

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: P367955

Luminaire Tested: **MSA-SA3C-730-U-T2-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367955  
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-SA3C-730-U-T2-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 12505 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G2

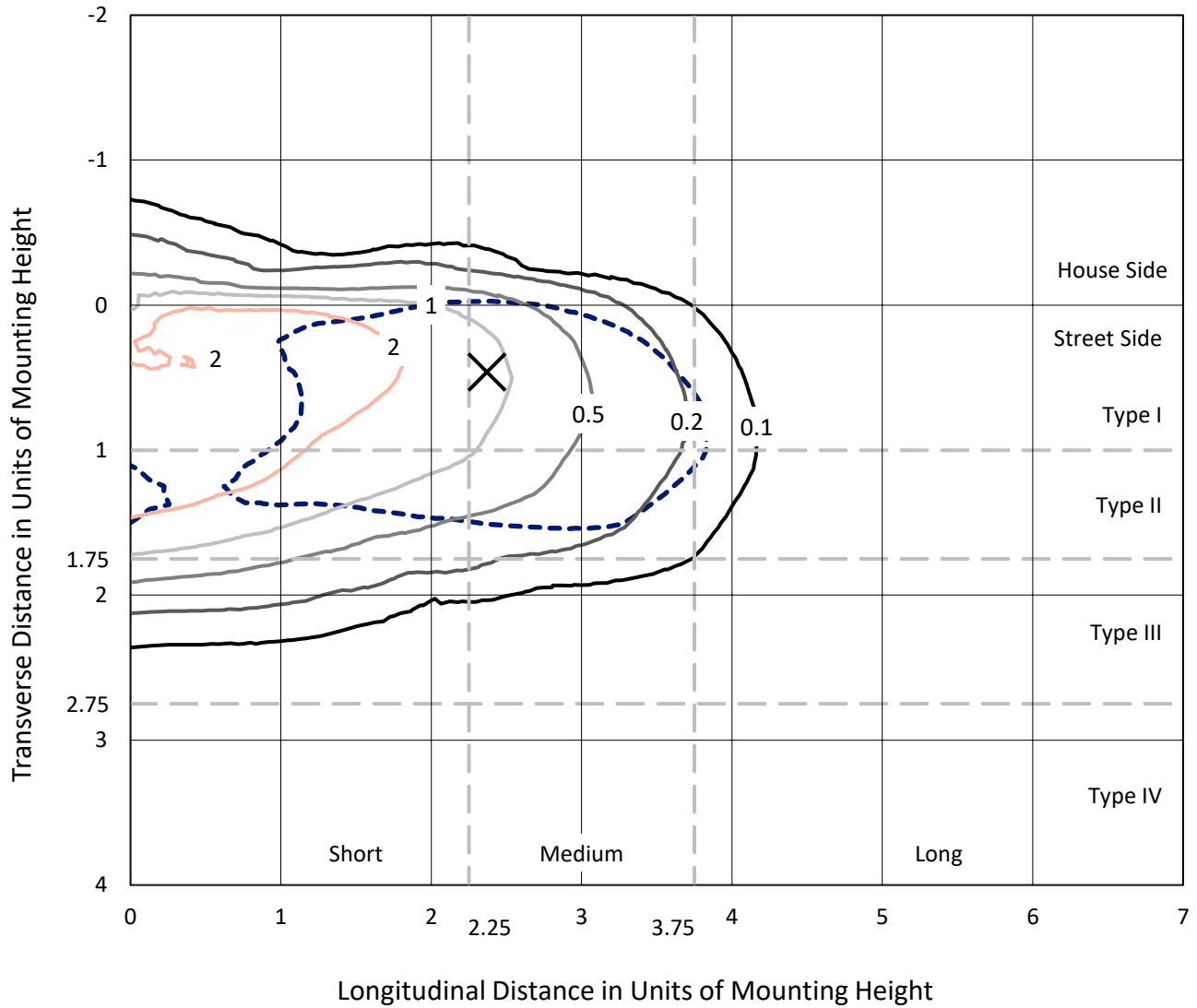
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P367955  
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### Iso-Footcandle Lines of Horizontal Illumination

