

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-SL3-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P400952 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-SL3-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4455.9 lumens
Efficiency: N/A
Efficacy: 121.1 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

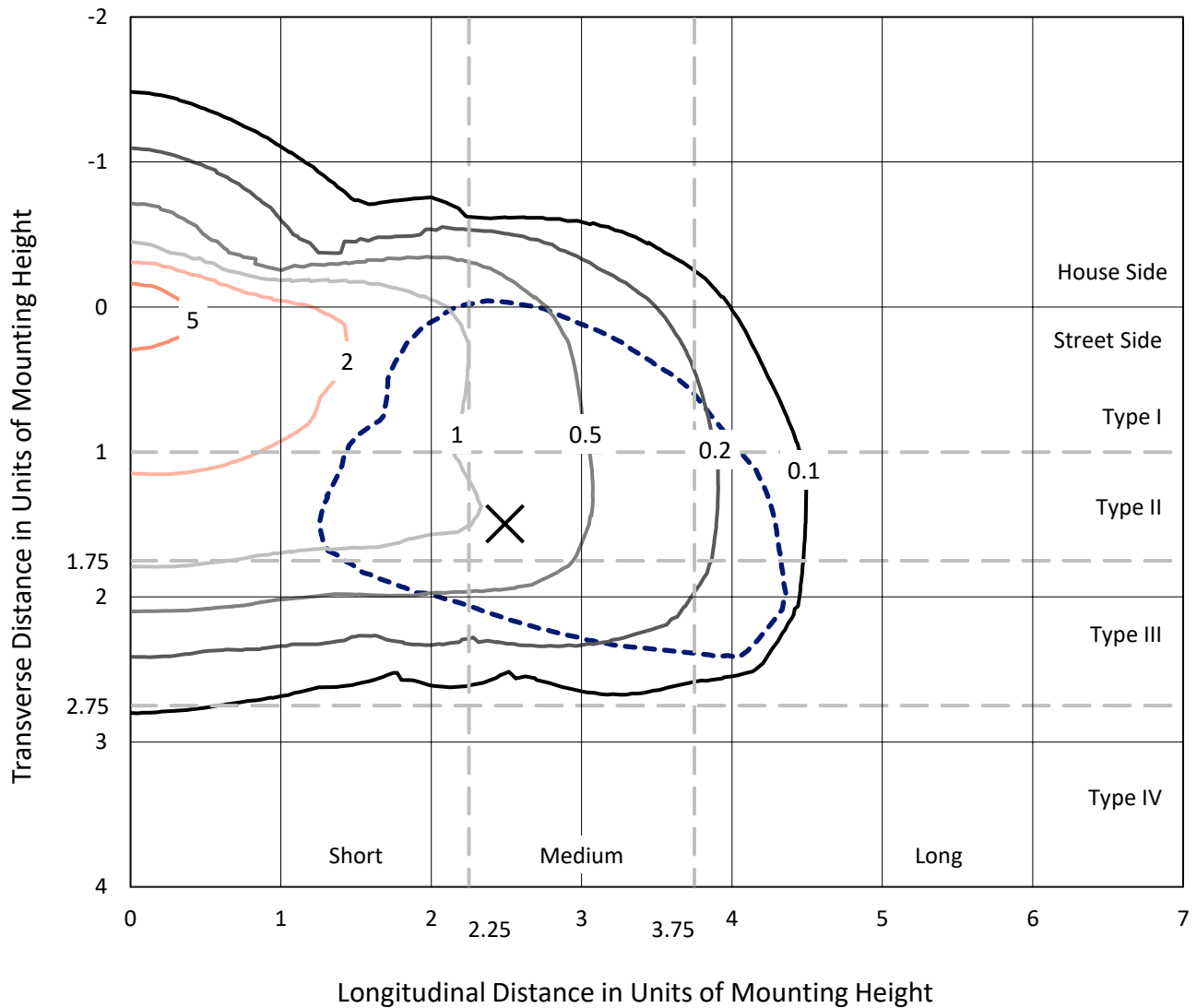
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

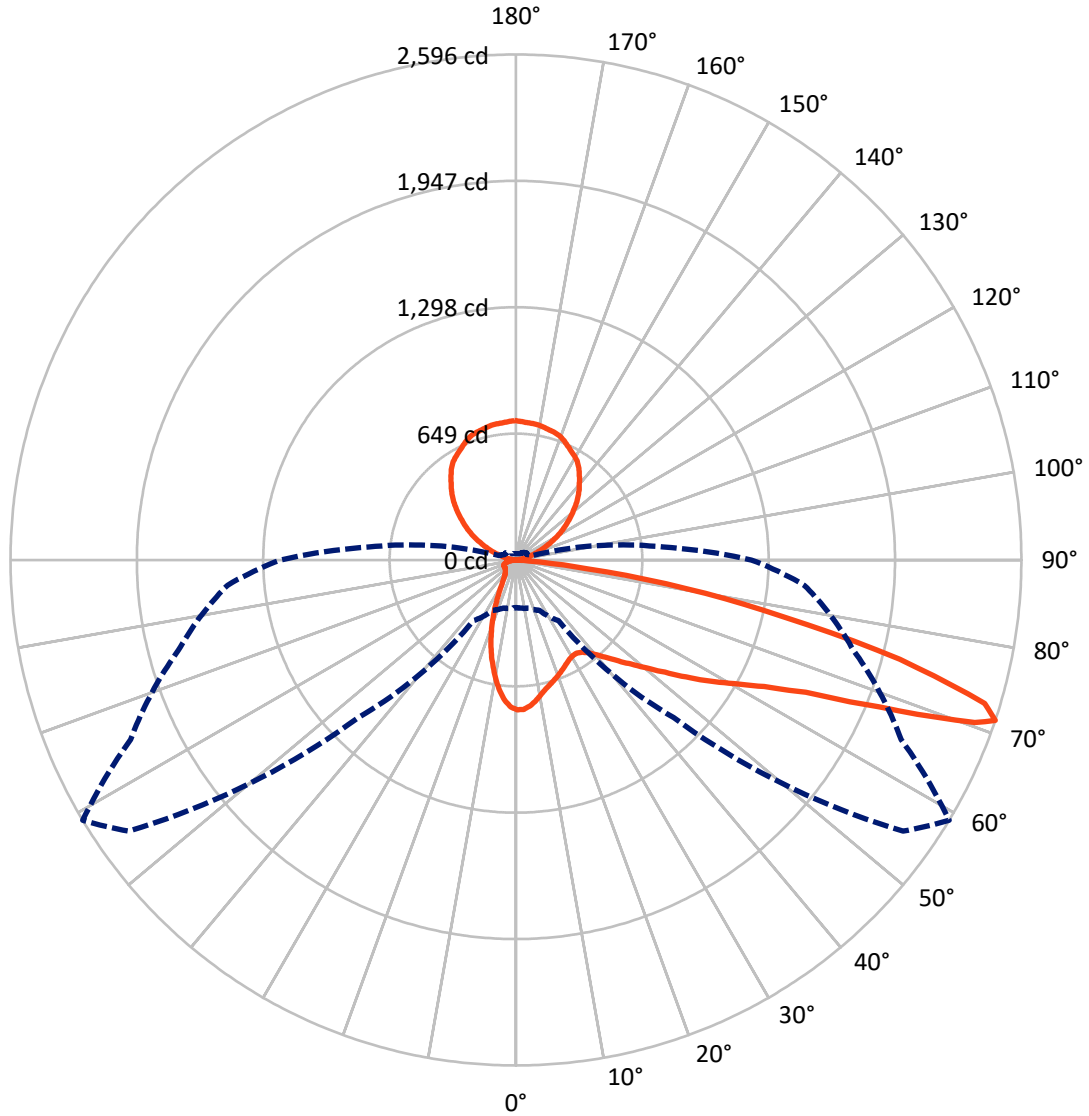
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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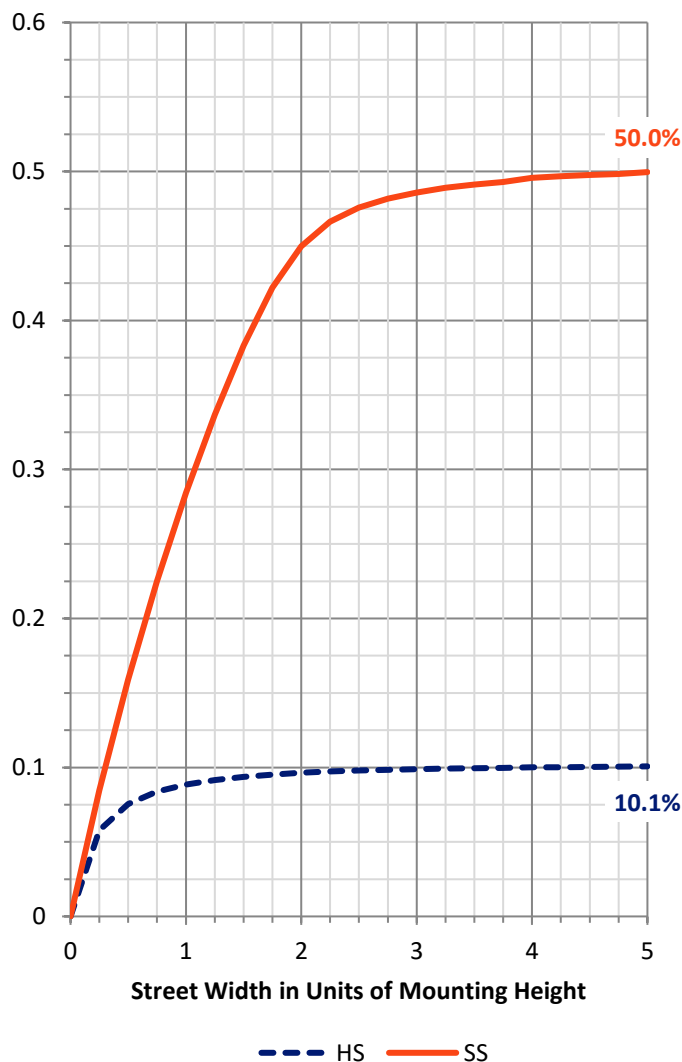
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	455.2	887.0	1342.2
	% Fixture	10.2	19.9	30.1
Street Side	Lumens	2226.8	887.0	3113.8
	% Fixture	50.0	19.9	69.9
Total	Lumens	2682.0	1773.9	4455.9
	% Fixture	60.2	39.8	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	1.5
10°-20°	149.4	3.4
20°-30°	189.8	4.3
30°-40°	242.7	5.4
40°-50°	336.8	7.6
50°-60°	498.6	11.2
60°-70°	673.9	15.1
70°-80°	477.9	10.7
80°-90°	46.4	1.0
90°-100°	8.4	0.2
100°-110°	58.7	1.3
110°-120°	169.9	3.8
120°-130°	279.4	6.3
130°-140°	344.6	7.7
140°-150°	352.5	7.9
150°-160°	297.0	6.7
160°-170°	195.5	4.4
170°-180°	67.8	1.5
0°-90°	2682.0	60.2
0°-180°	4455.9	100.0

Coefficient of Utilization

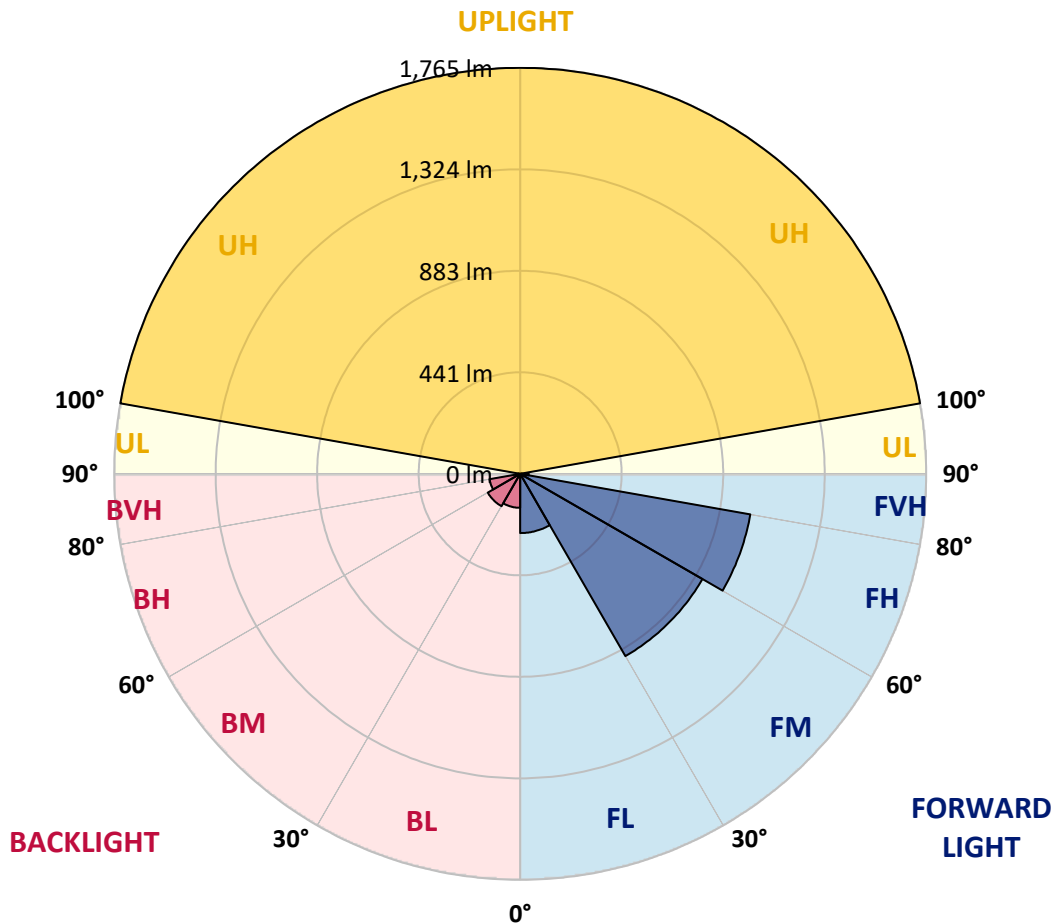


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	257.8	5.8			
FM (30°-60°)	915.3	20.5			
FH (60°-80°)	1016.2	22.8			G1/1800
FVH (80°-90°)	37.6	0.8			G1/100
