

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: P367895

Luminaire Tested: **MSA-SA3B-760-U-T4W-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367895  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 12/2/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: MSA-SA3B-760-U-T4W-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11082 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3

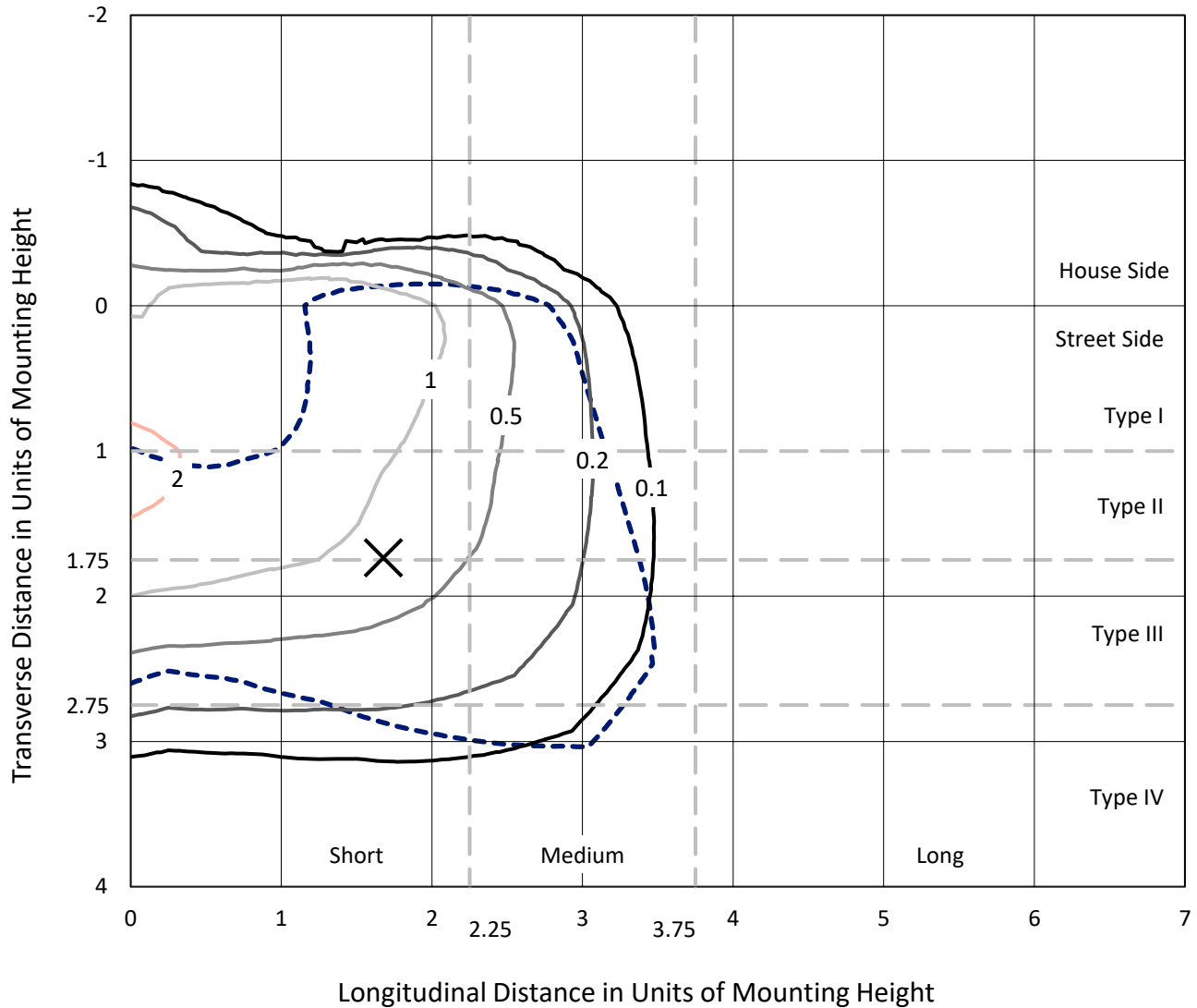
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

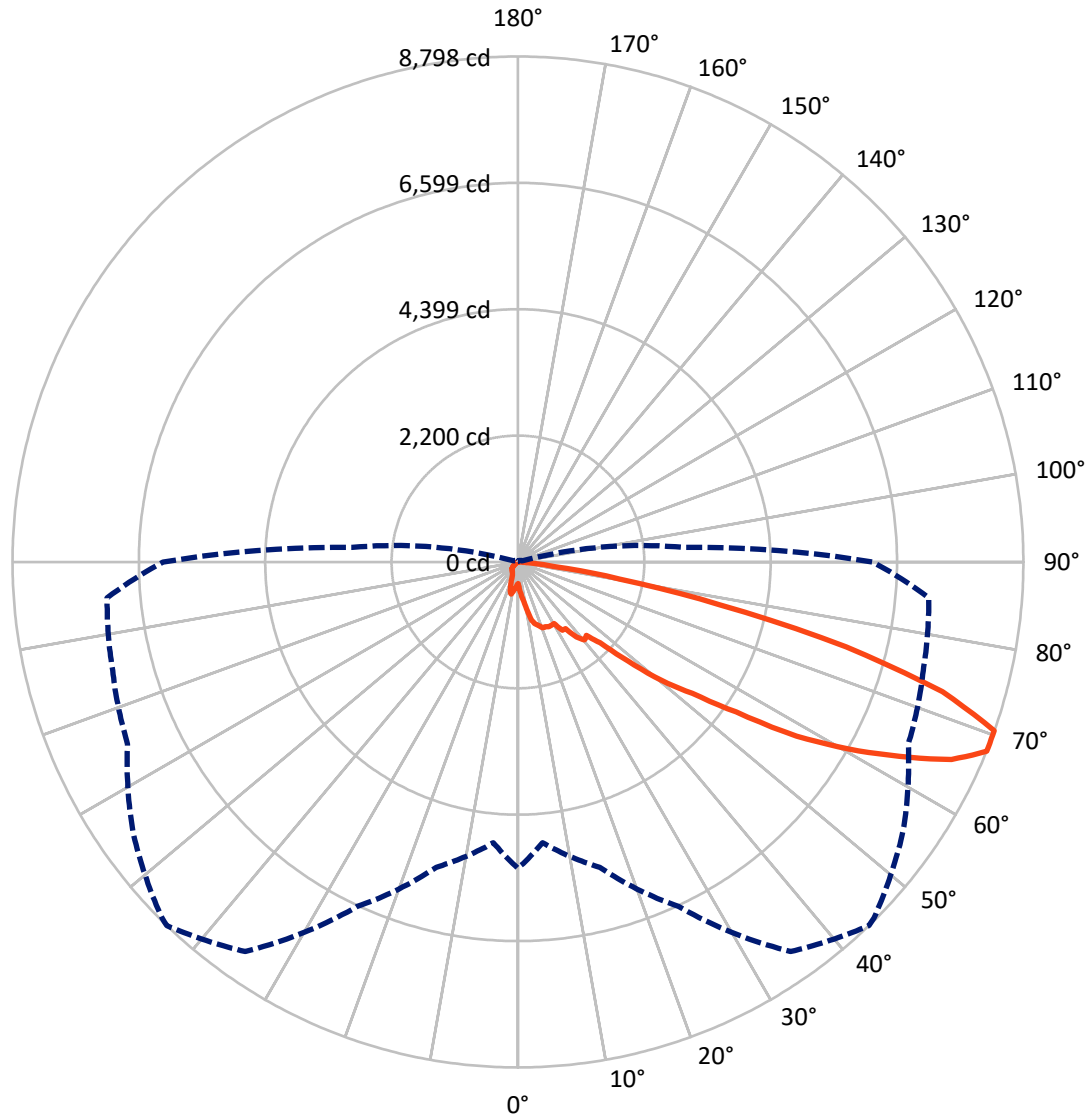
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1125.7	0.0	1125.7
	% Fixture	10.2	0.0	10.2
<b>Street Side</b>	Lumens	9956.3	0.0	9956.3
	% Fixture	89.8	0.0	89.8
<b>Total</b>	Lumens	11082.0	0.0	11082.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.3	0.5
10°-20°	231.7	2.1
20°-30°	410.4	3.7
30°-40°	667.1	6.0
40°-50°	1335.0	12.0
50°-60°	2738.7	24.7
60°-70°	3762.2	33.9
70°-80°	1768.3	16.0
80°-90°	113.3	1.0
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°	11082.0	100.0
0°-180°	11082.0	100.0

**Coefficient of Utilization**



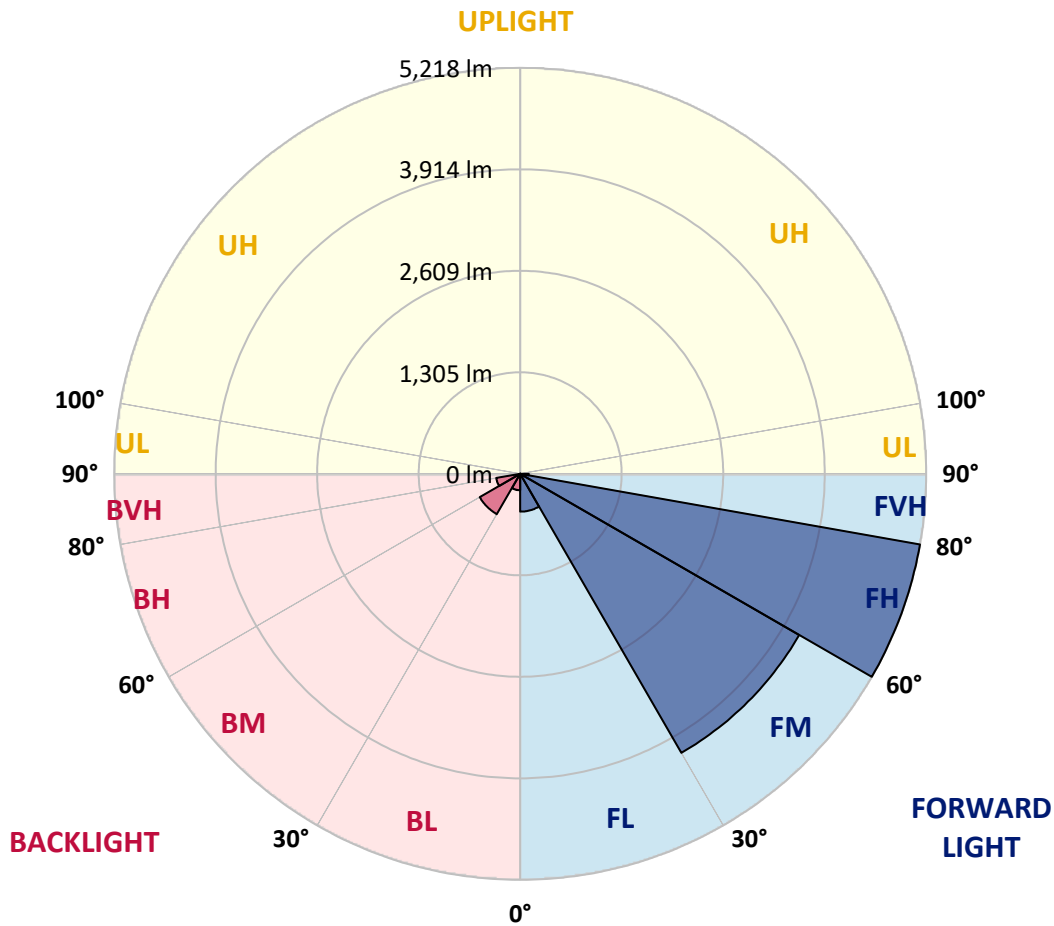
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	486.1	4.4			
FM (30°-60°)	4141.2	37.4			
FH (60°-80°)	5218.1	47.1			G3/7500
FVH (80°-90°)	110.9	1.0			G2/225
BL (0°-30°)	211.4	1.9	B1/500		
BM (30°-60°)	599.6	5.4	B1/1000		
