

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: P596979

Luminaire Tested: **MSA-SA2C-835-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596979
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-835-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7667 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

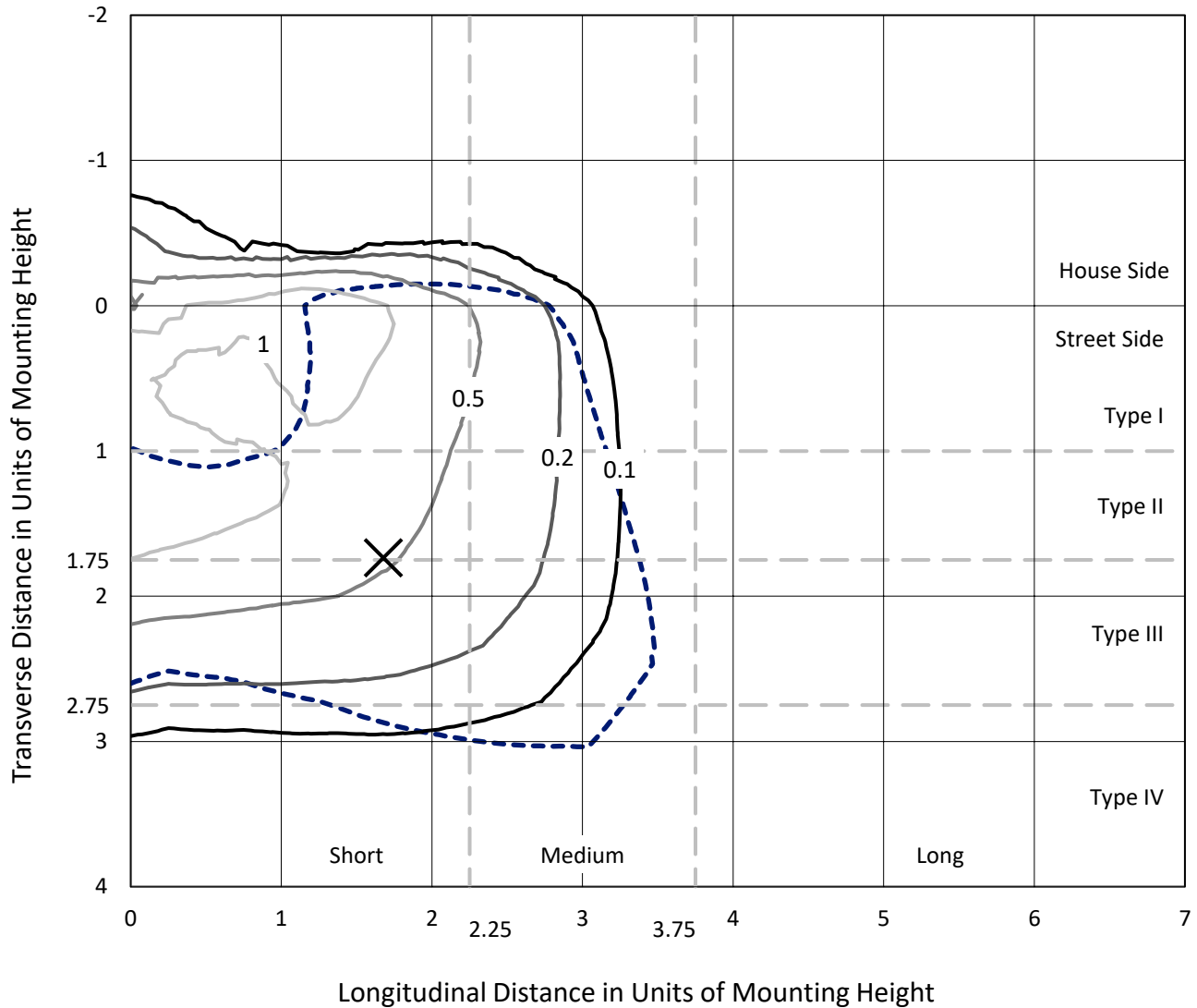
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

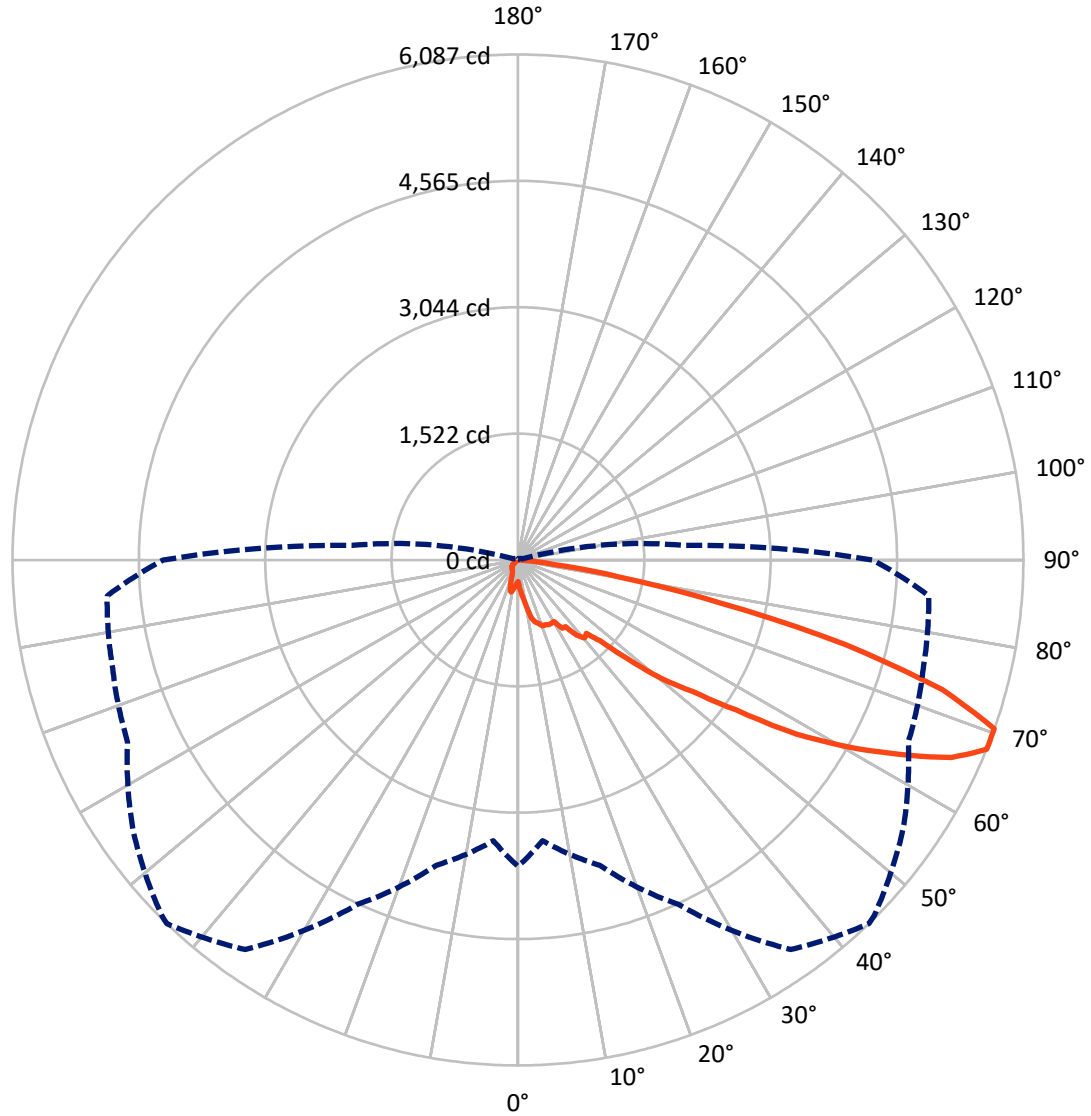
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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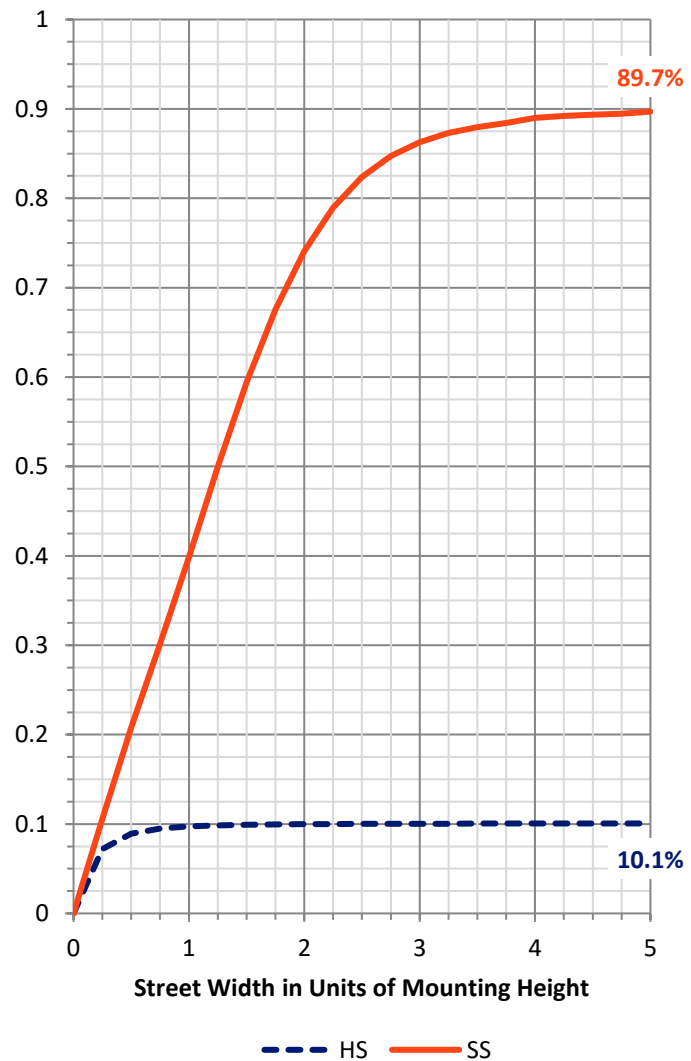
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	778.8	0.0	778.8
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	6888.2	0.0	6888.2
	% Fixture	89.8	0.0	89.8
Total	Lumens	7667.0	0.0	7667.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	0.5
10°-20°	160.3	2.1
20°-30°	284.0	3.7
30°-40°	461.5	6.0
40°-50°	923.6	12.0
50°-60°	1894.8	24.7
60°-70°	2602.8	33.9
70°-80°	1223.4	16.0
80°-90°	78.4	1.0
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°	7667.0	100.0
0°-180°	7667.0	100.0

