

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: P597105

Luminaire Tested: **MSA-SA4A-835-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597105
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-SA4A-835-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) 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: 9640 lumens
Efficiency: N/A
Efficacy: 74.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

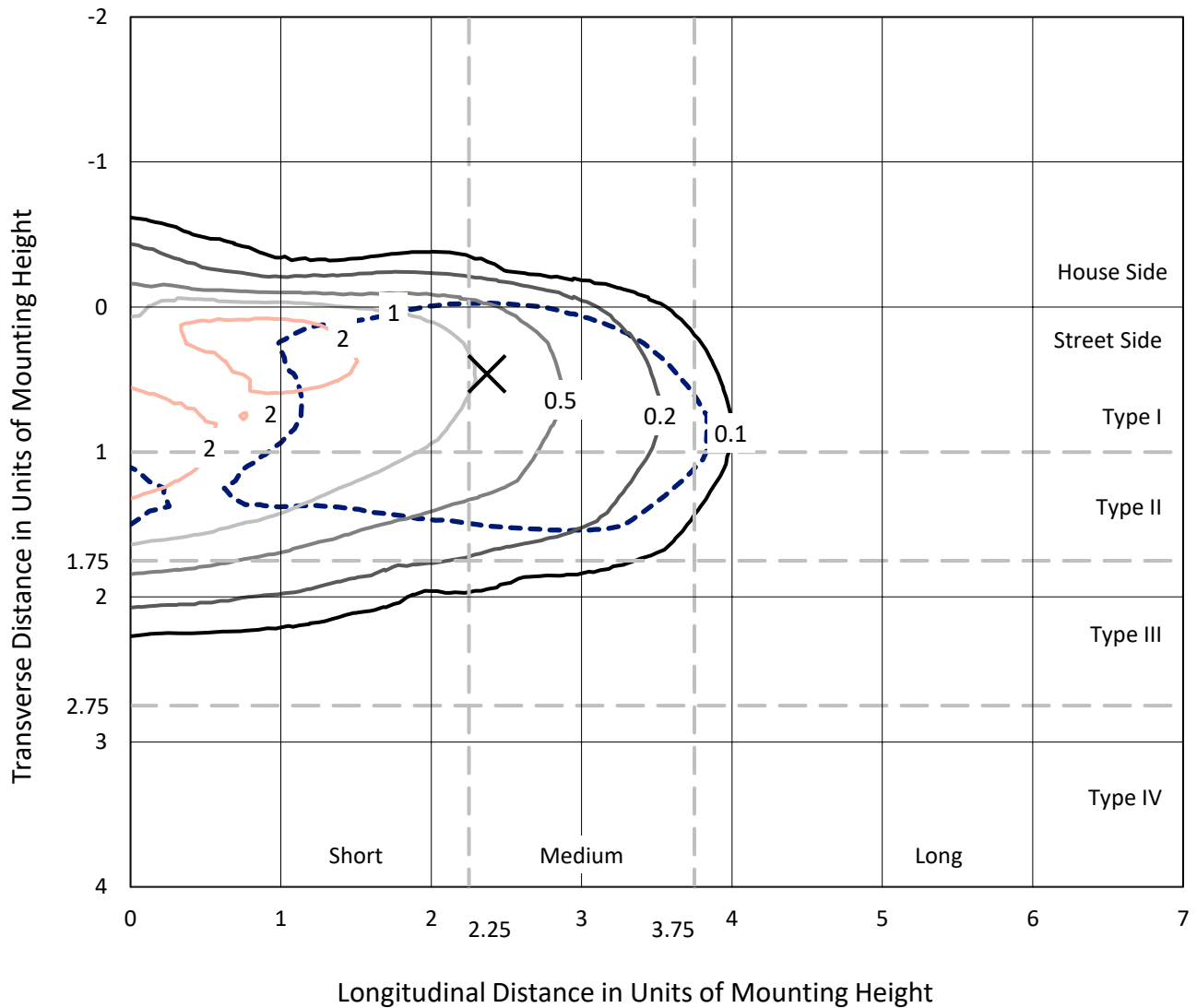
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P597105
 CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

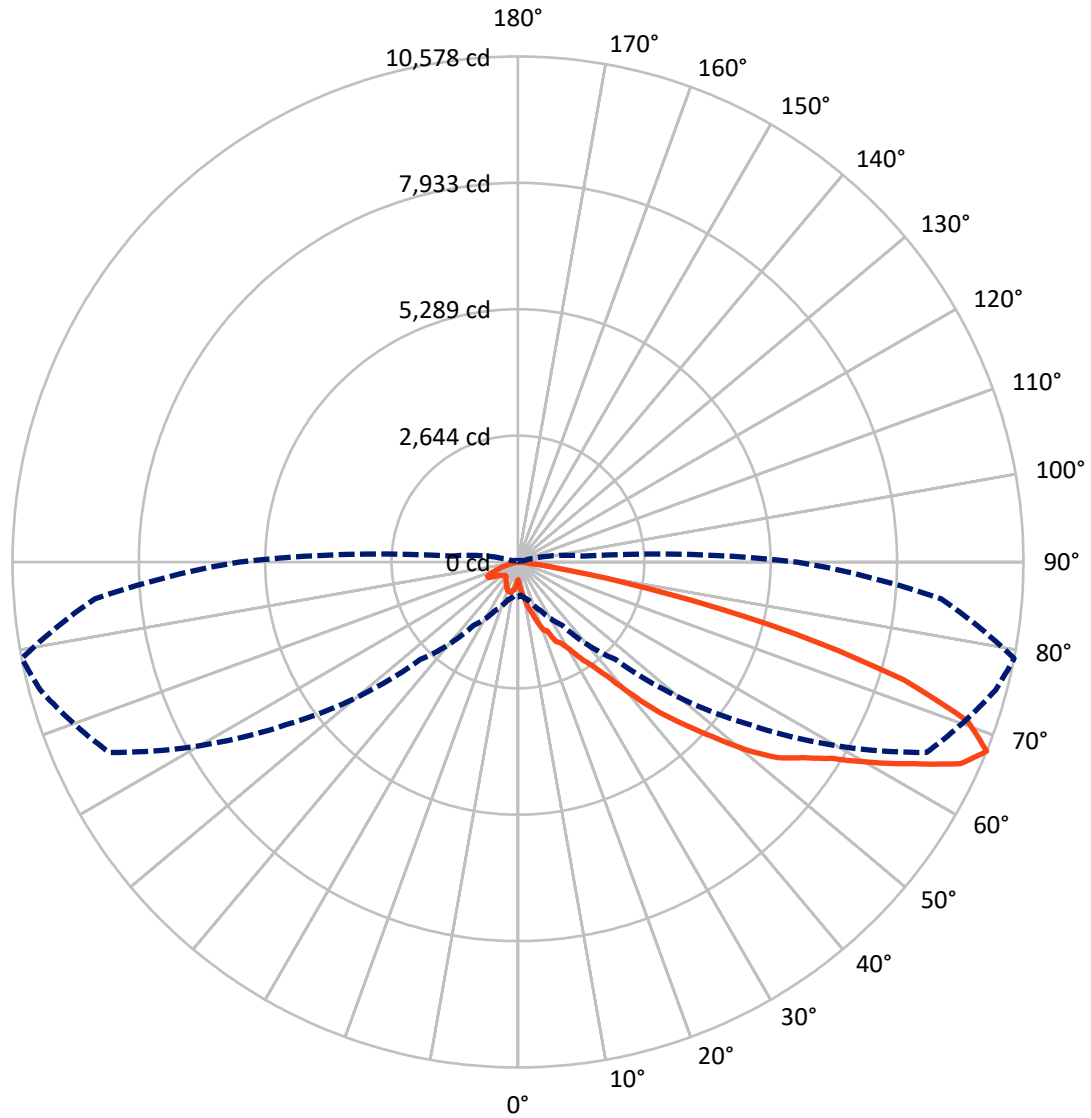
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type II - Medium - N/A

REPORT NUMBER: P597105
CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P597105

CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

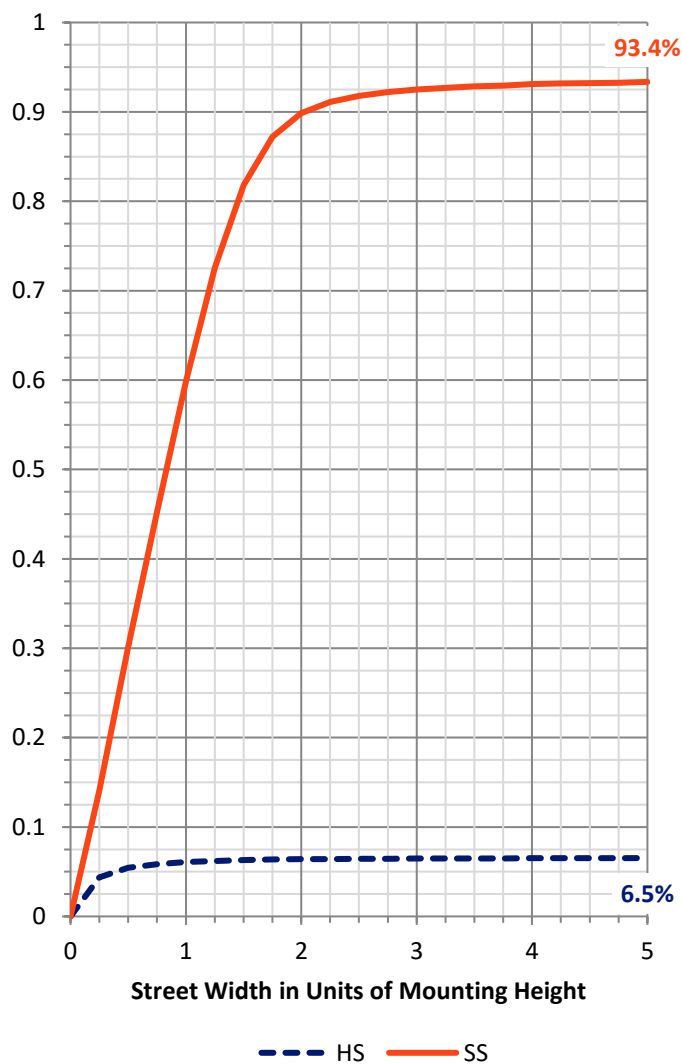
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	633.4	0.0	633.4
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	9006.6	0.0	9006.6
	% Fixture	93.4	0.0	93.4
Total	Lumens	9640.0	0.0	9640.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.0	0.6
10°-20°	215.4	2.2
20°-30°	415.6	4.3
30°-40°	816.3	8.5
