

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: P367807

Luminaire Tested: **MSA-SA3B-727-U-T4W-HSS**

Issue Date: 12/2/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P367807  
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-727-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: 9268 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

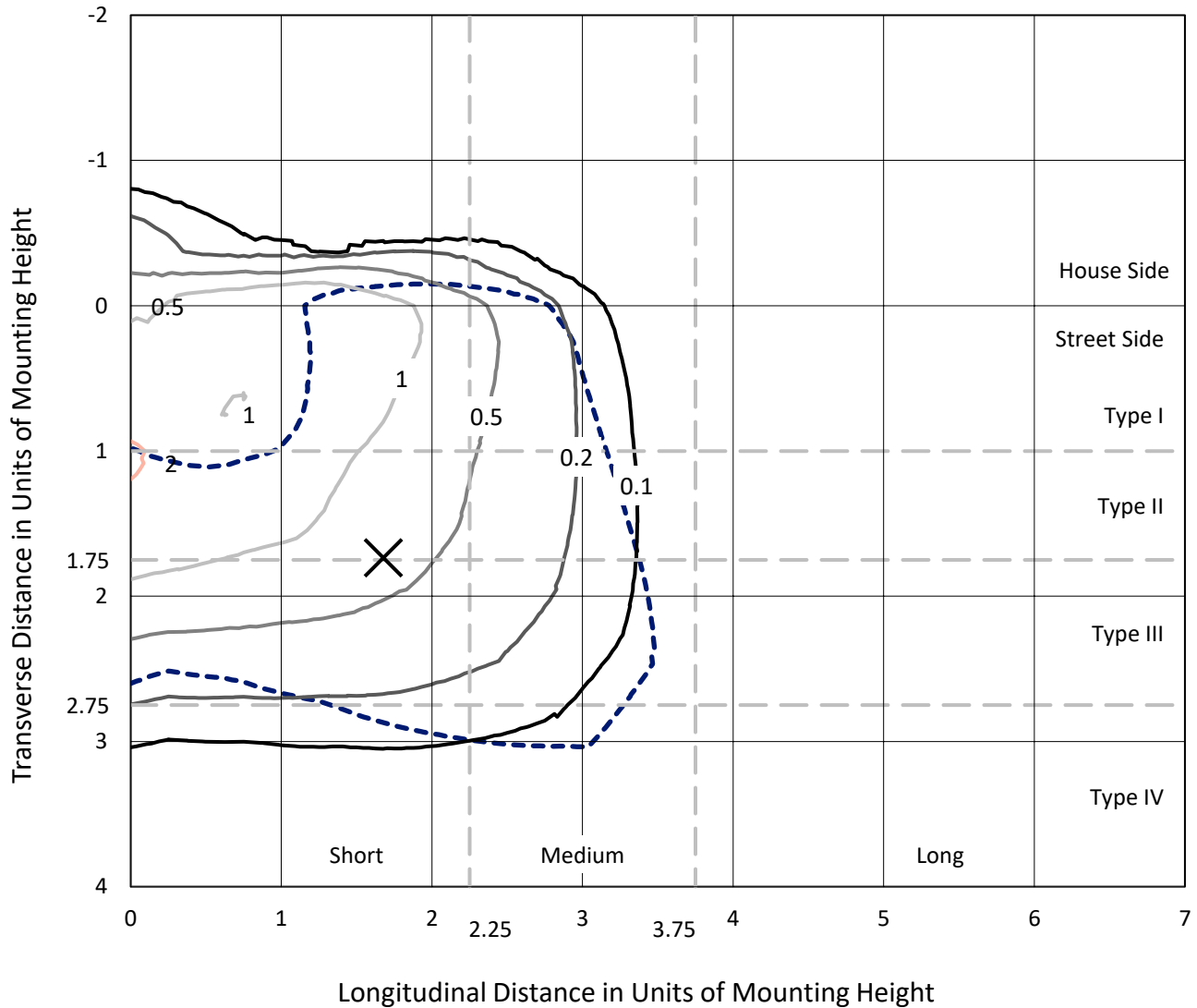
Input Watts (W): 126  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P367807  
 CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

