

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: P367273

Luminaire Tested: **MSA-SA2B-727-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367273
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-SA2B-727-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 6283 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

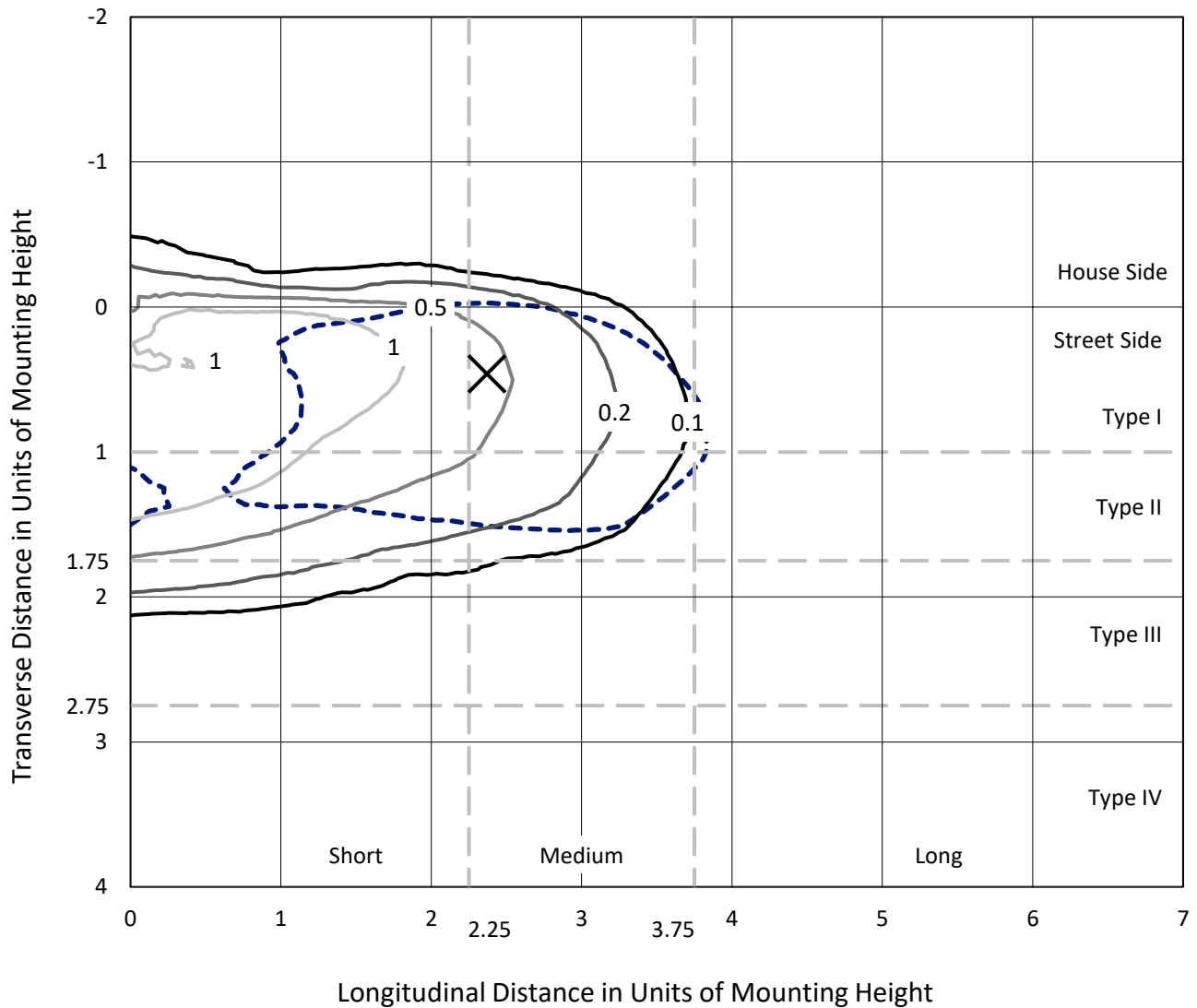
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

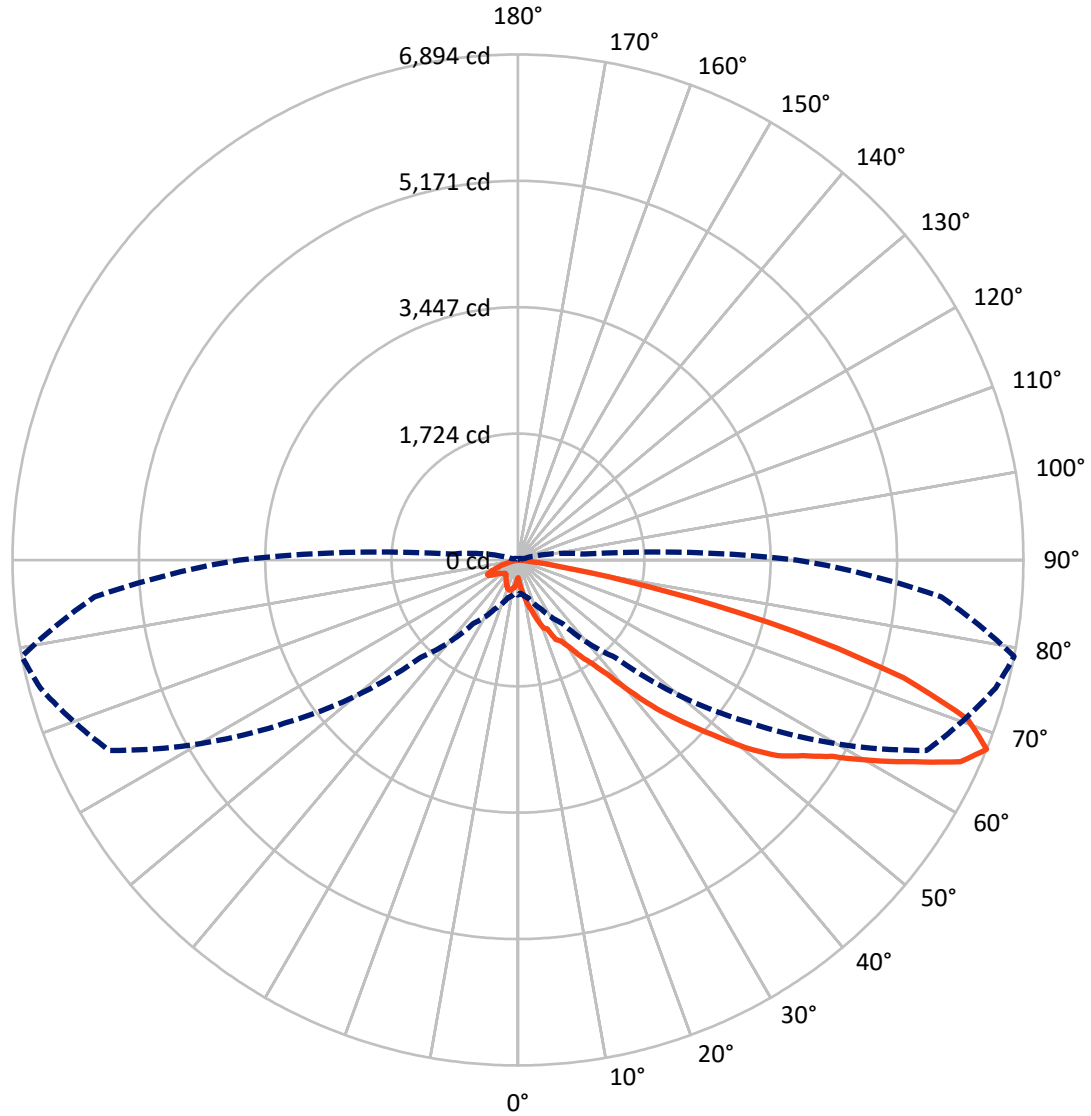
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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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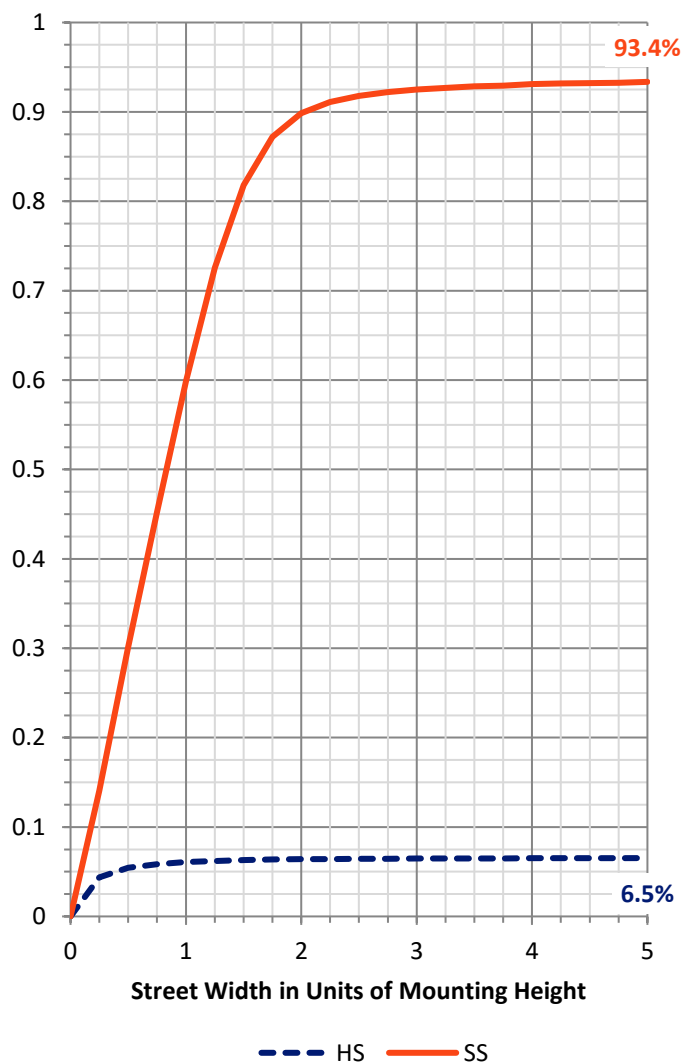
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	412.8	0.0	412.8
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	5870.2	0.0	5870.2
	% Fixture	93.4	0.0	93.4
Total	Lumens	6283.0	0.0	6283.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.2	0.6
10°-20°	140.4	2.2
20°-30°	270.8	4.3
30°-40°	532.0	8.5
40°-50°	1065.8	17.0
50°-60°	1703.6	27.1
60°-70°	1714.1	27.3
70°-80°	773.3	12.3
80°-90°	47.8	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°	6283.0	100.0
