

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: P596875

Luminaire Tested: **MSA-SA1C-835-U-SL2-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596875  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)  
Test Lab: INNOVATIONS CENTER  
Issue Date: 5/27/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA1C-835-U-SL2-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4238 lumens  
Efficiency: N/A  
Efficacy: 71.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1

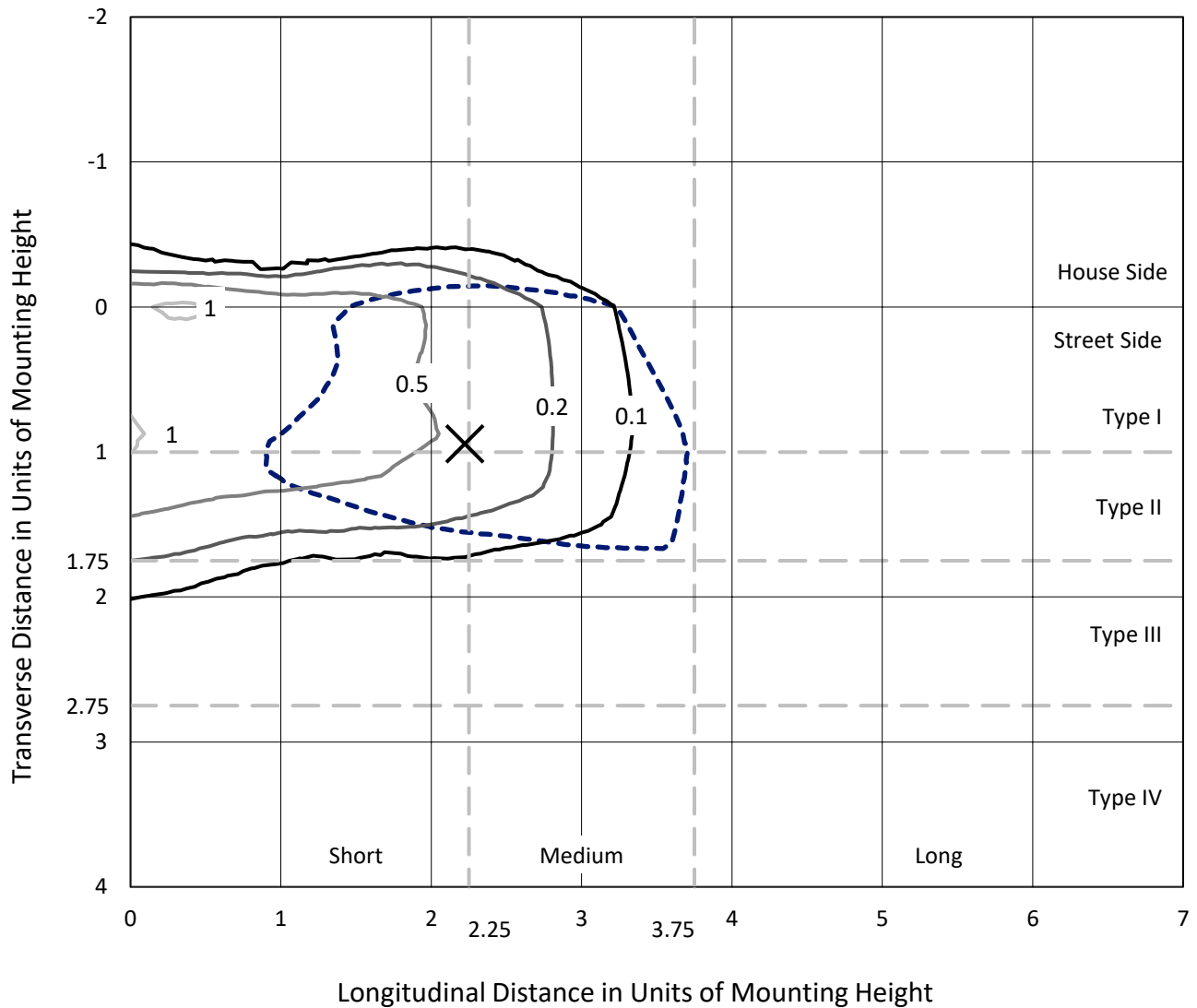
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

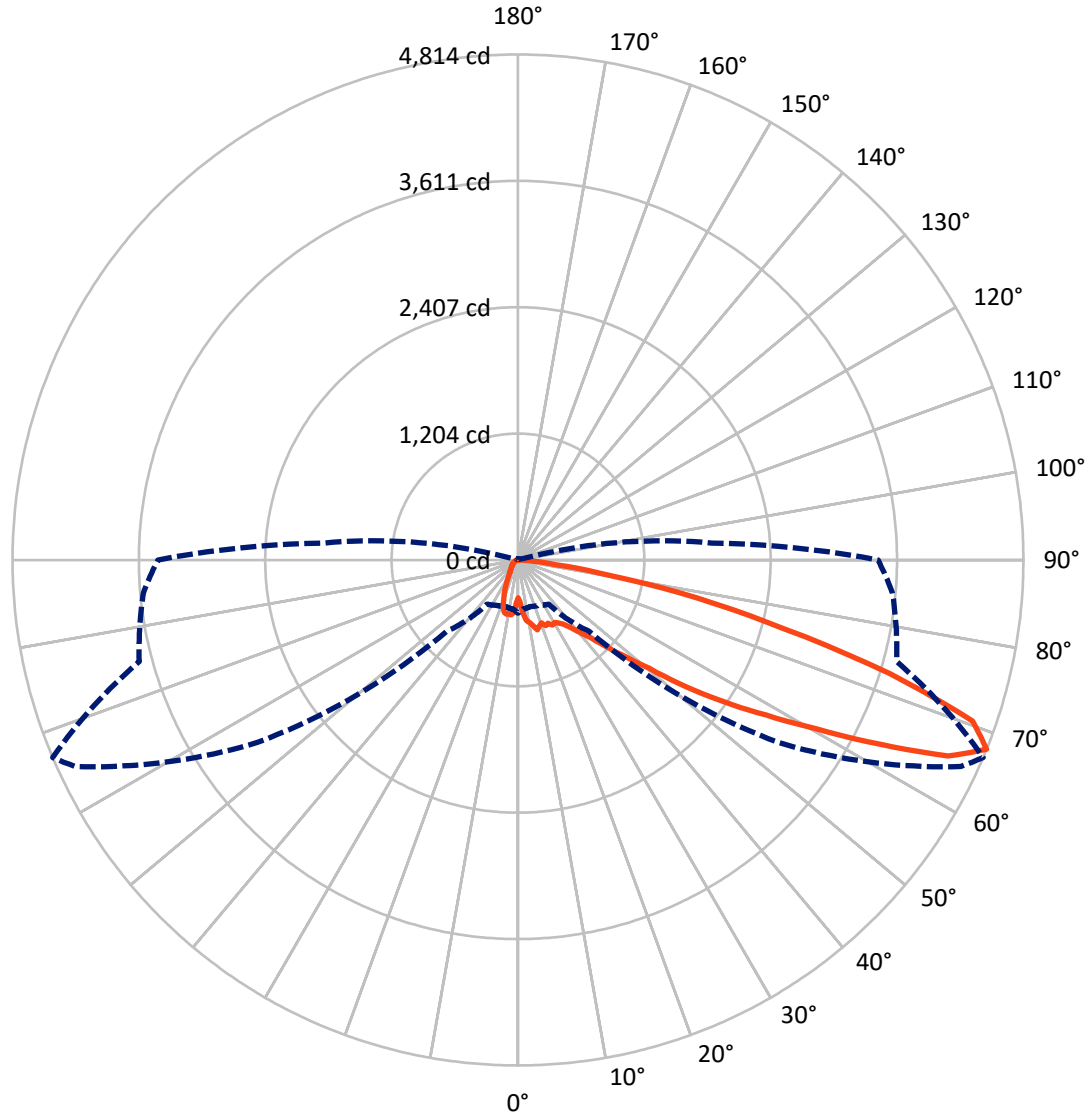
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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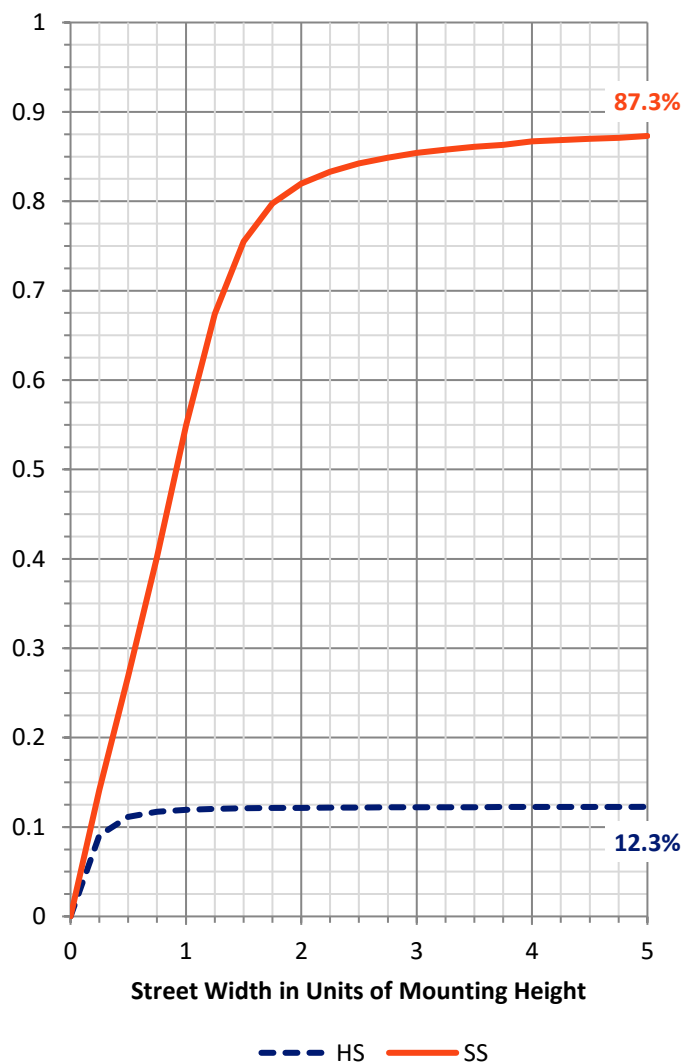
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	524.1	0.0	524.1
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	3713.9	0.0	3713.9
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	4238.0	0.0	4238.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.3	1.1
10°-20°	134.1	3.2
20°-30°	210.1	5.0
30°-40°	338.8	8.0
