

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: P596494

Luminaire Tested: **MSA-SA1A-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596494
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-12)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1A-827-U-T4FT
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2978 lumens
Efficiency: N/A
Efficacy: 87.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

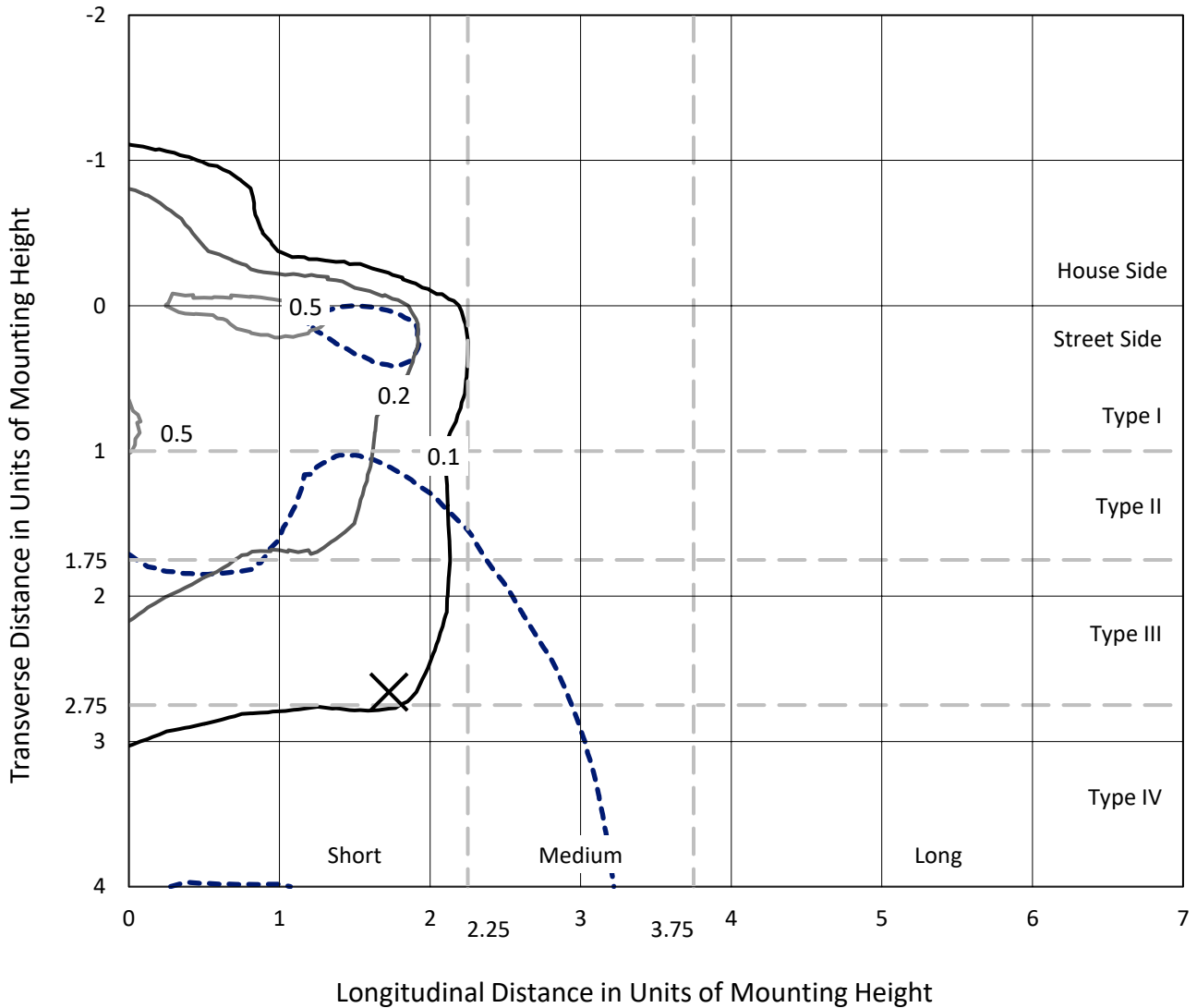
Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

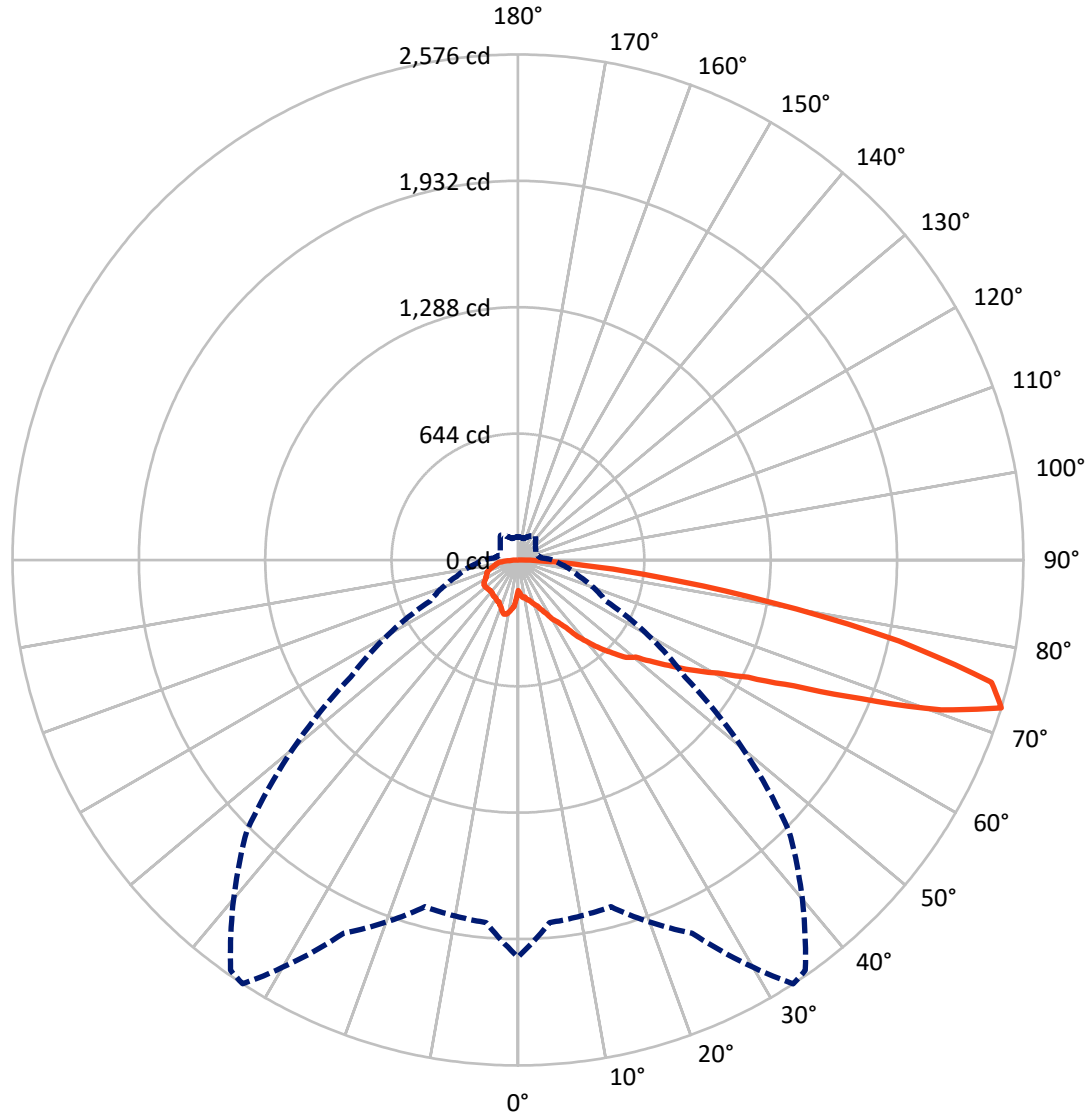
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.6 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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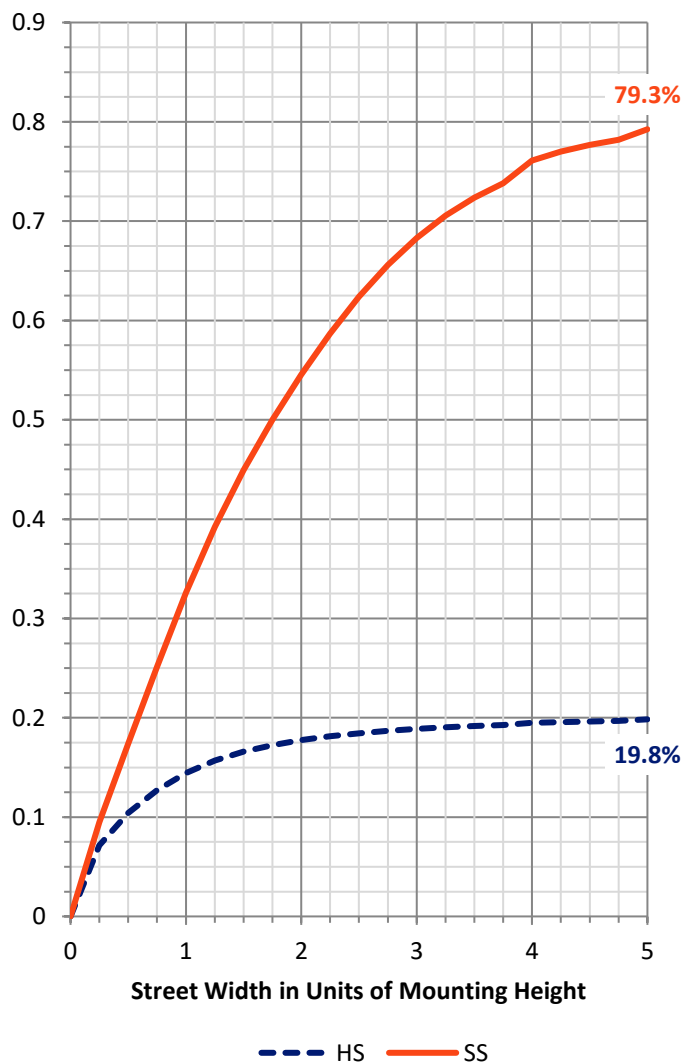
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	602.5	0.0	602.5
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	2375.6	0.0	2375.6
	% Fixture	79.8	0.0	79.8
Total	Lumens	2978.0	0.0	2978.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	0.7
10°-20°	79.3	2.7
20°-30°	144.7	4.9
30°-40°	244.8	8.2
40°-50°	407.2	13.7
50°-60°	597.6	20.1
60°-70°	764.5	25.7
