

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: P367671

Luminaire Tested: **MSA-SA3A-727-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367671
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3A-727-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 7245 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

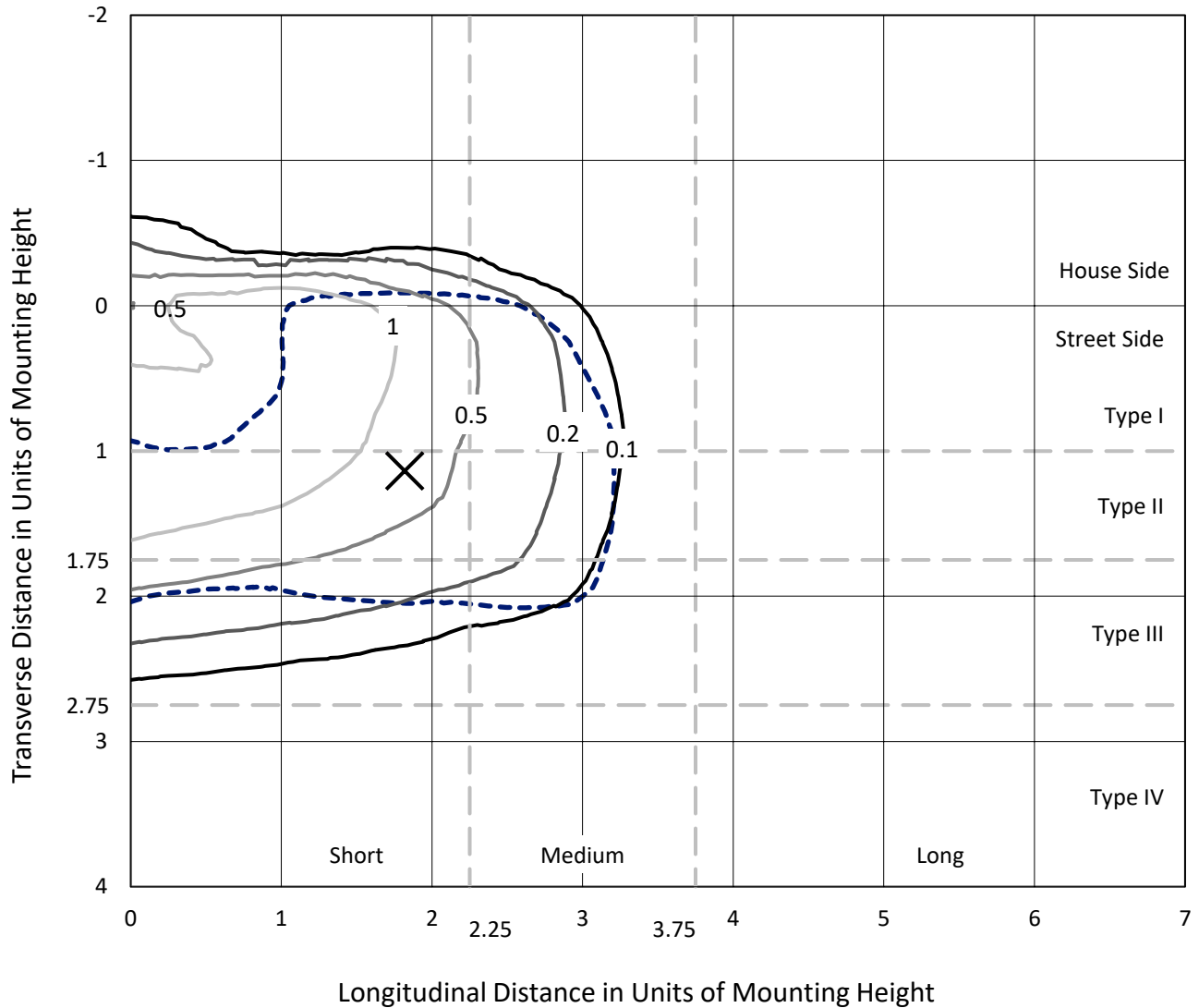
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367671
 CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

Iso-Footcandle Lines of Horizontal Illumination

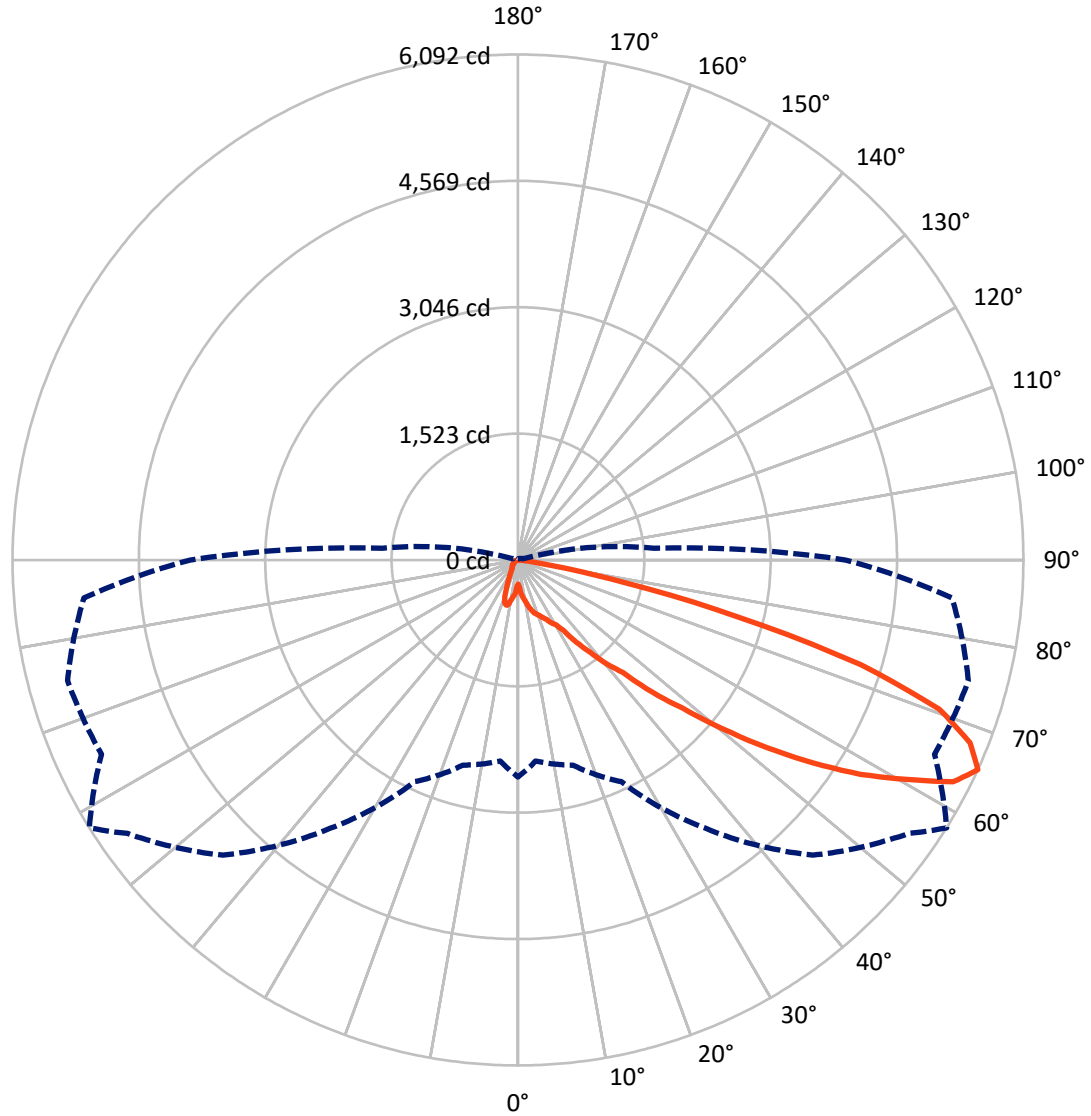
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 fc
 Type III - Short - N/A

REPORT NUMBER: P367671
CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367671

CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

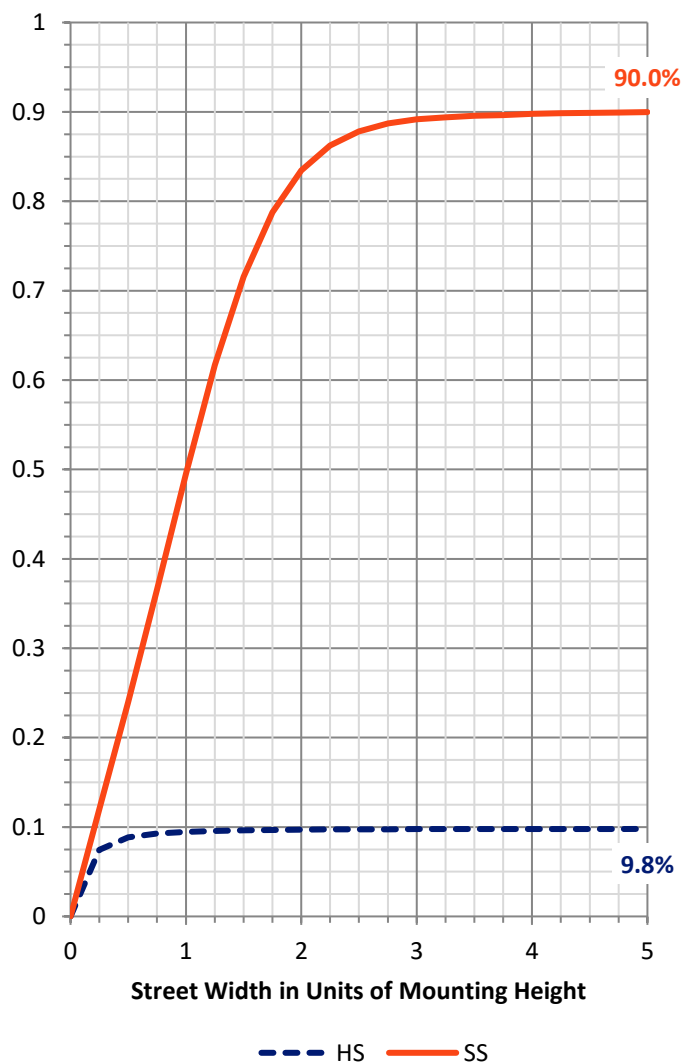
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	714.9	0.0	714.9
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	6530.1	0.0	6530.1
	% Fixture	90.1	0.0	90.1
Total	Lumens	7245.0	0.0	7245.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.8	0.6
10°-20°	148.7	2.1
20°-30°	287.9	4.0
30°-40°	574.3	7.9