40°-50°	622.5	14.7
50°-60°	1051.3	24.8
60°-70°	1162.3	27.4
70°-80°	608.3	14.4
80°-90°	65.3	1.5
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°	4238.0	100.0
0°-180°	4238.0	100.0

**Coefficient of Utilization**

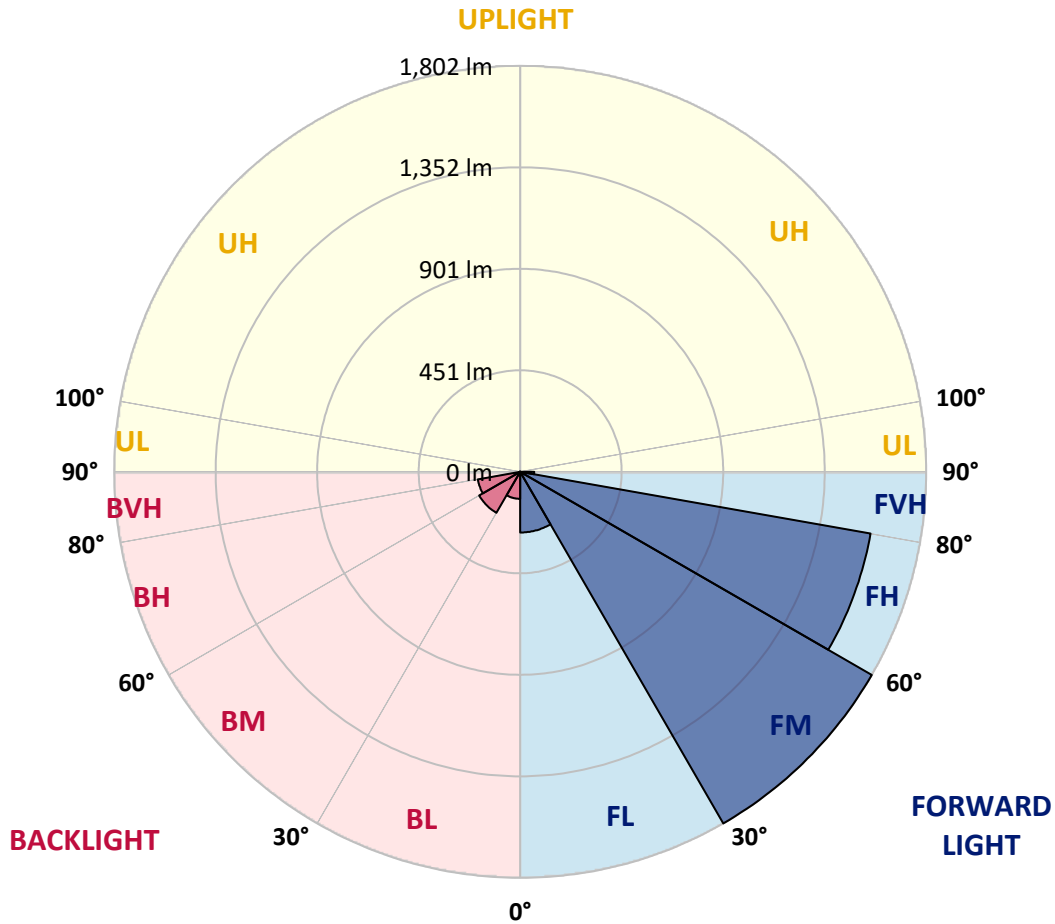


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	269.5	6.4			
FM (30°-60°)	1802.4	42.5			
FH (60°-80°)	1579.4	37.3			G1/1800
FVH (80°-90°)	62.5	1.5			G1/100
BL (0°-30°)	120.0	2.8	B1/500		
BM (30°-60°)	210.1	5.0	B0/220		
BH (60°-80°)	191.2	4.5	B1/500		G1/500
BVH (80°-90°)	2.8	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0
2.5°	426.1	411.7	387.2	394.3	408.5	420.3	414.7	403.7	404.0	392.8	433.0
5°	495.8	476.4	462.2	467.2	466.5	466.1	492.5	502.6	506.9	525.4	552.7
7.5°	515.7	508.9	494.0	498.5	483.7	484.8	531.2	575.1	582.0	593.4	641.9
10°	508.0	494.7	500.1	500.1	500.3	524.3	555.5	597.4	605.8	649.7	654.8
12.5°	499.6	500.3	521.6	517.7	546.9	590.1	600.7	647.7	643.7	681.7	738.3
15°	530.8	547.1	533.4	538.8	541.5	592.3	609.3	671.8	689.9	738.0	774.8
17.5°	584.3	586.5	557.9	550.1	570.4	584.8	618.9	649.0	661.1	787.5	839.5
