

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: P367911

Luminaire Tested: **MSA-SA3B-830-U-T2-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367911
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-830-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: 8810 lumens
Efficiency: N/A
Efficacy: 69.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

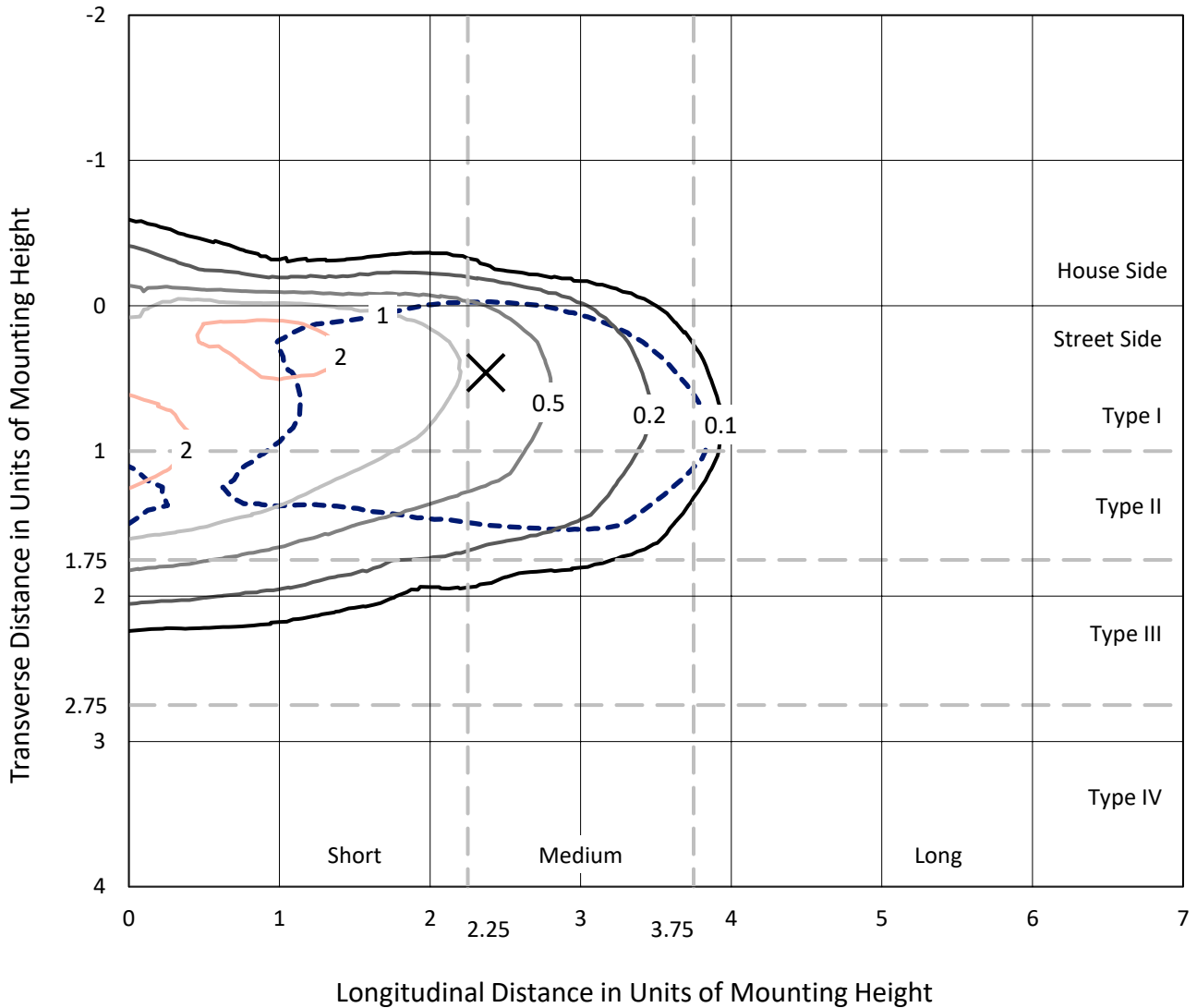
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

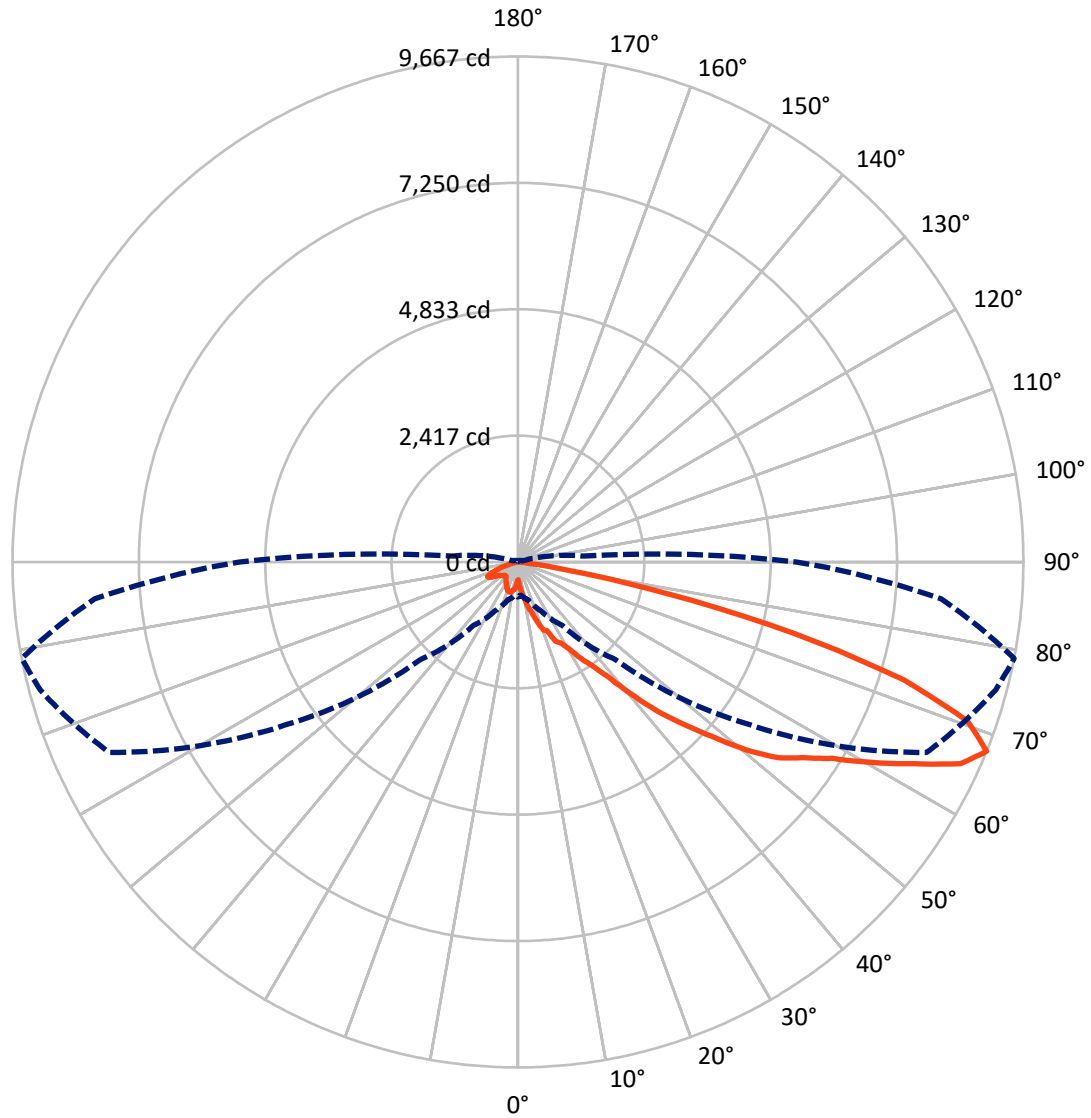
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 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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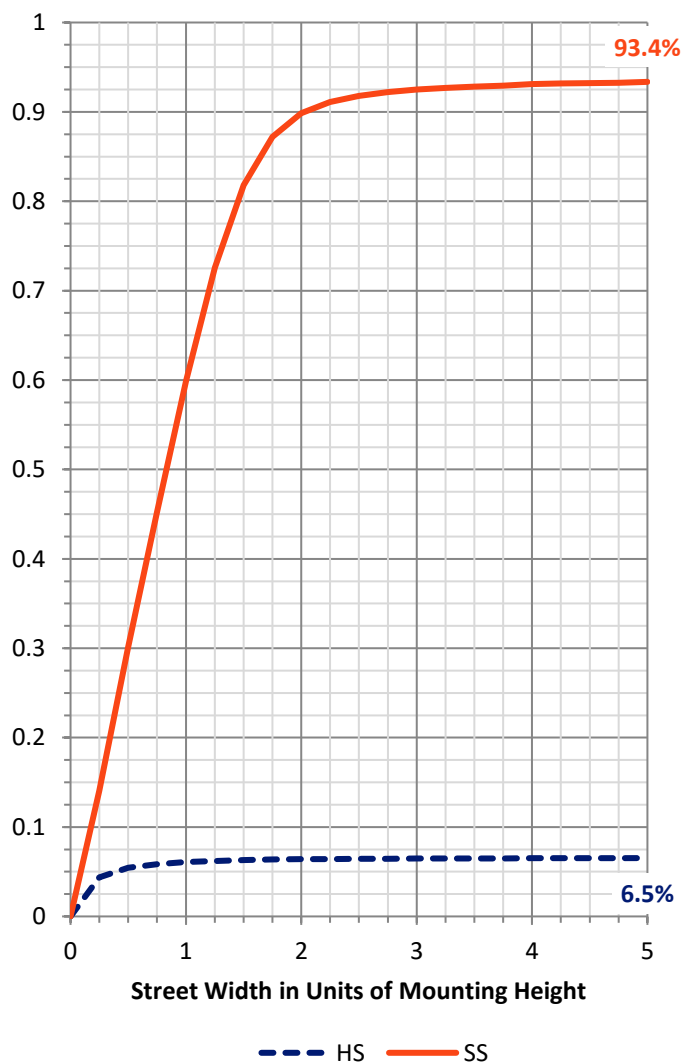
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	578.9	0.0	578.9
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	8231.1	0.0	8231.1
	% Fixture	93.4	0.0	93.4
Total	Lumens	8810.0	0.0	8810.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	0.6
10°-20°	196.9	2.2
20°-30°	379.8	4.3
30°-40°	746.0	8.5
40°-50°	1494.5	17.0
50°-60°	2388.7	27.1
60°-70°	2403.5	27.3
70°-80°	1084.3	12.3
80°-90°	67.1	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°	8810.0	100.0
