

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: P367957

Luminaire Tested: **MSA-SA3C-730-U-T3-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367957  
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-730-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: 12244 lumens  
Efficiency: N/A  
Efficacy: 73.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

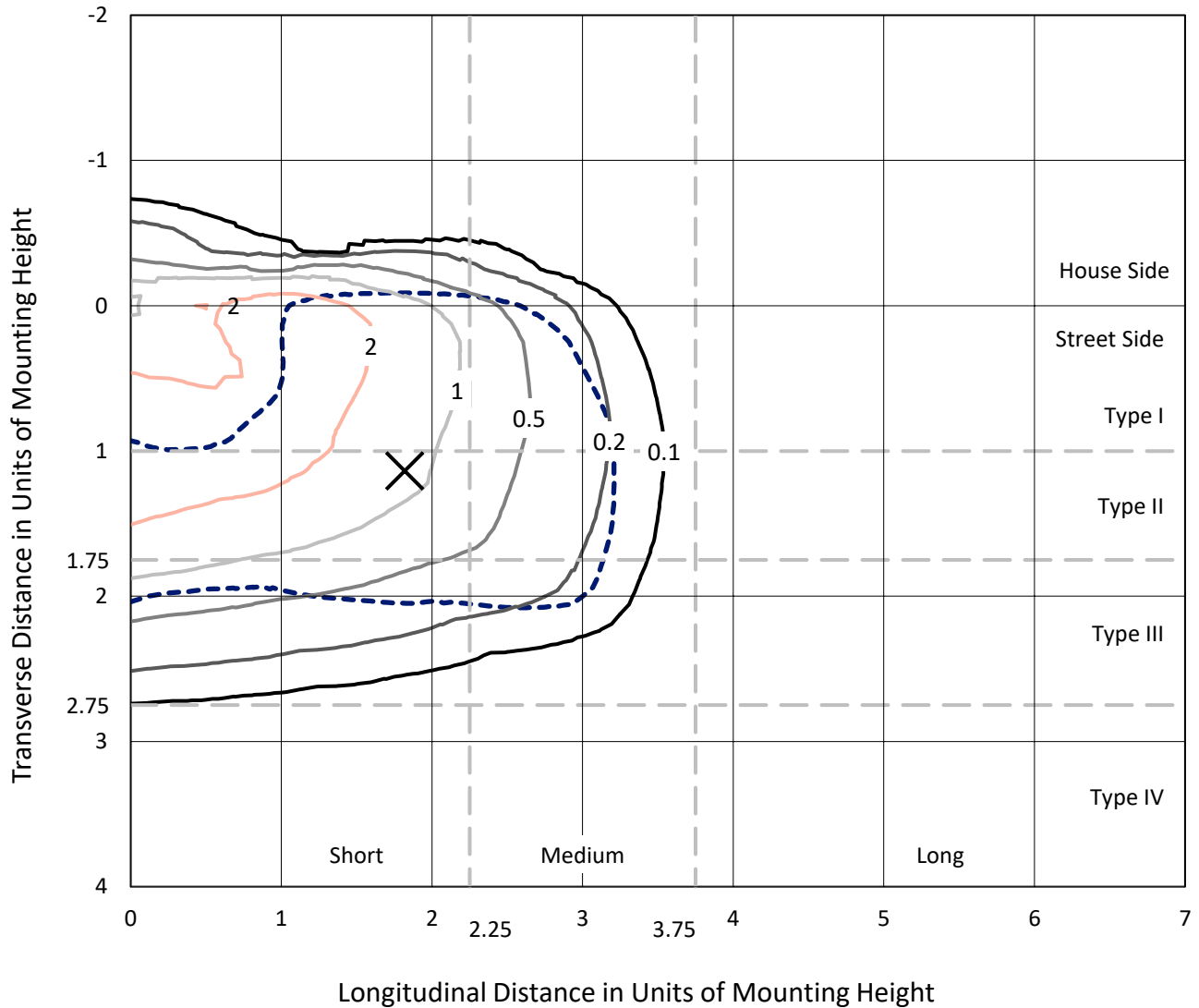
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

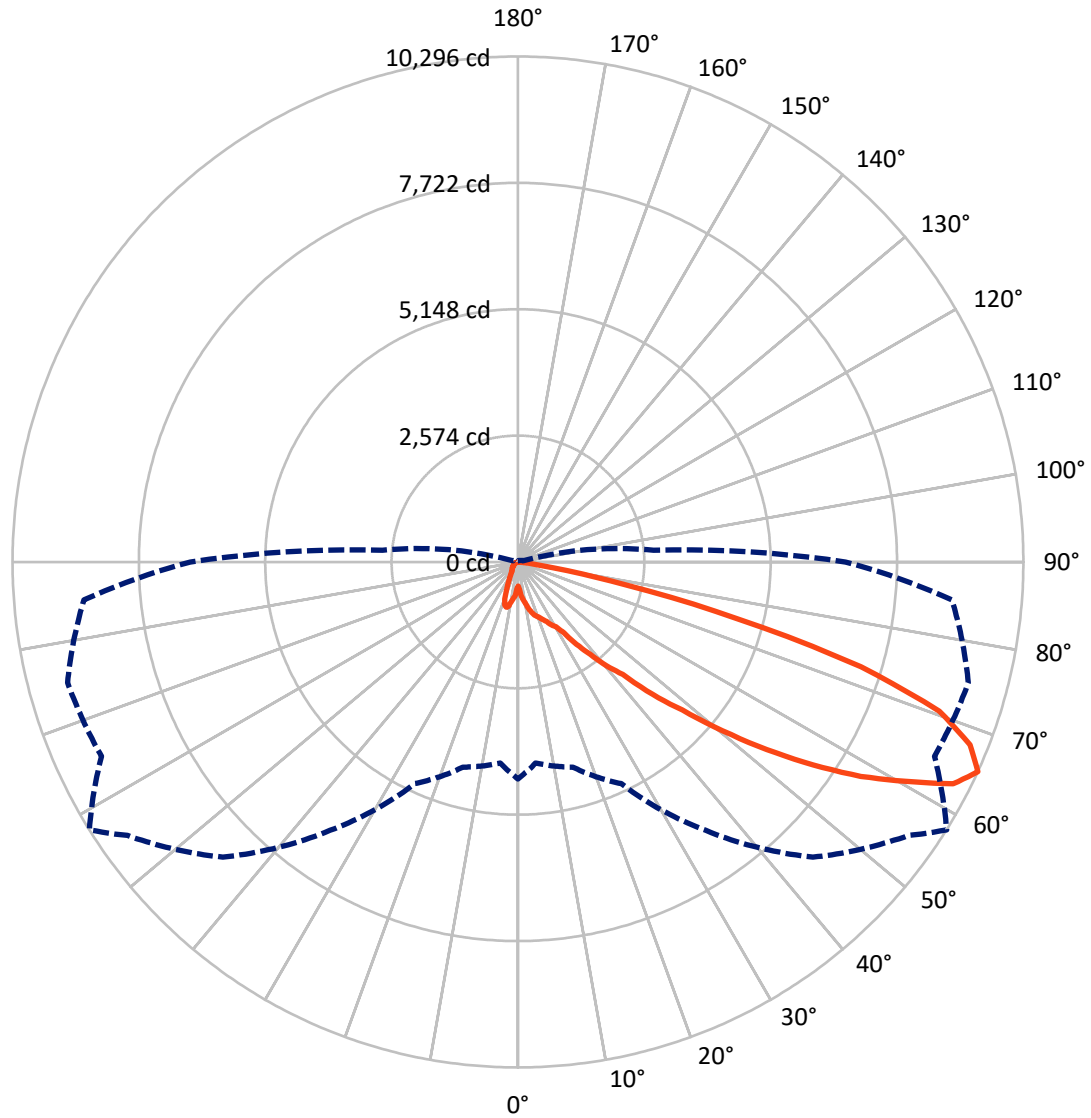
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 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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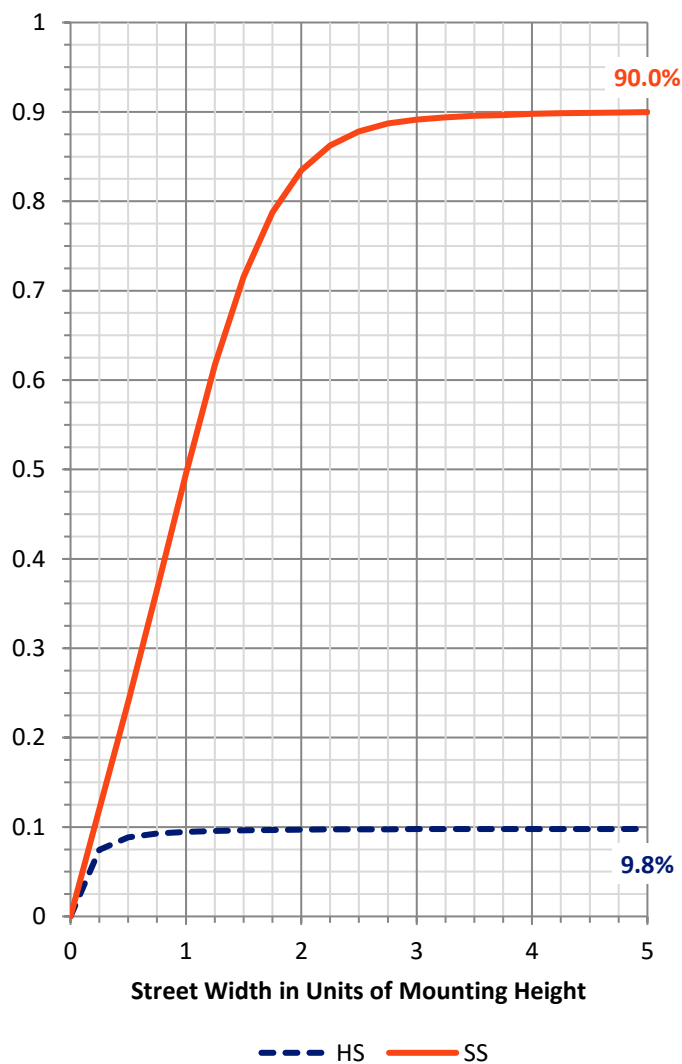
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1208.2	0.0	1208.2
	% Fixture	9.9	0.0	9.9
<b>Street Side</b>	Lumens	11035.8	0.0	11035.8
	% Fixture	90.1	0.0	90.1
<b>Total</b>	Lumens	12244.0	0.0	12244.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	0.6
10°-20°	251.3	2.1
20°-30°	486.5	4.0
30°-40°	970.6	7.9
40°-50°	1984.3	16.2
50°-60°	3519.6	28.7
60°-70°	3710.6	30.3
70°-80°	1203.0	9.8
80°-90°	49.2	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°	12244.0	100.0
