

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: P597043

Luminaire Tested: **MSA-SA3B-835-U-T4FT-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597043
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-13)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-835-U-T4FT-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9075 lumens
Efficiency: N/A
Efficacy: 72.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

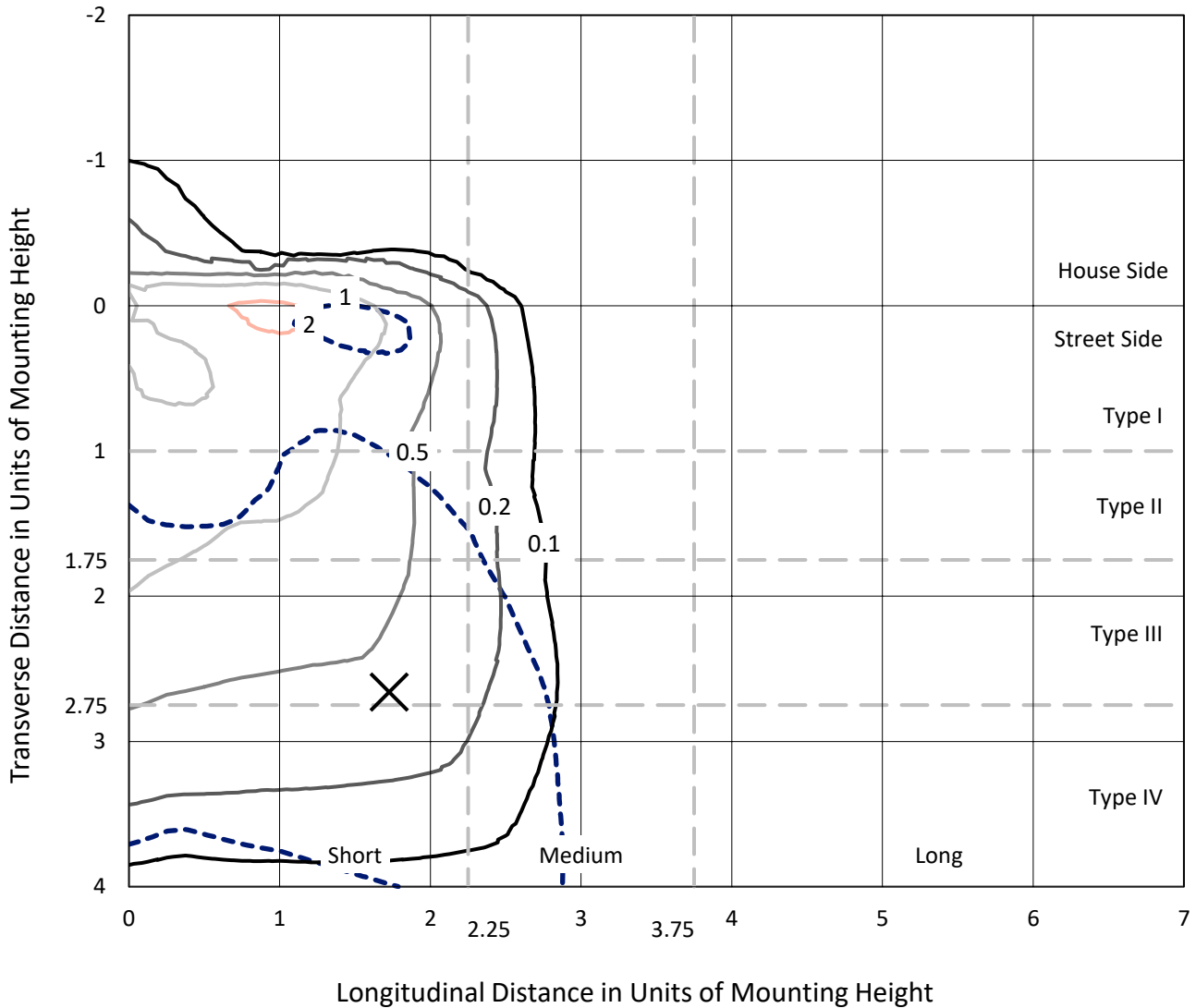
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

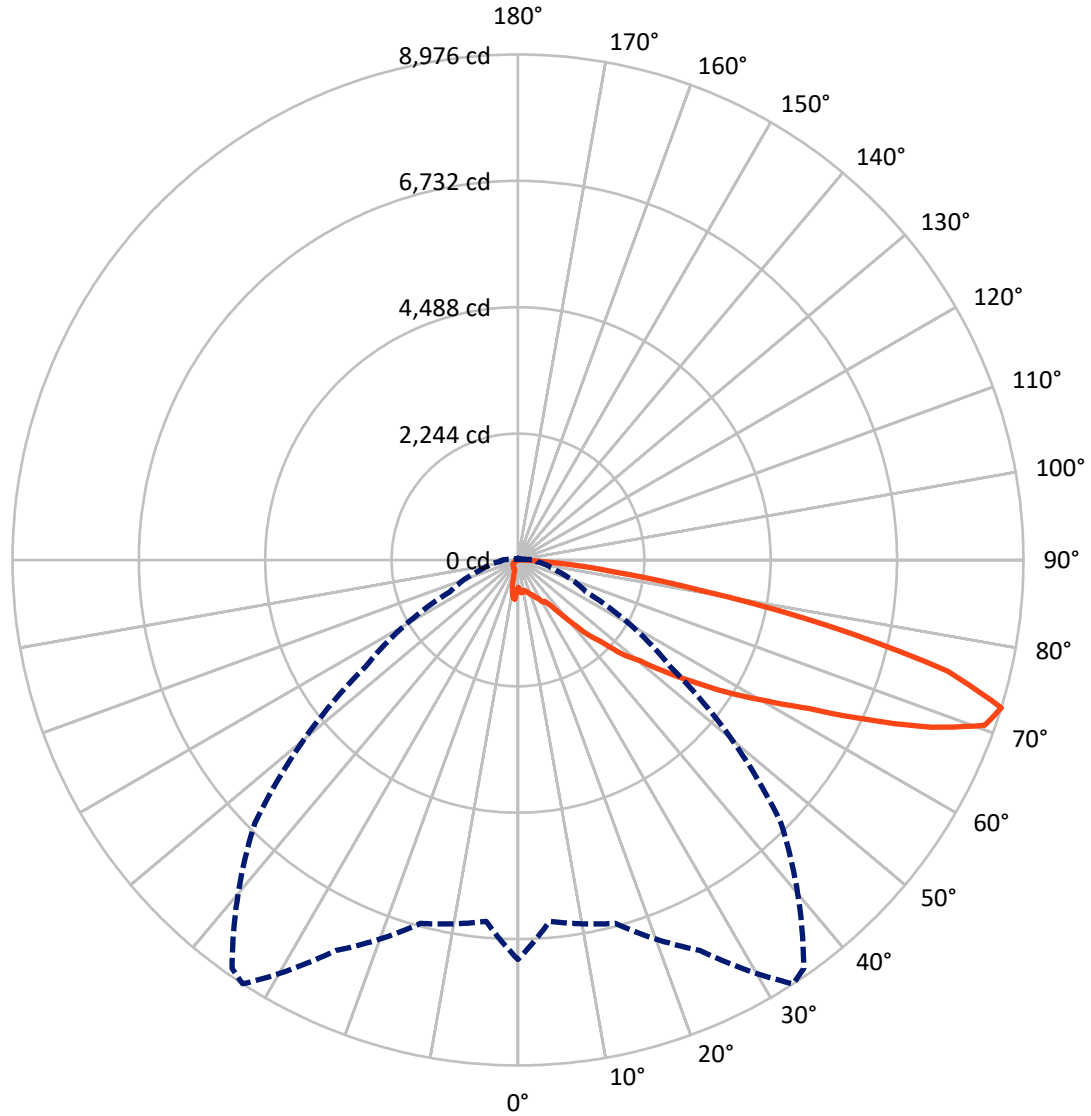
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 33-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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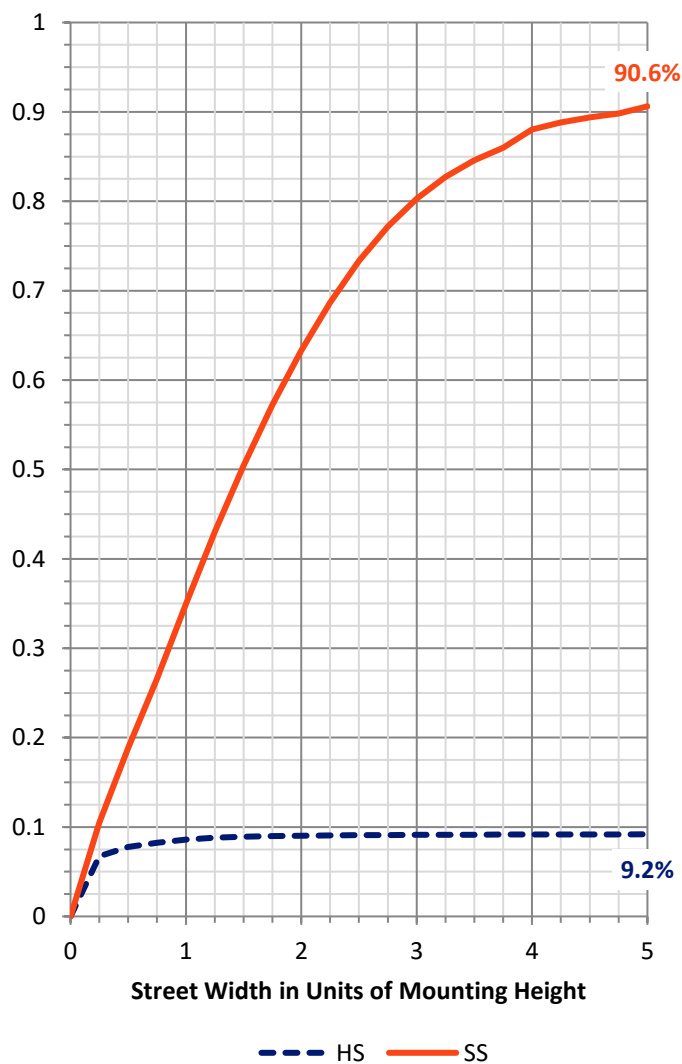
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	839.1	0.0	839.1
	% Fixture	9.2	0.0	9.2
Street Side	Lumens	8235.9	0.0	8235.9
	% Fixture	90.8	0.0	90.8
Total	Lumens	9075.0	0.0	9075.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	0.7
10°-20°	186.2	2.1
20°-30°	315.7	3.5
30°-40°	577.8	6.4
40°-50°	1219.5	13.4
50°-60°	2040.3	22.5
60°-70°	2731.0	30.1
70°-80°	1783.9	19.7