### Iso-Footcandle Lines of Horizontal Illumination

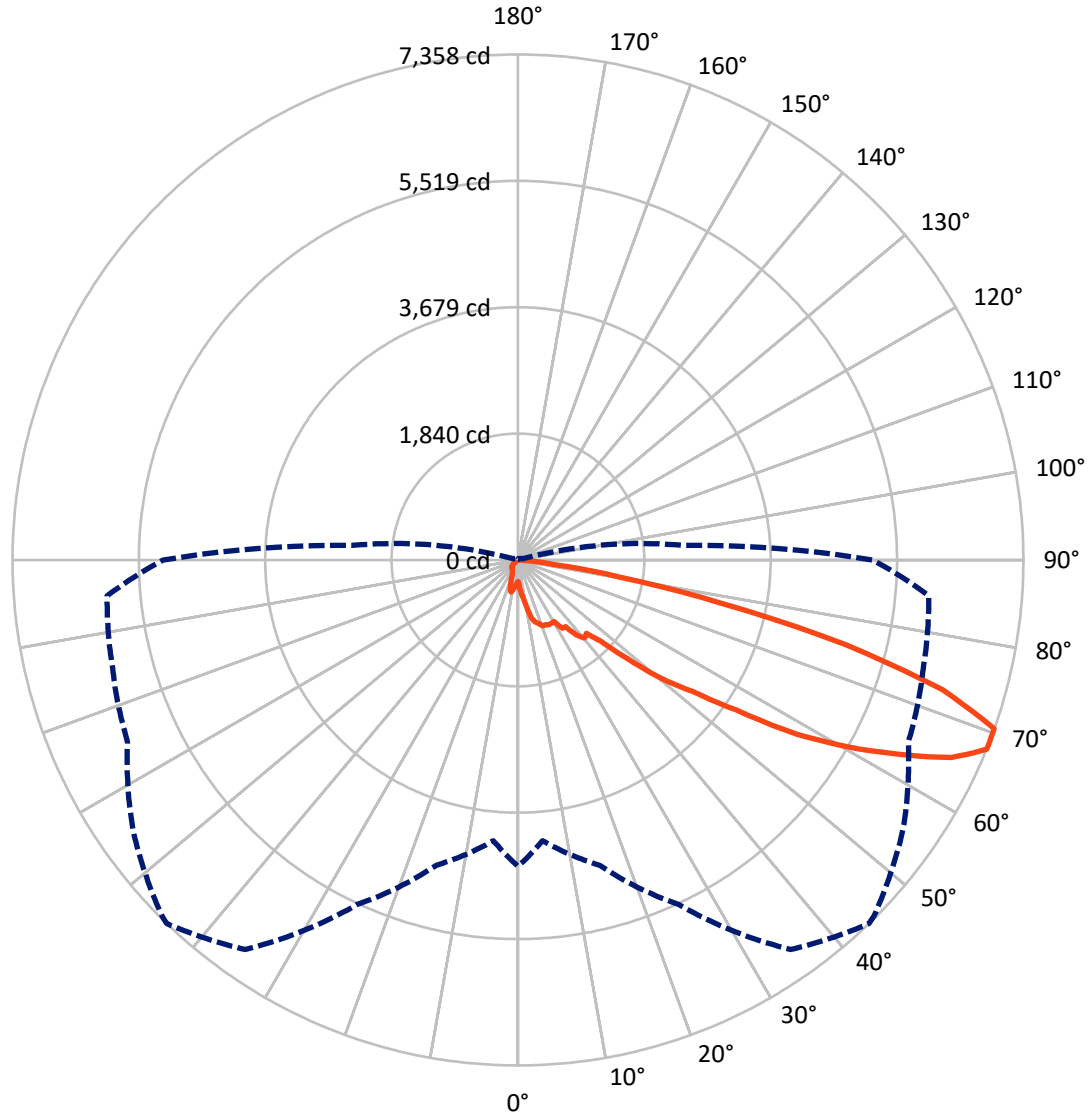
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc  
 Type IV - Short - N/A

