

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: P596711

Luminaire Tested: **MSA-SA3C-827-U-T3-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596711  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3C-827-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: 9883 lumens  
Efficiency: N/A  
Efficacy: 59.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

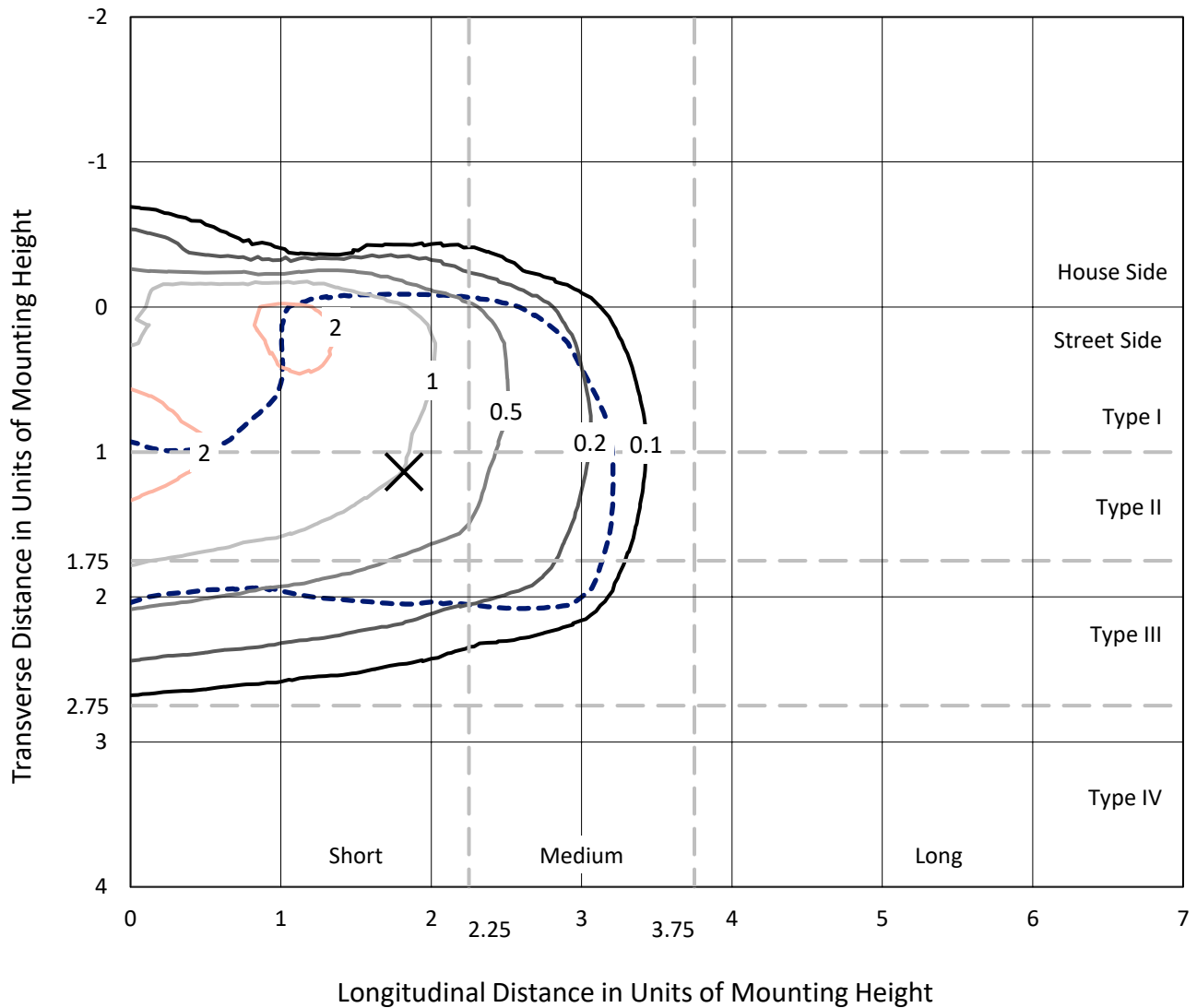
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

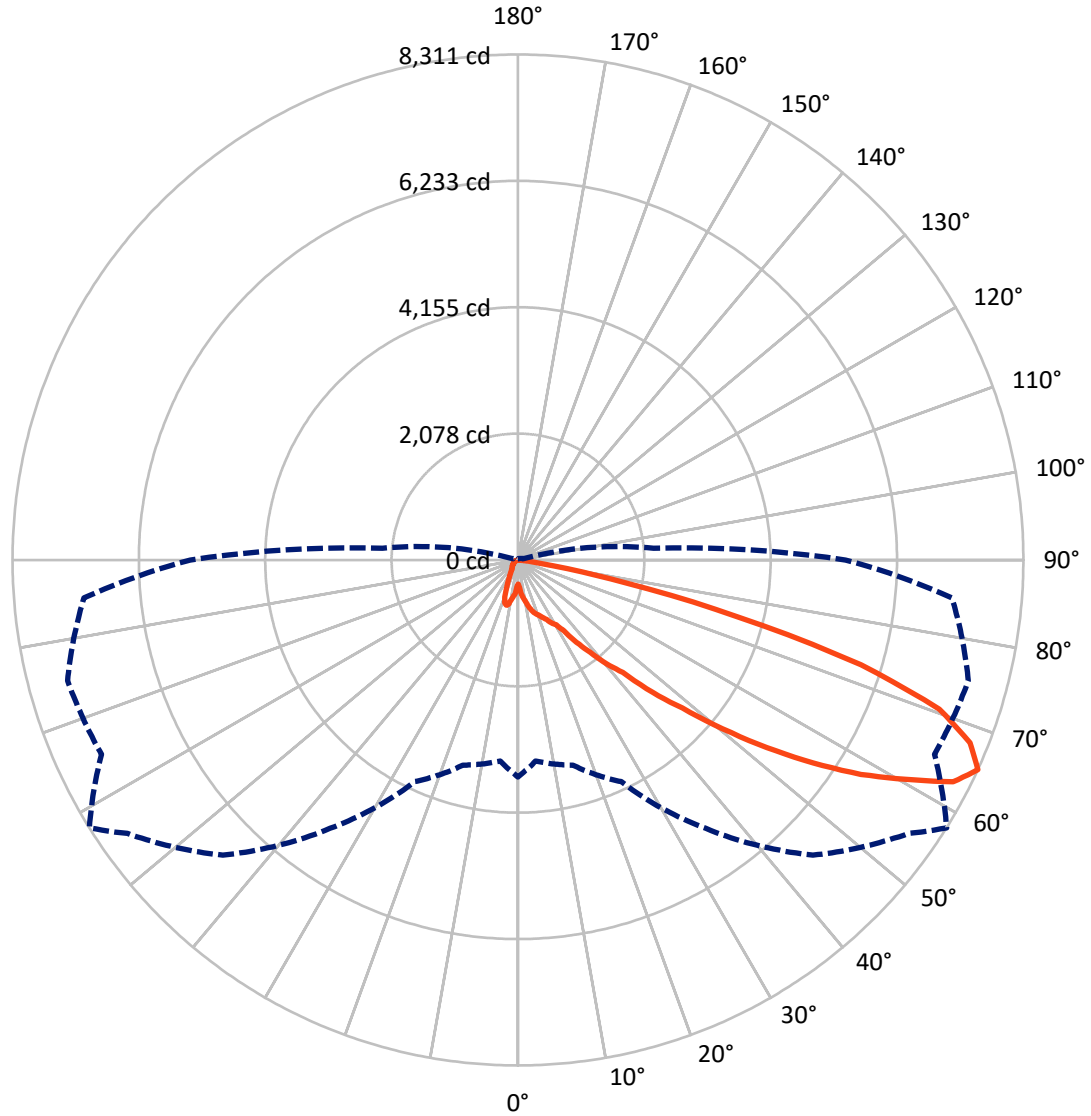
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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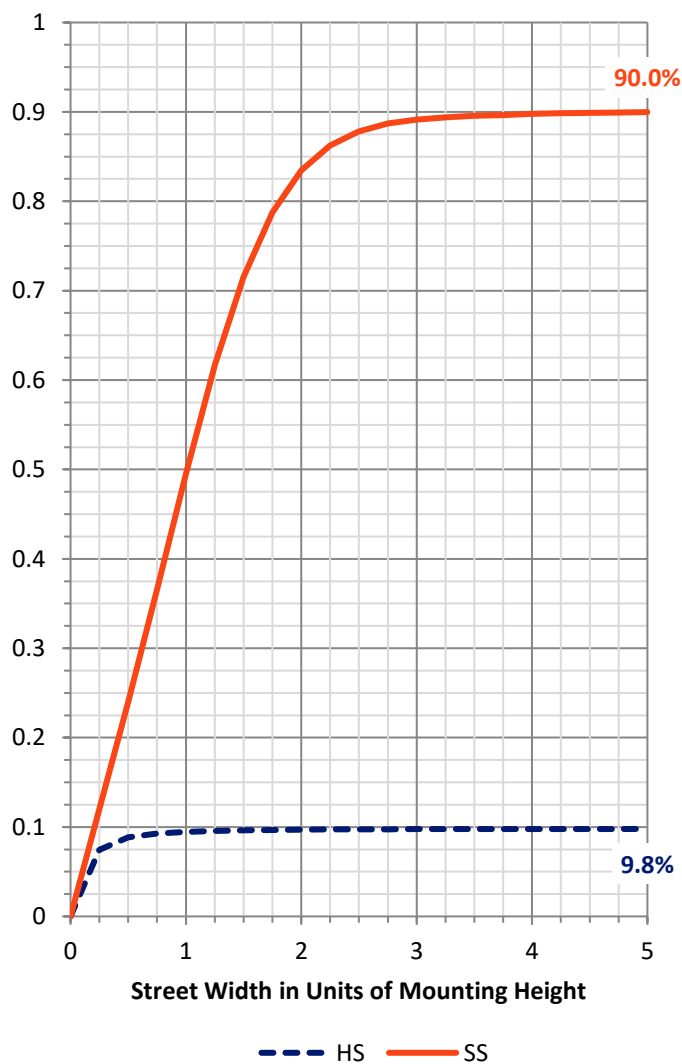
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	975.2	0.0	975.2
	% Fixture	9.9	0.0	9.9
<b>Street Side</b>	Lumens	8907.8	0.0	8907.8
	% Fixture	90.1	0.0	90.1
<b>Total</b>	Lumens	9883.0	0.0	9883.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.6	0.6
10°-20°	202.9	2.1
20°-30°	392.7	4.0
30°-40°	783.5	7.9
40°-50°	1601.7	16.2
50°-60°	2840.9	28.7
60°-70°	2995.1	30.3
70°-80°	971.0	9.8
80°-90°	39.7	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°	9883.0	100.0
