°-40°	167.6	12.3
40°-50°	208.4	15.3
50°-60°	256.3	18.9
60°-70°	303.1	22.3
70°-80°	169.7	12.5
80°-90°	10.3	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°	1359.6	100.0
0°-180°	1359.6	100.0



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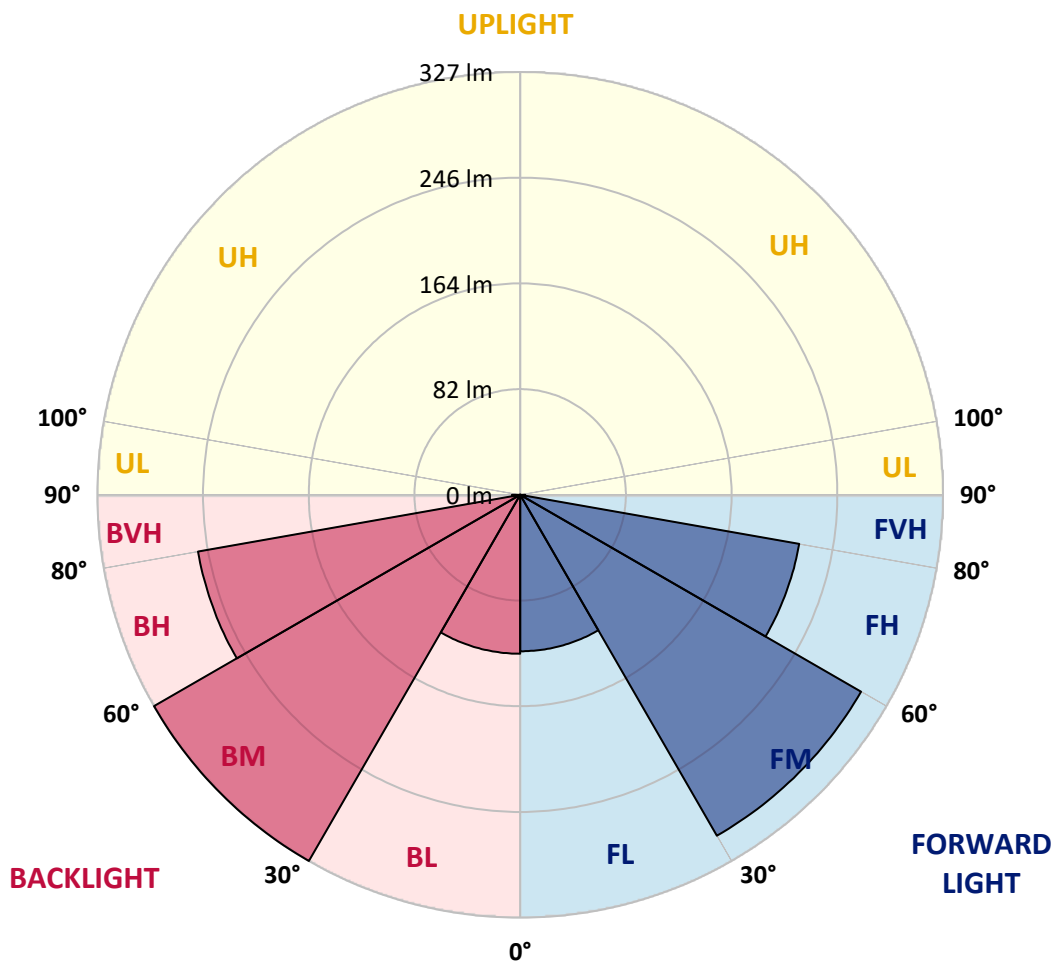
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	121.2	8.9			
FM	(30°-60°)	304.9	22.4			
FH	(60°-80°)	219.4	16.1			G0/660
FVH	(80°-90°)	3.9	0.3			G0/10
BL	(0°-30°)	123.1	9.1	B1/500		
BM	(30°-60°)	327.5	24.1	B1/1000		
BH	(60°-80°)	253.4	18.6	B1/500		G1/500
BVH	(80°-90°)	6.4	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°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3
2.5°	268.5	268.5	268.5	268.8	269.0	269.5	269.3	269.8	269.0	270.0	270.0
5°	271.7	271.9	272.2	272.2	272.7	272.9	272.7	273.4	272.7	273.6	273.9
7.5°	274.6	274.6	274.9	275.1	275.6	276.1	276.3	277.1	276.8	277.8	278.8
10°	276.8	276.6	276.8	277.3	278.5	279.3	280.2	281.2	281.7	282.7	284.1
12.5°	277.8	277.6	278.3	279.5	280.7	282.2	283.6	285.8	287.3	288.8	291.0
15°	277.3	277.3	278.3	279.8	282.2	284.9	287.6	290.5	293.2	296.3	298.5
17.5°	272.7	273.2	274.6	277.1	280.7	284.9	289.3	294.2	298.5	302.9	305.9
20°	264.4	264.9	267.6	270.5	275.4	281.5	288.3	295.4	302.2	308.1	312.2
22.5°	254.1	253.6	256.1	260.0	266.6	273.9	282.7	293.2	302.5	310.7	316.6
25°	238.3	238.3	240.9	245.8	252.9	261.9	272.7	286.1	298.5	309.3	317.6
27.5°	221.4	221.6	225.1	229.2	237.3	245.8	258.3	273.9	289.0	303.2	315.4
30°	204.6	205.3	208.2	212.4	220.9	230.0	242.7	258.0	274.4	292.0	308.5
32.5°	187.2	188.2	190.7	195.5	204.8	214.8	227.8	241.4	257.1	276.3	297.8
35°	170.9	171.6	173.6	179.4	188.9	199.7	214.1	227.3	243.1	261.0	284.7
37.5°	155.5	156.2	158.4	164.5	174.1	184.8	199.0	213.8	230.2	247.8	271.2
40°	138.9	140.6	143.5	149.4	158.2	170.4	184.8	200.4	217.8	237.8	261.7
42.5°	123.8	125.2	127.9	133.0	141.8	154.8	169.9	186.0	204.8	227.5	254.6
45°	109.9	111.1	113.8	118.4	127.7	137.9	151.6	168.5	188.0	214.1	247.0
47.5°	96.4	97.6	100.6	106.2	113.8	123.8	136.0	150.9	168.9	195.5	232.7
50°	83.0	84.2	87.2	92.8	100.1	109.9	121.1	134.5	152.3	175.3	211.6
52.5°	68.3	69.6	72.5	78.1	85.2	94.5	105.9	119.9	136.5	158.2	188.2
55°	52.5	54.2	56.9	61.5	69.1	78.4	89.8	105.0	121.8	143.0	170.9
57.5°	37.8	39.0	42.2	45.9	52.3	62.0	72.3	87.9	106.7	128.4	156.0
60°	27.6	28.8	31.0	33.9	38.3	45.4	54.4	69.1	89.8	114.3	142.6
