

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: P597019

Luminaire Tested: **MSA-SA3A-835-U-T3-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597019  
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-SA3A-835-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: 7141 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2

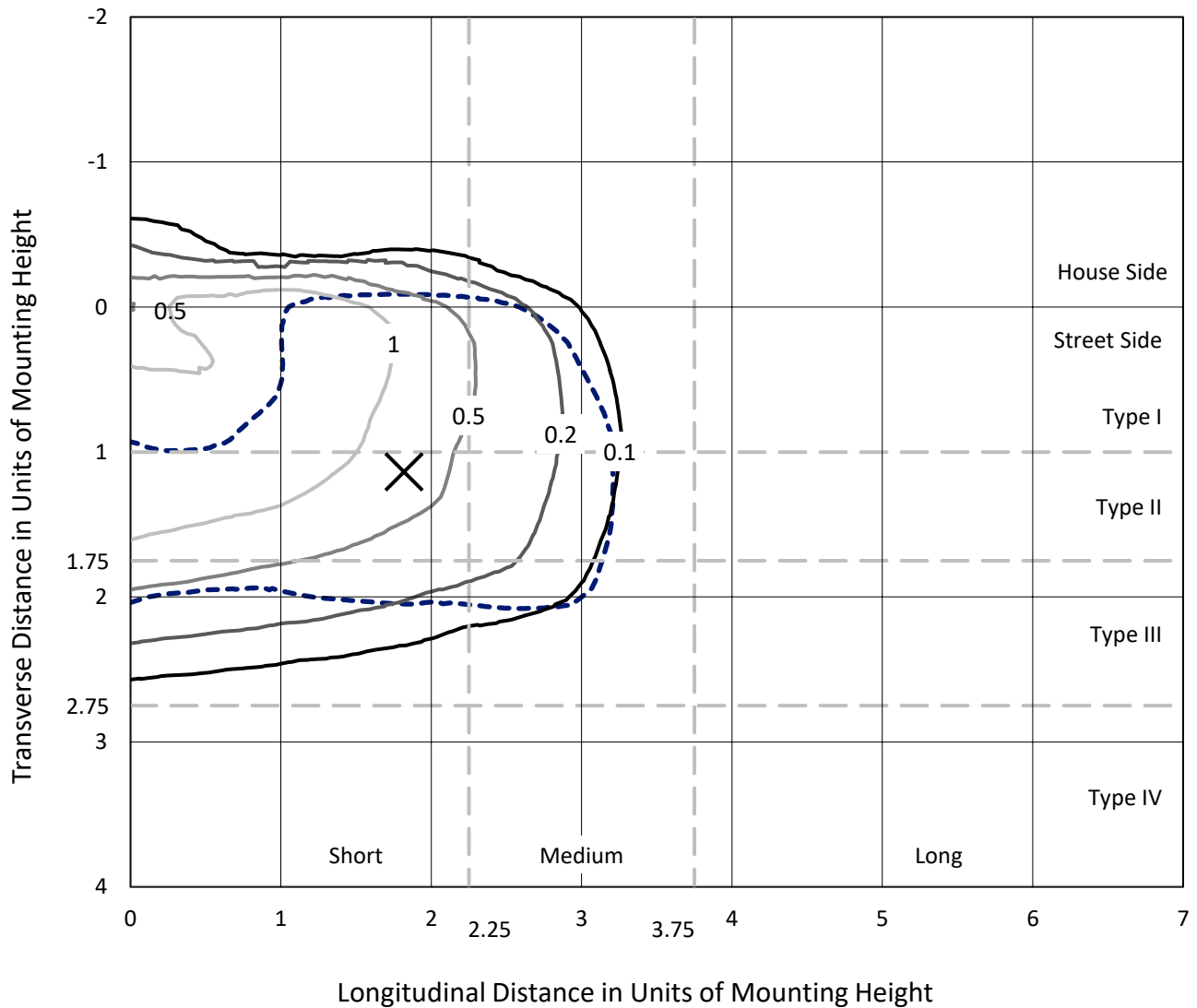
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

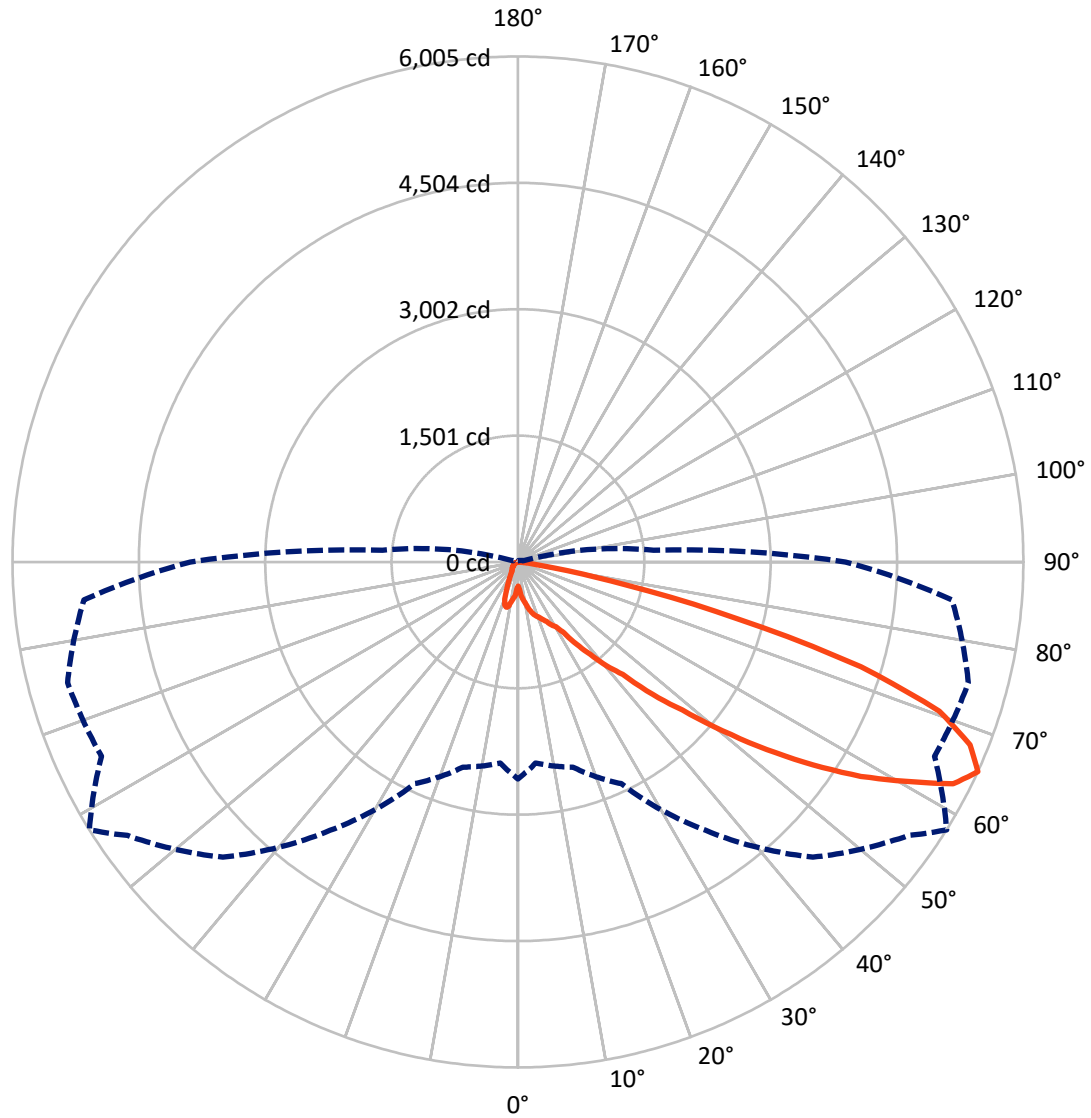
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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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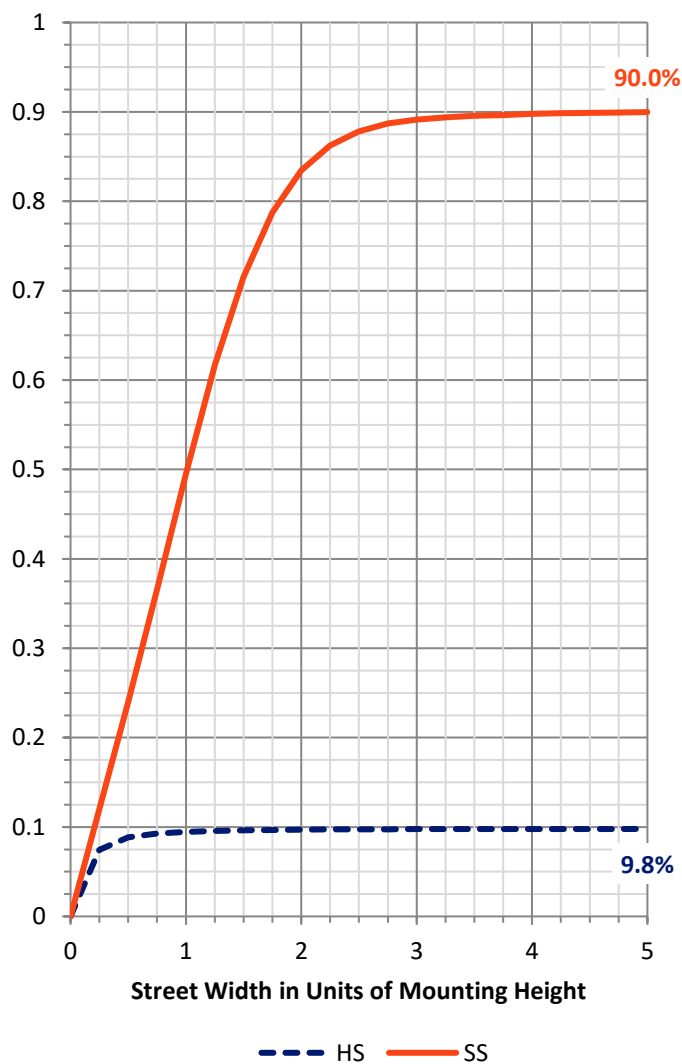
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	704.6	0.0	704.6
	% Fixture	9.9	0.0	9.9
<b>Street Side</b>	Lumens	6436.4	0.0	6436.4
	% Fixture	90.1	0.0	90.1
<b>Total</b>	Lumens	7141.0	0.0	7141.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.2	0.6
10°-20°	146.6	2.1
20°-30°	283.7	4.0
30°-40°	566.1	7.9
40°-50°	1157.3	16.2
50°-60°	2052.7	28.7
60°-70°	2164.1	30.3
70°-80°	701.6	9.8
80°-90°	28.7	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°	7141.0	100.0
