

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:

Luminaire Tested: **ENT-SA1A-740-U-SL2-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number: REPORT IS A COMBINATION OF REPORTS P400948 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENT-SA1A-740-U-SL2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4473.9 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.1')
IES Classification: Type III - Medium
BUG Rating: B1 - U5 - G1

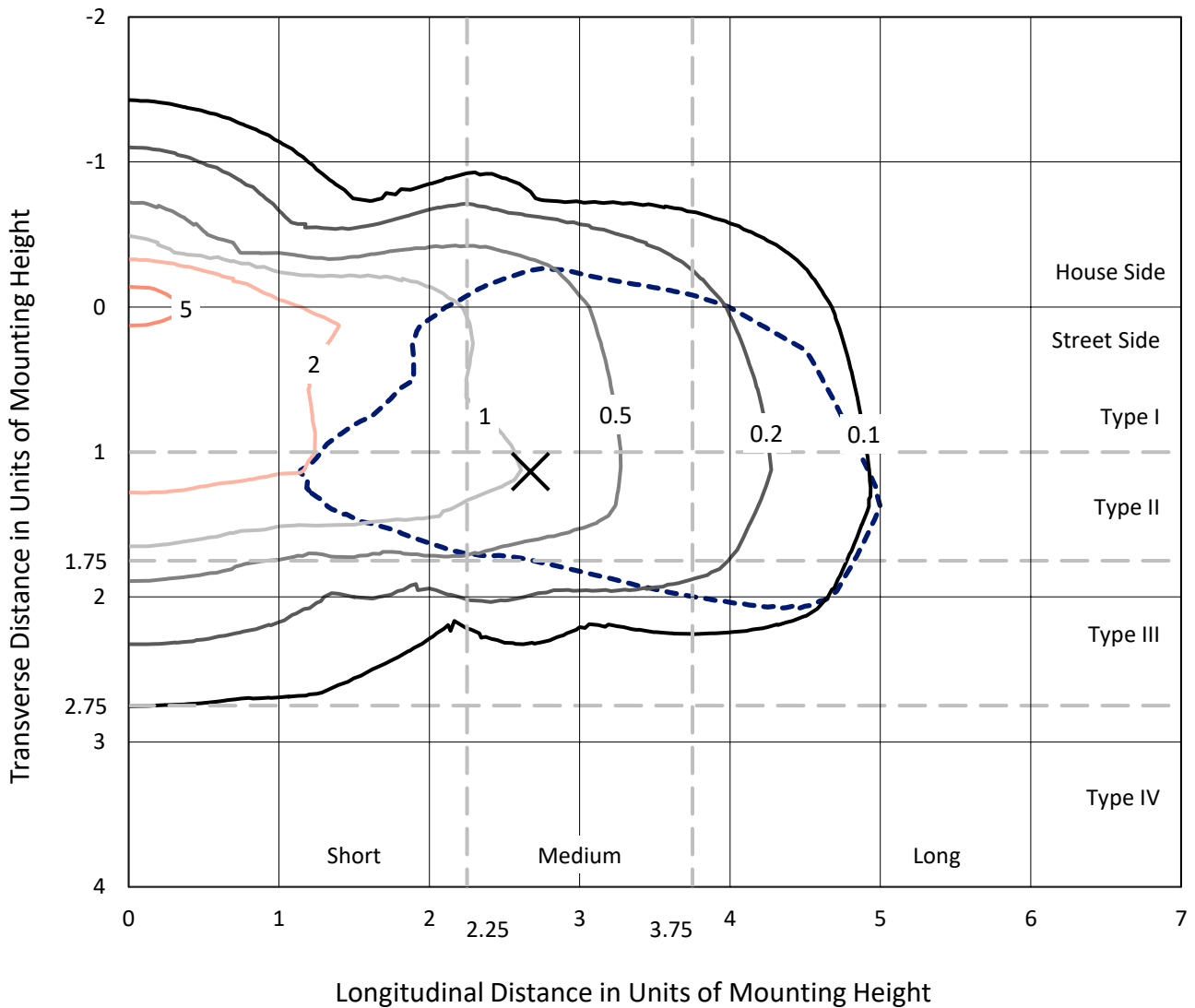
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

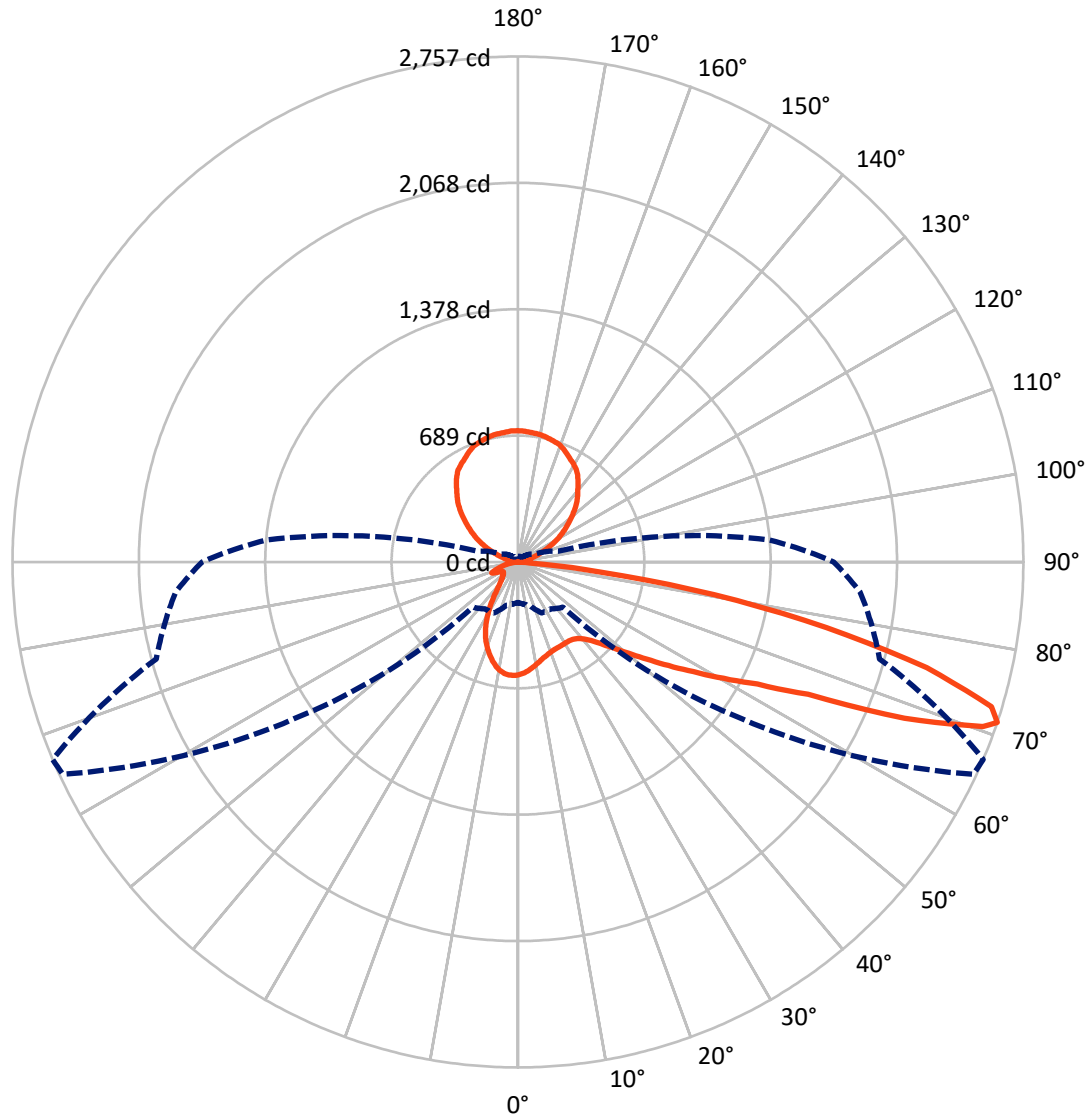
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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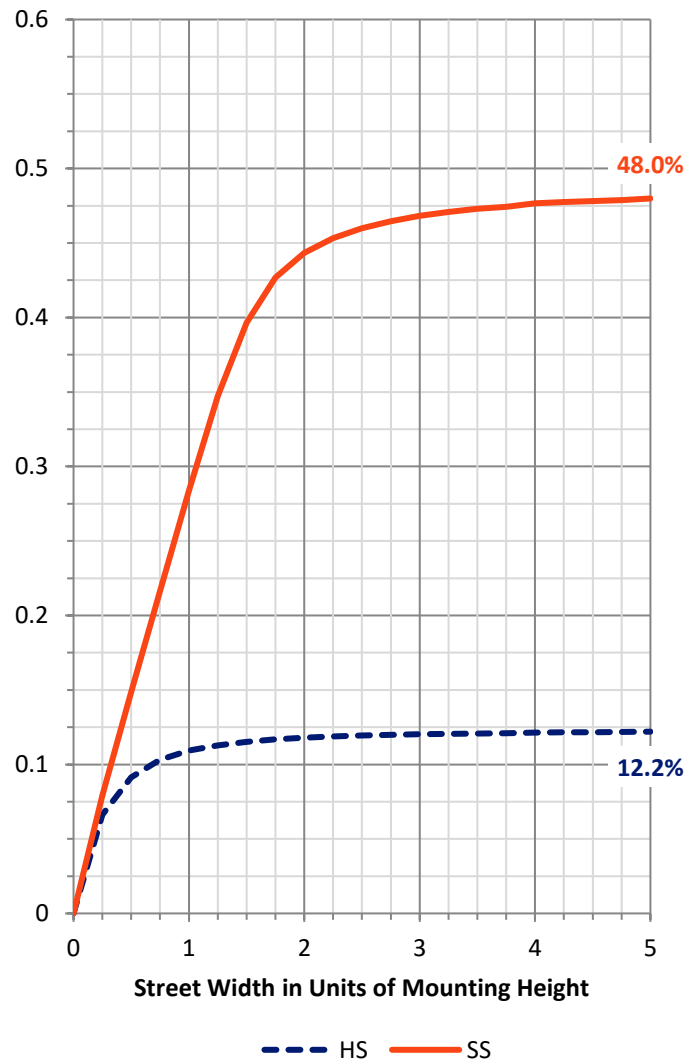
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	553.2	887.0	1440.1
	% Fixture	12.4	19.8	32.2
Street Side	Lumens	2146.8	887.0	3033.8
	% Fixture	48.0	19.8	67.8
Total	Lumens	2700.0	1773.9	4473.9
	% Fixture	60.3	39.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.6	1.2
10°-20°	134.1	3.0
20°-30°	181.0	4.0
30°-40°	238.4	5.3
40°-50°	339.6	7.6
50°-60°	518.8	11.6
60°-70°	647.7	14.5
70°-80°	522.9	11.7
80°-90°	63.0	1.4
90°-100°	8.4	0.2
100°-110°	58.7	1.3
110°-120°	169.9	3.8
120°-130°	279.4	6.2
130°-140°	344.6	7.7
140°-150°	352.5	7.9
150°-160°	297.0	6.6
160°-170°	195.5	4.4
170°-180°	67.8	1.5
0°-90°	2700.0	60.3
0°-180°	4473.9	100.0

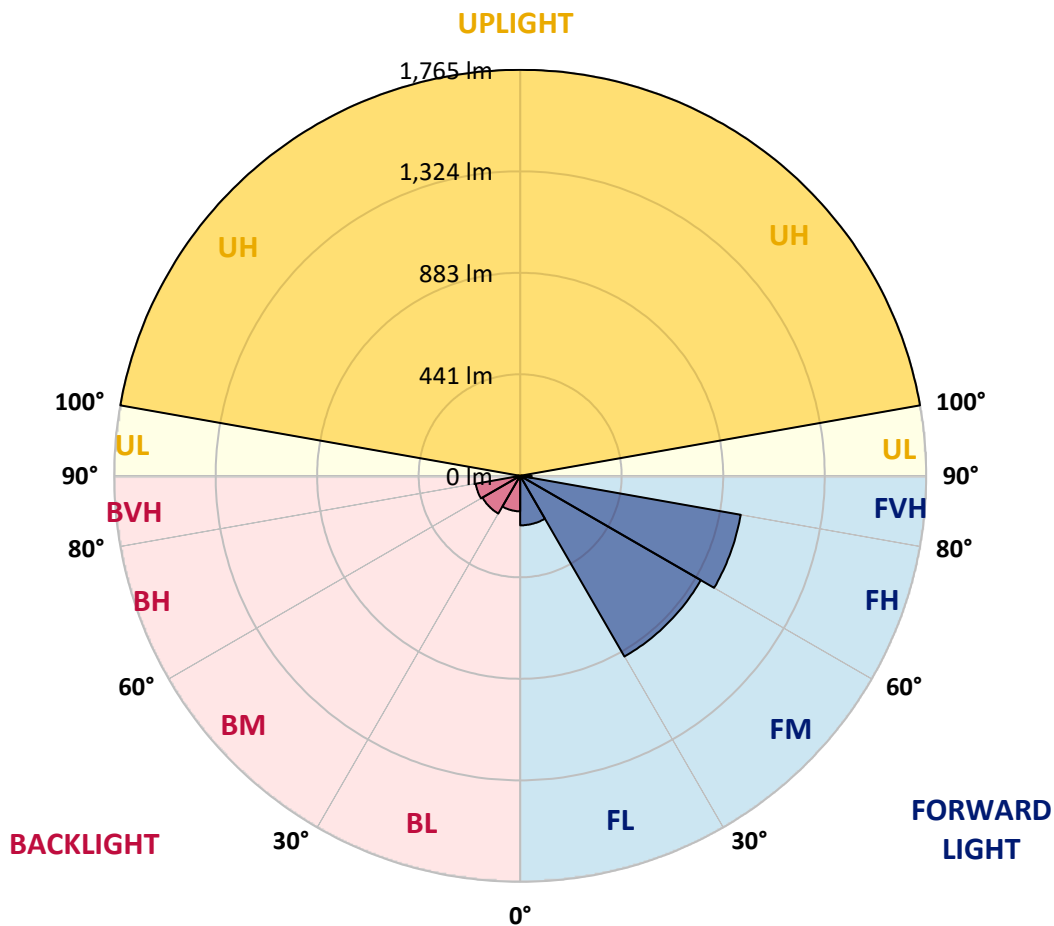


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	215.3	4.8			
FM (30°-60°)	907.2	20.3			
