

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: P366759

Luminaire Tested: **MSA-SA1B-730-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366759
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-730-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: 3787 lumens
Efficiency: N/A
Efficacy: 86.1 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

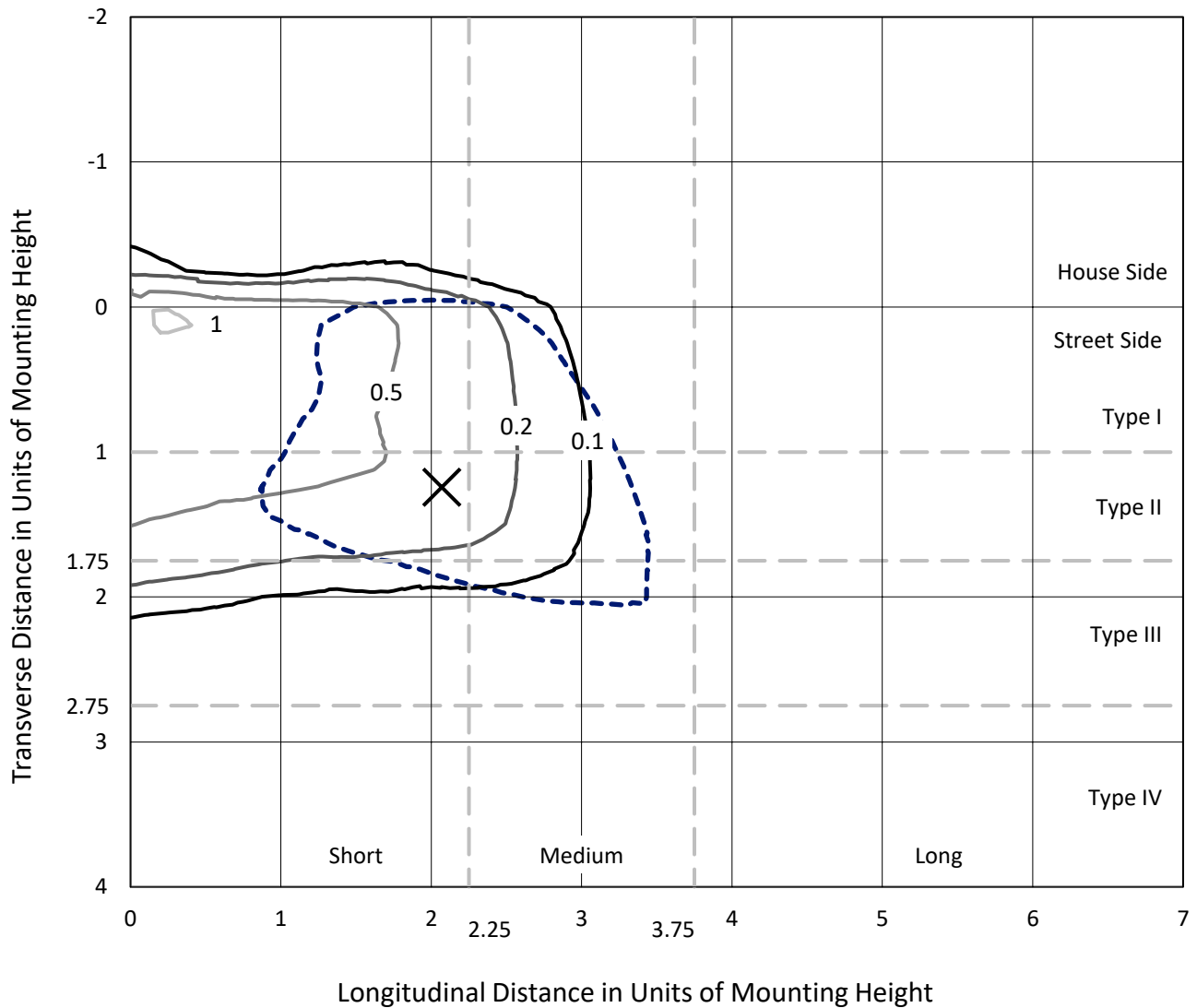
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

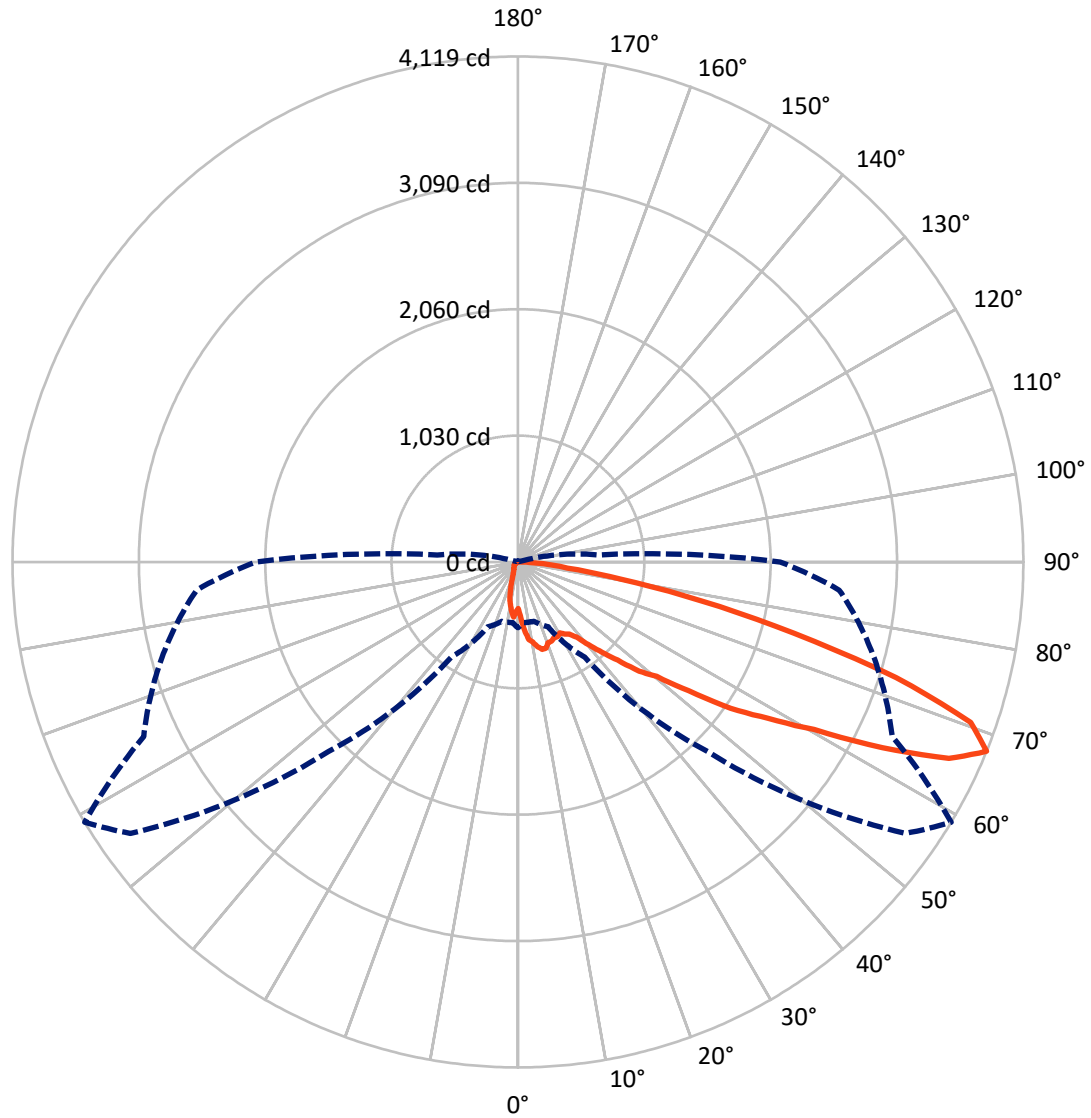
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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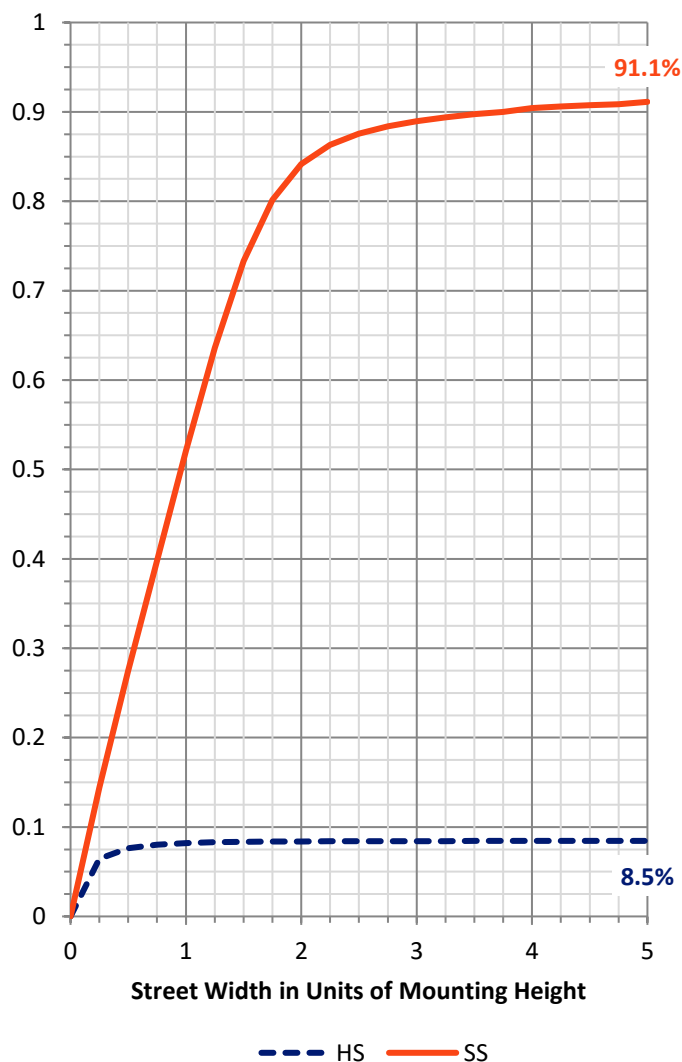
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	322.1	0.0	322.1
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	3464.9	0.0	3464.9
	% Fixture	91.5	0.0	91.5
Total	Lumens	3787.0	0.0	3787.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.1	1.2
10°-20°	129.7	3.4
20°-30°	193.0	5.1
30°-40°	297.7	7.9
40°-50°	531.3	14.0
50°-60°	945.4	25.0
60°-70°	1101.1	29.1
70°-80°	489.7	12.9
