

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: P367031

Luminaire Tested: **MSA-SA1D-730-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367031
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1D-730-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4710 lumens
Efficiency: N/A
Efficacy: 70.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

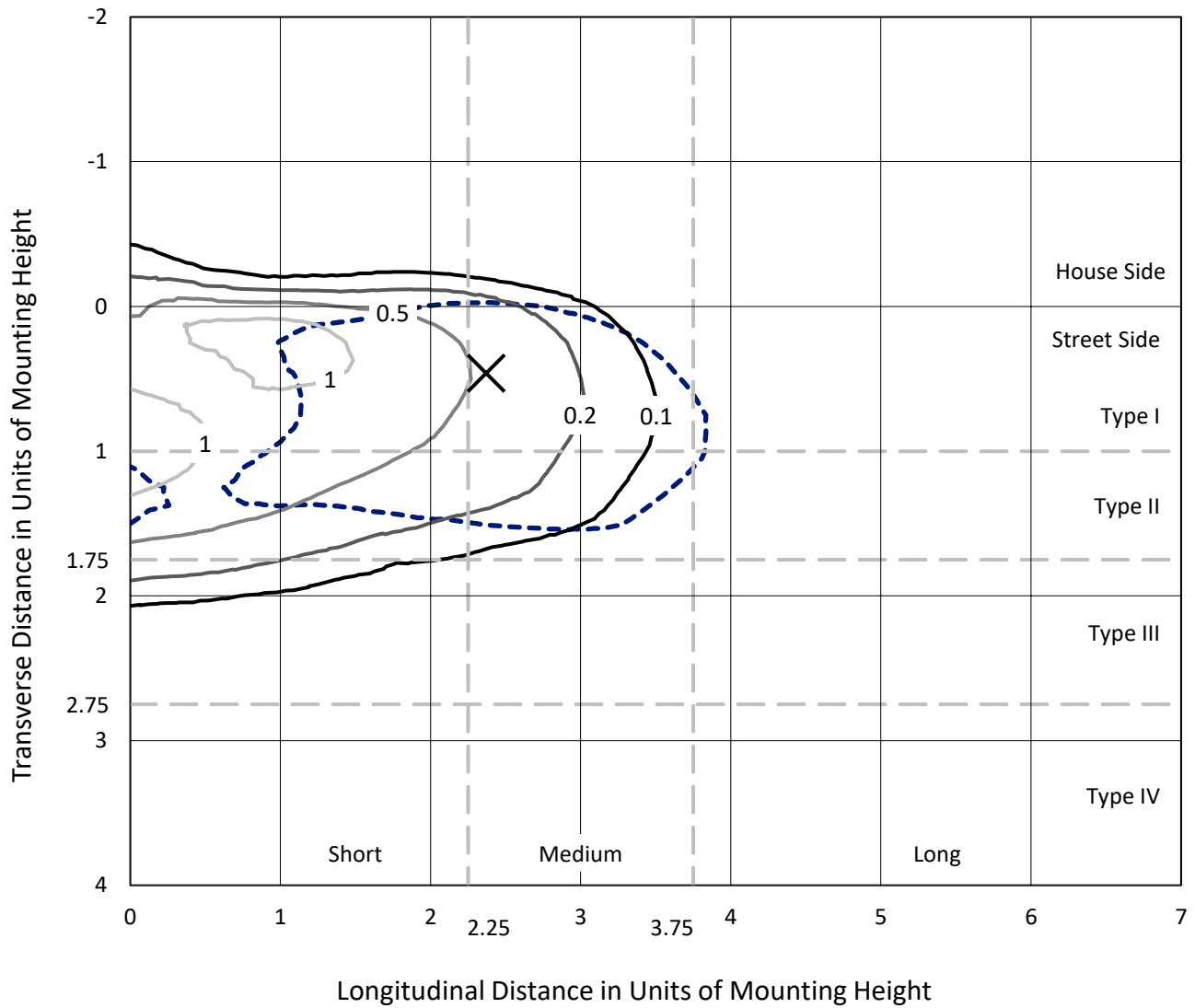
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

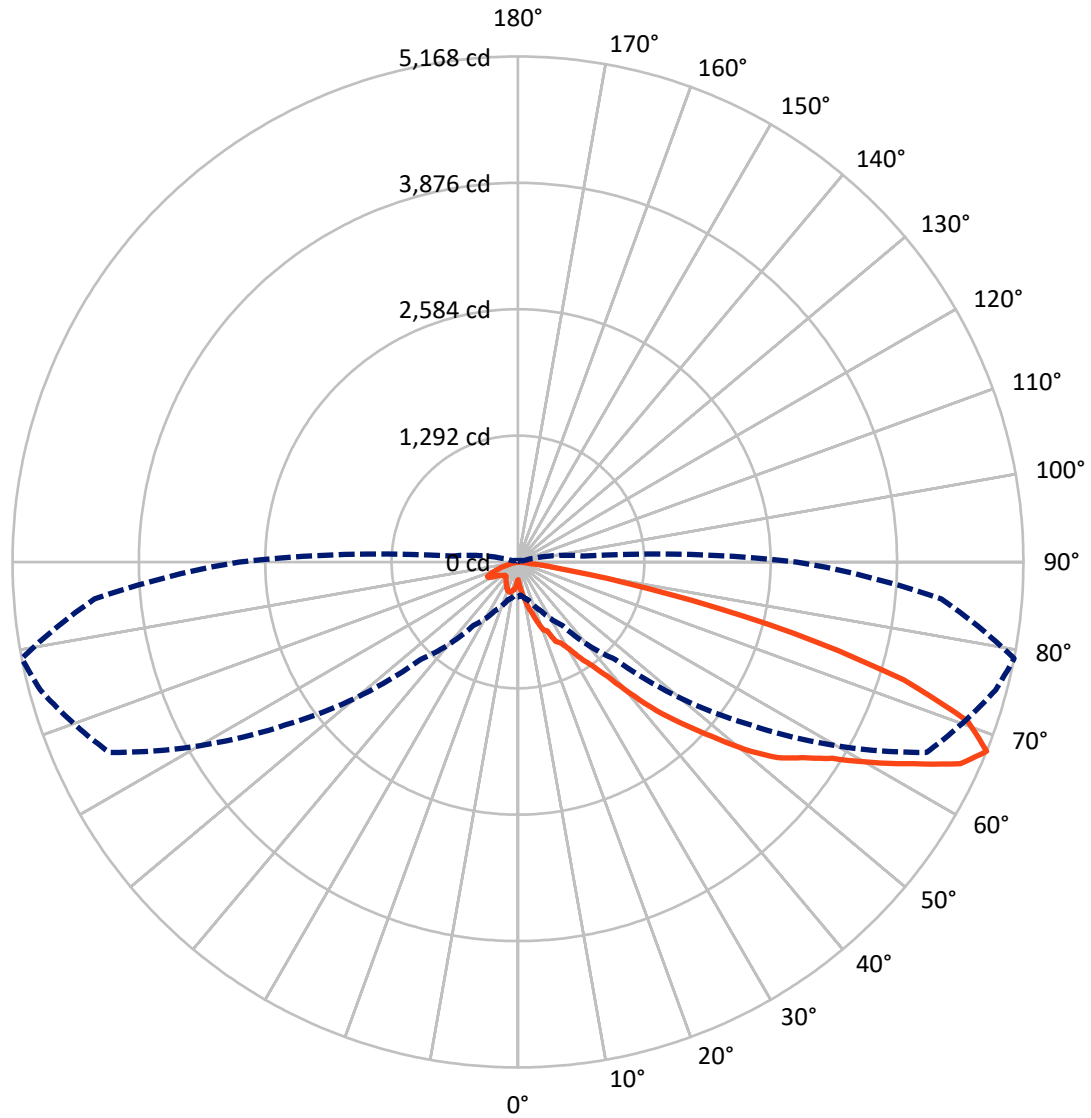
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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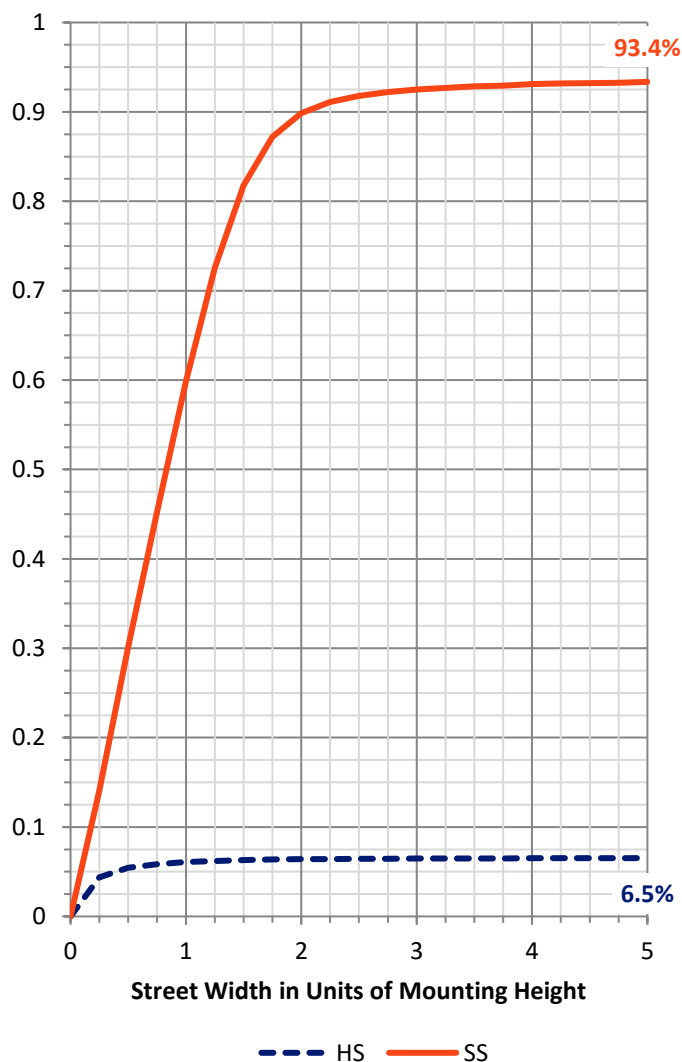
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	309.5	0.0	309.5
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	4400.5	0.0	4400.5
	% Fixture	93.4	0.0	93.4
Total	Lumens	4710.0	0.0	4710.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.4	0.6
10°-20°	105.2	2.2
20°-30°	203.0	4.3
30°-40°	398.8	8.5
40°-50°	799.0	17.0
50°-60°	1277.0	27.1
60°-70°	1284.9	27.3
70°-80°	579.7	12.3
80°-90°	35.9	0.8
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°	4710.0	100.0