40°-50°	1635.3	17.0
50°-60°	2613.7	27.1
60°-70°	2629.9	27.3
70°-80°	1186.4	12.3
80°-90°	73.4	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°	9640.0	100.0
0°-180°	9640.0	100.0

Coefficient of Utilization



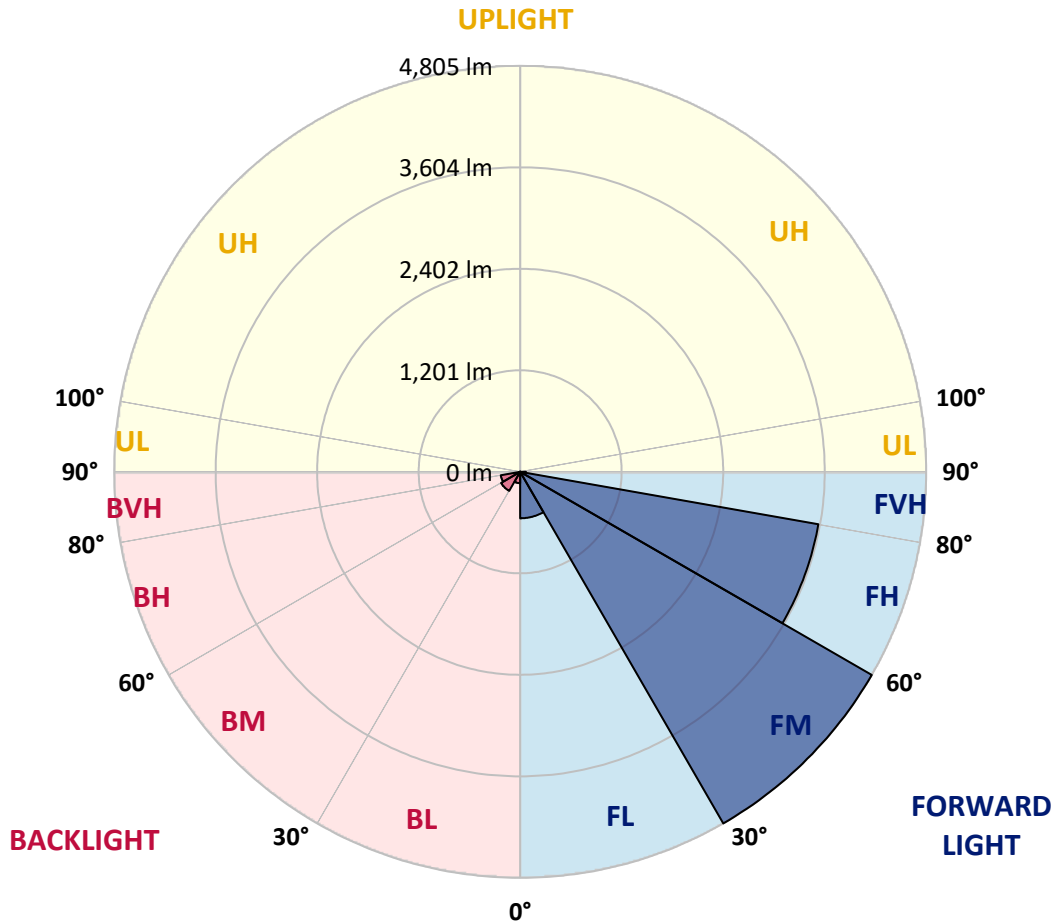
REPORT NUMBER: P597105
 CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	550.3	5.7			
FM (30°-60°)	4804.7	49.8			
FH (60°-80°)	3582.8	37.2			G2/5000
FVH (80°-90°)	68.7	0.7			G1/100
BL (0°-30°)	134.6	1.4	B1/500		
BM (30°-60°)	260.6	2.7	B1/1000		
BH (60°-80°)	233.5	2.4	B1/500		G1/500
BVH (80°-90°)	4.7	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 II Medium





REPORT NUMBER: P597105
 CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5
2.5°	501.6	483.6	454.4	470.8	469.8	478.3	462.3	444.8	416.6	444.8	446.9
5°	722.2	688.7	667.4	663.2	639.8	618.0	613.2	595.2	581.4	556.4	578.7
7.5°	899.7	884.3	846.5	842.3	784.9	753.0	763.1	755.1	702.5	676.5	698.3
10°	975.1	948.6	953.9	948.6	924.1	933.2	912.4	888.5	846.5	803.5	749.3
12.5°	1004.4	1000.1	1044.2	1038.9	1096.3	1165.4	1119.1	1079.3	982.0	971.4	897.5
15°	1067.1	1093.6	1087.3	1109.6	1146.2	1263.7	1262.6	1272.2	1169.1	1113.8	1007.0