40°-50°	1174.2	16.2
50°-60°	2082.6	28.7
60°-70°	2195.6	30.3
70°-80°	711.8	9.8
80°-90°	29.1	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°	7245.0	100.0
0°-180°	7245.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367671

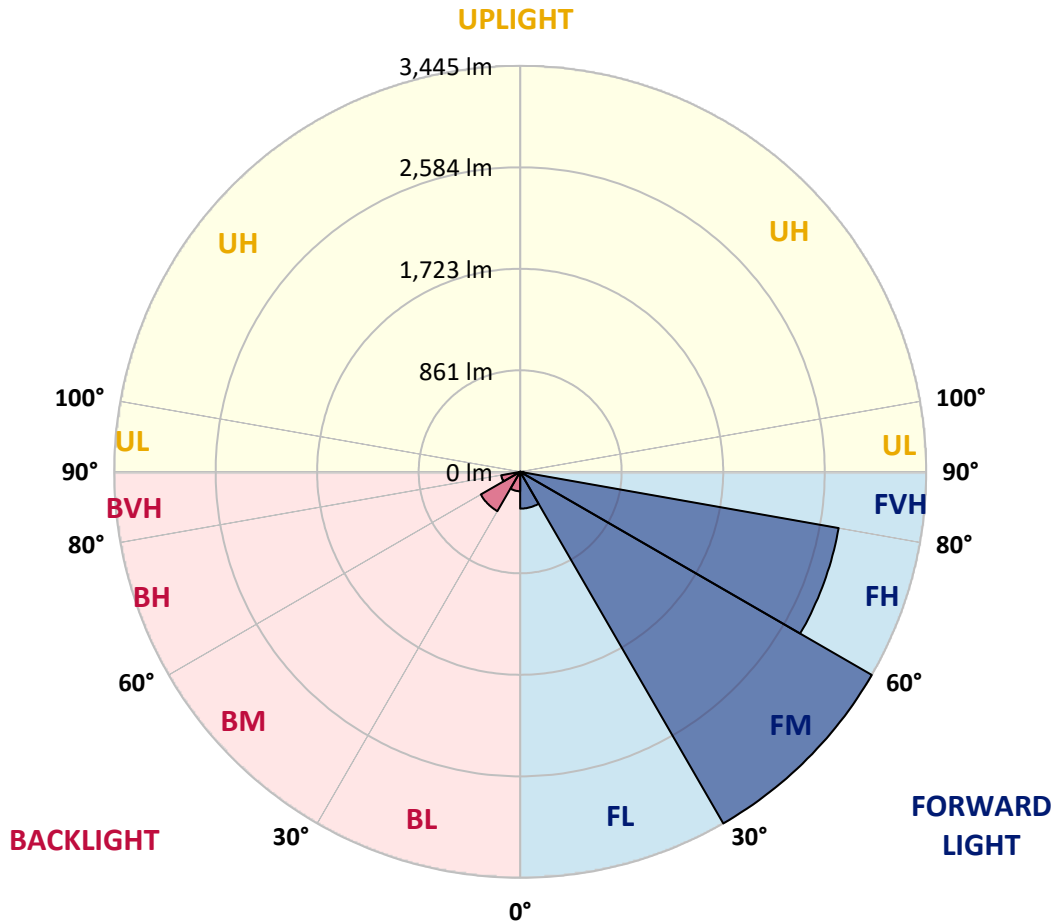
CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	312.6	4.3			
FM (30°-60°)	3445.4	47.6			
FH (60°-80°)	2744.3	37.9			G2/5000
FVH (80°-90°)	27.9	0.4			G1/100
BL (0°-30°)	164.8	2.3	B1/500		
BM (30°-60°)	385.7	5.3	B1/1000		
BH (60°-80°)	163.2	2.3	B1/500		G1/500
BVH (80°-90°)	1.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





REPORT NUMBER: P367671
 CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	354.1	343.5	326.7	329.6	332.9	339.4	334.1	329.2	323.9	317.0	343.5
5°	427.5	410.0	408.3	404.7	401.8	401.4	407.9	405.9	408.7	421.8	435.2
7.5°	454.4	447.1	433.2	438.9	429.9	423.0	452.0	461.4	479.3	485.4	520.5
10°	451.6	441.0	446.7	449.5	455.6	480.9	499.3	509.5	525.0	558.4	551.5
12.5°	464.6	474.0	480.1	480.5	511.9	558.4	571.5	580.1	607.8	620.8	655.1
15°	508.3	523.8	514.0	518.1	528.3	585.0	615.5	634.3	673.5	715.9	724.5
17.5°	570.7	580.5	560.1	545.4	573.5	604.5	660.0	679.6	704.5	803.6	822.0
