

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: P597085

Luminaire Tested: **MSA-SA3D-835-U-T3-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P597085  
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-SA3D-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**

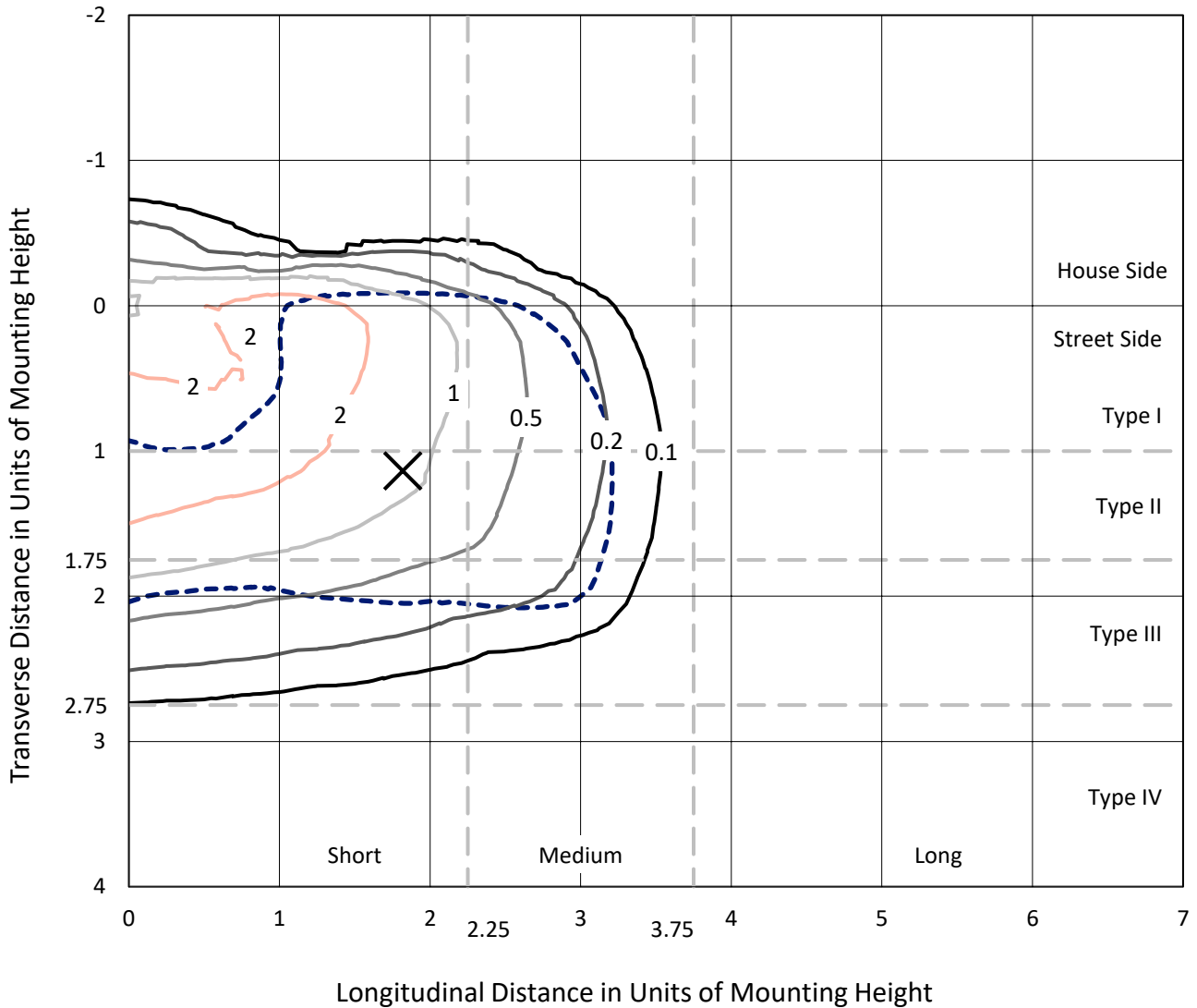
Lumens per Lamp: N/A  
Luminaire Lumens: 12118 lumens  
Efficiency: N/A  
Efficacy: 63.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 192  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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

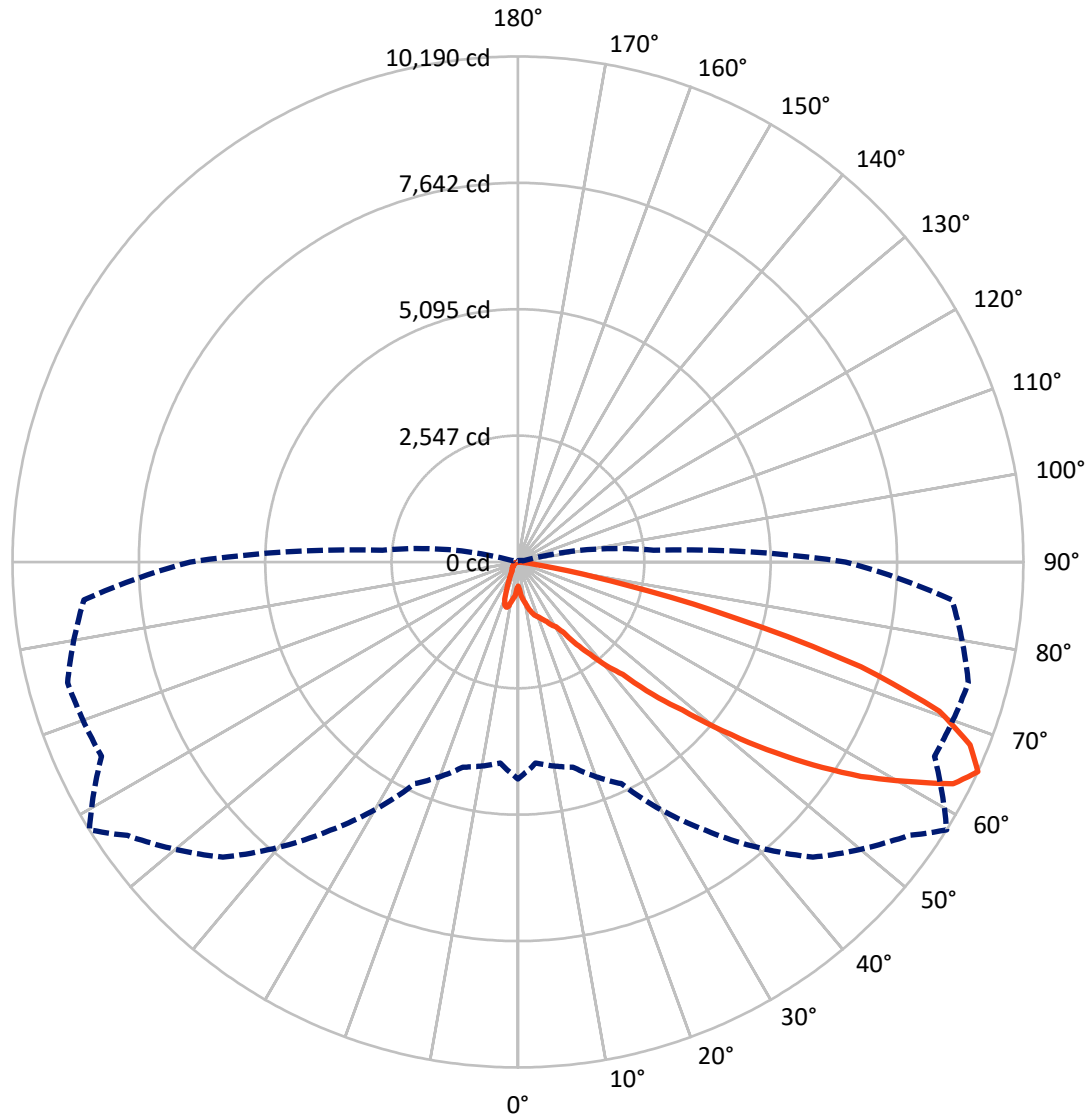
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.1 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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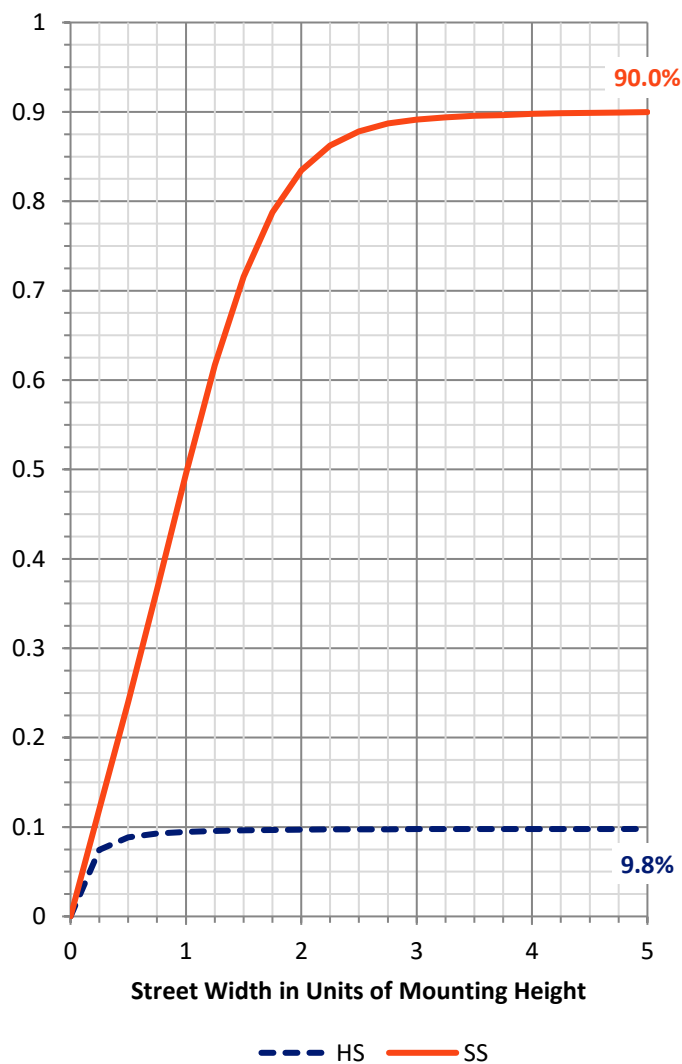
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1195.7	0.0	1195.7
	% Fixture	9.9	0.0	9.9
<b>Street Side</b>	Lumens	10922.3	0.0	10922.3
	% Fixture	90.1	0.0	90.1
<b>Total</b>	Lumens	12118.0	0.0	12118.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.2	0.6
10°-20°	248.7	2.1
20°-30°	481.5	4.0
30°-40°	960.6	7.9
40°-50°	1963.9	16.2
50°-60°	3483.4	28.7