0°-180°	9883.0	100.0

**Coefficient of Utilization**



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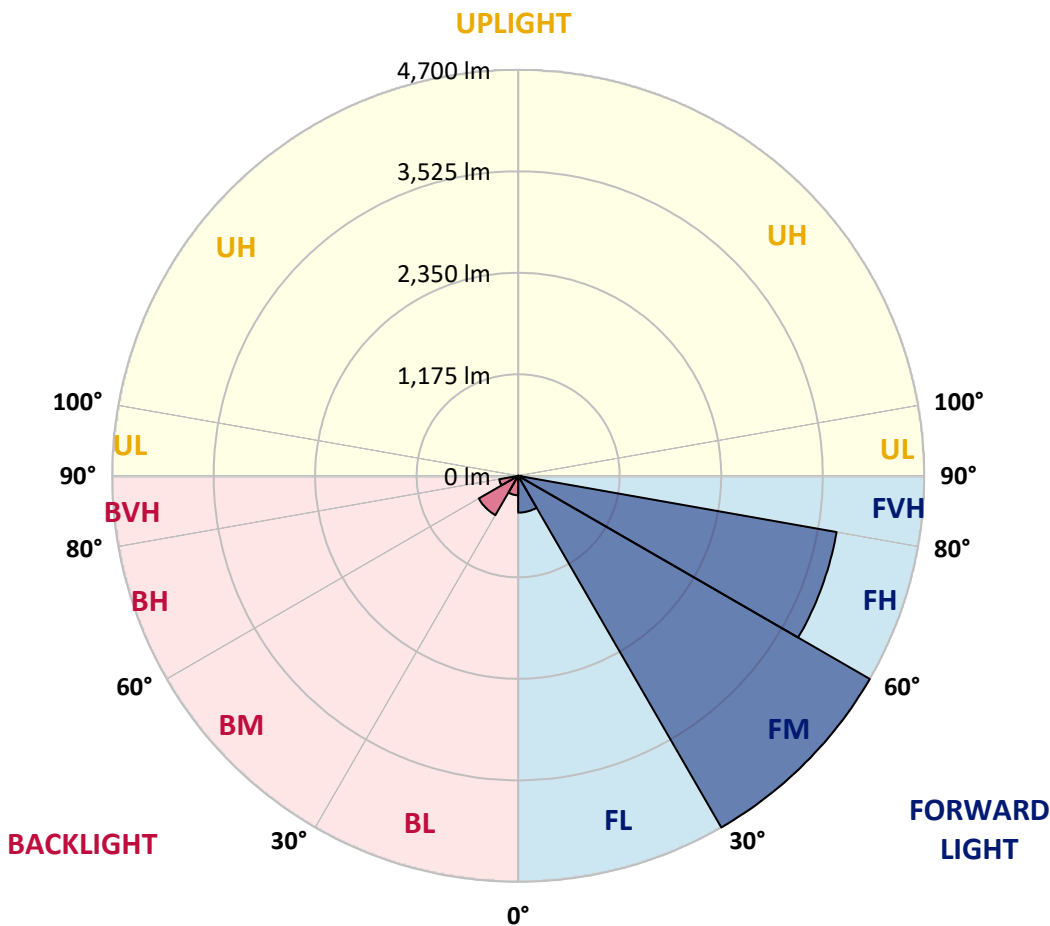
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	426.4	4.3			
FM (30°-60°)	4699.9	47.6			
FH (60°-80°)	3743.5	37.9			G2/5000
FVH (80°-90°)	38.0	0.4			G1/100
BL (0°-30°)	224.8	2.3	B1/500		
BM (30°-60°)	526.2	5.3	B1/1000		
BH (60°-80°)	222.6	2.3	B1/500		G1/500
BVH (80°-90°)	1.7	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°	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6
2.5°	483.0	468.5	445.7	449.6	454.1	463.0	455.7	449.1	441.8	432.4	468.5
5°	583.2	559.2	557.0	552.0	548.1	547.5	556.4	553.7	557.6	575.4	593.7
7.5°	619.9	609.9	590.9	598.7	586.5	577.0	616.5	629.3	653.8	662.2	710.0
10°	616.0	601.5	609.3	613.2	621.5	656.0	681.1	695.0	716.1	761.8	752.3
12.5°	633.8	646.6	654.9	655.5	698.3	761.8	779.6	791.3	829.1	846.9	893.6
15°	693.3	714.5	701.1	706.7	720.6	797.9	839.7	865.3	918.7	976.6	988.2
17.5°	778.5	791.8	764.0	744.0	782.4	824.7	900.3	927.0	961.0	1096.2	1121.2
20°	885.9	908.7	848.6	769.0	819.6	869.7	952.1	964.9	1001.0	1177.4	1216.9