0°-180°	8810.0	100.0

Coefficient of Utilization



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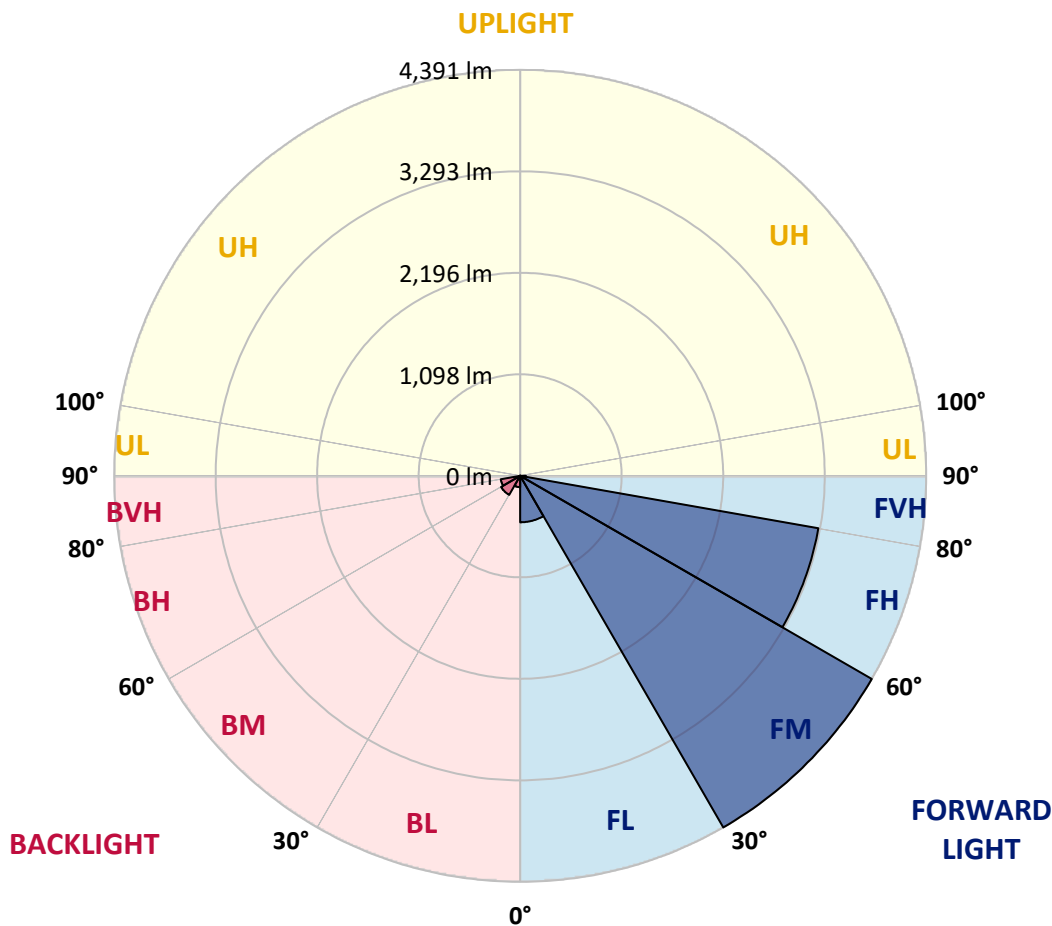
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	503.0	5.7			
FM (30°-60°)	4391.0	49.8			
FH (60°-80°)	3274.3	37.2			G2/5000
FVH (80°-90°)	62.8	0.7			G1/100
BL (0°-30°)	123.0	1.4	B1/500		
BM (30°-60°)	238.2	2.7	B1/1000		
BH (60°-80°)	213.4	2.4	B1/500		G1/500
BVH (80°-90°)	4.3	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°	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5
2.5°	458.5	441.9	415.2	430.3	429.3	437.1	422.5	406.5	380.8	406.5	408.4
5°	660.0	629.4	610.0	606.1	584.7	564.8	560.4	543.9	531.3	508.5	528.9
7.5°	822.2	808.1	773.6	769.8	717.3	688.2	697.4	690.1	642.0	618.2	638.1
10°	891.2	866.9	871.7	866.9	844.6	852.8	833.9	812.0	773.6	734.3	684.8
12.5°	917.9	914.0	954.3	949.5	1001.9	1065.0	1022.8	986.4	897.5	887.8	820.3
15°	975.2	999.5	993.6	1014.0	1047.6	1154.9	1153.9	1162.7	1068.4	1017.9	920.3
17.5°	1026.2	1044.2	1015.0	1038.3	1129.6	1194.7	1281.6	1247.6	1258.3	1206.9	1055.8
20°	1004.3	1024.7	995.6	981.5	1142.3	1265.6	1381.7	1356.9	1421.0	1389.0	1180.6