0°-180°	4710.0	100.0

Coefficient of Utilization



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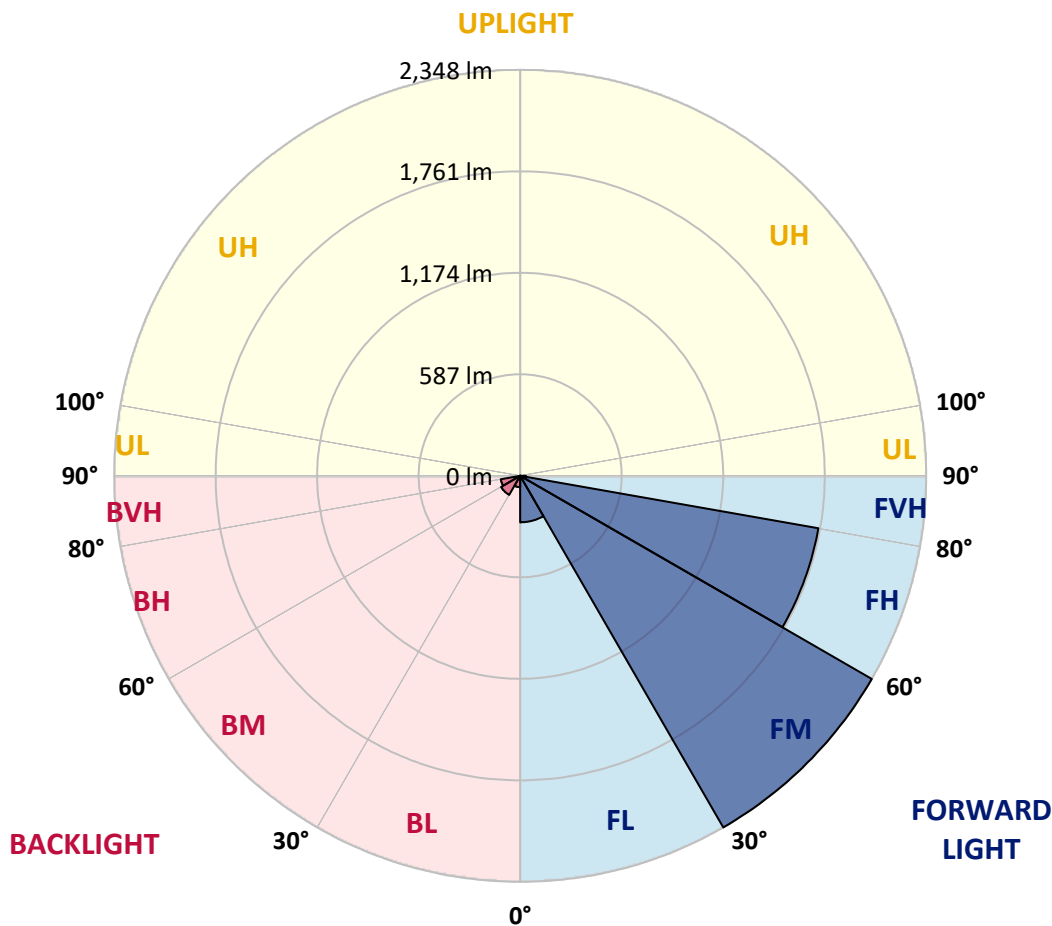
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	268.9	5.7			
FM (30°-60°)	2347.5	49.8			
FH (60°-80°)	1750.5	37.2			G1/1800
FVH (80°-90°)	33.6	0.7			G1/100
BL (0°-30°)	65.8	1.4	B0/110		
BM (30°-60°)	127.3	2.7	B0/220		
BH (60°-80°)	114.1	2.4	B1/500		G1/500
BVH (80°-90°)	2.3	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-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5
2.5°	245.1	236.3	222.0	230.0	229.5	233.7	225.9	217.3	203.6	217.3	218.4
5°	352.9	336.5	326.1	324.0	312.6	302.0	299.6	290.8	284.0	271.8	282.7
7.5°	439.6	432.0	413.6	411.5	383.5	367.9	372.8	368.9	343.2	330.5	341.2
10°	476.4	463.5	466.1	463.5	451.5	455.9	445.8	434.1	413.6	392.6	366.1
12.5°	490.7	488.6	510.2	507.6	535.6	569.4	546.8	527.3	479.8	474.6	438.5
15°	521.4	534.3	531.2	542.1	560.0	617.4	616.9	621.6	571.2	544.2	492.0
17.5°	548.6	558.2	542.6	555.1	603.9	638.7	685.2	667.0	672.7	645.2	564.5
20°	536.9	547.8	532.3	524.7	610.7	676.6	738.7	725.4	759.7	742.6	631.2