22.5°	1136.8	1102.9	1011.1	887.0	871.9	894.2	972.7	1022.7	1084.0	1223.1	1314.9
25°	1384.4	1372.7	1237.5	1099.0	998.8	948.7	1052.8	1080.6	1180.8	1331.6	1382.2
27.5°	1659.9	1683.2	1457.3	1373.3	1176.9	1013.3	1102.9	1172.4	1291.0	1371.1	1492.9
30°	2023.2	1985.9	1721.1	1637.1	1412.8	1190.8	1232.5	1237.0	1411.1	1501.3	1617.0
32.5°	2308.1	2332.1	1999.3	1870.2	1691.0	1464.0	1329.9	1387.8	1512.4	1713.3	1822.9
35°	2616.4	2614.2	2289.8	2116.2	1881.9	1687.1	1618.7	1661.0	1817.3	2044.9	2073.9
37.5°	3077.1	3037.6	2654.8	2400.5	2201.3	2034.9	1982.6	1926.4	2087.8	2304.8	2413.3
40°	3511.7	3375.4	3021.5	2719.9	2465.0	2397.2	2208.0	2242.5	2290.3	2576.9	2876.8
42.5°	3950.8	3866.2	3393.2	3140.6	2827.3	2665.9	2542.4	2526.3	2753.8	3093.3	3403.2
45°	4530.0	4271.3	3892.9	3670.9	3308.1	3146.1	3046.5	3106.1	3310.8	3806.6	4013.1
47.5°	5016.3	4778.2	4453.2	4116.0	3735.4	3917.4	3730.4	3636.4	3917.4	4429.9	4704.2
50°	5434.2	5168.8	4840.0	4590.1	4528.3	4703.1	4324.7	4359.2	4541.7	5143.8	5298.5
52.5°	5738.1	5458.7	5171.6	5050.8	5304.0	5391.9	5202.2	5126.0	5291.8	5752.5	5827.6
55°	5966.8	5680.7	5456.5	5622.9	6112.5	6083.6	6150.4	5890.0	6048.5	6387.4	6351.8
