

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: P596854

Luminaire Tested: **MSA-SA1B-835-U-SL2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-16)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-835-U-SL2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4148 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G1

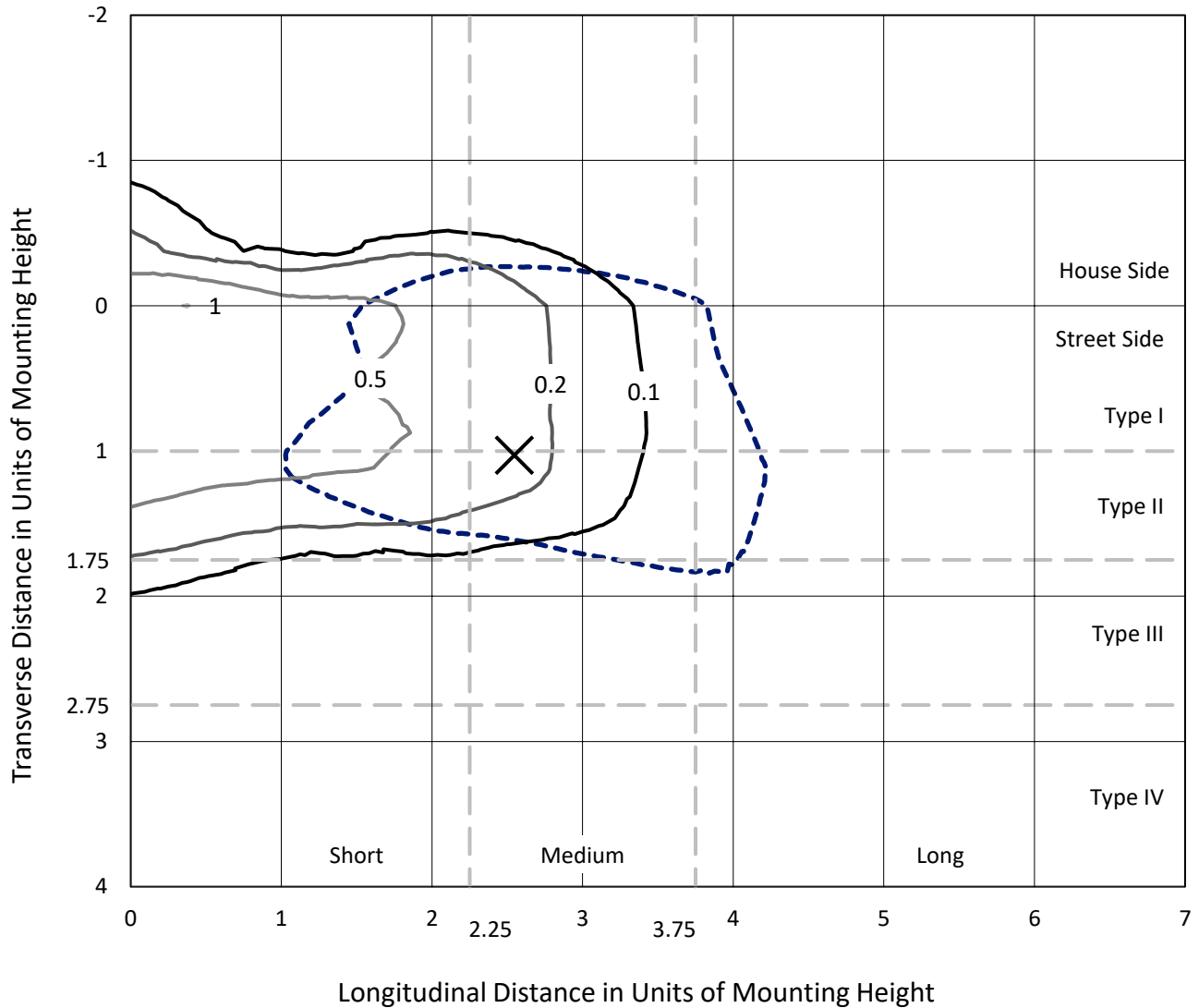
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

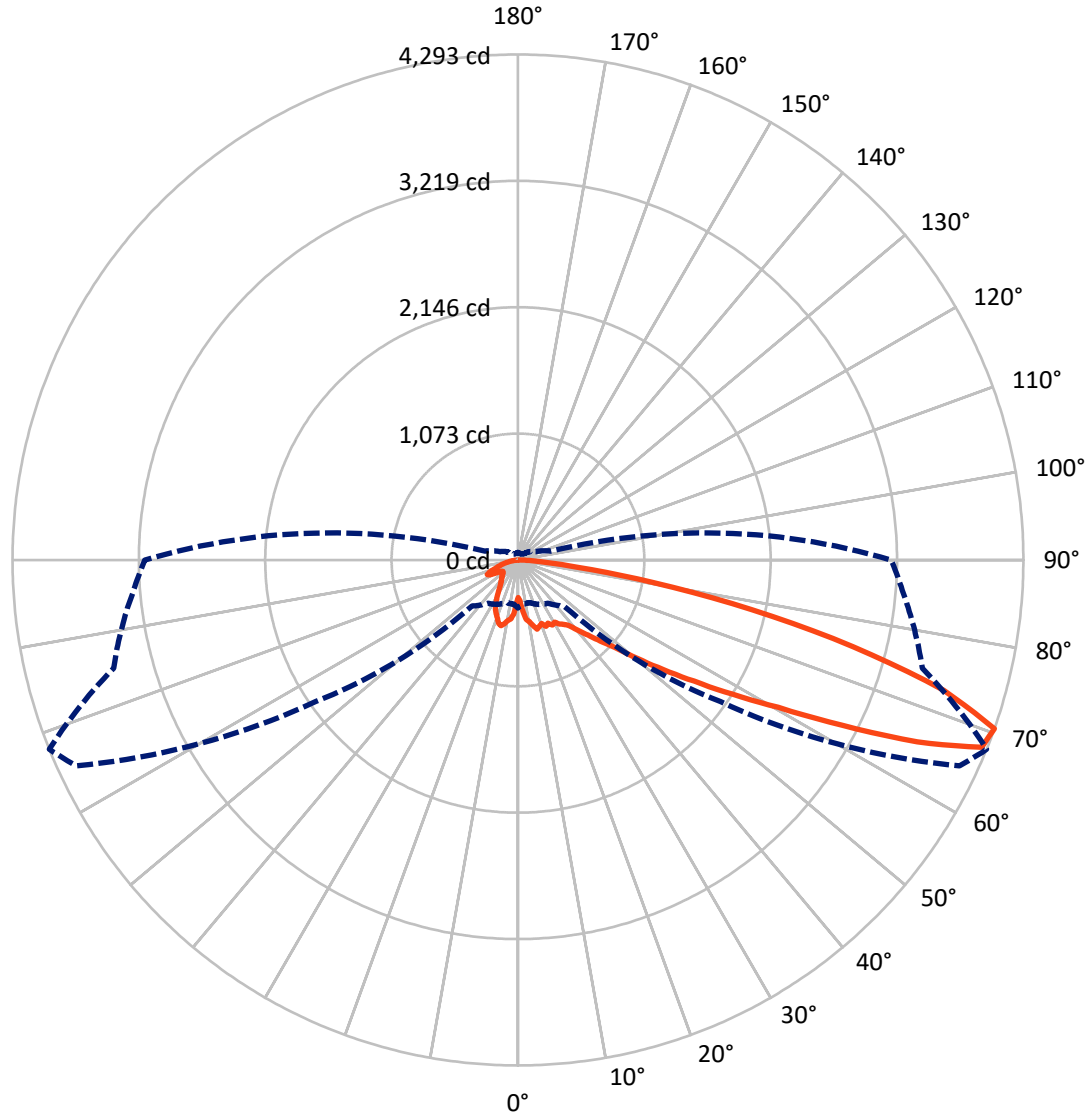
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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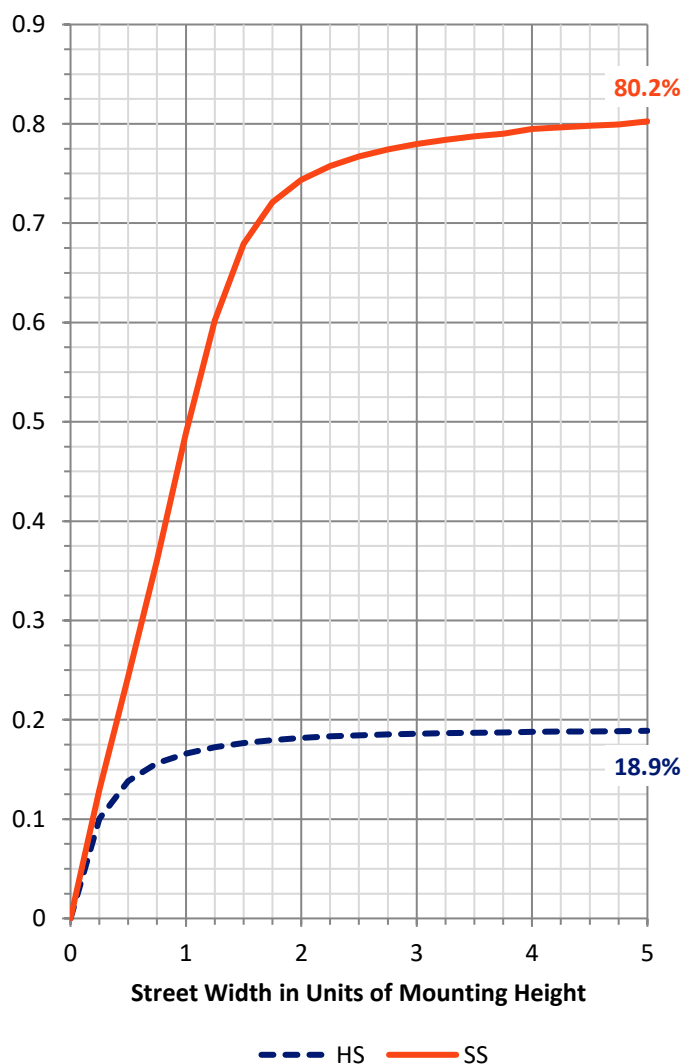
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	792.0	0.0	792.0
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	3356.1	0.0	3356.1
	% Fixture	80.9	0.0	80.9
Total	Lumens	4148.0	0.0	4148.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.5	1.0
10°-20°	138.4	3.3
20°-30°	210.6	5.1
30°-40°	321.7	7.8
40°-50°	553.1	13.3
50°-60°	915.5	22.1
60°-70°	1128.7	27.2
70°-80°	725.0	17.5
80°-90°	112.5	2.7
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°	4148.0	100.0
0°-180°	4148.0	100.0