22.5°	609.9	589.4	550.2	525.8	589.9	675.8	757.6	812.9	807.0	764.9	693.2
25°	700.0	687.5	640.5	597.4	603.1	671.2	817.3	898.6	916.3	898.4	752.2
27.5°	821.5	818.6	722.6	703.9	648.3	650.7	826.7	1006.6	966.4	938.3	821.0
30°	980.1	957.6	843.6	819.2	737.1	696.9	883.8	1099.8	1070.2	1032.1	885.6
32.5°	1150.7	1154.1	1008.7	928.2	862.3	814.5	861.2	1143.5	1198.8	1167.9	966.4
35°	1344.4	1359.5	1181.6	1087.1	958.9	888.5	958.3	1277.4	1376.6	1295.3	1074.7
37.5°	1642.7	1642.2	1434.5	1246.3	1153.1	1076.7	1120.1	1399.2	1595.2	1481.0	1268.9
40°	1905.2	1848.1	1654.9	1438.7	1293.3	1272.5	1241.1	1565.9	1828.6	1759.8	1441.5
42.5°	2101.3	2061.0	1827.6	1659.4	1479.2	1413.2	1402.1	1810.2	2173.2	2076.9	1687.9
45°	2335.7	2203.8	2031.9	1880.3	1696.7	1677.5	1651.3	2058.2	2574.1	2357.0	1902.1
47.5°	2545.8	2421.7	2259.1	2064.4	1853.6	2012.0	1911.2	2276.0	2865.6	2661.8	2138.4
50°	2722.6	2590.7	2408.7	2260.4	2170.1	2277.6	2109.6	2455.4	3180.6	3015.5	2359.4
52.5°	2812.7	2663.4	2522.7	2431.0	2486.3	2462.2	2378.6	2672.7	3449.1	3325.5	2555.1
55°	2738.7	2592.8	2533.8	2579.3	2747.3	2677.4	2684.2	3009.5	3702.5	3532.1	2725.4