20°	649.4	666.1	622.1	563.7	600.9	637.6	697.9	707.3	733.8	863.2	892.1
22.5°	833.4	808.5	741.2	650.2	639.2	655.5	713.0	749.8	794.6	896.6	963.9
25°	1014.9	1006.3	907.2	805.6	732.2	695.5	771.8	792.2	865.6	976.1	1013.3
27.5°	1216.8	1233.9	1068.3	1006.7	862.7	742.8	808.5	859.5	946.4	1005.1	1094.4
30°	1483.2	1455.9	1261.7	1200.1	1035.7	872.9	903.5	906.8	1034.5	1100.6	1185.4
32.5°	1692.0	1709.6	1465.6	1371.0	1239.7	1073.2	974.9	1017.3	1108.7	1256.0	1336.3
35°	1918.0	1916.4	1678.6	1551.3	1379.6	1236.8	1186.6	1217.6	1332.3	1499.1	1520.3
37.5°	2255.8	2226.8	1946.2	1759.8	1613.7	1491.8	1453.4	1412.2	1530.5	1689.6	1769.1
40°	2574.4	2474.4	2215.0	1993.9	1807.1	1757.3	1618.6	1643.9	1679.0	1889.1	2108.9
42.5°	2896.2	2834.2	2487.5	2302.3	2072.6	1954.3	1863.8	1851.9	2018.8	2267.6	2494.8
45°	3320.8	3131.2	2853.8	2691.0	2425.1	2306.4	2233.3	2277.0	2427.1	2790.6	2941.9
47.5°	3677.4	3502.8	3264.6	3017.4	2738.3	2871.7	2734.7	2665.7	2871.7	3247.4	3448.5
50°	3983.7	3789.1	3548.1	3364.9	3319.6	3447.7	3170.3	3195.6	3329.4	3770.8	3884.2
52.5°	4206.4	4001.7	3791.2	3702.7	3888.3	3952.7	3813.6	3757.7	3879.3	4217.0	4272.1