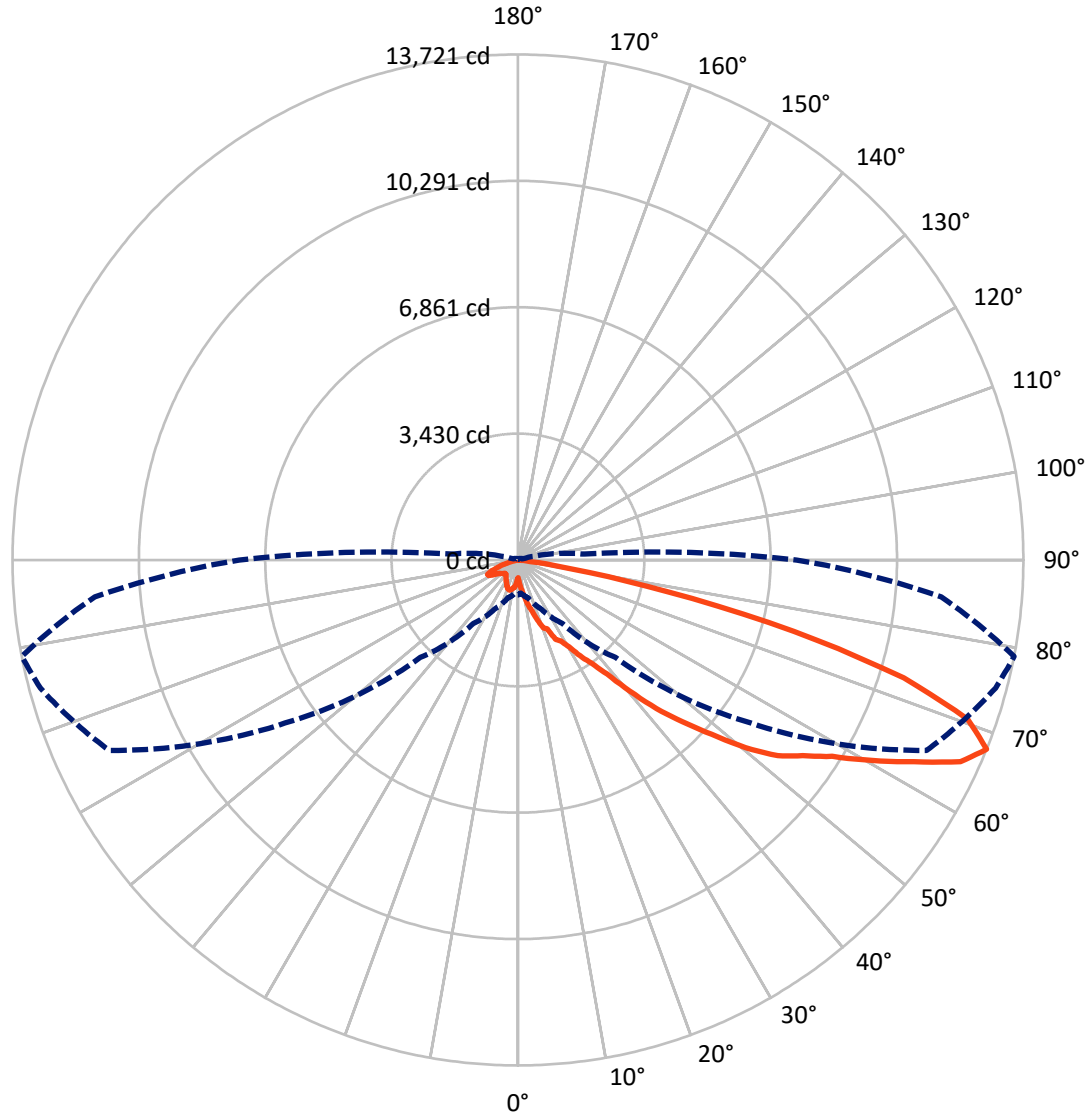
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc  
 Type II - Medium - N/A