BL (0°-30°)	147.9	3.3	B1/500		
BM (30°-60°)	162.8	3.7	B0/220		
BH (60°-80°)	135.7	3.0	B1/500		G1/500
BVH (80°-90°)	8.8	0.2			G0/10
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	39.6		U5	

BUG Rating: B1-U5-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5
2.5°	762.9	765.6	766.7	768.7	768.7	769.5	768.7	768.3	769.8	768.3	764.0
5°	729.0	730.2	733.7	737.6	741.5	749.6	752.0	753.5	757.0	757.8	753.5
7.5°	683.2	687.5	692.1	697.2	705.3	716.6	726.3	730.2	736.8	740.7	734.5
10°	644.3	646.7	649.0	657.9	670.8	686.3	696.4	703.8	714.3	719.3	713.5
12.5°	605.5	607.4	612.1	624.1	637.3	656.0	674.2	680.1	692.5	702.6	698.0
15°	575.5	575.5	579.0	592.3	606.2	631.1	652.5	661.4	677.0	691.3	685.5
17.5°	549.1	550.3	552.6	561.2	580.6	606.6	633.8	645.1	664.5	683.2	675.4
20°	534.3	533.6	535.1	539.4	554.9	582.5	615.2	628.4	652.5	678.1	665.7
22.5°	529.3	528.5	527.4	527.0	537.1	560.4	595.4	611.7	641.6	675.4	656.8
25°	533.2	533.2	529.7	523.1	527.7	543.7	577.5	595.0	629.6	673.5	648.6
27.5°	543.7	543.7	538.6	530.1	528.1	535.1	561.9	580.6	619.5	674.6	642.0
30°	558.1	557.7	552.6	545.2	539.4	537.1	554.6	571.7	612.5	679.7	638.9
32.5°	574.4	573.6	571.3	566.2	559.2	549.1	555.3	570.5	610.9	688.6	639.3
35°	593.8	592.6	593.8	591.1	584.5	573.6	569.7	581.8	618.7	705.3	645.9
37.5°	610.9	610.1	616.0	617.5	616.0	601.6	596.5	604.3	636.9	731.8	659.5
40°	625.3	626.1	636.6	647.8	650.2	637.7	634.2	640.8	666.5	764.0	684.0
42.5°	641.2	643.5	659.1	679.3	687.1	678.9	680.9	685.5	703.8	807.9	719.3