BH (60°-80°)	312.4	2.8	B1/500		G1/500
BVH (80°-90°)	2.3	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-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	474.8	459.5	437.5	442.4	444.9	451.6	452.2	443.6	419.2	412.5	442.4
5°	665.5	628.2	621.5	607.4	579.3	564.0	560.4	575.6	556.1	550.0	557.9
7.5°	850.0	818.2	783.4	764.5	705.8	669.8	667.9	674.0	677.7	656.3	667.3
10°	972.9	938.0	930.7	886.1	835.4	826.8	823.1	799.9	781.0	765.1	711.9
12.5°	1084.1	1083.5	1096.9	1032.7	1024.8	1033.3	1030.3	947.2	928.2	861.6	846.4
15°	1232.0	1268.6	1210.6	1156.8	1088.3	1117.7	1109.7	1056.6	1043.7	998.5	933.1
17.5°	1385.3	1395.1	1297.9	1215.5	1197.7	1159.2	1167.2	1148.2	1083.5	1119.5	1054.7
20°	1389.0	1410.4	1306.5	1170.2	1224.6	1222.8	1223.4	1205.1	1119.5	1203.8	1144.6
22.5°	1440.3	1387.8	1291.2	1204.5	1214.2	1223.4	1233.2	1210.6	1192.2	1213.0	1224.0
25°	1419.6	1398.8	1305.9	1248.5	1239.3	1246.6	1249.1	1277.8	1266.2	1316.3	1288.8
27.5°	1473.3	1443.4	1277.2	1287.6	1255.2	1246.6	1232.0	1327.9	1362.1	1322.4	1395.7
30°	1565.6	1561.3	1326.7	1341.9	1316.9	1241.7	1280.8	1406.1	1448.9	1424.4	1513.7
32.5°	1709.8	1724.5	1471.5	1372.5	1385.3	1418.9	1404.3	1406.1	1514.3	1568.7	1639.5
35°	1914.5	1906.6	1612.7	1488.6	1421.4	1426.9	1447.7	1547.3	1687.2	1683.5	1758.7
37.5°	2316.6	2229.9	1862.6	1607.2	1627.3	1654.8	1639.5	1773.4	1786.8	1791.7	1971.4