0°-180°	6283.0	100.0

Coefficient of Utilization

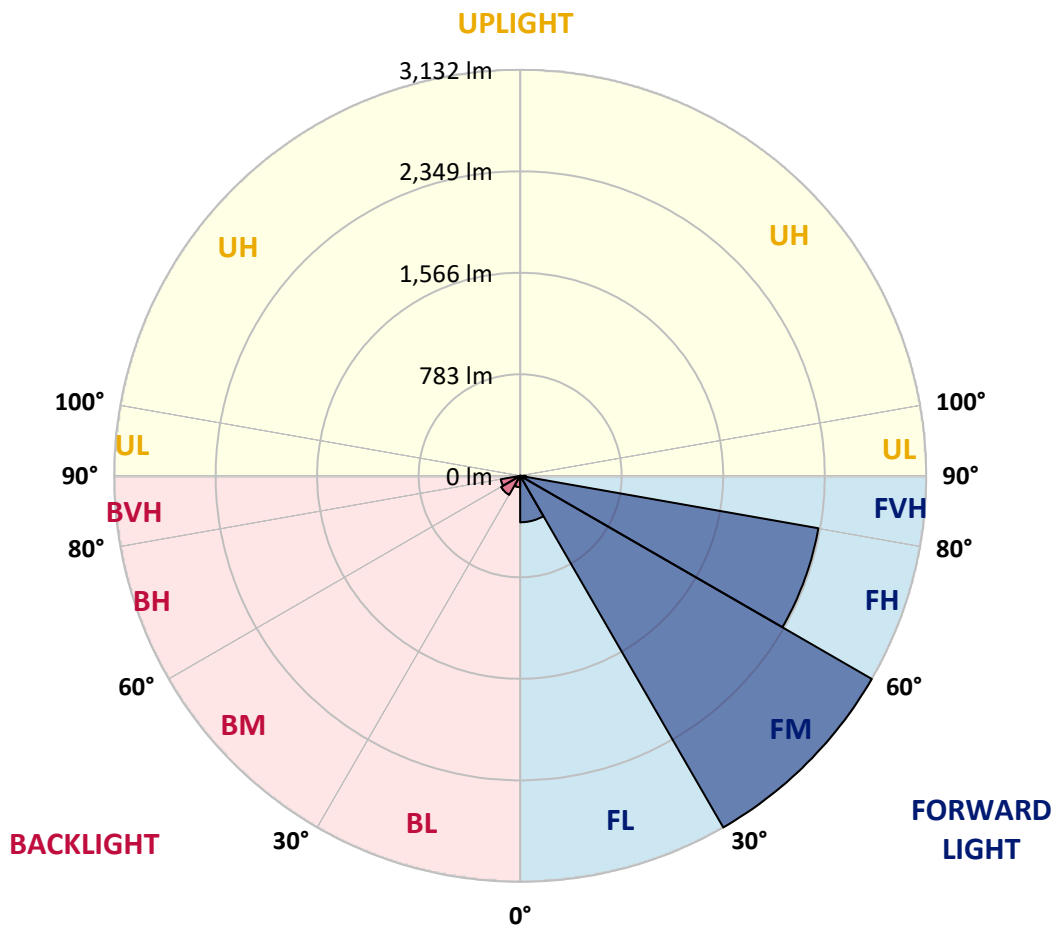


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	358.7	5.7			
FM (30°-60°)	3131.5	49.8			
FH (60°-80°)	2335.1	37.2			G2/5000
FVH (80°-90°)	44.8	0.7			G1/100
BL (0°-30°)	87.8	1.4	B0/110		
BM (30°-60°)	169.9	2.7	B0/220		
BH (60°-80°)	152.2	2.4	B1/500		G1/500
BVH (80°-90°)	3.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1
2.5°	327.0	315.2	296.1	306.9	306.2	311.7	301.3	289.9	271.5	289.9	291.3
5°	470.7	448.9	435.0	432.2	417.0	402.8	399.7	387.9	378.9	362.6	377.2
7.5°	586.4	576.3	551.7	549.0	511.6	490.8	497.4	492.2	457.9	440.9	455.1
10°	635.6	618.2	621.7	618.2	602.3	608.2	594.7	579.1	551.7	523.7	488.4
12.5°	654.6	651.8	680.6	677.1	714.5	759.6	729.4	703.4	640.1	633.1	585.0
15°	695.5	712.8	708.6	723.2	747.1	823.6	822.9	829.2	762.0	726.0	656.3
17.5°	731.8	744.7	723.9	740.5	805.6	852.0	914.0	889.8	897.4	860.7	753.0
20°	716.3	730.8	710.0	700.0	814.6	902.6	985.4	967.7	1013.4	990.6	842.0
22.5°	813.6	786.2	733.9	701.4	786.9	901.6	1010.7	1084.4	1076.5	1020.4	924.8
