

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: P597041

Luminaire Tested: **MSA-SA3B-835-U-T3-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597041
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-11)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-835-U-T3-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8950 lumens
Efficiency: N/A
Efficacy: 71.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

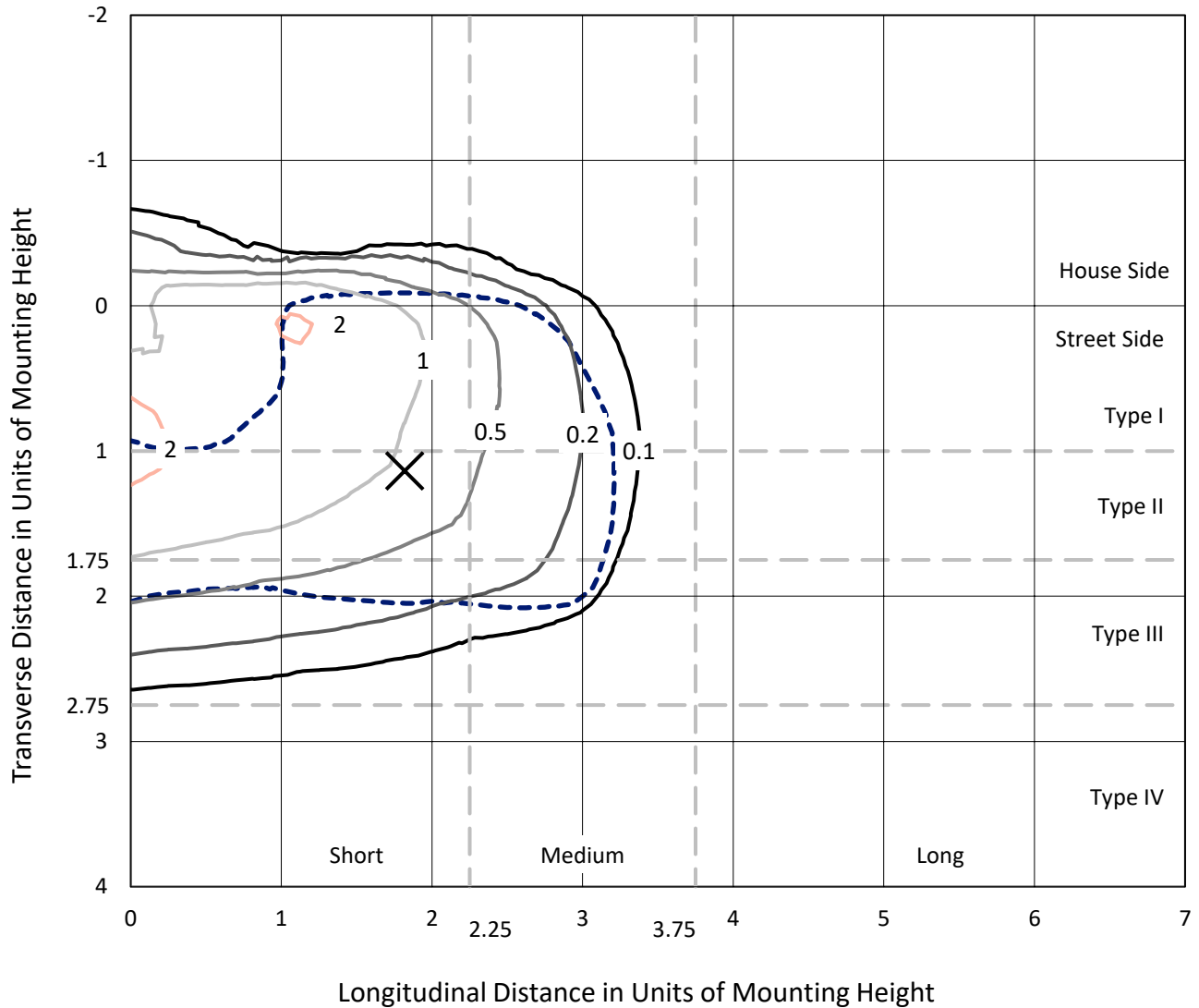
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

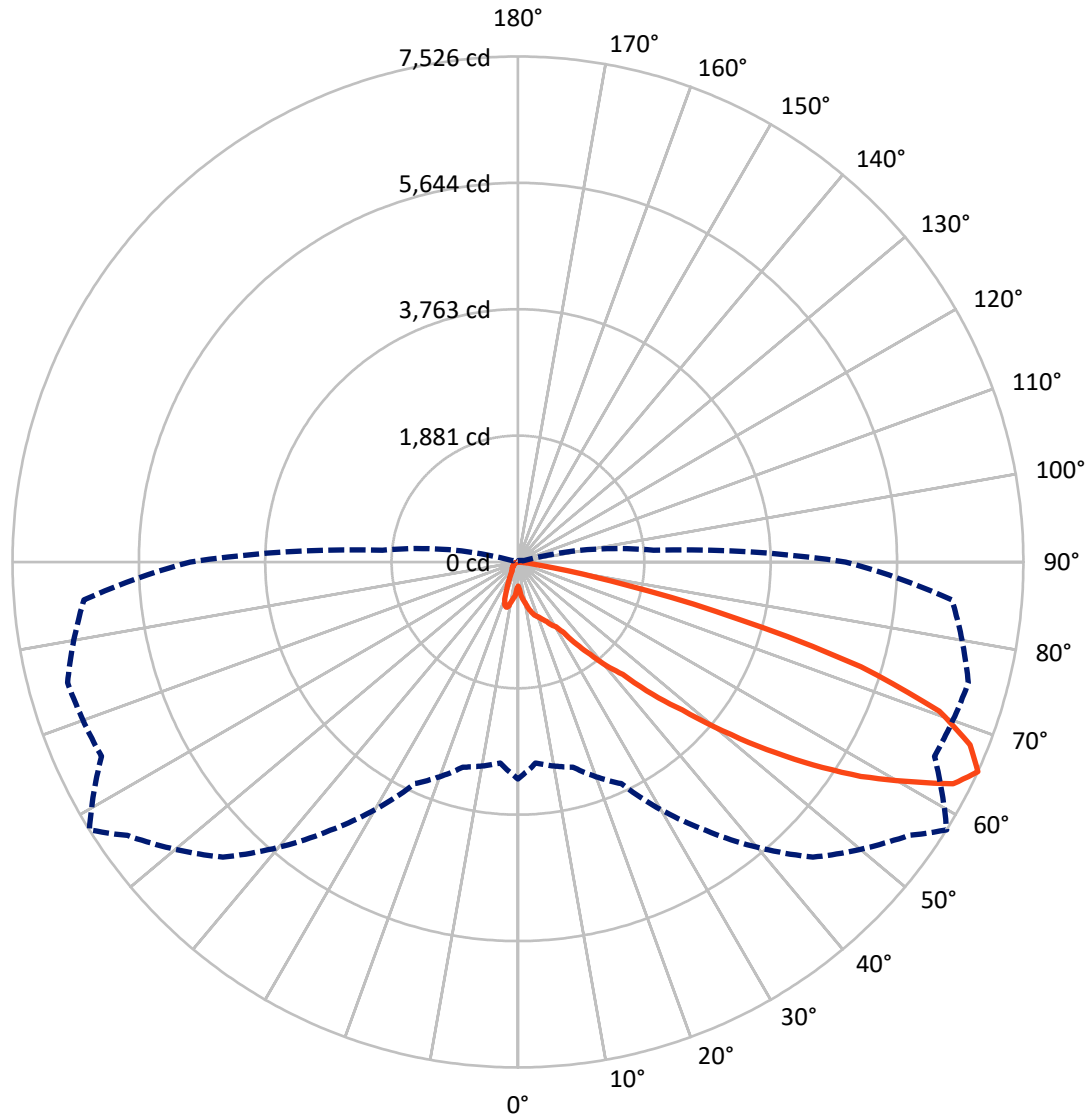
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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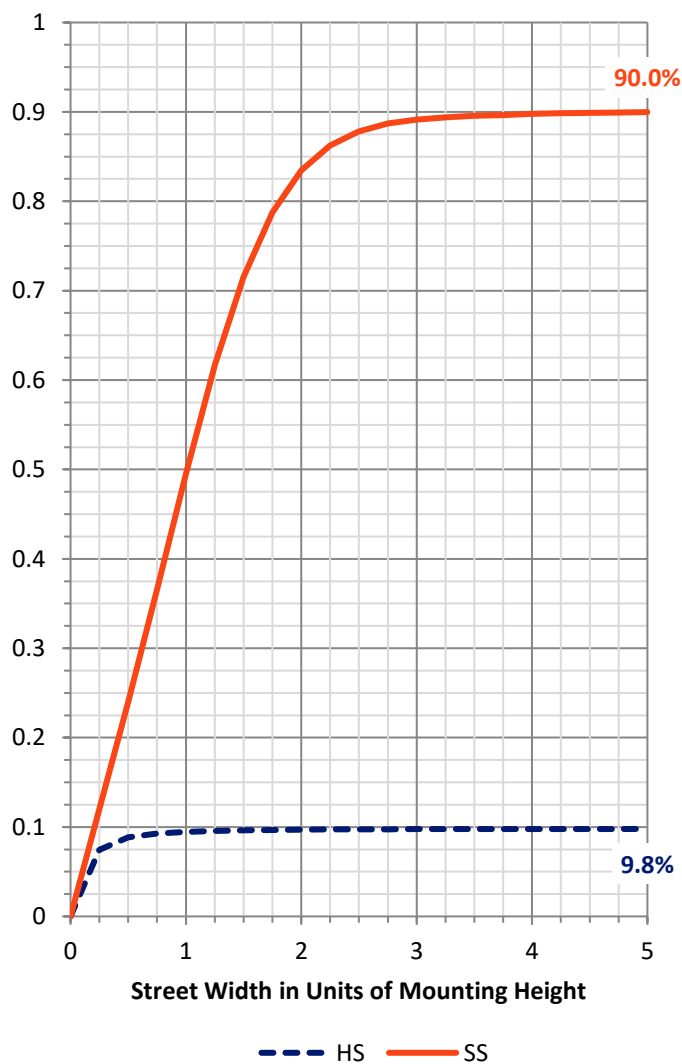
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	883.1	0.0	883.1
	% Fixture	9.9	0.0	9.9
Street Side	Lumens	8066.9	0.0	8066.9
	% Fixture	90.1	0.0	90.1
Total	Lumens	8950.0	0.0	8950.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.3	0.6
10°-20°	183.7	2.1
20°-30°	355.6	4.0
30°-40°	709.5	7.9
40°-50°	1450.5	16.2
50°-60°	2572.7	28.7
60°-70°	2712.3	30.3
70°-80°	879.4	9.8
80°-90°	35.9	0.4
