

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: P596567

Luminaire Tested: **MSA-SA2A-827-U-SL2-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596567  
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-SA2A-827-U-SL2-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

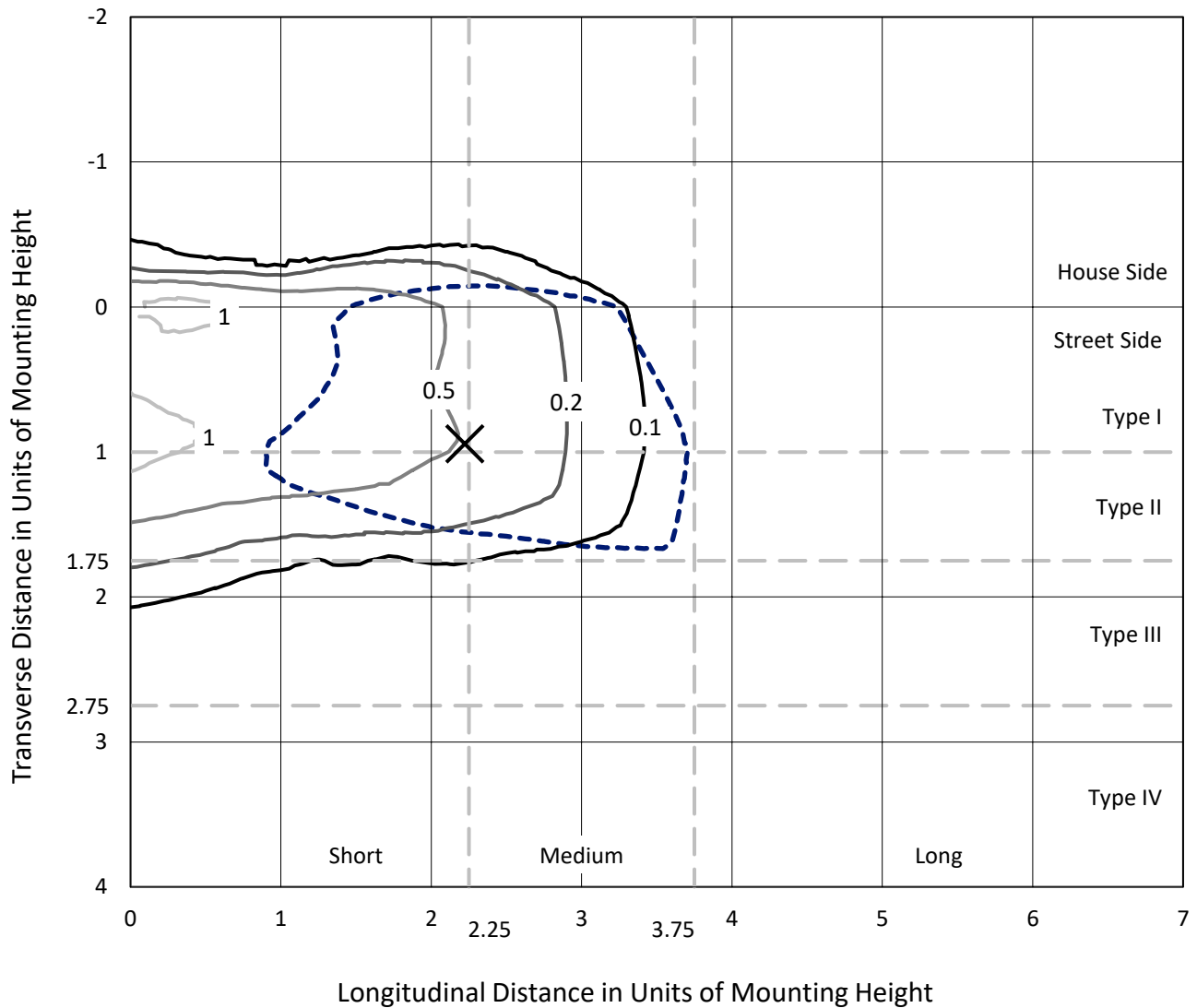
Lumens per Lamp: N/A  
Luminaire Lumens: 4789 lumens  
Efficiency: N/A  
Efficacy: 72.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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

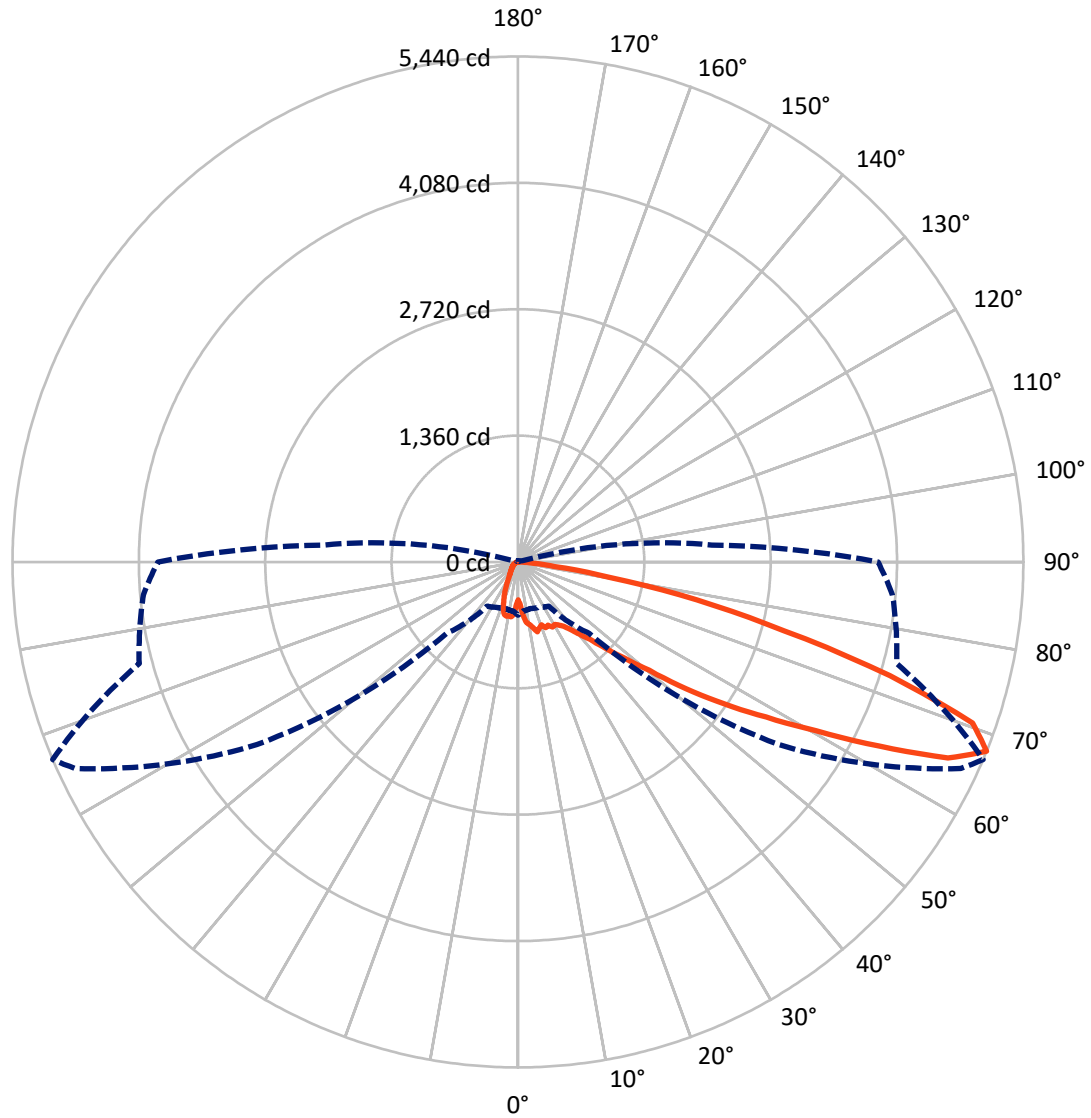
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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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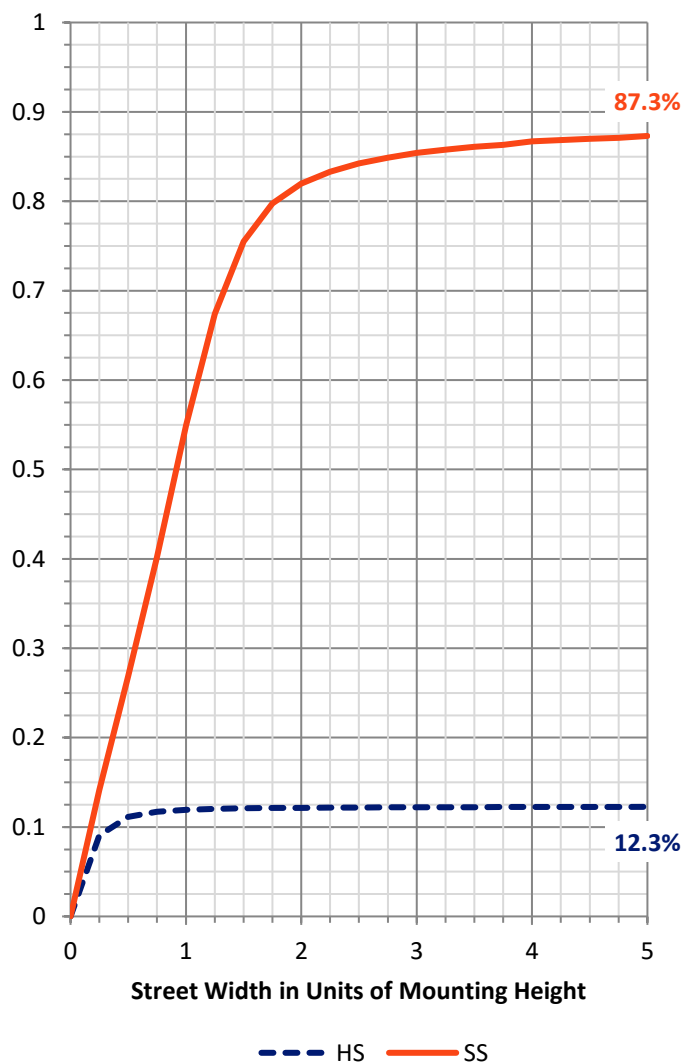
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	592.3	0.0	592.3
	% Fixture	12.4	0.0	12.4
<b>Street Side</b>	Lumens	4196.7	0.0	4196.7
	% Fixture	87.6	0.0	87.6
<b>Total</b>	Lumens	4789.0	0.0	4789.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.2	1.1
10°-20°	151.5	3.2
20°-30°	237.4	5.0
30°-40°	382.8	8.0
40°-50°	703.4	14.7
50°-60°	1188.0	24.8
