

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: P367827

Luminaire Tested: **MSA-SA3B-730-U-T4FT-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367827  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-730-U-T4FT-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10025 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

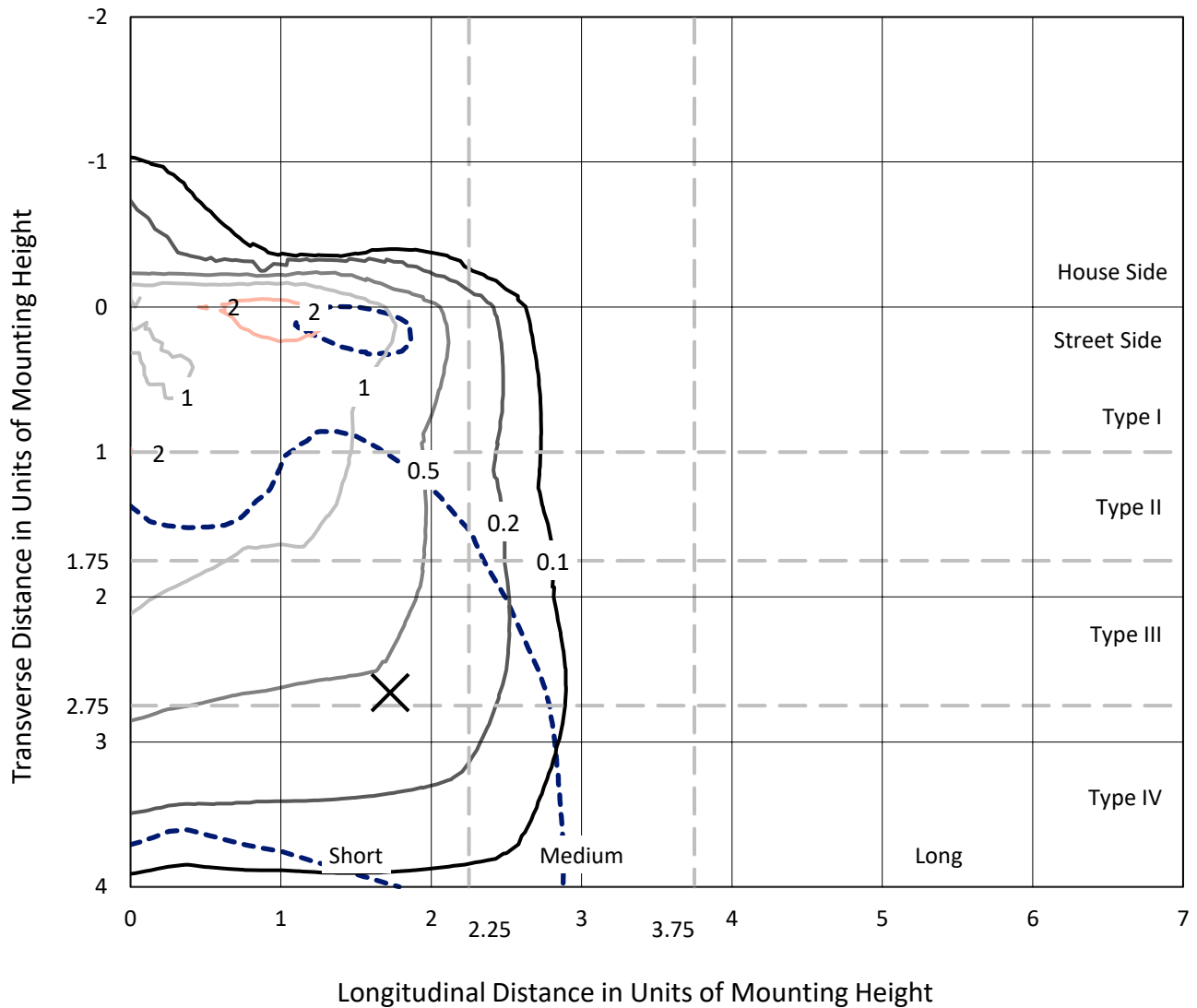
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

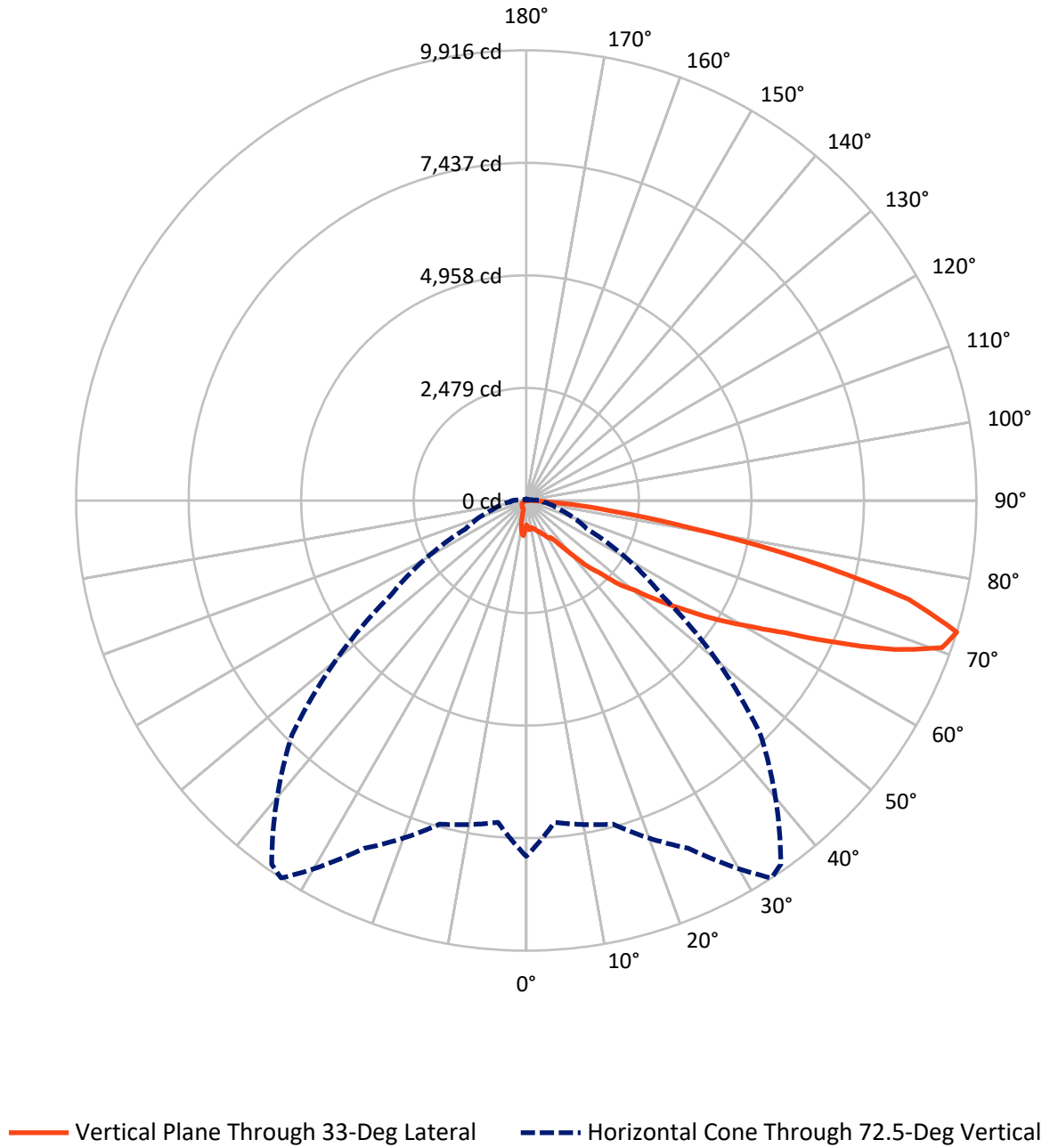
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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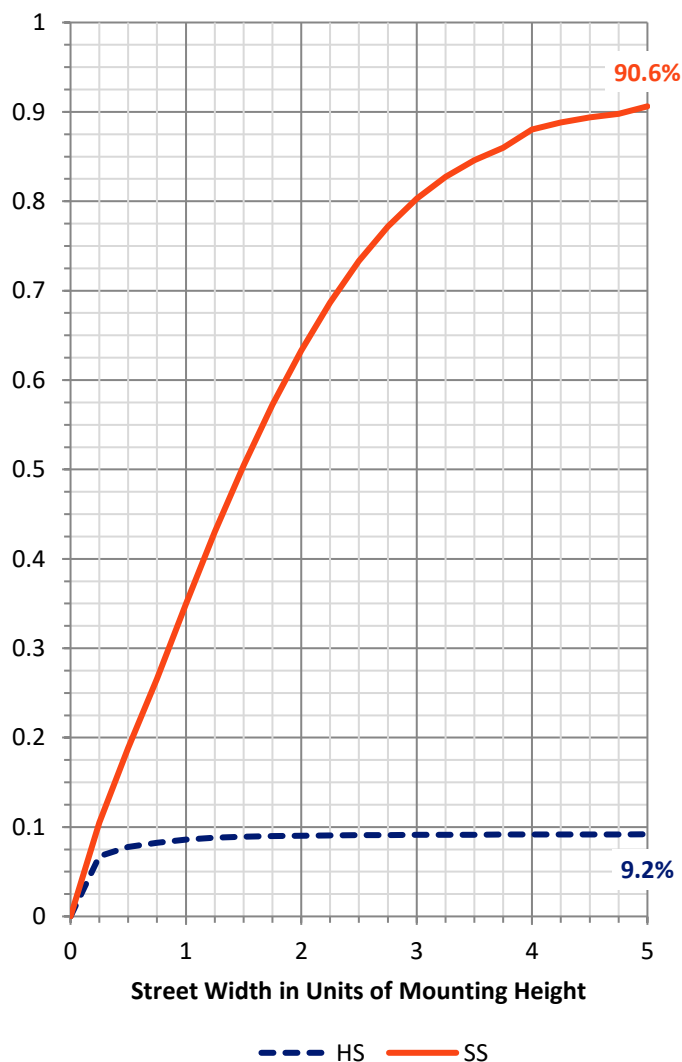
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	927.0	0.0	927.0
	% Fixture	9.2	0.0	9.2
<b>Street Side</b>	Lumens	9098.1	0.0	9098.1
	% Fixture	90.8	0.0	90.8
<b>Total</b>	Lumens	10025.0	0.0	10025.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.0	0.7
10°-20°	205.6	2.1
20°-30°	348.8	3.5
30°-40°	638.3	6.4
40°-50°	1347.1	13.4
50°-60°	2253.9	22.5
60°-70°	3016.9	30.1
70°-80°	1970.7	19.7
80°-90°	174.7	1.7
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°	10025.0	100.0
0°-180°	10025.0	100.0