45°	656.8	661.8	683.2	709.2	729.0	729.0	735.6	740.3	752.0	863.1	771.0
47.5°	684.0	687.5	710.8	742.3	772.6	782.3	800.5	799.0	807.9	923.7	831.6
50°	719.3	725.2	748.9	781.5	820.0	847.6	868.6	871.7	875.2	985.9	903.5
52.5°	768.3	775.3	794.7	825.0	870.5	915.6	959.9	957.9	953.3	1053.5	985.9
55°	817.6	825.0	843.3	867.8	921.4	990.6	1062.9	1060.1	1038.8	1122.7	1062.1
57.5°	867.8	874.0	893.0	914.4	977.8	1079.2	1171.7	1173.6	1129.7	1199.7	1137.5
60°	888.8	898.1	945.1	986.3	1065.6	1177.5	1282.8	1287.9	1224.1	1277.4	1220.6
62.5°	793.9	805.2	882.9	994.1	1186.1	1367.2	1427.4	1430.5	1338.0	1363.3	1311.6
65°	587.6	587.2	667.6	834.0	1162.0	1621.7	1685.0	1636.1	1479.5	1477.1	1431.7
67.5°	336.5	346.6	372.3	497.4	885.3	1668.7	2143.6	2015.8	1730.1	1654.3	1591.8
70°	271.3	268.9	276.7	310.1	482.7	1372.2	2442.5	2500.7	2086.1	1798.9	1555.6
71°	244.4	247.9	255.7	286.0	380.8	1144.9	2427.7	2596.0	2183.2	1795.0	1486.8
72.5°	210.2	211.0	228.9	264.6	312.8	807.5	2244.6	2517.5	2285.1	1744.1	1385.8
75°	143.0	145.0	172.9	213.0	285.6	383.6	1606.1	2036.3	2079.9	1629.9	1144.5
77.5°	82.0	83.6	103.8	155.8	243.3	270.5	985.9	1407.2	1495.4	1191.9	613.6
80°	42.4	44.3	57.5	98.3	185.8	218.8	565.4	884.9	850.7	411.9	142.2
82.5°	11.3	12.8	16.7	35.4	89.8	142.6	250.7	366.1	261.5	85.5	51.7
85°	0.0	0.0	0.0	0.4	0.8	19.8	52.9	65.7	36.5	16.7	14.0
87.5°	0.0	0.0	0.0	0.0	0.4	0.8	0.8	0.8	0.8	1.2	1.6
