

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: P596865

Luminaire Tested: **MSA-SA1B-835-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3083 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B0 - U0 - G1

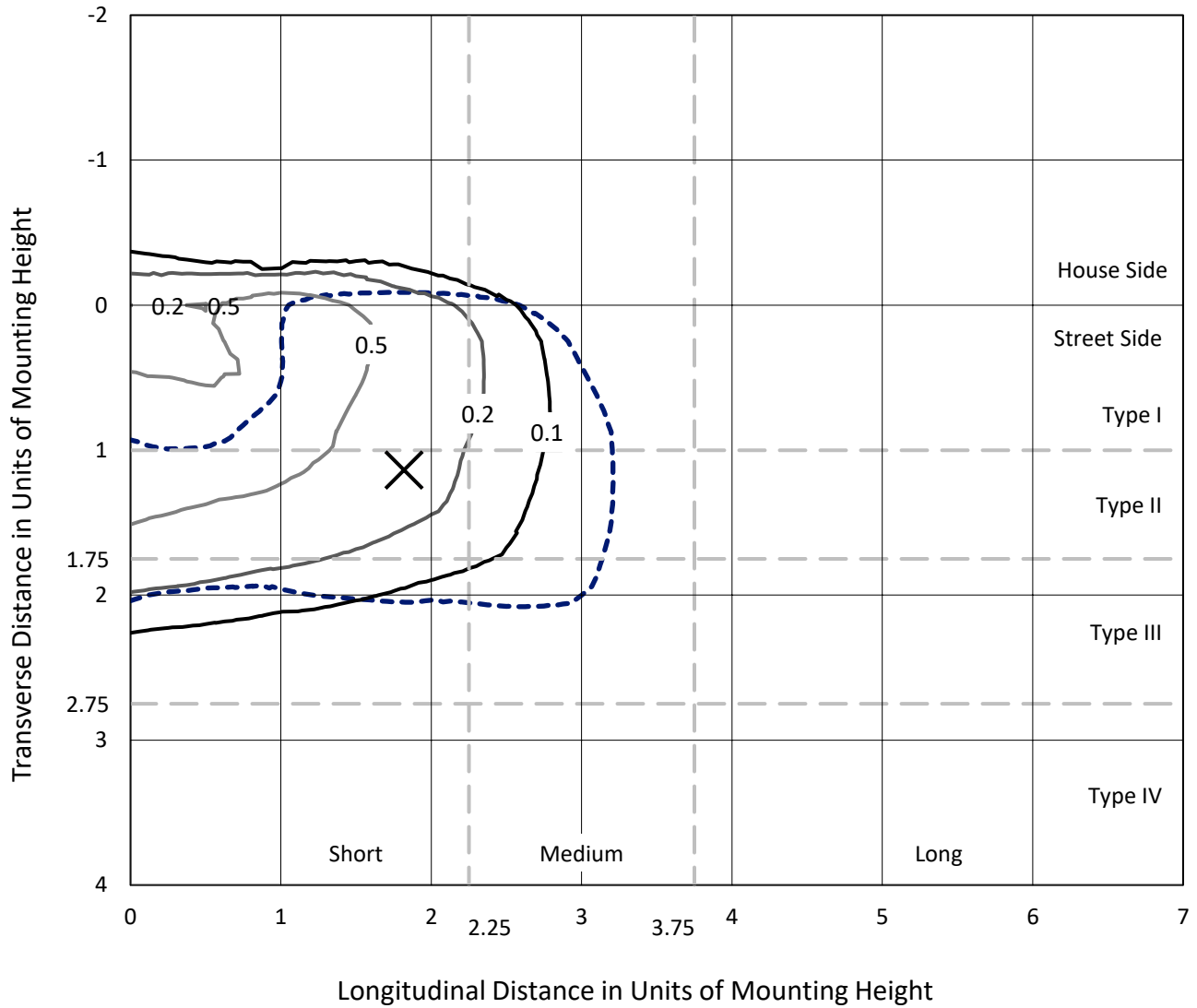
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

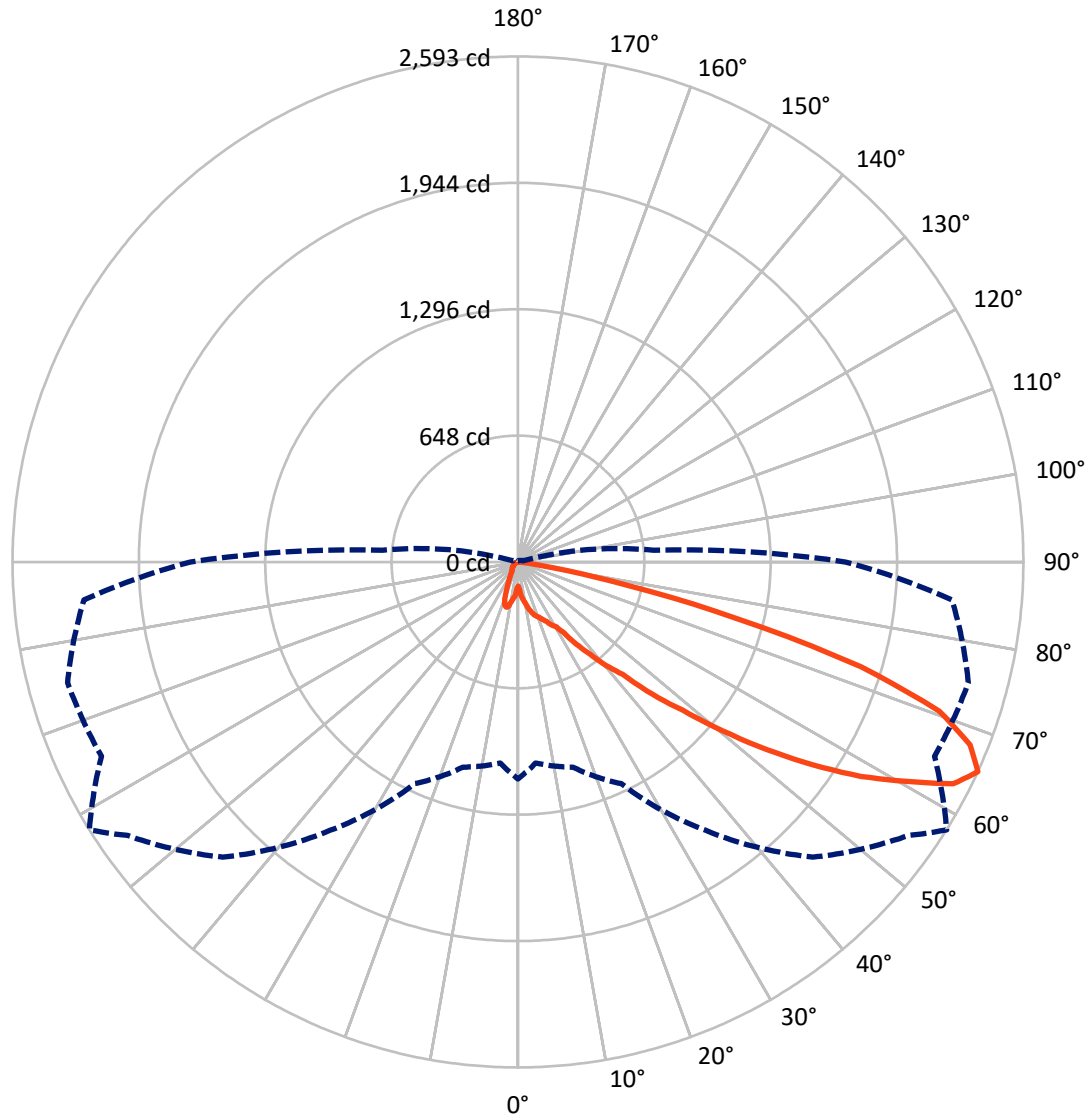
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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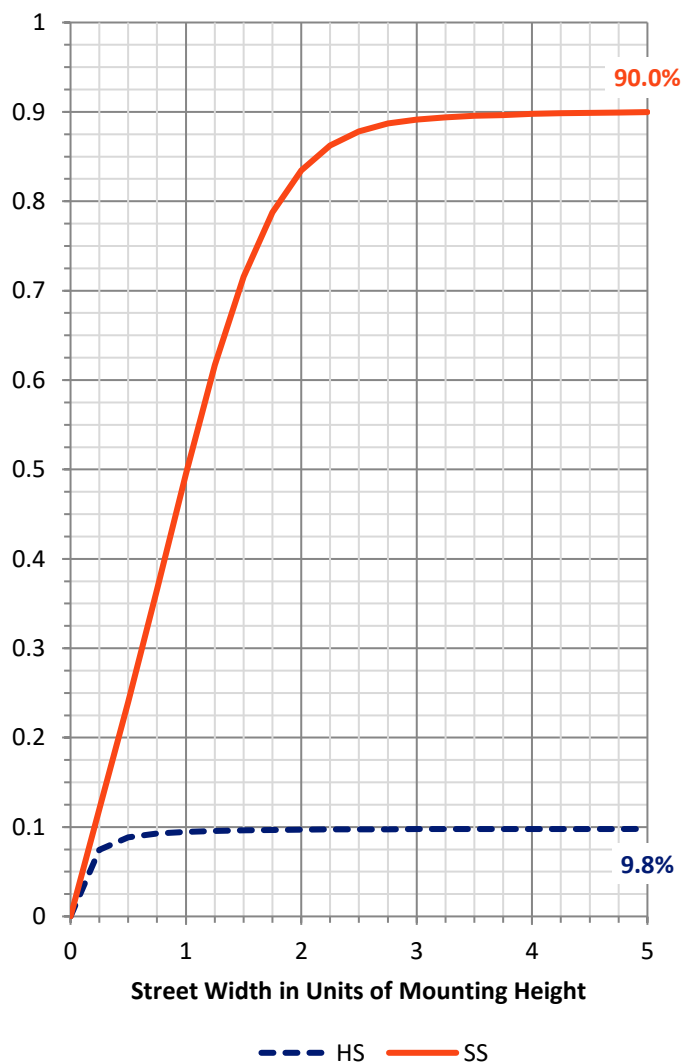
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	304.2	0.0	304.2
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	2778.8	0.0	2778.8
	% Fixture	90.1	0.0	90.1
Total	Lumens	3083.0	0.0	3083.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	17.3	0.6
10°-20°	63.3	2.1
20°-30°	122.5	4.0
30°-40°	244.4	7.9
40°-50°	499.6	16.2
50°-60°	886.2	28.7
60°-70°	934.3	30.3
70°-80°	302.9	9.8
80°-90°	12.4	0.4
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°	3083.0	100.0
0°-180°	3083.0	100.0

Coefficient of Utilization