57.5°	2410.5	2277.3	2303.5	2427.9	2749.9	2932.6	3032.6	3336.6	3905.8	3789.7	2988.2
60°	1823.5	1716.2	1813.3	2034.0	2491.2	2881.7	3279.8	3663.8	4196.3	4160.0	3386.0
62.5°	1113.6	1055.4	1193.0	1468.3	1985.2	2632.2	3423.9	4100.0	4507.1	4545.8	3807.9
65°	568.1	541.9	656.6	898.6	1341.3	2162.3	3319.8	4371.0	4828.3	4971.1	4210.1
67.5°	357.8	340.9	402.2	548.1	791.4	1410.4	2906.7	4608.1	5055.2	5168.1	4344.3
70°	248.0	237.3	290.3	376.2	499.3	759.7	2158.1	4386.9	4875.3	4880.5	4019.5
72.5°	157.3	149.0	200.7	278.6	368.4	392.3	1237.2	3442.3	4173.2	4125.2	3255.1
75°	102.0	97.9	127.5	204.1	283.0	242.0	611.5	2322.7	2992.4	2917.1	2162.0
77.5°	73.2	70.6	85.4	136.3	201.5	169.3	274.2	1384.4	1715.7	1551.1	1049.5
80°	44.1	43.9	61.8	85.4	143.3	119.4	126.7	628.6	665.2	542.4	320.7
82.5°	22.1	22.8	34.5	55.0	92.2	78.2	57.9	209.3	178.6	131.6	64.9
85°	5.2	6.5	18.2	37.9	46.2	31.2	27.5	54.8	49.1	37.1	19.0
87.5°	0.0	0.0	5.7	9.1	12.5	5.2	9.3	10.4	13.2	10.4	3.9
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°	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5	181.5
2.5°	218.6	215.5	196.5	191.6	191.1	185.6	186.9	181.7	182.0	193.7	193.7