0°-180°	12244.0	100.0

**Coefficient of Utilization**



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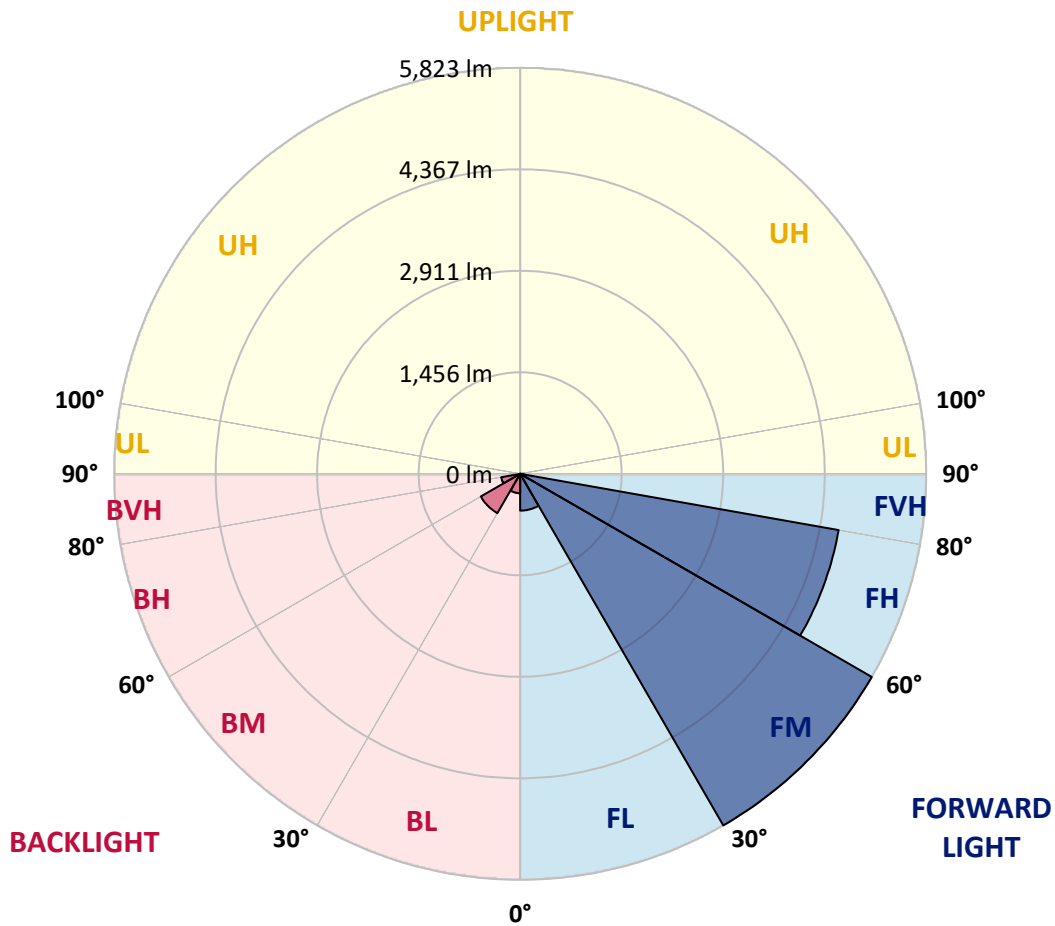
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	528.2	4.3			
FM (30°-60°)	5822.7	47.6			
FH (60°-80°)	4637.8	37.9			G2/5000
FVH (80°-90°)	47.1	0.4			G1/100
BL (0°-30°)	278.5	2.3	B1/500		
BM (30°-60°)	651.9	5.3	B1/1000		
BH (60°-80°)	275.8	2.3	B1/500		G1/500
BVH (80°-90°)	2.1	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°	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1
2.5°	598.4	580.5	552.2	557.0	562.5	573.6	564.6	556.3	547.4	535.6	580.5
5°	722.5	692.8	690.1	683.9	679.0	678.3	689.4	685.9	690.8	712.8	735.6
7.5°	768.0	755.6	732.1	741.8	726.6	714.9	763.8	779.7	810.0	820.4	879.6
10°	763.1	745.2	754.9	759.7	770.0	812.8	843.8	861.0	887.2	943.8	932.0
12.5°	785.2	801.1	811.4	812.1	865.2	943.8	965.8	980.3	1027.2	1049.2	1107.1
15°	859.0	885.2	868.6	875.5	892.7	988.6	1040.3	1072.0	1138.2	1209.9	1224.3
17.5°	964.4	981.0	946.5	921.7	969.3	1021.7	1115.4	1148.5	1190.6	1358.1	1389.1
20°	1097.5	1125.8	1051.3	952.7	1015.5	1077.5	1179.5	1195.4	1240.2	1458.7	1507.7
