

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: P596538

Luminaire Tested: **MSA-SA1C-827-U-T4FT**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596538
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-SA1C-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: 4621 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

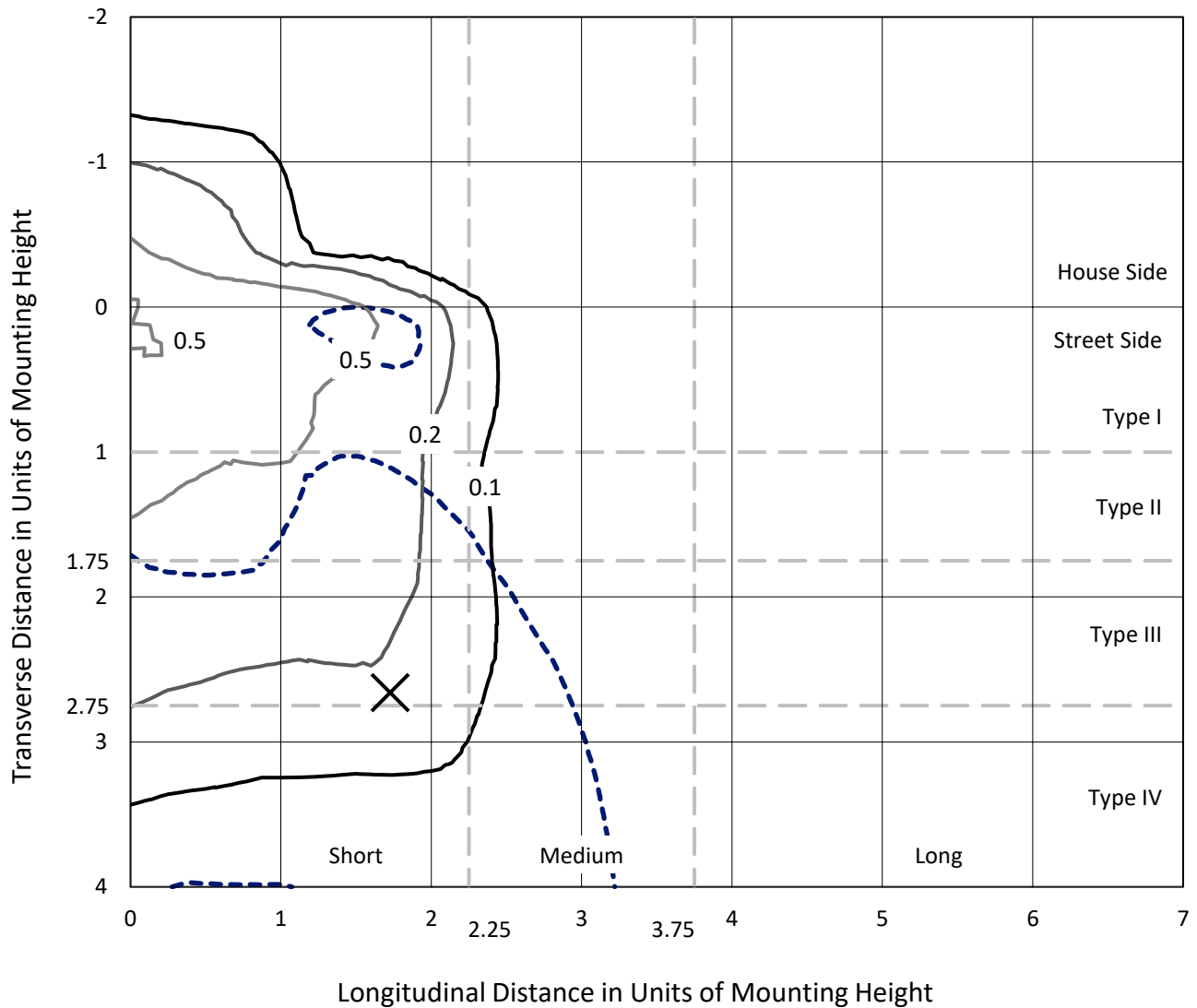
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

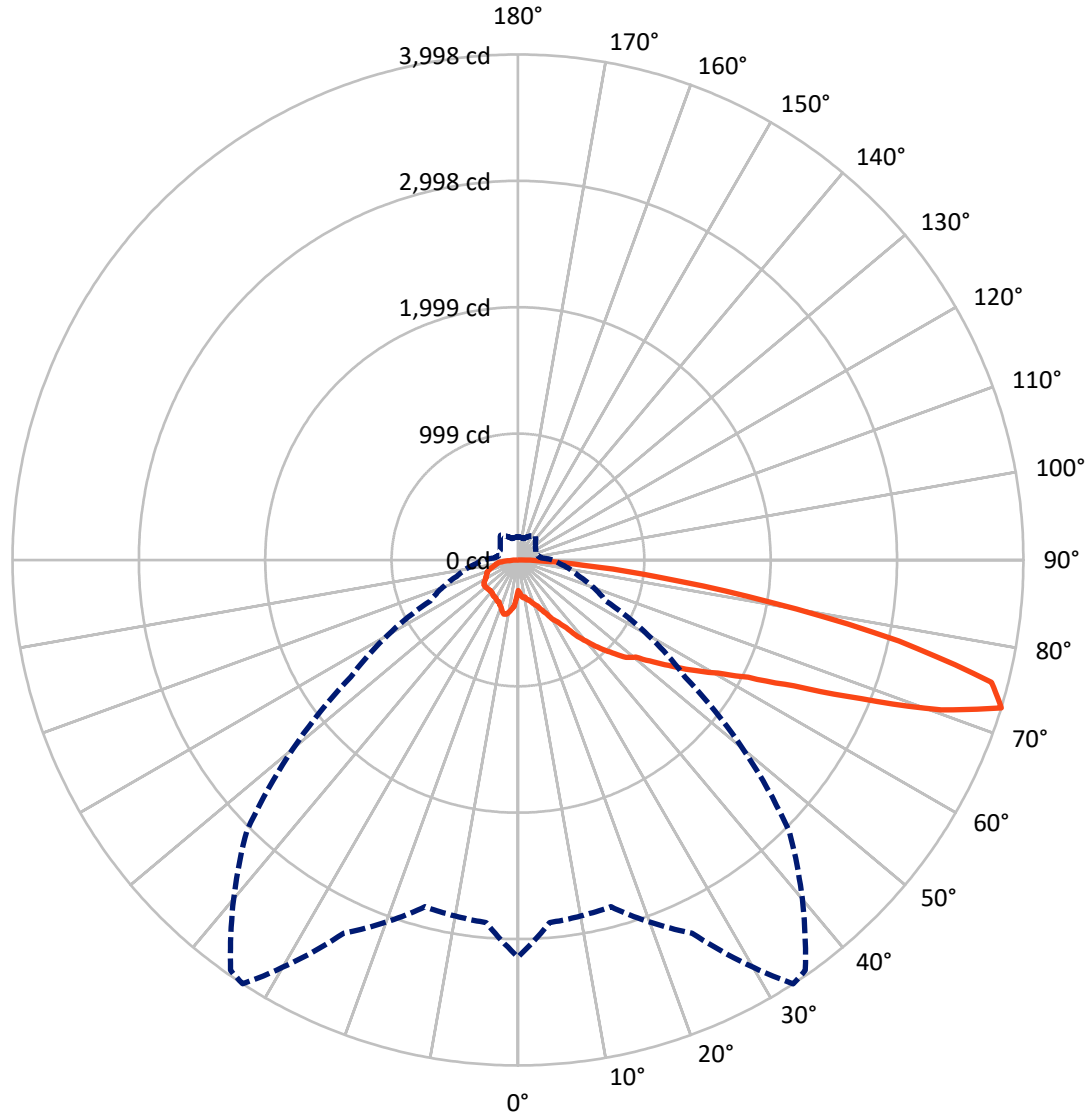
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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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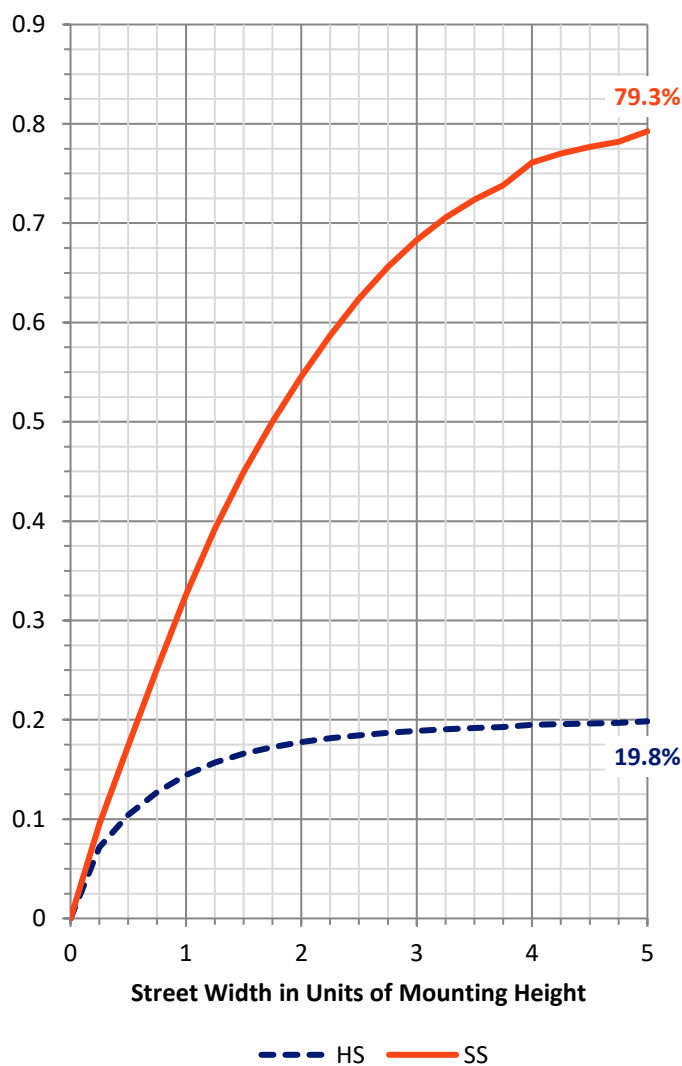
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	934.8	0.0	934.8
	% Fixture	20.2	0.0	20.2
Street Side	Lumens	3686.2	0.0	3686.2
	% Fixture	79.8	0.0	79.8
Total	Lumens	4621.0	0.0	4621.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	0.7
10°-20°	123.1	2.7
20°-30°	224.5	4.9
30°-40°	379.8	8.2
40°-50°	631.9	13.7
50°-60°	927.3	20.1
60°-70°	1186.3	25.7
70°-80°	965.2	20.9
80°-90°	149.5	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°	4621.0	100.0
0°-180°	4621.0	100.0

Coefficient of Utilization