22.5°	1140.8	1102.4	1029.1	983.4	1103.4	1264.2	1417.1	1520.6	1509.4	1430.7	1296.7
25°	1309.3	1286.0	1198.1	1117.5	1128.2	1255.4	1528.8	1680.8	1713.9	1680.4	1406.9
27.5°	1536.6	1531.3	1351.6	1316.6	1212.7	1217.0	1546.3	1882.9	1807.6	1755.2	1535.6
30°	1833.3	1791.1	1577.9	1532.2	1378.8	1303.5	1653.2	2057.2	2001.9	1930.5	1656.6
32.5°	2152.4	2158.7	1886.8	1736.2	1612.9	1523.5	1610.9	2138.8	2242.3	2184.5	1807.6
35°	2514.7	2542.9	2210.2	2033.4	1793.5	1661.9	1792.5	2389.4	2574.9	2422.9	2010.1
37.5°	3072.7	3071.8	2683.2	2331.1	2156.8	2014.0	2095.1	2617.2	2983.9	2770.2	2373.4
40°	3563.7	3456.9	3095.6	2691.0	2419.0	2380.2	2321.4	2929.0	3420.5	3291.8	2696.4
42.5°	3930.4	3855.1	3418.5	3103.8	2766.8	2643.4	2622.5	3386.0	4064.9	3884.7	3157.2
45°	4368.9	4122.2	3800.7	3517.1	3173.7	3137.8	3088.8	3849.8	4814.8	4408.8	3557.9
47.5°	4761.8	4529.7	4225.7	3861.4	3467.1	3763.3	3574.9	4257.2	5360.2	4978.9	3999.8
50°	5092.6	4845.9	4505.4	4228.1	4059.1	4260.2	3945.9	4592.8	5949.3	5640.4	4413.1
52.5°	5261.1	4981.8	4718.6	4547.2	4650.6	4605.5	4449.1	4999.3	6451.4	6220.3	4779.3
55°	5122.7	4849.7	4739.5	4824.5	5138.7	5008.1	5020.7	5629.2	6925.4	6606.8	5097.9
