

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: P597039

Luminaire Tested: **MSA-SA3B-835-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597039
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-SA3B-835-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: 9140 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

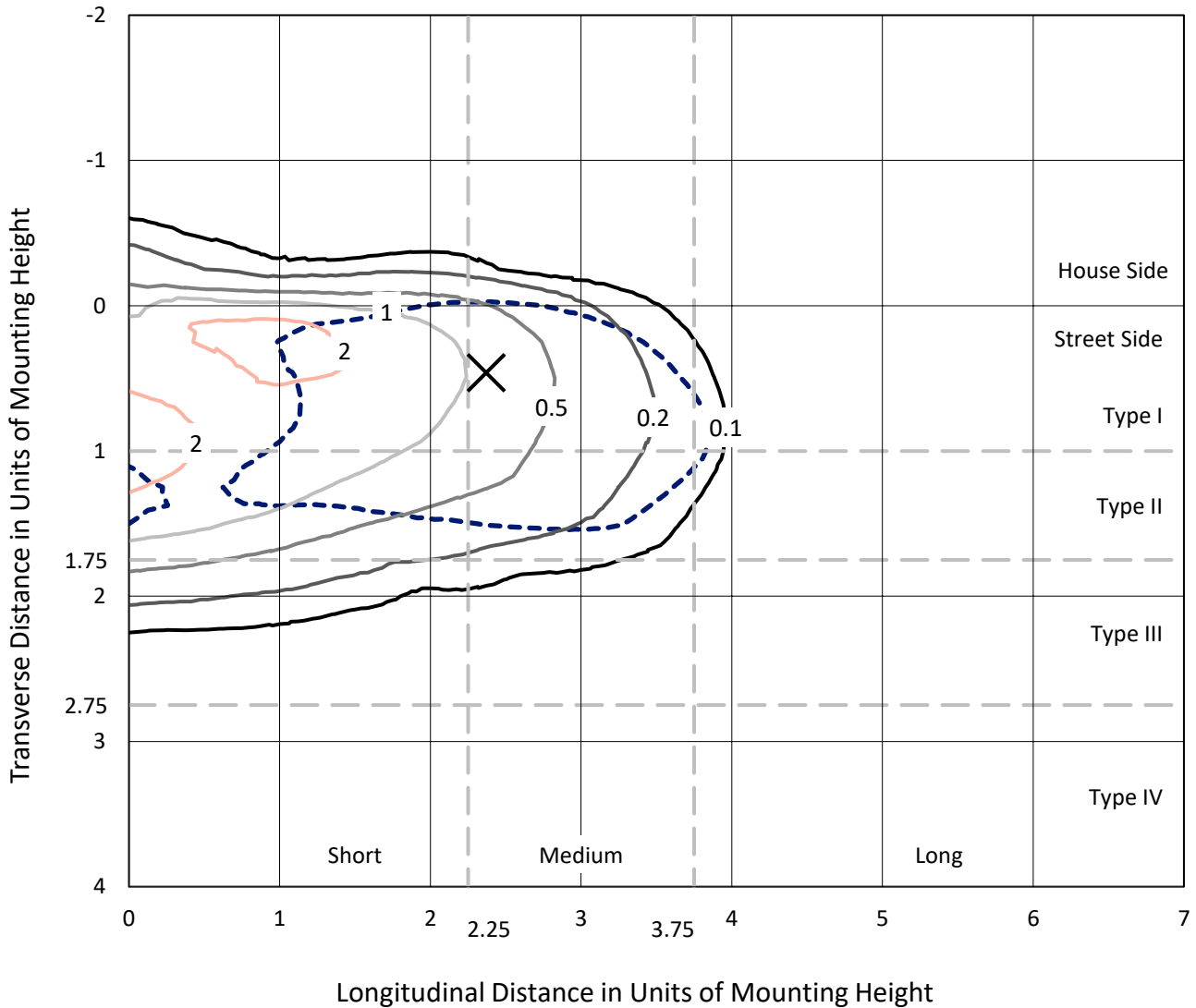
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

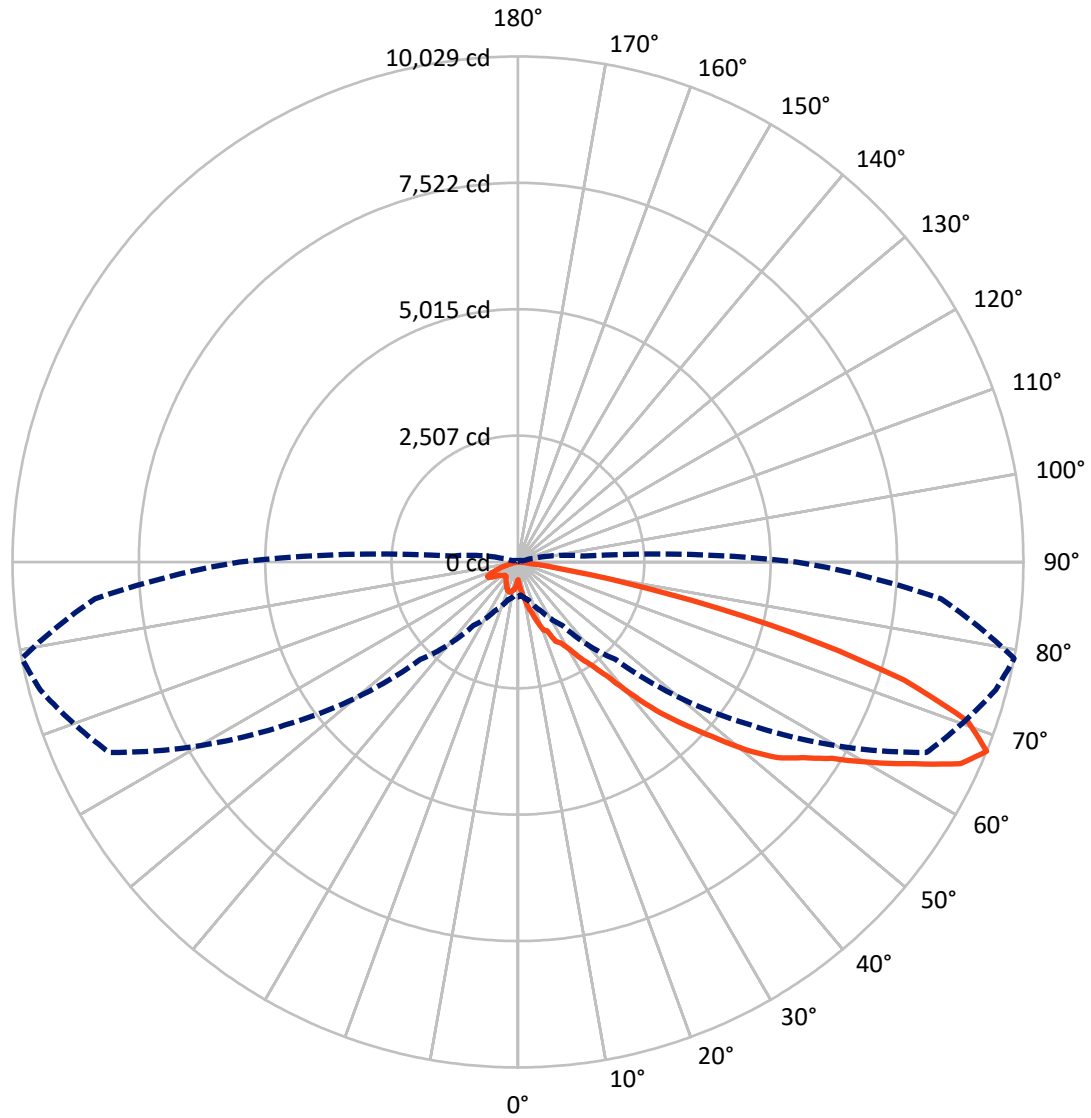
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 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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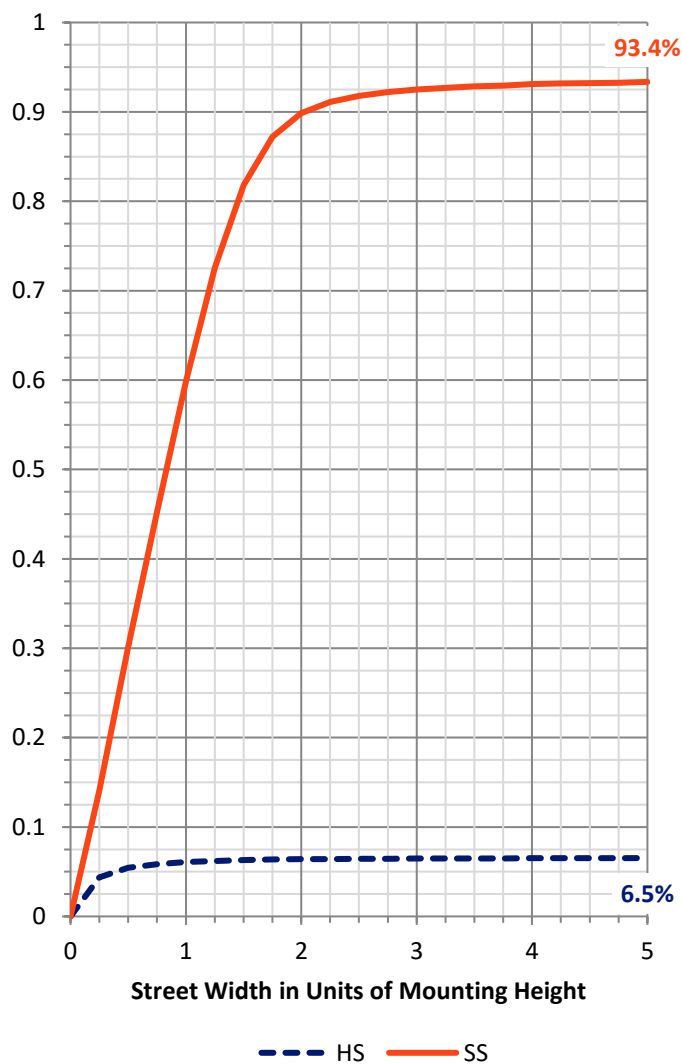
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	600.6	0.0	600.6
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	8539.4	0.0	8539.4
	% Fixture	93.4	0.0	93.4
Total	Lumens	9140.0	0.0	9140.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	0.6
10°-20°	204.2	2.2
20°-30°	394.0	4.3
30°-40°	774.0	8.5
40°-50°	1550.5	17.0
50°-60°	2478.2	27.1
60°-70°	2493.5	27.3
70°-80°	1124.9	12.3
80°-90°	69.6	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°	9140.0	100.0