80°-90°	53.2	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°	3787.0	100.0
0°-180°	3787.0	100.0

Coefficient of Utilization



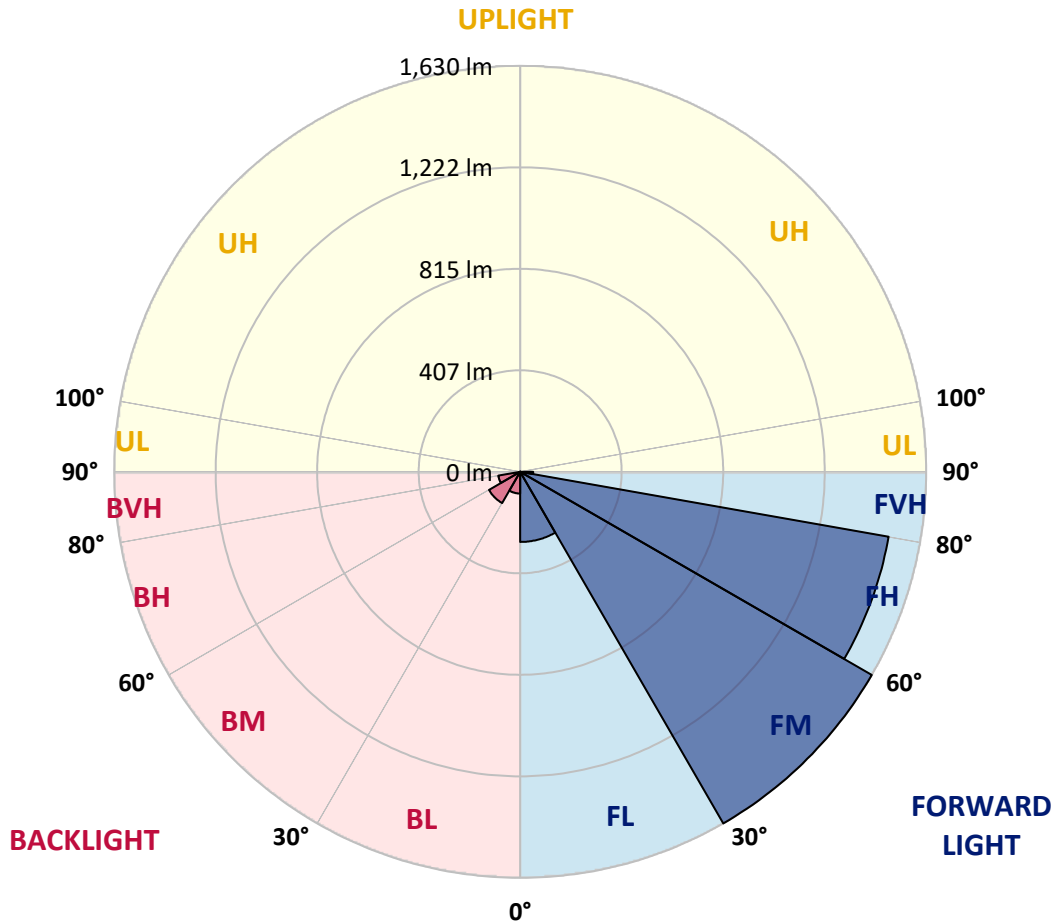
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	281.6	7.4			
FM (30°-60°)	1629.5	43.0			
FH (60°-80°)	1501.5	39.6			G1/1800
FVH (80°-90°)	52.2	1.4			G1/100
BL (0°-30°)	87.1	2.3	B0/110		
BM (30°-60°)	144.8	3.8	B0/220		
BH (60°-80°)	89.2	2.4	B0/110		G0/110
BVH (80°-90°)	1.0	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°	59°	65°	75°	85°
0°	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9
2.5°	494.0	475.4	448.9	456.8	463.8	470.6	459.4	453.1	450.0	422.8	456.9
5°	606.5	583.3	571.2	568.2	560.5	543.4	571.8	559.1	563.4	568.7	579.9
7.5°	640.8	630.3	612.8	619.4	590.2	587.7	627.0	638.0	652.3	642.6	656.0
10°	623.2	605.0	613.2	610.9	609.8	635.5	663.1	663.7	685.1	695.5	650.0
12.5°	588.3	590.4	619.9	617.6	656.0	707.4	713.7	707.0	742.1	724.1	717.2
15°	611.5	628.8	612.5	618.0	631.6	695.9	718.3	739.0	772.2	782.9	736.3
17.5°	639.5	641.2	611.5	604.6	638.9	668.8	721.8	738.8	742.1	836.2	779.5
20°	624.3	639.1	603.6	560.1	613.4	654.1	707.8	702.4	724.2	852.0	789.3
