

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: P173531

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

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P173531
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-EXX-LED-E1-GZW-CWB
Description: ENTRI LED LUMINAIRE, EMERGENCY MODE
LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1803.2 lumens
Efficiency: N/A
Efficacy: 327.9 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

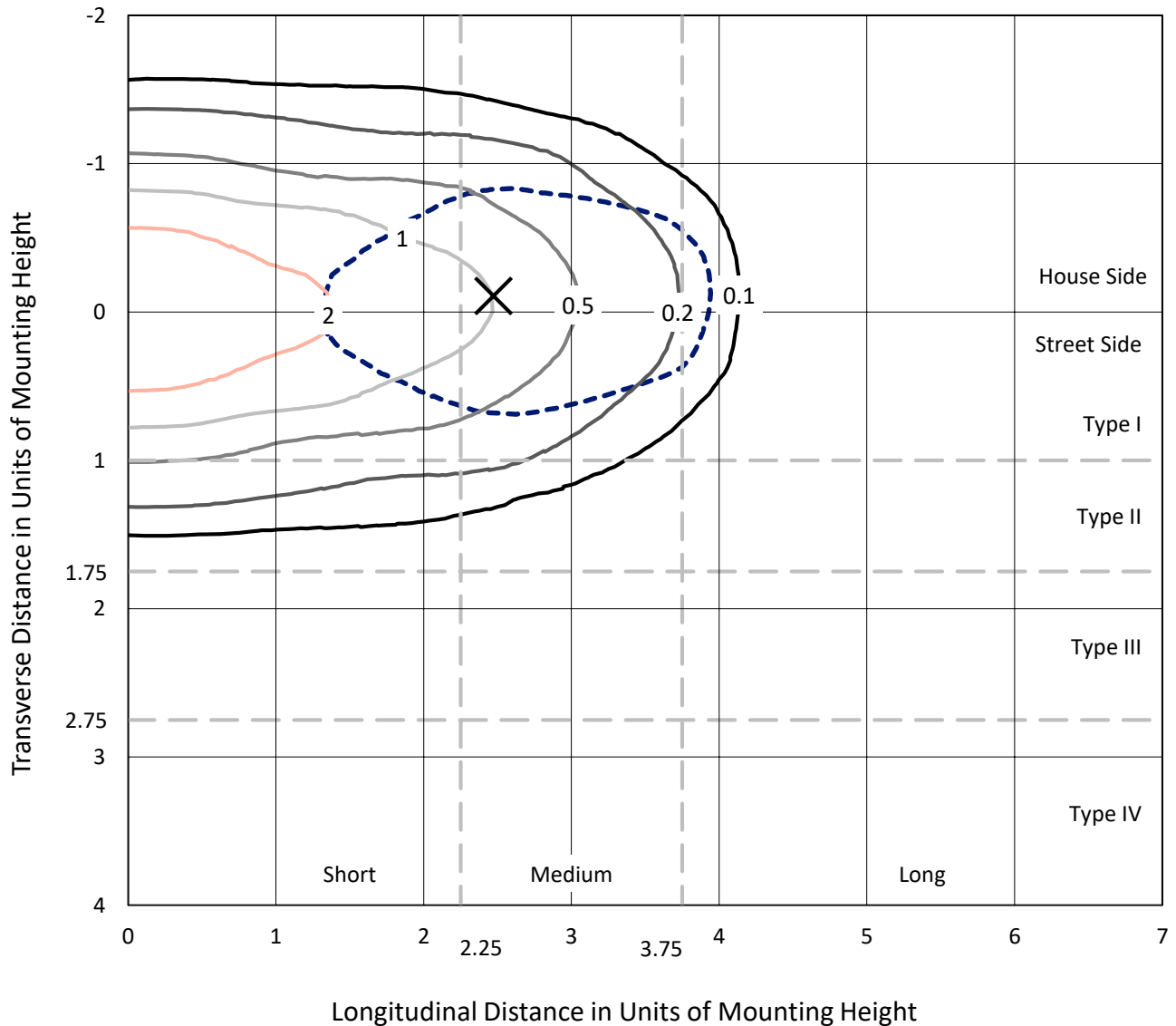
Input Watts (W): 5.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

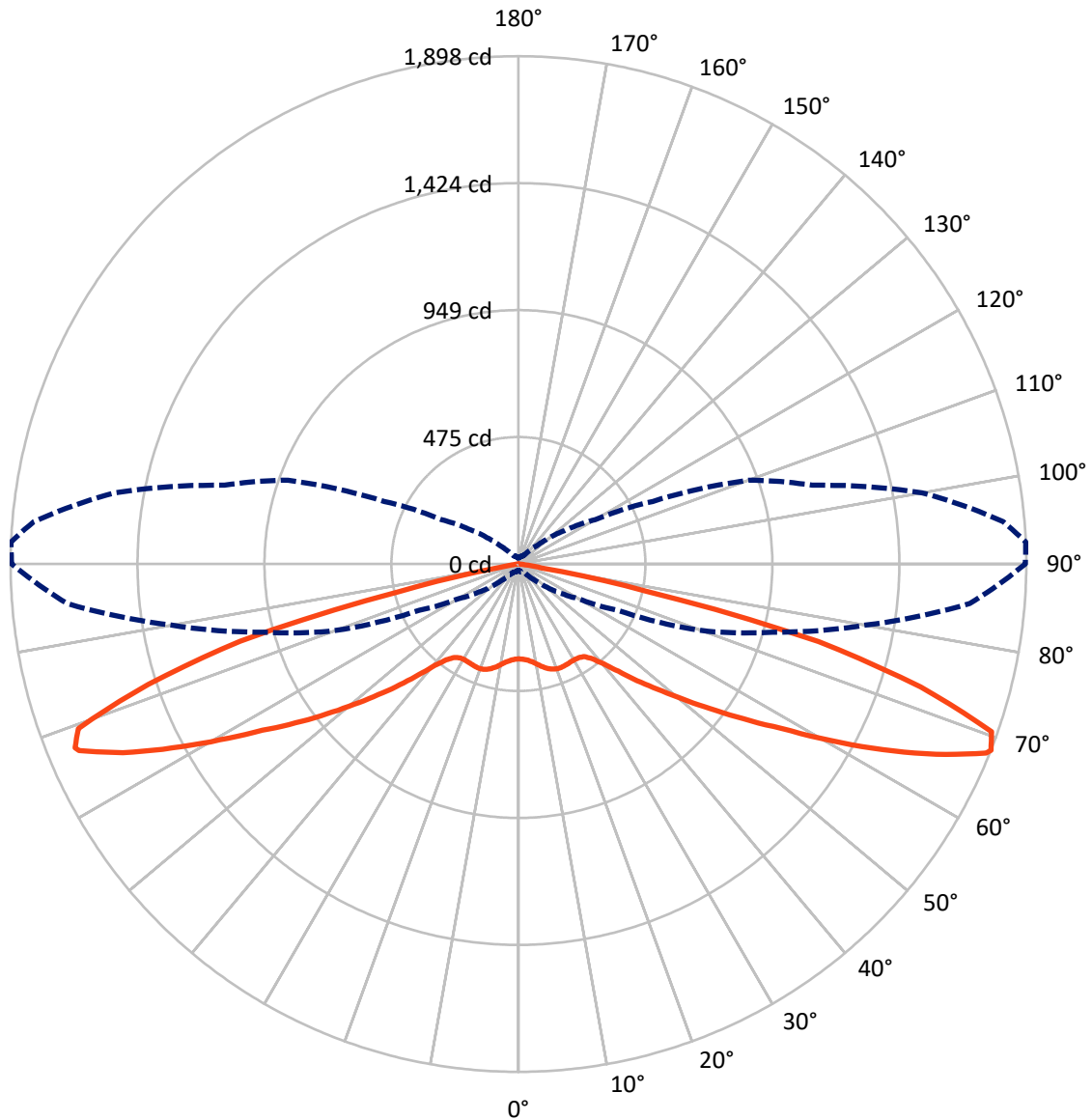
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 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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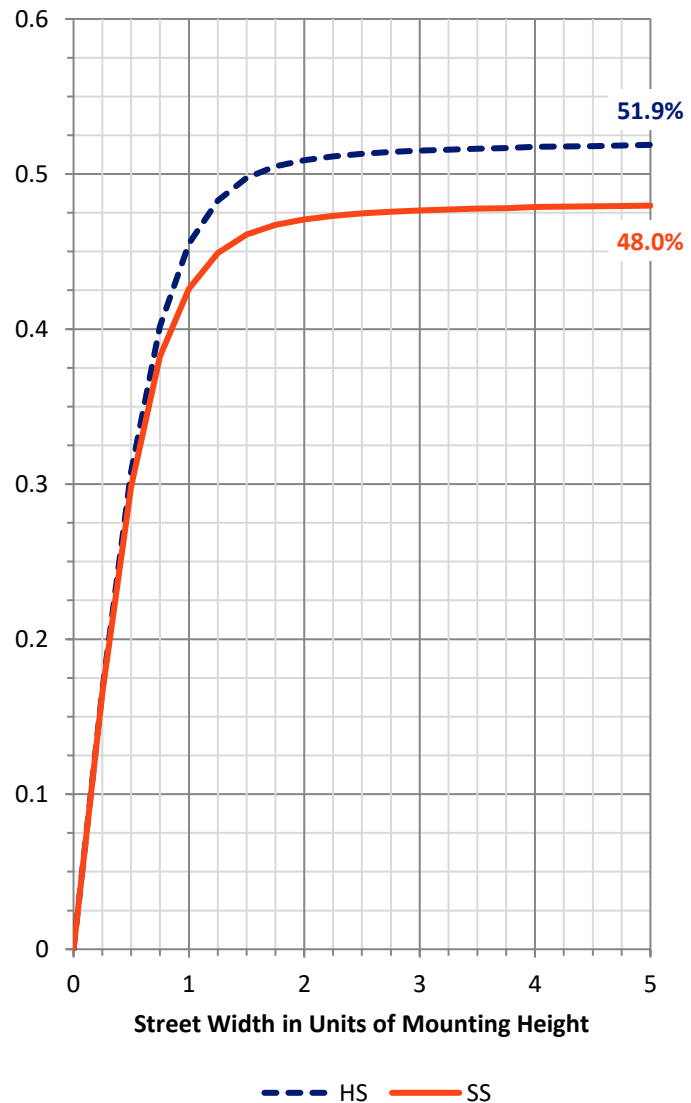
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	942.0	0.0	942.0
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	861.2	0.0	861.2
	% Fixture	47.8	0.0	47.8
Total	Lumens	1803.2	0.0	1803.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	1.9
10°-20°	110.3	6.1
20°-30°	178.8	9.9
30°-40°	222.3	12.3
40°-50°	276.4	15.3
50°-60°	340.0	18.9
60°-70°	401.9	22.3
70°-80°	225.1	12.5
80°-90°	13.7	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°	1803.2	100.0
0°-180°	1803.2	100.0



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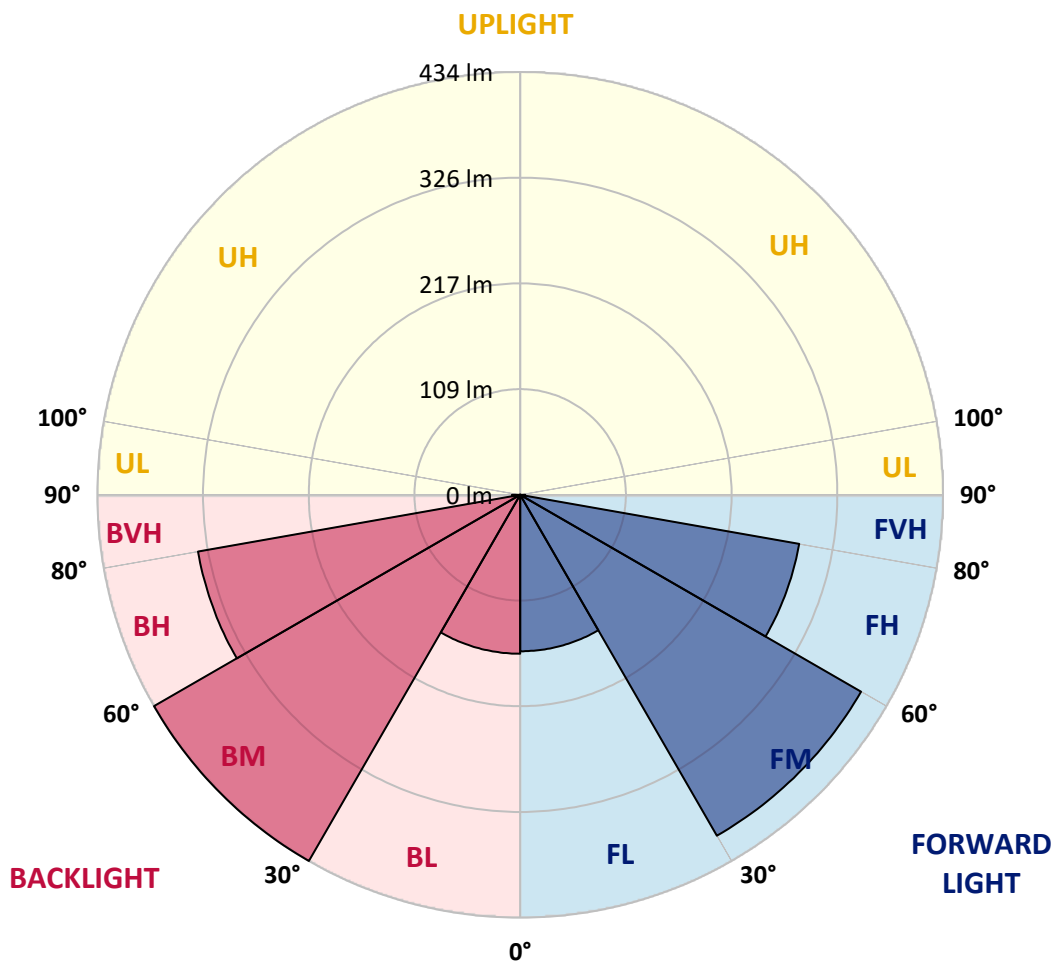
CATALOG NUMBER: ENT-EXX-LED-E1-GZW-CWB

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	160.7	8.9			
FM	(30°-60°)	404.3	22.4			
