

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: P173471

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173471
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-EXX-LED-E1-BL2-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1773 lumens
Efficiency: N/A
Efficacy: 322.4 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

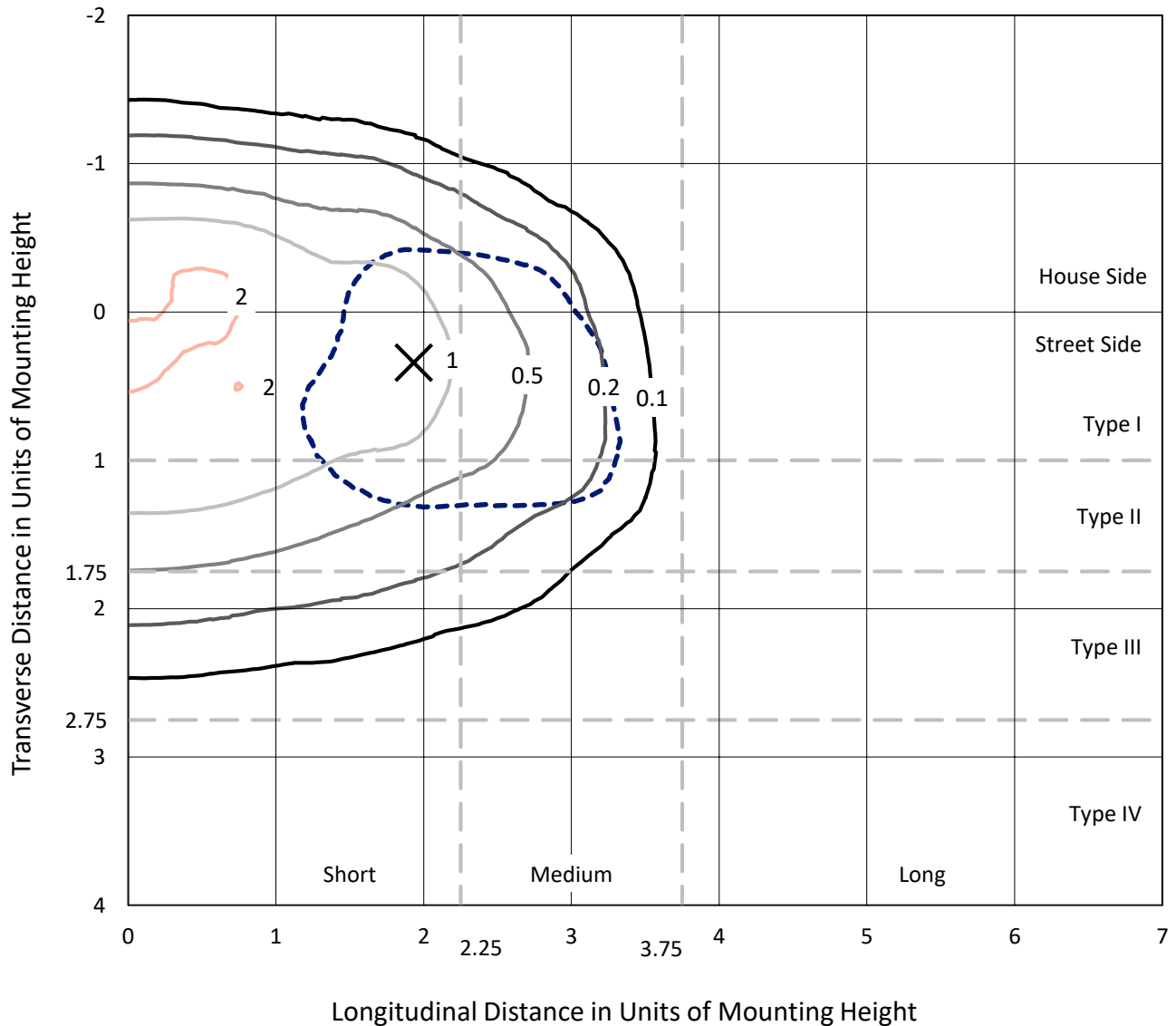
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

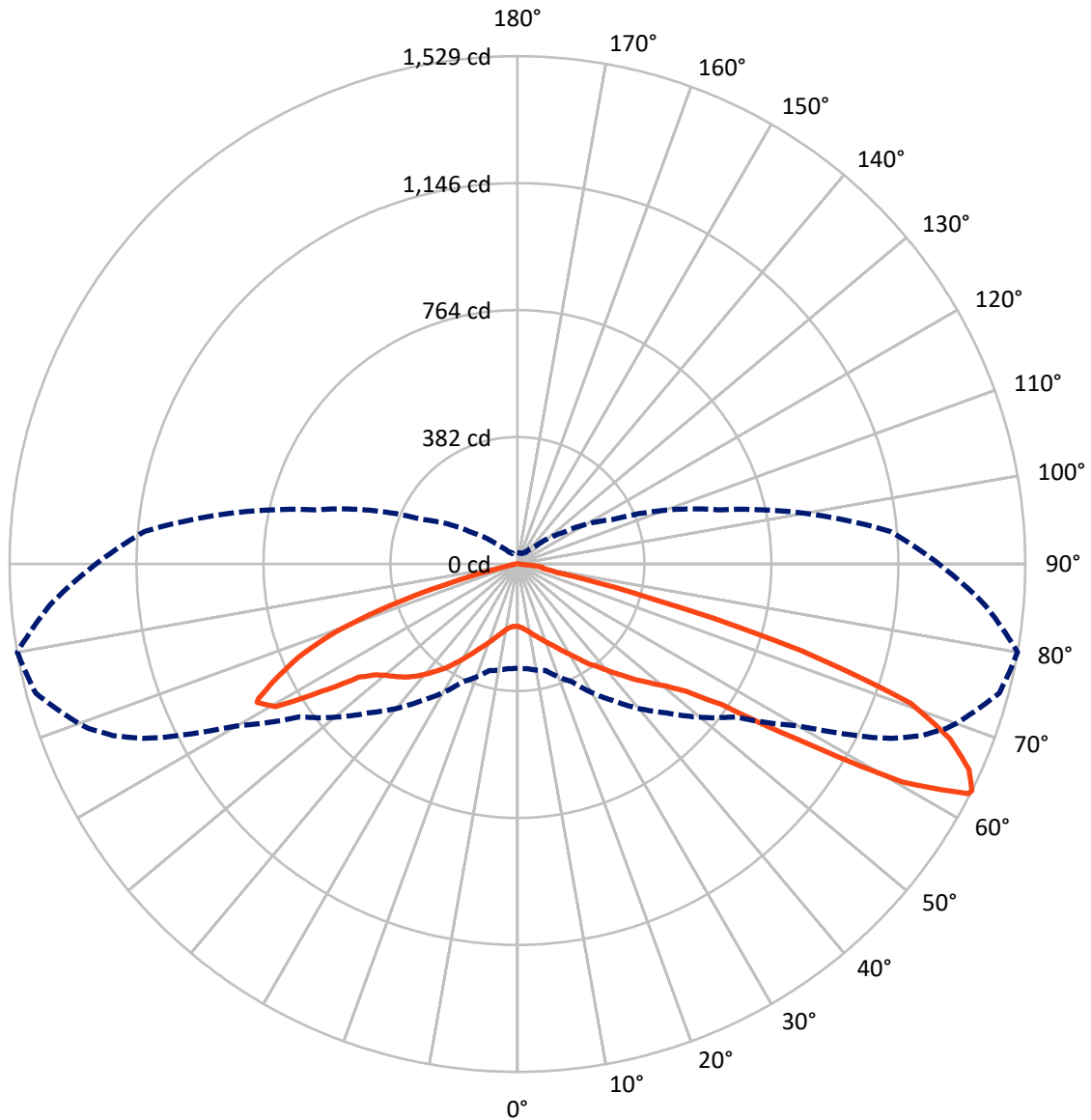
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.3 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	552.2	0.0	552.2
	% Fixture	31.1	0.0	31.1
Street Side	Lumens	1220.8	0.0	1220.8
	% Fixture	68.9	0.0	68.9
Total	Lumens	1773.0	0.0	1773.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.8	1.1
10°-20°	64.6	3.6
20°-30°	121.3	6.8
30°-40°	192.5	10.9
40°-50°	290.6	16.4
50°-60°	408.4	23.0
60°-70°	476.6	26.9
70°-80°	184.2	10.4
80°-90°	16.0	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°	1773.0	100.0
0°-180°	1773.0	100.0



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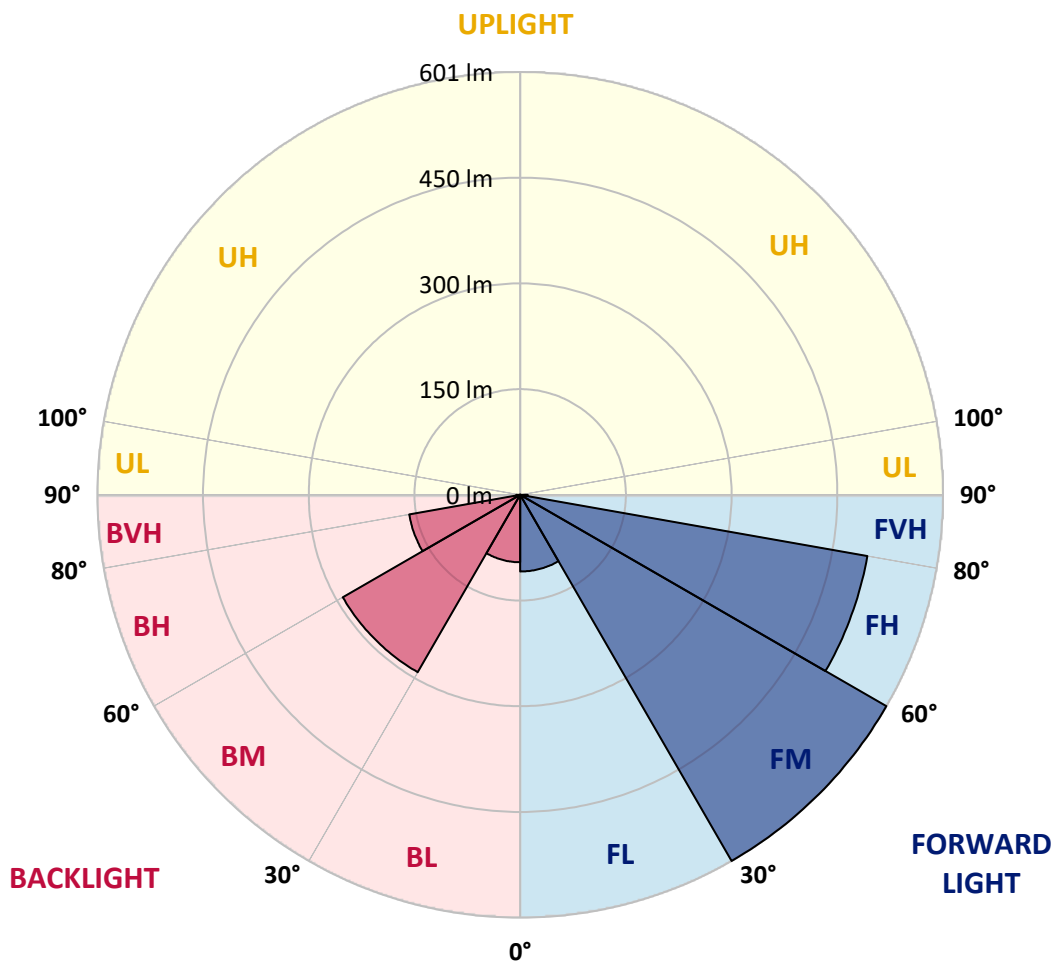
CATALOG NUMBER: ENT-EXX-LED-E1-BL2-CWB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	108.9	6.1			
FM	(30°-60°)	600.6	33.9			
FH	(60°-80°)	500.7	28.2			G0/660
FVH	(80°-90°)	10.7	0.6			G1/100
BL	(0°-30°)	95.8	5.4	B0/110		
BM	(30°-60°)	291.0	16.4	B1/1000		
BH	(60°-80°)	160.1	9.0	B1/500		G1/500
BVH	(80°-90°)	5.4	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°	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8
