

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: P366867

Luminaire Tested: **MSA-SA1C-727-U-SL2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366867
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1C-727-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4299 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

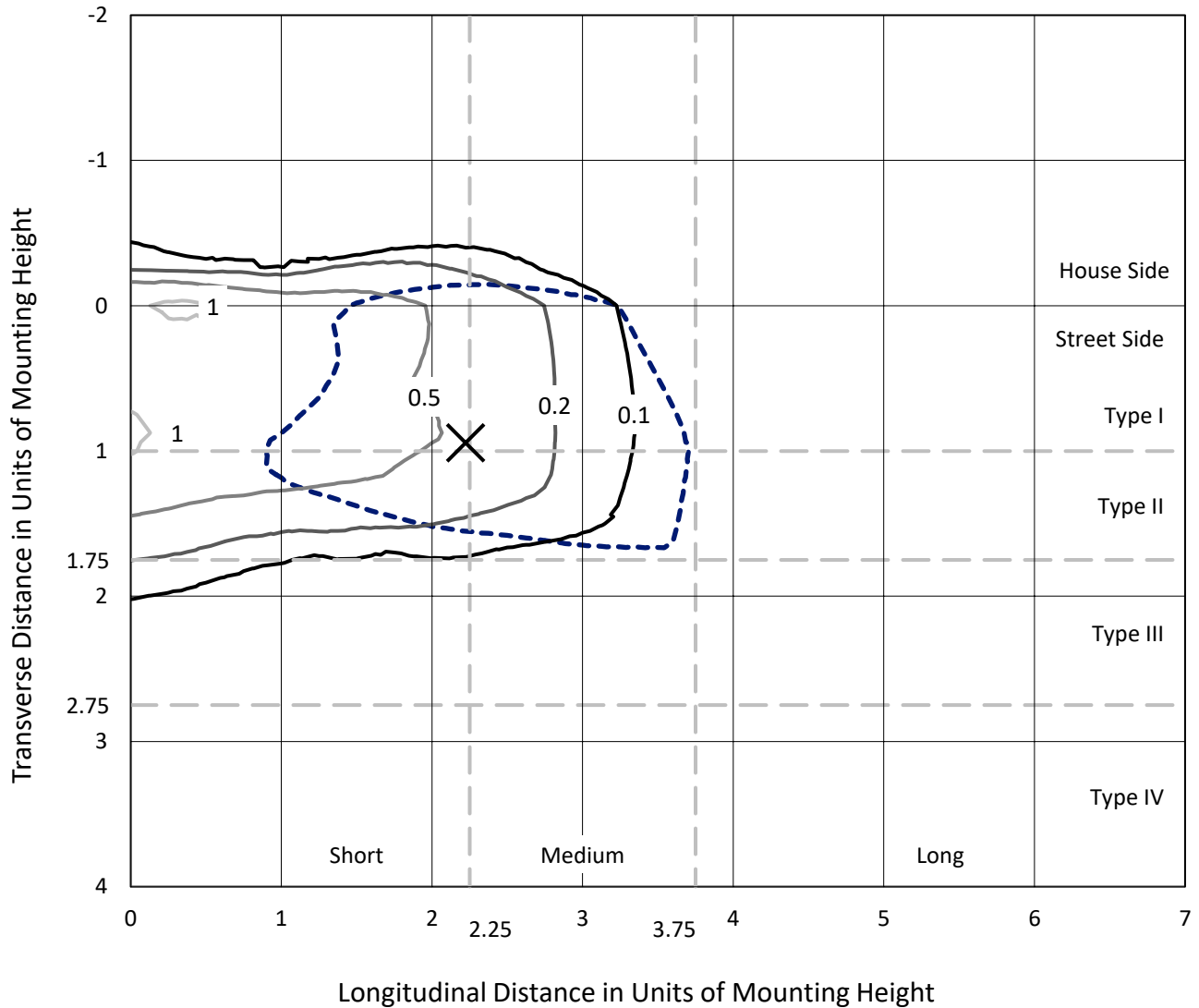
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

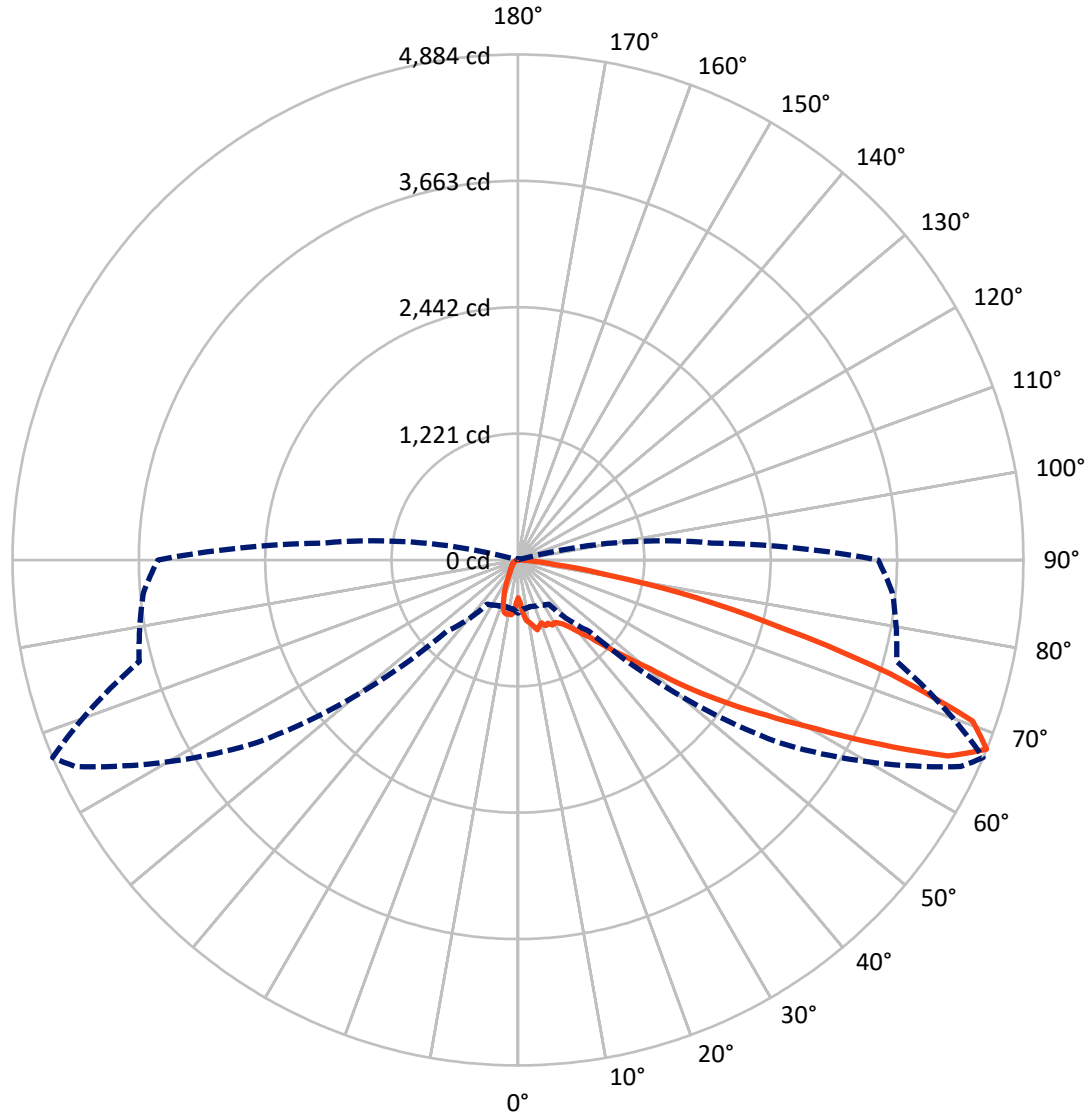
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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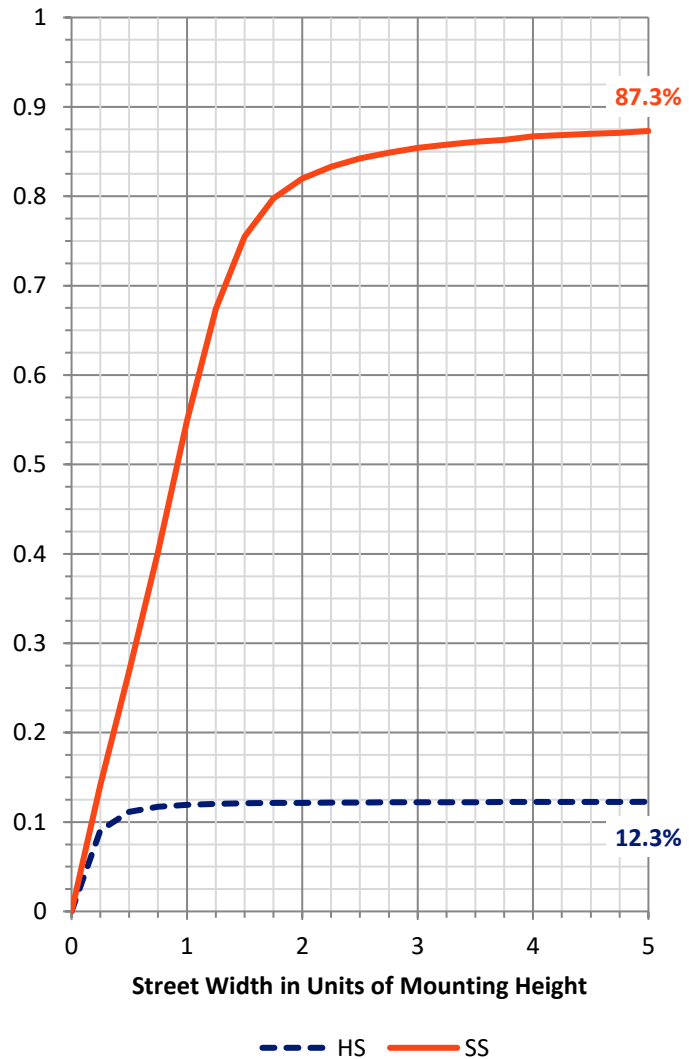
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	531.7	0.0	531.7
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	3767.3	0.0	3767.3
	% Fixture	87.6	0.0	87.6
Total	Lumens	4299.0	0.0	4299.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	1.1
10°-20°	136.0	3.2
20°-30°	213.1	5.0
30°-40°	343.6	8.0
40°-50°	631.5	14.7
50°-60°	1066.5	24.8
60°-70°	1179.0	27.4
70°-80°	617.1	14.4
80°-90°	66.3	1.5
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°	4299.0	100.0