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	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.6	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.5	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	28.4	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	49.9	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	72.8	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.8	96.2	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.2	123.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	152.2	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	184.3	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	217.5	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	253.3	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	287.0	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	321.0	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.3	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	387.3	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	422.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	455.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.7	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	512.3	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	541.6	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	571.2	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	595.4	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.9	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	626.3	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	642.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	660.4	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	675.6	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	684.0	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	689.5	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	696.0	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	703.0	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	706.0	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	707.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	712.0	715.0	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°	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5	769.5
2.5°	763.2	763.2	760.9	757.4	753.5	744.6	746.1	739.1	739.9	739.1	739.1
5°	750.0	747.7	741.9	731.0	718.9	703.0	700.7	687.9	680.5	678.1	680.9
7.5°	731.8	725.2	710.4	691.3	668.4	647.8	628.8	611.7	598.9	593.4	591.1
10°	707.7	699.5	675.4	642.0	610.5	578.3	548.3	528.9	503.3	495.5	493.2
12.5°	687.9	673.9	637.7	591.1	542.1	499.4	459.0	418.2	393.7	376.2	373.5
15°	670.8	650.9	599.2	539.0	478.0	418.9	364.1	309.3	274.8	260.0	249.5
17.5°	655.6	629.9	560.8	482.7	407.3	329.2	262.3	209.9	188.1	176.8	177.2
20°	640.1	607.4	520.7	426.3	337.3	250.7	185.4	160.9	150.0	147.7	146.5
22.5°	625.3	581.8	478.4	370.7	265.8	184.2	149.2	137.2	134.5	134.5	134.5
25°	608.6	555.7	435.6	314.0	201.3	145.3	128.2	124.0	124.7	126.3	126.7
27.5°	595.0	533.2	393.3	248.3	156.2	123.6	114.6	113.9	117.0	120.5	120.5
30°	582.9	512.6	347.4	193.9	124.4	108.4	105.3	106.5	109.6	112.7	113.9
32.5°	574.8	493.9	306.2	150.8	106.1	97.9	97.2	98.7	101.8	103.4	104.5