60°-70°	1313.4	27.4
70°-80°	687.4	14.4
80°-90°	73.8	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°	4789.0	100.0
0°-180°	4789.0	100.0

**Coefficient of Utilization**



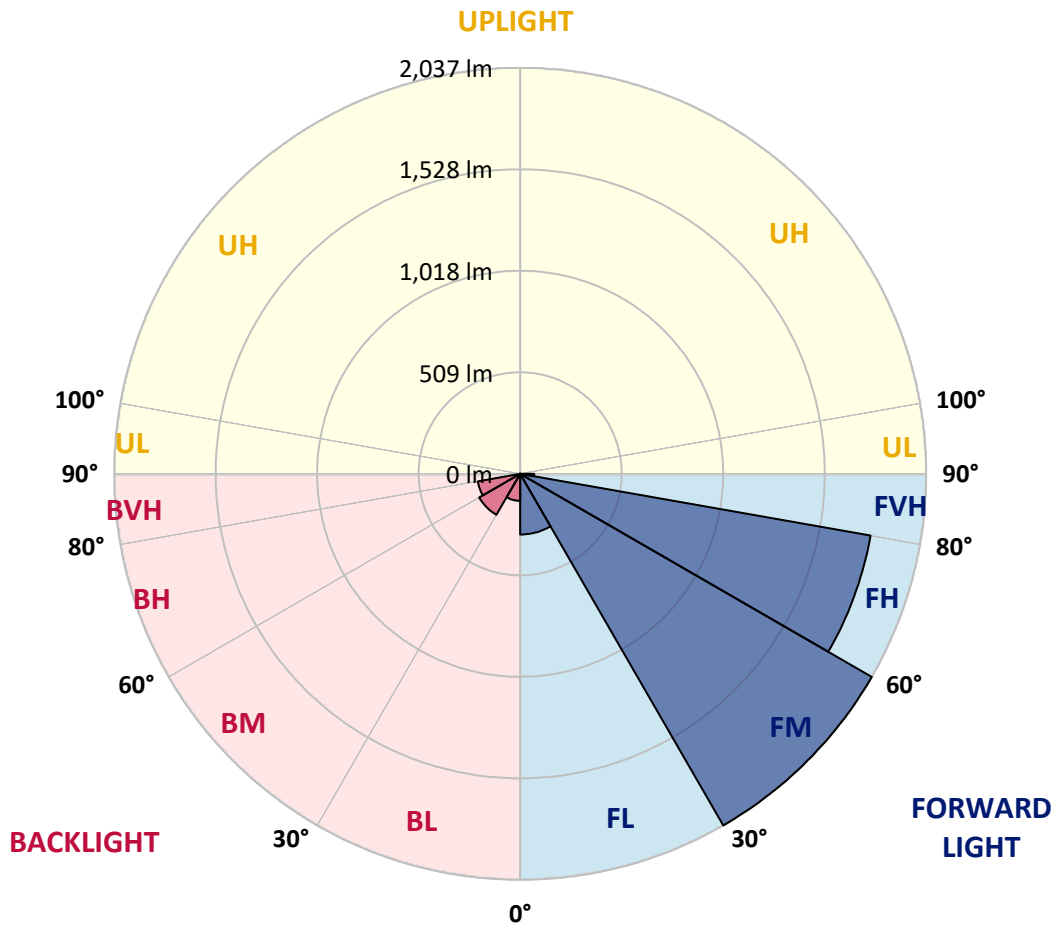
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	304.5	6.4			
FM (30°-60°)	2036.8	42.5			
FH (60°-80°)	1784.8	37.3			G1/1800
FVH (80°-90°)	70.7	1.5			G1/100
BL (0°-30°)	135.6	2.8	B1/500		
BM (30°-60°)	237.5	5.0	B1/1000		
BH (60°-80°)	216.0	4.5	B1/500		G1/500
BVH (80°-90°)	3.1	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°	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9
2.5°	481.5	465.2	437.5	445.5	461.6	474.9	468.6	456.2	456.5	443.8	489.3
5°	560.2	538.3	522.3	527.9	527.2	526.7	556.6	568.0	572.8	593.7	624.6
7.5°	582.8	575.0	558.3	563.4	546.6	547.8	600.3	649.9	657.6	670.5	725.4
10°	574.1	559.0	565.1	565.1	565.3	592.5	627.7	675.1	684.6	734.2	740.0
12.5°	564.6	565.3	589.4	585.0	618.0	666.9	678.8	732.0	727.3	770.3	834.2
15°	599.8	618.3	602.7	608.8	612.0	669.3	688.5	759.2	779.6	834.0	875.5
17.5°	660.3	662.7	630.4	621.7	644.5	660.8	699.4	733.4	747.0	889.9	948.7
