

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: P565384

Luminaire Tested: **MSA-SA2A-760-U-T1**

Issue Date: 8/19/2021

Test Information

Test Method: LM-79-08
Report Number: P565384
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2108-334-1)
Test Lab: INNOVATIONS CENTER
Issue Date: 8/19/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-760-U-T1
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE I OPTICS.
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7187 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type I - Medium
BUG Rating: B3 - U0 - G3

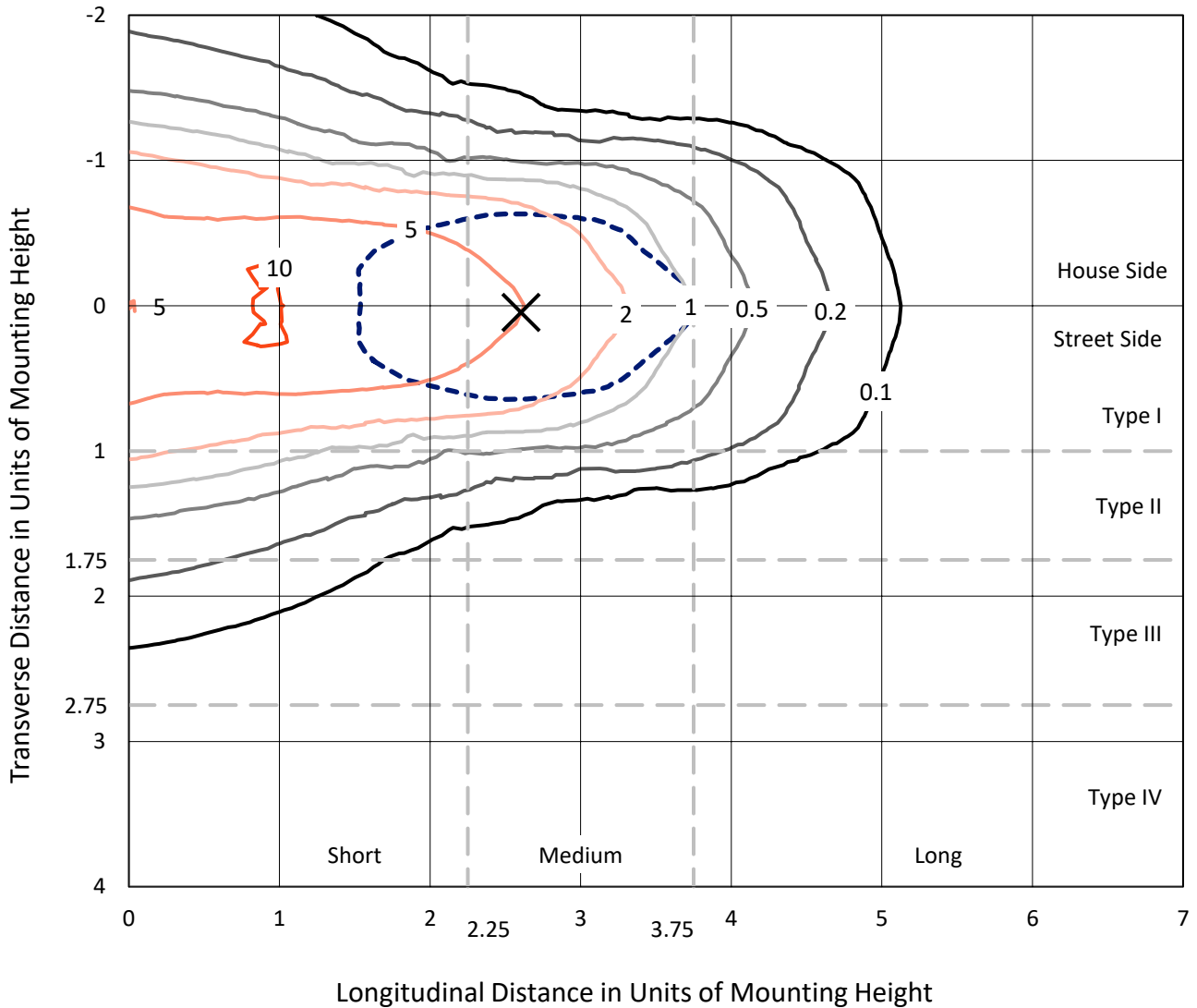
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

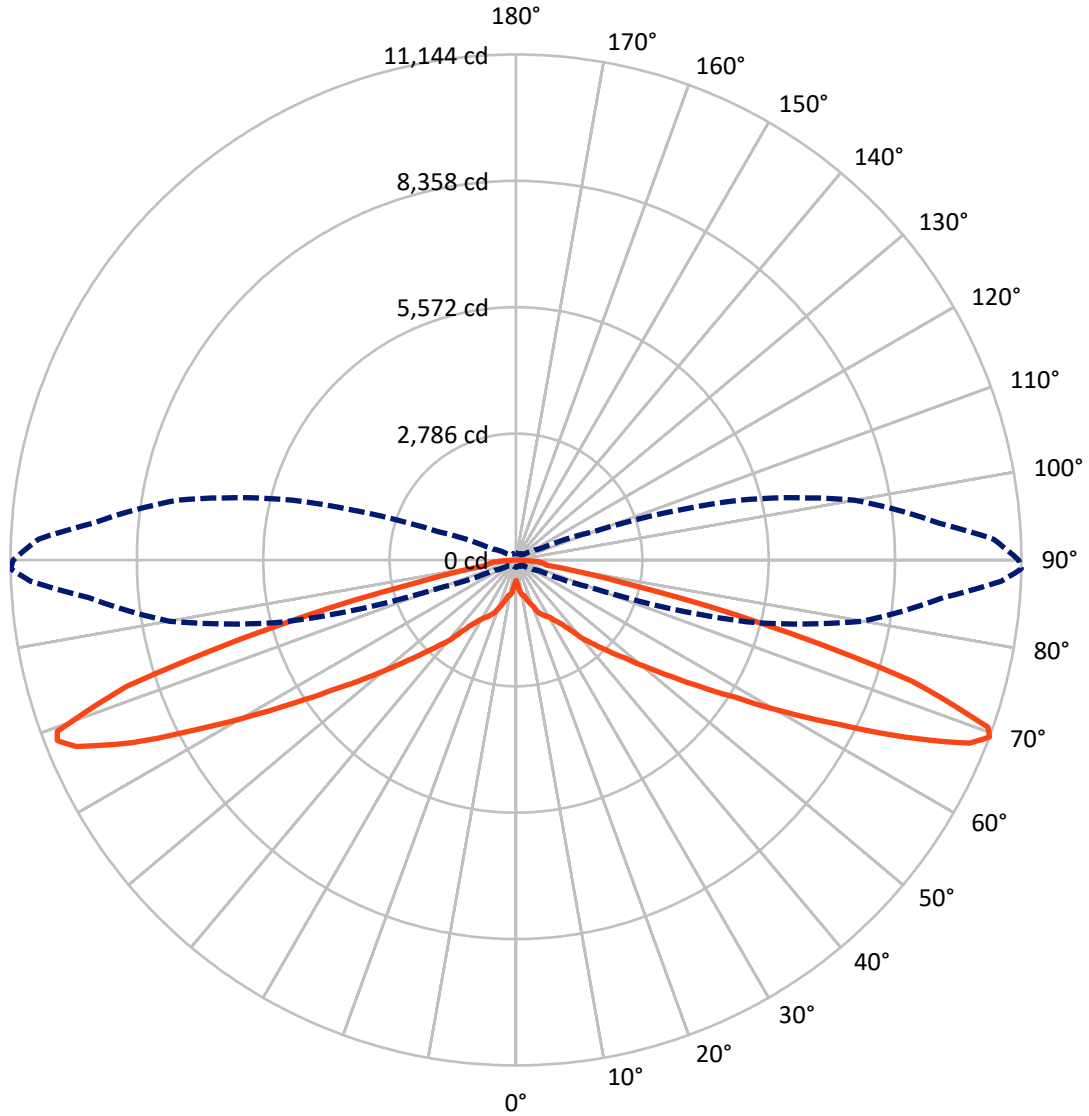
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type I - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 89-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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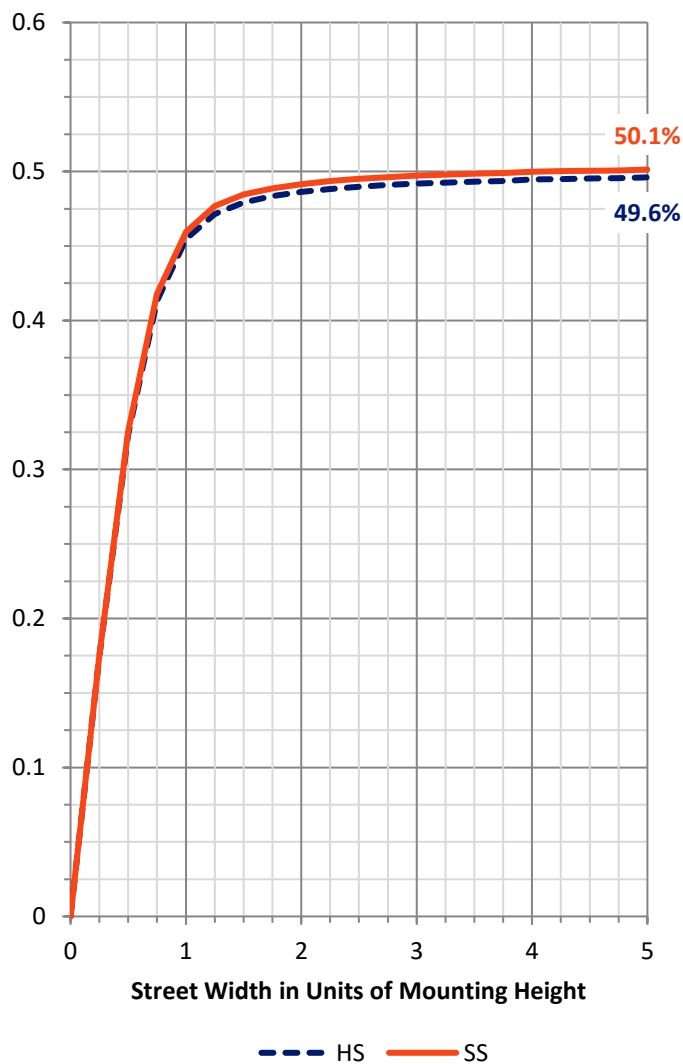
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3593.4	0.0	3593.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3593.6	0.0	3593.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	7187.0	0.0	7187.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.2	0.8
10°-20°	263.5	3.7
20°-30°	525.8	7.3
30°-40°	795.2	11.1
40°-50°	1154.3	16.1