FH	(60°-80°)	291.0	16.1			G0/660
FVH	(80°-90°)	5.2	0.3			G0/10
BL	(0°-30°)	163.2	9.1	B1/500		
BM	(30°-60°)	434.3	24.1	B1/1000		
BH	(60°-80°)	336.0	18.6	B1/500		G1/500
BVH	(80°-90°)	8.5	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°	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
2.5°	356.1	356.1	356.1	356.5	356.8	357.4	357.1	357.8	356.8	358.1	358.1
5°	360.3	360.7	361.0	361.0	361.6	362.0	361.6	362.6	361.6	362.9	363.3
7.5°	364.2	364.2	364.6	364.9	365.5	366.2	366.5	367.5	367.1	368.4	369.7
10°	367.1	366.8	367.1	367.8	369.4	370.4	371.7	373.0	373.6	374.9	376.9
12.5°	368.4	368.1	369.1	370.7	372.3	374.3	376.2	379.1	381.1	383.0	385.9
15°	367.8	367.8	369.1	371.0	374.3	377.8	381.4	385.3	388.8	393.0	396.0
17.5°	361.6	362.3	364.2	367.5	372.3	377.8	383.7	390.1	396.0	401.8	405.7
20°	350.6	351.3	354.8	358.7	365.2	373.3	382.4	391.8	400.8	408.6	414.1
22.5°	337.0	336.4	339.6	344.8	353.5	363.3	374.9	388.8	401.1	412.1	419.9
25°	316.0	316.0	319.6	326.0	335.4	347.4	361.6	379.4	396.0	410.2	421.2
27.5°	293.7	294.0	298.5	304.0	314.7	326.0	342.5	363.3	383.3	402.1	418.3
30°	271.3	272.3	276.2	281.7	293.0	305.0	321.8	342.2	363.9	387.2	409.2
32.5°	248.3	249.6	252.9	259.3	271.6	284.9	302.1	320.2	340.9	366.5	395.0
35°	226.6	227.6	230.2	238.0	250.6	264.8	283.9	301.4	322.5	346.1	377.5
37.5°	206.2	207.2	210.1	218.2	230.8	245.1	263.9	283.6	305.3	328.6	359.7
40°	184.2	186.5	190.4	198.1	209.8	226.0	245.1	265.8	288.8	315.3	347.1
42.5°	164.1	166.1	169.7	176.5	188.1	205.3	225.3	246.7	271.6	301.7	337.7