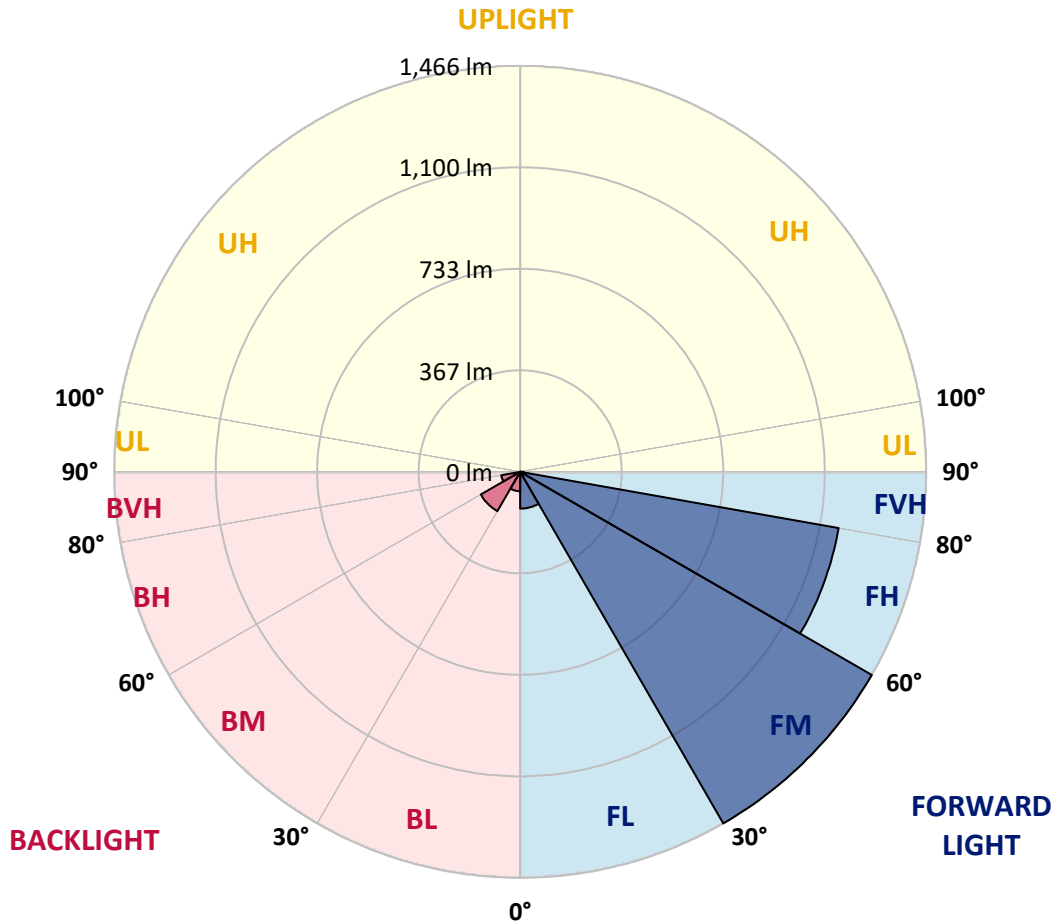
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	133.0	4.3			
FM (30°-60°)	1466.1	47.6			
FH (60°-80°)	1167.8	37.9			G1/1800
FVH (80°-90°)	11.9	0.4			G1/100
BL (0°-30°)	70.1	2.3	B0/110		
BM (30°-60°)	164.1	5.3	B0/220		
BH (60°-80°)	69.4	2.3	B0/110		G0/110
BVH (80°-90°)	0.5	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4
2.5°	150.7	146.2	139.0	140.3	141.6	144.4	142.2	140.1	137.8	134.9	146.2
5°	181.9	174.5	173.8	172.2	171.0	170.8	173.6	172.7	173.9	179.5	185.2
7.5°	193.4	190.2	184.3	186.8	183.0	180.0	192.3	196.3	204.0	206.6	221.5
10°	192.2	187.6	190.1	191.3	193.9	204.7	212.5	216.8	223.4	237.6	234.7
12.5°	197.7	201.7	204.3	204.5	217.8	237.6	243.2	246.8	258.6	264.2	278.8
15°	216.3	222.9	218.7	220.4	224.8	248.9	261.9	269.9	286.6	304.6	308.3
17.5°	242.8	247.0	238.3	232.1	244.1	257.2	280.9	289.2	299.8	342.0	349.8
20°	276.3	283.5	264.7	239.9	255.7	271.3	297.0	301.0	312.3	367.3	379.6
22.5°	354.6	344.0	315.4	276.7	272.0	278.9	303.4	319.0	338.1	381.5	410.2