REPORT NUMBER: P367807  
CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P367807  
 CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

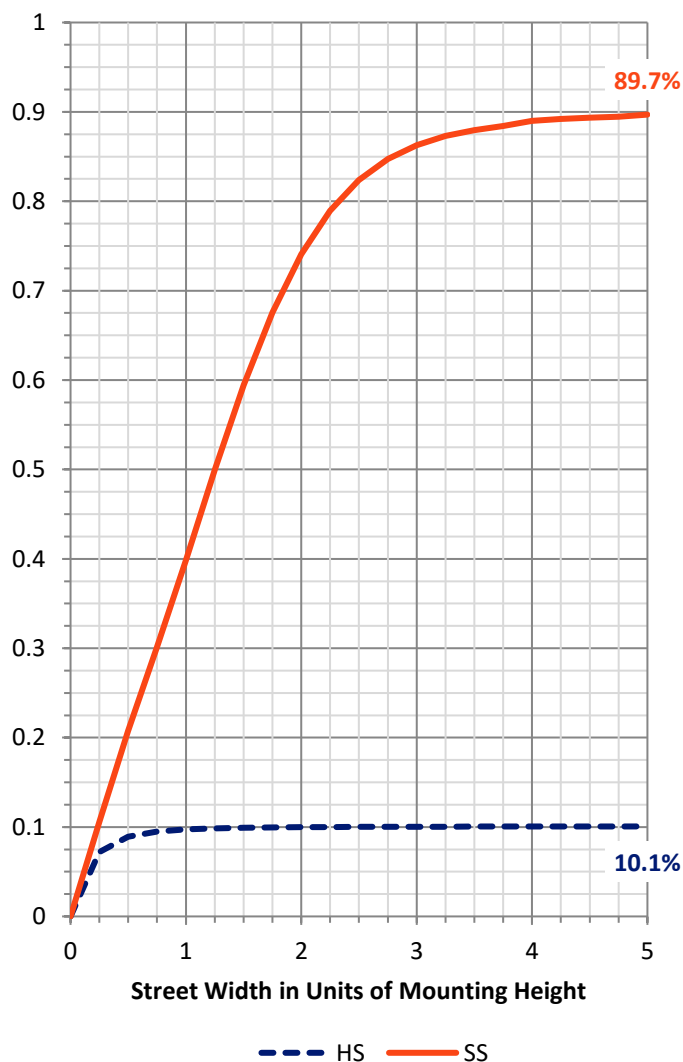
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	941.4	0.0	941.4
	% Fixture	10.2	0.0	10.2
<b>Street Side</b>	Lumens	8326.5	0.0	8326.5
	% Fixture	89.8	0.0	89.8
<b>Total</b>	Lumens	9268.0	0.0	9268.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	46.3	0.5
10°-20°	193.8	2.1
20°-30°	343.2	3.7
30°-40°	557.9	6.0
40°-50°	1116.4	12.0
50°-60°	2290.4	24.7
60°-70°	3146.4	33.9
70°-80°	1478.8	16.0
80°-90°	94.7	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°	9268.0	100.0
0°-180°	9268.0	100.0