62.5°	23.0	23.9	26.1	29.0	31.5	34.9	40.3	51.5	71.8	98.9	128.7
65°	20.3	21.0	23.0	25.9	27.8	29.3	31.5	39.0	55.7	82.3	115.0
67.5°	18.1	18.8	20.3	22.7	24.9	25.6	26.8	32.0	43.7	66.9	100.6
68°	17.8	18.6	19.8	22.0	24.2	24.9	26.1	31.2	42.5	63.7	96.7
70°	16.6	17.1	18.3	20.0	21.7	22.2	23.7	28.8	39.8	55.7	78.4
72.5°	15.1	15.4	16.1	17.6	19.3	19.5	21.0	25.2	31.2	41.0	58.3
75°	12.7	13.0	13.9	15.1	16.1	16.6	17.1	19.0	21.2	25.4	34.4
77.5°	9.8	10.3	11.0	11.7	13.2	13.7	13.2	14.6	15.6	17.3	21.0
80°	5.9	5.9	6.6	7.3	8.1	9.3	8.8	10.3	11.0	11.9	14.1
82.5°	1.0	1.2	1.2	1.7	2.2	2.7	2.9	3.7	4.6	5.6	7.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	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°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3
2.5°	268.5	269.3	269.3	269.0	269.0	269.0	268.3	268.5	268.8	269.5	268.5
5°	272.4	273.2	272.9	272.7	272.7	272.7	271.7	271.9	272.2	272.7	271.7
7.5°	277.6	278.3	278.5	278.5	278.5	279.0	277.6	277.6	278.0	278.5	277.1
10°	285.1	285.1	285.8	286.3	286.8	287.3	286.3	285.8	286.8	286.8	285.1
12.5°	292.2	292.7	293.9	294.9	295.1	296.1	296.1	295.9	296.6	296.3	294.4
15°	300.3	300.7	301.7	302.9	303.2	304.2	304.2	304.4	305.1	305.6	302.7
17.5°	307.8	308.5	308.5	308.8	309.3	310.0	310.5	310.7	311.5	312.0	309.1
20°	314.2	314.9	313.7	312.7	311.7	312.2	313.2	314.2	314.7	314.9	311.2
22.5°	319.1	319.3	317.4	314.7	312.0	311.7	312.9	314.7	315.2	314.9	309.8
25°	321.8	322.5	320.5	316.4	311.5	309.8	311.0	313.2	314.2	313.2	307.1
27.5°	321.8	324.4	323.4	319.1	312.5	307.8	308.5	312.0	312.7	311.5	304.4
30°	319.3	324.9	326.1	323.4	316.6	308.5	307.6	311.5	312.5	310.3	303.2
32.5°	314.4	324.7	329.6	329.8	324.4	314.4	309.5	313.4	314.2	311.5	305.6
35°	307.6	324.4	334.0	338.6	336.9	326.9	318.3	320.8	320.3	317.4	315.2
37.5°	300.0	324.4	340.3	351.0	354.9	349.8	338.6	337.4	338.6	334.2	333.0
40°	291.7	325.2	349.3	368.4	380.1	381.8	371.8	368.4	369.8	365.7	367.4
42.5°	286.8	326.1	361.3	388.6	411.3	428.7	424.3	414.0	413.3	413.8	417.4
45°	284.4	328.6	373.3	411.6	443.3	481.9	486.0	467.7	468.7	471.4	477.0
47.5°	281.7	333.2	387.2	435.5	478.2	532.4	552.7	528.0	526.1	536.1	537.8
50°	271.9	338.8	403.0	462.4	514.8	589.3	621.3	596.1	596.6	605.9	602.5
52.5°	249.5	339.1	419.9	489.2	551.5	645.5	694.0	677.4	676.2	685.2	667.2
55°	218.5	323.7	433.6	515.6	586.1	697.7	769.2	772.9	770.4	771.9	732.8
57.5°	193.6	285.8	435.0	537.8	615.4	747.2	846.3	872.7	873.0	866.6	797.3