25°	431.9	428.2	386.0	342.8	311.6	296.0	328.4	337.1	368.3	415.4	431.2
27.5°	517.8	525.1	454.6	428.4	367.1	316.1	344.0	365.7	402.7	427.7	465.7
30°	631.1	619.5	536.9	510.7	440.7	371.5	384.5	385.9	440.2	468.3	504.4
32.5°	720.0	727.5	623.7	583.4	527.5	456.7	414.9	432.9	471.8	534.5	568.7
35°	816.2	815.5	714.3	660.1	587.1	526.3	505.0	518.1	566.9	637.9	646.9
37.5°	959.9	947.6	828.2	748.8	686.7	634.8	618.5	600.9	651.3	719.0	752.8
40°	1095.5	1053.0	942.6	848.5	769.0	747.8	688.8	699.5	714.5	803.9	897.4
42.5°	1232.4	1206.1	1058.5	979.7	882.0	831.6	793.1	788.1	859.1	964.9	1061.6
45°	1413.1	1332.4	1214.4	1145.1	1031.9	981.4	950.4	968.9	1032.8	1187.5	1251.9
47.5°	1564.8	1490.6	1389.2	1284.0	1165.3	1222.0	1163.7	1134.4	1222.0	1381.9	1467.5
50°	1695.2	1612.4	1509.8	1431.9	1412.6	1467.1	1349.1	1359.8	1416.8	1604.6	1652.9
52.5°	1790.0	1702.8	1613.3	1575.6	1654.6	1682.0	1622.8	1599.0	1650.8	1794.5	1817.9
55°	1861.3	1772.1	1702.2	1754.1	1906.8	1897.8	1918.6	1837.4	1886.8	1992.6	1981.4
57.5°	1865.7	1760.0	1719.0	1802.5	2012.2	2151.9	2212.8	2074.7	2102.8	2147.4	2122.4