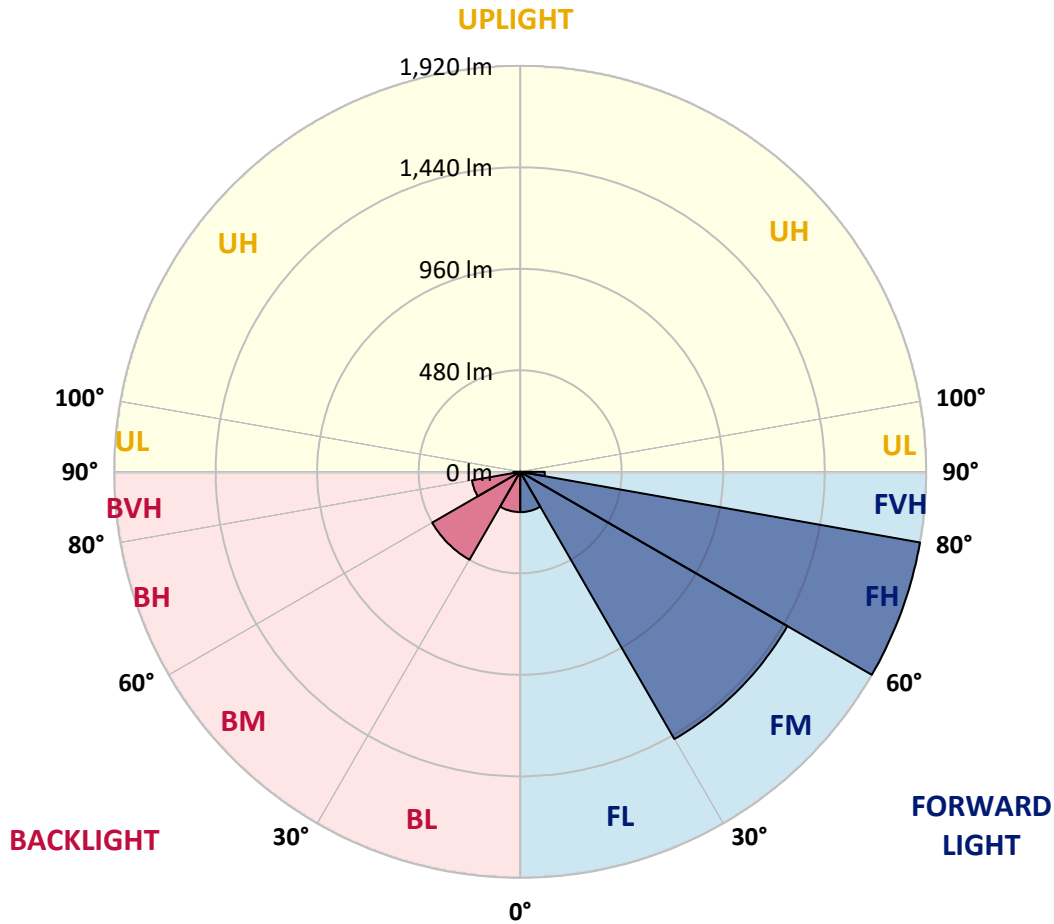
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	190.7	4.1			
FM (30°-60°)	1458.9	31.6			
FH (60°-80°)	1919.8	41.5			G2/5000
FVH (80°-90°)	116.7	2.5			G2/225
BL (0°-30°)	190.3	4.1	B1/500		
BM (30°-60°)	480.1	10.4	B1/1000		
BH (60°-80°)	231.6	5.0	B1/500		G1/500
BVH (80°-90°)	32.8	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	33°	35°	45°	55°	65°	75°	85°
0°	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3
2.5°	274.7	266.1	251.9	251.5	259.4	261.1	266.3	266.7	268.6	265.5	287.4
5°	303.1	293.9	288.3	290.2	286.6	291.0	291.0	303.7	320.5	340.1	367.9
7.5°	309.8	303.1	296.7	301.5	302.3	298.1	302.1	331.8	362.3	381.9	426.3
10°	296.4	289.7	294.4	296.0	295.8	305.4	326.3	350.0	384.0	420.0	444.0
12.5°	293.9	298.7	301.0	303.7	321.9	324.7	356.4	380.9	415.0	446.7	509.0
15°	330.9	337.2	323.0	322.1	328.0	330.7	363.5	388.2	438.0	491.1	547.1
17.5°	383.6	385.9	360.4	347.4	351.8	353.9	368.3	399.3	430.0	528.1	597.9
20°	434.6	436.1	388.2	359.1	374.6	376.9	390.3	408.1	432.3	548.8	632.2
22.5°	488.1	478.3	425.8	389.0	398.0	398.5	406.4	416.2	450.5	545.6	674.0
25°	546.5	540.4	474.3	439.0	438.6	430.7	431.1	445.1	469.9	580.5	701.4