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°	8950.0	100.0
0°-180°	8950.0	100.0

Coefficient of Utilization



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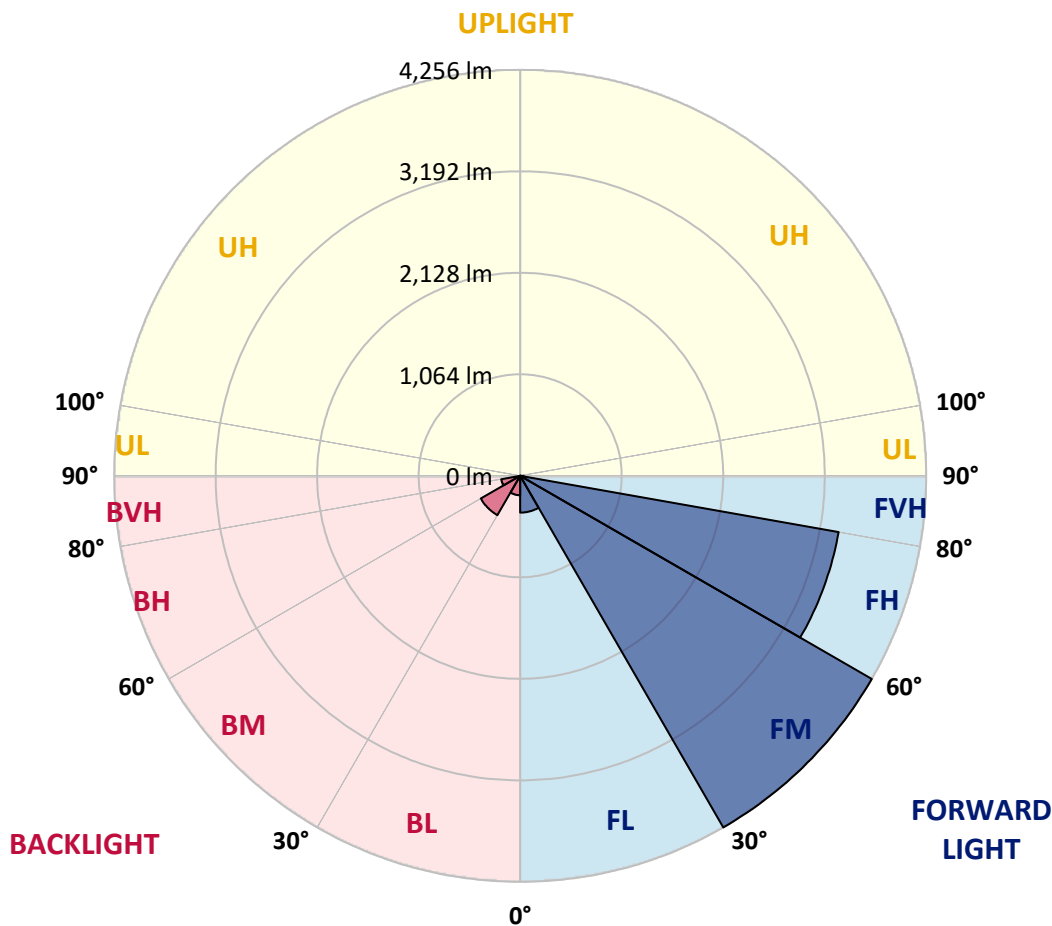
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	386.1	4.3			
FM (30°-60°)	4256.2	47.6			
FH (60°-80°)	3390.1	37.9			G2/5000
FVH (80°-90°)	34.4	0.4			G1/100
BL (0°-30°)	203.6	2.3	B1/500		
BM (30°-60°)	476.5	5.3	B1/1000		
BH (60°-80°)	201.6	2.3	B1/500		G1/500
BVH (80°-90°)	1.5	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	58°	65°	75°	85°
0°	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
2.5°	437.4	424.3	403.6	407.2	411.2	419.3	412.7	406.7	400.1	391.5	424.3
5°	528.1	506.4	504.4	499.9	496.4	495.9	503.9	501.4	504.9	521.0	537.7
7.5°	561.4	552.3	535.2	542.2	531.1	522.6	558.3	569.9	592.1	599.7	643.0
10°	557.8	544.7	551.8	555.3	562.9	594.1	616.8	629.4	648.5	689.9	681.3
12.5°	574.0	585.5	593.1	593.6	632.4	689.9	706.0	716.6	750.8	767.0	809.3
15°	627.9	647.0	634.9	640.0	652.6	722.6	760.4	783.6	832.0	884.4	895.0
17.5°	705.0	717.1	691.9	673.7	708.5	746.8	815.3	839.5	870.3	992.7	1015.4
20°	802.2	822.9	768.5	696.4	742.3	787.6	862.2	873.8	906.5	1066.3	1102.1