0°-180°	7141.0	100.0

**Coefficient of Utilization**



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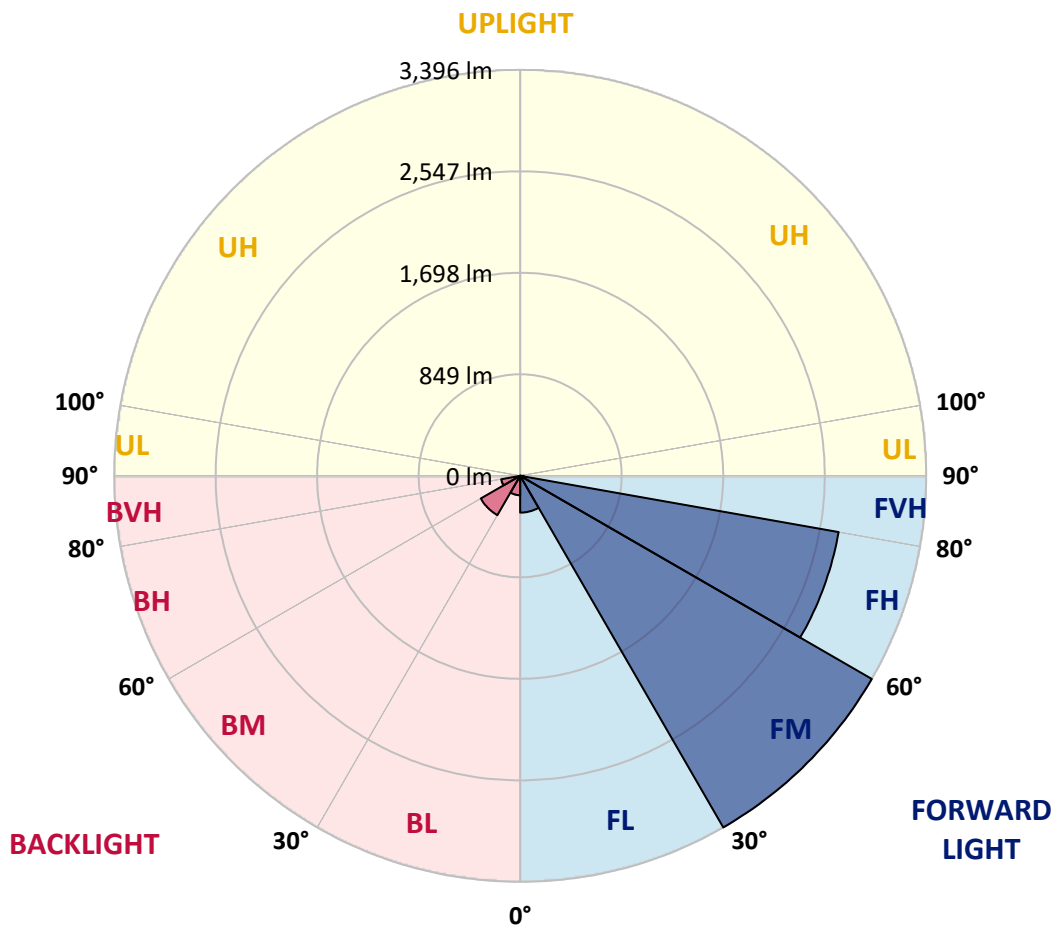
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	308.1	4.3			
FM (30°-60°)	3395.9	47.6			
FH (60°-80°)	2704.9	37.9			G2/5000
FVH (80°-90°)	27.5	0.4			G1/100
BL (0°-30°)	162.4	2.3	B1/500		
BM (30°-60°)	380.2	5.3	B1/1000		
BH (60°-80°)	160.8	2.3	B1/500		G1/500
BVH (80°-90°)	1.2	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°	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9
2.5°	349.0	338.5	322.1	324.9	328.1	334.5	329.3	324.5	319.2	312.4	338.5
5°	421.4	404.1	402.5	398.8	396.0	395.6	402.1	400.1	402.9	415.7	429.0
7.5°	447.9	440.7	427.0	432.6	423.8	416.9	445.5	454.7	472.4	478.5	513.0
10°	445.1	434.6	440.3	443.1	449.1	474.0	492.1	502.2	517.5	550.4	543.6
12.5°	457.9	467.2	473.2	473.6	504.6	550.4	563.3	571.7	599.1	611.9	645.7
15°	501.0	516.2	506.6	510.6	520.7	576.6	606.7	625.2	663.8	705.6	714.1
17.5°	562.5	572.1	552.0	537.6	565.3	595.9	650.5	669.8	694.4	792.1	810.2
20°	640.1	656.6	613.1	555.6	592.2	628.4	687.9	697.2	723.3	850.8	879.3