80°-90°	158.2	1.7
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°	9075.0	100.0
0°-180°	9075.0	100.0

Coefficient of Utilization



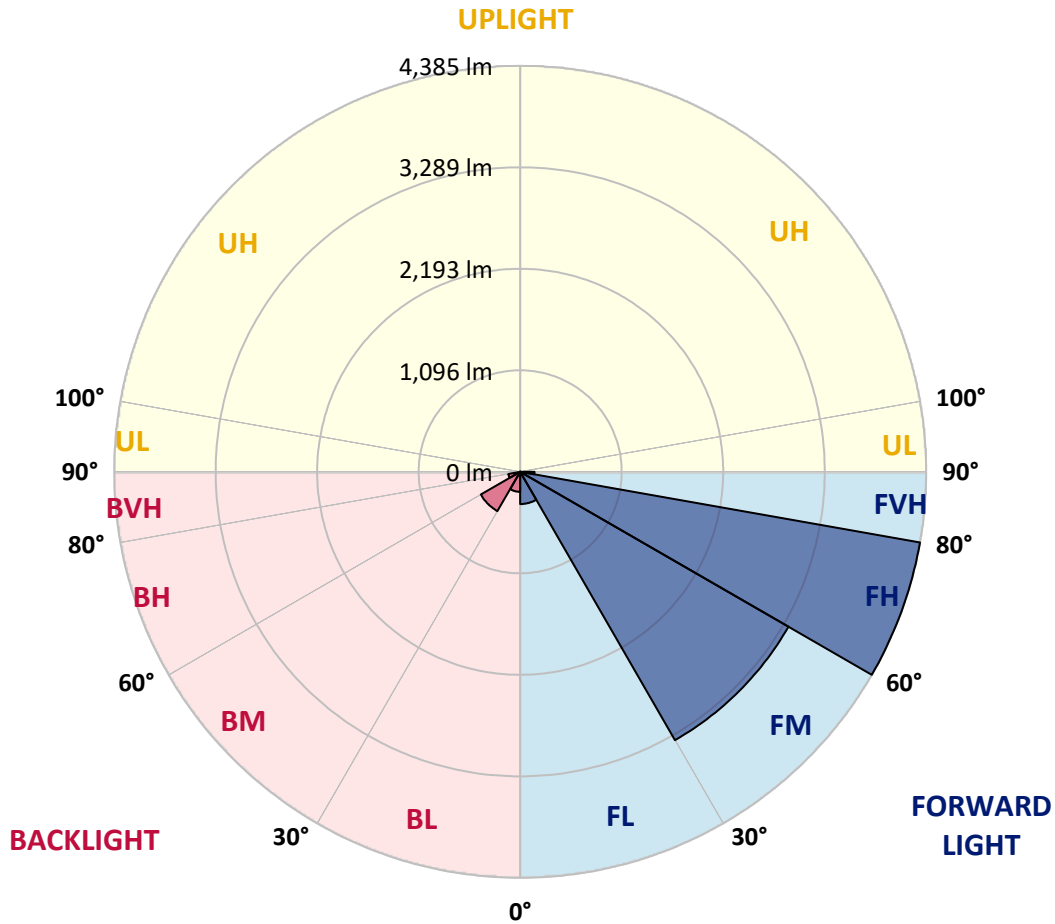
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	348.4	3.8			
FM (30°-60°)	3347.0	36.9			
FH (60°-80°)	4385.4	48.3			G2/5000
FVH (80°-90°)	155.1	1.7			G2/225
BL (0°-30°)	216.0	2.4	B1/500		
BM (30°-60°)	490.6	5.4	B1/1000		
BH (60°-80°)	129.5	1.4	B1/500		G1/500
BVH (80°-90°)	3.1	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7
2.5°	575.4	553.2	521.0	523.0	528.5	533.1	545.2	540.1	530.5	530.0	575.4
5°	609.7	585.0	582.9	586.0	584.5	592.5	582.4	615.2	642.9	676.2	729.6
7.5°	593.0	581.4	566.8	581.9	581.4	577.4	584.0	650.5	717.5	759.8	848.0
10°	545.2	532.1	543.1	548.2	544.7	562.3	606.1	660.5	740.7	829.3	872.2
12.5°	531.6	539.6	543.6	543.6	577.4	586.5	653.5	704.9	800.1	870.1	994.6
15°	584.5	600.1	572.4	566.3	576.9	581.9	656.5	718.5	840.4	968.4	1072.7
17.5°	668.6	667.6	624.8	601.1	617.7	629.8	671.1	743.7	815.2	1045.5	1196.6
20°	726.5	727.6	650.5	601.1	656.0	663.1	708.9	766.9	823.3	1084.3	1277.8
22.5°	801.1	774.4	689.3	641.4	678.7	685.2	735.6	781.5	864.6	1079.7	1381.5
