

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: P596709

Luminaire Tested: **MSA-SA3C-827-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596709
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-827-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10094 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

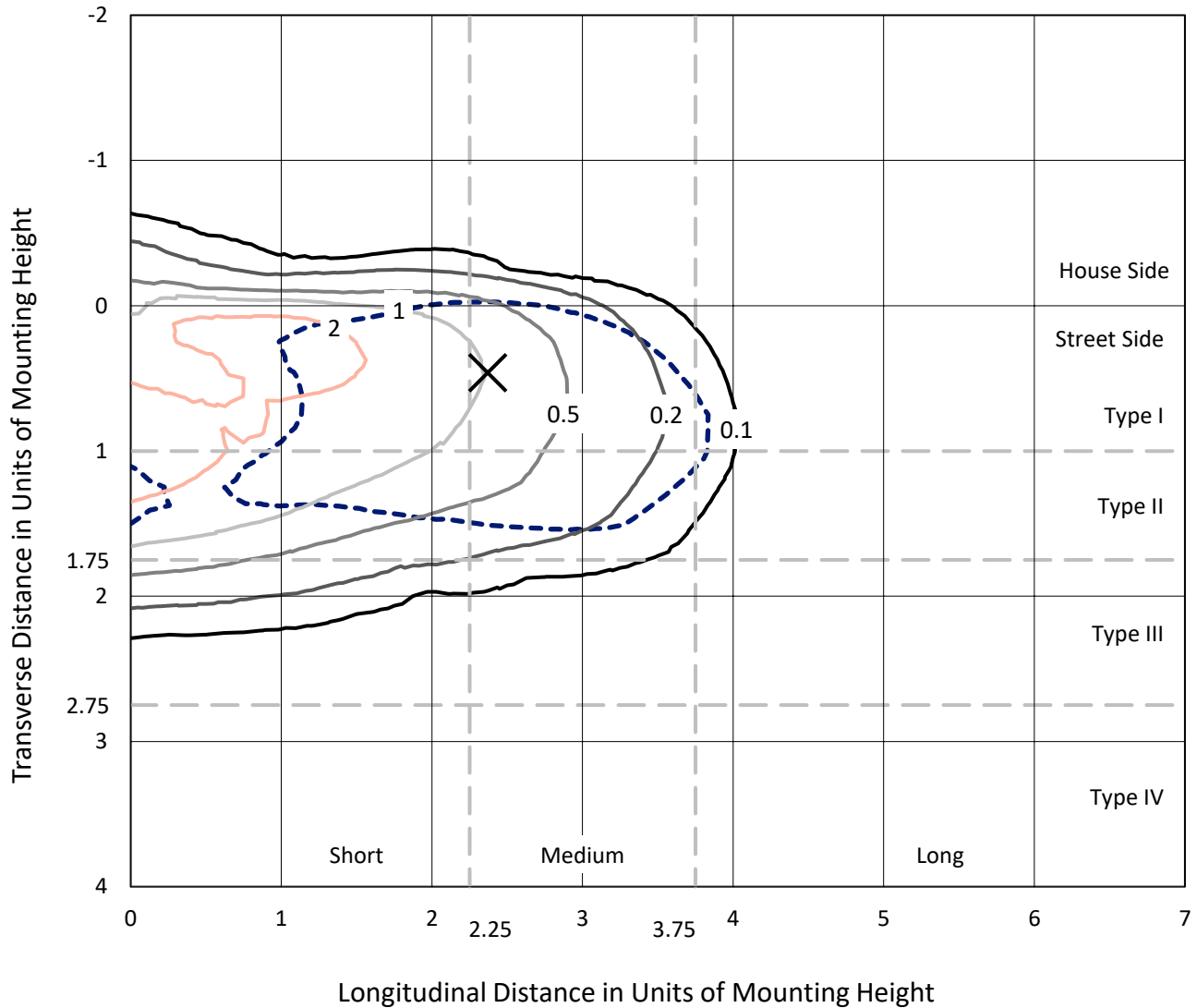
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

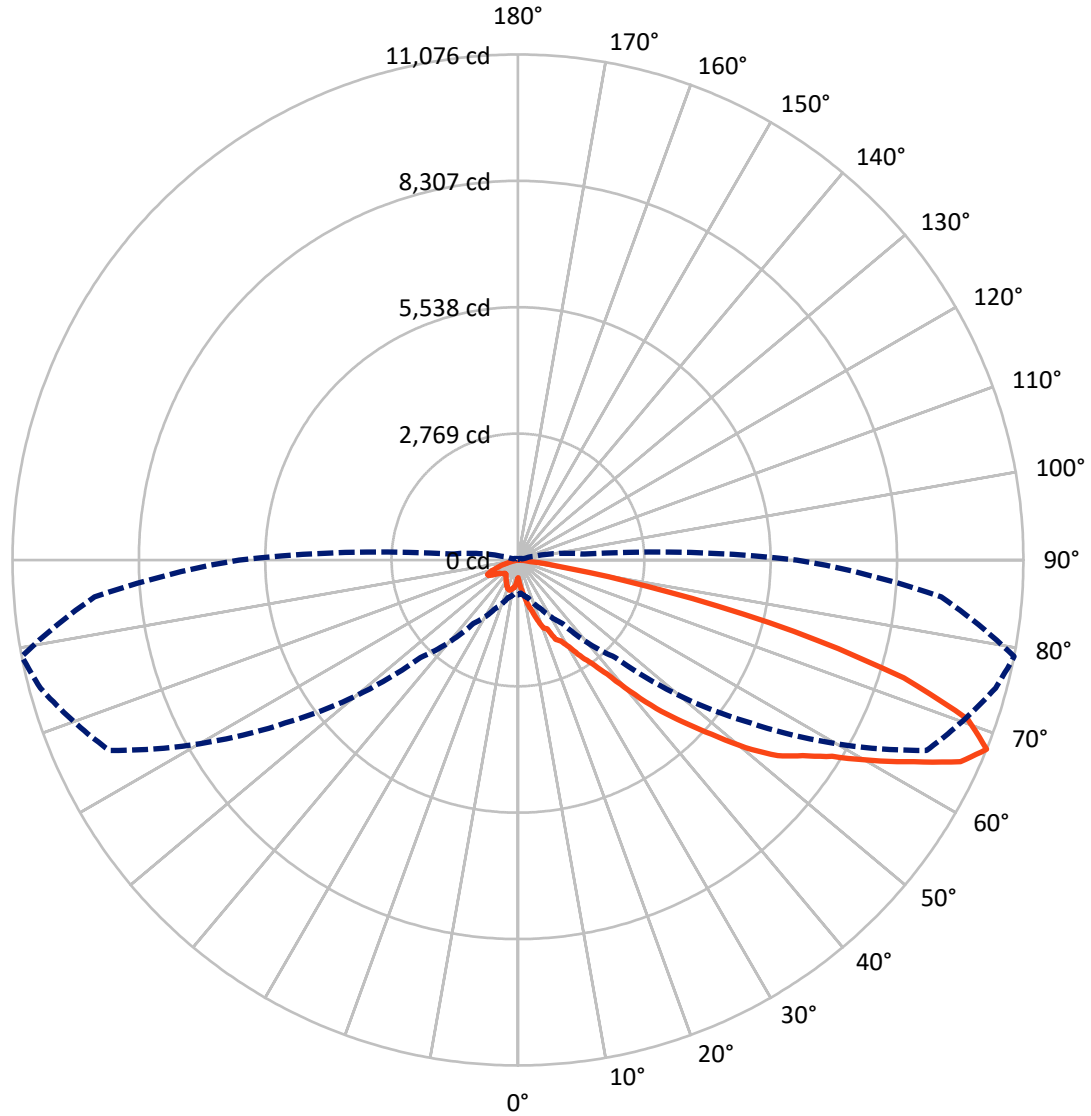
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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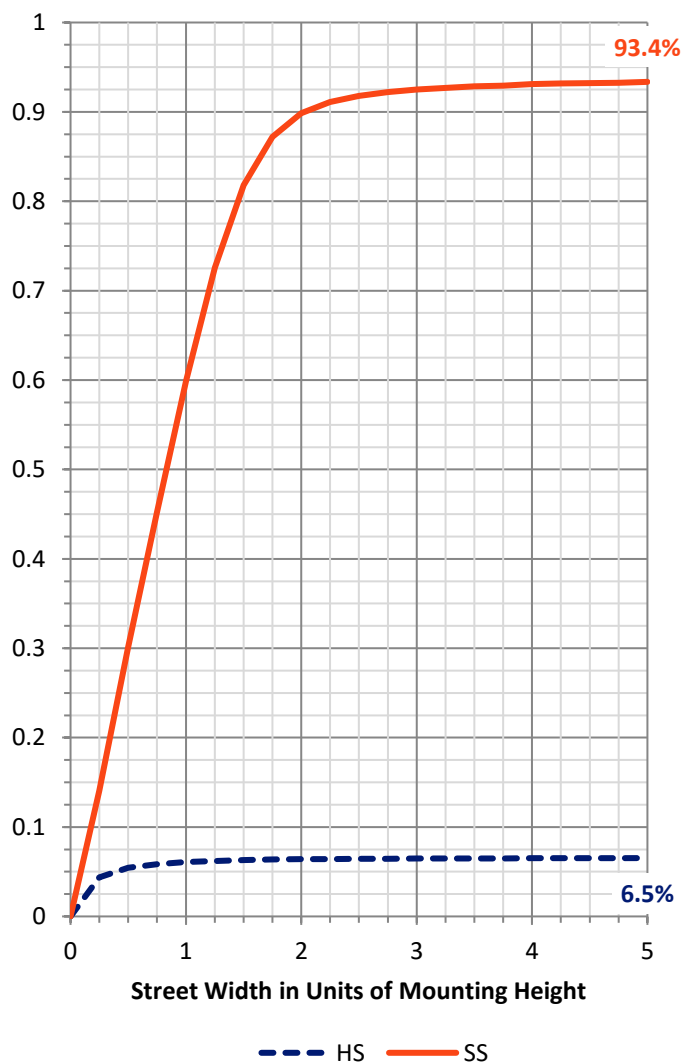
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	663.3	0.0	663.3
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	9430.8	0.0	9430.8
	% Fixture	93.4	0.0	93.4
Total	Lumens	10094.0	0.0	10094.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.6	0.6
10°-20°	225.5	2.2
20°-30°	435.1	4.3
30°-40°	854.8	8.5
40°-50°	1712.3	17.0
50°-60°	2736.8	27.1
60°-70°	2753.7	27.3
70°-80°	1242.3	12.3
80°-90°	76.9	0.8
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°	10094.0	100.0
0°-180°	10094.0	100.0

Coefficient of Utilization



