

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: P367935

Luminaire Tested: **MSA-SA3C-727-U-T3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367935
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-SA3C-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: 11244 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

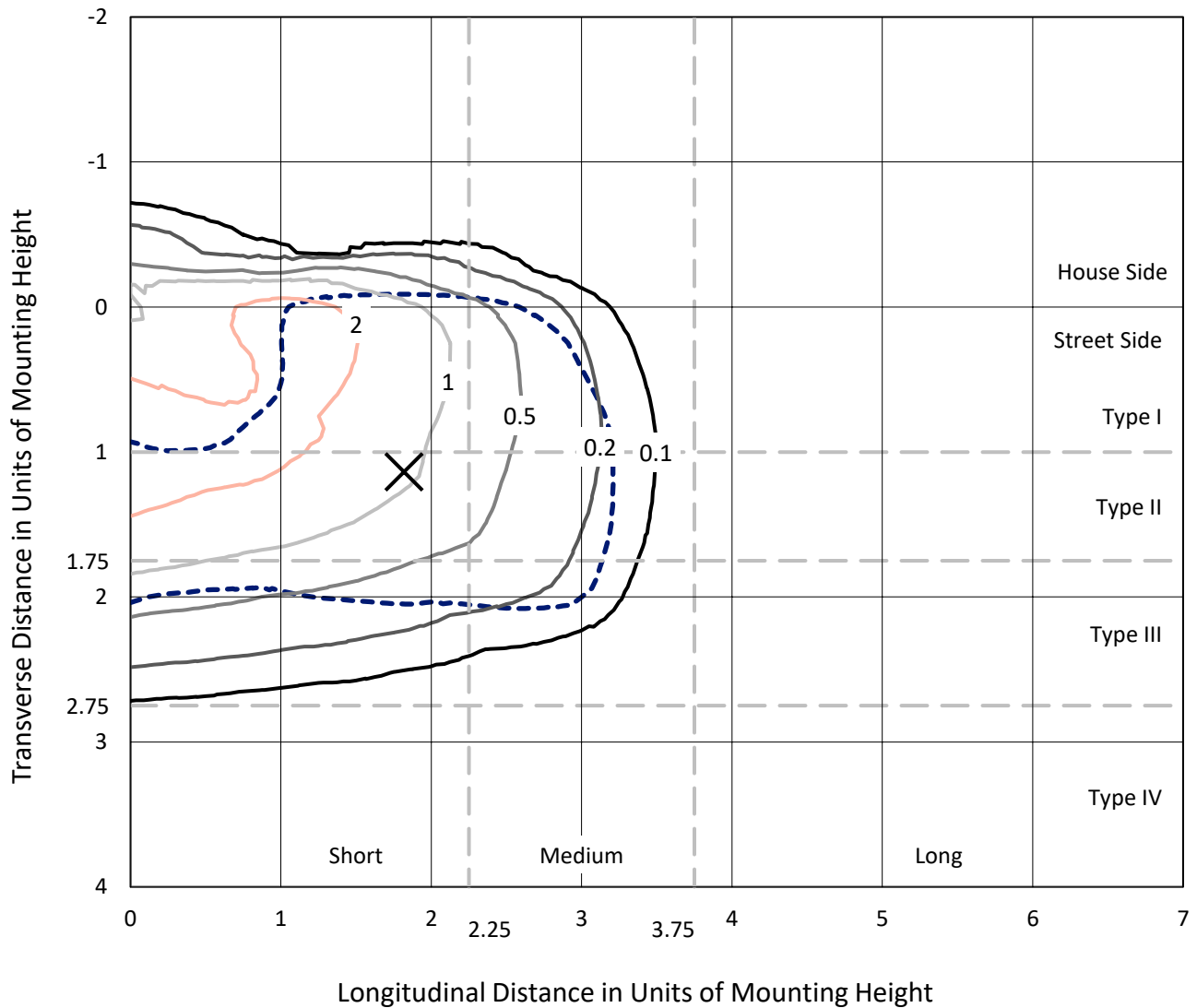
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

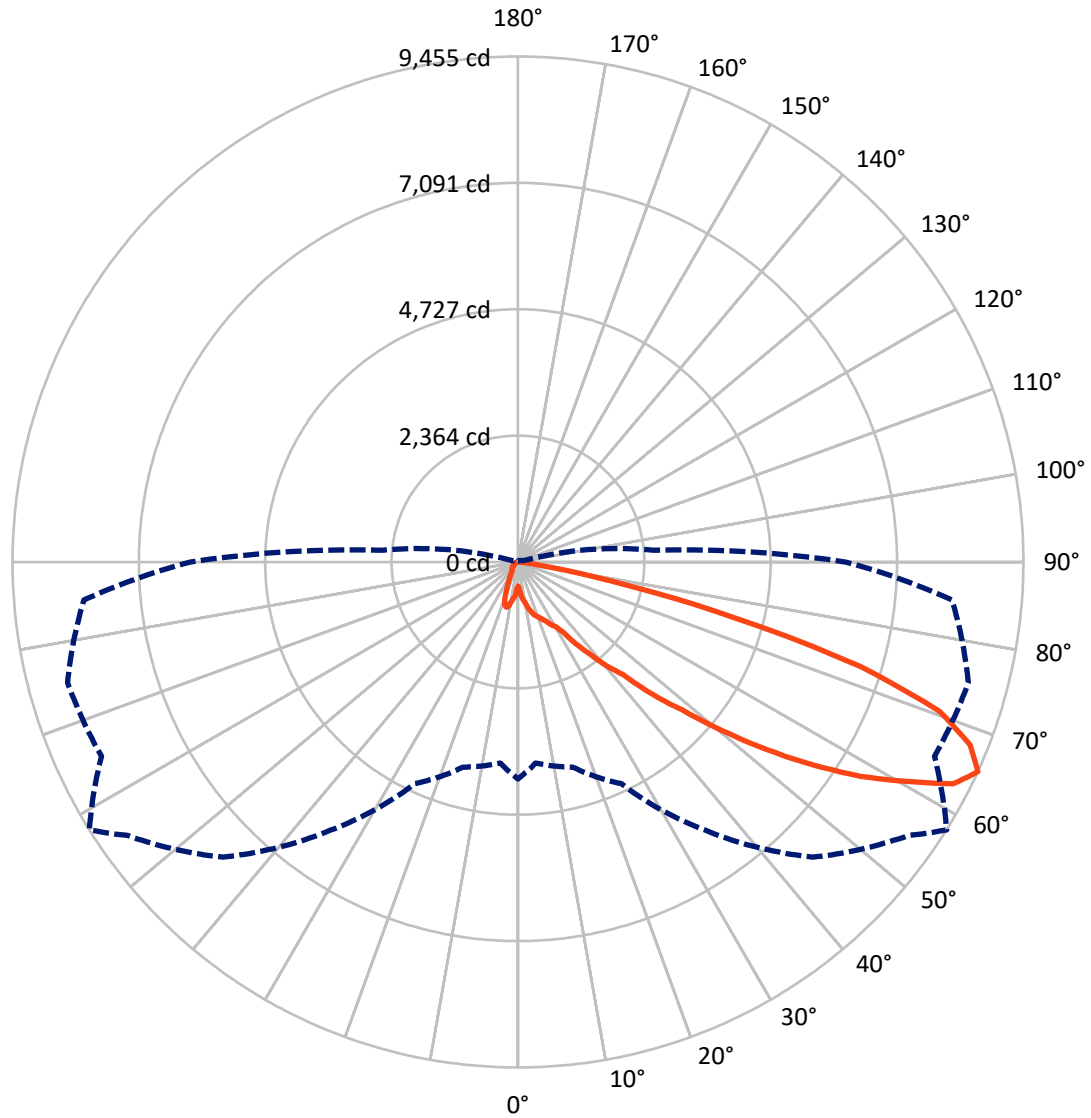
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



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

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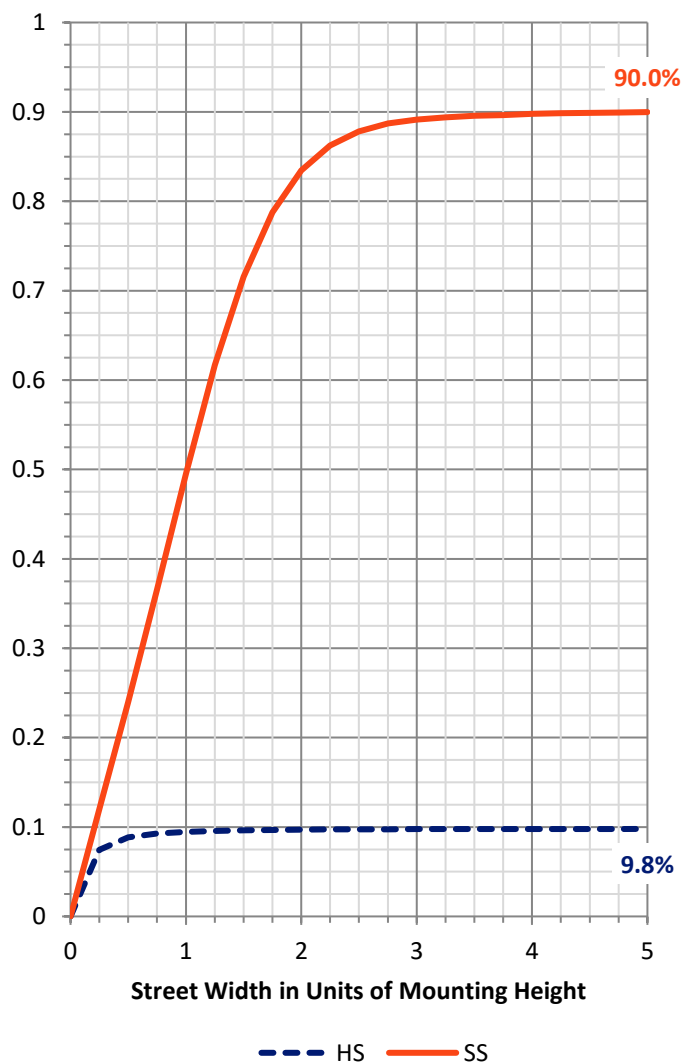
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1109.5	0.0	1109.5
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	10134.5	0.0	10134.5
	% Fixture	90.1	0.0	90.1
Total	Lumens	11244.0	0.0	11244.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	0.6
10°-20°	230.8	2.1
20°-30°	446.8	4.0
30°-40°	891.3	7.9
40°-50°	1822.2	16.2
50°-60°	3232.1	28.7
60°-70°	3407.5	30.3
70°-80°	1104.8	9.8
80°-90°	45.2	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°	11244.0	100.0