Coefficient of Utilization



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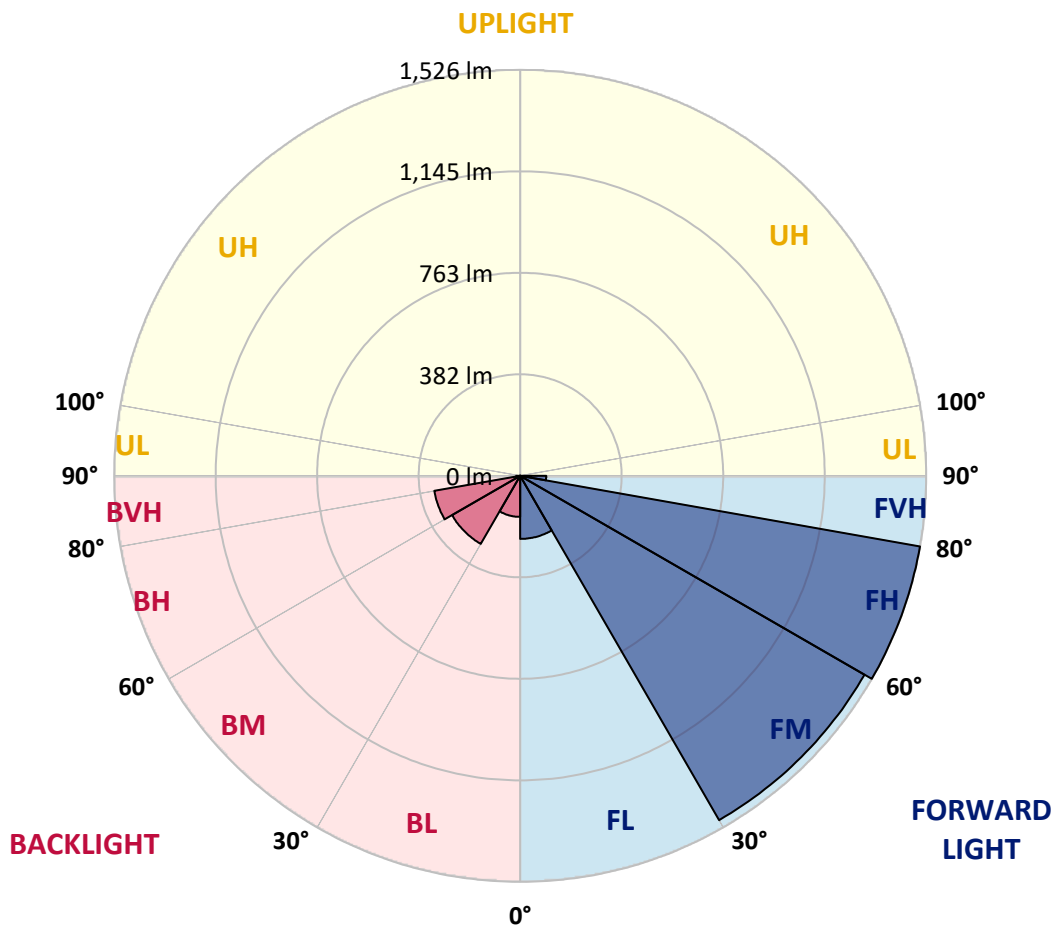
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	237.2	5.7			
FM (30°-60°)	1494.7	36.0			
FH (60°-80°)	1526.1	36.8			G1/1800
FVH (80°-90°)	98.0	2.4			G1/100
BL (0°-30°)	154.3	3.7	B1/500		
BM (30°-60°)	295.6	7.1	B1/1000		
BH (60°-80°)	327.6	7.9	B1/500		G1/500
BVH (80°-90°)	14.4	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0
2.5°	365.4	350.7	335.7	343.0	354.7	364.9	362.8	364.0	350.0	348.1	385.1
5°	430.5	405.2	404.7	405.0	406.1	394.3	423.1	438.0	441.3	456.6	492.9
7.5°	453.1	442.9	432.4	437.7	424.5	425.7	461.1	500.0	509.2	520.3	569.9
10°	448.4	438.7	441.8	442.7	445.1	464.7	487.5	524.8	532.6	568.0	580.9
12.5°	449.1	447.4	462.0	462.5	488.5	523.8	532.8	567.2	570.3	596.3	650.0
15°	472.9	484.9	476.7	481.1	486.1	528.3	541.3	590.6	609.3	642.9	683.1
17.5°	519.2	522.7	498.2	491.8	508.3	521.2	550.8	572.2	591.8	685.4	740.9
20°	530.0	539.4	510.2	477.1	512.0	529.8	550.5	560.2	575.5	691.6	770.5
22.5°	576.2	556.7	521.5	492.7	504.1	521.5	536.4	573.1	613.2	673.8	800.0