50°-60°	1516.6	21.1
60°-70°	1850.0	25.7
70°-80°	935.3	13.0
80°-90°	89.2	1.2
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°	7187.0	100.0
0°-180°	7187.0	100.0

Coefficient of Utilization



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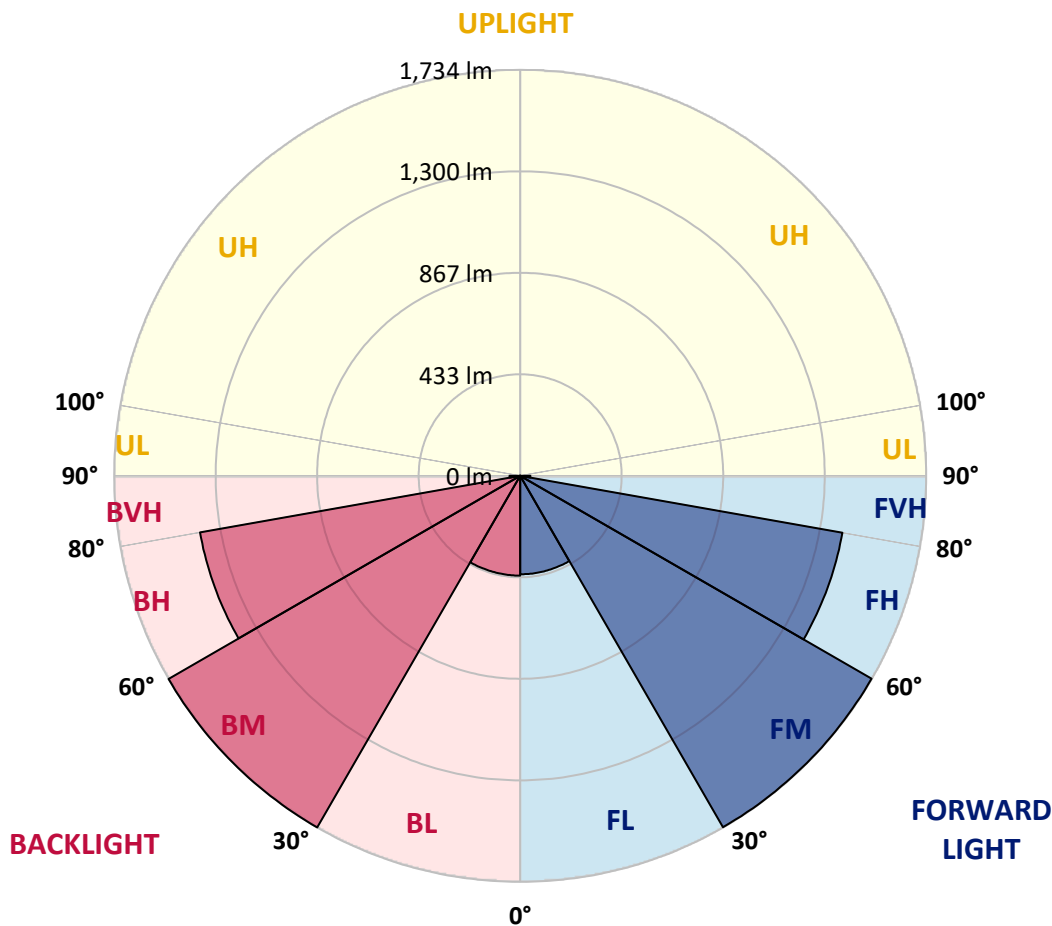
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	420.3	5.8			
FM (30°-60°)	1732.5	24.1			
FH (60°-80°)	1397.1	19.4			G1/1800
FVH (80°-90°)	43.7	0.6			G1/100
BL (0°-30°)	426.2	5.9	B1/500		
BM (30°-60°)	1733.6	24.1	B2/2500		
BH (60°-80°)	1388.2	19.3	B3/2500		G3/2500
BVH (80°-90°)	45.4	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	80°
0°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2
2.5°	534.2	472.6	467.3	452.5	463.3	467.3	457.9	444.5	459.2	467.3	452.5
5°	673.5	582.4	551.6	526.2	475.3	453.9	475.3	530.2	536.9	570.4	561.0
7.5°	741.7	727.0	688.2	603.8	522.2	476.6	534.2	613.2	653.4	685.5	719.0
10°	792.6	784.6	716.3	656.1	622.6	625.3	626.6	652.0	686.9	740.4	759.2
12.5°	804.7	802.0	812.7	799.3	802.0	816.7	802.0	795.3	815.4	832.8	814.0
15°	882.3	881.0	885.0	887.7	941.2	964.0	941.2	921.2	906.4	891.7	922.5
17.5°	935.9	929.2	930.5	956.0	1016.2	1079.1	1067.1	1040.3	1006.8	1026.9	1052.4
20°	965.3	953.3	961.3	972.0	1073.8	1143.4	1151.4	1115.3	1095.2	1120.7	1142.1
22.5°	993.5	974.7	946.6	957.3	1051.0	1151.4	1190.3	1180.9	1195.6	1203.7	1199.7