22.5°	1029.5	998.8	915.6	803.2	789.6	809.8	880.8	926.2	981.6	1107.6	1190.7
25°	1253.7	1243.2	1120.7	995.2	904.5	859.2	953.4	978.6	1069.3	1205.9	1251.7
27.5°	1503.2	1524.3	1319.7	1243.7	1065.8	917.6	998.8	1061.7	1169.1	1241.6	1352.0
30°	1832.2	1798.5	1558.6	1482.5	1279.4	1078.4	1116.2	1120.2	1277.9	1359.6	1464.4
32.5°	2090.2	2111.9	1810.6	1693.7	1531.4	1325.8	1204.4	1256.8	1369.6	1551.5	1650.8
35°	2369.4	2367.4	2073.6	1916.4	1704.2	1527.9	1465.9	1504.2	1645.8	1851.9	1878.1
37.5°	2786.6	2750.9	2404.2	2173.9	1993.5	1842.8	1795.4	1744.5	1890.7	2087.2	2185.5
40°	3180.2	3056.7	2736.2	2463.1	2232.3	2170.9	1999.5	2030.8	2074.1	2333.6	2605.2
42.5°	3577.8	3501.2	3072.9	2844.1	2560.4	2414.2	2302.4	2287.8	2493.9	2801.3	3081.9
45°	4102.4	3868.0	3525.4	3324.3	2995.8	2849.1	2758.9	2812.8	2998.3	3447.3	3634.2
47.5°	4542.8	4327.1	4032.8	3727.4	3382.8	3547.5	3378.2	3293.1	3547.5	4011.7	4260.1
50°	4921.2	4680.9	4383.0	4156.8	4100.8	4259.1	3916.4	3947.7	4112.9	4658.2	4798.3
52.5°	5196.4	4943.4	4683.4	4574.0	4803.3	4882.9	4711.1	4642.0	4792.2	5209.5	5277.5
55°	5403.5	5144.5	4941.4	5092.0	5535.5	5509.3	5569.8	5333.9	5477.5	5784.4	5752.2