25°	933.8	917.1	854.5	797.0	804.6	895.3	1090.3	1198.7	1222.3	1198.4	1003.4
27.5°	1095.9	1092.0	963.9	939.0	864.8	868.0	1102.8	1342.8	1289.1	1251.7	1095.2
30°	1307.5	1277.3	1125.3	1092.7	983.3	929.6	1179.0	1467.1	1427.7	1376.8	1181.4
32.5°	1535.0	1539.5	1345.6	1238.2	1150.2	1086.5	1148.9	1525.3	1599.1	1557.9	1289.1
35°	1793.4	1813.5	1576.2	1450.2	1279.1	1185.2	1278.4	1704.1	1836.4	1728.0	1433.6
37.5°	2191.4	2190.7	1913.6	1662.5	1538.2	1436.3	1494.2	1866.5	2128.0	1975.6	1692.6
40°	2541.5	2465.3	2207.7	1919.1	1725.2	1697.5	1655.6	2088.9	2439.4	2347.6	1922.9
42.5°	2803.0	2749.3	2438.0	2213.5	1973.2	1885.2	1870.3	2414.8	2899.0	2770.5	2251.6
45°	3115.8	2939.8	2710.6	2508.3	2263.4	2237.8	2202.8	2745.5	3433.7	3144.2	2537.4
47.5°	3396.0	3230.4	3013.6	2753.8	2472.6	2683.9	2549.5	3036.1	3822.7	3550.8	2852.6
50°	3631.9	3455.9	3213.1	3015.3	2894.8	3038.2	2814.1	3275.5	4242.8	4022.5	3147.3
52.5°	3752.0	3552.9	3365.2	3242.9	3316.7	3284.5	3172.9	3565.4	4600.9	4436.1	3408.5
55°	3653.3	3458.7	3380.1	3440.7	3664.8	3571.6	3580.6	4014.6	4939.0	4711.8	3635.7
57.5°	3215.5	3037.9	3072.8	3238.7	3668.2	3912.1	4045.4	4451.0	5210.2	5055.4	3986.2