FH (60°-80°)	974.0	21.8			G1/1800
FVH (80°-90°)	50.3	1.1			G1/100
BL (0°-30°)	154.3	3.4	B1/500		
BM (30°-60°)	189.5	4.2	B0/220		
BH (60°-80°)	196.6	4.4	B1/500		G1/500
BVH (80°-90°)	12.8	0.3			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	39.5		U5	

BUG Rating: B1-U5-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7
2.5°	580.7	583.4	583.8	589.2	591.2	597.4	600.9	606.7	607.5	611.0	613.3
5°	543.0	543.4	545.7	550.4	557.8	569.0	577.6	592.0	594.7	604.8	613.7
7.5°	509.2	511.1	515.0	522.0	530.6	543.8	557.0	576.8	580.7	597.0	614.1
10°	486.2	488.2	491.3	499.1	507.6	522.4	538.3	561.3	565.5	588.1	613.0
12.5°	468.0	469.9	472.2	480.8	490.1	504.9	521.2	546.9	551.2	577.2	610.2
15°	455.9	456.3	459.4	466.4	476.9	491.3	507.6	534.0	539.1	568.6	609.5
17.5°	448.5	449.3	452.0	457.5	466.8	480.8	496.7	523.6	529.4	561.6	609.8
20°	448.9	449.7	451.3	453.2	459.8	471.9	488.6	515.8	521.6	557.4	612.6
22.5°	457.1	457.5	457.9	455.1	457.5	466.0	482.4	510.3	516.6	555.4	615.7
25°	472.6	472.6	471.9	465.6	460.6	464.1	478.9	508.4	514.6	553.9	618.8
27.5°	494.0	495.6	491.7	484.3	472.6	466.8	478.1	506.8	513.1	553.9	620.3
30°	523.2	523.9	522.4	512.7	493.6	477.7	480.4	505.7	511.9	553.1	620.7
32.5°	552.7	555.0	557.0	548.4	525.5	497.1	489.7	507.2	512.7	552.7	619.6
35°	582.6	584.2	593.5	592.0	567.1	526.3	504.9	513.4	518.1	554.6	620.3
37.5°	608.3	611.8	625.4	635.9	616.4	565.9	530.9	527.1	529.8	564.4	624.6
40°	635.9	640.9	661.1	681.0	672.4	615.7	567.9	551.5	550.8	582.2	635.1
42.5°	667.0	672.8	698.8	727.6	730.3	679.0	617.2	586.1	585.4	613.0	658.0