45°	145.7	147.3	150.9	157.0	169.3	182.9	201.1	223.4	249.3	283.9	327.6
47.5°	127.9	129.5	133.4	140.8	150.9	164.1	180.3	200.1	224.0	259.3	308.5
50°	110.1	111.7	115.6	123.0	132.7	145.7	160.6	178.4	202.0	232.5	280.7
52.5°	90.7	92.3	96.2	103.6	113.0	125.3	140.5	159.0	181.0	209.8	249.6
55°	69.6	71.9	75.4	81.6	91.6	103.9	119.1	139.2	161.6	189.7	226.6
57.5°	50.2	51.8	56.0	60.9	69.3	82.2	95.8	116.6	141.5	170.3	206.9
60°	36.6	38.2	41.1	45.0	50.8	60.2	72.2	91.6	119.1	151.5	189.1
62.5°	30.4	31.7	34.6	38.5	41.8	46.3	53.4	68.3	95.2	131.1	170.6
65°	26.9	27.8	30.4	34.3	36.9	38.9	41.8	51.8	73.8	109.1	152.5
67.5°	24.0	24.9	26.9	30.1	33.0	34.0	35.6	42.4	58.0	88.7	133.4
68°	23.6	24.6	26.2	29.1	32.1	33.0	34.6	41.4	56.3	84.5	128.2
70°	22.0	22.7	24.3	26.5	28.8	29.5	31.4	38.2	52.8	73.8	103.9
72.5°	20.1	20.4	21.4	23.3	25.6	25.9	27.8	33.3	41.4	54.4	77.4
75°	16.8	17.2	18.5	20.1	21.4	22.0	22.7	25.3	28.2	33.7	45.7
77.5°	13.0	13.6	14.6	15.5	17.5	18.1	17.5	19.4	20.7	23.0	27.8
80°	7.8	7.8	8.7	9.7	10.7	12.3	11.7	13.6	14.6	15.9	18.8
82.5°	1.3	1.6	1.6	2.3	2.9	3.6	3.9	4.9	6.2	7.4	10.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.0
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°	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
2.5°	356.1	357.1	357.1	356.8	356.8	356.8	355.8	356.1	356.5	357.4	356.1
5°	361.3	362.3	362.0	361.6	361.6	361.6	360.3	360.7	361.0	361.6	360.3
7.5°	368.1	369.1	369.4	369.4	369.4	370.1	368.1	368.1	368.8	369.4	367.5
10°	378.2	378.2	379.1	379.8	380.4	381.1	379.8	379.1	380.4	380.4	378.2
12.5°	387.5	388.2	389.8	391.1	391.4	392.7	392.7	392.4	393.4	393.0	390.5
