

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: P366847

Luminaire Tested: **MSA-SA1B-830-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366847
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-830-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS
EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3305 lumens
Efficiency: N/A
Efficacy: 75.1 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

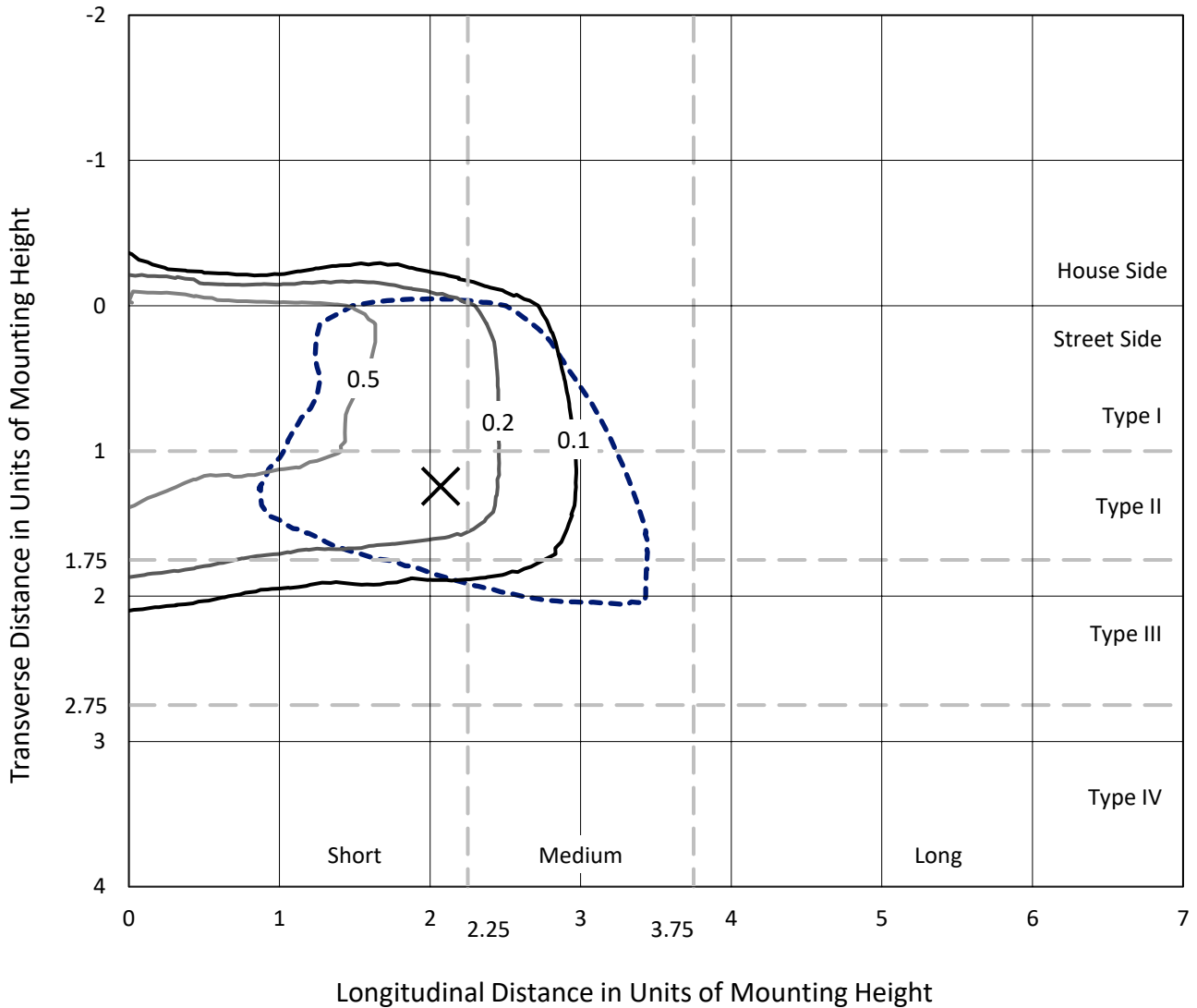
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P366847
 CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