**Coefficient of Utilization**

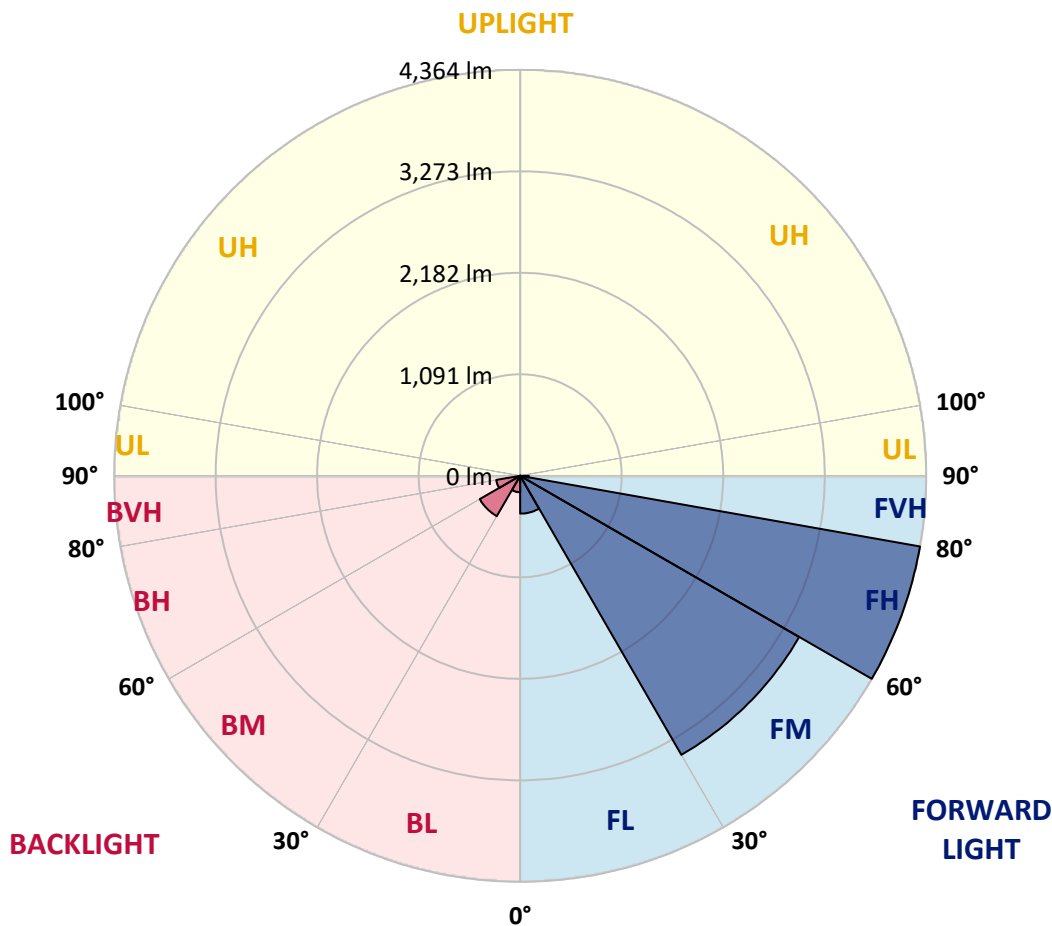


REPORT NUMBER: P367807  
 CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	406.5	4.4			
FM (30°-60°)	3463.3	37.4			
FH (60°-80°)	4364.0	47.1			G2/5000
FVH (80°-90°)	92.8	1.0			G1/100
BL (0°-30°)	176.8	1.9	B1/500		
BM (30°-60°)	501.5	5.4	B1/1000		
BH (60°-80°)	261.3	2.8	B1/500		G1/500
BVH (80°-90°)	1.9	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 IV Short





