

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: P597007

Luminaire Tested: **MSA-SA3A-835-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597007
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-SA3A-835-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) 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: 7926 lumens
Efficiency: N/A
Efficacy: 82.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

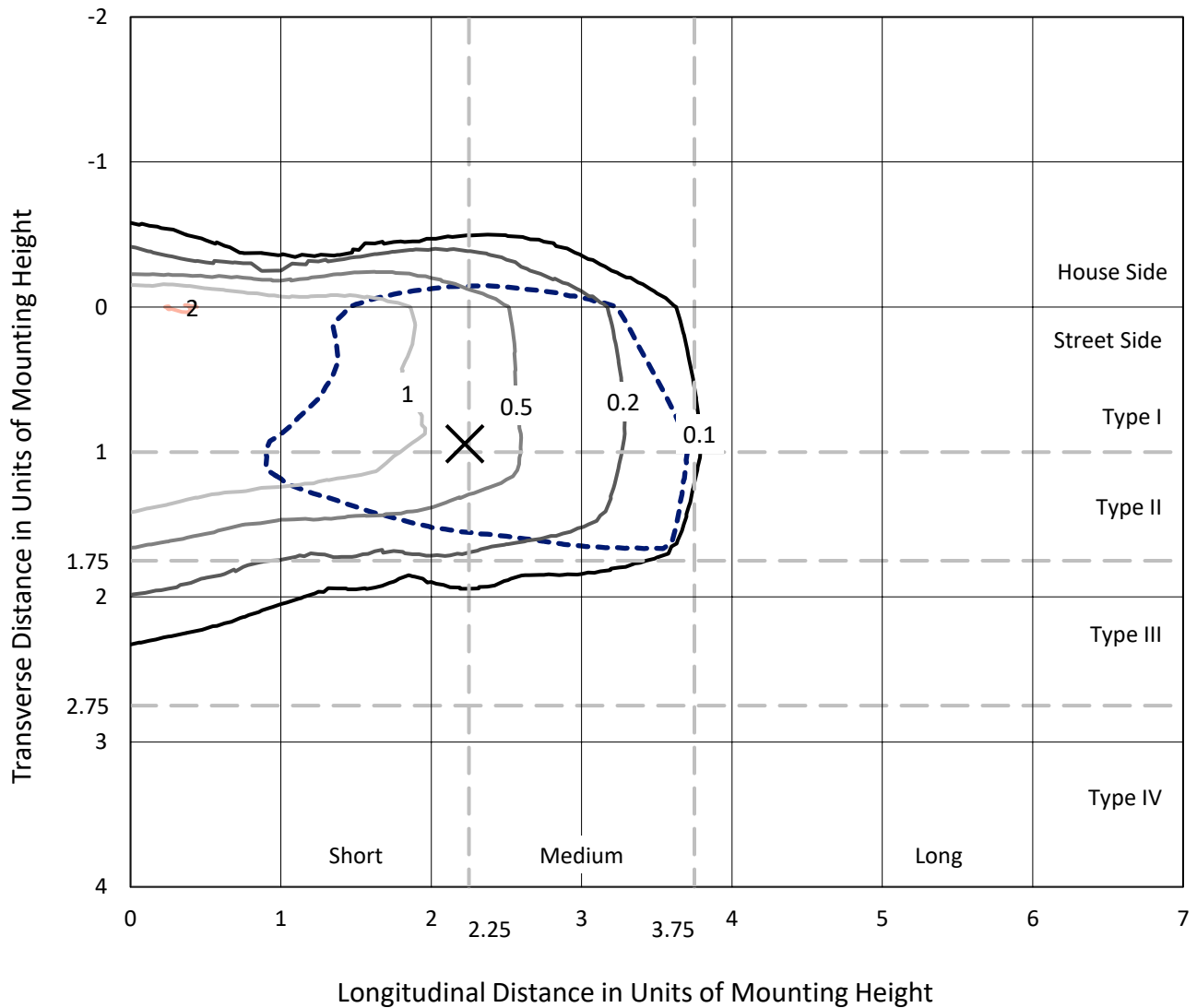
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

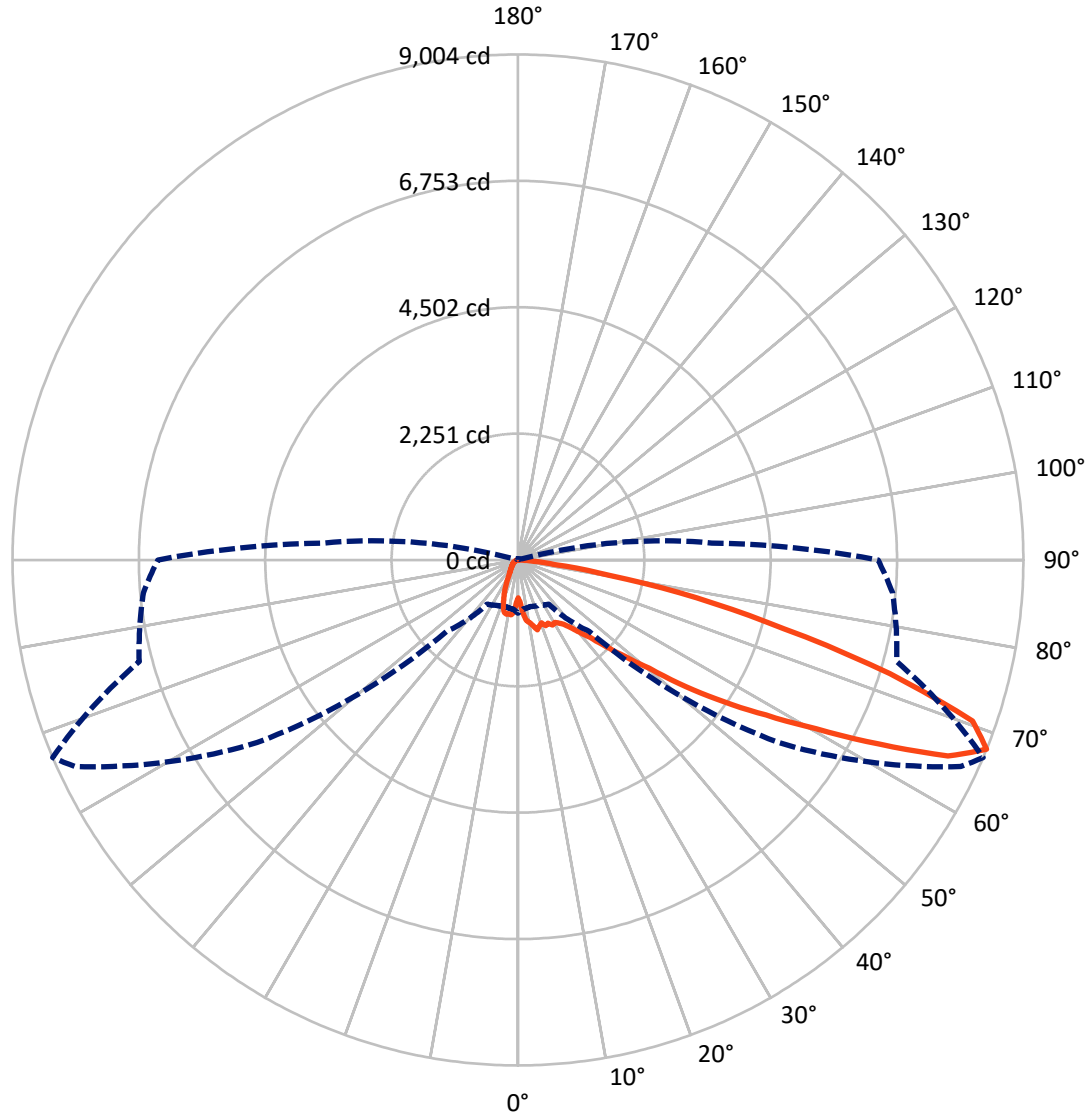
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.1 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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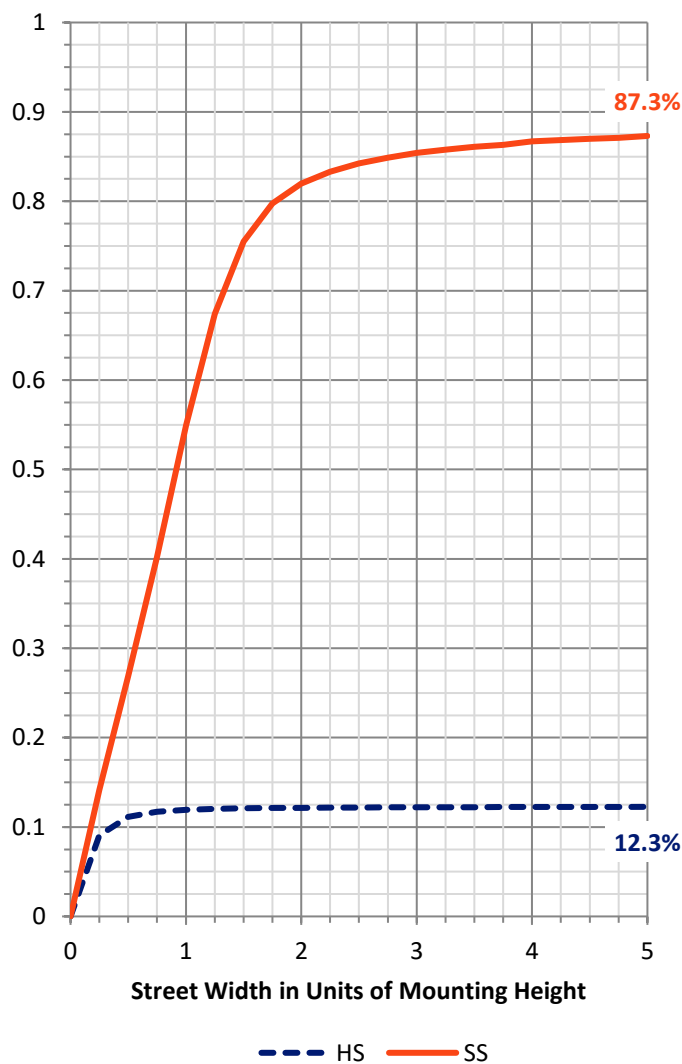
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	980.2	0.0	980.2
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	6945.8	0.0	6945.8
	% Fixture	87.6	0.0	87.6
Total	Lumens	7926.0	0.0	7926.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	1.1
10°-20°	250.7	3.2
20°-30°	392.9	5.0
30°-40°	633.6	8.0
40°-50°	1164.2	14.7
50°-60°	1966.2	24.8
60°-70°	2173.7	27.4
70°-80°	1137.7	14.4