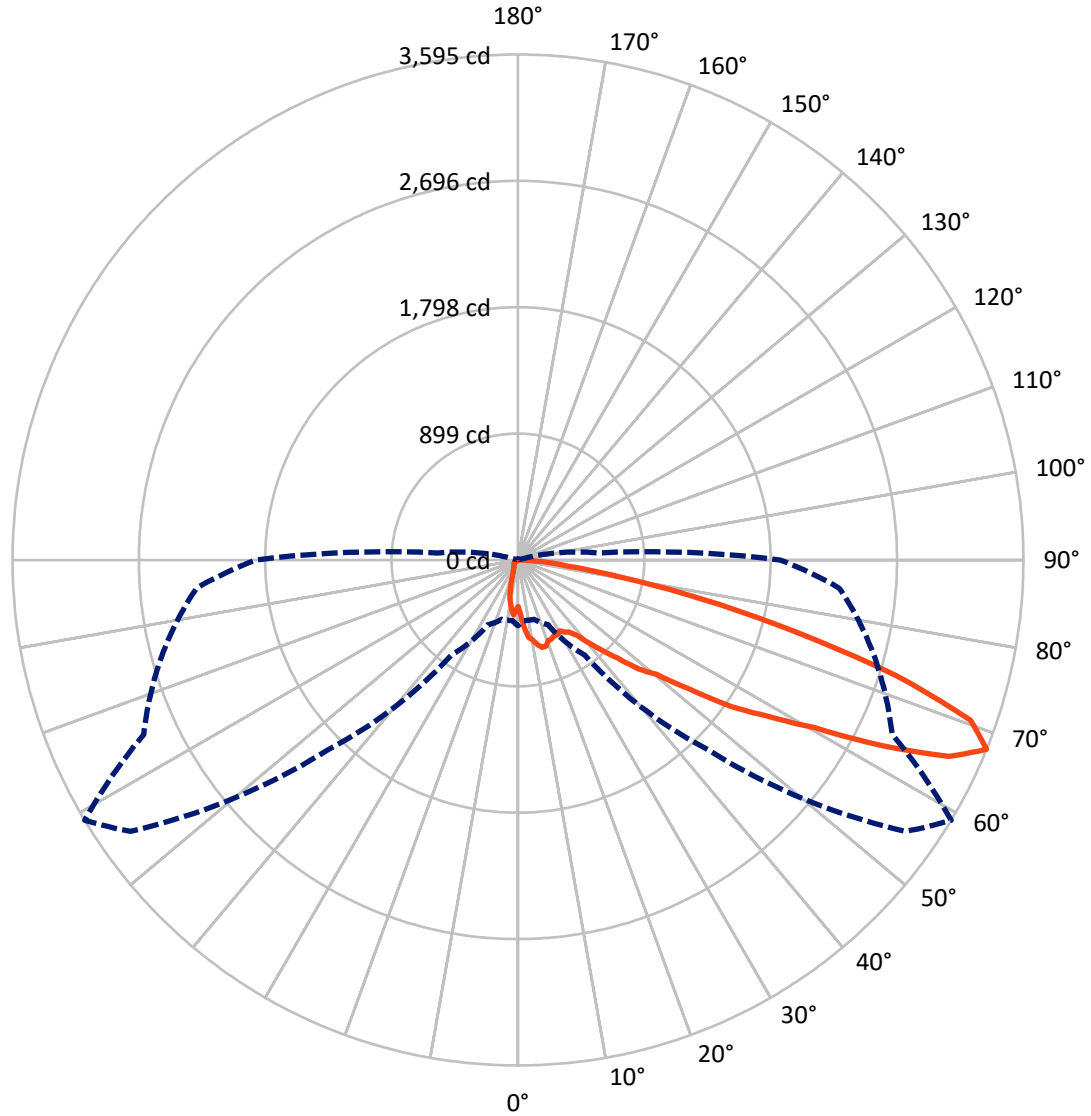
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 fc
 Type III - Short - N/A