0°-180°	4299.0	100.0

Coefficient of Utilization

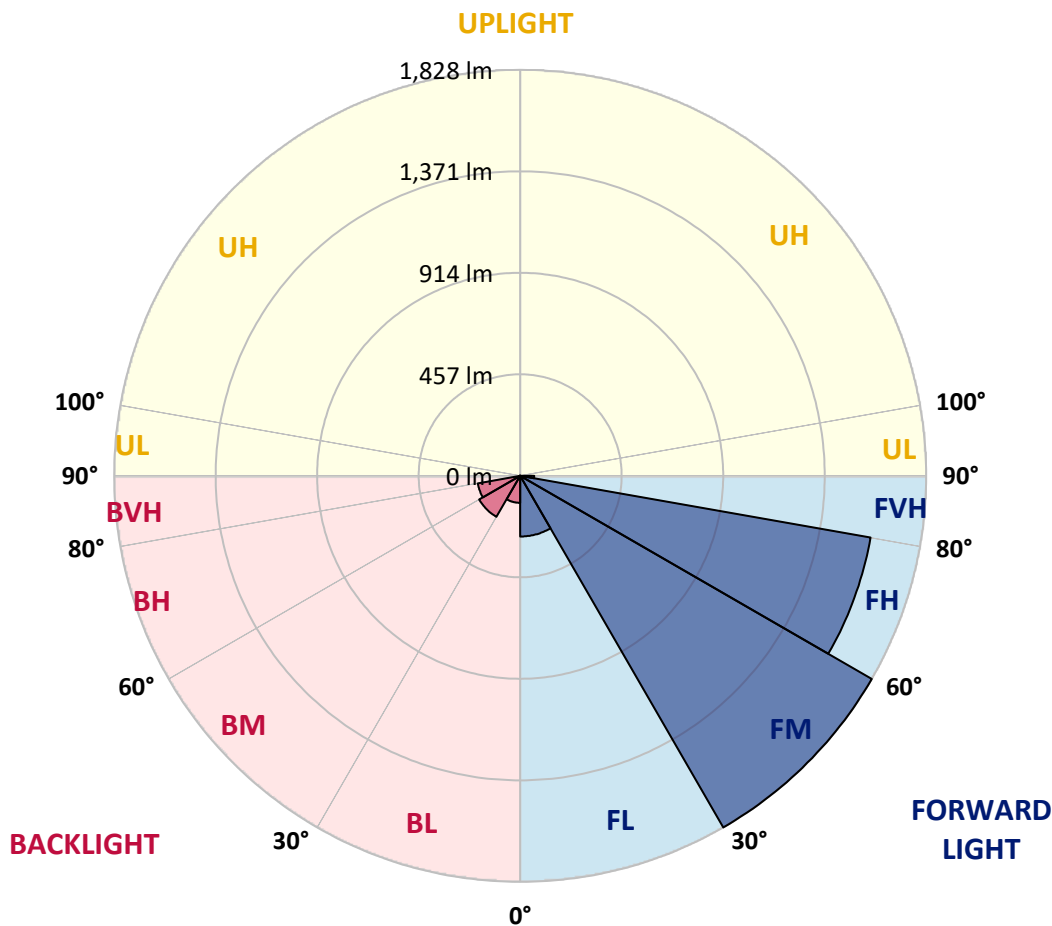


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	273.3	6.4			
FM (30°-60°)	1828.4	42.5			
FH (60°-80°)	1602.2	37.3			G1/1800
FVH (80°-90°)	63.4	1.5			G1/100
BL (0°-30°)	121.7	2.8	B1/500		
BM (30°-60°)	213.2	5.0	B0/220		
BH (60°-80°)	193.9	4.5	B1/500		G1/500
BVH (80°-90°)	2.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2
2.5°	432.2	417.6	392.8	400.0	414.3	426.3	420.7	409.6	409.8	398.4	439.2
5°	502.9	483.3	468.9	473.9	473.2	472.8	499.6	509.9	514.2	533.0	560.7
7.5°	523.2	516.2	501.1	505.7	490.7	491.8	538.9	583.4	590.3	601.9	651.2
10°	515.3	501.8	507.3	507.3	507.5	531.9	563.5	606.0	614.5	659.0	664.3
12.5°	506.8	507.5	529.1	525.1	554.8	598.6	609.3	657.1	652.9	691.5	748.9
15°	538.4	555.0	541.1	546.5	549.3	600.8	618.0	681.5	699.8	748.7	786.0
17.5°	592.7	594.9	565.9	558.1	578.6	593.2	627.8	658.4	670.6	798.8	851.6
20°	602.6	616.5	587.1	541.7	585.1	605.2	629.4	644.0	649.2	814.3	888.7
22.5°	661.7	646.2	599.1	564.6	577.0	598.8	613.9	657.9	689.3	785.1	924.2