0°-180°	11244.0	100.0

Coefficient of Utilization



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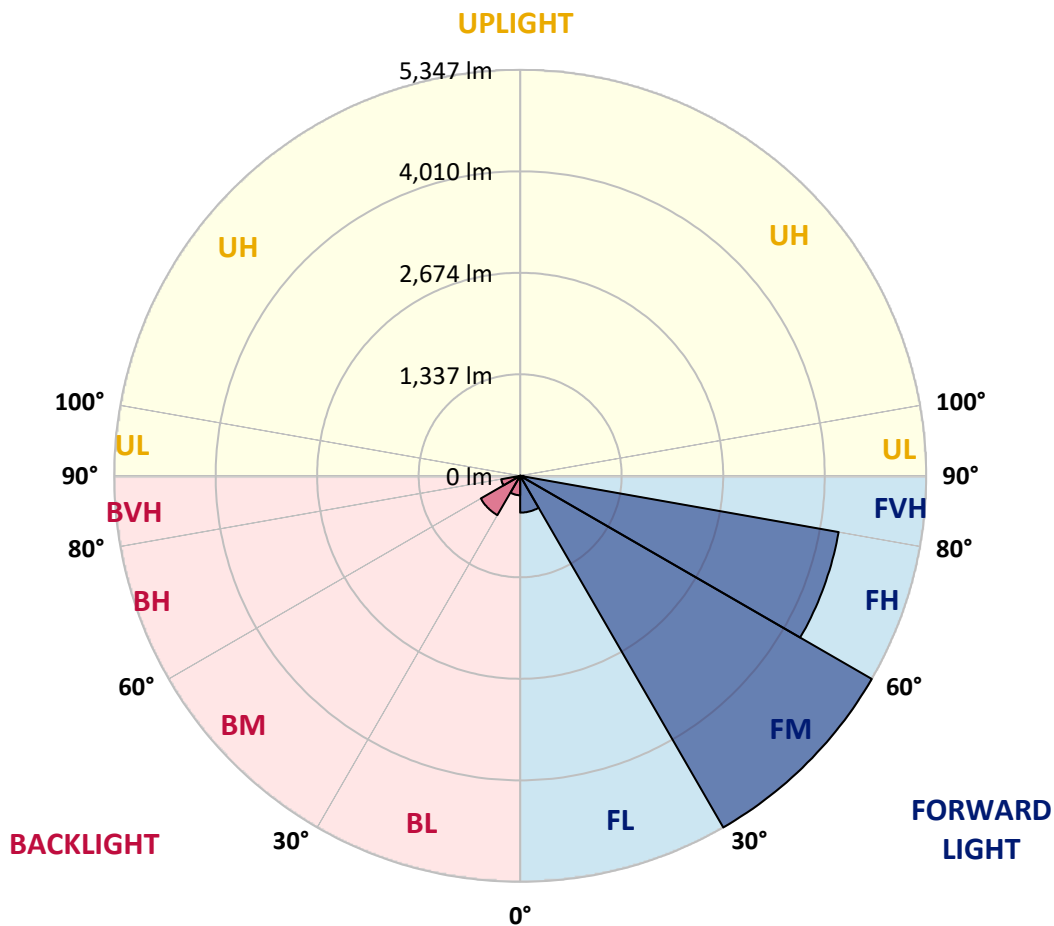
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.1	4.3			
FM (30°-60°)	5347.1	47.6			
FH (60°-80°)	4259.1	37.9			G2/5000
FVH (80°-90°)	43.3	0.4			G1/100
BL (0°-30°)	255.7	2.3	B1/500		
BM (30°-60°)	598.6	5.3	B1/1000		
BH (60°-80°)	253.2	2.3	B1/500		G1/500
BVH (80°-90°)	1.9	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1
2.5°	549.5	533.0	507.1	511.5	516.6	526.7	518.5	510.9	502.7	491.9	533.0
5°	663.5	636.2	633.7	628.0	623.6	622.9	633.1	629.9	634.3	654.6	675.5
7.5°	705.2	693.8	672.3	681.2	667.3	656.5	701.4	716.0	743.9	753.4	807.8
10°	700.8	684.4	693.2	697.6	707.1	746.4	774.9	790.7	814.8	866.7	855.9
12.5°	721.1	735.6	745.1	745.8	794.5	866.7	886.9	900.2	943.3	963.5	1016.7
15°	788.8	812.9	797.7	804.0	819.8	907.8	955.3	984.4	1045.2	1111.0	1124.3
17.5°	885.7	900.9	869.2	846.4	890.1	938.2	1024.3	1054.7	1093.3	1247.2	1275.6
20°	1007.9	1033.8	965.4	874.9	932.5	989.5	1083.2	1097.7	1138.9	1339.6	1384.5
22.5°	1293.4	1254.8	1150.3	1009.1	992.0	1017.3	1106.6	1163.6	1233.2	1391.5	1496.0