**Coefficient of Utilization**

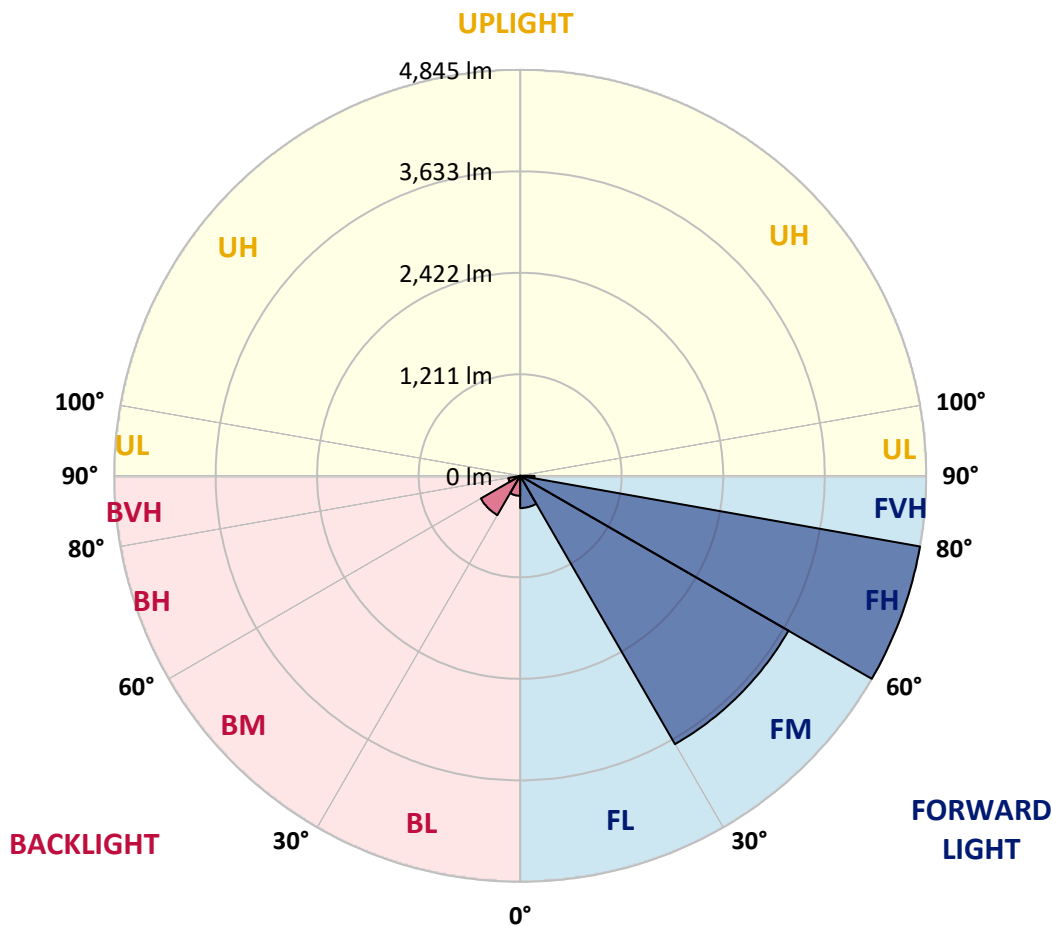


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	384.8	3.8			
FM (30°-60°)	3697.4	36.9			
FH (60°-80°)	4844.5	48.3			G2/5000
FVH (80°-90°)	171.3	1.7			G2/225
BL (0°-30°)	238.6	2.4	B1/500		
BM (30°-60°)	541.9	5.4	B1/1000		
BH (60°-80°)	143.1	1.4	B1/500		G1/500
BVH (80°-90°)	3.4	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2
2.5°	635.6	611.1	575.5	577.7	583.9	588.9	602.2	596.7	586.1	585.5	635.6
5°	673.5	646.2	644.0	647.3	645.6	654.6	643.4	679.6	710.2	746.9	805.9
7.5°	655.1	642.3	626.2	642.9	642.3	637.9	645.1	718.6	792.6	839.3	936.7
10°	602.2	587.8	600.0	605.6	601.7	621.2	669.6	729.7	818.2	916.1	963.5
12.5°	587.2	596.1	600.6	600.6	637.9	647.9	721.9	778.7	883.9	961.2	1098.7
15°	645.6	662.9	632.3	625.6	637.3	642.9	725.2	793.7	928.4	1069.8	1185.0
17.5°	738.6	737.5	690.2	664.0	682.4	695.7	741.4	821.5	900.6	1154.9	1321.9
20°	802.6	803.7	718.6	664.0	724.7	732.5	783.1	847.1	909.5	1197.8	1411.5
22.5°	885.0	855.5	761.4	708.5	749.7	757.0	812.6	863.3	955.1	1192.8	1526.2
25°	952.3	933.4	814.8	778.1	814.8	804.8	855.5	931.7	1004.1	1272.4	1593.5