60°	177.5	243.4	416.0	556.1	649.6	810.5	946.9	1006.0	1009.4	983.5	883.5
62.5°	164.1	221.9	376.7	574.9	688.9	874.4	1055.3	1152.5	1152.7	1109.5	978.4
65°	153.6	210.2	333.5	567.8	719.2	936.4	1170.0	1299.9	1293.6	1246.0	1068.5
67.5°	141.8	199.7	313.4	556.8	745.0	993.8	1271.1	1420.2	1422.0	1363.4	1152.0
68°	139.4	195.8	308.3	547.5	742.1	991.8	1276.5	1428.3	1431.3	1370.9	1155.6
70°	120.1	170.9	268.3	478.2	689.4	938.9	1242.3	1405.6	1414.6	1347.3	1114.9
72.5°	80.1	118.1	179.2	337.8	531.2	746.0	1017.0	1177.4	1184.9	1139.5	925.9
75°	50.8	71.8	95.2	194.8	356.9	535.3	766.8	860.3	872.7	857.8	693.3
77.5°	30.8	50.3	58.6	94.5	188.0	250.5	346.4	352.5	366.7	357.9	359.3
80°	20.3	34.9	42.7	64.2	65.2	53.9	61.3	61.8	65.4	69.6	72.5
82.5°	11.5	21.2	29.8	43.9	38.8	20.0	17.1	17.8	18.3	18.8	22.2
85°	1.7	3.9	8.3	13.7	13.9	6.6	6.1	5.6	5.9	6.3	8.1
87.5°	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.7	0.7	1.5	1.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3	267.3
2.5°	268.3	268.0	268.3	267.6	268.3	268.0	268.0	268.0	267.8	268.0	268.0
5°	271.2	271.2	271.2	270.7	271.2	271.2	271.2	271.2	271.0	271.2	271.4
7.5°	276.8	276.8	276.6	275.8	276.3	276.3	276.1	275.6	275.1	275.4	275.1
10°	284.4	284.9	283.4	283.4	282.7	281.7	281.0	280.2	280.0	279.5	278.5
12.5°	293.7	293.4	291.5	290.7	290.3	288.3	286.8	286.1	285.1	283.9	282.5
15°	302.0	301.0	299.5	298.8	298.1	295.9	293.9	292.2	291.0	289.3	287.1
17.5°	307.6	306.6	305.9	305.6	305.6	303.7	302.0	299.8	297.1	293.9	290.3
20°	308.8	308.8	309.1	310.5	312.0	311.2	309.3	306.6	302.7	297.6	292.0
22.5°	307.1	308.1	310.3	313.9	317.1	317.4	315.4	311.5	304.9	297.6	289.3
25°	304.2	306.9	311.5	316.6	321.0	321.0	317.6	312.0	302.9	292.5	281.5
27.5°	302.7	308.1	314.7	320.0	323.0	321.3	315.2	307.1	294.7	281.2	268.5
30°	304.4	312.7	319.8	323.4	323.9	318.3	307.8	295.9	281.2	265.1	252.2
32.5°	310.7	320.8	326.1	326.9	323.4	312.9	296.6	280.0	263.6	248.7	235.6
35°	323.7	332.2	334.2	331.3	322.7	305.1	281.7	262.2	247.5	233.4	219.7
37.5°	344.7	348.6	344.9	336.4	320.3	295.6	268.0	249.0	233.4	219.4	204.3
40°	374.5	370.1	359.6	342.7	317.6	285.1	257.3	238.3	220.9	205.6	190.4
42.5°	411.6	396.2	374.5	350.1	314.7	278.3	249.5	227.5	208.5	191.4	175.5
45°	453.1	424.5	395.0	358.4	313.7	274.1	240.2	214.3	192.1	175.0	159.4
47.5°	495.3	454.5	415.7	367.4	314.9	266.8	226.1	197.0	173.8	157.2	142.6