25°	862.1	844.9	737.6	704.4	737.6	728.6	774.4	843.4	908.9	1151.8	1442.5
27.5°	956.8	927.6	771.9	777.9	775.9	782.5	793.1	898.9	987.0	1155.3	1583.6
30°	1045.0	1027.8	848.5	848.5	868.1	855.5	863.1	991.1	1062.6	1236.9	1742.3
32.5°	1136.2	1137.2	938.7	890.8	875.2	927.1	978.0	1035.9	1153.8	1377.0	1985.2
35°	1377.5	1357.4	1111.5	992.1	979.5	976.5	1058.1	1214.8	1315.5	1559.4	2312.1
37.5°	1863.7	1793.7	1483.3	1221.8	1174.5	1158.3	1251.0	1411.8	1512.0	1827.4	2852.8
40°	2362.5	2234.1	1889.4	1594.7	1441.0	1371.5	1479.3	1615.8	1794.2	2123.7	3353.1
42.5°	2800.4	2641.7	2195.3	1996.7	1796.7	1766.5	1665.2	1887.4	2197.3	2555.0	3843.3
45°	3227.1	2914.7	2467.3	2310.1	2067.3	2084.4	2050.1	2242.6	2616.0	3027.6	4278.2
47.5°	3520.9	3240.2	2800.9	2596.8	2499.6	2399.3	2671.4	2871.4	2988.8	3327.9	4654.0
50°	3837.3	3553.1	3087.6	2945.0	2817.0	2918.3	3271.5	3298.2	3288.6	3608.0	4910.0
52.5°	4245.9	3910.9	3416.6	3255.3	3327.9	3428.7	3836.3	3841.3	3555.1	3843.8	5094.4
55°	4623.8	4252.5	3854.9	3702.8	3854.4	3939.6	4391.5	4225.8	3710.3	4004.1	5185.1
57.5°	5156.4	4726.6	4437.9	4169.8	4477.2	4395.6	4879.7	4633.4	3884.7	4110.4	5151.8