40°	2909.4	2793.9	2256.7	1857.1	1662.8	1784.4	1777.0	1810.0	1899.9	1933.5	2195.6
42.5°	3690.4	3535.1	2950.3	2316.6	1833.9	1750.2	1795.4	1857.7	2159.6	2255.5	2542.7
45°	4553.2	4239.1	3642.1	2971.7	2262.9	2003.1	2037.4	2153.5	2572.1	2730.9	3048.1
47.5°	5112.4	4836.1	4327.1	3552.3	2710.2	2573.9	2577.0	2602.0	3056.7	3351.2	3776.5
50°	5598.2	5304.2	4831.9	4159.1	3501.5	3243.7	3185.0	3069.5	3673.9	4076.6	4548.3
52.5°	6283.8	5940.4	5336.6	4871.0	4404.1	3796.7	3775.9	3815.0	4401.7	4825.1	5339.7
55°	6902.2	6484.9	5908.6	5615.3	5433.2	4609.4	4627.2	4692.5	5336.0	5560.3	6043.7
57.5°	7175.4	6723.2	6426.8	6294.8	6197.6	5719.8	5659.9	5620.8	6073.0	6158.5	6781.2
60°	7354.4	6924.2	6789.8	6820.3	7114.9	6607.7	6553.3	6326.0	6682.9	6753.1	7442.4
62.5°	7241.4	6849.1	6877.8	7132.6	7786.5	7452.8	7295.8	6915.7	7181.5	7238.3	7917.2
65°	6529.5	6120.7	6489.7	7106.3	8298.6	8290.6	8217.9	7460.2	7457.7	7530.4	7953.9
67.5°	5333.6	4904.6	5501.6	6613.8	8277.2	8798.4	8764.2	8182.5	7497.4	7303.1	7177.8
70°	3708.1	3335.9	4013.0	5461.9	7539.6	8794.8	8739.8	8667.7	7183.3	6286.3	5565.2
72.5°	1926.8	1722.0	2352.7	3763.7	6010.0	7727.2	7908.7	7790.1	6133.5	4567.3	3277.3
75°	654.5	587.3	970.4	1997.6	3995.3	5900.7	6113.3	5992.9	4165.8	2450.5	1296.1
77.5°	253.6	235.9	347.7	810.9	2004.4	3595.6	3826.6	3703.8	2234.1	897.7	304.9
80°	144.2	139.3	191.9	365.4	883.6	1788.7	1951.2	1769.7	805.4	302.5	79.4