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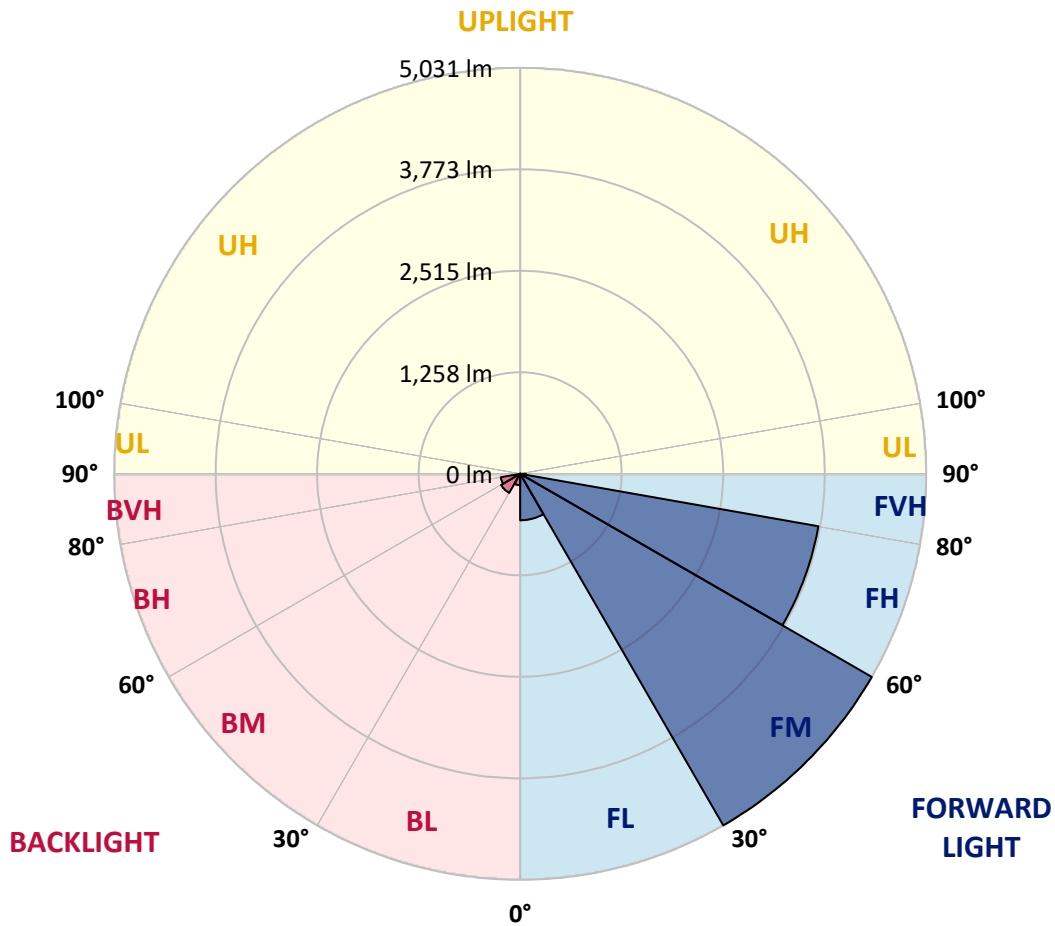
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	576.3	5.7			
FM (30°-60°)	5031.0	49.8			
FH (60°-80°)	3751.5	37.2			G2/5000
FVH (80°-90°)	72.0	0.7			G1/100
BL (0°-30°)	141.0	1.4	B1/500		
BM (30°-60°)	272.9	2.7	B1/1000		
BH (60°-80°)	244.5	2.4	B1/500		G1/500
BVH (80°-90°)	4.9	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9
2.5°	525.3	506.4	475.8	493.0	491.9	500.8	484.1	465.7	436.2	465.7	468.0
5°	756.2	721.1	698.9	694.4	669.9	647.1	642.1	623.2	608.7	582.6	606.0
7.5°	942.0	925.9	886.4	881.9	821.9	788.5	799.0	790.7	735.6	708.3	731.2
10°	1021.1	993.2	998.8	993.2	967.6	977.1	955.4	930.4	886.4	841.3	784.6
12.5°	1051.7	1047.2	1093.4	1087.8	1147.9	1220.3	1171.9	1130.1	1028.3	1017.2	939.8
15°	1117.3	1145.1	1138.5	1161.8	1200.2	1323.2	1322.1	1332.1	1224.2	1166.3	1054.4
17.5°	1175.7	1196.3	1162.9	1189.7	1294.3	1368.8	1468.4	1429.5	1441.7	1382.7	1209.7
20°	1150.7	1174.1	1140.7	1124.6	1308.7	1450.1	1583.1	1554.7	1628.1	1591.4	1352.7
22.5°	1307.1	1263.1	1179.1	1126.8	1264.2	1448.4	1623.7	1742.2	1729.4	1639.3	1485.7