0°-180°	9140.0	100.0

Coefficient of Utilization



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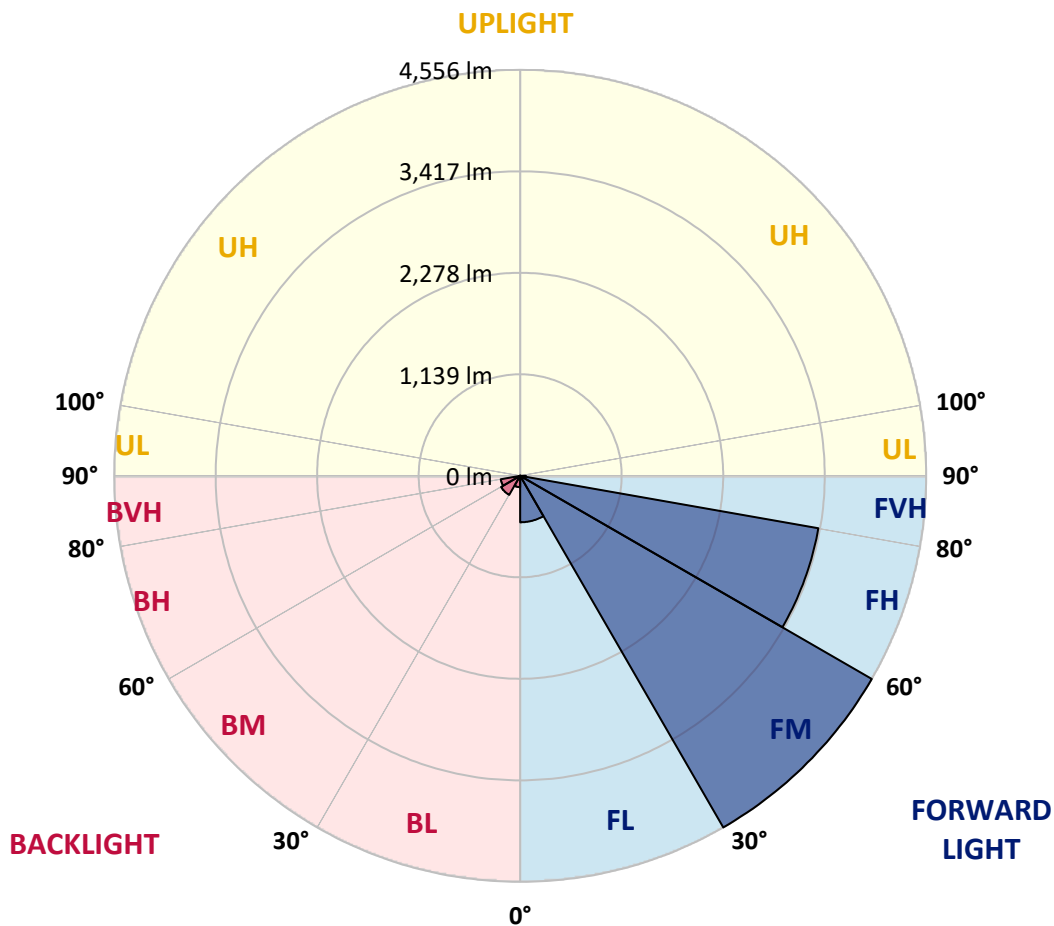
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	521.8	5.7			
FM (30°-60°)	4555.5	49.8			
FH (60°-80°)	3397.0	37.2			G2/5000
FVH (80°-90°)	65.2	0.7			G1/100
BL (0°-30°)	127.7	1.4	B1/500		
BM (30°-60°)	247.1	2.7	B1/1000		
BH (60°-80°)	221.4	2.4	B1/500		G1/500
BVH (80°-90°)	4.4	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°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
2.5°	475.6	458.5	430.8	446.4	445.4	453.5	438.3	421.7	395.0	421.7	423.7
5°	684.7	653.0	632.8	628.8	606.6	586.0	581.4	564.3	551.2	527.5	548.7
7.5°	853.0	838.4	802.6	798.6	744.2	713.9	723.5	716.0	666.1	641.4	662.1
10°	924.6	899.4	904.4	899.4	876.2	884.8	865.1	842.4	802.6	761.8	710.4
12.5°	952.3	948.2	990.1	985.0	1039.4	1104.9	1061.1	1023.3	931.1	921.0	851.0
15°	1011.7	1036.9	1030.9	1052.0	1086.8	1198.1	1197.1	1206.2	1108.5	1056.1	954.8
17.5°	1064.6	1083.3	1053.0	1077.2	1171.9	1239.5	1329.6	1294.4	1305.5	1252.1	1095.4
20°	1042.0	1063.1	1032.9	1018.3	1185.0	1313.0	1433.4	1407.7	1474.3	1441.0	1224.8