25°	1575.1	1561.8	1408.0	1250.3	1136.4	1079.4	1197.8	1229.4	1343.4	1514.9	1572.6
27.5°	1888.5	1915.0	1658.0	1562.4	1338.9	1152.8	1254.8	1333.9	1468.7	1559.9	1698.5
30°	2301.9	2259.4	1958.1	1862.5	1607.4	1354.8	1402.3	1407.3	1605.5	1708.0	1839.7
32.5°	2626.0	2653.2	2274.6	2127.8	1923.9	1665.6	1513.0	1578.9	1720.7	1949.2	2073.9
35°	2976.7	2974.2	2605.1	2407.6	2141.1	1919.5	1841.6	1889.7	2067.6	2326.5	2359.5
37.5°	3500.9	3455.9	3020.4	2731.1	2504.4	2315.1	2255.6	2191.7	2375.3	2622.2	2745.6
40°	3995.3	3840.2	3437.6	3094.5	2804.5	2727.3	2512.0	2551.3	2605.7	2931.8	3273.0
42.5°	4494.8	4398.6	3860.5	3573.1	3216.6	3033.1	2892.5	2874.2	3133.1	3519.3	3871.9
45°	5153.8	4859.5	4429.0	4176.4	3763.6	3579.4	3466.1	3533.8	3766.8	4330.9	4565.7
47.5°	5707.2	5436.2	5066.5	4682.8	4249.8	4456.8	4244.1	4137.1	4456.8	5039.9	5352.0
50°	6182.6	5880.6	5506.5	5222.2	5151.9	5350.7	4920.2	4959.5	5167.1	5852.1	6028.1
52.5°	6528.2	6210.4	5883.8	5746.4	6034.4	6134.5	5918.6	5831.9	6020.5	6544.7	6630.2
55°	6788.4	6463.0	6207.9	6397.2	6954.3	6921.4	6997.4	6701.1	6881.5	7267.0	7226.5
57.5°	6804.3	6418.7	6269.3	6573.8	7338.6	7848.2	8070.4	7566.5	7669.0	7831.7	7740.6