25°	1500.1	1473.4	1372.7	1280.4	1292.6	1438.4	1751.7	1925.8	1963.7	1925.3	1612.0
27.5°	1760.6	1754.4	1548.6	1508.5	1389.4	1394.4	1771.7	2157.3	2071.1	2011.0	1759.4
30°	2100.5	2052.1	1807.9	1755.6	1579.7	1493.5	1894.1	2357.1	2293.6	2211.8	1898.0
32.5°	2466.1	2473.4	2161.8	1989.3	1847.9	1745.5	1845.7	2450.5	2569.1	2502.8	2071.1
35°	2881.2	2913.5	2532.3	2329.8	2054.9	1904.1	2053.8	2737.7	2950.2	2776.1	2303.1
37.5°	3520.6	3519.5	3074.3	2670.9	2471.1	2307.5	2400.5	2998.6	3418.7	3173.9	2719.3
40°	4083.1	3960.7	3546.7	3083.2	2771.6	2727.1	2659.8	3355.9	3919.0	3771.5	3089.3
42.5°	4503.2	4417.0	3916.7	3556.2	3170.0	3028.7	3004.7	3879.5	4657.4	4450.9	3617.4
45°	5005.7	4723.0	4354.7	4029.7	3636.3	3595.1	3538.9	4410.9	5516.5	5051.3	4076.4
47.5°	5455.8	5189.9	4841.5	4424.2	3972.4	4311.8	4095.9	4877.7	6141.4	5704.6	4582.8
50°	5834.8	5552.1	5162.0	4844.3	4650.7	4881.0	4521.0	5262.2	6816.3	6462.4	5056.3
52.5°	6027.9	5707.9	5406.3	5209.9	5328.4	5276.7	5097.5	5727.9	7391.7	7126.8	5475.9
55°	5869.3	5556.6	5430.2	5527.6	5887.6	5738.0	5752.4	6449.6	7934.8	7569.7	5840.9
57.5°	5165.9	4880.5	4936.7	5203.2	5893.2	6284.9	6499.2	7150.7	8370.5	8121.7	6404.0