REPORT NUMBER: P367955  
CATALOG NUMBER: MSA-SA3C-730-U-T2-HSS

### Luminous Intensity Polar Plot



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

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 CATALOG NUMBER: MSA-SA3C-730-U-T2-HSS

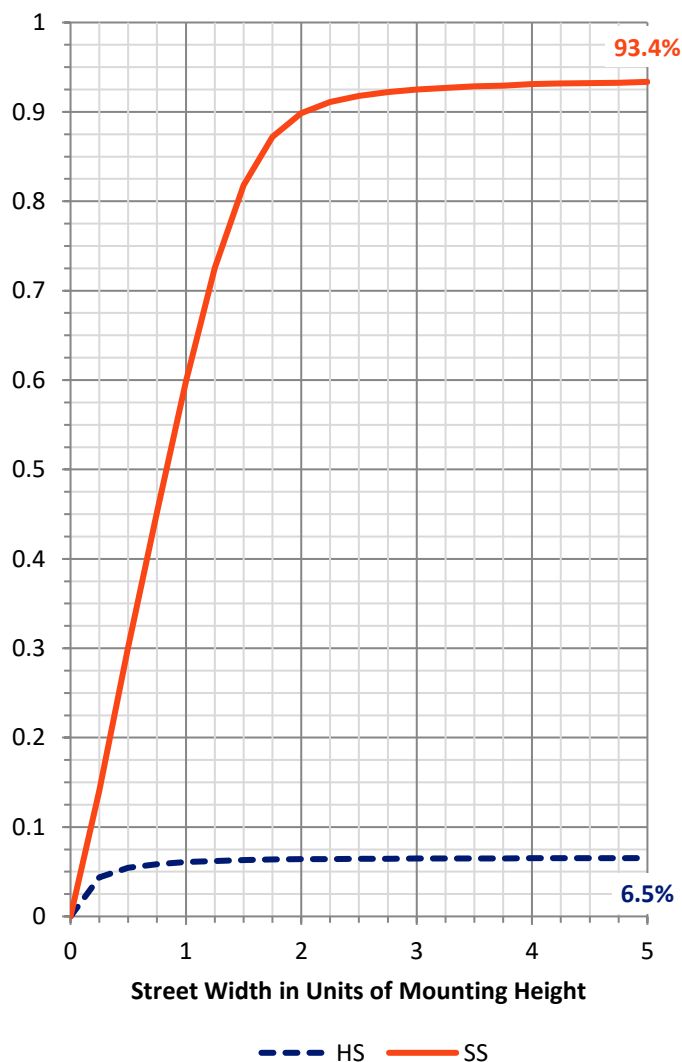
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	821.7	0.0	821.7
	% Fixture	6.6	0.0	6.6
<b>Street Side</b>	Lumens	11683.3	0.0	11683.3
	% Fixture	93.4	0.0	93.4
<b>Total</b>	Lumens	12505.0	0.0	12505.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.1	0.6
10°-20°	279.4	2.2
20°-30°	539.1	4.3
30°-40°	1058.9	8.5
40°-50°	2121.3	17.0
50°-60°	3390.5	27.1
60°-70°	3411.5	27.3
70°-80°	1539.0	12.3
80°-90°	95.2	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°	12505.0	100.0
0°-180°	12505.0	100.0