2.5°	197.2	196.5	196.8	196.5	196.5	195.9	193.9	193.9	193.6	193.9	193.3
5°	207.9	207.5	207.2	206.6	206.6	205.3	202.0	201.4	201.7	201.1	199.8
7.5°	219.8	219.5	218.9	217.6	216.9	215.0	210.4	209.8	209.5	208.8	207.9
10°	231.8	231.5	230.5	228.9	227.3	224.4	219.8	218.2	217.9	217.6	216.6
12.5°	244.1	243.1	243.5	240.6	238.0	234.4	229.2	227.6	227.3	227.0	226.6
15°	257.7	257.4	256.7	252.9	248.0	243.1	238.0	236.0	234.7	235.1	234.7
17.5°	270.7	270.3	268.1	262.6	256.1	250.6	244.1	242.8	242.8	242.5	242.5
20°	280.1	279.7	277.5	270.7	262.2	256.1	250.9	250.9	250.6	250.9	251.2
22.5°	284.3	284.3	281.3	273.9	264.8	260.3	258.7	259.7	260.0	260.3	261.0
25°	285.9	285.9	283.0	274.2	265.8	266.5	268.4	270.0	270.7	270.7	272.9
27.5°	288.8	289.1	285.2	275.8	269.0	275.2	280.1	282.3	283.3	283.9	286.9
30°	297.5	297.2	294.0	283.9	278.8	287.5	296.2	298.5	300.8	300.8	304.0
32.5°	310.5	310.2	308.2	300.5	298.2	309.2	317.0	321.8	321.5	322.1	324.4
35°	327.6	328.0	329.3	327.3	329.3	340.3	349.0	351.0	351.3	351.6	351.9
37.5°	347.1	347.4	354.5	360.7	369.4	385.6	390.8	391.8	389.5	389.5	388.8
40°	361.6	363.3	379.1	395.3	413.8	435.8	443.6	441.6	440.0	438.7	434.8
42.5°	391.4	392.4	409.2	432.5	458.4	488.9	502.5	496.0	495.7	489.9	486.9
45°	421.2	423.8	441.9	468.2	499.2	541.3	561.4	555.9	554.9	552.3	544.2
47.5°	444.8	448.4	468.5	499.6	535.2	583.7	619.7	623.6	621.3	618.4	611.9
50°	464.9	467.8	488.2	522.2	563.0	616.1	667.6	681.5	683.5	682.2	680.5