60°	2432.4	2289.4	2418.9	2713.3	3323.3	3844.2	4375.1	4887.4	5597.7	5549.3	4516.8
62.5°	1485.5	1407.9	1591.5	1958.6	2648.2	3511.3	4567.3	5469.3	6012.3	6063.9	5079.6
65°	757.8	722.8	875.9	1198.7	1789.3	2884.4	4428.5	5830.8	6440.8	6631.3	5616.1
67.5°	477.3	454.8	536.5	731.1	1055.7	1881.4	3877.4	6147.1	6743.5	6894.1	5795.2
70°	330.8	316.6	387.2	501.9	666.0	1013.4	2878.9	5852.0	6503.5	6510.4	5361.9
72.5°	209.9	198.8	267.7	371.6	491.5	523.3	1650.4	4591.9	5566.9	5502.8	4342.2
75°	136.1	130.6	170.1	272.2	377.5	322.8	815.7	3098.5	3991.7	3891.3	2884.1
77.5°	97.7	94.2	113.9	181.8	268.8	225.8	365.7	1846.8	2288.7	2069.1	1400.0
80°	58.9	58.5	82.4	113.9	191.2	159.3	169.0	838.5	887.4	723.5	427.7
82.5°	29.4	30.5	46.1	73.4	123.0	104.3	77.2	279.2	238.3	175.6	86.6
85°	6.9	8.7	24.2	50.6	61.7	41.6	36.7	73.1	65.5	49.5	25.3
87.5°	0.0	0.0	7.6	12.1	16.6	6.9	12.5	13.9	17.7	13.9	5.2
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°	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1	242.1
2.5°	291.6	287.5	262.2	255.6	254.9	247.6	249.4	242.4	242.8	258.4	258.4