5°	278.6	260.4	242.2	226.1	215.2	199.7	194.0	191.6	189.5	194.2	197.1
7.5°	327.1	300.4	267.7	232.6	200.2	177.9	174.7	169.0	166.9	171.6	175.3
10°	348.7	315.5	270.5	219.4	189.0	170.8	155.8	147.7	146.2	145.9	147.2
12.5°	394.4	353.1	273.7	214.5	181.5	161.5	144.4	130.9	118.4	119.7	118.4
15°	431.0	382.2	273.7	202.5	163.3	143.3	113.2	106.5	104.6	107.5	105.2
17.5°	486.3	411.0	259.9	181.2	147.7	111.4	100.0	99.4	103.1	107.2	104.6
20°	519.5	414.9	236.8	156.8	121.3	96.6	92.4	88.3	93.5	96.8	95.5
22.5°	554.1	415.2	213.7	143.8	97.6	88.0	81.3	77.9	78.7	81.8	82.3
25°	568.9	405.0	192.1	126.7	88.5	78.7	71.7	68.0	66.7	68.3	67.8
27.5°	609.1	385.6	168.8	108.0	84.1	69.8	63.4	58.9	55.0	57.6	58.2
30°	614.8	379.3	156.0	96.1	78.4	61.8	56.1	51.4	48.6	52.2	52.2
32.5°	633.0	345.1	149.6	91.1	72.4	57.1	49.3	46.0	45.4	47.8	48.0
35°	661.0	330.0	139.9	87.2	67.0	51.7	44.4	42.8	42.3	44.1	44.1
37.5°	756.1	311.3	129.3	83.9	62.3	48.8	43.1	40.5	40.8	42.3	43.4
40°	819.2	313.6	113.5	79.7	56.9	46.2	40.5	38.7	38.4	39.2	40.0
42.5°	936.3	315.5	106.5	75.3	52.7	43.1	37.9	36.6	35.6	36.3	37.1