57.5°	4508.8	4259.7	4308.7	4541.4	5143.6	5485.5	5672.4	6241.1	7305.7	7088.6	5589.4
60°	3410.7	3210.2	3391.8	3804.6	4659.9	5390.3	6134.8	6853.1	7849.1	7781.2	6333.4
62.5°	2083.0	1974.2	2231.6	2746.4	3713.3	4923.6	6404.3	7669.0	8430.5	8502.8	7122.6
65°	1062.6	1013.6	1228.2	1680.8	2508.9	4044.5	6209.6	8176.0	9031.2	9298.3	7874.9
67.5°	669.2	637.7	752.3	1025.2	1480.3	2638.1	5436.9	8619.4	9455.7	9666.9	8126.0
70°	463.8	443.9	543.0	703.7	933.9	1421.0	4036.8	8205.6	9119.1	9128.8	7518.4
72.5°	294.3	278.8	375.4	521.1	689.1	733.8	2314.1	6438.8	7805.9	7716.1	6088.6
75°	190.9	183.1	238.5	381.7	529.4	452.6	1143.7	4344.7	5597.2	5456.3	4044.0
77.5°	137.0	132.1	159.8	255.0	376.9	316.6	512.9	2589.5	3209.2	2901.3	1963.0
80°	82.6	82.1	115.6	159.8	268.1	223.4	237.0	1175.8	1244.2	1014.5	599.8
82.5°	41.3	42.7	64.6	103.0	172.4	146.2	108.3	391.4	334.1	246.2	121.4
85°	9.7	12.1	34.0	70.9	86.4	58.3	51.5	102.5	91.8	69.4	35.5
87.5°	0.0	0.0	10.7	17.0	23.3	9.7	17.5	19.4	24.8	19.4	7.3
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°	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5