82.5°	61.1	62.9	106.9	197.4	444.3	631.3	704.0	642.3	337.3	207.2	29.3
85°	13.4	16.5	50.7	110.0	186.4	180.3	188.8	209.6	207.2	152.2	12.8
87.5°	0.0	0.0	15.9	29.9	44.6	29.3	23.2	40.9	63.6	61.1	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°	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4	373.4
2.5°	447.9	441.8	403.3	400.9	403.3	396.6	396.0	381.9	383.2	414.9	417.4
5°	557.9	527.4	494.4	484.0	474.2	452.2	464.4	464.4	464.4	484.6	490.7
7.5°	657.5	616.6	570.1	531.0	493.1	465.6	484.6	498.0	506.0	532.3	544.5
10°	702.8	662.4	620.9	565.3	535.9	525.5	503.5	491.9	506.0	500.5	507.2
12.5°	799.3	762.6	691.1	633.7	611.7	576.3	511.5	466.3	436.3	431.4	430.2
15°	893.4	870.8	774.9	697.9	621.5	539.6	429.0	369.1	337.3	331.8	332.4
17.5°	1012.6	980.2	839.0	728.4	598.9	451.6	331.2	279.9	277.4	290.9	292.1
20°	1092.0	1038.8	871.4	703.4	524.3	341.6	259.1	246.9	266.4	290.9	288.4
22.5°	1167.8	1110.3	914.2	681.4	406.4	259.1	238.3	239.5	256.0	282.3	289.0
25°	1217.9	1197.1	966.7	630.0	309.8	224.3	227.9	237.1	251.2	276.2	276.2
27.5°	1368.8	1271.7	960.6	530.4	238.3	209.0	217.5	229.2	236.5	266.4	269.5
30°	1460.5	1428.7	992.4	429.0	209.0	189.4	205.9	216.3	221.2	255.4	256.7
32.5°	1572.9	1502.7	1030.9	316.5	194.3	188.2	184.5	192.5	206.5	236.5	238.3
35°	1709.8	1689.0	975.9	248.7	189.4	176.0	168.7	172.9	182.1	202.3	206.5