80°-90°	122.2	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°	7926.0	100.0
0°-180°	7926.0	100.0

Coefficient of Utilization

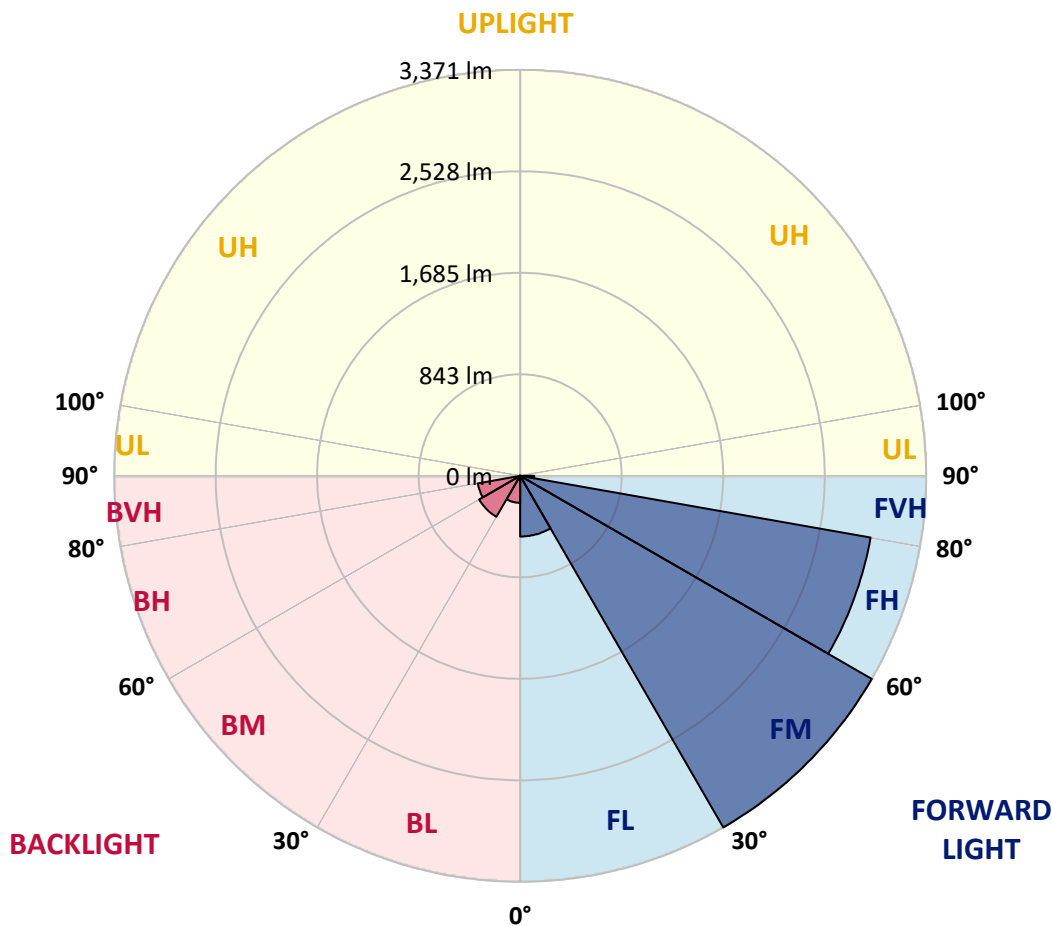


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	504.0	6.4			
FM (30°-60°)	3371.0	42.5			
FH (60°-80°)	2953.9	37.3			G2/5000
FVH (80°-90°)	117.0	1.5			G2/225
BL (0°-30°)	224.4	2.8	B1/500		
BM (30°-60°)	393.0	5.0	B1/1000		
BH (60°-80°)	357.6	4.5	B1/500		G1/500
BVH (80°-90°)	5.2	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-G2
 Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1
2.5°	796.9	770.0	724.1	737.4	763.9	786.0	775.6	755.1	755.5	734.6	809.8
5°	927.2	891.0	864.4	873.7	872.5	871.7	921.1	940.0	948.1	982.7	1033.7
7.5°	964.6	951.7	924.0	932.4	904.7	906.7	993.5	1075.5	1088.4	1109.7	1200.6
10°	950.1	925.2	935.2	935.2	935.6	980.6	1038.9	1117.3	1133.0	1215.1	1224.7
12.5°	934.4	935.6	975.4	968.2	1022.9	1103.7	1123.4	1211.4	1203.8	1275.0	1380.7
15°	992.7	1023.3	997.5	1007.6	1012.8	1107.7	1139.5	1256.5	1290.2	1380.3	1449.1
17.5°	1092.8	1096.8	1043.4	1028.9	1066.7	1093.6	1157.6	1213.8	1236.4	1472.8	1570.1
20°	1110.9	1136.6	1082.4	998.7	1078.7	1115.7	1160.4	1187.3	1197.0	1501.3	1638.4