25°	960.0	972.0	941.2	972.0	1067.1	1159.5	1237.1	1292.0	1293.4	1289.4	1318.8
27.5°	939.9	930.5	878.3	957.3	1036.3	1093.9	1292.0	1384.4	1412.5	1326.8	1384.4
30°	905.1	919.8	848.9	914.5	1014.9	1111.3	1355.0	1487.5	1446.0	1435.3	1448.7
32.5°	883.7	874.3	840.8	877.0	953.3	1163.5	1395.1	1547.8	1600.0	1574.5	1571.9
35°	848.9	855.6	803.3	842.2	949.3	1119.3	1421.9	1699.1	1779.4	1759.3	1743.2
37.5°	854.2	831.5	794.0	822.1	923.8	1143.4	1488.9	1845.0	1972.2	1982.9	1909.3
40°	814.0	800.7	744.4	791.3	875.6	1128.7	1504.9	2011.0	2226.6	2274.8	2169.0
42.5°	756.5	739.1	706.9	759.2	847.5	1056.4	1527.7	2210.5	2485.0	2585.4	2489.0
45°	673.5	650.7	634.6	704.3	785.9	1037.6	1503.6	2376.5	2732.7	2870.6	2867.9
47.5°	573.0	558.3	550.3	623.9	735.1	990.8	1454.0	2481.0	2905.4	3258.9	3205.3
50°	459.2	448.5	447.2	524.8	649.4	894.4	1397.8	2533.2	3167.8	3615.0	3661.9
52.5°	368.2	360.2	358.8	421.8	543.6	764.5	1280.0	2573.4	3418.2	4019.4	4260.4
55°	287.9	279.8	281.2	333.4	432.5	625.3	1100.6	2527.8	3637.8	4433.1	4889.6
57.5°	235.6	227.6	229.0	258.4	330.7	478.0	877.0	2428.8	3736.9	4944.5	5623.4
60°	207.5	199.5	195.5	208.9	254.4	360.2	652.0	2043.2	3752.9	5369.0	6420.0
62.5°	192.8	184.8	180.8	184.8	210.2	275.8	470.0	1618.7	3660.5	5731.8	7149.7
65°	179.4	172.7	167.4	171.4	184.8	219.6	342.8	1108.6	3177.2	5897.8	7679.9