25°	692.0	687.8	642.9	613.5	600.8	599.1	633.5	666.9	676.9	815.4	932.9
27.5°	764.6	755.2	668.2	664.5	622.8	586.2	634.2	694.1	712.9	786.8	965.7
30°	863.4	859.9	744.1	741.7	675.4	609.5	669.5	710.9	699.6	801.4	987.5
32.5°	962.8	991.2	872.8	805.1	755.4	695.2	659.5	705.7	726.0	837.0	1027.6
35°	1083.0	1103.5	982.9	933.8	823.2	735.4	726.0	755.6	764.4	879.3	1073.2
37.5°	1293.2	1262.2	1159.5	1076.0	1018.0	878.6	832.4	808.9	829.1	936.6	1166.3
40°	1448.5	1428.9	1302.4	1252.4	1119.0	1037.4	916.6	894.6	917.2	995.5	1231.1
42.5°	1635.8	1595.0	1476.0	1442.2	1304.8	1147.5	1025.0	1032.6	1018.4	1111.8	1344.7
45°	1805.3	1713.2	1646.9	1654.6	1581.3	1368.9	1205.8	1202.0	1190.3	1280.1	1464.2
47.5°	1919.3	1838.8	1774.3	1753.1	1744.4	1758.2	1467.0	1401.2	1392.4	1457.0	1652.4
50°	1980.6	1892.5	1812.7	1817.0	1994.1	2127.4	1736.6	1643.0	1646.3	1713.7	1909.7
52.5°	1939.4	1839.7	1755.5	1837.3	2187.8	2373.6	2182.8	1959.0	2034.9	2017.7	2254.9
55°	1749.0	1662.4	1602.7	1749.0	2208.9	2638.5	2732.1	2434.6	2417.6	2378.4	2606.9
57.5°	1428.6	1354.1	1317.2	1471.6	1977.5	2852.0	3283.8	2972.2	2827.2	2662.7	2899.1