52.5°	477.9	480.8	500.9	537.1	579.2	640.1	703.2	730.7	736.6	736.2	743.0
55°	478.2	481.4	502.2	542.0	588.3	656.6	736.2	779.6	786.7	795.5	810.1
57.5°	460.4	463.6	489.5	535.5	590.9	669.5	768.3	844.7	864.1	881.3	921.4
60°	410.9	412.1	440.6	502.2	578.6	666.6	792.6	900.7	928.2	965.5	1030.2
62.5°	334.8	337.4	354.8	414.7	521.3	641.0	802.3	963.2	1008.5	1062.9	1166.5
63°	313.7	316.0	332.2	391.4	501.8	633.0	802.0	973.2	1023.1	1079.1	1190.8
65°	242.2	242.8	254.8	299.5	411.8	574.0	784.5	959.0	1022.1	1087.5	1204.7
67.5°	195.2	197.5	209.5	240.9	325.4	482.1	706.1	830.8	873.8	938.3	1077.8
70°	152.8	156.7	168.0	203.6	277.5	388.2	594.1	693.5	720.0	750.8	869.3
72.5°	101.0	102.0	103.9	123.7	193.6	302.1	494.4	562.1	572.4	594.4	652.4
75°	47.6	51.2	54.1	64.1	93.6	197.8	358.4	399.2	411.5	434.5	455.5
77.5°	20.7	20.4	21.7	29.5	49.2	88.1	223.1	294.9	299.2	294.0	284.9
80°	6.5	6.8	7.1	7.8	15.5	42.1	96.5	198.1	218.9	232.8	228.9
82.5°	0.6	0.3	1.0	1.9	3.2	6.2	36.3	92.9	116.9	143.4	177.4
85°	0.0	0.0	0.3	0.3	0.6	1.3	2.3	9.7	16.2	18.8	37.2
87.5°	0.0	0.0	0.3	0.3	0.6	1.0	1.0	1.3	1.3	1.3	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):

	65°	66°	67°	68°	69°	70°	75°	80°	85°	90°	95°
0°	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8
2.5°	193.0	193.0	192.3	192.6	192.3	192.3	191.7	191.0	190.7	189.1	188.1
5°	199.8	199.8	199.4	198.8	198.8	198.5	196.8	195.2	194.3	192.3	190.4
7.5°	207.5	207.2	206.6	205.9	205.9	205.6	203.3	201.7	199.8	196.8	194.6
10°	216.6	216.3	215.6	214.7	214.7	214.3	212.1	209.5	207.9	204.3	201.4
