

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: **ENV-SA1A-740-U-T2-ULG**

Issue Date: 3/30/2022

Test Information

Test Method: LM-79-08
Report Number:
REPORT IS A COMBINATION OF REPORTS P400968 AND P226775
Test Lab: INNOVATION CENTER
Issue Date: 3/30/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1A-740-U-T2-ULG
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4494.9 lumens
Efficiency: N/A
Efficacy: 122.1 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

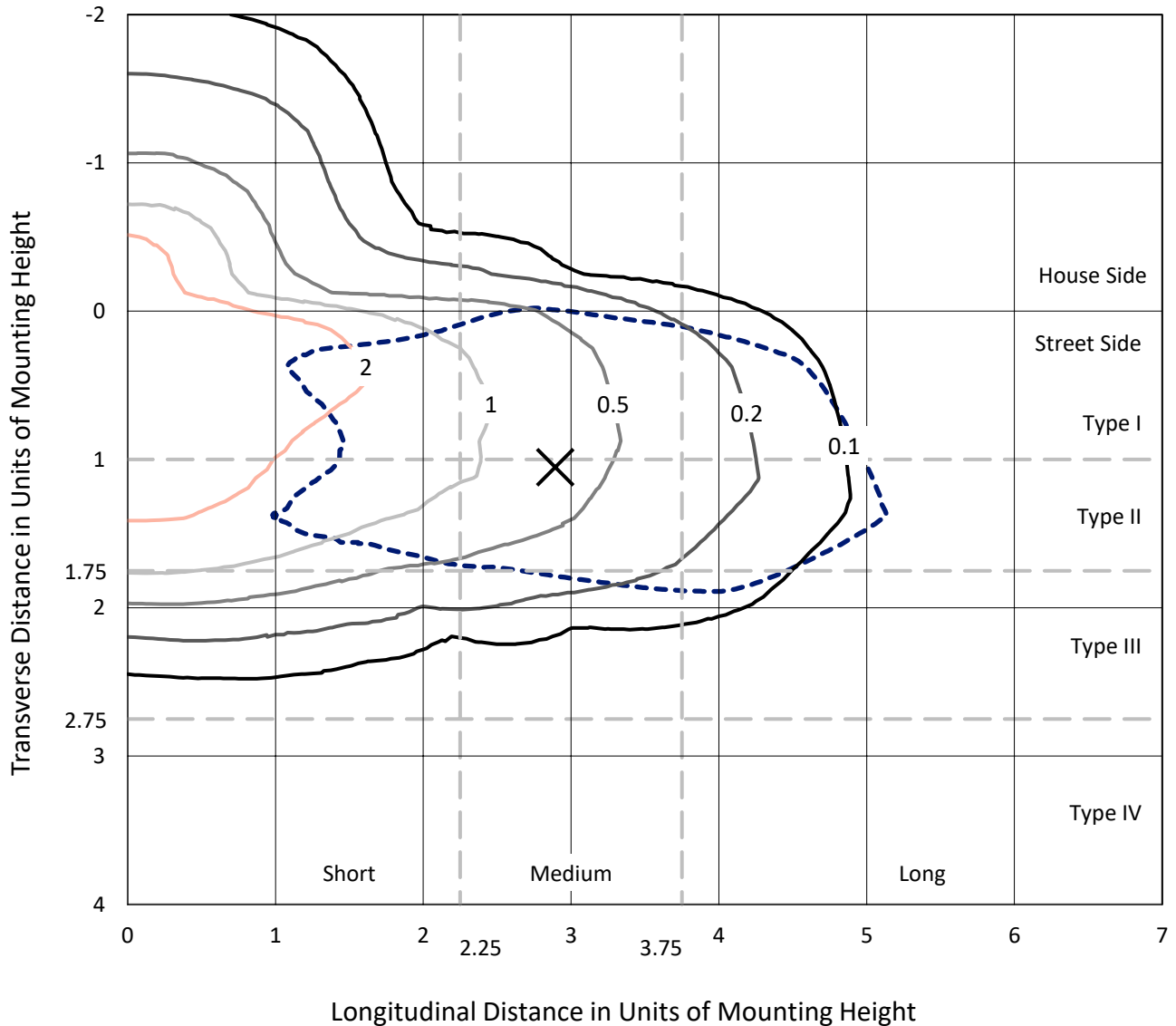
Input Watts (W): 36.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

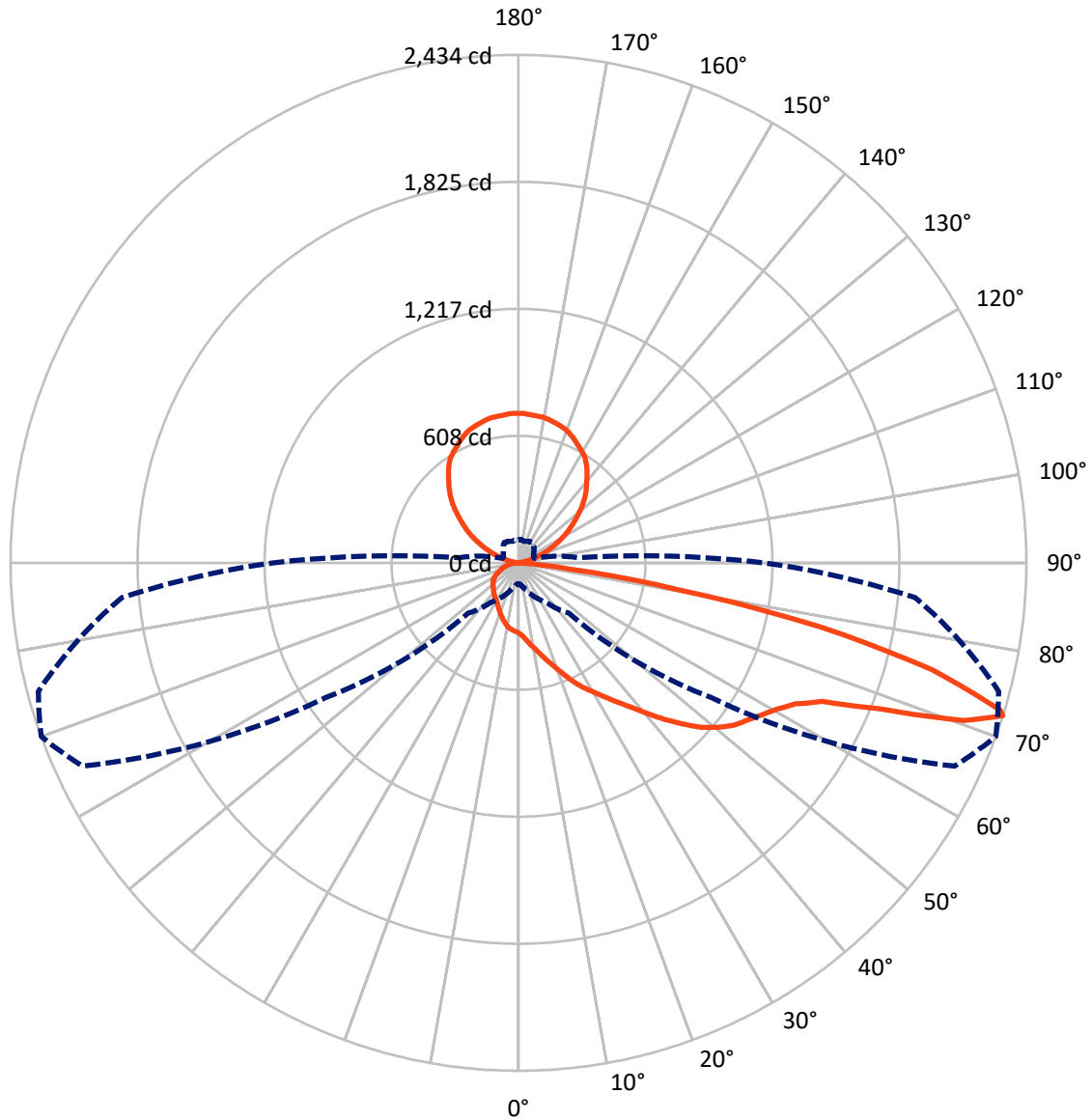
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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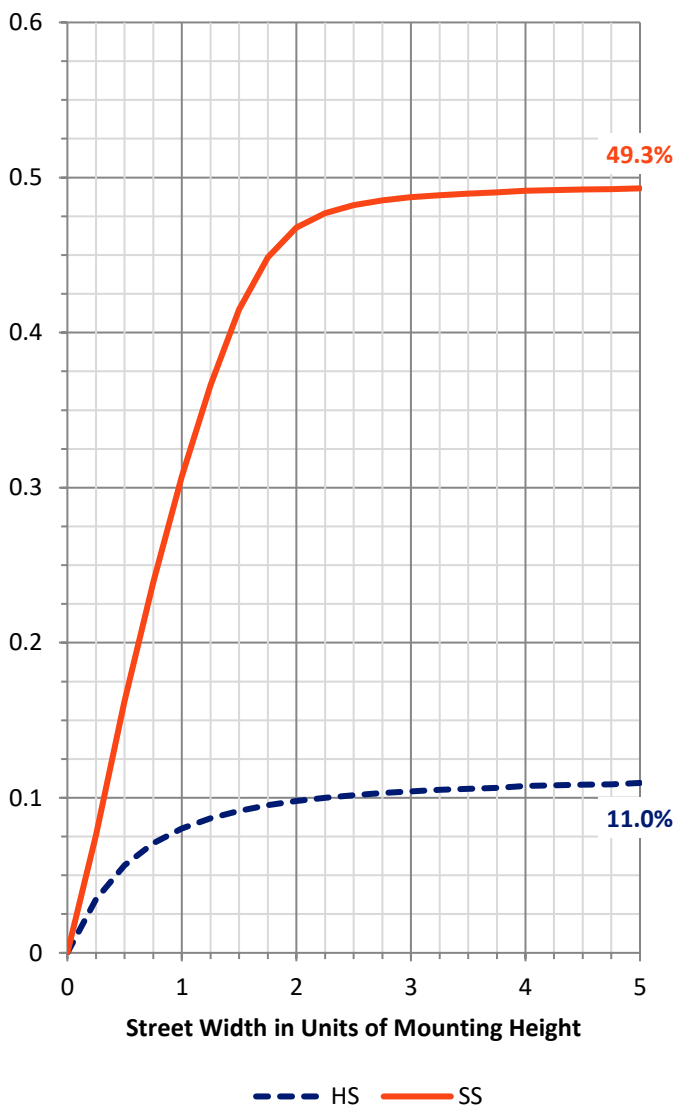
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	505.6	887.0	1392.5
	% Fixture	11.2	19.7	31.0
Street Side	Lumens	2215.4	887.0	3102.4
	% Fixture	49.3	19.7	69.0
Total	Lumens	2721.0	1773.9	4494.9
	% Fixture	60.5	39.5	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.9	0.8
10°-20°	108.7	2.4
20°-30°	192.4	4.3
30°-40°	286.1	6.4
40°-50°	415.0	9.2
50°-60°	567.0	12.6
60°-70°	620.8	13.8
70°-80°	441.6	9.8
80°-90°	55.4	1.2
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	7.8
150°-160°	297.0	6.6
160°-170°	195.5	4.4
170°-180°	67.8	1.5
0°-90°	2721.0	60.5
0°-180°	4494.9	100.0

Coefficient of Utilization

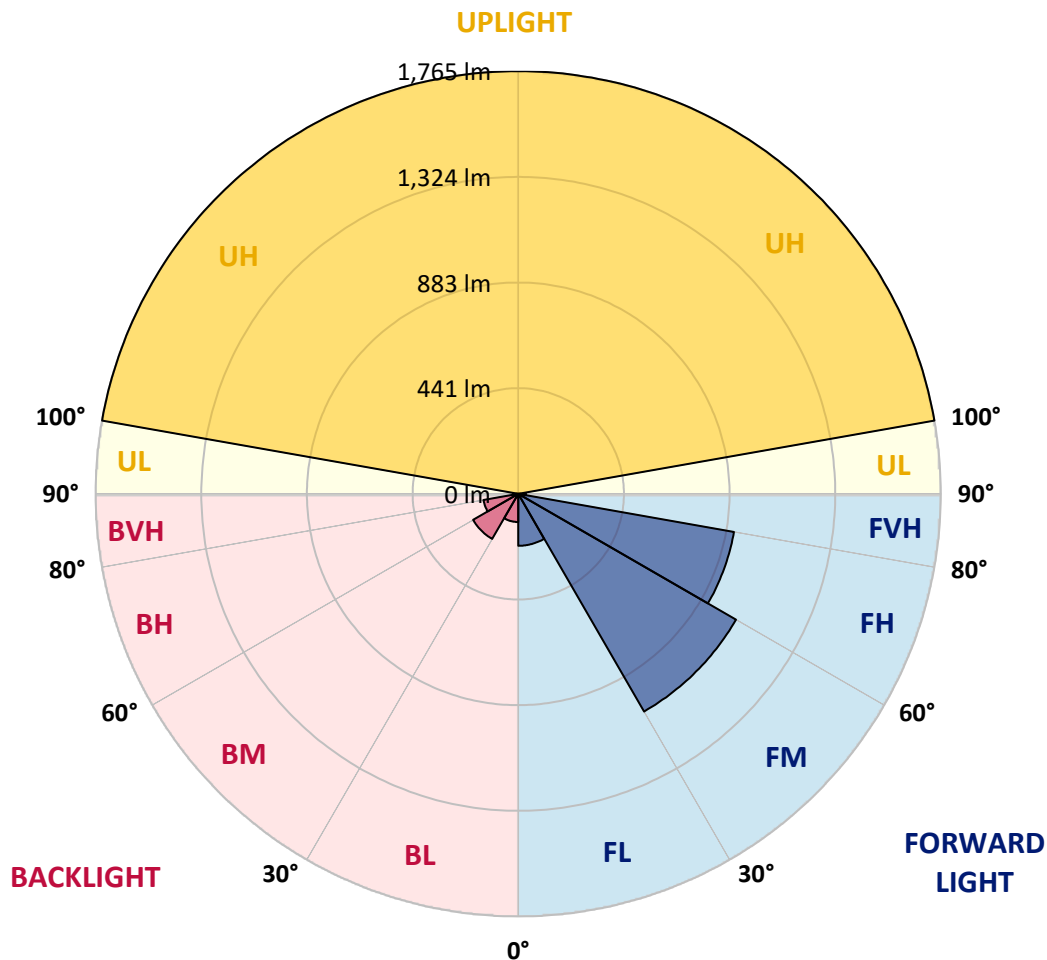


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	217.2	4.8			
FM (30°-60°)	1050.5	23.4			