17.5°	1122.9	1142.5	1110.6	1136.2	1236.1	1307.3	1402.4	1365.2	1376.9	1320.5	1155.3
20°	1099.0	1121.3	1089.4	1074.0	1249.9	1384.8	1511.9	1484.8	1554.9	1519.8	1291.9
22.5°	1248.3	1206.3	1126.1	1076.1	1207.4	1383.3	1550.6	1663.8	1651.6	1565.5	1418.9
25°	1432.7	1407.2	1311.0	1222.8	1234.5	1373.7	1672.9	1839.2	1875.3	1838.7	1539.5
27.5°	1681.4	1675.5	1478.9	1440.6	1326.9	1331.7	1692.0	2060.3	1977.9	1920.5	1680.3
30°	2006.1	1959.8	1726.5	1676.6	1508.7	1426.3	1808.9	2251.0	2190.5	2112.3	1812.6
32.5°	2355.2	2362.1	2064.5	1899.8	1764.8	1667.0	1762.7	2340.3	2453.5	2390.3	1977.9
35°	2751.6	2782.5	2418.4	2225.0	1962.5	1818.5	1961.4	2614.5	2817.5	2651.2	2199.5
37.5°	3362.2	3361.2	2936.0	2550.8	2360.0	2203.7	2292.5	2863.8	3265.0	3031.2	2597.0
40°	3899.5	3782.6	3387.2	2944.5	2646.9	2604.4	2540.1	3204.9	3742.7	3601.9	2950.4
42.5°	4300.7	4218.3	3740.6	3396.2	3027.4	2892.5	2869.6	3705.0	4447.9	4250.7	3454.7
45°	4780.5	4510.6	4158.8	3848.5	3472.8	3433.4	3379.8	4212.5	5268.4	4824.1	3893.1
47.5°	5210.5	4956.4	4623.8	4225.2	3793.7	4117.9	3911.7	4658.3	5865.2	5448.0	4376.7
50°	5572.3	5302.4	4929.9	4626.4	4441.5	4661.5	4317.7	5025.5	6509.7	6171.8	4828.9
52.5°	5756.7	5451.2	5163.2	4975.6	5088.8	5039.3	4868.2	5470.3	7059.2	6806.3	5229.6
