

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: P367265

Luminaire Tested: **MSA-SA2B-727-U-SL3-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367265
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-19)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-727-U-SL3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6841 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

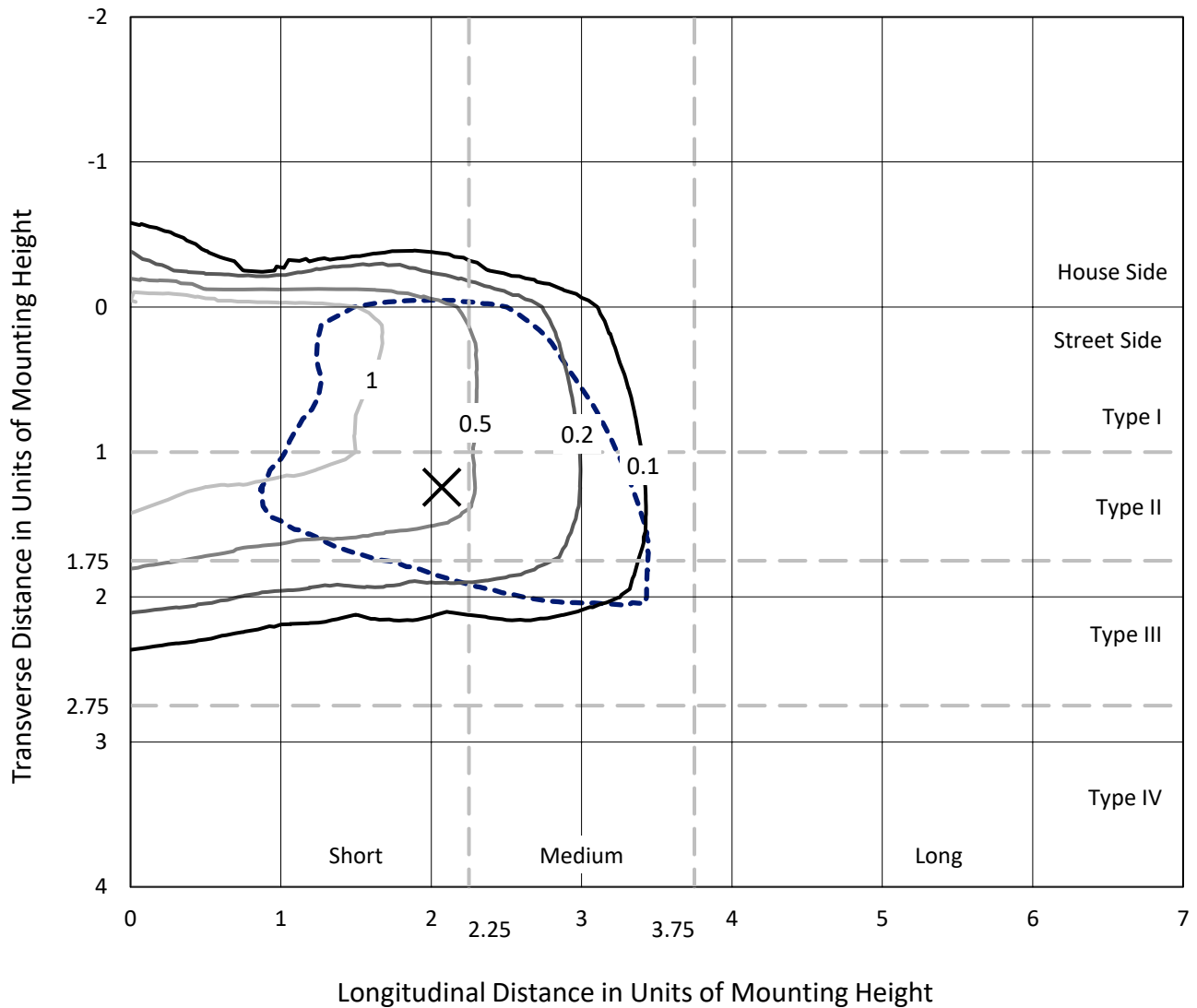
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

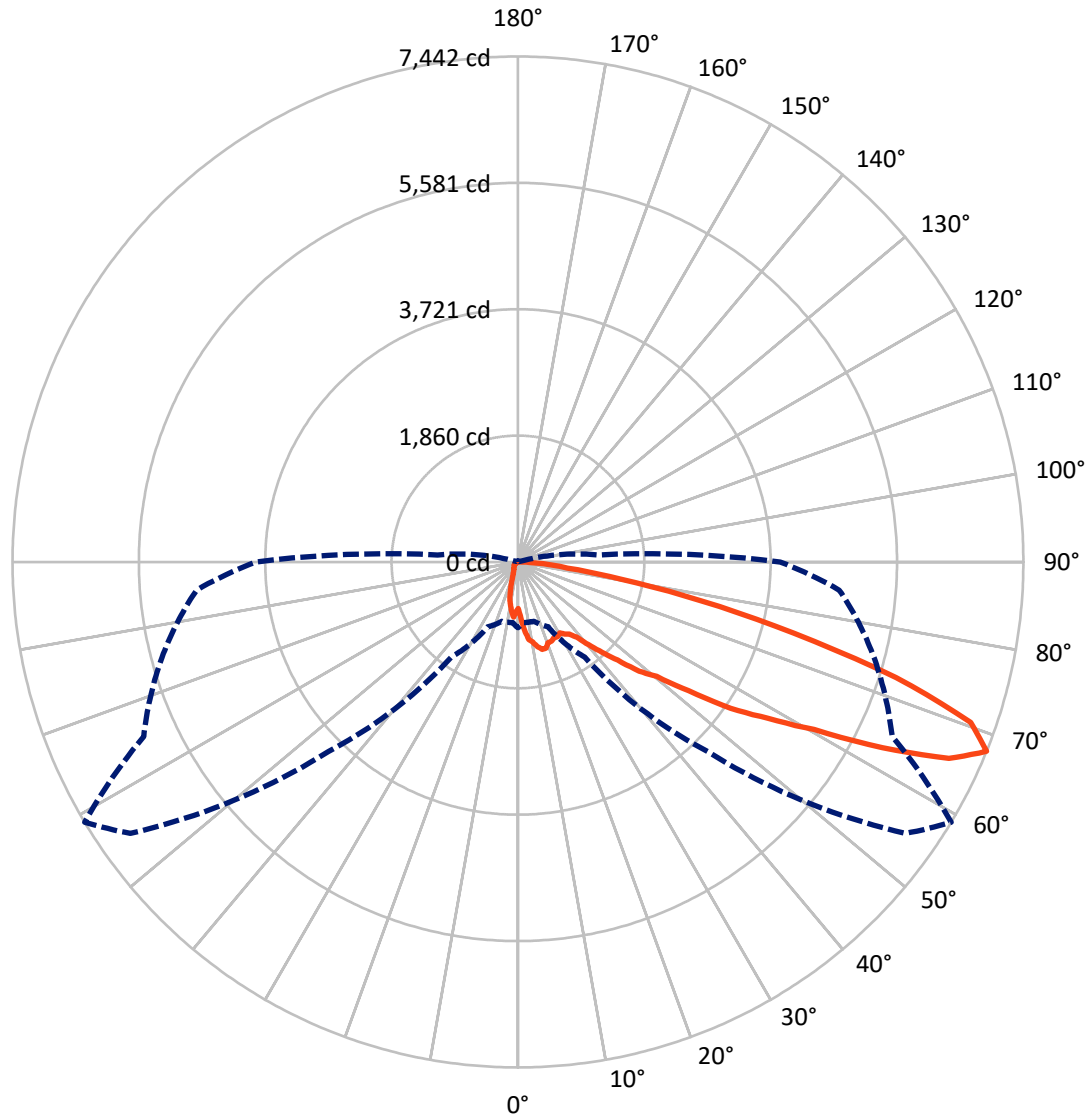
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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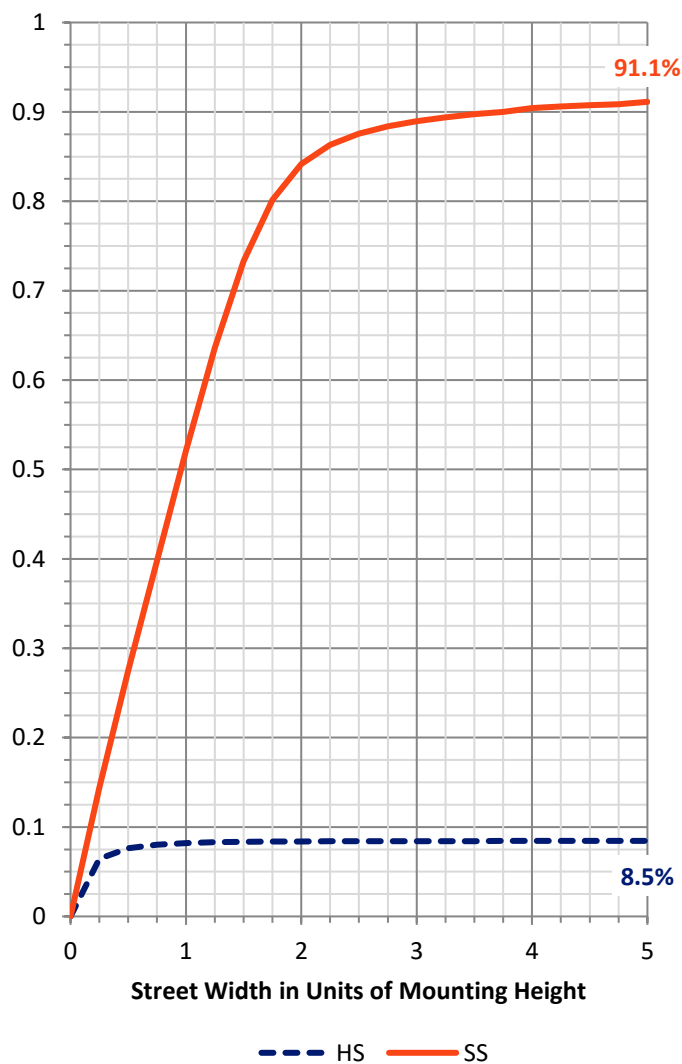
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	581.8	0.0	581.8
	% Fixture	8.5	0.0	8.5
Street Side	Lumens	6259.2	0.0	6259.2
	% Fixture	91.5	0.0	91.5
Total	Lumens	6841.0	0.0	6841.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	1.2
10°-20°	234.3	3.4
20°-30°	348.6	5.1
30°-40°	537.7	7.9
40°-50°	959.7	14.0
50°-60°	1707.8	25.0
60°-70°	1989.0	29.1
70°-80°	884.5	12.9
80°-90°	96.1	1.4
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°	6841.0	100.0