Coefficient of Utilization



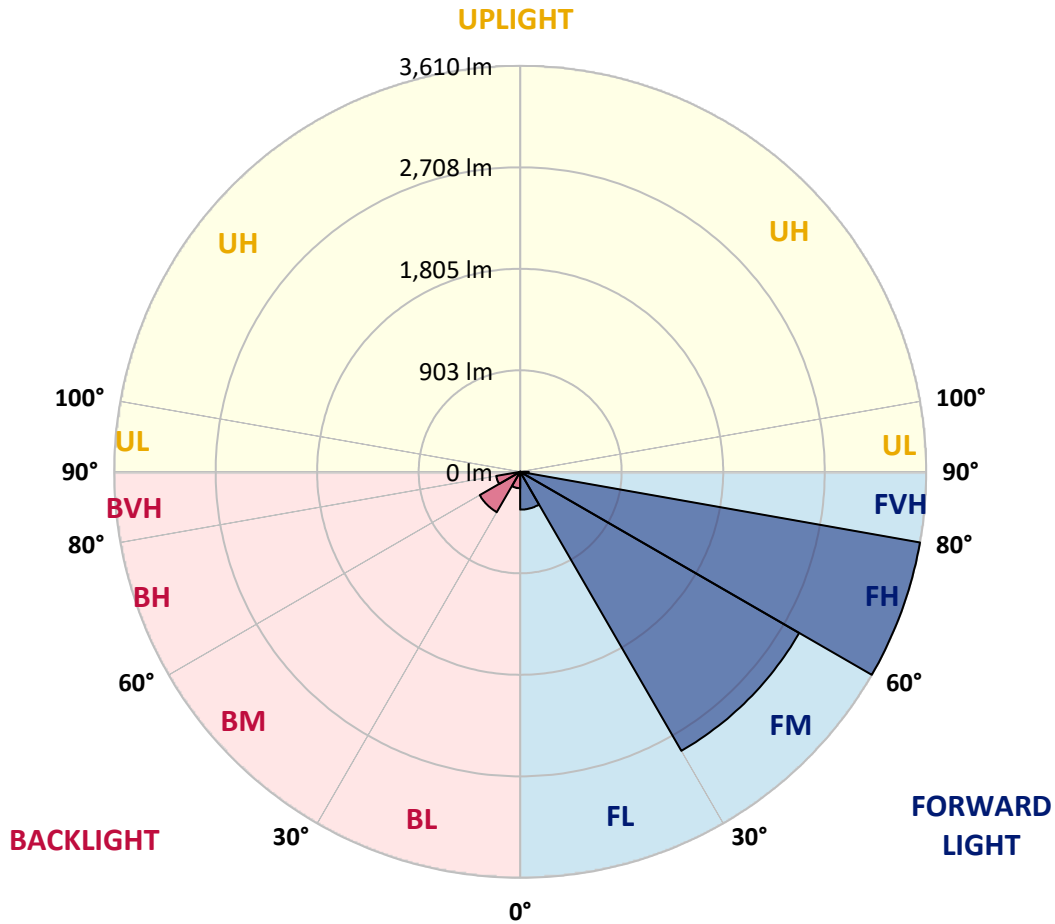
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	336.3	4.4			
FM (30°-60°)	2865.0	37.4			
FH (60°-80°)	3610.1	47.1			G2/5000
FVH (80°-90°)	76.8	1.0			G1/100
BL (0°-30°)	146.2	1.9	B1/500		
BM (30°-60°)	414.9	5.4	B1/1000		
BH (60°-80°)	216.1	2.8	B1/500		G1/500
BVH (80°-90°)	1.6	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°	35°	44°	45°	55°	65°	75°	85°
0°	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3
2.5°	328.5	317.9	302.7	306.1	307.8	312.4	312.9	306.9	290.0	285.4	306.1
5°	460.4	434.6	430.0	420.2	400.8	390.2	387.7	398.3	384.7	380.5	386.0
7.5°	588.1	566.1	542.0	528.9	488.3	463.4	462.1	466.3	468.9	454.1	461.7
10°	673.1	649.0	643.9	613.0	577.9	572.0	569.5	553.4	540.3	529.3	492.5
12.5°	750.0	749.6	758.9	714.5	709.0	714.9	712.8	655.3	642.2	596.1	585.5
15°	852.3	877.7	837.5	800.3	753.0	773.3	767.8	731.0	722.1	690.8	645.6
17.5°	958.4	965.2	898.0	840.9	828.6	802.0	807.5	794.4	749.6	774.5	729.7
20°	961.0	975.8	903.9	809.6	847.2	846.0	846.4	833.7	774.5	832.9	791.9
22.5°	996.5	960.1	893.3	833.3	840.1	846.4	853.2	837.5	824.8	839.2	846.8