FH (60°-80°)	915.0	20.4			G1/1800
FVH (80°-90°)	32.7	0.7			G1/100
BL (0°-30°)	117.8	2.6	B1/500		
BM (30°-60°)	217.7	4.8	B0/220		
BH (60°-80°)	147.4	3.3	B1/500		G1/500
BVH (80°-90°)	22.7	0.5			G1/100
UL (90°-100°)	8.4	0.2		U1/10	
UH (100°-180°)	1765.5	39.3		U5	

BUG Rating: B1-U5-G1
 Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0
2.5°	374.7	372.7	373.1	369.6	367.7	363.0	358.0	352.5	349.8	347.9	341.3
5°	411.2	411.2	412.8	410.0	402.7	394.9	385.9	373.9	368.8	361.9	348.6
7.5°	441.5	442.3	442.3	441.5	434.9	426.4	414.7	399.9	391.8	381.7	361.1
10°	457.1	459.0	460.6	461.7	461.0	455.9	442.7	427.5	416.3	403.1	375.5
12.5°	464.8	465.6	468.3	474.2	478.8	482.7	473.0	455.1	443.9	427.9	391.0
15°	473.4	473.4	476.1	483.5	492.4	502.9	501.8	487.8	475.7	455.9	410.8
17.5°	478.8	480.4	485.4	493.2	505.7	523.1	532.1	524.3	508.8	487.8	432.2
20°	475.7	476.9	487.0	502.2	518.1	540.6	563.2	563.2	548.4	524.3	455.9
22.5°	481.6	483.5	490.5	504.9	526.6	555.8	592.7	605.5	592.7	566.3	483.5
25°	504.1	503.3	509.2	515.0	533.6	569.8	618.0	651.0	639.4	610.2	510.3
27.5°	536.8	536.8	539.9	539.5	546.1	581.4	640.1	691.1	681.3	646.4	532.5
30°	574.5	575.2	574.5	574.1	572.9	597.4	660.0	726.8	721.8	687.2	552.7
32.5°	620.3	622.3	619.2	611.4	606.7	620.3	676.7	766.8	768.4	727.6	572.5
35°	677.8	680.9	669.3	658.0	646.4	652.6	696.1	804.5	820.1	773.5	596.6
37.5°	735.4	740.4	738.5	708.2	691.8	691.4	724.9	851.6	877.6	833.3	630.8
40°	783.9	788.2	790.6	763.0	740.4	739.6	767.2	900.5	948.4	902.1	671.2
42.5°	816.2	820.1	827.1	810.8	789.8	799.5	813.9	949.1	1024.5	986.1	721.0