22.5°	1183.5	1143.7	1067.6	1020.3	1144.7	1311.5	1470.2	1577.5	1566.0	1484.3	1345.3
25°	1358.4	1334.2	1243.0	1159.3	1170.4	1302.4	1586.1	1743.8	1778.1	1743.3	1459.6
27.5°	1594.2	1588.6	1402.2	1365.9	1258.1	1262.6	1604.2	1953.4	1875.3	1820.9	1593.2
30°	1902.0	1858.2	1637.0	1589.6	1430.4	1352.3	1715.1	2134.3	2076.9	2002.8	1718.6
32.5°	2233.0	2239.6	1957.4	1801.2	1673.3	1580.6	1671.3	2218.9	2326.3	2266.3	1875.3
35°	2608.9	2638.1	2293.0	2109.6	1860.7	1724.2	1859.7	2478.9	2671.4	2513.7	2085.4
37.5°	3187.8	3186.8	2783.7	2418.5	2237.6	2089.4	2173.6	2715.2	3095.6	2873.9	2462.3
40°	3697.2	3586.4	3211.5	2791.8	2509.7	2469.3	2408.4	3038.7	3548.6	3415.1	2797.4
42.5°	4077.6	3999.5	3546.6	3220.1	2870.4	2742.4	2720.8	3512.8	4217.2	4030.3	3275.5
45°	4532.6	4276.6	3943.1	3648.8	3292.6	3255.3	3204.5	3994.0	4995.1	4573.9	3691.2
47.5°	4940.2	4699.4	4384.0	4006.1	3597.0	3904.3	3708.8	4416.7	5560.9	5165.4	4149.7
50°	5283.3	5027.4	4674.2	4386.5	4211.1	4419.7	4093.7	4764.9	6172.1	5851.7	4578.4
52.5°	5458.2	5168.4	4895.4	4717.5	4824.8	4778.0	4615.7	5186.6	6693.1	6453.3	4958.3
55°	5314.6	5031.4	4917.0	5005.2	5331.2	5195.7	5208.8	5840.1	7184.8	6854.3	5288.9