25°	982.1	967.7	903.5	863.7	857.4	862.5	864.2	884.0	876.0	910.7	891.6
27.5°	1019.3	998.6	883.6	890.8	868.4	862.5	852.3	918.7	942.4	914.9	965.6
30°	1083.2	1080.2	917.8	928.4	911.1	859.1	886.1	972.8	1002.4	985.5	1047.2
32.5°	1182.9	1193.1	1018.0	949.6	958.4	981.7	971.5	972.8	1047.6	1085.3	1134.3
35°	1324.6	1319.1	1115.7	1029.9	983.4	987.2	1001.6	1070.5	1167.3	1164.7	1216.8
37.5°	1602.7	1542.7	1288.6	1111.9	1125.9	1144.9	1134.3	1226.9	1236.2	1239.6	1363.9
40°	2012.8	1932.9	1561.3	1284.8	1150.4	1234.5	1229.4	1252.3	1314.4	1337.7	1519.0
42.5°	2553.1	2445.8	2041.2	1602.7	1268.8	1210.8	1242.1	1285.2	1494.1	1560.5	1759.2
45°	3150.1	2932.8	2519.7	2056.0	1565.5	1385.9	1409.5	1489.9	1779.5	1889.4	2108.8
47.5°	3536.9	3345.9	2993.7	2457.6	1875.0	1780.7	1782.8	1800.2	2114.7	2318.5	2612.8
50°	3873.1	3669.7	3342.9	2877.4	2422.5	2244.1	2203.5	2123.6	2541.7	2820.3	3146.7
52.5°	4347.4	4109.8	3692.1	3369.9	3046.9	2626.7	2612.3	2639.4	3045.3	3338.2	3694.2
55°	4775.3	4486.5	4087.8	3884.9	3758.9	3189.0	3201.3	3246.5	3691.7	3846.8	4181.3
57.5°	4964.2	4651.4	4446.3	4355.0	4287.8	3957.2	3915.8	3888.7	4201.6	4260.7	4691.5