70°-80°	622.0	20.9
80°-90°	96.3	3.2
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°	2978.0	100.0
0°-180°	2978.0	100.0

Coefficient of Utilization

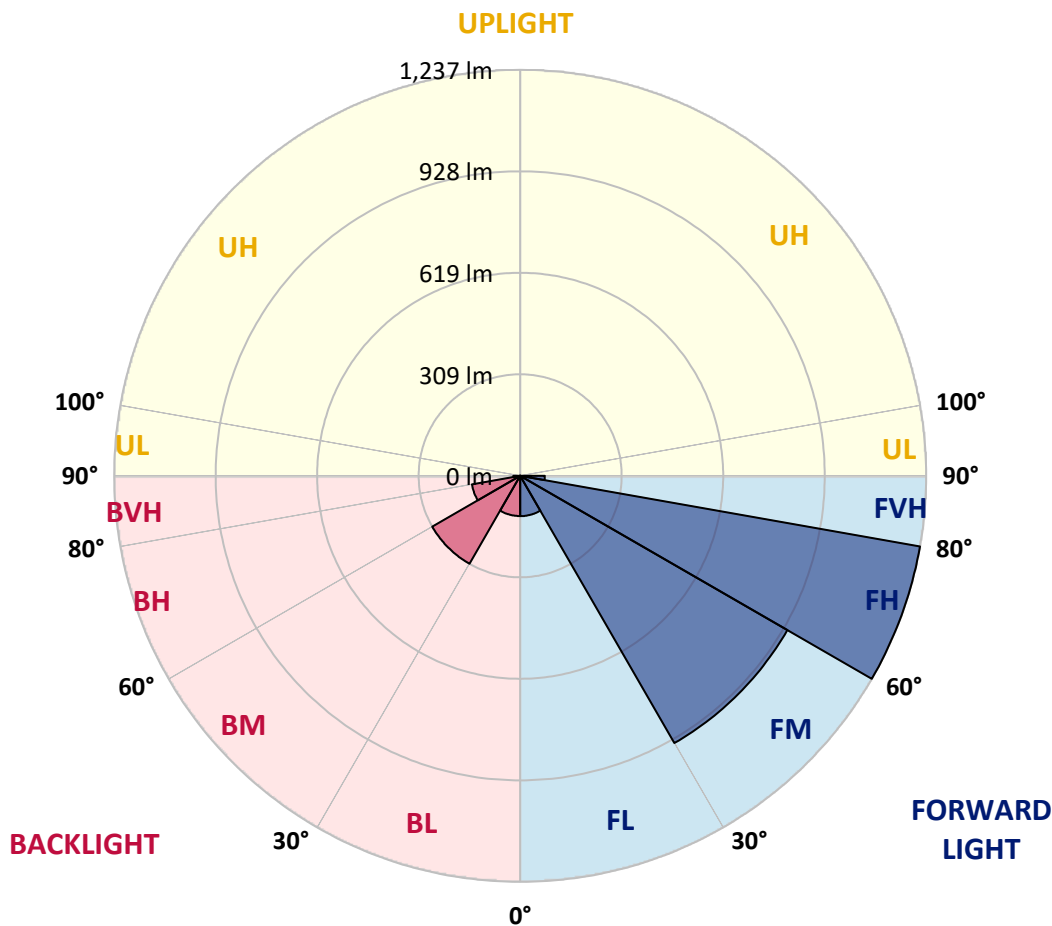


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	122.9	4.1			
FM (30°-60°)	940.2	31.6			
FH (60°-80°)	1237.2	41.5			G1/1800
FVH (80°-90°)	75.2	2.5			G1/100
BL (0°-30°)	122.6	4.1	B1/500		
BM (30°-60°)	309.4	10.4	B1/1000		
BH (60°-80°)	149.3	5.0	B1/500		G1/500
BVH (80°-90°)	21.2	0.7			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2
2.5°	177.0	171.5	162.3	162.1	167.1	168.3	171.6	171.8	173.1	171.1	185.2
5°	195.3	189.4	185.8	187.0	184.7	187.5	187.5	195.7	206.6	219.2	237.1
7.5°	199.6	195.3	191.2	194.3	194.8	192.1	194.7	213.8	233.5	246.1	274.8
10°	191.0	186.7	189.8	190.7	190.6	196.8	210.3	225.6	247.5	270.7	286.1
12.5°	189.4	192.5	194.0	195.7	207.4	209.3	229.7	245.5	267.5	287.8	328.0
15°	213.2	217.3	208.2	207.5	211.4	213.1	234.2	250.2	282.3	316.5	352.6
17.5°	247.2	248.7	232.3	223.9	226.7	228.1	237.3	257.3	277.1	340.4	385.3
20°	280.1	281.1	250.2	231.4	241.4	242.9	251.5	263.0	278.6	353.7	407.4
22.5°	314.5	308.2	274.4	250.7	256.5	256.8	261.9	268.2	290.3	351.6	434.4