67.5°	164.7	159.3	154.0	159.3	168.7	184.8	266.4	701.6	2381.9	5682.3	7900.8
69°	156.7	148.6	145.9	150.0	159.3	170.0	230.3	559.7	1811.5	5272.6	7766.9
70°	148.6	143.3	139.2	145.9	154.0	162.0	207.5	475.3	1420.6	4746.4	7434.9
72.5°	131.2	127.2	124.5	131.2	137.9	143.3	170.0	338.7	823.4	3232.1	5896.5
75°	115.1	111.1	109.8	115.1	120.5	123.2	143.3	233.0	486.0	1691.0	3537.4
77.5°	96.4	91.0	92.4	99.1	103.1	104.4	120.5	167.4	286.5	765.8	1638.8
80°	71.0	71.0	76.3	81.7	81.7	81.7	96.4	121.8	174.1	352.1	680.2
82.5°	49.5	50.9	52.2	60.3	61.6	56.2	73.6	88.4	108.5	154.0	235.6
85°	28.1	29.5	30.8	36.2	37.5	33.5	48.2	56.2	62.9	76.3	123.2
87.5°	10.7	12.1	16.1	18.7	20.1	14.7	22.8	26.8	26.8	32.1	54.9
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):

	85°	87.5°	89°	90°	92.5°	95°	100°	105°	110°	115°	125°
0°	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2	455.2
2.5°	483.3	492.7	510.1	514.1	499.4	483.3	447.2	470.0	479.3	461.9	467.3
5°	598.5	618.6	640.0	614.6	598.5	587.8	570.4	571.7	562.3	531.5	480.7
7.5°	728.4	705.6	721.7	739.1	713.6	715.0	731.0	697.6	672.1	619.9	524.8
10°	788.6	788.6	792.6	792.6	781.9	781.9	780.6	727.0	696.2	673.5	646.7
12.5°	792.6	791.3	807.4	795.3	798.0	800.7	807.4	831.5	823.4	794.0	818.1
15°	903.8	898.4	903.8	902.4	906.4	918.5	913.1	907.8	909.1	930.5	966.7
17.5°	1008.2	1010.9	1005.5	1014.9	1014.9	1022.9	1041.7	1022.9	1006.8	1047.0	1075.1