45°	851.2	854.3	858.6	849.2	838.4	866.3	873.0	1003.2	1100.7	1076.2	779.3
47.5°	888.5	891.6	893.9	886.9	883.1	922.3	930.9	1058.3	1177.7	1169.5	836.0
50°	929.7	930.9	933.2	929.7	930.9	973.2	978.7	1106.9	1238.7	1266.7	895.1
52.5°	1000.4	1002.0	1002.8	986.1	980.2	1005.5	1017.1	1158.6	1292.3	1347.5	947.2
55°	1056.4	1061.8	1086.3	1075.4	1061.5	1028.4	1049.0	1200.2	1330.4	1422.9	1001.6
57.5°	1010.5	1023.0	1084.0	1135.3	1174.6	1095.7	1086.7	1243.0	1374.3	1487.8	1065.0
60°	877.2	895.5	984.1	1091.0	1218.1	1250.0	1164.1	1296.2	1422.1	1555.5	1133.0
62.5°	608.3	626.9	749.4	920.0	1144.6	1338.2	1375.9	1390.7	1488.6	1624.6	1221.6
65°	291.5	310.5	411.6	591.6	904.0	1281.4	1622.7	1586.5	1600.5	1712.5	1352.2
67.5°	185.4	195.5	235.1	322.2	525.9	998.1	1711.3	1976.8	1865.6	1915.0	1612.2
70°	135.6	138.0	172.2	223.1	312.1	583.0	1511.1	2350.3	2263.2	2257.8	1925.9
72°	100.3	104.2	130.6	178.0	230.9	340.9	1124.4	2304.8	2433.5	2381.8	1907.2
72.5°	94.4	97.6	120.5	168.3	218.0	299.3	1007.4	2252.0	2412.5	2385.3	1871.4
75°	68.8	71.1	82.4	119.7	168.7	173.3	537.9	1728.4	2048.7	2277.2	1696.5
77.5°	47.4	49.0	54.8	73.5	115.4	117.4	228.1	1180.0	1478.5	1820.9	1304.8
80°	28.8	29.5	33.0	40.0	73.5	69.6	94.1	616.8	771.5	989.9	605.2
82.5°	12.0	12.4	14.4	15.9	31.1	33.0	38.1	201.3	255.4	309.4	174.5
85°	0.0	0.0	0.4	0.4	0.8	3.5	5.4	24.9	37.7	45.1	31.5
87.5°	0.0	0.0	0.4	0.4	0.4	0.8	0.8	1.2	1.6	1.6	2.3