22.5°	1408.4	1366.3	1252.6	1098.9	1080.3	1107.8	1205.0	1267.1	1342.9	1515.2	1629.0
25°	1715.2	1700.7	1533.2	1361.5	1237.4	1175.4	1304.3	1338.8	1462.9	1649.7	1712.4
27.5°	2056.4	2085.4	1805.5	1701.4	1458.0	1255.4	1366.3	1452.5	1599.4	1698.6	1849.6
30°	2506.6	2460.4	2132.2	2028.1	1750.3	1475.3	1527.0	1532.5	1748.3	1859.9	2003.3
32.5°	2859.5	2889.2	2476.9	2317.0	2095.0	1813.7	1647.6	1719.3	1873.7	2122.6	2258.4
35°	3241.4	3238.7	2836.8	2621.7	2331.5	2090.2	2005.4	2057.8	2251.5	2533.5	2569.3
37.5°	3812.2	3763.3	3289.0	2974.0	2727.2	2521.0	2456.2	2386.6	2586.5	2855.4	2989.8
40°	4350.7	4181.8	3743.3	3369.7	3053.9	2969.8	2735.4	2778.2	2837.5	3192.5	3564.1
42.5°	4894.6	4789.8	4203.8	3890.8	3502.7	3302.8	3149.8	3129.8	3411.7	3832.2	4216.2
45°	5612.2	5291.6	4822.9	4547.8	4098.3	3897.7	3774.3	3848.1	4101.8	4716.0	4971.8
47.5°	6214.7	5919.7	5517.1	5099.3	4627.8	4853.2	4621.6	4505.1	4853.2	5488.1	5828.0
50°	6732.4	6403.6	5996.2	5686.7	5610.1	5826.6	5357.8	5400.6	5626.7	6372.6	6564.2
52.5°	7108.8	6762.8	6407.1	6257.5	6571.1	6680.1	6445.0	6350.5	6556.0	7126.8	7219.8
55°	7392.2	7037.8	6760.0	6966.1	7572.8	7536.9	7619.7	7297.0	7493.5	7913.3	7869.2