22.5°	664.6	643.5	598.1	565.3	583.3	620.3	665.8	700.9	733.6	814.4	801.9
25°	668.4	660.8	620.3	591.2	588.1	597.5	660.8	683.4	734.8	848.1	791.2
27.5°	711.6	702.8	619.9	622.8	594.0	565.1	636.6	689.7	755.7	827.6	814.0
30°	767.2	768.0	661.2	670.2	629.1	582.5	656.4	670.9	769.9	860.4	830.9
32.5°	823.6	846.8	742.7	694.9	682.1	648.7	631.8	699.1	754.4	916.4	873.0
35°	909.3	925.0	809.8	767.0	716.6	678.6	698.6	722.7	810.2	990.6	928.5
37.5°	1054.4	1026.1	930.2	855.8	843.7	787.7	797.7	776.0	867.1	1078.0	1038.1
40°	1136.1	1110.4	1010.7	974.5	897.4	906.0	874.6	887.2	949.7	1169.1	1138.0
42.5°	1221.3	1196.7	1109.3	1083.6	1010.1	974.5	960.3	1005.7	1076.5	1320.8	1281.3
45°	1306.8	1244.5	1207.5	1220.3	1187.3	1116.8	1100.3	1140.7	1214.9	1507.2	1432.4
47.5°	1378.9	1326.3	1298.5	1292.6	1279.8	1377.7	1310.6	1328.5	1361.2	1672.1	1620.7
50°	1508.9	1457.1	1413.6	1401.5	1464.0	1603.0	1499.5	1465.0	1530.6	1871.3	1838.9
52.5°	1696.6	1630.7	1561.4	1561.6	1679.6	1755.9	1805.0	1744.4	1756.6	2090.5	2076.1
55°	1847.5	1763.7	1706.4	1751.7	1927.5	1970.2	2157.6	2104.5	2088.6	2293.7	2276.1