25°	602.4	591.1	559.7	528.8	519.1	519.6	548.4	581.2	595.1	700.0	805.9
27.5°	665.8	647.7	577.1	571.2	534.5	506.1	550.3	601.4	625.7	679.5	834.7
30°	745.1	731.4	638.7	630.9	575.0	525.3	574.6	616.3	612.8	692.9	854.7
32.5°	809.3	832.3	738.7	677.1	637.3	589.7	567.0	613.7	648.2	723.9	888.5
35°	901.0	922.5	816.6	775.0	688.7	619.6	620.3	649.5	670.8	760.2	926.3
37.5°	1059.7	1040.8	955.5	889.7	834.5	731.4	700.5	690.2	707.4	804.7	1000.5
40°	1174.1	1158.1	1057.8	1020.3	912.8	852.9	768.2	758.5	788.9	850.5	1061.1
42.5°	1309.7	1281.2	1187.8	1156.9	1044.6	936.6	851.2	856.7	871.5	936.9	1143.0
45°	1447.7	1378.6	1325.6	1323.2	1248.2	1099.1	984.3	979.8	980.3	1064.2	1235.0
47.5°	1557.2	1495.1	1434.5	1405.7	1367.8	1380.1	1177.7	1124.8	1108.8	1192.3	1373.0
50°	1631.4	1559.8	1491.3	1484.5	1585.5	1652.0	1359.3	1302.7	1312.6	1375.6	1557.1
52.5°	1632.9	1548.0	1476.5	1523.9	1761.9	1857.0	1672.2	1514.0	1545.6	1588.5	1797.1
55°	1519.4	1431.4	1384.8	1492.8	1830.8	2100.3	2111.7	1852.5	1816.1	1831.9	2084.1
57.5°	1280.0	1191.1	1164.0	1293.3	1700.1	2334.8	2642.6	2257.0	2150.1	2084.1	2378.2
60°	963.5	886.6	869.8	952.2	1409.5	2265.9	3072.4	2760.5	2542.6	2365.9	2673.1