REPORT NUMBER: P367807

CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3
2.5°	397.1	384.3	365.9	370.0	372.1	377.7	378.2	371.0	350.6	345.0	370.0
5°	556.5	525.4	519.7	508.0	484.5	471.7	468.6	481.4	465.1	460.0	466.6
7.5°	710.9	684.3	655.2	639.3	590.3	560.1	558.6	563.7	566.8	548.9	558.1
10°	813.6	784.5	778.3	741.0	698.6	691.5	688.4	669.0	653.1	639.8	595.4
12.5°	906.6	906.1	917.4	863.7	857.0	864.2	861.6	792.1	776.3	720.6	707.8
15°	1030.3	1061.0	1012.4	967.4	910.2	934.7	928.1	883.6	872.9	835.1	780.4
17.5°	1158.6	1166.7	1085.5	1016.5	1001.7	969.5	976.1	960.3	906.1	936.3	882.1
20°	1161.6	1179.5	1092.6	978.7	1024.2	1022.6	1023.1	1007.8	936.3	1006.8	957.2
22.5°	1204.6	1160.6	1079.9	1007.3	1015.5	1023.1	1031.3	1012.4	997.1	1014.5	1023.7
25°	1187.2	1169.8	1092.1	1044.1	1036.4	1042.6	1044.6	1068.6	1058.9	1100.8	1077.8
27.5°	1232.2	1207.1	1068.1	1076.8	1049.7	1042.6	1030.3	1110.5	1139.2	1105.9	1167.3
30°	1309.3	1305.8	1109.5	1122.3	1101.3	1038.5	1071.2	1175.9	1211.7	1191.3	1265.9
32.5°	1429.9	1442.2	1230.6	1147.8	1158.6	1186.7	1174.4	1175.9	1266.4	1311.9	1371.2
35°	1601.1	1594.5	1348.7	1244.9	1188.7	1193.3	1210.7	1294.0	1411.0	1408.0	1470.8
37.5°	1937.4	1864.9	1557.7	1344.1	1361.0	1383.9	1371.2	1483.1	1494.3	1498.4	1648.7
40°	2433.2	2336.6	1887.3	1553.1	1390.6	1492.3	1486.2	1513.8	1588.9	1617.0	1836.2
42.5°	3086.3	2956.5	2467.4	1937.4	1533.7	1463.7	1501.5	1553.6	1806.1	1886.3	2126.5
45°	3807.9	3545.2	3045.9	2485.3	1892.5	1675.3	1703.9	1801.0	2151.0	2283.9	2549.2
47.5°	4275.5	4044.5	3618.8	2970.8	2266.5	2152.6	2155.1	2176.1	2556.3	2802.6	3158.3
50°	4681.8	4436.0	4040.9	3478.3	2928.4	2712.7	2663.6	2567.1	3072.5	3409.3	3803.8
52.5°	5255.2	4968.0	4463.1	4073.7	3683.2	3175.2	3157.8	3190.5	3681.2	4035.3	4465.6
55°	5772.4	5423.4	4941.4	4696.1	4543.8	3854.9	3869.7	3924.4	4462.6	4650.1	5054.4
57.5°	6000.9	5622.7	5374.8	5264.4	5183.2	4783.5	4733.4	4700.7	5078.9	5150.5	5671.2
60°	6150.6	5790.8	5678.4	5703.9	5950.3	5526.1	5480.6	5290.5	5588.9	5647.7	6224.2
62.5°	6056.1	5728.0	5752.0	5965.1	6511.9	6232.9	6101.5	5783.7	6006.0	6053.5	6621.3
65°	5460.7	5118.8	5427.4	5943.1	6940.2	6933.5	6872.7	6239.0	6237.0	6297.8	6651.9
67.5°	4460.5	4101.8	4601.1	5531.2	6922.3	7358.2	7329.6	6843.1	6270.2	6107.7	6002.9
70°	3101.1	2789.9	3356.1	4567.8	6305.4	7355.2	7309.2	7248.9	6007.5	5257.3	4654.2
72.5°	1611.4	1440.2	1967.6	3147.6	5026.3	6462.3	6614.1	6515.0	5129.5	3819.7	2740.8
75°	547.3	491.1	811.6	1670.7	3341.3	4934.8	5112.6	5012.0	3483.9	2049.3	1084.0
77.5°	212.1	197.3	290.8	678.2	1676.3	3007.1	3200.3	3097.5	1868.4	750.7	255.0
80°	120.6	116.5	160.5	305.6	739.0	1495.9	1631.8	1480.0	673.6	253.0	66.4
82.5°	51.1	52.6	89.4	165.1	371.5	527.9	588.7	537.1	282.1	173.2	24.5