0°-180°	6841.0	100.0

Coefficient of Utilization



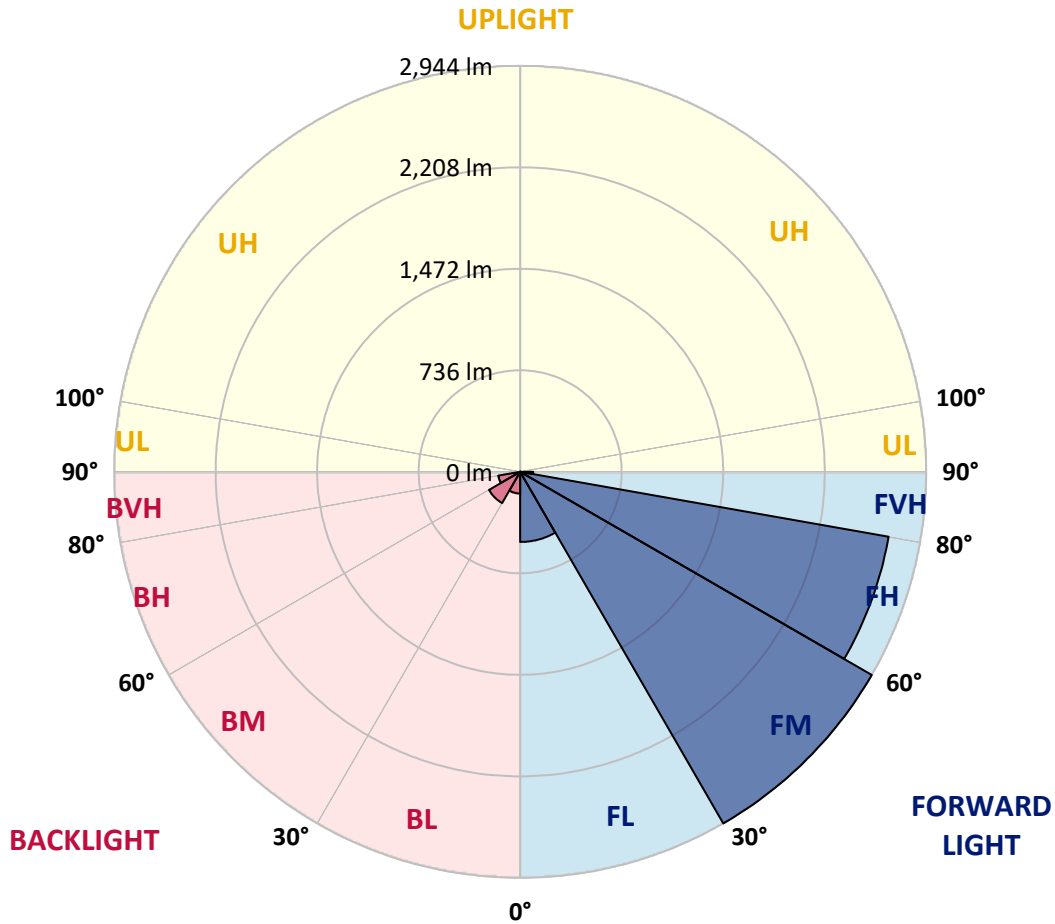
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	508.8	7.4			
FM (30°-60°)	2943.7	43.0			
FH (60°-80°)	2712.4	39.6			G2/5000
FVH (80°-90°)	94.4	1.4			G1/100
BL (0°-30°)	157.3	2.3	B1/500		
BM (30°-60°)	261.6	3.8	B1/1000		
BH (60°-80°)	161.2	2.4	B1/500		G1/500
BVH (80°-90°)	1.7	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°	59°	65°	75°	85°
0°	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5
2.5°	892.3	858.7	810.9	825.1	837.9	850.0	829.9	818.5	813.0	763.8	825.4
5°	1095.6	1053.7	1031.9	1026.3	1012.5	981.7	1032.9	1010.1	1017.7	1027.4	1047.5
7.5°	1157.6	1138.6	1107.1	1118.8	1066.2	1061.7	1132.7	1152.4	1178.4	1160.7	1185.0
10°	1125.8	1092.9	1107.8	1103.6	1101.5	1147.9	1197.8	1198.9	1237.6	1256.4	1174.3
12.5°	1062.7	1066.5	1119.9	1115.7	1185.0	1277.8	1289.3	1277.1	1340.5	1308.0	1295.5
15°	1104.6	1135.8	1106.4	1116.4	1141.0	1257.0	1297.6	1335.0	1394.9	1414.3	1330.1
17.5°	1155.2	1158.3	1104.6	1092.2	1154.2	1208.2	1303.8	1334.6	1340.5	1510.6	1408.1
20°	1127.8	1154.5	1090.4	1011.8	1108.1	1181.5	1278.5	1268.8	1308.3	1539.0	1425.7