60°	3907.8	3678.0	3886.1	4359.1	5339.0	6175.9	7028.9	7851.9	8993.1	8915.2	7256.5
62.5°	2386.5	2261.9	2556.8	3146.6	4254.5	5641.1	7337.7	8786.7	9659.2	9742.1	8160.7
65°	1217.5	1161.3	1407.2	1925.8	2874.5	4634.0	7114.6	9367.6	10347.5	10653.5	9022.6
67.5°	766.8	730.6	861.9	1174.6	1696.0	3022.6	6229.3	9875.6	10833.8	11075.8	9310.3
70°	531.4	508.6	622.1	806.3	1070.0	1628.1	4625.1	9401.5	10448.2	10459.3	8614.2
72.5°	337.2	319.4	430.1	597.1	789.6	840.8	2651.4	7377.2	8943.6	8840.6	6976.0
75°	218.7	209.8	273.2	437.4	606.5	518.6	1310.4	4977.9	6412.9	6251.5	4633.4
77.5°	156.9	151.4	183.1	292.1	431.8	362.8	587.6	2966.9	3676.9	3324.1	2249.1
80°	94.6	94.0	132.4	183.1	307.2	256.0	271.5	1347.1	1425.6	1162.4	687.2
82.5°	47.3	49.0	74.0	118.0	197.5	167.5	124.1	448.5	382.8	282.1	139.1
85°	11.1	13.9	39.0	81.2	99.0	66.8	59.0	117.4	105.2	79.6	40.6
87.5°	0.0	0.0	12.2	19.5	26.7	11.1	20.0	22.3	28.4	22.3	8.3
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°	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9	388.9
2.5°	468.5	461.8	421.2	410.6	409.5	397.9	400.6	389.5	390.1	415.1	415.1