**Coefficient of Utilization**



REPORT NUMBER: P367955

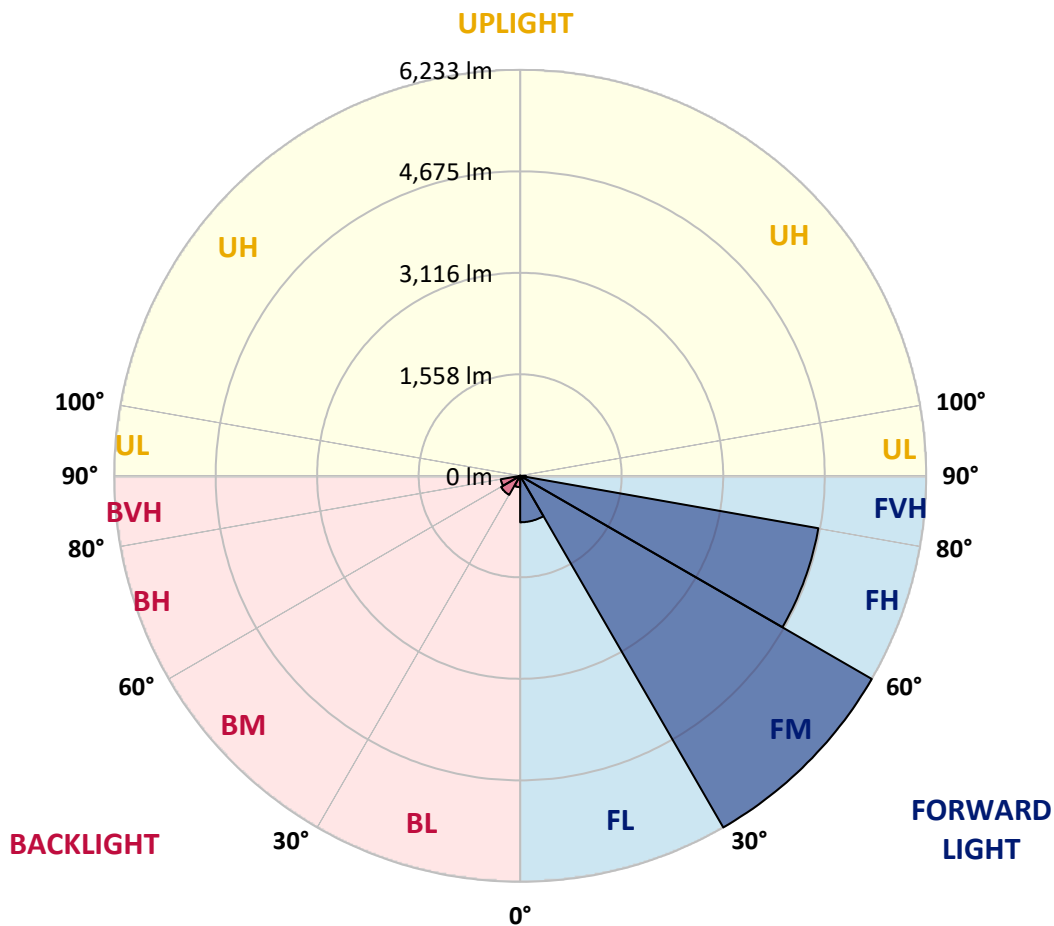
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	713.9	5.7			
FM (30°-60°)	6232.7	49.8			
FH (60°-80°)	4647.6	37.2			G2/5000
FVH (80°-90°)	89.2	0.7			G1/100
BL (0°-30°)	174.7	1.4	B1/500		
BM (30°-60°)	338.1	2.7	B1/1000		
BH (60°-80°)	302.9	2.4	B1/500		G1/500
BVH (80°-90°)	6.1	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 II Medium