57.5°	5416.1	5109.2	4990.3	5232.6	5841.4	6247.0	6423.9	6022.8	6104.4	6233.9	6161.3
60°	5020.0	4714.6	4705.0	5049.2	5930.1	6438.0	6825.0	6629.5	6520.1	6616.4	6478.8
62.5°	4230.9	4017.2	4117.0	4497.4	5600.0	6332.7	7038.7	7274.0	6848.2	6869.9	6674.3
65°	3230.6	3006.3	3162.6	3641.8	4878.4	6214.8	7099.1	7525.9	6842.1	6941.9	6486.9
67.5°	2139.6	2009.6	2186.5	2714.6	3878.6	5486.1	7067.9	7261.4	6624.9	6660.2	5791.0
70°	1104.6	1072.8	1215.9	1632.7	2607.8	4214.7	6761.0	6655.2	6184.0	5737.6	4466.7
72.5°	353.7	355.3	492.8	745.8	1405.9	2565.9	5196.9	5342.0	4948.4	4197.1	2727.2
75°	156.7	154.2	206.1	312.9	586.1	1150.4	3228.6	3385.3	3080.9	2308.9	1146.4
77.5°	112.9	109.3	132.0	182.9	290.3	390.0	1513.8	1633.7	1396.8	800.2	262.5
80°	79.6	79.1	95.7	128.5	181.4	173.3	478.2	536.2	429.3	194.0	77.1
82.5°	44.8	46.4	66.5	90.7	110.4	86.7	134.5	148.2	144.6	103.3	33.8
85°	21.7	24.2	43.3	65.5	58.0	33.8	47.9	51.9	60.5	60.0	17.1
87.5°	0.0	0.0	17.6	29.7	15.6	5.0	14.6	16.6	16.1	19.1	4.0
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°	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
2.5°	430.8	427.8	389.5	392.5	401.1	397.6	400.6	393.6	385.5	418.2	417.7