27.5°	1057.0	1024.7	852.7	859.4	857.1	864.4	876.1	993.0	1090.4	1276.3	1749.4
30°	1154.4	1135.4	937.3	937.3	959.0	945.1	953.4	1094.8	1173.8	1366.4	1924.7
32.5°	1255.1	1256.2	1036.9	984.1	966.8	1024.1	1080.3	1144.3	1274.6	1521.2	2193.0
35°	1521.7	1499.5	1227.8	1095.9	1082.0	1078.7	1168.8	1341.9	1453.3	1722.6	2554.2
37.5°	2058.8	1981.5	1638.6	1349.7	1297.4	1279.6	1382.0	1559.6	1670.3	2018.8	3151.4
40°	2609.9	2467.9	2087.2	1761.6	1591.8	1515.0	1634.1	1785.0	1982.0	2346.0	3704.1
42.5°	3093.5	2918.2	2425.1	2205.8	1984.8	1951.4	1839.5	2085.0	2427.3	2822.5	4245.7
45°	3565.0	3219.9	2725.6	2552.0	2283.7	2302.6	2264.8	2477.4	2889.8	3344.6	4726.0
47.5°	3889.5	3579.4	3094.1	2868.7	2761.2	2650.5	2951.0	3172.0	3301.7	3676.3	5141.2
50°	4239.0	3925.1	3410.8	3253.3	3111.9	3223.8	3613.9	3643.4	3632.9	3985.7	5424.0
52.5°	4690.4	4320.3	3774.2	3596.1	3676.3	3787.6	4237.9	4243.4	3927.3	4246.2	5627.7
55°	5107.8	4697.6	4258.5	4090.4	4257.9	4352.0	4851.2	4668.1	4098.7	4423.2	5727.9
57.5°	5696.1	5221.4	4902.4	4606.3	4945.9	4855.7	5390.6	5118.4	4291.3	4540.7	5691.1
60°	6439.8	5880.9	5561.5	5248.1	5612.1	5673.3	5917.1	5343.3	4365.9	4579.1	5470.2