25°	352.2	348.3	305.6	282.9	282.7	277.6	277.8	286.9	302.8	374.1	452.0
27.5°	402.2	402.7	340.8	328.6	309.5	306.1	289.5	306.3	324.4	374.3	490.2
30°	467.1	455.1	389.9	370.1	351.2	344.2	321.6	335.9	343.8	395.7	531.7
32.5°	519.9	516.4	441.0	411.1	380.3	388.4	363.5	350.9	365.1	432.5	594.6
35°	570.4	559.0	495.1	456.2	423.7	418.8	402.6	404.7	413.4	479.1	676.8
37.5°	645.7	639.6	571.7	509.5	494.3	474.1	463.9	470.4	463.6	538.8	799.9
40°	730.0	694.2	635.7	580.3	551.9	537.6	541.2	535.1	529.9	605.7	910.4
42.5°	810.7	778.1	678.2	653.3	616.2	622.1	602.5	606.8	621.5	700.7	1012.5
45°	898.5	828.0	723.3	701.3	674.8	682.3	698.0	693.3	717.4	812.8	1108.8
47.5°	942.4	875.3	778.7	742.8	742.5	726.8	822.3	832.7	795.0	895.8	1206.5
50°	984.6	918.6	819.8	795.6	778.1	811.7	941.5	917.7	865.2	991.0	1314.0
52.5°	1043.4	968.2	867.0	841.2	862.9	894.1	1036.6	1031.9	934.0	1089.0	1407.4
55°	1088.3	1012.3	938.0	914.1	955.6	986.1	1133.5	1105.2	992.9	1160.9	1466.5
57.5°	1166.8	1088.9	1042.9	989.7	1064.3	1063.8	1226.9	1205.0	1055.9	1220.0	1490.4
60°	1291.7	1200.2	1152.1	1090.7	1170.7	1199.2	1333.6	1270.6	1100.5	1257.3	1447.4