45°	703.5	709.0	744.3	778.5	795.2	749.8	677.9	635.1	635.5	655.7	694.6
47.5°	748.6	757.2	791.4	834.9	864.8	829.4	751.3	703.5	700.4	720.2	754.4
50°	812.0	819.0	847.3	889.7	942.2	925.8	843.8	785.9	783.6	792.9	834.5
52.5°	878.4	880.8	894.4	938.3	1026.5	1042.8	957.7	888.1	879.2	884.3	934.0
55°	882.3	887.4	896.3	951.9	1102.3	1183.1	1083.3	1008.6	997.0	993.5	1047.1
57.5°	801.5	809.6	821.3	893.2	1105.4	1345.2	1261.7	1149.3	1128.3	1110.9	1168.0
60°	630.1	640.5	661.9	750.2	1026.5	1437.7	1559.4	1307.1	1288.5	1229.0	1286.1
62.5°	455.5	459.8	480.4	520.1	814.7	1443.2	1869.6	1513.1	1466.9	1344.1	1388.0
65°	366.9	373.9	380.1	379.7	482.4	1279.9	2075.6	1879.7	1740.1	1472.7	1499.9
67.5°	302.4	304.7	319.9	346.3	328.0	790.6	2096.2	2415.3	2273.8	1646.1	1632.9
70°	252.6	253.4	268.6	316.0	314.1	408.1	1757.6	2723.5	2689.3	1930.6	1840.8
71°	221.2	227.8	244.5	305.9	312.5	348.6	1493.3	2739.8	2756.9	2042.1	1873.1
72.5°	174.1	174.1	197.8	280.6	315.2	321.8	1100.4	2650.8	2700.2	2168.8	1817.1
75°	102.2	101.4	114.3	195.5	322.2	320.7	600.9	2203.0	2302.9	2191.8	1681.8
77.5°	57.5	58.7	65.7	108.8	255.8	307.8	345.1	1604.1	1721.9	1833.4	1422.2
80°	26.4	28.0	33.0	52.9	150.8	265.9	246.4	1041.7	1086.4	1101.9	672.0
82.5°	7.0	7.8	10.1	20.2	58.3	181.1	182.3	436.1	450.5	260.4	144.2
85°	0.0	0.0	0.0	0.0	0.8	22.2	51.7	78.5	65.3	34.6	29.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.8	1.2	1.6	1.6	1.6	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