15°	398.2	398.9	400.2	401.8	402.1	403.4	403.4	403.7	404.7	405.4	401.5
17.5°	408.3	409.2	409.2	409.6	410.2	411.2	411.8	412.1	413.1	413.8	409.9
20°	416.7	417.7	416.0	414.7	413.4	414.1	415.4	416.7	417.3	417.7	412.8
22.5°	423.2	423.5	420.9	417.3	413.8	413.4	415.1	417.3	418.0	417.7	410.9
25°	426.7	427.7	425.1	419.6	413.1	410.9	412.5	415.4	416.7	415.4	407.3
27.5°	426.7	430.3	429.0	423.2	414.4	408.3	409.2	413.8	414.7	413.1	403.7
30°	423.5	430.9	432.5	429.0	419.9	409.2	407.9	413.1	414.4	411.5	402.1
32.5°	417.0	430.6	437.1	437.4	430.3	417.0	410.5	415.7	416.7	413.1	405.4
35°	407.9	430.3	442.9	449.1	446.8	433.5	422.2	425.4	424.8	420.9	418.0
37.5°	397.9	430.3	451.3	465.6	470.8	464.0	449.1	447.4	449.1	443.2	441.6
40°	386.9	431.3	463.3	488.6	504.1	506.4	493.1	488.6	490.5	485.0	487.3
42.5°	380.4	432.5	479.2	515.4	545.5	568.5	562.7	549.1	548.1	548.8	553.6
45°	377.2	435.8	495.0	545.9	588.0	639.1	644.6	620.3	621.6	625.2	632.6
47.5°	373.6	441.9	513.5	577.6	634.3	706.1	733.0	700.3	697.7	711.0	713.2
50°	360.7	449.4	534.5	613.2	682.8	781.6	824.0	790.6	791.3	803.6	799.0
52.5°	330.9	449.7	556.9	648.8	731.4	856.0	920.5	898.4	896.8	908.8	884.8
55°	289.8	429.3	575.0	683.8	777.4	925.3	1020.2	1025.0	1021.8	1023.7	971.9
57.5°	256.7	379.1	576.9	713.2	816.2	991.0	1122.5	1157.5	1157.8	1149.4	1057.4
60°	235.4	322.8	551.7	737.5	861.5	1074.9	1255.9	1334.2	1338.8	1304.4	1171.7
62.5°	217.6	294.3	499.6	762.5	913.7	1159.7	1399.6	1528.5	1528.8	1471.5	1297.6
65°	203.6	278.8	442.3	753.1	953.8	1242.0	1551.8	1724.0	1715.6	1652.5	1417.1