62.5°	1467.0	1358.3	1280.4	1219.6	1317.1	1368.7	1465.4	1318.4	1103.3	1246.6	1334.4
65°	1683.9	1551.7	1449.5	1385.3	1546.1	1619.9	1624.8	1347.9	1077.1	1136.8	1096.7
67.5°	1895.4	1746.7	1640.1	1652.3	1887.2	1922.2	1797.5	1372.7	936.4	912.8	761.5
70°	2034.6	1873.5	1802.5	1932.2	2289.0	2253.1	1937.5	1307.5	737.4	591.8	428.8
72.5°	2024.1	1855.4	1829.9	2098.5	2576.3	2553.9	1954.5	1039.8	493.9	323.6	213.8
75°	1649.0	1517.9	1576.0	1986.5	2493.5	2492.4	1696.9	643.6	253.4	166.2	135.2
77.5°	911.7	860.8	1031.4	1504.1	1985.4	1995.5	1146.6	291.9	136.6	117.7	101.8
80°	319.4	314.7	447.0	811.7	1306.1	1308.5	533.2	133.5	99.3	89.1	74.7
82.5°	116.7	115.8	185.3	377.0	719.1	717.5	202.2	83.1	73.6	63.0	49.3
85°	46.6	45.6	84.7	167.4	330.3	325.0	78.6	47.2	48.2	37.6	24.2
87.5°	12.8	13.3	28.8	52.4	101.2	93.8	19.8	15.9	19.5	15.3	7.7
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°	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2	156.2
2.5°	187.7	188.9	176.7	181.0	186.5	189.5	191.0	184.7	186.8	195.7	195.3
5°	240.8	235.8	231.1	236.0	232.7	228.2	235.6	235.2	240.0	244.9	246.0
7.5°	280.4	274.0	271.8	260.9	250.0	239.1	248.6	254.5	255.7	267.7	272.8