REPORT NUMBER: P367955

CATALOG NUMBER: MSA-SA3C-730-U-T2-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	650.7	627.3	589.4	610.8	609.4	620.4	599.7	577.0	540.4	577.0	579.7
5°	936.8	893.4	865.8	860.3	830.0	801.7	795.5	772.1	754.1	721.7	750.7
7.5°	1167.1	1147.1	1098.1	1092.6	1018.2	976.8	989.9	979.6	911.3	877.5	905.8
10°	1264.9	1230.5	1237.4	1230.5	1198.8	1210.5	1183.6	1152.6	1098.1	1042.3	972.0
12.5°	1302.9	1297.3	1354.6	1347.7	1422.1	1511.7	1451.8	1400.1	1273.9	1260.1	1164.3
15°	1384.2	1418.7	1410.4	1439.3	1486.9	1639.3	1637.9	1650.3	1516.6	1444.9	1306.3
17.5°	1456.6	1482.1	1440.7	1473.8	1603.4	1695.8	1819.2	1770.9	1786.1	1713.0	1498.6
20°	1425.6	1454.5	1413.2	1393.2	1621.3	1796.4	1961.2	1926.0	2017.0	1971.5	1675.8
22.5°	1619.3	1564.8	1460.7	1395.9	1566.2	1794.4	2011.5	2158.3	2142.5	2030.8	1840.5
25°	1858.5	1825.4	1700.6	1586.2	1601.3	1781.9	2170.0	2385.8	2432.7	2385.1	1997.0
27.5°	2181.1	2173.5	1918.4	1868.8	1721.3	1727.5	2194.9	2672.6	2565.7	2491.3	2179.7
30°	2602.3	2542.3	2239.7	2174.9	1957.0	1850.2	2346.5	2920.1	2841.5	2740.1	2351.3
32.5°	3055.2	3064.1	2678.1	2464.4	2289.3	2162.5	2286.5	3035.9	3182.7	3100.7	2565.7
35°	3569.4	3609.4	3137.2	2886.3	2545.7	2358.9	2544.4	3391.6	3654.9	3439.1	2853.2
37.5°	4361.5	4360.1	3808.6	3308.8	3061.4	2858.7	2973.8	3714.9	4235.3	3932.0	3368.8
40°	5058.4	4906.7	4393.9	3819.6	3433.6	3378.5	3295.1	4157.4	4855.0	4672.4	3827.2
42.5°	5578.8	5472.0	4852.3	4405.6	3927.2	3752.1	3722.4	4806.1	5769.8	5514.0	4481.4
45°	6201.3	5851.1	5394.8	4992.2	4504.9	4453.8	4384.2	5464.4	6834.1	6257.8	5050.1
47.5°	6759.0	6429.5	5998.0	5481.0	4921.2	5341.7	5074.2	6042.8	7608.3	7067.1	5677.4
50°	7228.4	6878.3	6395.0	6001.4	5761.5	6046.9	5600.9	6519.1	8444.4	8006.0	6264.1
52.5°	7467.6	7071.3	6697.6	6454.3	6601.1	6537.0	6315.1	7096.1	9157.2	8829.1	6783.8
55°	7271.2	6883.8	6727.3	6847.9	7293.9	7108.5	7126.4	7990.2	9830.0	9377.8	7236.0
57.5°	6399.9	6046.2	6115.8	6446.0	7300.8	7786.1	8051.5	8858.7	10369.8	10061.6	7933.6
60°	4841.3	4556.6	4814.4	5400.3	6614.2	7651.0	8707.8	9727.3	11141.1	11044.6	8989.7
62.5°	2956.6	2802.2	3167.5	3898.2	5270.7	6988.6	9090.4	10885.4	11966.3	12069.0	10109.9
65°	1508.3	1438.7	1743.3	2385.8	3561.1	5740.8	8813.9	11605.1	12819.0	13198.1	11177.7
67.5°	949.9	905.1	1067.8	1455.2	2101.1	3744.5	7717.2	12234.4	13421.5	13721.4	11534.1
70°	658.3	630.1	770.7	998.9	1325.6	2017.0	5729.8	11647.1	12943.8	12957.6	10671.7
72.5°	417.7	395.7	532.9	739.7	978.2	1041.6	3284.7	9139.3	11079.8	10952.3	8642.3
75°	270.9	259.9	338.5	541.8	751.4	642.5	1623.4	6166.9	7944.7	7744.8	5740.2
77.5°	194.4	187.5	226.8	361.9	534.9	449.5	727.9	3675.6	4555.2	4118.1	2786.3
80°	117.2	116.5	164.1	226.8	380.5	317.1	336.4	1668.9	1766.1	1440.0	851.3