60°-70°	3672.4	30.3
70°-80°	1190.6	9.8
80°-90°	48.7	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°	12118.0	100.0
0°-180°	12118.0	100.0

**Coefficient of Utilization**



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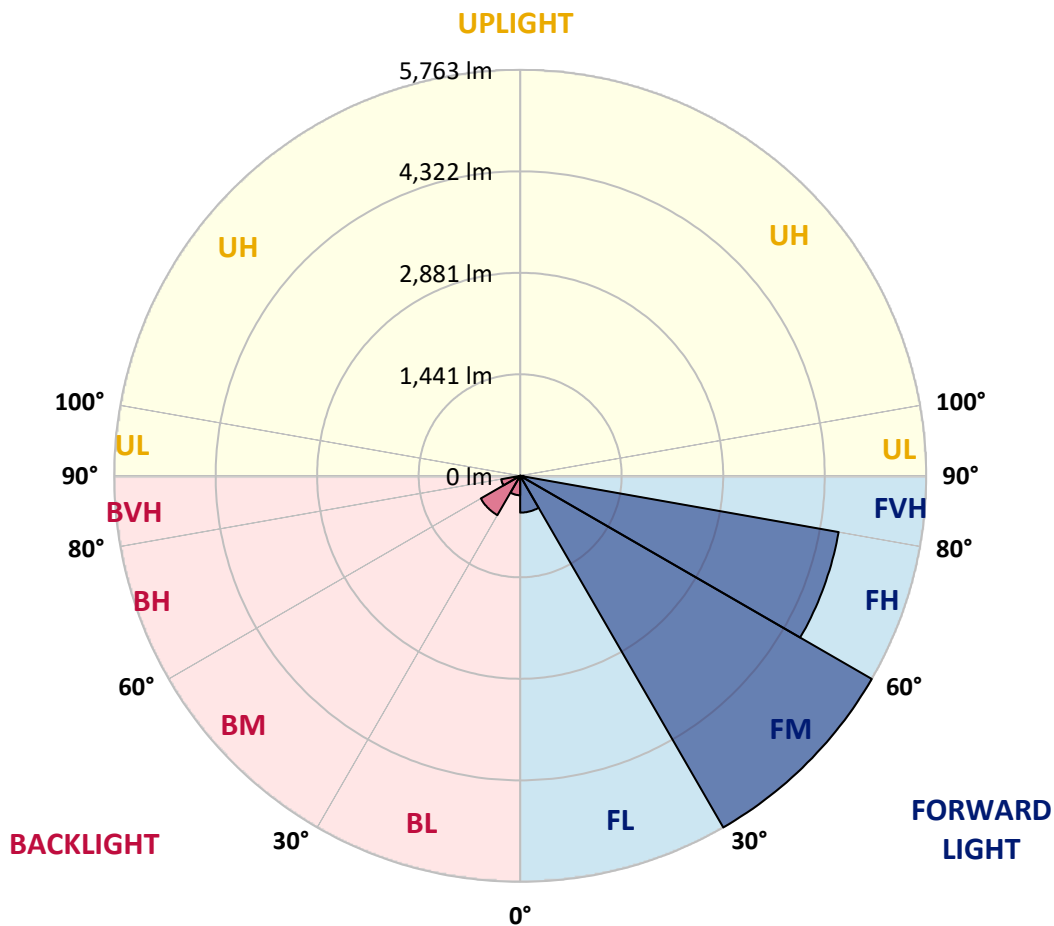
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	522.8	4.3			
FM (30°-60°)	5762.7	47.6			
FH (60°-80°)	4590.1	37.9			G2/5000
FVH (80°-90°)	46.6	0.4			G1/100
BL (0°-30°)	275.6	2.3	B1/500		
BM (30°-60°)	645.1	5.3	B1/1000		
BH (60°-80°)	272.9	2.3	B1/500		G1/500
BVH (80°-90°)	2.1	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 III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1
2.5°	592.2	574.5	546.5	551.3	556.7	567.7	558.8	550.6	541.7	530.1	574.5
5°	715.0	685.7	683.0	676.8	672.0	671.4	682.3	678.9	683.6	705.5	728.0
7.5°	760.1	747.8	724.6	734.1	719.1	707.5	756.0	771.7	801.7	811.9	870.6
10°	755.3	737.5	747.1	751.9	762.1	804.4	835.1	852.2	878.1	934.0	922.4
12.5°	777.1	792.8	803.0	803.7	856.3	934.0	955.9	970.2	1016.6	1038.4	1095.7
15°	850.1	876.0	859.7	866.5	883.6	978.4	1029.6	1060.9	1126.4	1197.4	1211.7
17.5°	954.5	970.9	936.8	912.2	959.3	1011.1	1103.9	1136.7	1178.3	1344.1	1374.8