60°	6306.7	5923.0	5911.0	6343.4	7450.0	8088.1	8574.3	8328.7	8191.3	8312.2	8139.4
62.5°	5315.3	5046.9	5172.2	5650.2	7035.3	7955.8	8842.8	9138.4	8603.5	8630.7	8385.0
65°	4058.6	3776.9	3973.2	4575.2	6128.8	7807.7	8918.7	9454.9	8595.9	8721.2	8149.5
67.5°	2688.0	2524.7	2746.9	3410.4	4872.8	6892.3	8879.5	9122.6	8323.0	8367.3	7275.3
70°	1387.7	1347.8	1527.6	2051.2	3276.2	5295.0	8493.9	8361.0	7769.1	7208.2	5611.6
72.5°	444.4	446.3	619.1	936.9	1766.3	3223.6	6528.9	6711.2	6216.8	5272.9	3426.2
75°	196.9	193.7	258.9	393.1	736.3	1445.3	4056.1	4253.0	3870.6	2900.7	1440.2
77.5°	141.8	137.4	165.9	229.8	364.6	490.0	1901.8	2052.4	1754.9	1005.3	329.8
80°	100.0	99.4	120.3	161.4	227.9	217.8	600.8	673.6	539.4	243.7	96.9
82.5°	56.3	58.2	83.6	114.0	138.6	108.9	169.0	186.1	181.7	129.8	42.4
85°	27.2	30.4	54.4	82.3	72.8	42.4	60.1	65.2	76.0	75.3	21.5
87.5°	0.0	0.0	22.2	37.4	19.6	6.3	18.4	20.9	20.3	24.1	5.1
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°	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1	450.1
2.5°	541.3	537.5	489.4	493.2	503.9	499.5	503.3	494.4	484.3	525.5	524.8