5°	371.6	347.4	323.1	301.7	287.1	266.3	258.7	255.6	252.8	259.1	262.9
7.5°	436.4	400.7	357.1	310.3	267.0	237.3	233.1	225.5	222.7	228.9	233.8
10°	465.2	420.8	360.9	292.7	252.1	227.9	207.8	197.1	195.0	194.7	196.4
12.5°	526.1	471.0	365.1	286.1	242.1	215.4	192.6	174.6	157.9	159.7	157.9
15°	574.9	509.8	365.1	270.2	217.9	191.2	151.0	142.0	139.6	143.4	140.3
17.5°	648.7	548.3	346.7	241.8	197.1	148.6	133.3	132.7	137.5	143.0	139.6
20°	693.1	553.5	315.9	209.2	161.7	128.8	123.3	117.8	124.7	129.2	127.5
22.5°	739.1	553.8	285.0	191.9	130.2	117.4	108.4	103.9	104.9	109.1	109.8
25°	758.9	540.3	256.3	169.0	118.1	104.9	95.6	90.7	89.0	91.1	90.4
27.5°	812.5	514.3	225.1	144.1	112.2	93.2	84.5	78.6	73.4	76.9	77.6
30°	820.2	506.0	208.2	128.2	104.6	82.4	74.8	68.6	64.8	69.6	69.6
32.5°	844.4	460.3	199.5	121.6	96.6	76.2	65.8	61.3	60.6	63.7	64.1
35°	881.8	440.2	186.7	116.4	89.4	68.9	59.2	57.1	56.5	58.9	58.9
37.5°	1008.6	415.3	172.5	111.9	83.1	65.1	57.5	54.0	54.4	56.5	57.8
40°	1092.7	418.4	151.4	106.3	75.9	61.7	54.0	51.6	51.3	52.3	53.3
42.5°	1248.9	420.8	142.0	100.4	70.3	57.5	50.6	48.8	47.5	48.5	49.5
45°	1423.5	433.6	137.2	95.6	67.2	55.1	47.5	46.4	43.3	44.0	45.4