60°	5829.5	5323.6	5034.4	4750.8	5080.3	5135.7	5356.4	4836.9	3952.2	4145.1	4951.8
62.5°	6514.2	6005.3	5624.9	5432.5	5806.3	5988.7	5797.8	4938.2	3871.0	4077.1	4498.8
65°	7363.7	6712.2	6267.8	6155.0	6847.8	7115.8	6319.7	4962.9	3714.4	3702.8	3617.1
67.5°	7945.7	7311.3	6903.7	7092.6	7929.5	7951.2	6788.3	4970.4	3186.8	2899.1	2374.1
70°	8083.7	7404.5	7222.1	7778.4	8792.6	8520.0	6939.5	4587.5	2363.5	1720.6	1085.3
72.5°	7096.2	6442.2	6679.5	7648.9	8976.0	8851.1	6605.4	3309.8	1330.7	688.3	333.0
75°	4352.7	3957.2	5010.7	6485.0	7879.1	7798.5	5153.3	1710.1	536.1	275.1	124.4
77.5°	1892.9	1757.9	2615.0	4302.8	5661.7	5589.7	3019.5	629.8	277.1	193.5	63.0
80°	626.3	607.6	990.6	2037.6	3316.3	3252.8	1272.2	262.0	197.5	155.2	35.3
82.5°	148.6	147.6	345.6	937.7	1689.4	1636.5	390.5	144.6	143.1	122.4	18.6
85°	37.3	38.3	95.7	383.4	686.2	605.1	101.8	72.0	100.8	83.1	9.6
87.5°	0.0	0.0	24.7	54.9	103.8	65.0	11.1	19.1	28.2	29.7	5.0
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°	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7	482.7
2.5°	585.5	579.9	534.6	545.7	562.8	561.3	572.4	563.8	556.2	593.5	590.0
5°	744.7	714.5	700.3	720.0	709.4	684.7	705.4	701.9	695.8	708.4	718.0