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.0	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	8.0	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	10.0	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	26.0	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	47.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	70.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	95.3	92.1	89.0



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 CATALOG NUMBER: ENT-SA1A-740-U-SL2-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	123.4	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	153.2	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	185.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	218.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	254.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	288.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	321.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.9	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	389.7	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	425.5	425.1	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	458.1	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.1	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	513.9	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	545.2	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	574.9	574.7	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.6	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	614.4	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	628.9	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	646.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.3	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	678.6	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	686.2	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	693.2	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	700.5	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	705.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.3	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.2	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	715.5	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7	615.7
2.5°	615.3	616.8	619.6	619.2	618.4	613.7	616.4	613.7	613.3	612.2	612.6
5°	616.8	619.2	620.7	617.2	611.4	601.3	597.8	588.9	583.0	579.9	578.4
7.5°	619.2	620.7	619.9	610.2	595.1	576.0	559.7	546.9	533.3	530.9	530.2
10°	619.2	620.7	614.5	595.8	569.8	539.9	515.0	494.0	473.0	465.3	466.4
12.5°	617.6	618.4	604.0	574.1	536.4	495.6	460.6	426.0	399.2	382.9	379.7
15°	616.4	615.3	590.0	546.9	496.7	446.2	393.3	346.7	314.8	293.5	290.7
17.5°	616.4	612.2	573.3	515.8	453.6	384.0	314.1	263.5	228.2	215.7	215.3
20°	617.2	607.9	555.4	483.5	400.0	310.2	234.4	191.2	178.0	176.1	176.5
22.5°	618.0	602.1	536.0	447.0	340.1	231.3	167.5	152.0	153.1	157.8	157.4
25°	617.2	594.3	513.1	406.2	274.8	166.7	135.3	131.4	138.4	143.8	145.4
27.5°	615.3	584.2	488.6	357.6	209.5	131.4	118.2	117.8	124.8	129.8	129.4
30°	609.5	572.1	460.2	306.3	151.2	111.9	106.5	107.7	112.3	117.0	117.0
32.5°	603.2	558.5	430.3	250.3	116.2	101.4	99.5	99.9	103.0	106.5	106.1