20°	671.2	686.8	654.0	603.5	651.8	674.1	701.1	717.4	723.2	907.1	990.0
22.5°	737.1	719.8	667.3	629.0	642.8	667.1	683.9	732.9	767.9	874.6	1029.6
25°	770.8	766.2	716.2	683.4	669.3	667.3	705.7	742.9	754.1	908.3	1039.3
27.5°	851.7	841.3	744.4	740.2	693.8	653.0	706.5	773.3	794.2	876.5	1075.7
30°	961.8	957.9	828.9	826.2	752.4	679.0	745.8	792.0	779.3	892.8	1100.0
32.5°	1072.6	1104.1	972.2	896.9	841.5	774.5	734.6	786.1	808.7	932.4	1144.7
35°	1206.4	1229.3	1094.9	1040.2	917.1	819.2	808.7	841.8	851.5	979.5	1195.5
37.5°	1440.6	1406.1	1291.7	1198.6	1134.0	978.8	927.3	901.0	923.6	1043.4	1299.2
40°	1613.6	1591.7	1450.8	1395.2	1246.5	1155.6	1021.1	996.5	1021.8	1109.0	1371.4
42.5°	1822.3	1776.8	1644.2	1606.5	1453.5	1278.3	1141.8	1150.3	1134.5	1238.5	1497.9
45°	2011.0	1908.5	1834.6	1843.2	1761.5	1524.9	1343.2	1339.1	1325.9	1426.0	1631.1
47.5°	2138.1	2048.4	1976.5	1953.0	1943.2	1958.5	1634.2	1560.9	1551.1	1623.1	1840.7
50°	2206.3	2108.2	2019.3	2024.1	2221.4	2369.8	1934.5	1830.3	1833.9	1909.0	2127.4
52.5°	2160.4	2049.4	1955.6	2046.7	2437.1	2644.1	2431.5	2182.3	2266.8	2247.6	2512.0
55°	1948.3	1851.9	1785.3	1948.3	2460.7	2939.3	3043.5	2712.1	2693.2	2649.5	2904.0