62.5°	722.5	667.3	642.0	653.8	975.3	2041.8	3354.7	3396.6	3088.1	2673.5	2961.3
65°	587.1	542.5	519.9	504.7	606.6	1578.8	3303.7	3931.9	3725.2	2996.6	3185.6
67.5°	490.4	450.8	440.4	455.4	479.5	915.9	2904.4	4231.4	4245.5	3315.3	3316.7
70°	407.1	377.8	373.9	416.3	448.1	552.8	2097.8	4137.3	4292.5	3554.4	3286.0
72.5°	314.6	298.8	298.3	364.7	445.1	471.2	1249.3	3574.2	3782.6	3478.0	2985.3
75°	218.2	207.3	215.6	299.8	434.9	477.9	713.0	2783.9	2940.0	2959.6	2391.4
77.5°	150.2	141.0	150.0	216.8	388.4	489.4	498.8	2012.9	2030.3	1984.6	1369.7
80°	104.5	98.1	105.0	153.5	302.2	484.4	424.6	1267.3	1162.8	885.7	438.5
82.5°	64.8	62.8	70.5	109.4	212.8	440.6	402.4	654.0	499.3	244.4	156.6
85°	34.0	31.2	41.0	71.4	133.2	345.8	377.1	298.4	192.7	86.8	62.8
87.5°	10.1	9.0	15.8	28.8	56.4	155.0	215.8	126.6	71.9	25.5	19.6
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°	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0	318.0
2.5°	387.7	385.7	360.1	363.4	368.9	370.3	370.1	360.7	350.9	378.5	377.6
5°	493.7	476.5	463.7	460.9	445.1	429.3	434.9	433.0	430.5	443.0	444.6
7.5°	570.1	546.3	531.4	493.0	456.6	425.0	435.1	438.2	431.9	454.5	461.3