20°	1128.7	1119.3	1097.9	1114.0	1118.0	1119.3	1150.1	1127.3	1104.6	1119.3	1152.8
22.5°	1250.5	1249.2	1251.9	1253.2	1258.6	1238.5	1197.0	1190.3	1205.0	1184.9	1188.9
25°	1325.5	1326.8	1333.5	1334.9	1312.1	1333.5	1348.3	1304.1	1304.1	1300.1	1273.3
27.5°	1416.6	1396.5	1404.5	1415.2	1405.8	1411.2	1393.8	1329.5	1397.8	1407.2	1300.1
30°	1478.1	1468.8	1459.4	1470.1	1479.5	1503.6	1454.0	1447.3	1452.7	1502.2	1361.7
32.5°	1608.0	1621.4	1604.0	1586.6	1604.0	1598.6	1577.2	1567.8	1634.8	1569.2	1404.5
35°	1728.5	1733.9	1735.2	1732.5	1743.2	1724.5	1724.5	1759.3	1779.4	1708.4	1417.9
37.5°	2019.1	2000.3	1961.5	1942.7	1976.2	2004.3	1921.3	1962.8	1954.8	1834.3	1518.3
40°	2227.9	2270.8	2282.8	2277.5	2282.8	2202.5	2219.9	2250.7	2214.5	2015.0	1483.5
42.5°	2533.2	2560.0	2550.6	2538.5	2543.9	2529.2	2477.0	2590.8	2460.9	2217.2	1537.1
45°	2811.7	2871.9	2875.9	2834.4	2867.9	2815.7	2837.1	2877.3	2746.1	2368.5	1522.3
47.5°	3143.7	3268.2	3221.4	3221.4	3254.9	3142.4	3193.3	3246.8	2898.7	2470.3	1442.0
50°	3635.1	3702.0	3699.4	3687.3	3702.0	3641.8	3633.8	3627.1	3133.0	2566.7	1392.5
52.5°	4190.7	4281.8	4247.0	4260.4	4280.4	4166.6	4256.3	4011.3	3426.2	2602.8	1280.0
55°	4900.4	4963.3	4928.5	4860.2	4951.2	4878.9	4908.4	4430.4	3629.7	2499.7	1092.5
57.5°	5745.2	5777.3	5719.8	5713.1	5773.3	5695.7	5646.1	4901.7	3735.5	2422.1	873.0