REPORT NUMBER: P366847
CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P366847
 CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

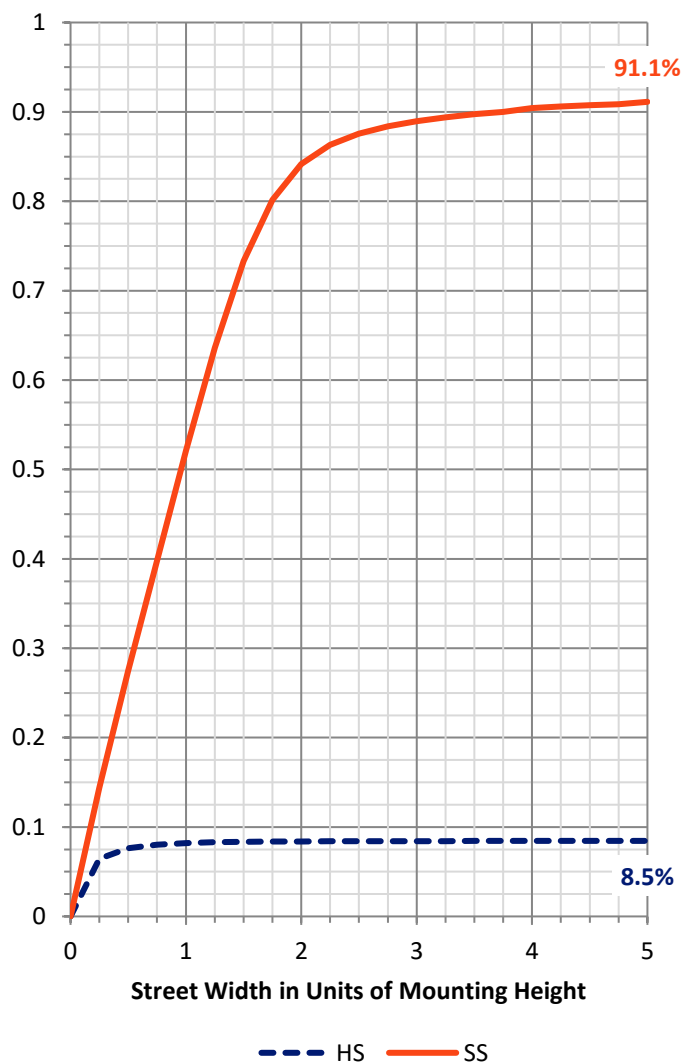
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	281.1	0.0	281.1
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	3023.9	0.0	3023.9
	% Fixture	91.5	0.0	91.5
Total	Lumens	3305.0	0.0	3305.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	1.2
10°-20°	113.2	3.4
20°-30°	168.4	5.1
30°-40°	259.8	7.9
40°-50°	463.6	14.0
50°-60°	825.1	25.0
60°-70°	960.9	29.1
70°-80°	427.3	12.9
80°-90°	46.4	1.4
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°	3305.0	100.0
0°-180°	3305.0	100.0