55°	5605.3	5306.6	5186.0	5279.0	5622.8	5479.9	5493.7	6159.6	7577.9	7229.3	5578.2
57.5°	4933.6	4661.0	4714.7	4969.2	5628.1	6002.3	6206.8	6829.1	7994.0	7756.4	6116.0
60°	3732.1	3512.6	3711.4	4163.1	5098.9	5898.1	6712.7	7498.7	8588.6	8514.2	6930.1
62.5°	2279.2	2160.2	2441.8	3005.1	4063.1	5387.4	7007.7	8391.5	9224.7	9303.9	7793.6
65°	1162.7	1109.0	1343.9	1839.2	2745.3	4425.6	6794.6	8946.3	9882.1	10174.3	8616.8
67.5°	732.3	697.7	823.2	1121.8	1619.7	2886.6	5949.1	9431.4	10346.5	10577.7	8891.5
70°	507.5	485.7	594.1	770.0	1021.9	1554.9	4417.1	8978.7	9978.3	9988.9	8226.7
72.5°	322.0	305.0	410.8	570.2	754.1	803.0	2532.2	7045.4	8541.3	8443.0	6662.3
75°	208.8	200.3	260.9	417.7	579.2	495.3	1251.5	4754.0	6124.5	5970.4	4425.0
77.5°	149.9	144.5	174.8	279.0	412.4	346.5	561.2	2833.5	3511.5	3174.6	2148.0
80°	90.3	89.8	126.5	174.8	293.3	244.4	259.3	1286.5	1361.5	1110.1	656.3
82.5°	45.2	46.8	70.7	112.7	188.6	160.0	118.5	428.3	365.6	269.4	132.9
85°	10.6	13.3	37.2	77.6	94.6	63.8	56.3	112.1	100.4	76.0	38.8
87.5°	0.0	0.0	11.7	18.6	25.5	10.6	19.1	21.3	27.1	21.3	8.0
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: P597105
 CATALOG NUMBER: MSA-SA4A-835-U-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5	371.5