35°	596.6	545.3	399.6	192.0	101.8	95.2	94.4	94.1	95.2	96.0	96.0
37.5°	592.7	533.7	365.7	144.6	94.1	91.3	89.8	88.2	87.8	87.1	86.3
40°	594.3	525.9	333.1	111.9	89.4	87.1	84.7	82.4	80.8	80.1	79.7
42.5°	605.2	523.6	297.0	96.4	85.1	83.2	80.1	76.2	74.6	74.6	74.2
45°	630.4	530.6	263.1	88.6	81.2	78.9	73.8	71.1	70.0	70.4	70.4
47.5°	670.1	550.4	232.8	84.7	78.5	75.0	69.2	66.5	65.7	66.1	66.1
50°	729.6	587.7	201.7	81.2	75.4	70.7	65.7	62.6	61.4	61.4	61.4
52.5°	816.6	649.1	179.2	78.9	72.7	67.2	62.2	58.7	57.1	57.1	56.7
55°	922.7	729.2	170.6	77.3	69.2	64.1	58.7	55.2	52.9	52.1	52.5
57.5°	1038.9	832.9	183.1	77.0	65.3	60.6	55.2	50.9	48.6	48.2	47.8
60°	1158.7	935.9	218.8	75.0	62.2	56.4	51.3	47.4	45.1	44.3	43.9
62.5°	1262.0	1038.6	277.9	73.5	59.9	52.5	47.0	43.5	41.6	40.4	40.4
65°	1386.8	1156.3	368.1	75.4	58.7	48.6	43.1	40.0	38.5	37.3	37.3
67.5°	1557.1	1330.8	436.5	84.7	61.4	45.5	38.9	36.5	35.4	34.6	34.6
70°	1724.6	1428.8	303.6	99.5	68.4	42.8	35.0	33.4	32.6	31.9	31.9
71°	1722.2	1376.3	228.2	103.0	70.7	42.0	33.4	32.3	31.5	31.1	30.7
72.5°	1636.0	1251.2	163.6	99.9	69.6	39.6	31.5	30.3	29.5	29.5	29.2
75°	1467.3	1102.7	127.9	83.6	58.3	35.4	28.0	27.2	26.4	26.0	26.4
77.5°	1202.2	882.3	100.7	66.1	44.3	29.2	24.9	23.7	23.3	22.9	23.3
80°	552.3	384.4	73.5	51.3	33.0	23.3	21.0	20.6	20.2	19.8	19.8
82.5°	132.9	107.7	39.3	34.2	22.5	17.9	16.7	16.7	16.7	16.3	16.3
85°	29.2	29.2	15.9	15.9	13.6	12.4	13.2	13.2	13.2	12.4	12.4
87.5°	1.6	4.7	5.1	7.4	7.8	7.4	8.9	9.3	8.9	8.6	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)