12.5°	226.3	225.3	225.0	224.4	223.7	223.7	221.8	219.2	217.9	214.0	211.1
15°	234.4	233.8	233.4	233.1	232.8	232.1	230.5	228.3	227.3	224.0	221.8
17.5°	242.2	242.2	242.5	241.9	241.5	240.9	239.9	239.3	238.3	235.4	234.1
20°	251.2	251.2	251.9	251.6	251.2	252.2	251.9	251.6	251.6	249.0	248.0
22.5°	261.9	261.6	262.6	262.2	262.6	263.5	264.8	264.2	265.5	263.9	263.2
25°	274.2	273.9	274.9	275.5	276.2	276.8	279.4	280.1	281.7	281.3	280.1
27.5°	288.1	288.5	288.8	290.4	291.4	292.0	295.6	297.5	300.8	299.5	300.8
30°	304.3	306.0	307.3	308.9	309.2	309.8	315.7	317.6	319.2	320.2	322.1
32.5°	326.7	327.6	328.0	329.9	330.6	331.5	337.7	340.3	342.5	342.9	346.4
35°	353.9	354.5	355.5	356.5	357.8	357.1	364.2	368.1	371.0	371.4	375.2
37.5°	389.8	387.5	388.5	387.2	385.3	385.3	387.5	391.4	394.7	397.3	401.1
40°	432.9	431.3	430.9	428.0	424.8	421.9	420.6	422.8	425.4	427.7	432.5
42.5°	482.1	480.5	475.0	473.0	467.5	464.3	455.5	456.5	461.0	462.3	465.2
45°	539.7	533.9	531.9	520.0	517.7	513.2	496.7	495.4	499.2	499.6	497.6
47.5°	605.4	601.2	596.7	588.3	579.5	572.1	546.8	533.6	537.8	537.4	528.1
50°	677.0	676.3	669.5	664.0	656.3	645.6	600.6	576.3	579.5	576.6	559.5
52.5°	745.3	743.4	743.0	738.8	735.9	732.4	677.6	635.9	628.4	622.3	600.3
55°	817.2	822.0	818.8	825.6	830.8	830.1	807.5	746.3	708.4	703.5	669.9
57.5°	937.0	948.6	964.2	964.8	978.7	998.8	1039.6	995.6	900.7	881.9	836.9
60°	1074.2	1104.4	1143.2	1162.3	1192.1	1223.2	1325.5	1332.3	1199.5	1127.0	1044.5
62.5°	1212.2	1251.7	1297.6	1327.4	1364.3	1388.6	1496.8	1522.7	1401.6	1267.9	1131.9