22.5°	1219.9	1191.3	1104.5	1041.0	1063.9	1104.1	1131.8	1213.0	1270.9	1447.4	1704.0
25°	1275.8	1268.1	1185.3	1131.0	1107.7	1104.5	1168.0	1229.5	1248.0	1503.3	1720.0
27.5°	1409.7	1392.4	1231.9	1225.1	1148.3	1080.8	1169.2	1279.8	1314.4	1450.7	1780.4
30°	1591.8	1585.4	1371.9	1367.4	1245.2	1123.8	1234.3	1310.7	1289.8	1477.6	1820.6
32.5°	1775.1	1827.4	1609.1	1484.4	1392.8	1281.8	1215.9	1301.1	1338.5	1543.1	1894.5
35°	1996.7	2034.5	1812.1	1721.7	1517.8	1355.8	1338.5	1393.2	1409.2	1621.1	1978.6
37.5°	2384.3	2327.2	2137.8	1983.8	1876.9	1619.9	1534.7	1491.3	1528.7	1726.9	2150.3
40°	2670.5	2634.4	2401.2	2309.1	2063.0	1912.6	1689.9	1649.3	1691.1	1835.4	2269.7
42.5°	3015.9	2940.7	2721.2	2658.9	2405.6	2115.7	1889.7	1903.8	1877.7	2049.7	2479.2
45°	3328.3	3158.6	3036.4	3050.5	2915.4	2523.8	2223.0	2216.2	2194.5	2360.1	2699.5
47.5°	3538.6	3390.2	3271.2	3232.2	3216.1	3241.5	2704.7	2583.3	2567.2	2686.2	3046.5
50°	3651.6	3489.1	3342.0	3350.0	3676.5	3922.2	3201.7	3029.2	3035.2	3159.5	3520.9
52.5°	3575.6	3391.8	3236.7	3387.4	4033.6	4376.1	4024.3	3611.8	3751.7	3719.9	4157.4
55°	3224.6	3065.0	2954.8	3224.6	4072.6	4864.6	5037.1	4488.7	4457.3	4385.0	4806.3