60°	1064.4	1009.5	971.1	1052.7	1558.2	2644.6	3645.2	3478.8	3310.9	2936.9	3161.7
62.5°	788.4	743.6	702.9	710.3	1072.9	2274.6	3783.9	4015.5	3919.1	3226.3	3409.4
65°	629.2	588.4	559.8	543.5	664.5	1711.3	3590.9	4455.3	4566.6	3498.9	3588.3
67.5°	513.8	479.3	465.2	483.9	521.2	975.5	3075.3	4722.3	4883.7	3788.0	3632.3
70°	418.1	389.7	388.2	438.8	480.0	594.7	2262.1	4538.0	4659.5	3837.3	3368.2
72.5°	291.4	278.9	298.8	370.5	475.6	495.3	1299.1	3755.3	3759.7	3389.2	2770.5
75°	164.9	162.9	194.3	295.5	463.2	490.2	724.2	2653.8	2655.8	2563.3	1919.3
77.5°	90.7	84.8	113.2	199.8	397.8	478.9	467.1	1812.0	1765.6	1426.5	876.7
80°	41.9	39.5	61.3	128.0	290.9	452.9	374.4	996.0	898.0	464.7	213.9
82.5°	17.2	16.4	28.1	82.2	183.8	364.8	315.6	441.8	354.6	88.3	66.1
85°	3.1	3.3	11.6	49.7	102.9	168.1	255.8	209.8	154.2	24.4	36.2
87.5°	0.0	0.0	2.4	12.0	24.9	46.0	103.8	58.7	40.3	7.2	10.7
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°	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2	366.2
2.5°	447.3	443.6	406.1	407.8	410.4	408.0	407.6	397.1	387.5	419.1	418.7