82.5°	58.6	60.7	91.7	146.1	244.7	207.5	153.7	555.6	474.3	349.5	172.3
85°	13.8	17.2	48.3	100.6	122.7	82.7	73.1	145.5	130.3	98.6	50.3
87.5°	0.0	0.0	15.2	24.1	33.1	13.8	24.8	27.6	35.2	27.6	10.3
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°	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9	481.9
2.5°	580.4	572.2	521.8	508.7	507.4	492.9	496.3	482.5	483.2	514.2	514.2
5°	739.7	691.4	643.2	600.4	571.5	530.1	514.9	508.7	503.2	515.6	523.2
7.5°	868.6	797.6	710.7	617.7	531.5	472.2	463.9	448.8	443.2	455.7	465.3
10°	925.8	837.6	718.3	582.5	501.8	453.6	413.6	392.2	388.1	387.4	390.9
12.5°	1047.1	937.5	726.6	569.4	481.9	428.8	383.3	347.4	314.3	317.8	314.3
15°	1144.3	1014.7	726.6	537.7	433.6	380.5	300.6	282.6	277.8	285.4	279.2
17.5°	1291.1	1091.2	690.0	481.2	392.2	295.7	265.4	264.0	273.7	284.7	277.8
20°	1379.4	1101.6	628.7	416.4	321.9	256.4	245.4	234.4	248.2	257.1	253.7
22.5°	1471.1	1102.3	567.3	381.9	259.2	233.7	215.8	206.8	208.9	217.1	218.5
25°	1510.3	1075.4	510.1	336.4	235.1	208.9	190.3	180.6	177.2	181.3	179.9
27.5°	1617.2	1023.7	448.1	286.8	223.3	185.4	168.2	156.5	146.1	153.0	154.4
30°	1632.4	1007.1	414.3	255.1	208.2	164.1	148.9	136.5	128.9	138.6	138.6
32.5°	1680.6	916.1	397.1	242.0	192.3	151.7	131.0	122.0	120.6	126.8	127.5
35°	1755.1	876.2	371.6	231.6	177.9	137.2	117.9	113.7	112.4	117.2	117.2
37.5°	2007.4	826.5	343.3	222.7	165.4	129.6	114.4	107.5	108.2	112.4	115.1
40°	2174.9	832.7	301.2	211.6	151.0	122.7	107.5	102.7	102.0	104.1	106.2
42.5°	2485.8	837.6	282.6	199.9	139.9	114.4	100.6	97.2	94.4	96.5	98.6
45°	2833.2	863.1	273.0	190.3	133.7	109.6	94.4	92.4	86.2	87.5	90.3
47.5°	3168.2	956.1	261.3	176.5	128.2	106.8	88.2	83.4	79.3	78.6	81.3
50°	3548.7	1046.4	248.2	161.3	122.7	102.7	82.0	74.4	71.7	71.7	73.8
52.5°	3889.3	1132.6	235.8	151.0	118.6	95.1	76.5	68.9	66.9	66.9	69.6
55°	4247.7	1222.9	224.7	141.3	113.1	87.5	71.7	64.8	64.1	62.7	64.8
57.5°	4880.5	1420.0	210.9	133.0	105.5	81.3	67.6	60.7	59.3	57.2	59.3
60°	5802.2	1722.7	193.0	124.8	96.5	77.2	64.1	55.8	53.8	50.3	51.0
62.5°	6703.2	1967.4	172.3	114.4	88.2	73.1	58.6	50.3	46.9	42.7	43.4
65°	7475.2	2063.9	150.3	102.0	80.0	63.4	51.0	44.1	39.3	33.8	33.1
67.5°	7566.2	1822.6	128.9	90.3	71.7	53.8	43.4	39.3	31.7	26.9	25.5
70°	6809.3	1358.0	107.5	80.0	62.0	45.5	37.2	34.5	29.6	25.5	23.4
72.5°	5422.4	1002.3	90.3	71.0	54.5	38.6	31.7	32.4	29.6	24.8	22.1
75°	3586.0	573.5	73.8	59.3	45.5	31.0	29.0	29.0	28.3	23.4	20.7
77.5°	1725.4	247.5	56.5	46.9	36.5	23.4	26.2	26.2	26.9	21.4	17.2
80°	489.4	74.4	35.2	31.7	26.9	15.9	20.7	20.0	17.9	12.4	7.6
82.5°	87.5	29.0	15.9	16.5	15.2	6.2	11.7	11.0	9.0	4.8	0.7
85°	24.1	11.0	9.0	9.7	7.6	2.1	4.8	6.2	4.8	2.8	0.0
87.5°	6.2	4.8	6.2	6.9	5.5	0.7	2.1	0.7	2.1	0.7	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)