57.5°	1591.5	1508.4	1467.3	1639.3	2202.9	3177.1	3658.1	3311.0	3149.4	2966.2	3229.6
60°	1185.8	1124.5	1081.8	1172.6	1735.8	2946.1	4060.7	3875.3	3688.2	3271.6	3522.1
62.5°	878.2	828.4	783.0	791.2	1195.2	2533.8	4215.2	4473.2	4365.8	3594.0	3798.1
65°	700.9	655.4	623.6	605.4	740.2	1906.3	4000.2	4963.2	5087.1	3897.7	3997.3
67.5°	572.4	534.0	518.2	539.1	580.6	1086.6	3425.9	5260.5	5440.3	4219.8	4046.3
70°	465.7	434.1	432.4	488.8	534.7	662.5	2520.0	5055.2	5190.6	4274.7	3752.1
72.5°	324.6	310.7	332.8	412.7	529.8	551.7	1447.2	4183.3	4188.2	3775.5	3086.3
75°	183.7	181.5	216.5	329.2	516.0	546.1	806.8	2956.3	2958.5	2855.5	2138.1
77.5°	101.1	94.5	126.1	222.5	443.1	533.5	520.4	2018.5	1966.8	1589.0	976.6
80°	46.6	44.0	68.3	142.6	324.1	504.6	417.1	1109.5	1000.4	517.7	238.3
82.5°	19.2	18.2	31.3	91.6	204.8	406.4	351.5	492.2	395.0	98.4	73.6
85°	3.4	3.6	12.9	55.4	114.7	187.3	285.0	233.7	171.8	27.2	40.3
87.5°	0.0	0.0	2.7	13.4	27.7	51.3	115.6	65.3	44.9	8.0	11.9
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°	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9	407.9