2.5°	408.9	403.1	367.6	358.4	357.4	347.2	349.7	340.0	340.4	362.3	362.3
5°	521.1	487.1	453.1	423.0	402.6	373.5	362.8	358.4	354.5	363.3	368.6
7.5°	611.9	561.9	500.7	435.1	374.4	332.7	326.8	316.2	312.3	321.0	327.8
10°	652.2	590.1	506.1	410.4	353.6	319.6	291.4	276.3	273.4	272.9	275.4
12.5°	737.7	660.5	511.9	401.2	339.5	302.1	270.0	244.8	221.5	223.9	221.5
15°	806.2	714.9	511.9	378.8	305.5	268.1	211.7	199.1	195.7	201.1	196.7
17.5°	909.6	768.8	486.1	339.0	276.3	208.3	187.0	186.0	192.8	200.6	195.7
20°	971.8	776.1	442.9	293.3	226.8	180.7	172.9	165.1	174.8	181.1	178.7
22.5°	1036.4	776.6	399.7	269.1	182.6	164.6	152.0	145.7	147.2	153.0	154.0
25°	1064.1	757.6	359.4	237.0	165.6	147.2	134.0	127.2	124.8	127.7	126.8
27.5°	1139.3	721.2	315.7	202.0	157.4	130.6	118.5	110.2	103.0	107.8	108.8
30°	1150.0	709.5	291.9	179.7	146.7	115.6	104.9	96.2	90.8	97.6	97.6
32.5°	1184.0	645.4	279.7	170.5	135.5	106.8	92.3	86.0	85.0	89.4	89.8
35°	1236.5	617.3	261.8	163.2	125.3	96.6	83.0	80.1	79.2	82.6	82.6
37.5°	1414.2	582.3	241.9	156.9	116.6	91.3	80.6	75.8	76.2	79.2	81.1
40°	1532.2	586.7	212.2	149.1	106.4	86.4	75.8	72.4	71.9	73.3	74.8
42.5°	1751.3	590.1	199.1	140.8	98.6	80.6	70.9	68.5	66.5	68.0	69.4