57.5°	7409.4	6989.6	6826.9	7158.5	7991.2	8546.2	8788.2	8239.4	8351.1	8528.3	8429.0
60°	6867.6	6449.8	6436.7	6907.5	8112.6	8807.5	9336.9	9069.4	8919.8	9051.5	8863.3
62.5°	5788.0	5495.7	5632.2	6152.7	7661.0	8663.4	9629.2	9951.1	9368.6	9398.3	9130.8
65°	4419.6	4112.8	4326.5	4982.1	6673.8	8502.1	9711.9	10295.8	9360.3	9496.8	8874.3
67.5°	2927.1	2749.2	2991.2	3713.7	5306.1	7505.2	9669.2	9933.9	9063.2	9111.5	7922.3
70°	1511.1	1467.7	1663.5	2233.6	3567.5	5765.9	9249.4	9104.6	8460.0	7849.2	6110.6
72.5°	483.9	486.0	674.2	1020.3	1923.4	3510.3	7109.5	7308.1	6769.7	5741.8	3730.9
75°	214.4	210.9	282.0	428.1	801.7	1573.8	4416.8	4631.2	4214.8	3158.7	1568.3
77.5°	154.4	149.6	180.6	250.2	397.1	533.6	2070.9	2235.0	1911.0	1094.7	359.2
80°	108.9	108.2	131.0	175.8	248.2	237.1	654.2	733.5	587.3	265.4	105.5
82.5°	61.4	63.4	91.0	124.1	151.0	118.6	184.1	202.7	197.9	141.3	46.2
85°	29.6	33.1	59.3	89.6	79.3	46.2	65.5	71.0	82.7	82.0	23.4
87.5°	0.0	0.0	24.1	40.7	21.4	6.9	20.0	22.7	22.1	26.2	5.5
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°	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1	490.1
2.5°	589.4	585.3	532.9	537.0	548.7	543.9	548.1	538.4	527.4	572.2	571.5