2.5°	447.4	441.1	402.3	392.2	391.1	380.0	382.6	372.0	372.5	396.4	396.4
5°	570.2	533.0	495.8	462.9	440.5	408.7	397.0	392.2	387.9	397.5	403.3
7.5°	669.6	614.8	547.9	476.1	409.7	364.0	357.6	345.9	341.7	351.3	358.7
10°	713.7	645.7	553.7	449.0	386.9	349.7	318.8	302.4	299.2	298.7	301.3
12.5°	807.2	722.7	560.1	438.9	371.5	330.5	295.5	267.8	242.3	245.0	242.3
15°	882.1	782.2	560.1	414.5	334.3	293.3	231.7	217.9	214.2	220.0	215.2
17.5°	995.3	841.2	531.9	370.9	302.4	228.0	204.6	203.5	211.0	219.5	214.2
20°	1063.3	849.2	484.6	321.0	248.2	197.7	189.2	180.7	191.3	198.2	195.6
22.5°	1134.0	849.7	437.3	294.4	199.8	180.1	166.3	159.4	161.0	167.4	168.5
25°	1164.3	829.0	393.2	259.3	181.2	161.0	146.7	139.2	136.6	139.8	138.7
27.5°	1246.7	789.1	345.4	221.1	172.2	142.9	129.7	120.6	112.7	118.0	119.0
30°	1258.4	776.4	319.4	196.6	160.5	126.5	114.8	105.2	99.4	106.8	106.8
32.5°	1295.6	706.2	306.1	186.5	148.3	116.9	101.0	94.1	93.0	97.8	98.3
35°	1353.0	675.4	286.4	178.6	137.1	105.8	90.9	87.7	86.6	90.3	90.3
37.5°	1547.5	637.2	264.6	171.6	127.5	99.9	88.2	82.9	83.4	86.6	88.7
40°	1676.6	641.9	232.2	163.1	116.4	94.6	82.9	79.2	78.6	80.2	81.8
42.5°	1916.3	645.7	217.9	154.1	107.9	88.2	77.6	74.9	72.8	74.4	76.0