22.5°	821.4	796.9	730.5	640.9	630.0	646.1	702.8	739.0	783.2	883.7	950.1
25°	1000.3	991.9	894.2	794.1	721.7	685.5	760.7	780.8	853.2	962.1	998.7
27.5°	1199.3	1216.2	1053.0	992.3	850.4	732.2	796.9	847.1	932.8	990.7	1078.7
30°	1461.9	1435.0	1243.6	1182.9	1020.8	860.4	890.6	893.8	1019.6	1084.8	1168.4
32.5°	1667.7	1685.0	1444.6	1351.3	1221.9	1057.8	960.9	1002.7	1092.8	1237.9	1317.2
35°	1890.5	1888.9	1654.5	1529.0	1359.8	1219.0	1169.6	1200.2	1313.1	1477.6	1498.5
37.5°	2223.4	2194.9	1918.2	1734.5	1590.6	1470.3	1432.5	1391.9	1508.5	1665.3	1743.7
40°	2537.4	2438.9	2183.2	1965.3	1781.1	1732.1	1595.4	1620.3	1654.9	1861.9	2078.7
42.5°	2854.6	2793.5	2451.8	2269.2	2042.9	1926.3	1837.0	1825.4	1989.8	2235.1	2459.0
45°	3273.2	3086.2	2812.8	2652.4	2390.3	2273.3	2201.3	2244.3	2392.3	2750.5	2899.7
47.5°	3624.6	3452.5	3217.7	2974.0	2699.0	2830.5	2695.4	2627.5	2830.5	3200.8	3399.0
50°	3926.5	3734.7	3497.1	3316.6	3272.0	3398.2	3124.8	3149.7	3281.6	3716.7	3828.4
52.5°	4146.1	3944.2	3736.8	3649.5	3832.4	3896.0	3758.9	3703.8	3823.6	4156.5	4210.8
55°	4311.3	4104.6	3942.6	4062.8	4416.6	4395.7	4444.0	4255.8	4370.4	4615.3	4589.5