7.5°	864.1	836.4	823.8	782.5	722.5	675.2	682.7	665.1	648.4	668.1	688.3
10°	903.4	888.3	886.8	806.2	749.7	681.2	600.1	530.0	511.4	486.7	497.8
12.5°	1010.2	1019.3	962.3	868.1	759.3	627.8	483.7	384.4	344.1	317.9	319.4
15°	1097.9	1129.6	1047.0	877.7	668.1	478.7	322.0	232.8	207.6	201.0	199.0
17.5°	1228.4	1259.1	1073.2	809.7	538.6	324.5	207.1	181.4	182.9	187.4	186.4
20°	1325.1	1320.6	1050.5	689.3	397.0	212.6	173.3	169.8	177.9	191.0	187.9
22.5°	1418.3	1387.1	1036.4	577.9	257.0	170.8	167.3	166.8	174.3	186.9	190.5
25°	1484.8	1489.9	1012.7	452.5	186.9	158.7	161.7	166.3	173.8	187.4	185.4
27.5°	1675.3	1534.2	914.0	328.5	157.7	152.2	159.7	168.8	171.3	188.4	188.9
30°	1798.7	1701.5	849.5	221.2	145.6	140.6	155.7	167.8	170.8	193.0	194.5
32.5°	2013.9	1773.5	774.9	164.3	135.5	137.0	146.6	162.7	176.8	200.5	201.5
35°	2281.4	2004.8	639.9	147.6	132.0	129.5	134.0	152.7	175.8	201.5	206.6
37.5°	2790.8	2143.4	507.4	143.1	132.0	127.5	132.0	143.1	172.8	211.6	222.2
40°	3131.9	2425.5	365.8	142.1	129.5	125.5	127.0	138.1	164.3	205.6	221.2
42.5°	3552.1	2544.4	269.6	139.6	127.0	120.9	121.9	136.0	155.7	193.0	204.6