57.5°	2634.0	2496.4	2428.5	2713.2	3646.0	5258.3	6054.3	5479.8	5212.4	4909.3	5345.1
60°	1962.5	1861.2	1790.4	1940.8	2872.8	4875.9	6720.6	6413.8	6104.2	5414.7	5829.2
62.5°	1453.5	1371.1	1295.9	1309.5	1978.2	4193.6	6976.3	7403.3	7225.6	5948.2	6285.9
65°	1160.0	1084.8	1032.1	1002.0	1225.1	3155.0	6620.5	8214.3	8419.3	6450.8	6615.6
67.5°	947.3	883.7	857.6	892.2	960.9	1798.5	5670.0	8706.4	9003.9	6983.9	6696.9
70°	770.8	718.5	715.7	809.0	885.0	1096.4	4170.7	8366.6	8590.6	7074.8	6209.9
72.5°	537.2	514.2	550.8	683.1	876.9	913.1	2395.1	6923.6	6931.7	6248.5	5107.9
75°	304.0	300.3	358.2	544.8	854.0	903.8	1335.3	4892.8	4896.4	4725.9	3538.6
77.5°	167.3	156.4	208.7	368.3	733.4	882.9	861.2	3340.8	3255.1	2629.9	1616.3
80°	77.2	72.8	113.0	236.0	536.4	835.1	690.4	1836.2	1655.7	856.8	394.4
82.5°	31.8	30.2	51.9	151.6	338.9	672.7	581.8	814.6	653.8	162.8	121.8
85°	5.6	6.0	21.3	91.7	189.8	310.0	471.6	386.8	284.3	45.0	66.7
87.5°	0.0	0.0	4.4	22.1	45.8	84.8	191.4	108.2	74.4	13.3	19.7
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°	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1	675.1
2.5°	824.6	817.8	748.7	751.9	756.7	752.3	751.5	732.2	714.5	772.8	772.0