57.5°	5980.7	5641.8	5510.5	5778.1	6450.3	6898.2	7093.6	6650.6	6740.8	6883.8	6803.6
60°	5543.3	5206.1	5195.5	5575.6	6548.2	7109.1	7536.5	7320.6	7199.8	7306.1	7154.2
62.5°	4671.9	4436.0	4546.1	4966.3	6183.8	6992.8	7772.4	8032.3	7562.1	7586.0	7370.1
65°	3567.4	3319.7	3492.2	4021.4	5386.9	6862.6	7839.2	8310.5	7555.4	7665.6	7163.1
67.5°	2362.7	2219.1	2414.4	2997.6	4283.0	6058.0	7804.7	8018.4	7315.6	7354.5	6394.7
70°	1219.7	1184.7	1342.7	1802.9	2879.6	4654.1	7465.8	7349.0	6828.7	6335.7	4932.3
72.5°	390.6	392.3	544.2	823.5	1552.5	2833.4	5738.6	5898.9	5464.3	4634.6	3011.5
75°	173.1	170.3	227.6	345.6	647.1	1270.4	3565.1	3738.2	3402.1	2549.6	1265.9
77.5°	124.6	120.7	145.8	202.0	320.5	430.7	1671.6	1804.0	1542.5	883.6	289.9
80°	87.9	87.4	105.7	141.9	200.3	191.4	528.1	592.1	474.1	214.2	85.1
82.5°	49.5	51.2	73.5	100.2	121.9	95.7	148.6	163.6	159.7	114.1	37.3
85°	23.9	26.7	47.9	72.3	64.0	37.3	52.9	57.3	66.8	66.2	18.9
87.5°	0.0	0.0	19.5	32.8	17.2	5.6	16.1	18.4	17.8	21.1	4.5
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°	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6	395.6
2.5°	475.8	472.4	430.1	433.5	442.9	439.0	442.4	434.6	425.7	461.8	461.3