2.5°	498.3	494.1	452.3	454.3	457.2	454.5	454.0	442.4	431.7	466.9	466.4
5°	630.2	600.8	571.9	560.7	536.6	505.1	505.3	495.3	485.1	499.5	499.5
7.5°	724.2	683.6	646.9	581.6	517.9	460.4	455.3	441.7	426.1	444.8	448.5
10°	746.1	710.8	663.5	567.5	507.2	451.1	389.4	338.7	315.1	304.2	302.2
12.5°	813.3	787.1	681.2	575.0	488.3	393.3	292.3	232.0	190.9	187.8	183.4
15°	858.3	839.8	698.7	556.3	408.1	282.8	183.7	140.9	124.4	122.9	120.7
17.5°	928.0	895.9	681.9	496.8	319.2	186.6	123.4	111.3	113.2	117.6	114.2
20°	956.4	893.8	645.5	410.6	224.2	125.1	107.1	100.6	105.7	109.8	107.9
22.5°	985.6	900.1	613.2	338.4	146.5	103.5	95.5	92.1	92.6	96.7	96.9
25°	985.3	917.6	575.8	263.6	109.1	92.1	86.2	81.9	80.2	83.1	82.4
27.5°	1033.2	897.4	507.5	195.6	96.0	82.4	76.8	71.4	65.3	68.3	68.3
30°	1033.4	930.2	459.9	140.4	87.9	73.4	68.5	60.2	53.2	55.6	55.9
32.5°	1060.9	901.8	415.9	107.4	81.6	68.0	57.3	49.8	45.7	47.1	47.1
35°	1092.2	926.1	348.4	94.7	75.3	60.5	49.1	43.0	39.8	41.1	41.1
37.5°	1195.7	921.0	301.5	88.2	71.2	54.7	44.7	37.9	36.4	37.2	38.1
40°	1233.1	957.2	237.8	84.3	64.4	49.3	39.4	34.3	32.3	32.8	33.0
42.5°	1328.4	965.2	190.0	81.1	58.3	42.8	35.0	31.3	28.9	28.9	29.6