10°	294.8	292.3	293.2	278.8	277.5	278.6	269.8	260.3	266.1	261.2	264.9
12.5°	327.9	334.1	318.7	309.0	308.1	301.3	283.8	277.6	271.0	277.8	274.4
15°	354.4	365.9	349.5	332.3	312.9	302.4	287.5	278.1	273.8	275.2	271.0
17.5°	393.4	404.1	362.3	336.0	316.0	300.6	277.7	257.7	268.3	269.2	264.4
20°	419.2	419.9	366.7	326.9	308.9	282.0	259.8	242.3	254.5	267.0	272.4
22.5°	444.4	438.8	372.0	319.6	282.8	256.8	246.0	244.9	254.0	264.5	265.7
25°	463.3	464.1	375.1	316.9	267.5	232.1	232.1	240.2	248.2	273.1	271.9
27.5°	509.1	475.4	363.1	304.4	246.2	217.7	232.3	243.0	246.8	273.9	276.6
30°	542.5	520.5	365.6	283.0	224.7	210.9	222.9	236.3	247.0	278.2	277.2
32.5°	598.4	539.3	371.4	253.0	208.7	208.3	218.9	233.1	245.8	273.5	275.0
35°	660.3	594.6	355.2	230.2	204.8	206.8	220.5	226.2	241.2	271.7	273.0
37.5°	774.8	623.5	344.9	212.5	202.4	208.0	213.2	222.0	237.1	262.4	271.3
40°	842.0	683.1	306.9	202.2	197.2	207.1	209.6	217.1	225.2	251.3	257.0
42.5°	930.5	701.8	274.4	190.9	194.6	203.0	210.8	212.6	218.0	233.7	244.1
45°	1004.3	715.9	239.9	181.7	185.8	212.0	212.5	211.6	210.6	216.4	225.0
47.5°	1080.6	753.7	208.2	171.6	182.5	219.4	213.4	205.4	201.4	202.1	210.0