63°	1241.3	1281.8	1321.6	1350.7	1381.8	1404.2	1501.3	1528.5	1412.6	1268.2	1126.4
65°	1256.5	1294.4	1325.5	1351.4	1372.1	1387.3	1464.1	1493.5	1398.0	1221.2	1064.5
67.5°	1140.9	1201.8	1241.0	1272.4	1293.4	1314.5	1385.1	1403.5	1335.8	1129.9	970.6
70°	944.4	1014.7	1076.5	1125.4	1161.7	1193.7	1267.9	1255.2	1196.9	982.0	823.3
72.5°	694.8	756.0	816.2	871.6	918.8	959.6	1008.5	894.2	805.5	653.0	569.8
75°	467.2	480.5	508.0	535.5	552.7	564.3	534.2	425.7	345.8	310.2	271.3
77.5°	275.8	266.8	267.8	261.0	256.4	255.4	214.3	119.1	62.8	64.1	67.3
80°	220.2	210.1	199.4	187.5	179.7	171.3	139.5	76.4	27.2	22.0	23.0
82.5°	178.1	175.5	169.7	157.3	145.0	130.5	99.7	73.5	15.5	12.3	13.3
85°	34.6	38.9	35.0	38.2	28.5	26.9	15.9	17.2	6.2	5.5	6.8
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.6
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):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8	187.8
2.5°	186.5	185.2	184.2	182.9	182.3	181.3	181.0	180.0	180.3
5°	187.1	184.9	182.9	181.0	179.7	179.0	178.4	177.7	177.7
7.5°	190.4	187.5	185.2	182.9	182.0	180.7	180.3	179.4	179.4
10°	197.2	193.9	191.0	188.4	187.1	185.5	184.9	183.9	183.9
12.5°	207.2	204.3	201.1	197.2	194.6	192.6	191.0	190.4	190.4
15°	218.5	216.3	213.7	208.5	204.3	200.7	197.5	196.2	195.9
17.5°	232.1	230.2	227.6	221.8	215.0	207.5	202.0	199.4	199.1
20°	248.6	246.7	242.8	234.7	224.0	212.4	203.6	199.8	199.4
22.5°	265.5	265.5	259.0	245.7	229.9	214.3	202.7	197.5	196.5