60°	1729.2	1624.0	1620.7	1739.3	2042.7	2217.7	2351.0	2283.7	2246.0	2279.1	2231.8
62.5°	1457.4	1383.8	1418.2	1549.2	1929.0	2181.4	2424.6	2505.7	2359.0	2366.5	2299.1
65°	1112.8	1035.6	1089.4	1254.5	1680.5	2140.8	2445.4	2592.5	2356.9	2391.3	2234.5
67.5°	737.0	692.2	753.2	935.1	1336.1	1889.8	2434.7	2501.3	2282.1	2294.2	1994.8
70°	380.5	369.6	418.9	562.4	898.3	1451.8	2329.0	2292.5	2130.2	1976.4	1538.6
72.5°	121.9	122.4	169.8	256.9	484.3	883.9	1790.2	1840.1	1704.6	1445.8	939.4
75°	54.0	53.1	71.0	107.8	201.9	396.3	1112.1	1166.1	1061.3	795.4	394.9
77.5°	38.9	37.7	45.5	63.0	100.0	134.4	521.4	562.8	481.2	275.6	90.4
80°	27.4	27.3	33.0	44.3	62.5	59.7	164.7	184.7	147.9	66.8	26.6
82.5°	15.4	16.0	22.9	31.2	38.0	29.9	46.3	51.0	49.8	35.6	11.6
85°	7.5	8.3	14.9	22.6	20.0	11.6	16.5	17.9	20.8	20.7	5.9
87.5°	0.0	0.0	6.1	10.2	5.4	1.7	5.0	5.7	5.6	6.6	1.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4	123.4
2.5°	148.4	147.4	134.2	135.2	138.2	137.0	138.0	135.6	132.8	144.1	143.9
5°	187.6	179.8	175.7	171.8	172.5	164.7	169.2	171.3	171.0	177.4	179.1