60°	5088.1	4790.5	4697.5	4718.6	4922.4	4571.5	4533.9	4376.6	4623.5	4672.1	5149.0
62.5°	5009.9	4738.5	4758.3	4934.6	5387.0	5156.2	5047.5	4784.6	4968.5	5007.8	5477.5
65°	4517.4	4234.5	4489.9	4916.5	5741.3	5735.8	5685.5	5161.3	5159.6	5209.9	5502.9
67.5°	3690.0	3393.2	3806.3	4575.7	5726.5	6087.1	6063.5	5661.0	5187.0	5052.6	4965.9
70°	2565.4	2307.9	2776.4	3778.8	5216.2	6084.6	6046.5	5996.7	4969.7	4349.1	3850.2
72.5°	1333.0	1191.4	1627.7	2603.9	4158.0	5346.0	5471.6	5389.6	4243.4	3159.8	2267.3
75°	452.8	406.3	671.4	1382.1	2764.1	4082.3	4229.5	4146.2	2882.1	1695.3	896.7
77.5°	175.5	163.2	240.6	561.0	1386.7	2487.6	2647.4	2562.4	1545.7	621.1	211.0
80°	99.8	96.4	132.8	252.8	611.3	1237.5	1349.9	1224.4	557.2	209.3	55.0
82.5°	42.3	43.5	74.0	136.6	307.4	436.7	487.0	444.3	233.4	143.3	20.3
85°	9.3	11.4	35.1	76.1	128.9	124.7	130.6	145.0	143.3	105.3	8.9
87.5°	0.0	0.0	11.0	20.7	30.9	20.3	16.1	28.3	44.0	42.3	3.8
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°	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3	258.3
2.5°	309.9	305.7	279.0	277.3	279.0	274.4	274.0	264.2	265.1	287.1	288.8
5°	386.0	364.9	342.0	334.8	328.1	312.9	321.3	321.3	321.3	335.3	339.5