5°	745.2	714.2	697.6	682.5	685.2	654.2	672.1	680.4	679.0	704.5	711.4
7.5°	881.7	840.3	807.3	775.5	727.3	683.9	710.7	728.0	739.7	783.8	801.1
10°	945.8	912.0	898.9	836.9	802.4	775.5	743.1	719.7	729.4	717.6	729.4
12.5°	1086.5	1063.7	1013.4	950.6	909.3	854.1	733.5	632.8	570.8	571.5	567.4
15°	1214.7	1213.3	1138.2	1034.1	914.1	756.9	568.7	441.9	383.3	366.7	361.2
17.5°	1382.2	1361.5	1224.3	1070.6	854.8	586.0	387.4	302.6	297.1	306.8	302.6
20°	1489.1	1458.7	1267.1	1017.5	704.5	396.4	292.3	268.2	284.7	298.5	295.1
22.5°	1595.9	1550.4	1299.5	952.7	501.2	290.2	264.0	259.9	270.2	287.5	290.2
25°	1654.5	1645.5	1362.9	831.4	343.3	254.4	254.4	253.0	256.4	268.9	266.8
27.5°	1824.8	1703.4	1315.3	648.7	265.4	233.7	237.1	235.8	223.4	235.8	236.5
30°	1930.9	1875.1	1318.8	461.9	233.7	206.8	215.8	204.7	186.1	196.5	194.4
32.5°	2144.6	2005.4	1308.4	311.6	213.0	197.2	183.4	167.5	153.7	157.9	154.4
35°	2393.5	2287.3	1168.5	250.2	198.5	174.4	152.4	136.5	122.0	125.5	124.8
37.5°	2888.5	2551.4	1052.7	225.4	188.9	159.9	134.4	112.4	104.8	106.9	108.9
40°	3346.9	2991.9	836.9	214.4	172.3	142.7	111.0	95.1	90.3	91.7	93.8
42.5°	4032.2	3342.1	632.2	203.4	155.8	120.6	92.4	82.0	77.2	80.0	81.3