45°	1067.1	325.1	102.8	71.7	50.4	41.3	35.6	34.8	32.5	33.0	34.0
47.5°	1193.3	360.1	98.4	66.5	48.3	40.2	33.2	31.4	29.9	29.6	30.6
50°	1336.6	394.1	93.5	60.8	46.2	38.7	30.9	28.0	27.0	27.0	27.8
52.5°	1464.9	426.6	88.8	56.9	44.7	35.8	28.8	26.0	25.2	25.2	26.2
55°	1599.9	460.6	84.6	53.2	42.6	33.0	27.0	24.4	24.1	23.6	24.4
57.5°	1838.3	534.9	79.4	50.1	39.7	30.6	25.4	22.8	22.3	21.6	22.3
60°	2185.4	648.8	72.7	47.0	36.3	29.1	24.1	21.0	20.3	19.0	19.2
62.5°	2524.7	741.0	64.9	43.1	33.2	27.5	22.1	19.0	17.7	16.1	16.4
65°	2815.5	777.4	56.6	38.4	30.1	23.9	19.2	16.6	14.8	12.7	12.5
67.5°	2849.8	686.5	48.6	34.0	27.0	20.3	16.4	14.8	11.9	10.1	9.6
70°	2564.7	511.5	40.5	30.1	23.4	17.1	14.0	13.0	11.2	9.6	8.8
72.5°	2042.3	377.5	34.0	26.7	20.5	14.5	11.9	12.2	11.2	9.3	8.3
75°	1350.6	216.0	27.8	22.3	17.1	11.7	10.9	10.9	10.6	8.8	7.8
77.5°	649.9	93.2	21.3	17.7	13.8	8.8	9.9	9.9	10.1	8.0	6.5
80°	184.3	28.0	13.2	11.9	10.1	6.0	7.8	7.5	6.8	4.7	2.9
82.5°	33.0	10.9	6.0	6.2	5.7	2.3	4.4	4.2	3.4	1.8	0.3
85°	9.1	4.2	3.4	3.6	2.9	0.8	1.8	2.3	1.8	1.0	0.0
87.5°	2.3	1.8	2.3	2.6	2.1	0.3	0.8	0.3	0.8	0.3	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)