5°	1043.0	994.3	946.5	928.0	888.2	835.9	836.3	819.8	802.9	826.7	826.7
7.5°	1198.6	1131.4	1070.7	962.6	857.2	761.9	753.5	731.0	705.2	736.2	742.2
10°	1234.8	1176.5	1098.0	939.2	839.5	746.6	644.5	560.5	521.5	503.4	500.2
12.5°	1346.1	1302.7	1127.4	951.7	808.2	650.9	483.7	384.0	316.0	310.8	303.6
15°	1420.5	1390.0	1156.3	920.7	675.5	468.0	304.0	233.2	205.9	203.4	199.8
17.5°	1535.9	1482.8	1128.6	822.2	528.3	308.8	204.3	184.1	187.4	194.6	189.0
20°	1582.9	1479.2	1068.3	679.5	371.1	207.1	177.3	166.5	174.9	181.7	178.5
22.5°	1631.2	1489.7	1014.8	560.1	242.4	171.3	158.0	152.4	153.2	160.0	160.4
25°	1630.8	1518.6	952.9	436.2	180.5	152.4	142.7	135.5	132.7	137.5	136.3
27.5°	1710.0	1485.2	839.9	323.7	158.8	136.3	127.1	118.2	108.2	113.0	113.0
30°	1710.4	1539.5	761.1	232.4	145.5	121.4	113.4	99.7	88.1	92.1	92.5
32.5°	1755.8	1492.5	688.3	177.7	135.1	112.6	94.9	82.4	75.6	78.0	78.0
35°	1807.7	1532.7	576.6	156.8	124.6	100.1	81.2	71.2	65.9	67.9	67.9
37.5°	1979.0	1524.2	499.0	146.0	117.8	90.5	74.0	62.7	60.3	61.5	63.1
40°	2040.9	1584.1	393.6	139.5	106.5	81.6	65.1	56.7	53.5	54.3	54.7
42.5°	2198.5	1597.4	314.4	134.3	96.5	70.8	57.9	51.9	47.8	47.8	49.1