27.5°	624.2	624.9	528.9	509.9	480.2	475.0	449.2	475.2	503.4	580.8	760.7
30°	724.8	706.2	605.0	574.3	545.0	534.1	499.0	521.2	533.5	614.0	825.1
32.5°	806.7	801.3	684.4	638.0	590.0	602.7	564.0	544.4	566.5	671.1	922.6
35°	885.1	867.4	768.3	707.9	657.5	649.9	624.7	628.0	641.4	743.4	1050.1
37.5°	1002.0	992.4	887.2	790.6	767.0	735.7	719.8	730.0	719.4	836.0	1241.2
40°	1132.7	1077.2	986.5	900.4	856.3	834.3	839.8	830.2	822.2	939.9	1412.6
42.5°	1257.9	1207.3	1052.4	1013.7	956.2	965.4	934.9	941.6	964.4	1087.3	1571.2
45°	1394.2	1284.8	1122.4	1088.3	1047.1	1058.8	1083.1	1075.8	1113.2	1261.2	1720.5
47.5°	1462.3	1358.2	1208.3	1152.7	1152.1	1127.8	1275.9	1292.0	1233.6	1390.0	1872.1
50°	1527.8	1425.5	1272.1	1234.5	1207.3	1259.5	1460.9	1423.9	1342.5	1537.8	2038.9
52.5°	1619.1	1502.3	1345.3	1305.3	1339.0	1387.3	1608.5	1601.3	1449.2	1689.8	2183.8
55°	1688.7	1570.8	1455.6	1418.4	1482.8	1530.1	1758.8	1714.9	1540.7	1801.4	2275.7
57.5°	1810.6	1689.6	1618.3	1535.7	1651.5	1650.7	1903.8	1869.8	1638.4	1893.0	2312.7
60°	2004.4	1862.4	1787.8	1692.5	1816.5	1860.8	2069.4	1971.6	1707.7	1950.9	2245.9
62.5°	2276.4	2107.7	1986.8	1892.5	2043.7	2123.8	2273.9	2045.8	1712.1	1934.4	2070.5