57.5°	1868.2	1767.8	1740.5	1819.9	2060.6	2333.6	2535.2	2402.5	2378.1	2463.8	2498.9
60°	1675.0	1568.3	1588.9	1716.6	2103.9	2555.1	2881.8	2773.5	2618.8	2663.0	2687.2
62.5°	1249.3	1164.1	1221.7	1390.8	1936.9	2703.5	3283.2	3333.4	2897.9	2812.6	2807.4
65°	810.5	757.2	795.0	933.6	1465.8	2686.6	3641.7	3859.6	3117.9	2934.6	2845.2
67.5°	536.1	495.7	501.0	583.1	947.8	2185.0	3856.1	4119.4	3365.2	3003.8	2628.7
70°	399.6	367.8	369.7	414.2	562.6	1441.0	3557.2	3914.4	3455.6	2763.9	2121.7
72.5°	288.2	266.9	284.8	334.2	448.3	762.0	2651.4	3223.7	3013.2	2180.0	1429.5
75°	199.6	185.6	214.8	279.6	409.2	473.1	1752.0	2320.6	2112.0	1367.8	646.2
77.5°	110.6	106.4	148.4	227.8	371.4	387.7	1073.2	1524.8	1171.4	490.3	153.8
80°	48.3	46.8	71.9	171.0	312.2	350.3	604.2	845.4	460.8	87.4	49.7
82.5°	20.7	19.9	30.7	103.0	226.8	293.0	372.6	406.9	158.6	27.0	28.2
85°	3.6	4.0	12.3	54.3	138.1	148.8	269.8	240.8	79.8	12.8	20.1
87.5°	0.0	0.0	1.9	10.5	25.9	42.6	117.0	84.4	15.1	4.2	3.5
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°	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9	378.9