5°	684.4	655.9	640.7	626.7	629.3	600.8	617.2	624.8	623.6	647.0	653.3
7.5°	809.7	771.7	741.3	712.2	667.9	628.0	652.7	668.5	679.3	719.8	735.6
10°	868.6	837.6	825.5	768.6	736.9	712.2	682.5	660.9	669.8	659.0	669.8
12.5°	997.7	976.8	930.6	873.0	835.0	784.4	673.6	581.2	524.2	524.8	521.0
15°	1115.5	1114.2	1045.2	949.6	839.5	695.1	522.3	405.8	352.0	336.8	331.7
17.5°	1269.3	1250.3	1124.3	983.2	785.0	538.1	355.8	277.9	272.9	281.7	277.9
20°	1367.4	1339.6	1163.6	934.4	647.0	364.0	268.4	246.3	261.5	274.1	271.0
22.5°	1465.6	1423.8	1193.3	874.9	460.2	266.5	242.5	238.7	248.2	264.0	266.5
25°	1519.4	1511.1	1251.6	763.5	315.3	233.6	233.6	232.3	235.5	246.9	245.0
27.5°	1675.7	1564.3	1207.9	595.7	243.7	214.6	217.8	216.5	205.1	216.5	217.1
30°	1773.2	1722.0	1211.1	424.2	214.6	189.9	198.2	188.0	170.9	180.4	178.5
32.5°	1969.5	1841.6	1201.6	286.1	195.6	181.1	168.4	153.8	141.2	145.0	141.8
35°	2198.0	2100.5	1073.1	229.8	182.3	160.2	139.9	125.3	112.1	115.2	114.6
37.5°	2652.6	2343.0	966.7	207.0	173.5	146.9	123.4	103.2	96.2	98.1	100.0
40°	3073.6	2747.5	768.6	196.9	158.3	131.0	101.9	87.4	82.9	84.2	86.1
42.5°	3702.8	3069.1	580.5	186.8	143.1	110.8	84.8	75.3	70.9	73.4	74.7