7.5°	222.0	211.6	203.3	195.3	183.1	172.2	179.0	183.3	186.3	197.4	201.7
10°	238.2	229.6	226.4	210.7	202.1	195.3	187.1	181.2	183.7	180.7	183.7
12.5°	273.6	267.8	255.2	239.4	229.0	215.1	184.7	159.3	143.7	143.9	142.9
15°	305.9	305.5	286.6	260.4	230.2	190.6	143.2	111.3	96.5	92.3	91.0
17.5°	348.0	342.8	308.3	269.6	215.2	147.5	97.6	76.2	74.8	77.2	76.2
20°	374.9	367.3	319.0	256.2	177.4	99.8	73.6	67.5	71.7	75.2	74.3
22.5°	401.8	390.4	327.2	239.9	126.2	73.1	66.5	65.4	68.0	72.4	73.1
25°	416.6	414.3	343.2	209.3	86.4	64.1	64.1	63.7	64.6	67.7	67.2
27.5°	459.5	428.9	331.2	163.3	66.8	58.8	59.7	59.4	56.2	59.4	59.5
30°	486.2	472.1	332.1	116.3	58.8	52.1	54.3	51.6	46.9	49.5	49.0
32.5°	540.0	505.0	329.5	78.5	53.6	49.6	46.2	42.2	38.7	39.8	38.9
35°	602.7	575.9	294.2	63.0	50.0	43.9	38.4	34.4	30.7	31.6	31.4
37.5°	727.3	642.4	265.1	56.8	47.6	40.3	33.8	28.3	26.4	26.9	27.4
40°	842.7	753.3	210.7	54.0	43.4	35.9	27.9	24.0	22.7	23.1	23.6
42.5°	1015.3	841.5	159.2	51.2	39.2	30.4	23.3	20.7	19.4	20.1	20.5
45°	1182.3	916.5	118.9	48.8	35.8	26.2	19.6	17.9	16.5	17.0	17.7