45°	1996.0	608.0	192.3	134.0	94.2	77.2	66.5	65.1	60.7	61.7	63.6
47.5°	2232.1	673.6	184.1	124.3	90.3	75.3	62.2	58.8	55.9	55.4	57.3
50°	2500.1	737.2	174.8	113.6	86.4	72.4	57.8	52.5	50.5	50.5	52.0
52.5°	2740.1	797.9	166.1	106.4	83.5	67.0	53.9	48.6	47.1	47.1	49.1
55°	2992.6	861.6	158.3	99.6	79.6	61.7	50.5	45.7	45.2	44.2	45.7
57.5°	3438.4	1000.4	148.6	93.7	74.3	57.3	47.6	42.7	41.8	40.3	41.8
60°	4087.8	1213.6	136.0	87.9	68.0	54.4	45.2	39.3	37.9	35.5	35.9
62.5°	4722.5	1386.1	121.4	80.6	62.2	51.5	41.3	35.5	33.0	30.1	30.6
65°	5266.4	1454.0	105.9	71.9	56.3	44.7	35.9	31.1	27.7	23.8	23.3
67.5°	5330.5	1284.1	90.8	63.6	50.5	37.9	30.6	27.7	22.3	18.9	18.0
70°	4797.3	956.7	75.8	56.3	43.7	32.1	26.2	24.3	20.9	18.0	16.5
72.5°	3820.2	706.1	63.6	50.0	38.4	27.2	22.3	22.8	20.9	17.5	15.5
75°	2526.4	404.1	52.0	41.8	32.1	21.9	20.4	20.4	19.9	16.5	14.6
77.5°	1215.6	174.3	39.8	33.0	25.7	16.5	18.5	18.5	18.9	15.1	12.1
80°	344.8	52.5	24.8	22.3	18.9	11.2	14.6	14.1	12.6	8.7	5.3
82.5°	61.7	20.4	11.2	11.7	10.7	4.4	8.3	7.8	6.3	3.4	0.5
85°	17.0	7.8	6.3	6.8	5.3	1.5	3.4	4.4	3.4	1.9	0.0
87.5°	4.4	3.4	4.4	4.9	3.9	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)