35°	571.3	480.3	261.9	121.6	94.4	90.2	89.8	90.9	92.5	92.9	92.5
37.5°	575.2	471.0	216.5	103.0	87.0	84.7	84.3	84.3	84.3	84.7	84.3
40°	586.4	467.5	175.7	90.9	82.4	80.4	79.3	78.1	77.3	77.3	76.9
42.5°	610.1	472.9	141.1	83.9	78.9	76.6	74.2	72.7	71.5	71.1	71.1
45°	648.2	488.1	117.4	79.3	75.8	72.3	69.6	68.0	66.8	67.2	66.8
47.5°	700.7	513.4	103.8	76.2	72.7	68.0	65.3	63.7	63.3	64.5	64.9
50°	760.1	549.1	95.6	73.8	70.3	64.5	61.4	60.2	60.6	63.0	63.3
52.5°	830.1	595.4	92.1	72.3	68.4	61.4	58.7	57.5	58.3	61.0	61.4
55°	905.5	648.2	97.2	73.1	66.5	59.5	56.3	54.8	56.0	58.3	58.7
57.5°	982.0	713.5	114.3	73.4	64.1	57.9	54.0	51.7	52.5	54.4	54.8
60°	1059.4	778.4	143.8	73.8	63.3	56.3	52.1	48.6	49.0	50.1	50.5
62.5°	1150.3	860.8	182.6	75.4	64.1	55.2	48.6	44.7	44.7	45.5	45.5
65°	1288.3	983.6	208.3	74.6	66.1	54.0	45.1	41.2	40.8	41.2	41.2
67.5°	1387.4	999.9	145.3	70.3	67.2	54.4	43.1	38.1	37.3	36.9	36.9
70°	1282.4	841.4	96.0	66.5	65.3	55.2	41.6	36.1	34.6	33.4	33.0
71°	1209.8	758.2	89.0	64.9	63.7	54.4	40.8	35.0	33.4	32.6	32.3
72.5°	1102.1	676.6	82.0	62.6	60.2	52.9	39.6	33.8	31.9	30.7	30.3
75°	870.9	518.8	71.9	57.5	52.1	43.5	36.5	31.5	29.5	28.0	27.6
77.5°	393.7	206.4	55.2	49.7	42.4	34.6	31.9	29.1	26.8	25.6	25.3
80°	110.0	78.5	40.4	39.3	31.9	26.8	25.6	24.9	24.1	22.5	22.5
82.5°	50.9	45.9	28.8	27.6	21.8	19.0	20.2	20.6	20.6	19.0	18.7
85°	14.0	15.2	13.2	14.8	14.0	12.8	14.8	15.9	16.7	15.2	14.0
87.5°	1.2	2.7	3.5	5.8	7.0	7.4	9.3	11.3	11.7	9.3	9.7
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)