67.5°	188.1	264.8	415.7	738.5	988.1	1318.0	1685.8	1883.6	1885.9	1808.2	1527.8
68°	184.9	259.7	408.9	726.2	984.2	1315.4	1693.0	1894.3	1898.2	1818.2	1532.7
70°	159.3	226.6	355.8	634.3	914.3	1245.2	1647.6	1864.2	1876.2	1786.8	1478.6
72.5°	106.2	156.7	237.6	448.1	704.5	989.4	1348.8	1561.5	1571.5	1511.3	1228.0
75°	67.3	95.2	126.3	258.4	473.3	710.0	1016.9	1140.9	1157.5	1137.7	919.5
77.5°	40.8	66.7	77.7	125.3	249.3	332.2	459.4	467.5	486.3	474.6	476.6
80°	26.9	46.3	56.7	85.1	86.4	71.6	81.3	81.9	86.8	92.3	96.2
82.5°	15.2	28.2	39.5	58.3	51.5	26.5	22.7	23.6	24.3	24.9	29.5
85°	2.3	5.2	11.0	18.1	18.5	8.7	8.1	7.4	7.8	8.4	10.7
87.5°	0.0	0.0	0.0	0.0	0.3	0.6	1.0	1.0	1.0	1.9	1.9
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°	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
2.5°	355.8	355.5	355.8	354.8	355.8	355.5	355.5	355.5	355.2	355.5	355.5
5°	359.7	359.7	359.7	359.1	359.7	359.7	359.7	359.7	359.4	359.7	360.0
7.5°	367.1	367.1	366.8	365.9	366.5	366.5	366.2	365.5	364.9	365.2	364.9
10°	377.2	377.8	375.9	375.9	374.9	373.6	372.7	371.7	371.4	370.7	369.4
12.5°	389.5	389.2	386.6	385.6	385.0	382.4	380.4	379.4	378.2	376.5	374.6
15°	400.5	399.2	397.3	396.3	395.3	392.4	389.8	387.5	385.9	383.7	380.7
17.5°	407.9	406.6	405.7	405.4	405.4	402.8	400.5	397.6	394.0	389.8	385.0
20°	409.6	409.6	409.9	411.8	413.8	412.8	410.2	406.6	401.5	394.7	387.2
22.5°	407.3	408.6	411.5	416.4	420.6	420.9	418.3	413.1	404.4	394.7	383.7
25°	403.4	407.0	413.1	419.9	425.7	425.7	421.2	413.8	401.8	387.9	373.3