57.5°	4677.7	4419.2	4470.1	4711.5	5336.2	5690.9	5884.9	6474.9	7579.3	7354.1	5798.8
60°	3538.5	3330.4	3518.9	3947.1	4834.4	5592.2	6364.6	7109.8	8143.2	8072.6	6570.6
62.5°	2161.0	2048.1	2315.2	2849.2	3852.4	5108.0	6644.2	7956.2	8746.3	8821.3	7389.4
65°	1102.4	1051.5	1274.2	1743.8	2602.9	4196.0	6442.2	8482.2	9369.5	9646.6	8169.9
67.5°	694.3	661.5	780.5	1063.6	1535.7	2736.9	5640.6	8942.2	9809.9	10029.0	8430.3
70°	481.2	460.5	563.3	730.1	968.9	1474.3	4188.0	8513.0	9460.7	9470.8	7800.0
72.5°	305.3	289.2	389.5	540.6	715.0	761.3	2400.8	6680.0	8098.3	8005.1	6316.7
75°	198.0	189.9	247.4	396.0	549.2	469.6	1186.6	4507.4	5806.8	5660.7	4195.5
77.5°	142.1	137.0	165.8	264.5	391.0	328.5	532.1	2686.5	3329.4	3010.0	2036.5
80°	85.7	85.1	119.9	165.8	278.1	231.8	245.9	1219.8	1290.9	1052.5	622.2
82.5°	42.8	44.3	67.0	106.8	178.9	151.7	112.4	406.1	346.6	255.4	126.0
85°	10.1	12.6	35.3	73.6	89.7	60.5	53.4	106.3	95.2	72.0	36.8
87.5°	0.0	0.0	11.1	17.6	24.2	10.1	18.1	20.2	25.7	20.2	7.6
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°	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2	352.2
2.5°	424.2	418.2	381.4	371.8	370.8	360.2	362.8	352.7	353.2	375.9	375.9