57.5°	4321.4	4076.5	3981.6	4175.0	4660.7	4984.3	5125.5	4805.4	4870.6	4973.9	4916.0
60°	4005.3	3761.7	3754.0	4028.7	4731.5	5136.7	5445.5	5289.5	5202.3	5279.1	5169.3
62.5°	3375.7	3205.2	3284.8	3588.4	4468.1	5052.7	5616.0	5803.7	5464.0	5481.3	5325.3
65°	2577.6	2398.7	2523.3	2905.7	3892.4	4958.6	5664.2	6004.8	5459.2	5538.8	5175.7
67.5°	1707.2	1603.4	1744.5	2165.9	3094.7	4377.2	5639.3	5793.7	5285.9	5314.0	4620.5
70°	881.3	856.0	970.2	1302.7	2080.7	3362.8	5394.5	5310.0	4934.1	4577.9	3563.9
72.5°	282.2	283.5	393.2	595.1	1121.7	2047.3	4146.5	4262.2	3948.2	3348.8	2176.0
75°	125.0	123.0	164.4	249.7	467.6	917.9	2576.0	2701.0	2458.2	1842.2	914.7
77.5°	90.1	87.2	105.3	145.9	231.6	311.2	1207.8	1303.5	1114.5	638.5	209.5
80°	63.5	63.1	76.4	102.5	144.7	138.3	381.6	427.8	342.6	154.8	61.5
82.5°	35.8	37.0	53.1	72.4	88.1	69.2	107.4	118.2	115.4	82.4	26.9
85°	17.3	19.3	34.6	52.3	46.2	26.9	38.2	41.4	48.2	47.8	13.7
87.5°	0.0	0.0	14.1	23.7	12.5	4.0	11.7	13.3	12.9	15.3	3.2
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°	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9	285.9
2.5°	343.8	341.3	310.8	313.2	320.0	317.2	319.6	314.0	307.6	333.7	333.3