5°	601.5	576.5	563.1	550.9	553.1	528.1	542.5	549.2	548.1	568.7	574.3
7.5°	711.7	678.3	651.6	626.0	587.0	552.0	573.7	587.6	597.1	632.7	646.6
10°	763.4	736.2	725.6	675.5	647.7	626.0	599.8	580.9	588.7	579.3	588.7
12.5°	877.0	858.6	818.0	767.3	733.9	689.4	592.1	510.8	460.7	461.3	458.0
15°	980.5	979.3	918.7	834.7	737.8	611.0	459.1	356.7	309.4	296.0	291.6
17.5°	1115.7	1099.0	988.2	864.2	690.0	473.0	312.7	244.3	239.8	247.6	244.3
20°	1201.9	1177.4	1022.7	821.3	568.7	320.0	235.9	216.5	229.8	240.9	238.2
22.5°	1288.2	1251.4	1048.9	769.0	404.5	234.3	213.1	209.8	218.1	232.0	234.3
25°	1335.5	1328.2	1100.1	671.1	277.1	205.3	205.3	204.2	207.0	217.0	215.3
27.5°	1472.9	1375.0	1061.7	523.6	214.2	188.6	191.4	190.3	180.3	190.3	190.9
30°	1558.6	1513.5	1064.5	372.8	188.6	166.9	174.2	165.3	150.2	158.6	156.9
32.5°	1731.1	1618.7	1056.1	251.5	171.9	159.1	148.0	135.2	124.1	127.4	124.6
35°	1932.0	1846.3	943.2	202.0	160.3	140.8	123.0	110.2	98.5	101.3	100.7
37.5°	2331.5	2059.4	849.7	182.0	152.5	129.1	108.5	90.7	84.6	86.2	87.9
40°	2701.5	2415.0	675.5	173.1	139.1	115.2	89.6	76.8	72.9	74.0	75.7
42.5°	3254.6	2697.6	510.3	164.2	125.8	97.4	74.6	66.2	62.3	64.5	65.7