27.5°	401.5	408.6	417.3	424.5	428.3	426.1	418.0	407.3	390.8	373.0	356.1
30°	403.7	414.7	424.1	429.0	429.6	422.2	408.3	392.4	373.0	351.6	334.4
32.5°	412.1	425.4	432.5	433.5	429.0	415.1	393.4	371.4	349.7	329.9	312.4
35°	429.3	440.6	443.2	439.3	428.0	404.7	373.6	347.7	328.3	309.5	291.4
37.5°	457.2	462.3	457.5	446.1	424.8	392.1	355.5	330.2	309.5	291.1	271.0
40°	496.7	490.8	476.9	454.6	421.2	378.2	341.2	316.0	293.0	272.6	252.5
42.5°	545.9	525.5	496.7	464.3	417.3	369.1	330.9	301.7	276.5	253.8	232.8
45°	600.9	563.0	523.8	475.3	416.0	363.6	318.6	284.3	254.8	232.1	211.4
47.5°	656.9	602.8	551.4	487.3	417.7	353.9	299.8	261.3	230.5	208.5	189.1
50°	713.6	647.5	583.4	502.8	416.7	334.1	274.2	235.1	206.6	186.8	169.3
52.5°	770.6	695.1	616.4	516.7	403.7	303.0	246.1	212.7	185.2	166.1	148.9
55°	826.6	741.4	648.8	520.9	366.2	270.3	222.4	190.4	163.2	143.8	125.0
57.5°	879.7	783.2	671.5	496.3	319.9	244.8	201.4	170.0	141.2	118.8	100.4
60°	945.7	823.0	678.0	436.8	283.0	223.4	182.3	146.3	114.0	90.3	73.5
62.5°	1017.9	877.1	667.9	379.8	261.3	204.6	158.6	118.5	87.1	64.1	51.5
65°	1071.0	899.4	617.1	349.3	247.7	186.2	133.4	91.9	60.2	44.0	39.2
67.5°	1141.6	921.4	564.6	334.4	232.8	162.2	103.0	66.4	46.6	36.6	33.7
68°	1136.7	915.3	553.6	330.6	228.3	153.8	97.1	65.1	45.3	35.6	32.7
70°	1071.0	839.8	480.8	293.0	189.1	119.8	83.5	59.2	41.8	32.4	29.8
72.5°	878.7	651.4	344.8	193.0	123.0	87.7	61.8	44.7	34.6	28.5	26.5
75°	621.9	407.3	172.9	111.1	77.4	50.8	35.0	28.8	25.6	22.7	22.7
77.5°	349.7	213.0	91.3	76.1	43.7	29.5	23.3	21.7	20.1	18.5	20.4
80°	114.0	111.1	67.3	52.1	30.4	21.7	18.1	17.2	16.2	14.6	18.1