65°	2612.9	2407.7	2249.2	2149.5	2399.1	2513.6	2521.2	2091.6	1671.4	1764.0	1701.7
67.5°	2941.0	2710.4	2545.0	2564.0	2928.4	2982.6	2789.2	2130.0	1453.1	1416.5	1181.6
70°	3157.1	2907.1	2796.9	2998.2	3551.8	3496.2	3006.4	2028.9	1144.2	918.2	665.4
72.5°	3140.8	2879.1	2839.4	3256.2	3997.7	3963.0	3032.9	1613.5	766.4	502.1	331.8
75°	2558.8	2355.4	2445.5	3082.5	3869.2	3867.5	2633.2	998.8	393.2	257.8	209.7
77.5°	1414.7	1335.8	1600.5	2333.9	3080.8	3096.5	1779.2	453.0	212.0	182.7	158.0
80°	495.5	488.3	693.6	1259.5	2026.6	2030.5	827.4	207.2	154.1	138.2	116.0
82.5°	181.2	179.6	287.5	585.1	1115.9	1113.4	313.8	129.0	114.3	97.8	76.5
85°	72.3	70.7	131.5	259.8	512.6	504.4	121.9	73.2	74.8	58.3	37.6
87.5°	19.9	20.7	44.7	81.3	157.0	145.5	30.7	24.7	30.3	23.8	11.9
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°	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3	242.3
2.5°	291.2	293.1	274.1	280.8	289.5	294.1	296.4	286.6	289.8	303.7	303.1
5°	373.6	366.0	358.7	366.1	361.2	354.1	365.6	365.0	372.5	379.9	381.7
7.5°	435.2	425.2	421.7	404.9	388.0	370.9	385.7	394.9	396.8	415.4	423.3
10°	457.4	453.6	454.9	432.7	430.6	432.3	418.7	403.9	412.9	405.3	411.0