2.5°	461.7	451.0	410.2	405.0	399.4	391.2	388.1	370.5	368.2	390.8	390.8
5°	574.7	536.3	497.4	466.7	439.3	401.3	390.6	379.5	370.5	368.2	375.3
7.5°	634.3	587.5	526.4	448.3	385.0	330.0	307.0	290.9	272.9	278.2	281.1
10°	631.1	581.4	503.3	403.1	332.9	272.1	213.6	179.5	160.5	151.1	149.9
12.5°	663.1	616.3	487.8	367.0	277.5	193.5	134.4	110.1	96.1	96.3	95.1
15°	681.7	630.7	469.8	321.4	195.4	124.4	93.2	87.8	85.9	88.0	86.9
17.5°	714.5	645.8	428.9	253.3	134.4	94.0	85.7	83.6	86.1	90.5	89.4
20°	712.0	619.5	370.8	178.5	99.3	84.6	81.1	77.9	83.0	87.6	86.9
22.5°	709.7	593.9	316.2	131.7	83.0	77.1	74.2	72.9	75.6	80.9	82.1
25°	689.3	581.2	260.8	98.9	75.2	70.0	68.6	67.5	68.5	72.9	72.7
27.5°	714.3	549.2	201.3	83.0	69.6	63.5	62.3	60.4	58.5	62.3	62.9
30°	709.1	553.6	157.8	73.1	64.0	55.8	56.2	52.2	48.7	52.2	52.2
32.5°	727.9	521.4	126.4	66.3	58.5	52.5	47.7	43.5	41.0	43.1	43.5
35°	755.3	522.7	98.9	62.1	53.7	46.8	41.0	36.8	34.5	35.5	36.0
37.5°	847.2	513.5	82.6	58.9	52.0	43.3	37.4	31.8	30.3	31.4	32.0
40°	907.0	538.1	72.9	57.1	47.6	39.9	32.0	28.0	26.7	27.2	28.2
42.5°	1019.7	551.7	68.1	55.2	43.5	34.1	27.4	25.1	23.2	24.0	24.7