5°	434.6	416.5	406.9	398.0	399.6	381.6	392.0	396.8	396.0	410.9	414.9
7.5°	514.2	490.1	470.8	452.3	424.2	398.8	414.5	424.6	431.4	457.1	467.2
10°	551.6	531.9	524.3	488.1	468.0	452.3	433.4	419.8	425.4	418.5	425.4
12.5°	633.6	620.4	591.0	554.4	530.3	498.2	427.8	369.1	332.9	333.3	330.9
15°	708.4	707.6	663.8	603.1	533.1	441.5	331.7	257.7	223.5	213.9	210.7
17.5°	806.1	794.1	714.1	624.4	498.6	341.8	226.0	176.5	173.3	178.9	176.5
20°	868.5	850.8	739.0	593.4	410.9	231.2	170.5	156.4	166.1	174.1	172.1
22.5°	930.8	904.2	757.9	555.6	292.3	169.3	154.0	151.6	157.6	167.7	169.3
25°	964.9	959.7	794.9	484.9	200.2	148.4	148.4	147.6	149.6	156.8	155.6
27.5°	1064.3	993.5	767.1	378.3	154.8	136.3	138.3	137.5	130.3	137.5	137.9
30°	1126.2	1093.6	769.1	269.4	136.3	120.6	125.8	119.4	108.6	114.6	113.4
32.5°	1250.8	1169.6	763.1	181.7	124.2	115.0	106.9	97.7	89.7	92.1	90.1
35°	1396.0	1334.0	681.5	145.9	115.8	101.7	88.9	79.6	71.2	73.2	72.8
37.5°	1684.6	1488.0	613.9	131.5	110.2	93.3	78.4	65.5	61.1	62.3	63.5
40°	1952.0	1744.9	488.1	125.0	100.5	83.2	64.7	55.5	52.7	53.5	54.7
42.5°	2351.7	1949.2	368.7	118.6	90.9	70.4	53.9	47.8	45.0	46.6	47.4