55°	4374.1	4164.4	4000.0	4122.0	4481.0	4459.8	4508.7	4317.8	4434.1	4682.5	4656.4
57.5°	4384.3	4135.9	4039.6	4235.8	4728.6	5056.9	5200.1	4875.4	4941.5	5046.3	4987.6
60°	4063.7	3816.5	3808.7	4087.3	4800.4	5211.5	5524.8	5366.5	5278.0	5355.9	5244.6
62.5°	3424.9	3251.9	3332.7	3640.7	4533.2	5126.3	5697.8	5888.3	5543.6	5561.1	5402.9
65°	2615.2	2433.6	2560.1	2948.0	3949.0	5030.8	5746.7	6092.2	5538.7	5619.5	5251.1
67.5°	1732.0	1626.8	1769.9	2197.4	3139.7	4441.0	5721.4	5878.1	5362.9	5391.4	4687.8
70°	894.2	868.5	984.3	1321.6	2111.0	3411.8	5473.0	5387.4	5006.0	4644.5	3615.8
72.5°	286.4	287.6	398.9	603.7	1138.1	2077.1	4206.8	4324.3	4005.7	3397.5	2207.6
75°	126.9	124.8	166.8	253.3	474.4	931.3	2613.5	2740.4	2494.0	1869.1	928.0
77.5°	91.4	88.5	106.9	148.1	235.0	315.7	1225.4	1322.5	1130.7	647.8	212.5
80°	64.5	64.0	77.5	104.0	146.8	140.3	387.1	434.0	347.5	157.0	62.4
82.5°	36.3	37.5	53.8	73.4	89.3	70.2	108.9	119.9	117.1	83.6	27.3
85°	17.5	19.6	35.1	53.0	46.9	27.3	38.8	42.0	48.9	48.5	13.9
87.5°	0.0	0.0	14.3	24.1	12.6	4.1	11.8	13.5	13.1	15.5	3.3
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: P367671
 CATALOG NUMBER: MSA-SA3A-727-U-T3-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0	290.0