20°	1086.2	1114.2	1040.5	942.9	1005.0	1066.4	1167.4	1183.1	1227.4	1443.7	1492.2
22.5°	1393.9	1352.3	1239.7	1087.6	1069.1	1096.4	1192.6	1254.0	1329.1	1499.7	1612.2
25°	1697.5	1683.2	1517.4	1347.5	1224.7	1163.3	1290.9	1325.0	1447.8	1632.7	1694.8
27.5°	2035.2	2063.9	1786.9	1683.9	1443.0	1242.4	1352.3	1437.6	1582.9	1681.1	1830.6
30°	2480.8	2435.1	2110.3	2007.3	1732.3	1460.1	1511.3	1516.7	1730.3	1840.8	1982.7
32.5°	2830.1	2859.4	2451.4	2293.1	2073.5	1795.1	1630.7	1701.6	1854.4	2100.7	2235.2
35°	3208.1	3205.4	2807.6	2594.7	2307.5	2068.7	1984.8	2036.6	2228.3	2507.4	2542.9
37.5°	3773.0	3724.6	3255.2	2943.4	2699.1	2495.1	2431.0	2362.1	2559.9	2826.0	2959.1
40°	4305.9	4138.7	3704.8	3335.0	3022.5	2939.3	2707.3	2749.6	2808.3	3159.6	3527.4
42.5°	4844.2	4740.5	4160.6	3850.8	3466.7	3268.8	3117.3	3097.6	3376.6	3792.8	4172.8
45°	5554.5	5237.2	4773.2	4501.0	4056.2	3857.6	3735.5	3808.5	4059.6	4667.5	4920.6
47.5°	6150.8	5858.8	5460.3	5046.8	4580.2	4803.3	4574.0	4458.7	4803.3	5431.6	5768.0
50°	6663.2	6337.7	5934.5	5628.1	5552.4	5766.6	5302.7	5345.0	5568.8	6307.0	6496.7
52.5°	7035.7	6693.2	6341.1	6193.1	6503.5	6611.3	6378.7	6285.2	6488.5	7053.4	7145.5