5°	565.7	539.3	513.4	503.3	481.7	453.4	453.6	444.7	435.5	448.4	448.4
7.5°	650.1	613.7	580.7	522.1	464.9	413.3	408.7	396.5	382.5	399.3	402.6
10°	669.7	638.1	595.6	509.4	455.3	405.0	349.6	304.0	282.8	273.0	271.3
12.5°	730.1	706.6	611.5	516.2	438.3	353.1	262.3	208.3	171.4	168.6	164.6
15°	770.5	753.9	627.2	499.4	366.4	253.8	164.9	126.5	111.7	110.3	108.4
17.5°	833.1	804.3	612.1	446.0	286.6	167.5	110.8	99.9	101.6	105.6	102.5
20°	858.6	802.3	579.4	368.6	201.3	112.3	96.2	90.3	94.9	98.6	96.8
22.5°	884.7	808.0	550.4	303.8	131.5	92.9	85.7	82.7	83.1	86.8	87.0
25°	884.5	823.7	516.8	236.6	97.9	82.7	77.4	73.5	72.0	74.6	73.9
27.5°	927.5	805.6	455.6	175.6	86.1	73.9	68.9	64.1	58.7	61.3	61.3
30°	927.7	835.0	412.8	126.0	78.9	65.9	61.5	54.1	47.8	49.9	50.2
32.5°	952.3	809.5	373.4	96.4	73.3	61.1	51.5	44.7	41.0	42.3	42.3
35°	980.5	831.3	312.7	85.1	67.6	54.3	44.1	38.6	35.8	36.9	36.9
37.5°	1073.4	826.7	270.6	79.2	63.9	49.1	40.1	34.0	32.7	33.4	34.2
40°	1107.0	859.2	213.5	75.7	57.8	44.3	35.3	30.7	29.0	29.4	29.7
42.5°	1192.5	866.4	170.5	72.8	52.3	38.4	31.4	28.1	26.0	26.0	26.6
45°	1286.9	884.5	135.6	70.4	47.8	34.5	28.4	25.7	22.5	22.0	22.9