50°	1164.9	781.1	185.7	163.3	183.2	219.4	217.6	199.1	191.0	188.9	197.2
52.5°	1239.0	784.4	168.6	156.6	180.1	211.9	220.4	195.2	181.5	176.4	184.2
55°	1279.4	743.7	156.3	150.6	172.2	205.1	218.9	193.0	170.0	166.2	173.1
57.5°	1278.5	676.3	145.8	142.2	163.2	195.6	210.6	180.9	162.9	160.7	167.5
60°	1232.4	597.2	137.7	135.3	153.9	181.7	195.8	173.0	156.2	155.0	162.5
62.5°	1127.9	515.5	130.0	128.0	145.3	172.0	188.8	164.2	149.1	149.0	156.0
65°	923.7	413.9	122.7	122.2	137.3	162.3	182.1	156.8	141.8	144.3	151.5
67.5°	636.5	290.8	114.9	116.4	129.8	153.1	177.0	151.8	134.2	139.2	145.7
70°	349.2	179.9	106.2	109.2	120.5	142.3	169.1	143.8	124.2	131.9	136.4
72.5°	177.7	120.0	95.5	100.2	109.0	126.5	154.3	132.2	113.4	116.4	118.7
75°	119.3	90.3	83.5	88.7	95.0	111.4	136.9	121.3	103.2	102.8	105.4
77.5°	90.2	70.5	70.9	76.8	80.9	98.0	123.0	112.2	94.5	93.6	97.5
80°	66.0	53.5	57.1	63.3	67.0	88.0	114.0	102.0	82.8	79.3	82.5
82.5°	43.7	37.9	42.3	48.4	51.4	73.5	103.5	86.6	67.5	58.7	59.2
85°	20.6	19.9	25.2	28.2	32.0	45.6	77.5	59.9	43.0	35.6	37.2
87.5°	4.7	6.3	8.3	8.2	9.5	12.2	24.1	16.8	12.5	8.5	5.7
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)