45°	1140.3	574.9	64.4	53.1	40.5	29.9	24.2	22.2	19.8	19.9	20.7
47.5°	1288.6	630.1	60.2	49.5	36.2	27.2	21.5	18.6	16.3	16.1	17.1
50°	1487.6	703.9	56.4	44.9	33.6	24.9	18.8	15.1	13.2	12.7	13.4
52.5°	1700.1	799.4	52.3	41.6	30.3	21.9	16.1	12.3	10.5	10.2	10.7
55°	1910.6	891.1	48.5	39.5	26.8	18.8	13.6	10.2	8.6	8.2	8.6
57.5°	2150.5	990.2	43.5	35.3	23.6	16.3	11.3	8.4	7.1	6.7	6.9
60°	2331.1	1025.1	39.3	30.7	20.5	14.4	9.6	6.7	5.8	5.4	5.6
62.5°	2416.8	968.2	35.3	26.7	18.0	12.5	8.1	5.6	4.8	4.4	4.4
65°	2394.6	842.0	31.3	22.8	15.5	10.4	6.3	4.8	4.2	3.6	3.5
67.5°	2137.6	658.9	26.7	19.2	13.0	8.4	5.4	4.6	3.8	3.5	2.9
70°	1695.3	477.1	21.7	15.9	10.9	6.9	4.2	4.2	3.6	3.5	2.7
72.5°	1111.2	300.3	17.6	12.8	9.0	5.4	3.3	3.8	3.5	3.5	2.5
75°	481.5	107.4	14.2	10.4	7.5	3.6	2.9	3.5	3.6	3.5	2.9
77.5°	112.8	33.4	11.1	8.2	6.1	2.5	2.9	3.5	3.6	3.3	2.5
80°	42.4	14.2	7.3	5.4	4.8	1.5	2.5	2.1	1.9	1.3	0.4
82.5°	25.7	5.9	3.8	2.7	2.3	0.4	1.2	0.8	0.4	0.4	0.0
85°	18.2	2.9	2.1	1.9	1.2	0.0	0.2	0.0	0.0	0.2	0.0
87.5°	2.5	0.8	1.0	1.0	0.8	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)