22.5°	1200.6	1162.5	1080.4	1021.2	1053.7	1120.6	1202.7	1266.1	1325.3	1471.1	1448.6
25°	1207.5	1193.7	1120.6	1067.9	1062.4	1079.3	1193.7	1234.5	1327.4	1532.1	1429.2
27.5°	1285.4	1269.5	1119.9	1125.1	1073.1	1020.8	1150.0	1246.0	1365.1	1495.0	1470.4
30°	1385.9	1387.3	1194.3	1210.6	1136.5	1052.3	1185.7	1212.0	1390.8	1554.2	1500.9
32.5°	1487.7	1529.7	1341.6	1255.3	1232.1	1171.8	1141.4	1262.9	1362.7	1655.4	1577.1
35°	1642.6	1671.0	1462.8	1385.6	1294.5	1225.9	1261.9	1305.5	1463.5	1789.4	1677.2
37.5°	1904.8	1853.5	1680.3	1545.9	1524.1	1423.0	1441.0	1401.8	1566.4	1947.4	1875.3
40°	2052.4	2005.9	1825.8	1760.3	1621.1	1636.7	1579.9	1602.7	1715.7	2111.9	2055.8
42.5°	2206.1	2161.8	2003.9	1957.4	1824.8	1760.3	1734.7	1816.8	1944.6	2385.9	2314.6
45°	2360.6	2248.1	2181.2	2204.4	2144.8	2017.4	1987.6	2060.7	2194.7	2722.6	2587.5
47.5°	2490.9	2396.0	2345.7	2335.0	2311.8	2488.8	2367.6	2399.8	2459.0	3020.5	2927.7
50°	2725.7	2632.2	2553.6	2531.8	2644.7	2895.8	2708.8	2646.4	2764.9	3380.4	3321.9
52.5°	3064.8	2945.7	2820.6	2821.0	3034.0	3171.9	3260.6	3151.1	3173.3	3776.3	3750.3
55°	3337.5	3186.1	3082.5	3164.3	3481.9	3559.1	3897.6	3801.6	3772.9	4143.5	4111.6