2.5°	348.8	346.3	315.3	317.8	324.7	321.8	324.3	318.6	312.1	338.6	338.2
5°	441.0	422.6	412.8	403.8	405.5	387.1	397.7	402.6	401.8	416.9	421.0
7.5°	521.7	497.3	477.7	458.9	430.4	404.7	420.6	430.8	437.7	463.8	474.0
10°	559.7	539.7	531.9	495.2	474.8	458.9	439.7	425.9	431.6	424.6	431.6
12.5°	642.9	629.4	599.6	562.5	538.0	505.4	434.0	374.5	337.8	338.2	335.7
15°	718.7	717.9	673.5	611.9	540.9	447.9	336.5	261.5	226.8	217.0	213.7
17.5°	817.9	805.6	724.5	633.5	505.8	346.7	229.2	179.1	175.8	181.5	179.1
20°	881.1	863.2	749.8	602.1	416.9	234.6	173.0	158.7	168.5	176.6	174.6
22.5°	944.3	917.4	768.9	563.7	296.6	171.7	156.2	153.8	159.9	170.1	171.7
25°	979.0	973.7	806.5	491.9	203.1	150.5	150.5	149.7	151.7	159.1	157.9
27.5°	1079.8	1008.0	778.3	383.8	157.0	138.3	140.3	139.5	132.2	139.5	139.9
30°	1142.6	1109.5	780.3	273.3	138.3	122.4	127.7	121.2	110.1	116.3	115.0
32.5°	1269.0	1186.6	774.2	184.4	126.0	116.7	108.5	99.1	91.0	93.4	91.4
35°	1416.3	1353.5	691.4	148.1	117.5	103.2	90.1	80.8	72.2	74.2	73.8
37.5°	1709.2	1509.7	622.9	133.4	111.8	94.6	79.5	66.5	62.0	63.2	64.5
40°	1980.4	1770.4	495.2	126.9	102.0	84.4	65.7	56.3	53.4	54.3	55.5