85°	11.2	13.8	42.4	92.0	155.9	150.8	157.9	175.3	173.2	127.3	10.7
87.5°	0.0	0.0	13.3	25.0	37.3	24.5	19.4	34.2	53.2	51.1	4.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P367807  
 CATALOG NUMBER: MSA-SA3B-727-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3	312.3
2.5°	374.6	369.5	337.3	335.3	337.3	331.7	331.2	319.4	320.4	347.0	349.1
5°	466.6	441.0	413.4	404.8	396.6	378.2	388.4	388.4	388.4	405.3	410.4
7.5°	549.9	515.7	476.8	444.1	412.4	389.4	405.3	416.5	423.2	445.1	455.4
10°	587.7	554.0	519.2	472.7	448.2	439.5	421.1	411.4	423.2	418.6	424.2
12.5°	668.5	637.8	578.0	530.0	511.6	481.9	427.8	389.9	364.9	360.8	359.8
15°	747.2	728.3	648.0	583.6	519.7	451.3	358.8	308.7	282.1	277.5	278.0
17.5°	846.8	819.7	701.7	609.2	500.8	377.7	277.0	234.1	232.0	243.3	244.3
20°	913.3	868.8	728.8	588.2	438.5	285.7	216.7	206.5	222.8	243.3	241.2
22.5°	976.6	928.6	764.5	569.8	339.9	216.7	199.3	200.3	214.1	236.1	241.7
25°	1018.5	1001.2	808.5	526.9	259.1	187.6	190.6	198.3	210.0	231.0	231.0
27.5°	1144.8	1063.5	803.4	443.6	199.3	174.8	181.9	191.6	197.8	222.8	225.4
30°	1221.4	1194.9	830.0	358.8	174.8	158.4	172.2	180.9	185.0	213.6	214.6
32.5°	1315.5	1256.7	862.2	264.7	162.5	157.4	154.3	161.0	172.7	197.8	199.3
35°	1429.9	1412.6	816.2	208.0	158.4	147.2	141.1	144.6	152.3	169.2	172.7
37.5°	1663.5	1560.3	788.6	178.4	158.4	143.6	137.0	127.8	128.8	140.5	147.2
40°	1860.3	1828.6	711.4	173.2	151.3	138.5	122.1	110.9	103.2	106.8	109.4
42.5°	2221.6	2074.9	611.7	170.7	144.6	125.2	103.7	92.0	80.2	81.3	85.3
45°	2660.1	2343.7	522.8	168.1	140.0	111.9	87.4	73.6	61.3	61.8	65.9
47.5°	3245.7	2735.7	415.0	160.5	131.9	99.7	70.5	56.2	49.1	50.6	54.2
50°	3911.1	3079.6	328.1	148.7	122.1	87.9	57.2	45.5	42.9	44.5	48.6
52.5°	4505.5	3333.1	270.9	138.0	108.3	71.5	48.0	40.4	39.4	40.4	43.4
55°	5033.9	3480.3	226.4	125.7	93.0	57.7	43.4	37.3	36.8	36.3	38.3
57.5°	5529.7	3522.7	176.8	106.3	75.6	50.1	40.4	34.8	33.7	32.2	33.7
60°	5891.0	3450.2	129.8	85.3	61.8	45.5	37.8	31.2	29.6	27.1	28.1
62.5°	6065.3	3251.4	98.1	68.5	52.6	41.4	33.7	27.1	25.0	22.0	22.5
65°	5899.7	2923.8	77.2	57.7	45.0	34.8	28.6	23.0	20.4	17.4	17.4
67.5°	5166.3	2425.5	65.4	50.1	37.8	29.6	23.5	21.0	16.9	14.3	13.8
70°	3792.1	1744.8	56.2	44.0	32.7	25.6	19.9	18.9	16.4	13.8	12.8
72.5°	2140.3	987.4	48.0	38.8	27.6	21.5	16.9	17.4	15.8	12.8	11.8
75°	816.7	332.7	39.9	32.2	22.5	16.4	14.3	14.3	14.3	10.7	9.2
77.5°	202.4	84.8	31.7	26.1	17.9	10.7	11.8	12.3	12.3	9.2	6.6
80°	55.7	28.6	18.9	18.9	12.8	6.1	8.2	8.2	6.6	3.1	0.0
82.5°	20.4	10.7	6.6	8.2	5.6	2.0	3.1	2.0	1.5	0.0	0.0
85°	8.7	5.6	4.1	4.6	2.6	0.0	0.5	1.0	0.0	0.0	0.0
87.5°	3.6	2.6	2.0	2.0	1.0	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)