37.5°	1989.1	1865.6	942.9	213.3	189.4	171.7	163.8	152.8	154.0	168.0	176.0
40°	2224.4	2186.5	850.6	207.2	180.9	165.6	146.0	132.6	123.4	127.7	130.8
42.5°	2656.4	2481.0	731.5	204.1	172.9	149.7	124.1	110.0	95.9	97.2	102.1
45°	3180.7	2802.4	625.1	201.0	167.4	133.8	104.5	88.0	73.3	73.9	78.8
47.5°	3881.0	3271.2	496.2	191.9	157.7	119.2	84.3	67.2	58.7	60.5	64.8
50°	4676.7	3682.4	392.3	177.8	146.0	105.1	68.4	54.4	51.3	53.2	58.1
52.5°	5387.3	3985.5	323.9	165.0	129.6	85.6	57.4	48.3	47.1	48.3	51.9
55°	6019.2	4161.5	270.7	150.3	111.2	69.1	51.9	44.6	44.0	43.4	45.8
57.5°	6612.0	4212.2	211.4	127.1	90.4	59.9	48.3	41.6	40.3	38.5	40.3
60°	7044.0	4125.5	155.2	102.1	73.9	54.4	45.2	37.3	35.4	32.4	33.6
62.5°	7252.4	3887.7	117.3	81.9	62.9	49.5	40.3	32.4	29.9	26.3	26.9
65°	7054.4	3496.0	92.3	69.1	53.8	41.6	34.2	27.5	24.4	20.8	20.8
67.5°	6177.5	2900.2	78.2	59.9	45.2	35.4	28.1	25.1	20.2	17.1	16.5
70°	4534.3	2086.3	67.2	52.6	39.1	30.6	23.8	22.6	19.6	16.5	15.3
72.5°	2559.2	1180.6	57.4	46.4	33.0	25.7	20.2	20.8	18.9	15.3	14.1
75°	976.5	397.8	47.7	38.5	26.9	19.6	17.1	17.1	17.1	12.8	11.0
77.5°	242.0	101.4	37.9	31.2	21.4	12.8	14.1	14.7	14.7	11.0	7.9
80°	66.6	34.2	22.6	22.6	15.3	7.3	9.8	9.8	7.9	3.7	0.0
82.5°	24.4	12.8	7.9	9.8	6.7	2.4	3.7	2.4	1.8	0.0	0.0
85°	10.4	6.7	4.9	5.5	3.1	0.0	0.6	1.2	0.0	0.0	0.0
87.5°	4.3	3.1	2.4	2.4	1.2	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)