45°	2738.4	2122.9	275.4	113.0	82.8	60.7	45.4	41.4	38.2	39.4	41.0
47.5°	3124.8	2315.9	205.5	104.1	74.0	52.3	39.0	36.2	34.2	34.6	36.6
50°	3470.6	2405.9	161.6	93.3	66.7	45.4	35.4	32.6	31.8	32.2	33.8
52.5°	3724.7	2406.7	136.3	83.6	59.9	40.2	33.4	30.2	29.8	30.6	32.2
55°	3954.3	2342.4	118.2	75.2	53.9	36.6	31.8	28.9	28.9	29.8	31.4
57.5°	4106.6	2224.2	102.5	66.3	48.6	34.6	30.6	27.7	27.3	26.9	28.1
60°	4181.0	2063.0	86.8	58.3	43.8	33.4	29.8	24.5	24.1	23.3	24.1
62.5°	4134.0	1861.1	72.8	50.3	39.0	31.8	26.1	21.3	20.5	18.9	20.1
65°	3893.6	1615.9	61.5	43.0	33.8	26.9	22.1	18.1	16.1	14.1	13.7
67.5°	3401.8	1312.7	51.5	37.0	28.9	22.1	18.1	16.1	12.5	10.9	10.5
70°	2549.5	896.2	42.6	31.8	24.1	18.9	15.3	14.5	11.7	10.5	9.6
72.5°	1495.7	483.7	35.8	27.7	20.5	15.7	12.5	13.3	11.7	9.6	8.8
75°	597.5	160.8	28.5	22.1	16.5	11.3	10.5	10.9	10.5	8.8	7.2
77.5°	136.3	50.7	22.1	17.3	12.9	7.2	8.4	9.2	9.2	7.2	5.2
80°	42.6	20.1	12.9	10.9	9.2	4.0	6.0	6.4	4.4	2.0	0.0
82.5°	13.7	5.6	4.4	4.4	4.0	0.8	1.2	0.8	0.0	0.0	0.0
85°	5.2	3.6	2.8	2.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	1.6	1.2	1.6	0.8	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)