7.5°	454.9	426.6	394.5	367.4	341.2	322.2	335.3	344.6	350.1	368.2	376.7
10°	486.2	458.3	429.5	391.1	370.8	363.6	348.4	340.3	350.1	346.3	350.9
12.5°	553.0	527.6	478.2	438.4	423.2	398.7	353.9	322.6	301.9	298.5	297.6
15°	618.1	602.5	536.1	482.8	430.0	373.3	296.8	255.4	233.4	229.6	230.0
17.5°	700.5	678.1	580.5	503.9	414.3	312.4	229.1	193.6	191.9	201.2	202.1
20°	755.5	718.7	602.9	486.6	362.7	236.3	179.3	170.8	184.3	201.2	199.6
22.5°	807.9	768.2	632.5	471.4	281.1	179.3	164.9	165.7	177.1	195.3	200.0
25°	842.6	828.2	668.8	435.9	214.3	155.2	157.7	164.0	173.8	191.1	191.1
27.5°	947.0	879.8	664.6	367.0	164.9	144.6	150.5	158.5	163.6	184.3	186.4
30°	1010.4	988.5	686.6	296.8	144.6	131.1	142.5	149.7	153.0	176.7	177.6
32.5°	1088.2	1039.6	713.2	219.0	134.4	130.2	127.7	133.2	142.9	163.6	164.9
35°	1182.9	1168.6	675.2	172.1	131.1	121.8	116.7	119.6	126.0	139.9	142.9
37.5°	1376.1	1290.7	652.3	147.5	131.1	118.8	113.3	105.7	106.5	116.3	121.8
40°	1538.9	1512.7	588.5	143.3	125.1	114.6	101.0	91.7	85.4	88.4	90.5
42.5°	1837.8	1716.5	506.1	141.2	119.6	103.6	85.8	76.1	66.4	67.2	70.6