20°	594.0	607.8	578.7	534.0	576.8	596.6	620.4	634.8	640.0	802.8	876.1
22.5°	652.3	637.0	590.6	556.6	568.8	590.3	605.2	648.6	679.6	773.9	911.1
25°	682.1	678.1	633.8	604.8	592.3	590.6	624.5	657.4	667.3	803.8	919.7
27.5°	753.7	744.5	658.7	655.1	614.0	577.9	625.2	684.3	702.8	775.7	952.0
30°	851.1	847.7	733.5	731.2	665.8	600.9	660.0	700.8	689.7	790.1	973.4
32.5°	949.2	977.1	860.4	793.7	744.7	685.4	650.1	695.7	715.7	825.1	1013.0
35°	1067.6	1087.8	968.9	920.6	811.6	724.9	715.7	744.9	753.5	866.8	1057.9
37.5°	1274.9	1244.3	1143.1	1060.7	1003.5	866.2	820.6	797.4	817.4	923.4	1149.7
40°	1427.9	1408.6	1283.9	1234.7	1103.1	1022.7	903.6	881.9	904.2	981.4	1213.6
42.5°	1612.6	1572.4	1455.0	1421.7	1286.3	1131.2	1010.4	1018.0	1004.0	1096.0	1325.6
45°	1779.6	1688.9	1623.6	1631.1	1558.9	1349.5	1188.6	1185.0	1173.4	1262.0	1443.4
47.5°	1892.1	1812.7	1749.1	1728.3	1719.7	1733.2	1446.2	1381.3	1372.7	1436.3	1628.9
50°	1952.5	1865.6	1786.9	1791.2	1965.8	2097.2	1711.9	1619.7	1622.9	1689.3	1882.6
52.5°	1911.9	1813.6	1730.6	1811.2	2156.7	2339.9	2151.8	1931.2	2006.0	1989.0	2222.9
55°	1724.2	1638.8	1579.9	1724.2	2177.6	2601.1	2693.3	2400.1	2383.3	2344.6	2569.9