5°	597.1	558.1	519.2	484.7	461.3	427.9	415.7	410.6	406.2	416.2	422.3
7.5°	701.1	643.8	573.7	498.6	429.0	381.2	374.5	362.2	357.8	367.8	375.6
10°	747.3	676.1	579.8	470.2	405.1	366.1	333.9	316.6	313.3	312.7	315.5
12.5°	845.2	756.8	586.5	459.6	388.9	346.1	309.4	280.4	253.7	256.5	253.7
15°	923.7	819.1	586.5	434.0	350.0	307.2	242.6	228.1	224.2	230.4	225.4
17.5°	1042.2	880.8	557.0	388.4	316.6	238.7	214.2	213.1	220.9	229.8	224.2
20°	1113.4	889.2	507.5	336.1	259.9	207.0	198.1	189.2	200.3	207.6	204.8
22.5°	1187.4	889.7	457.9	308.3	209.2	188.6	174.2	166.9	168.6	175.3	176.4
25°	1219.1	868.0	411.8	271.5	189.7	168.6	153.6	145.8	143.0	146.3	145.2
27.5°	1305.4	826.3	361.7	231.5	180.3	149.7	135.8	126.3	118.0	123.5	124.6
30°	1317.6	813.0	334.4	205.9	168.0	132.4	120.2	110.2	104.1	111.8	111.8
32.5°	1356.6	739.5	320.5	195.3	155.2	122.4	105.7	98.5	97.4	102.4	102.9
35°	1416.7	707.2	299.9	187.0	143.6	110.7	95.2	91.8	90.7	94.6	94.6
37.5°	1620.3	667.2	277.1	179.7	133.5	104.6	92.4	86.8	87.4	90.7	92.9
40°	1755.6	672.2	243.2	170.8	121.9	99.0	86.8	82.9	82.4	84.0	85.7
42.5°	2006.5	676.1	228.1	161.4	113.0	92.4	81.2	78.5	76.2	77.9	79.6
45°	2286.9	696.7	220.3	153.6	107.9	88.5	76.2	74.6	69.6	70.7	72.9