47.5°	1349.1	999.8	88.7	45.0	31.9	22.6	16.8	15.6	14.8	14.9	15.8
50°	1498.4	1038.7	69.8	40.3	28.8	19.6	15.3	14.1	13.7	13.9	14.6
52.5°	1608.1	1039.1	58.8	36.1	25.9	17.4	14.4	13.0	12.8	13.2	13.9
55°	1707.2	1011.3	51.0	32.5	23.3	15.8	13.7	12.5	12.5	12.8	13.5
57.5°	1773.0	960.3	44.3	28.6	21.0	14.9	13.2	12.0	11.8	11.6	12.2
60°	1805.1	890.7	37.5	25.2	18.9	14.4	12.8	10.6	10.4	10.1	10.4
62.5°	1784.8	803.5	31.4	21.7	16.8	13.7	11.3	9.2	8.9	8.2	8.7
65°	1681.0	697.6	26.6	18.6	14.6	11.6	9.5	7.8	6.9	6.1	5.9
67.5°	1468.7	566.7	22.2	16.0	12.5	9.5	7.8	6.9	5.4	4.7	4.5
70°	1100.7	386.9	18.4	13.7	10.4	8.2	6.6	6.2	5.0	4.5	4.2
72.5°	645.7	208.8	15.4	12.0	8.9	6.8	5.4	5.7	5.0	4.2	3.8
75°	257.9	69.4	12.3	9.5	7.1	4.9	4.5	4.7	4.5	3.8	3.1
77.5°	58.8	21.9	9.5	7.5	5.6	3.1	3.6	4.0	4.0	3.1	2.3
80°	18.4	8.7	5.6	4.7	4.0	1.7	2.6	2.8	1.9	0.9	0.0
82.5°	5.9	2.4	1.9	1.9	1.7	0.3	0.5	0.3	0.0	0.0	0.0
85°	2.3	1.6	1.2	1.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.7	0.5	0.7	0.3	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

(END OF REPORT)