47.5°	1591.8	480.4	131.3	88.7	64.4	53.7	44.3	41.9	39.8	39.5	40.9
50°	1783.0	525.8	124.7	81.0	61.7	51.6	41.2	37.4	36.0	36.0	37.1
52.5°	1954.1	569.1	118.5	75.9	59.6	47.8	38.4	34.6	33.6	33.6	35.0
55°	2134.2	614.4	112.9	71.0	56.8	44.0	36.0	32.6	32.2	31.5	32.6
57.5°	2452.2	713.5	106.0	66.8	53.0	40.9	33.9	30.5	29.8	28.7	29.8
60°	2915.2	865.5	97.0	62.7	48.5	38.8	32.2	28.1	27.0	25.3	25.6
62.5°	3367.9	988.5	86.6	57.5	44.3	36.7	29.4	25.3	23.6	21.5	21.8
65°	3755.8	1037.0	75.5	51.3	40.2	31.9	25.6	22.2	19.7	17.0	16.6
67.5°	3801.6	915.8	64.8	45.4	36.0	27.0	21.8	19.7	15.9	13.5	12.8
70°	3421.3	682.3	54.0	40.2	31.2	22.9	18.7	17.3	14.9	12.8	11.8
72.5°	2724.4	503.6	45.4	35.7	27.4	19.4	15.9	16.3	14.9	12.5	11.1
75°	1801.7	288.2	37.1	29.8	22.9	15.6	14.5	14.5	14.2	11.8	10.4
77.5°	866.9	124.3	28.4	23.6	18.4	11.8	13.2	13.2	13.5	10.7	8.7
80°	245.9	37.4	17.7	15.9	13.5	8.0	10.4	10.0	9.0	6.2	3.8
82.5°	44.0	14.5	8.0	8.3	7.6	3.1	5.9	5.5	4.5	2.4	0.3
85°	12.1	5.5	4.5	4.8	3.8	1.0	2.4	3.1	2.4	1.4	0.0
87.5°	3.1	2.4	3.1	3.5	2.8	0.3	1.0	0.3	1.0	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)