82.5°	61.5	76.1	48.6	37.2	22.3	15.5	13.6	13.9	12.6	11.3	13.6
85°	27.5	36.3	32.4	25.9	13.9	8.7	7.1	8.4	7.4	6.8	6.5
87.5°	10.7	17.8	13.0	7.4	3.2	1.9	1.9	1.6	1.3	1.3	1.0
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):

	160°	165°	170°	175°	180°
0°	354.5	354.5	354.5	354.5	354.5
2.5°	354.5	354.5	354.2	353.9	353.2
5°	359.1	359.1	358.7	358.4	357.8
7.5°	363.9	363.6	363.3	362.9	362.3
10°	369.1	368.4	368.4	368.8	368.4
12.5°	374.3	373.3	372.3	372.0	373.0
15°	379.4	377.5	375.9	375.6	375.6
17.5°	382.4	379.1	376.2	375.2	375.2
20°	381.7	375.9	372.0	370.1	370.4
22.5°	375.6	367.5	362.3	359.7	358.7
25°	362.6	352.9	346.4	342.9	343.2
27.5°	343.2	332.8	325.7	323.8	321.8
30°	320.2	309.8	302.7	298.5	298.8
32.5°	297.5	286.2	279.7	274.9	274.2
35°	275.8	263.5	255.8	252.2	251.6
37.5°	254.5	241.5	234.4	231.2	228.9
40°	234.7	223.1	214.7	209.8	208.8
42.5°	215.3	202.0	193.6	190.0	189.1
45°	193.3	180.7	173.2	170.3	169.7
47.5°	173.5	161.6	155.4	151.5	150.2
50°	154.4	143.1	136.0	132.4	131.8
52.5°	134.4	123.0	115.6	112.7	110.1
55°	112.3	100.4	92.9	87.7	85.8
57.5°	86.8	76.1	68.3	64.8	61.2
60°	62.2	52.8	46.6	43.7	41.1
62.5°	44.0	37.9	34.0	31.1	29.5
65°	36.3	33.3	29.1	26.5	25.3
67.5°	32.1	29.1	25.9	23.6	22.7
68°	31.4	28.5	25.3	23.0	22.3
70°	28.8	25.9	23.0	21.4	20.7
72.5°	25.6	23.3	20.7	19.1	18.5
75°	22.0	19.7	18.1	16.8	15.9
77.5°	19.4	16.2	15.5	14.2	13.6
80°	16.2	14.6	13.3	12.3	11.7
82.5°	13.3	11.0	9.4	8.4	8.1
85°	7.4	6.8	5.5	4.2	3.9
87.5°	0.6	0.3	0.3	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)