45°	1433.6	985.3	151.1	78.5	53.2	38.4	31.6	28.7	25.0	24.5	25.5
47.5°	1585.9	1062.6	123.2	73.1	47.1	35.7	29.2	24.8	21.9	20.9	21.9
50°	1840.7	1193.8	108.8	66.6	42.8	33.5	25.8	21.1	18.9	17.7	18.5
52.5°	2200.3	1420.4	101.3	60.5	38.9	30.1	23.1	18.5	16.3	15.3	15.8
55°	2599.7	1680.4	97.7	54.4	35.5	26.5	20.2	16.3	14.3	13.1	13.4
57.5°	2968.9	1924.8	94.0	48.6	32.1	23.6	17.7	14.3	12.4	11.2	11.4
60°	3332.8	2119.9	85.3	41.8	28.9	21.1	15.5	12.4	11.2	9.7	9.7
62.5°	3654.7	2236.5	72.6	36.2	26.0	18.7	13.8	11.2	10.2	8.7	8.7
65°	3873.8	2241.8	58.5	31.1	22.8	16.0	12.1	10.4	9.5	7.8	7.5
67.5°	3877.0	2096.0	46.9	27.7	20.2	14.1	10.9	10.0	8.7	7.3	6.8
70°	3470.1	1731.6	39.1	24.3	17.5	12.4	9.5	9.5	8.5	7.0	6.3
72.5°	2775.8	1323.3	32.8	21.1	15.5	10.7	8.7	9.0	8.3	7.0	6.3
75°	1865.7	758.9	27.2	18.0	13.6	9.0	8.5	8.7	8.5	7.0	6.1
77.5°	859.3	241.7	21.1	14.8	11.7	7.5	8.3	8.3	7.8	6.3	5.3
80°	193.6	59.5	15.3	10.9	9.5	5.6	7.5	6.8	6.1	4.4	3.2
82.5°	70.5	18.2	9.2	6.8	5.8	2.2	4.9	4.9	4.4	3.2	1.9
85°	40.3	9.5	5.1	4.4	3.2	1.0	2.7	2.9	2.4	2.2	1.0
87.5°	13.1	2.2	2.4	2.7	2.4	0.5	1.0	1.0	0.7	0.5	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)