45°	4695.3	3639.9	472.2	193.7	142.0	104.1	77.9	71.0	65.5	67.6	70.3
47.5°	5357.8	3970.8	352.3	178.5	126.8	89.6	66.9	62.0	58.6	59.3	62.7
50°	5950.7	4125.2	277.1	159.9	114.4	77.9	60.7	55.8	54.5	55.2	57.9
52.5°	6386.4	4126.6	233.7	143.4	102.7	68.9	57.2	51.7	51.0	52.4	55.2
55°	6780.0	4016.3	202.7	128.9	92.4	62.7	54.5	49.6	49.6	51.0	53.8
57.5°	7041.3	3813.6	175.8	113.7	83.4	59.3	52.4	47.6	46.9	46.2	48.3
60°	7168.8	3537.2	148.9	100.0	75.1	57.2	51.0	42.1	41.4	40.0	41.4
62.5°	7088.2	3191.1	124.8	86.2	66.9	54.5	44.8	36.5	35.2	32.4	34.5
65°	6675.9	2770.6	105.5	73.8	57.9	46.2	37.9	31.0	27.6	24.1	23.4
67.5°	5832.8	2250.8	88.2	63.4	49.6	37.9	31.0	27.6	21.4	18.6	17.9
70°	4371.3	1536.6	73.1	54.5	41.4	32.4	26.2	24.8	20.0	17.9	16.5
72.5°	2564.5	829.3	61.4	47.6	35.2	26.9	21.4	22.7	20.0	16.5	15.2
75°	1024.4	275.8	48.9	37.9	28.3	19.3	17.9	18.6	17.9	15.2	12.4
77.5°	233.7	86.9	37.9	29.6	22.1	12.4	14.5	15.9	15.9	12.4	9.0
80°	73.1	34.5	22.1	18.6	15.9	6.9	10.3	11.0	7.6	3.4	0.0
82.5°	23.4	9.7	7.6	7.6	6.9	1.4	2.1	1.4	0.0	0.0	0.0
85°	9.0	6.2	4.8	4.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	2.8	2.1	2.8	1.4	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)