5°	544.7	522.1	510.0	498.9	500.9	478.2	491.3	497.4	496.4	515.0	520.0
7.5°	644.5	614.3	590.1	566.9	531.6	499.9	519.5	532.1	540.7	572.9	585.5
10°	691.4	666.7	657.1	611.8	586.6	566.9	543.2	526.1	533.1	524.6	533.1
12.5°	794.2	777.5	740.8	694.9	664.7	624.3	536.2	462.6	417.2	417.7	414.7
15°	887.9	886.9	832.0	755.9	668.2	553.3	415.7	323.0	280.2	268.1	264.1
17.5°	1010.3	995.2	895.0	782.6	624.9	428.3	283.2	221.2	217.2	224.2	221.2
20°	1088.5	1066.3	926.2	743.8	515.0	289.8	213.7	196.0	208.1	218.2	215.7
22.5°	1166.6	1133.3	949.9	696.4	366.3	212.1	193.0	190.0	197.5	210.1	212.1
25°	1209.4	1202.8	996.2	607.7	250.9	185.9	185.9	184.9	187.5	196.5	195.0
27.5°	1333.9	1245.2	961.5	474.2	194.0	170.8	173.3	172.3	163.3	172.3	172.8
30°	1411.5	1370.6	964.0	337.6	170.8	151.2	157.7	149.7	136.1	143.6	142.1
32.5°	1567.7	1465.9	956.4	227.8	155.7	144.1	134.0	122.5	112.4	115.4	112.9
35°	1749.6	1672.0	854.1	182.9	145.1	127.5	111.4	99.8	89.2	91.7	91.2
37.5°	2111.4	1865.0	769.5	164.8	138.1	116.9	98.3	82.1	76.6	78.1	79.6
40°	2446.5	2187.0	611.8	156.7	126.0	104.3	81.1	69.5	66.0	67.0	68.5
42.5°	2947.4	2443.0	462.1	148.7	113.9	88.2	67.5	60.0	56.4	58.5	59.5