5°	540.6	505.4	470.1	438.8	417.7	387.5	376.4	371.8	367.8	376.9	382.4
7.5°	634.8	582.9	519.5	451.4	388.5	345.1	339.1	328.0	324.0	333.0	340.1
10°	676.7	612.2	525.0	425.7	366.8	331.5	302.3	286.7	283.7	283.2	285.7
12.5°	765.3	685.2	531.1	416.2	352.2	313.4	280.1	253.9	229.8	232.3	229.8
15°	836.4	741.7	531.1	393.0	316.9	278.1	219.7	206.6	203.0	208.6	204.1
17.5°	943.7	797.6	504.3	351.7	286.7	216.1	194.0	193.0	200.0	208.1	203.0
20°	1008.2	805.1	459.5	304.3	235.3	187.4	179.4	171.3	181.4	187.9	185.4
22.5°	1075.2	805.6	414.7	279.1	189.4	170.8	157.7	151.2	152.7	158.7	159.7
25°	1103.9	786.0	372.8	245.9	171.8	152.7	139.1	132.0	129.5	132.5	131.5
27.5°	1182.0	748.2	327.5	209.6	163.2	135.5	122.9	114.4	106.8	111.9	112.9
30°	1193.1	736.1	302.8	186.4	152.2	119.9	108.8	99.8	94.2	101.3	101.3
32.5°	1228.4	669.6	290.2	176.8	140.6	110.8	95.7	89.2	88.2	92.7	93.2
35°	1282.8	640.4	271.6	169.3	130.0	100.3	86.2	83.1	82.1	85.7	85.7
37.5°	1467.2	604.1	250.9	162.7	120.9	94.7	83.6	78.6	79.1	82.1	84.1
40°	1589.6	608.6	220.2	154.7	110.3	89.7	78.6	75.1	74.6	76.1	77.6
42.5°	1816.9	612.2	206.6	146.1	102.3	83.6	73.6	71.0	69.0	70.5	72.0