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	6.6	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	8.2	7.7	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	10.2	9.7	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	26.6	25.1	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	48.1	45.5	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	71.6	69.0	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	96.2	94.1	92.1	89.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.8	122.8	121.7	118.7
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	153.4	152.9	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	186.2	184.6	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	219.9	217.4	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	255.7	253.2	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	289.5	286.9	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	322.2	319.7	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	424.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	458.3	457.8	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	485.9	486.4	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	513.5	514.5	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	574.4	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	598.4	598.9	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	613.8	615.3	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	628.1	630.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	645.5	648.0	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	662.9	663.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	679.2	677.7	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	686.4	685.9	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	692.5	694.1	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	699.7	701.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	704.8	707.4	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	707.9	708.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	711.0	711.5	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	715.0	716.1	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°	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0	337.0
2.5°	338.1	336.6	331.9	328.0	324.9	319.9	319.5	315.6	315.6	314.4	313.7
5°	343.6	338.5	329.2	320.7	314.4	307.0	303.6	299.3	296.6	295.0	295.4
7.5°	350.6	342.0	326.1	311.7	300.1	290.7	285.3	281.8	279.8	279.1	279.1
10°	360.3	347.1	321.0	299.3	284.5	277.5	274.8	274.4	274.8	275.2	275.6
12.5°	371.2	350.6	311.7	284.5	272.8	270.1	271.7	275.2	278.3	279.5	279.5
15°	382.5	352.9	298.9	270.9	263.9	266.6	272.1	278.7	283.7	286.8	287.6
17.5°	394.1	353.3	285.3	258.5	256.1	263.1	272.8	283.3	291.5	296.6	297.3
20°	406.5	352.5	269.3	247.2	248.4	260.0	273.6	288.0	298.9	305.5	306.3
22.5°	420.2	349.4	253.8	236.3	241.8	256.9	272.8	289.6	301.2	309.0	310.5
25°	433.4	343.2	238.3	226.6	237.1	253.8	269.0	283.3	294.6	302.0	303.9
27.5°	440.4	330.0	223.5	219.2	233.6	249.1	260.0	269.7	276.0	280.6	282.6
30°	441.5	311.3	211.4	214.2	229.7	242.5	248.7	250.3	249.1	250.7	248.7
32.5°	439.2	291.1	201.7	210.3	223.5	233.2	234.8	230.1	223.1	213.4	213.8
35°	437.6	269.0	193.9	204.8	215.3	221.5	218.8	211.4	198.2	186.6	185.8
37.5°	440.4	248.7	187.3	197.8	204.8	207.5	203.7	193.9	182.3	172.2	171.0