55°	7316.1	6965.4	6690.5	6894.5	7494.9	7459.4	7541.3	7222.0	7416.4	7831.9	7788.2
57.5°	7333.2	6917.7	6756.6	7084.8	7909.0	8458.2	8697.7	8154.6	8265.2	8440.5	8342.3
60°	6796.9	6383.4	6370.5	6836.5	8029.1	8716.8	9240.8	8976.1	8828.0	8958.4	8772.1
62.5°	5728.4	5439.2	5574.2	6089.4	7582.2	8574.2	9530.1	9848.7	9272.2	9301.5	9036.8
65°	4374.1	4070.5	4282.0	4930.9	6605.2	8414.6	9612.0	10189.9	9264.0	9399.1	8783.0
67.5°	2897.0	2720.9	2960.4	3675.5	5251.5	7428.0	9569.7	9831.7	8970.0	9017.7	7840.8
70°	1495.6	1452.6	1646.3	2210.6	3530.8	5706.6	9154.2	9010.9	8373.0	7768.5	6047.7
72.5°	479.0	481.0	667.3	1009.8	1903.6	3474.2	7036.4	7232.9	6700.0	5682.7	3692.5
75°	212.2	208.8	279.1	423.7	793.5	1557.6	4371.4	4583.6	4171.5	3126.2	1552.2
77.5°	152.8	148.1	178.8	247.7	393.0	528.1	2049.6	2212.0	1891.3	1083.5	355.5
80°	107.8	107.1	129.6	174.0	245.6	234.7	647.5	725.9	581.3	262.7	104.4
82.5°	60.7	62.8	90.1	122.8	149.4	117.4	182.2	200.6	195.8	139.9	45.7
85°	29.3	32.7	58.7	88.7	78.5	45.7	64.8	70.3	81.9	81.2	23.2
87.5°	0.0	0.0	23.9	40.3	21.2	6.8	19.8	22.5	21.8	25.9	5.5
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°	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1	485.1
2.5°	583.4	579.3	527.4	531.5	543.1	538.3	542.4	532.9	521.9	566.3	565.6