57.5°	1408.4	1334.8	1298.5	1450.7	1949.5	2811.6	3237.2	2930.0	2787.1	2625.0	2858.0
60°	1049.3	995.2	957.3	1037.7	1536.1	2607.1	3593.5	3429.4	3263.9	2895.2	3116.8
62.5°	777.2	733.1	692.9	700.2	1057.7	2242.3	3730.2	3958.5	3863.5	3180.5	3361.1
65°	620.2	580.0	551.9	535.7	655.1	1687.0	3539.9	4392.1	4501.8	3449.2	3537.4
67.5°	506.5	472.5	458.6	477.1	513.8	961.6	3031.7	4655.3	4814.4	3734.3	3580.8
70°	412.1	384.2	382.7	432.5	473.2	586.3	2230.0	4473.6	4593.4	3782.9	3320.4
72.5°	287.2	275.0	294.5	365.3	468.9	488.2	1280.7	3702.0	3706.3	3341.1	2731.2
75°	162.5	160.6	191.6	291.3	456.6	483.3	714.0	2616.1	2618.1	2526.9	1892.1
77.5°	89.4	83.6	111.6	196.9	392.1	472.1	460.5	1786.3	1740.5	1406.2	864.2
80°	41.3	38.9	60.4	126.2	286.8	446.5	369.1	981.8	885.3	458.1	210.9
82.5°	17.0	16.1	27.7	81.0	181.2	359.7	311.1	435.6	349.6	87.1	65.1
85°	3.0	3.2	11.4	49.0	101.5	165.8	252.2	206.8	152.0	24.1	35.7
87.5°	0.0	0.0	2.4	11.8	24.5	45.4	102.3	57.8	39.8	7.1	10.5
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°	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0	361.0