57.5°	3374.9	3193.4	3144.2	3287.6	3722.3	4215.5	4579.6	4339.9	4295.9	4450.7	4514.1
60°	3025.7	2833.1	2870.2	3100.9	3800.6	4615.6	5205.9	5010.2	4730.6	4810.6	4854.3
62.5°	2256.7	2102.9	2206.8	2512.4	3498.9	4883.7	5930.9	6021.6	5235.0	5080.8	5071.5
65°	1464.2	1367.9	1436.1	1686.6	2647.8	4853.3	6578.6	6972.1	5632.3	5301.1	5139.7
67.5°	968.5	895.4	905.1	1053.4	1712.2	3947.1	6965.9	7441.5	6079.1	5426.2	4748.6
70°	721.9	664.4	667.8	748.2	1016.3	2603.1	6425.9	7071.2	6242.3	4992.8	3832.8
72.5°	520.6	482.2	514.4	603.8	809.9	1376.5	4789.5	5823.5	5443.2	3938.1	2582.3
75°	360.6	335.3	388.0	505.0	739.2	854.5	3165.0	4192.0	3815.1	2470.8	1167.3
77.5°	199.9	192.2	268.1	411.5	671.0	700.4	1938.7	2754.5	2116.1	885.7	277.8
80°	87.3	84.5	129.9	309.0	563.9	632.9	1091.5	1527.2	832.4	158.0	89.7
82.5°	37.4	36.0	55.4	186.0	409.8	529.3	673.0	735.0	286.5	48.8	50.9
85°	6.6	7.3	22.2	98.0	249.4	268.8	487.4	435.1	144.1	23.2	36.4
87.5°	0.0	0.0	3.5	19.1	46.8	76.9	211.3	152.4	27.4	7.6	6.2
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°	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5	684.5