62.5°	7196.2	6634.0	6213.8	6001.2	6414.1	6615.6	6404.7	5455.1	4276.3	4503.9	4969.8
65°	8134.6	7414.9	6924.0	6799.3	7564.6	7860.7	6981.3	5482.4	4103.2	4090.4	3995.8
67.5°	8777.4	8076.7	7626.4	7835.1	8759.6	8783.6	7498.9	5490.8	3520.4	3202.6	2622.7
70°	8929.9	8179.7	7978.2	8592.6	9713.1	9411.9	7665.9	5067.8	2611.0	1900.8	1198.9
72.5°	7839.0	7116.6	7378.7	8449.6	9915.7	9777.6	7296.9	3656.2	1470.0	760.3	367.9
75°	4808.4	4371.5	5535.3	7163.9	8704.0	8614.9	5692.8	1889.1	592.2	303.9	137.5
77.5°	2091.1	1941.9	2888.7	4753.3	6254.4	6174.8	3335.6	695.7	306.1	213.7	69.6
80°	691.8	671.2	1094.3	2250.9	3663.5	3593.3	1405.4	289.4	218.2	171.4	39.0
82.5°	164.2	163.1	381.8	1035.8	1866.2	1807.8	431.4	159.7	158.1	135.3	20.6
85°	41.2	42.3	105.8	423.6	758.1	668.5	112.4	79.6	111.3	91.8	10.6
87.5°	0.0	0.0	27.3	60.7	114.7	71.8	12.2	21.2	31.2	32.8	5.6
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°	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2	533.2
2.5°	646.8	640.6	590.5	602.8	621.7	620.0	632.3	622.8	614.5	655.7	651.8
5°	822.6	789.2	773.7	795.4	783.7	756.4	779.2	775.3	768.7	782.6	793.1