45°	4311.9	3342.6	433.7	177.9	130.4	95.6	71.5	65.2	60.1	62.0	64.6
47.5°	4920.2	3646.5	323.5	164.0	116.5	82.3	61.4	57.0	53.8	54.4	57.6
50°	5464.7	3788.3	254.5	146.9	105.1	71.5	55.7	51.3	50.0	50.6	53.2
52.5°	5864.8	3789.6	214.6	131.7	94.3	63.3	52.5	47.5	46.8	48.1	50.6
55°	6226.3	3688.3	186.1	118.4	84.8	57.6	50.0	45.6	45.6	46.8	49.4
57.5°	6466.2	3502.2	161.4	104.5	76.6	54.4	48.1	43.7	43.0	42.4	44.3
60°	6583.3	3248.3	136.7	91.8	69.0	52.5	46.8	38.6	38.0	36.7	38.0
62.5°	6509.3	2930.5	114.6	79.1	61.4	50.0	41.1	33.6	32.3	29.8	31.7
65°	6130.7	2544.3	96.9	67.7	53.2	42.4	34.8	28.5	25.3	22.2	21.5
67.5°	5356.4	2067.0	81.0	58.2	45.6	34.8	28.5	25.3	19.6	17.1	16.5
70°	4014.3	1411.1	67.1	50.0	38.0	29.8	24.1	22.8	18.4	16.5	15.2
72.5°	2355.0	761.6	56.3	43.7	32.3	24.7	19.6	20.9	18.4	15.2	13.9
75°	940.7	253.2	44.9	34.8	26.0	17.7	16.5	17.1	16.5	13.9	11.4
77.5°	214.6	79.8	34.8	27.2	20.3	11.4	13.3	14.6	14.6	11.4	8.2
80°	67.1	31.7	20.3	17.1	14.6	6.3	9.5	10.1	7.0	3.2	0.0
82.5°	21.5	8.9	7.0	7.0	6.3	1.3	1.9	1.3	0.0	0.0	0.0
85°	8.2	5.7	4.4	4.4	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.2	2.5	1.9	2.5	1.3	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)