47.5°	2557.4	771.8	210.9	142.4	103.5	86.2	71.2	67.3	64.0	63.4	65.7
50°	2864.5	844.7	200.3	130.2	99.0	82.9	66.2	60.1	57.9	57.9	59.5
52.5°	3139.4	914.2	190.3	121.9	95.7	76.8	61.8	55.6	54.0	54.0	56.2
55°	3428.8	987.1	181.4	114.1	91.3	70.7	57.9	52.3	51.7	50.6	52.3
57.5°	3939.6	1146.3	170.3	107.4	85.1	65.7	54.5	49.0	47.9	46.2	47.9
60°	4683.5	1390.5	155.8	100.7	77.9	62.3	51.7	45.1	43.4	40.6	41.2
62.5°	5410.8	1588.1	139.1	92.4	71.2	59.0	47.3	40.6	37.8	34.5	35.1
65°	6034.0	1666.0	121.3	82.4	64.5	51.2	41.2	35.6	31.7	27.3	26.7
67.5°	6107.4	1471.2	104.1	72.9	57.9	43.4	35.1	31.7	25.6	21.7	20.6
70°	5496.5	1096.2	86.8	64.5	50.1	36.7	30.0	27.8	23.9	20.6	18.9
72.5°	4376.9	809.1	72.9	57.3	44.0	31.2	25.6	26.2	23.9	20.0	17.8
75°	2894.6	463.0	59.5	47.9	36.7	25.0	23.4	23.4	22.8	18.9	16.7
77.5°	1392.8	199.8	45.6	37.8	29.5	18.9	21.1	21.1	21.7	17.2	13.9
80°	395.1	60.1	28.4	25.6	21.7	12.8	16.7	16.1	14.5	10.0	6.1
82.5°	70.7	23.4	12.8	13.4	12.2	5.0	9.5	8.9	7.2	3.9	0.6
85°	19.5	8.9	7.2	7.8	6.1	1.7	3.9	5.0	3.9	2.2	0.0
87.5°	5.0	3.9	5.0	5.6	4.5	0.6	1.7	0.6	1.7	0.6	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)