Coefficient of Utilization



REPORT NUMBER: P366847

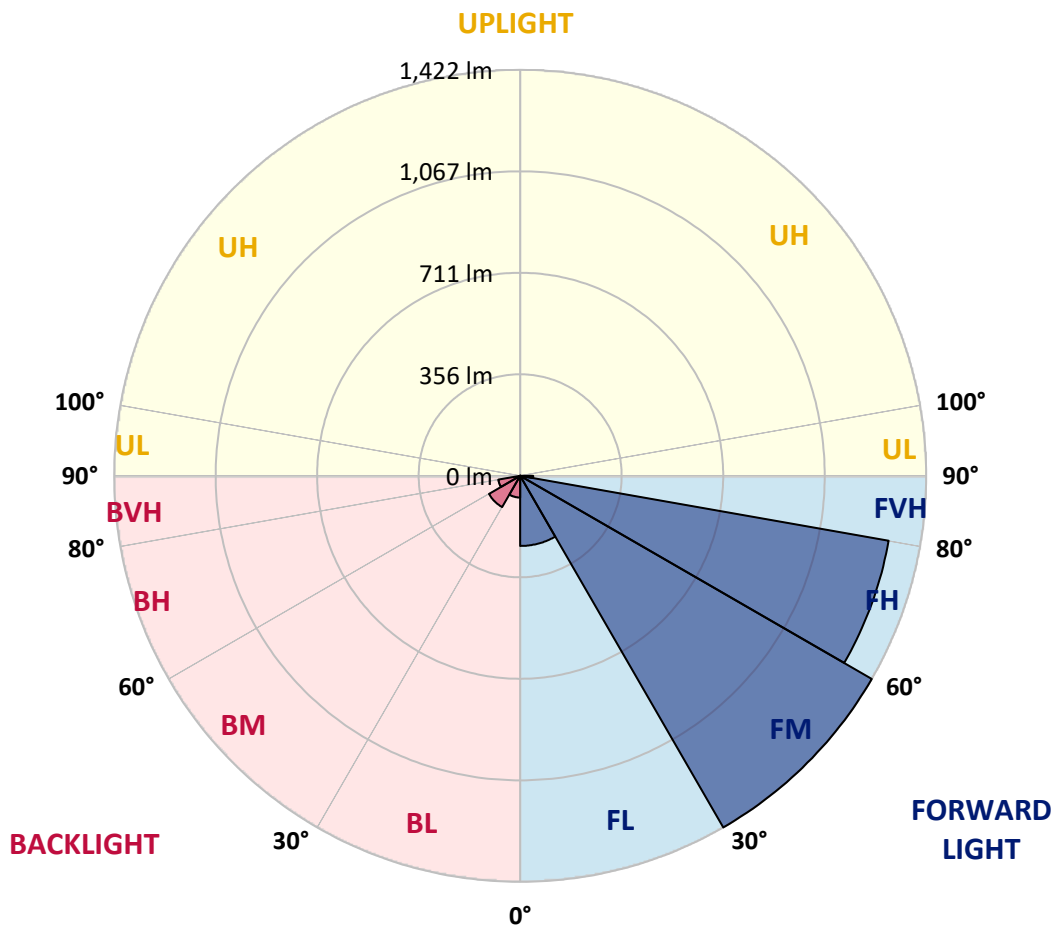
CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	245.8	7.4			
FM (30°-60°)	1422.1	43.0			
FH (60°-80°)	1310.4	39.6			G1/1800
FVH (80°-90°)	45.6	1.4			G1/100
BL (0°-30°)	76.0	2.3	B0/110		
BM (30°-60°)	126.4	3.8	B0/220		
BH (60°-80°)	77.9	2.4	B0/110		G0/110
BVH (80°-90°)	0.8	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