2.5°	834.1	814.7	740.9	731.6	721.5	706.6	701.1	669.2	665.1	705.9	705.9
5°	1038.1	968.8	898.5	843.1	793.6	725.0	705.6	685.5	669.2	665.1	677.9
7.5°	1145.9	1061.3	950.8	809.9	695.5	596.1	554.6	525.5	492.9	502.6	507.8
10°	1140.0	1050.3	909.3	728.1	601.3	491.5	385.9	324.2	289.9	273.0	270.9
12.5°	1197.8	1113.3	881.2	663.0	501.2	349.5	242.8	198.8	173.5	173.9	171.8
15°	1231.4	1139.3	848.7	580.5	353.0	224.8	168.3	158.6	155.2	159.0	156.9
17.5°	1290.6	1166.6	774.9	457.6	242.8	169.7	154.8	151.0	155.5	163.5	161.4
20°	1286.1	1119.2	669.9	322.5	179.4	152.8	146.5	140.6	150.0	158.3	156.9
22.5°	1282.0	1072.8	571.2	238.0	150.0	139.2	134.1	131.6	136.5	146.2	148.3
25°	1245.3	1049.9	471.1	178.7	135.8	126.4	124.0	121.9	123.7	131.6	131.3
27.5°	1290.3	992.1	363.7	150.0	125.7	114.7	112.6	109.1	105.6	112.6	113.6
30°	1280.9	1000.0	285.1	132.0	115.7	100.8	101.5	94.2	88.0	94.2	94.2
32.5°	1314.9	941.8	228.3	119.9	105.6	94.9	86.3	78.6	74.1	77.9	78.6
35°	1364.4	944.3	178.7	112.2	97.0	84.5	74.1	66.5	62.3	64.1	65.1
37.5°	1530.3	927.6	149.3	106.3	93.9	78.3	67.5	57.5	54.7	56.8	57.8
40°	1638.4	972.0	131.6	103.2	85.9	72.0	57.8	50.6	48.1	49.2	50.9