60°	6732.0	6832.4	6796.2	6738.7	6793.6	6725.3	6350.4	5302.0	3714.1	2059.2	676.1
62.5°	7915.5	8017.3	7977.1	7938.3	7973.1	7795.0	7011.8	5618.0	3617.7	1632.1	494.1
65°	8892.9	9352.2	9412.4	9413.8	9245.1	8832.7	7539.3	5741.2	3108.9	1139.4	361.5
67.5°	9535.6	10490.2	10787.5	10680.4	10293.4	9352.2	7752.2	5500.2	2400.6	720.3	270.5
69°	9462.0	10713.8	11143.6	11083.4	10539.8	9344.2	7586.2	5094.5	1834.3	573.0	229.0
70°	9121.9	10530.4	11040.5	11067.3	10383.1	8985.3	7290.3	4628.6	1483.5	488.7	210.2
72.5°	7279.6	8677.4	9125.9	9301.3	8622.5	7195.2	5978.2	3265.6	859.6	341.4	170.0
75°	4509.4	5261.9	5634.1	5735.8	5324.8	4481.3	3628.4	1816.9	523.5	241.0	143.3
77.5°	2021.7	2240.0	2454.2	2454.2	2293.5	2045.8	1662.9	878.3	297.2	171.4	120.5
80°	677.5	702.9	684.2	690.9	664.1	638.7	668.1	378.9	183.4	128.5	97.7
82.5°	460.6	578.4	614.6	614.6	577.1	455.2	257.1	174.1	112.5	92.4	75.0
85°	374.9	457.9	491.4	506.1	476.6	384.3	135.2	84.4	66.9	58.9	50.9
87.5°	125.9	117.8	111.1	108.5	113.8	119.2	66.9	36.2	30.8	28.1	26.8
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):

	135°	145°	155°	165°	175°	180°
0°	455.2	455.2	455.2	455.2	455.2	455.2
2.5°	476.6	460.6	467.3	474.0	522.2	558.3
5°	474.0	496.7	547.6	611.9	641.3	713.6
7.5°	487.4	570.4	665.4	732.4	759.2	781.9
10°	652.0	666.8	698.9	763.2	816.7	826.1
12.5°	842.2	838.1	815.4	844.8	818.1	836.8