5°	737.5	706.8	690.5	675.5	678.2	647.5	665.2	673.4	672.0	697.3	704.1
7.5°	872.6	831.7	799.0	767.6	719.8	676.8	703.4	720.5	732.1	775.8	792.8
10°	936.1	902.7	889.7	828.3	794.2	767.6	735.5	712.3	721.9	710.3	721.9
12.5°	1075.3	1052.8	1003.0	940.9	899.9	845.3	725.9	626.3	564.9	565.6	561.5
15°	1202.2	1200.8	1126.4	1023.4	904.7	749.1	562.9	437.3	379.3	363.0	357.5
17.5°	1368.0	1347.5	1211.7	1059.6	846.0	579.9	383.4	299.5	294.1	303.6	299.5
20°	1473.7	1443.7	1254.0	1007.0	697.3	392.3	289.3	265.4	281.8	295.4	292.0
22.5°	1579.5	1534.5	1286.1	942.9	496.0	287.2	261.3	257.2	267.5	284.5	287.2
25°	1637.5	1628.6	1348.9	822.8	339.8	251.8	251.8	250.4	253.8	266.1	264.0
27.5°	1806.0	1685.9	1301.8	642.0	262.7	231.3	234.7	233.3	221.1	233.3	234.0
30°	1911.1	1855.8	1305.2	457.1	231.3	204.7	213.6	202.6	184.2	194.5	192.4
32.5°	2122.6	1984.8	1295.0	308.4	210.8	195.1	181.5	165.8	152.1	156.2	152.8
35°	2368.9	2263.8	1156.5	247.7	196.5	172.6	150.8	135.1	120.8	124.2	123.5
37.5°	2858.8	2525.1	1041.8	223.1	186.9	158.3	133.0	111.2	103.7	105.8	107.8
40°	3312.5	2961.1	828.3	212.2	170.6	141.2	109.8	94.2	89.4	90.7	92.8
42.5°	3990.7	3307.7	625.7	201.3	154.2	119.4	91.4	81.2	76.4	79.1	80.5