10°	590.3	571.5	555.4	506.1	485.9	467.5	440.3	409.2	405.0	392.0	393.6
12.5°	642.2	639.6	584.5	541.1	514.9	478.3	419.4	381.8	349.5	351.0	341.7
15°	683.1	684.5	618.4	557.6	487.3	431.4	362.1	315.3	282.1	275.5	268.7
17.5°	738.2	735.4	621.2	537.8	448.8	366.8	281.9	235.4	229.9	233.7	227.8
20°	762.1	737.6	603.4	488.7	388.5	278.6	213.0	188.4	199.1	214.4	214.7
22.5°	783.6	741.8	594.2	449.1	308.3	202.6	171.0	166.5	179.2	199.8	201.6
25°	782.8	761.1	577.8	409.2	239.1	158.2	148.6	151.9	167.0	188.5	189.7
27.5°	822.2	746.3	534.9	356.8	180.0	135.4	137.8	143.9	151.0	171.5	175.5
30°	821.8	773.8	513.3	293.0	144.6	124.1	130.4	135.6	141.5	160.2	162.5
32.5°	841.3	755.9	500.3	227.9	129.7	121.3	122.9	128.1	136.6	149.3	150.9
35°	864.7	776.2	458.7	181.1	124.1	118.9	120.1	123.1	130.9	142.5	144.1
37.5°	939.9	780.0	442.2	152.6	123.8	117.9	117.7	119.3	128.1	138.7	143.4
40°	969.2	814.9	394.1	142.5	122.6	117.9	115.4	116.3	123.6	137.1	140.8
42.5°	1039.5	826.5	358.5	139.1	122.6	115.8	112.0	113.4	121.9	133.8	139.6
45°	1111.9	843.0	316.1	138.4	122.4	115.6	108.3	111.5	118.4	128.5	134.7
47.5°	1215.1	902.4	273.8	136.3	121.0	116.5	107.5	107.3	113.4	122.0	127.9