50°	538.0	488.2	439.9	379.1	314.2	251.9	206.8	177.2	155.7	140.9	127.7
52.5°	581.0	524.1	464.8	389.6	304.4	228.5	185.5	160.4	139.6	125.2	112.3
55°	623.2	559.0	489.2	392.8	276.1	203.8	167.7	143.5	123.0	108.4	94.2
57.5°	663.3	590.5	506.3	374.2	241.2	184.5	151.8	128.1	106.4	89.6	75.7
60°	713.1	620.6	511.2	329.3	213.4	168.5	137.4	110.3	85.9	68.1	55.4
62.5°	767.5	661.3	503.6	286.3	197.0	154.3	119.6	89.4	65.7	48.3	38.8
65°	807.5	678.2	465.3	263.4	186.7	140.4	100.6	69.3	45.4	33.2	29.5
67.5°	860.8	694.8	425.7	252.2	175.5	122.3	77.6	50.1	35.2	27.6	25.4
68°	857.1	690.1	417.4	249.2	172.1	115.9	73.2	49.1	34.2	26.8	24.7
70°	807.5	633.2	362.5	220.9	142.6	90.3	63.0	44.7	31.5	24.4	22.5
72.5°	662.5	491.1	260.0	145.5	92.8	66.1	46.6	33.7	26.1	21.5	20.0
75°	468.9	307.1	130.3	83.7	58.3	38.3	26.4	21.7	19.3	17.1	17.1
77.5°	263.6	160.6	68.8	57.4	33.0	22.2	17.6	16.3	15.1	13.9	15.4
80°	85.9	83.7	50.8	39.3	23.0	16.3	13.7	13.0	12.2	11.0	13.7
82.5°	46.4	57.4	36.6	28.1	16.8	11.7	10.3	10.5	9.5	8.5	10.3
85°	20.8	27.3	24.4	19.5	10.5	6.6	5.4	6.3	5.6	5.1	4.9
87.5°	8.1	13.4	9.8	5.6	2.4	1.5	1.5	1.2	1.0	1.0	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°	267.3	267.3	267.3	267.3	267.3
2.5°	267.3	267.3	267.1	266.8	266.3
5°	270.7	270.7	270.5	270.2	269.8
7.5°	274.4	274.1	273.9	273.6	273.2
10°	278.3	277.8	277.8	278.0	277.8
12.5°	282.2	281.5	280.7	280.5	281.2
15°	286.1	284.7	283.4	283.2	283.2
17.5°	288.3	285.8	283.6	282.9	282.9
20°	287.8	283.4	280.5	279.0	279.3
22.5°	283.2	277.1	273.2	271.2	270.5
25°	273.4	266.1	261.2	258.5	258.8
27.5°	258.8	250.9	245.6	244.1	242.7
30°	241.4	233.6	228.3	225.1	225.3
32.5°	224.3	215.8	210.9	207.2	206.8
35°	208.0	198.7	192.9	190.2	189.7
37.5°	191.9	182.1	176.7	174.3	172.6
40°	177.0	168.2	161.8	158.2	157.4
42.5°	162.3	152.3	146.0	143.3	142.6
45°	145.7	136.2	130.6	128.4	127.9
47.5°	130.8	121.8	117.2	114.3	113.3
50°	116.5	107.9	102.5	99.8	99.4
52.5°	101.3	92.8	87.2	85.0	83.0
55°	84.7	75.7	70.1	66.1	64.7
57.5°	65.4	57.4	51.5	48.8	46.1
60°	46.9	39.8	35.2	33.0	31.0
62.5°	33.2	28.6	25.6	23.4	22.2
65°	27.3	25.2	22.0	20.0	19.0
67.5°	24.2	22.0	19.5	17.8	17.1
68°	23.7	21.5	19.0	17.3	16.8
70°	21.7	19.5	17.3	16.1	15.6
72.5°	19.3	17.6	15.6	14.4	13.9
75°	16.6	14.9	13.7	12.7	11.9
77.5°	14.6	12.2	11.7	10.7	10.3
80°	12.2	11.0	10.0	9.3	8.8
82.5°	10.0	8.3	7.1	6.3	6.1
85°	5.6	5.1	4.1	3.2	2.9
87.5°	0.5	0.3	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)