47.5°	1423.6	953.9	110.6	65.6	42.3	32.1	26.2	22.2	19.6	18.8	19.6
50°	1652.4	1071.6	97.7	59.8	38.4	30.1	23.1	19.0	17.0	15.9	16.6
52.5°	1975.1	1275.1	90.9	54.3	34.9	27.0	20.7	16.6	14.6	13.7	14.2
55°	2333.7	1508.5	87.7	48.8	31.8	23.8	18.1	14.6	12.9	11.8	12.0
57.5°	2665.1	1727.8	84.4	43.6	28.8	21.2	15.9	12.9	11.1	10.0	10.2
60°	2991.8	1903.0	76.5	37.5	26.0	19.0	14.0	11.1	10.0	8.7	8.7
62.5°	3280.8	2007.6	65.2	32.5	23.3	16.8	12.4	10.0	9.2	7.9	7.9
65°	3477.5	2012.4	52.6	27.9	20.5	14.4	10.9	9.4	8.5	7.0	6.8
67.5°	3480.3	1881.6	42.1	24.9	18.1	12.6	9.8	8.9	7.9	6.5	6.1
70°	3115.0	1554.5	35.1	21.8	15.7	11.1	8.5	8.5	7.6	6.3	5.7
72.5°	2491.8	1187.9	29.4	19.0	14.0	9.6	7.9	8.1	7.4	6.3	5.7
75°	1674.8	681.3	24.4	16.1	12.2	8.1	7.6	7.9	7.6	6.3	5.5
77.5°	771.3	217.0	19.0	13.3	10.5	6.8	7.4	7.4	7.0	5.7	4.8
80°	173.8	53.4	13.7	9.8	8.5	5.0	6.8	6.1	5.5	3.9	2.8
82.5°	63.2	16.4	8.3	6.1	5.2	2.0	4.4	4.4	3.9	2.8	1.7
85°	36.2	8.5	4.6	3.9	2.8	0.9	2.4	2.6	2.2	2.0	0.9
87.5°	11.8	2.0	2.2	2.4	2.2	0.4	0.9	0.9	0.7	0.4	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)