2.5°	440.9	437.3	400.3	402.0	404.6	402.2	401.8	391.5	382.0	413.2	412.8
5°	557.7	531.7	506.1	496.2	474.9	447.0	447.2	438.4	429.3	442.0	442.0
7.5°	640.9	605.0	572.5	514.7	458.3	407.4	402.9	390.8	377.1	393.6	396.9
10°	660.2	629.0	587.1	502.2	448.9	399.2	344.6	299.7	278.8	269.2	267.4
12.5°	719.8	696.5	602.8	508.9	432.1	348.1	258.6	205.3	169.0	166.2	162.3
15°	759.5	743.2	618.3	492.3	361.2	250.2	162.5	124.7	110.1	108.8	106.8
17.5°	821.2	792.9	603.5	439.6	282.5	165.1	109.2	98.5	100.2	104.1	101.0
20°	846.4	790.9	571.2	363.3	198.4	110.7	94.8	89.0	93.5	97.2	95.5
22.5°	872.2	796.5	542.6	299.5	129.6	91.6	84.5	81.5	81.9	85.6	85.8
25°	872.0	812.0	509.5	233.3	96.5	81.5	76.3	72.4	70.9	73.5	72.9
27.5°	914.3	794.2	449.1	173.1	84.9	72.9	67.9	63.2	57.8	60.4	60.4
30°	914.5	823.2	407.0	124.3	77.8	64.9	60.6	53.3	47.1	49.2	49.4
32.5°	938.8	798.0	368.1	95.0	72.2	60.2	50.7	44.1	40.4	41.7	41.7
35°	966.6	819.5	308.3	83.8	66.6	53.5	43.4	38.1	35.3	36.3	36.3
37.5°	1058.2	815.0	266.8	78.0	63.0	48.4	39.6	33.5	32.2	32.9	33.8
40°	1091.3	847.0	210.5	74.6	57.0	43.6	34.8	30.3	28.6	29.0	29.2
42.5°	1175.5	854.1	168.1	71.8	51.6	37.8	31.0	27.7	25.6	25.6	26.2