7.5°	954.6	923.9	910.0	864.4	798.2	745.8	754.2	734.7	716.3	738.0	760.3
10°	998.0	981.3	979.6	890.5	828.2	752.5	662.9	585.5	564.9	537.7	549.9
12.5°	1116.0	1126.0	1063.1	959.0	838.8	693.5	534.3	424.7	380.2	351.2	352.9
15°	1212.8	1247.9	1156.6	969.6	738.0	528.8	355.7	257.1	229.3	222.1	219.9
17.5°	1357.0	1390.9	1185.5	894.4	595.0	358.4	228.8	200.4	202.0	207.1	205.9
20°	1463.8	1458.8	1160.5	761.4	438.6	234.9	191.5	187.6	196.5	210.9	207.6
22.5°	1566.8	1532.3	1144.9	638.4	283.9	188.7	184.8	184.2	192.6	206.5	210.4
25°	1640.3	1645.8	1118.7	499.8	206.5	175.3	178.7	183.7	192.0	207.1	204.8
27.5°	1850.7	1694.8	1009.7	362.9	174.2	168.1	176.4	186.5	189.2	208.2	208.7
30°	1987.0	1879.6	938.4	244.3	160.9	155.3	172.0	185.3	188.7	213.2	214.8
32.5°	2224.7	1959.2	856.0	181.4	149.7	151.4	162.0	179.8	195.4	221.5	222.6
35°	2520.2	2214.7	706.9	163.1	145.8	143.0	148.1	168.6	194.3	222.6	228.2
37.5°	3083.0	2367.7	560.5	158.1	145.8	140.8	145.8	158.1	190.9	233.8	245.5
40°	3459.8	2679.4	404.1	157.0	143.0	138.6	140.3	152.5	181.4	227.1	244.3
42.5°	3924.0	2810.8	297.8	154.2	140.3	133.6	134.7	150.3	172.0	213.2	226.0
45°	4304.1	2906.5	234.3	153.1	133.6	131.4	133.6	148.6	163.1	183.1	194.8