45°	3432.2	2660.7	345.2	141.6	103.8	76.1	56.9	51.9	47.9	49.4	51.4
47.5°	3916.4	2902.5	257.5	130.5	92.7	65.5	48.9	45.4	42.8	43.3	45.9
50°	4349.8	3015.4	202.6	116.9	83.6	56.9	44.3	40.8	39.8	40.3	42.3
52.5°	4668.3	3016.4	170.8	104.8	75.1	50.4	41.8	37.8	37.3	38.3	40.3
55°	4956.0	2935.8	148.2	94.2	67.5	45.9	39.8	36.3	36.3	37.3	39.3
57.5°	5147.0	2787.6	128.5	83.1	61.0	43.3	38.3	34.8	34.3	33.8	35.3
60°	5240.2	2585.6	108.8	73.1	54.9	41.8	37.3	30.7	30.2	29.2	30.2
62.5°	5181.2	2332.6	91.2	63.0	48.9	39.8	32.8	26.7	25.7	23.7	25.2
65°	4879.9	2025.2	77.1	53.9	42.3	33.8	27.7	22.7	20.2	17.6	17.1
67.5°	4263.6	1645.3	64.5	46.4	36.3	27.7	22.7	20.2	15.6	13.6	13.1
70°	3195.3	1123.2	53.4	39.8	30.2	23.7	19.1	18.1	14.6	13.1	12.1
72.5°	1874.6	606.2	44.8	34.8	25.7	19.7	15.6	16.6	14.6	12.1	11.1
75°	748.8	201.6	35.8	27.7	20.7	14.1	13.1	13.6	13.1	11.1	9.1
77.5°	170.8	63.5	27.7	21.7	16.1	9.1	10.6	11.6	11.6	9.1	6.6
80°	53.4	25.2	16.1	13.6	11.6	5.0	7.6	8.1	5.5	2.5	0.0
82.5°	17.1	7.1	5.5	5.5	5.0	1.0	1.5	1.0	0.0	0.0	0.0
85°	6.6	4.5	3.5	3.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	2.0	1.5	2.0	1.0	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)