42.5°	1842.1	996.6	123.0	99.8	78.6	61.7	49.5	45.4	41.9	43.3	44.7
45°	2060.0	1038.5	116.4	95.9	73.1	54.0	43.6	40.2	35.7	36.0	37.4
47.5°	2327.7	1138.2	108.8	89.4	65.5	49.2	38.8	33.6	29.4	29.1	30.8
50°	2687.3	1271.6	101.8	81.1	60.6	45.0	33.9	27.4	23.9	22.9	24.2
52.5°	3071.1	1444.1	94.6	75.2	54.7	39.5	29.1	22.2	19.1	18.4	19.4
55°	3451.4	1609.7	87.6	71.4	48.5	33.9	24.6	18.4	15.6	14.9	15.6
57.5°	3884.7	1788.8	78.6	63.7	42.6	29.4	20.4	15.2	12.8	12.1	12.5
60°	4211.0	1851.8	71.0	55.4	37.1	26.0	17.3	12.1	10.4	9.7	10.0
62.5°	4365.9	1748.9	63.7	48.1	32.6	22.5	14.5	10.0	8.7	8.0	8.0
65°	4325.7	1521.0	56.5	41.2	28.1	18.7	11.4	8.7	7.6	6.6	6.2
67.5°	3861.5	1190.2	48.1	34.6	23.6	15.2	9.7	8.3	6.9	6.2	5.2
70°	3062.4	861.8	39.1	28.8	19.7	12.5	7.6	7.6	6.6	6.2	4.8
72.5°	2007.3	542.4	31.9	23.2	16.3	9.7	5.9	6.9	6.2	6.2	4.5
75°	869.8	194.0	25.6	18.7	13.5	6.6	5.2	6.2	6.6	6.2	5.2
77.5°	203.7	60.3	20.1	14.9	11.1	4.5	5.2	6.2	6.6	5.9	4.5
80°	76.6	25.6	13.2	9.7	8.7	2.8	4.5	3.8	3.5	2.4	0.7
82.5°	46.4	10.7	6.9	4.8	4.2	0.7	2.1	1.4	0.7	0.7	0.0
85°	32.9	5.2	3.8	3.5	2.1	0.0	0.3	0.0	0.0	0.3	0.0
87.5°	4.5	1.4	1.7	1.7	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)