47.5°	4593.0	3017.8	188.1	145.8	131.9	131.4	128.6	139.1	148.1	153.1	160.9
50°	4804.5	2992.8	155.8	134.7	126.3	129.7	124.7	126.3	128.6	125.8	134.7
52.5°	4934.2	2902.6	129.7	121.3	119.7	122.4	116.3	111.3	107.4	105.2	110.8
55°	4981.5	2721.7	110.2	104.1	108.0	109.1	104.1	95.2	88.5	85.2	89.6
57.5°	4891.9	2446.2	95.7	86.3	95.2	95.2	88.5	79.0	71.2	65.7	70.1
60°	4664.8	2141.8	85.2	71.8	81.3	81.8	74.0	64.0	57.9	52.3	55.1
62.5°	4241.8	1810.0	74.6	62.3	70.1	70.7	61.2	51.8	47.3	41.2	43.4
65°	3395.8	1384.2	63.5	55.1	60.7	59.0	50.6	44.0	38.4	32.8	34.0
67.5°	2204.1	854.4	55.1	50.1	51.2	49.5	42.9	38.4	32.3	27.8	28.4
70°	986.8	367.9	48.4	45.1	44.5	41.7	36.2	35.6	31.7	27.8	27.8
72.5°	304.5	138.6	41.7	40.6	38.4	35.1	31.7	34.0	31.2	26.7	26.2
75°	120.2	63.5	34.5	34.5	33.4	28.9	28.4	30.6	28.9	24.5	23.4
77.5°	62.9	40.1	28.4	29.5	28.9	22.3	25.6	27.8	26.7	20.6	17.3
80°	37.3	24.5	21.2	23.9	23.4	15.6	19.5	17.8	12.8	6.1	1.7
82.5°	20.6	11.1	9.5	13.9	13.9	5.6	10.0	8.9	5.0	0.0	0.0
85°	10.0	7.8	7.2	7.8	5.6	1.7	5.0	5.0	2.8	0.0	0.0
87.5°	5.0	4.5	3.3	2.8	2.2	0.0	1.7	2.2	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)