25°	283.9	284.9	275.2	254.5	233.1	213.4	198.5	192.0	190.7
27.5°	306.3	305.3	289.1	261.3	233.4	209.5	191.7	183.9	182.6
30°	330.9	324.4	300.5	265.2	231.2	202.4	182.6	173.9	172.9
32.5°	355.5	341.6	308.9	265.8	224.7	192.0	170.6	161.6	160.3
35°	381.7	356.8	314.0	262.2	214.0	178.1	155.7	147.0	145.7
37.5°	403.7	368.4	315.7	252.9	197.8	161.9	142.1	133.1	130.8
40°	423.8	376.9	312.8	237.6	179.7	146.0	127.9	120.1	119.5
42.5°	442.3	380.7	302.4	217.9	161.6	132.4	115.9	108.5	107.8
45°	456.5	378.2	284.9	196.2	146.7	120.8	105.2	98.4	97.1
47.5°	465.6	368.8	261.0	178.1	134.4	108.8	93.6	86.4	85.1
50°	472.7	354.8	236.7	164.1	122.4	96.5	81.6	75.1	74.1
52.5°	482.1	337.0	215.6	151.5	108.5	82.6	69.3	63.1	62.2
55°	502.8	321.8	200.7	137.6	93.6	68.0	57.0	53.1	51.8
57.5°	573.1	327.0	191.3	120.8	76.4	54.7	47.3	45.0	44.7
60°	646.9	349.0	186.8	101.3	59.2	44.4	40.1	39.5	39.2
62.5°	643.0	329.3	168.0	79.6	45.7	36.6	34.6	35.0	35.0
63°	630.0	317.3	161.9	74.8	43.4	35.6	33.7	33.7	33.7
65°	551.7	269.0	131.4	56.7	36.3	31.7	30.1	30.4	30.8
67.5°	455.5	194.3	86.4	39.5	32.7	28.8	26.9	26.2	26.2
70°	348.4	130.8	51.2	34.3	32.4	26.9	23.6	23.0	23.0
72.5°	228.6	80.0	34.6	34.3	32.1	25.6	22.0	20.7	20.7
75°	104.9	39.5	28.8	33.0	30.4	23.6	19.4	17.8	17.5
77.5°	40.8	24.9	25.9	27.8	23.6	19.4	17.5	16.2	15.9
80°	23.6	20.1	22.7	20.1	17.2	14.9	14.9	13.9	13.6
82.5°	17.2	17.2	17.5	14.6	13.0	12.3	12.3	11.3	11.0
85°	12.3	12.6	14.6	11.7	10.0	8.7	8.1	8.1	7.8
87.5°	6.2	10.0	8.1	4.9	4.5	4.2	4.2	4.2	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)