45°	2070.8	630.8	199.5	139.1	97.7	80.1	69.0	67.5	63.0	64.0	66.0
47.5°	2315.7	698.8	191.0	129.0	93.7	78.1	64.5	61.0	57.9	57.4	59.5
50°	2593.8	764.8	181.4	117.9	89.7	75.1	60.0	54.4	52.4	52.4	53.9
52.5°	2842.7	827.8	172.3	110.3	86.7	69.5	55.9	50.4	48.9	48.9	50.9
55°	3104.7	893.8	164.3	103.3	82.6	64.0	52.4	47.4	46.9	45.8	47.4
57.5°	3567.2	1037.9	154.2	97.2	77.1	59.5	49.4	44.3	43.3	41.8	43.3
60°	4240.9	1259.1	141.1	91.2	70.5	56.4	46.9	40.8	39.3	36.8	37.3
62.5°	4899.4	1438.0	126.0	83.6	64.5	53.4	42.8	36.8	34.3	31.2	31.7
65°	5463.7	1508.5	109.8	74.6	58.4	46.4	37.3	32.2	28.7	24.7	24.2
67.5°	5530.2	1332.2	94.2	66.0	52.4	39.3	31.7	28.7	23.2	19.6	18.6
70°	4977.0	992.6	78.6	58.4	45.3	33.3	27.2	25.2	21.7	18.6	17.1
72.5°	3963.2	732.6	66.0	51.9	39.8	28.2	23.2	23.7	21.7	18.1	16.1
75°	2621.0	419.2	53.9	43.3	33.3	22.7	21.2	21.2	20.7	17.1	15.1
77.5°	1261.1	180.9	41.3	34.3	26.7	17.1	19.1	19.1	19.6	15.6	12.6
80°	357.7	54.4	25.7	23.2	19.6	11.6	15.1	14.6	13.1	9.1	5.5
82.5°	64.0	21.2	11.6	12.1	11.1	4.5	8.6	8.1	6.5	3.5	0.5
85°	17.6	8.1	6.5	7.1	5.5	1.5	3.5	4.5	3.5	2.0	0.0
87.5°	4.5	3.5	4.5	5.0	4.0	0.5	1.5	0.5	1.5	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)