40°	448.1	234.0	181.1	190.1	193.6	195.5	190.8	182.3	177.6	170.2	169.1
42.5°	463.3	223.9	175.3	181.5	183.1	185.0	180.3	174.5	178.8	177.2	177.2
45°	484.3	219.2	170.2	173.3	174.9	178.0	175.3	170.2	174.9	166.0	164.4
47.5°	511.5	220.8	166.7	165.2	169.8	175.3	172.2	166.0	164.4	148.5	145.8
50°	540.3	228.9	163.2	158.6	164.4	171.8	167.9	158.2	148.9	140.7	139.1
52.5°	574.1	242.5	160.1	151.2	158.2	167.9	165.2	154.7	145.0	139.1	138.0
55°	611.4	255.7	156.2	142.6	150.0	166.7	166.0	152.4	139.5	136.8	136.0
57.5°	653.4	266.6	151.6	132.9	141.9	163.2	162.5	146.9	138.0	135.6	135.3
60°	705.8	279.5	143.4	121.7	133.7	156.6	155.9	144.2	134.5	132.5	131.8
62.5°	777.3	303.2	129.4	111.2	125.2	145.0	149.6	138.8	129.4	129.0	129.0
65°	895.1	349.0	115.0	102.2	115.4	133.7	141.5	132.5	124.8	126.7	126.7
67.5°	1117.8	410.8	100.3	93.7	106.1	122.8	134.5	126.3	119.7	123.6	123.6
70°	1289.6	387.9	88.6	85.5	96.8	113.1	125.5	119.7	113.5	120.1	119.3
72°	1176.5	284.1	80.8	78.9	89.0	104.9	117.8	113.5	106.9	112.3	110.8
72.5°	1129.5	258.1	78.5	77.0	86.7	103.4	116.2	111.9	104.9	110.4	108.1
75°	985.3	217.7	68.4	67.6	77.0	92.9	106.1	103.8	96.8	99.9	97.6
77.5°	815.4	183.5	57.5	59.1	65.7	82.8	95.6	93.3	86.7	86.3	85.9
80°	382.5	102.2	47.4	48.6	55.2	70.7	82.4	80.8	74.6	73.8	72.7
82.5°	110.8	49.0	36.5	37.3	44.3	57.9	70.7	70.0	65.3	64.1	61.4
85°	20.6	15.9	19.8	23.3	32.3	48.2	64.5	63.0	56.0	50.9	47.0
87.5°	1.2	3.1	6.6	11.3	20.6	36.1	52.1	50.9	44.7	38.5	38.9
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°	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)