42.5°	2385.9	1977.6	374.1	120.3	92.2	71.4	54.7	48.5	45.7	47.3	48.1
45°	2778.3	2153.8	279.4	114.6	84.0	61.6	46.1	42.0	38.8	40.0	41.6
47.5°	3170.3	2349.6	208.4	105.7	75.1	53.0	39.6	36.7	34.7	35.1	37.1
50°	3521.1	2441.0	164.0	94.6	67.7	46.1	35.9	33.0	32.2	32.6	34.3
52.5°	3778.9	2441.8	138.3	84.8	60.8	40.8	33.9	30.6	30.2	31.0	32.6
55°	4011.9	2376.5	119.9	76.3	54.7	37.1	32.2	29.4	29.4	30.2	31.8
57.5°	4166.5	2256.6	104.0	67.3	49.4	35.1	31.0	28.1	27.7	27.3	28.6
60°	4241.9	2093.0	88.1	59.1	44.5	33.9	30.2	24.9	24.5	23.7	24.5
62.5°	4194.2	1888.2	73.8	51.0	39.6	32.2	26.5	21.6	20.8	19.2	20.4
65°	3950.3	1639.4	62.4	43.6	34.3	27.3	22.4	18.4	16.3	14.3	13.9
67.5°	3451.4	1331.8	52.2	37.5	29.4	22.4	18.4	16.3	12.6	11.0	10.6
70°	2586.6	909.2	43.2	32.2	24.5	19.2	15.5	14.7	11.8	10.6	9.8
72.5°	1517.4	490.7	36.3	28.1	20.8	15.9	12.6	13.5	11.8	9.8	9.0
75°	606.2	163.2	29.0	22.4	16.7	11.4	10.6	11.0	10.6	9.0	7.3
77.5°	138.3	51.4	22.4	17.5	13.1	7.3	8.6	9.4	9.4	7.3	5.3
80°	43.2	20.4	13.1	11.0	9.4	4.1	6.1	6.5	4.5	2.0	0.0
82.5°	13.9	5.7	4.5	4.5	4.1	0.8	1.2	0.8	0.0	0.0	0.0
85°	5.3	3.7	2.9	2.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	1.6	1.2	1.6	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)