45°	2200.6	1938.9	432.5	139.1	115.8	92.6	72.3	60.9	50.7	51.2	54.5
47.5°	2685.1	2263.1	343.3	132.8	109.1	82.4	58.3	46.5	40.6	41.9	44.8
50°	3235.5	2547.7	271.4	123.0	101.0	72.7	47.4	37.6	35.5	36.8	40.2
52.5°	3727.2	2757.3	224.1	114.1	89.6	59.2	39.7	33.4	32.6	33.4	35.9
55°	4164.3	2879.1	187.3	104.0	76.9	47.8	35.9	30.9	30.4	30.0	31.7
57.5°	4574.4	2914.2	146.3	87.9	62.6	41.4	33.4	28.7	27.9	26.6	27.9
60°	4873.3	2854.2	107.4	70.6	51.2	37.6	31.3	25.8	24.5	22.4	23.3
62.5°	5017.5	2689.7	81.2	56.7	43.5	34.2	27.9	22.4	20.7	18.2	18.6
65°	4880.5	2418.7	63.8	47.8	37.2	28.7	23.7	19.0	16.9	14.4	14.4
67.5°	4273.8	2006.5	54.1	41.4	31.3	24.5	19.4	17.3	14.0	11.8	11.4
70°	3137.0	1443.4	46.5	36.4	27.1	21.1	16.5	15.6	13.5	11.4	10.6
72.5°	1770.6	816.8	39.7	32.1	22.8	17.8	14.0	14.4	13.1	10.6	9.7
75°	675.6	275.2	33.0	26.6	18.6	13.5	11.8	11.8	11.8	8.9	7.6
77.5°	167.4	70.2	26.2	21.6	14.8	8.9	9.7	10.1	10.1	7.6	5.5
80°	46.1	23.7	15.6	15.6	10.6	5.1	6.8	6.8	5.5	2.5	0.0
82.5°	16.9	8.9	5.5	6.8	4.7	1.7	2.5	1.7	1.3	0.0	0.0
85°	7.2	4.7	3.4	3.8	2.1	0.0	0.4	0.8	0.0	0.0	0.0
87.5°	3.0	2.1	1.7	1.7	0.8	0.0	0.0	0.0	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)