REPORT NUMBER: P366847

CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7
2.5°	431.1	414.9	391.8	398.6	404.8	410.7	401.0	395.4	392.8	369.0	398.8
5°	529.3	509.1	498.5	495.8	489.2	474.3	499.0	488.0	491.7	496.3	506.1
7.5°	559.3	550.1	534.8	540.5	515.1	512.9	547.2	556.8	569.3	560.8	572.5
10°	543.9	528.0	535.2	533.2	532.2	554.6	578.7	579.2	597.9	607.0	567.3
12.5°	513.4	515.3	541.0	539.0	572.5	617.3	622.9	617.0	647.6	631.9	625.9
15°	533.7	548.7	534.5	539.4	551.2	607.3	626.9	645.0	673.9	683.3	642.6
17.5°	558.1	559.6	533.7	527.6	557.6	583.7	629.9	644.8	647.6	729.8	680.3
20°	544.9	557.8	526.8	488.8	535.3	570.8	617.7	613.0	632.1	743.5	688.8
22.5°	580.0	561.6	522.0	493.3	509.1	541.4	581.0	611.6	640.3	710.7	699.8
25°	583.4	576.7	541.4	515.9	513.3	521.5	576.7	596.4	641.3	740.2	690.5
27.5°	621.0	613.3	541.0	543.5	518.4	493.2	555.6	601.9	659.5	722.3	710.4
30°	669.6	670.2	577.0	584.9	549.1	508.4	572.8	585.5	671.9	750.9	725.1
32.5°	718.8	739.0	648.1	606.5	595.2	566.1	551.4	610.1	658.3	799.7	761.9
35°	793.6	807.3	706.7	669.4	625.4	592.2	609.6	630.7	707.0	864.5	810.3
37.5°	920.2	895.5	811.8	746.9	736.3	687.5	696.2	677.2	756.7	940.8	906.0
40°	991.5	969.1	882.1	850.5	783.2	790.7	763.3	774.3	828.9	1020.3	993.2
42.5°	1065.8	1044.4	968.1	945.7	881.6	850.5	838.1	877.7	939.5	1152.7	1118.2
45°	1140.5	1086.1	1053.8	1065.0	1036.2	974.6	960.2	995.5	1060.3	1315.3	1250.1
47.5°	1203.4	1157.5	1133.3	1128.1	1116.9	1202.4	1143.8	1159.4	1188.0	1459.3	1414.4
50°	1316.8	1271.7	1233.7	1223.1	1277.7	1399.0	1308.6	1278.5	1335.8	1633.1	1604.8
52.5°	1480.7	1423.1	1362.7	1362.9	1465.8	1532.4	1575.2	1522.3	1533.1	1824.4	1811.9
55°	1612.4	1539.2	1489.2	1528.7	1682.2	1719.5	1883.0	1836.6	1822.7	2001.8	1986.4
57.5°	1630.5	1542.8	1519.0	1588.3	1798.3	2036.6	2212.5	2096.7	2075.4	2150.2	2180.9
60°	1461.8	1368.7	1386.6	1498.1	1836.1	2229.9	2515.0	2420.5	2285.4	2324.1	2345.2
62.5°	1090.3	1016.0	1066.2	1213.8	1690.4	2359.4	2865.3	2909.1	2529.1	2454.6	2450.1
65°	707.4	660.8	693.8	814.8	1279.2	2344.7	3178.2	3368.3	2721.0	2561.1	2483.1
67.5°	467.9	432.6	437.3	508.9	827.2	1906.9	3365.3	3595.1	2936.9	2621.5	2294.1
70°	348.7	321.0	322.6	361.5	491.0	1257.6	3104.4	3416.2	3015.7	2412.1	1851.7
72.5°	251.5	232.9	248.5	291.7	391.3	665.0	2313.9	2813.4	2629.7	1902.6	1247.6
75°	174.2	162.0	187.4	244.0	357.1	412.8	1529.0	2025.2	1843.1	1193.7	564.0
77.5°	96.6	92.9	129.5	198.8	324.1	338.4	936.6	1330.7	1022.3	427.9	134.2
80°	42.2	40.8	62.8	149.3	272.4	305.7	527.3	737.8	402.1	76.3	43.3