50°	1383.3	995.1	241.0	133.7	121.2	115.8	105.7	103.3	107.3	114.9	120.7
52.5°	1617.5	1153.1	228.1	132.3	119.8	113.0	102.8	99.0	101.2	107.3	112.8
55°	1889.3	1366.4	240.8	132.3	117.0	108.7	98.6	94.1	95.3	99.5	104.9
57.5°	2207.0	1631.5	302.1	130.4	113.5	103.5	93.6	88.4	88.7	92.4	97.2
60°	2538.8	1927.7	439.4	128.8	111.1	97.7	87.7	82.3	81.8	85.2	89.6
62.5°	2871.1	2200.9	583.8	132.5	110.4	92.9	81.4	76.0	75.9	79.0	82.6
65°	3135.3	2387.7	619.8	147.2	114.9	87.3	75.0	70.0	69.6	72.2	76.2
67.5°	3265.0	2414.8	470.8	165.6	124.5	82.1	68.7	64.1	63.7	66.5	70.0
70°	3169.0	2229.8	290.6	167.5	124.0	76.0	62.3	58.3	57.6	60.6	63.2
72.5°	2813.8	1950.4	220.8	148.3	107.3	67.4	55.9	52.4	51.4	54.0	56.4
75°	2258.4	1548.5	176.9	119.6	84.5	56.8	49.5	46.2	45.0	47.4	49.5
77.5°	1315.6	871.1	129.3	93.4	63.9	46.4	42.2	39.2	37.8	40.4	42.0
80°	427.8	290.3	81.2	67.0	46.7	36.3	34.2	32.1	30.7	32.5	33.0
82.5°	153.6	108.0	45.0	41.1	31.1	26.0	25.9	24.7	22.9	23.6	23.6
85°	68.1	49.3	26.7	22.0	18.6	13.9	16.3	15.5	13.7	13.4	12.8
87.5°	19.1	16.3	9.7	7.5	6.1	2.3	5.2	4.7	3.8	3.5	2.4
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)