15°	990.8	946.6	915.8	911.8	902.4	902.4
17.5°	1072.5	1033.6	990.8	980.1	952.0	974.7
20°	1168.9	1101.9	994.8	984.1	974.7	953.3
22.5°	1150.1	1083.2	972.0	958.6	1008.2	1005.5
25°	1172.9	1083.2	977.4	962.7	985.4	985.4
27.5°	1116.6	1043.0	966.7	878.3	947.9	964.0
30°	1101.9	1018.9	930.5	851.5	922.5	907.8
32.5°	1179.6	958.6	871.6	847.5	899.7	889.0
35°	1119.3	947.9	856.9	812.7	874.3	863.6
37.5°	1144.8	934.5	831.5	794.0	843.5	859.6
40°	1139.4	871.6	802.0	753.8	803.3	811.4
42.5°	1049.7	823.4	752.5	704.3	729.7	756.5
45°	1022.9	794.0	704.3	637.3	638.7	669.4
47.5°	973.4	727.0	615.9	554.3	554.3	579.7
50°	890.4	637.3	515.5	459.2	457.9	478.0
52.5°	767.2	550.3	435.1	373.6	369.5	389.6
55°	627.9	443.2	342.8	302.6	294.6	302.6
57.5°	488.7	345.4	270.5	238.3	237.0	243.7
60°	378.9	270.5	215.6	196.8	199.5	210.2
62.5°	286.5	215.6	183.4	176.7	180.8	191.5
65°	227.6	186.1	167.4	163.3	167.4	178.1
67.5°	184.8	168.7	155.3	150.0	152.6	163.3
69°	170.0	159.3	148.6	141.9	144.6	152.6
70°	162.0	154.0	143.3	136.6	139.2	147.3
72.5°	141.9	137.9	129.9	123.2	124.5	131.2
75°	124.5	121.8	116.5	108.5	108.5	116.5
77.5°	104.4	105.8	100.4	92.4	91.0	95.1
80°	83.0	85.7	83.0	75.0	72.3	72.3
82.5°	60.3	65.6	62.9	54.9	53.6	53.6
85°	37.5	41.5	40.2	34.8	34.8	30.8
87.5°	17.4	22.8	21.4	18.7	17.4	12.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)