45°	3789.9	2938.0	381.2	156.4	114.6	84.0	62.9	57.3	52.9	54.5	56.8
47.5°	4324.7	3205.1	284.3	144.1	102.4	72.3	54.0	50.1	47.3	47.9	50.6
50°	4803.2	3329.8	223.7	129.1	92.4	62.9	49.0	45.1	44.0	44.5	46.7
52.5°	5154.9	3330.9	188.6	115.7	82.9	55.6	46.2	41.7	41.2	42.3	44.5
55°	5472.6	3241.8	163.6	104.1	74.6	50.6	44.0	40.1	40.1	41.2	43.4
57.5°	5683.5	3078.2	141.9	91.8	67.3	47.9	42.3	38.4	37.8	37.3	39.0
60°	5786.5	2855.1	120.2	80.7	60.7	46.2	41.2	33.9	33.4	32.3	33.4
62.5°	5721.4	2575.8	100.7	69.6	54.0	44.0	36.2	29.5	28.4	26.2	27.8
65°	5388.6	2236.3	85.1	59.5	46.7	37.3	30.6	25.0	22.3	19.5	18.9
67.5°	4708.1	1816.8	71.2	51.2	40.1	30.6	25.0	22.3	17.2	15.0	14.5
70°	3528.4	1240.3	59.0	44.0	33.4	26.2	21.1	20.0	16.1	14.5	13.4
72.5°	2070.0	669.4	49.5	38.4	28.4	21.7	17.2	18.4	16.1	13.4	12.2
75°	826.9	222.6	39.5	30.6	22.8	15.6	14.5	15.0	14.5	12.2	10.0
77.5°	188.6	70.1	30.6	23.9	17.8	10.0	11.7	12.8	12.8	10.0	7.2
80°	59.0	27.8	17.8	15.0	12.8	5.6	8.3	8.9	6.1	2.8	0.0
82.5°	18.9	7.8	6.1	6.1	5.6	1.1	1.7	1.1	0.0	0.0	0.0
85°	7.2	5.0	3.9	3.9	2.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	2.2	1.7	2.2	1.1	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)