45°	3896.2	2631.1	212.1	138.6	120.9	118.9	120.9	134.5	147.6	165.8	176.3
47.5°	4157.7	2731.9	170.3	132.0	119.4	118.9	116.4	126.0	134.0	138.6	145.6
50°	4349.2	2709.2	141.1	121.9	114.4	117.4	112.9	114.4	116.4	113.9	121.9
52.5°	4466.6	2627.6	117.4	109.8	108.3	110.8	105.3	100.8	97.2	95.2	100.3
55°	4509.4	2463.8	99.8	94.2	97.7	98.8	94.2	86.2	80.1	77.1	81.1
57.5°	4428.3	2214.4	86.7	78.1	86.2	86.2	80.1	71.5	64.5	59.5	63.5
60°	4222.7	1938.8	77.1	65.0	73.6	74.1	67.0	57.9	52.4	47.4	49.9
62.5°	3839.8	1638.5	67.5	56.4	63.5	64.0	55.4	46.9	42.8	37.3	39.3
65°	3074.0	1253.1	57.4	49.9	54.9	53.4	45.8	39.8	34.8	29.7	30.7
67.5°	1995.2	773.4	49.9	45.3	46.4	44.8	38.8	34.8	29.2	25.2	25.7
70°	893.3	333.0	43.8	40.8	40.3	37.8	32.7	32.2	28.7	25.2	25.2
72.5°	275.6	125.5	37.8	36.8	34.8	31.7	28.7	30.7	28.2	24.2	23.7
75°	108.8	57.4	31.2	31.2	30.2	26.2	25.7	27.7	26.2	22.2	21.2
77.5°	56.9	36.3	25.7	26.7	26.2	20.2	23.2	25.2	24.2	18.6	15.6
80°	33.8	22.2	19.1	21.7	21.2	14.1	17.6	16.1	11.6	5.5	1.5
82.5°	18.6	10.1	8.6	12.6	12.6	5.0	9.1	8.1	4.5	0.0	0.0
85°	9.1	7.1	6.5	7.1	5.0	1.5	4.5	4.5	2.5	0.0	0.0
87.5°	4.5	4.0	3.0	2.5	2.0	0.0	1.5	2.0	0.0	0.0	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)