82.5°	18.1	17.4	26.8	89.9	198.0	255.7	325.2	355.1	138.4	23.6	24.6
85°	3.2	3.5	10.7	47.4	120.5	129.9	235.5	210.2	69.6	11.2	17.6
87.5°	0.0	0.0	1.7	9.2	22.6	37.2	102.1	73.6	13.2	3.7	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P366847
 CATALOG NUMBER: MSA-SA1B-830-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7	330.7
2.5°	403.0	393.6	358.0	353.4	348.6	341.4	338.7	323.3	321.3	341.1	341.1
5°	501.5	468.1	434.1	407.3	383.4	350.3	340.9	331.2	323.3	321.3	327.5
7.5°	553.6	512.7	459.4	391.3	336.0	288.0	267.9	253.9	238.1	242.8	245.3
10°	550.7	507.4	439.3	351.8	290.5	237.5	186.4	156.6	140.1	131.9	130.9
12.5°	578.7	537.9	425.7	320.3	242.1	168.9	117.3	96.1	83.8	84.0	83.0
15°	594.9	550.4	410.0	280.5	170.5	108.6	81.3	76.6	75.0	76.8	75.8
17.5°	623.5	563.6	374.4	221.1	117.3	82.0	74.8	73.0	75.1	79.0	78.0
20°	621.4	540.7	323.6	155.8	86.7	73.8	70.8	67.9	72.5	76.5	75.8
22.5°	619.3	518.3	276.0	115.0	72.5	67.3	64.8	63.6	65.9	70.6	71.6
25°	601.6	507.2	227.6	86.4	65.6	61.1	59.9	58.9	59.7	63.6	63.4
27.5°	623.4	479.3	175.7	72.5	60.7	55.4	54.4	52.7	51.0	54.4	54.9
30°	618.8	483.1	137.7	63.8	55.9	48.7	49.0	45.5	42.5	45.5	45.5
32.5°	635.2	455.0	110.3	57.9	51.0	45.9	41.7	38.0	35.8	37.7	38.0
35°	659.2	456.2	86.4	54.2	46.9	40.8	35.8	32.1	30.1	31.0	31.5
37.5°	739.3	448.2	72.1	51.4	45.4	37.8	32.6	27.8	26.4	27.4	27.9
40°	791.5	469.6	63.6	49.9	41.5	34.8	27.9	24.4	23.3	23.8	24.6
42.5°	889.9	481.5	59.4	48.2	38.0	29.8	23.9	21.9	20.2	20.9	21.6
45°	995.2	501.7	56.2	46.4	35.3	26.1	21.1	19.4	17.2	17.4	18.1
47.5°	1124.6	549.9	52.5	43.2	31.6	23.8	18.7	16.2	14.2	14.1	14.9
50°	1298.3	614.3	49.2	39.2	29.3	21.8	16.4	13.2	11.5	11.0	11.7
52.5°	1483.7	697.7	45.7	36.3	26.4	19.1	14.1	10.7	9.2	8.9	9.4
55°	1667.4	777.7	42.3	34.5	23.4	16.4	11.9	8.9	7.5	7.2	7.5
57.5°	1876.8	864.2	38.0	30.8	20.6	14.2	9.9	7.4	6.2	5.9	6.0
60°	2034.4	894.6	34.3	26.8	17.9	12.6	8.4	5.9	5.0	4.7	4.9
62.5°	2109.2	844.9	30.8	23.3	15.7	10.9	7.0	4.9	4.2	3.8	3.8
65°	2089.8	734.8	27.3	19.9	13.6	9.0	5.5	4.2	3.7	3.2	3.0
67.5°	1865.6	575.0	23.3	16.7	11.4	7.4	4.7	4.0	3.3	3.0	2.5
70°	1479.5	416.4	18.9	13.9	9.5	6.0	3.7	3.7	3.2	3.0	2.3
72.5°	969.8	262.1	15.4	11.2	7.9	4.7	2.8	3.3	3.0	3.0	2.2
75°	420.2	93.7	12.4	9.0	6.5	3.2	2.5	3.0	3.2	3.0	2.5
77.5°	98.4	29.1	9.7	7.2	5.4	2.2	2.5	3.0	3.2	2.8	2.2
80°	37.0	12.4	6.4	4.7	4.2	1.3	2.2	1.8	1.7	1.2	0.3
82.5°	22.4	5.2	3.3	2.3	2.0	0.3	1.0	0.7	0.3	0.3	0.0
85°	15.9	2.5	1.8	1.7	1.0	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.2	0.7	0.8	0.8	0.7	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)