45°	1268.6	872.0	133.7	69.4	47.1	34.0	27.9	25.4	22.1	21.7	22.6
47.5°	1403.4	940.3	109.0	64.7	41.7	31.6	25.8	21.9	19.3	18.5	19.3
50°	1628.9	1056.4	96.3	58.9	37.8	29.7	22.8	18.7	16.8	15.7	16.3
52.5°	1947.1	1257.0	89.6	53.5	34.4	26.7	20.4	16.3	14.4	13.5	14.0
55°	2300.5	1487.0	86.4	48.2	31.4	23.4	17.8	14.4	12.7	11.6	11.8
57.5°	2627.3	1703.3	83.2	43.0	28.4	20.9	15.7	12.7	11.0	9.9	10.1
60°	2949.4	1876.0	75.5	37.0	25.6	18.7	13.8	11.0	9.9	8.6	8.6
62.5°	3234.2	1979.1	64.3	32.0	23.0	16.6	12.3	9.9	9.0	7.7	7.7
65°	3428.1	1983.9	51.8	27.5	20.2	14.2	10.7	9.2	8.4	6.9	6.7
67.5°	3430.9	1854.9	41.5	24.5	17.8	12.5	9.7	8.8	7.7	6.4	6.0
70°	3070.8	1532.4	34.6	21.5	15.5	11.0	8.4	8.4	7.5	6.2	5.6
72.5°	2456.4	1171.0	29.0	18.7	13.8	9.5	7.7	8.0	7.3	6.2	5.6
75°	1651.1	671.6	24.1	15.9	12.0	8.0	7.5	7.7	7.5	6.2	5.4
77.5°	760.4	213.9	18.7	13.1	10.3	6.7	7.3	7.3	6.9	5.6	4.7
80°	171.3	52.7	13.5	9.7	8.4	4.9	6.7	6.0	5.4	3.9	2.8
82.5°	62.3	16.1	8.2	6.0	5.2	1.9	4.3	4.3	3.9	2.8	1.7
85°	35.7	8.4	4.5	3.9	2.8	0.9	2.4	2.6	2.1	1.9	0.9
87.5°	11.6	1.9	2.1	2.4	2.1	0.4	0.9	0.9	0.6	0.4	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)