45°	4647.0	3602.4	467.4	191.7	140.6	103.0	77.1	70.3	64.8	66.9	69.6
47.5°	5302.7	3929.9	348.6	176.7	125.5	88.7	66.2	61.4	58.0	58.7	62.1
50°	5889.5	4082.8	274.3	158.3	113.3	77.1	60.0	55.3	53.9	54.6	57.3
52.5°	6320.7	4084.1	231.3	141.9	101.7	68.2	56.6	51.2	50.5	51.9	54.6
55°	6710.2	3975.0	200.6	127.6	91.4	62.1	53.9	49.1	49.1	50.5	53.2
57.5°	6968.8	3774.4	174.0	112.6	82.6	58.7	51.9	47.1	46.4	45.7	47.8
60°	7095.0	3500.8	147.4	98.9	74.4	56.6	50.5	41.6	40.9	39.6	40.9
62.5°	7015.2	3158.3	123.5	85.3	66.2	53.9	44.3	36.2	34.8	32.1	34.1
65°	6607.2	2742.1	104.4	73.0	57.3	45.7	37.5	30.7	27.3	23.9	23.2
67.5°	5772.8	2227.6	87.3	62.8	49.1	37.5	30.7	27.3	21.2	18.4	17.7
70°	4326.3	1520.8	72.3	53.9	40.9	32.1	25.9	24.6	19.8	17.7	16.4
72.5°	2538.1	820.8	60.7	47.1	34.8	26.6	21.2	22.5	19.8	16.4	15.0
75°	1013.9	272.9	48.4	37.5	28.0	19.1	17.7	18.4	17.7	15.0	12.3
77.5°	231.3	86.0	37.5	29.3	21.8	12.3	14.3	15.7	15.7	12.3	8.9
80°	72.3	34.1	21.8	18.4	15.7	6.8	10.2	10.9	7.5	3.4	0.0
82.5°	23.2	9.6	7.5	7.5	6.8	1.4	2.0	1.4	0.0	0.0	0.0
85°	8.9	6.1	4.8	4.8	2.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	2.7	2.0	2.7	1.4	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)