45°	2372.6	1630.8	250.1	129.9	88.1	63.5	52.3	47.4	41.4	40.6	42.2
47.5°	2624.7	1758.6	203.8	121.0	78.0	59.1	48.2	41.0	36.2	34.6	36.2
50°	3046.5	1975.8	180.1	110.2	70.8	55.5	42.6	35.0	31.4	29.4	30.6
52.5°	3641.5	2350.9	167.7	100.1	64.3	49.9	38.2	30.6	26.9	25.3	26.1
55°	4302.5	2781.1	161.6	90.1	58.7	43.8	33.4	26.9	23.7	21.7	22.1
57.5°	4913.7	3185.6	155.6	80.4	53.1	39.0	29.4	23.7	20.5	18.5	18.9
60°	5516.0	3508.4	141.1	69.2	47.8	35.0	25.7	20.5	18.5	16.1	16.1
62.5°	6048.7	3701.4	120.2	59.9	43.0	31.0	22.9	18.5	16.9	14.5	14.5
65°	6411.4	3710.3	96.9	51.5	37.8	26.5	20.1	17.3	15.7	12.9	12.5
67.5°	6416.6	3469.0	77.6	45.8	33.4	23.3	18.1	16.5	14.5	12.1	11.3
70°	5743.1	2865.9	64.7	40.2	28.9	20.5	15.7	15.7	14.1	11.7	10.5
72.5°	4594.0	2190.1	54.3	35.0	25.7	17.7	14.5	14.9	13.7	11.7	10.5
75°	3087.9	1256.1	45.0	29.8	22.5	14.9	14.1	14.5	14.1	11.7	10.1
77.5°	1422.1	400.1	35.0	24.5	19.3	12.5	13.7	13.7	12.9	10.5	8.8
80°	320.4	98.5	25.3	18.1	15.7	9.2	12.5	11.3	10.1	7.2	5.2
82.5°	116.6	30.2	15.3	11.3	9.6	3.6	8.0	8.0	7.2	5.2	3.2
85°	66.7	15.7	8.4	7.2	5.2	1.6	4.4	4.8	4.0	3.6	1.6
87.5°	21.7	3.6	4.0	4.4	4.0	0.8	1.6	1.6	1.2	0.8	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)