45°	2184.1	665.3	210.4	146.7	103.1	84.5	72.8	71.2	66.4	67.5	69.6
47.5°	2442.4	737.1	201.4	136.0	98.8	82.4	68.0	64.3	61.1	60.6	62.7
50°	2735.7	806.7	191.3	124.3	94.6	79.2	63.2	57.4	55.3	55.3	56.9
52.5°	2998.2	873.1	181.7	116.4	91.4	73.3	59.0	53.1	51.5	51.5	53.7
55°	3274.5	942.7	173.2	108.9	87.2	67.5	55.3	50.0	49.4	48.4	50.0
57.5°	3762.4	1094.7	162.6	102.6	81.3	62.7	52.1	46.8	45.7	44.1	45.7
60°	4472.9	1328.0	148.8	96.2	74.4	59.5	49.4	43.0	41.4	38.8	39.3
62.5°	5167.4	1516.6	132.9	88.2	68.0	56.3	45.2	38.8	36.1	32.9	33.5
65°	5762.6	1591.0	115.8	78.6	61.6	48.9	39.3	34.0	30.3	26.0	25.5
67.5°	5832.7	1405.0	99.4	69.6	55.3	41.4	33.5	30.3	24.4	20.7	19.7
70°	5249.2	1046.9	82.9	61.6	47.8	35.1	28.7	26.6	22.9	19.7	18.1
72.5°	4180.1	772.7	69.6	54.7	42.0	29.8	24.4	25.0	22.9	19.1	17.0
75°	2764.4	442.1	56.9	45.7	35.1	23.9	22.3	22.3	21.8	18.1	15.9
77.5°	1330.1	190.8	43.6	36.1	28.2	18.1	20.2	20.2	20.7	16.5	13.3
80°	377.3	57.4	27.1	24.4	20.7	12.2	15.9	15.4	13.8	9.6	5.8
82.5°	67.5	22.3	12.2	12.8	11.7	4.8	9.0	8.5	6.9	3.7	0.5
85°	18.6	8.5	6.9	7.4	5.8	1.6	3.7	4.8	3.7	2.1	0.0
87.5°	4.8	3.7	4.8	5.3	4.3	0.5	1.6	0.5	1.6	0.5	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)