12.5°	508.8	518.4	494.6	479.4	478.1	467.6	440.3	430.7	420.6	431.1	425.8
15°	550.0	567.8	542.3	515.7	485.6	469.3	446.1	431.5	424.8	427.1	420.6
17.5°	610.4	627.0	562.3	521.4	490.4	466.4	430.9	399.9	416.4	417.7	410.2
20°	650.4	651.6	569.0	507.2	479.2	437.6	403.1	375.9	394.9	414.3	422.7
22.5°	689.5	680.9	577.2	495.9	438.8	398.5	381.7	379.9	394.1	410.4	412.3
25°	718.9	720.2	582.0	491.7	415.0	360.2	360.2	372.7	385.1	423.8	421.9
27.5°	790.0	737.7	563.4	472.3	382.1	337.8	360.4	377.1	383.0	425.0	429.2
30°	841.7	807.6	567.2	439.2	348.7	327.2	345.8	366.7	383.2	431.7	430.2
32.5°	928.6	836.8	576.2	392.6	323.8	323.2	339.7	361.7	381.5	424.4	426.7
35°	1024.6	922.6	551.1	357.1	317.8	320.9	342.2	351.0	374.2	421.5	423.7
37.5°	1202.3	967.5	535.2	329.7	314.0	322.8	330.9	344.5	367.9	407.2	421.0
40°	1306.6	1059.9	476.2	313.8	306.0	321.3	325.3	336.8	349.5	389.9	398.7
42.5°	1443.9	1089.0	425.8	296.2	301.9	315.0	327.0	329.9	338.3	362.7	378.8
45°	1558.3	1110.9	372.3	282.0	288.3	329.0	329.7	328.4	326.8	335.9	349.1
47.5°	1676.8	1169.6	323.0	266.3	283.1	340.5	331.1	318.8	312.5	313.6	325.9
50°	1807.5	1212.1	288.1	253.4	284.3	340.5	337.6	309.0	296.4	293.1	306.0
52.5°	1922.5	1217.1	261.7	243.1	279.5	328.8	342.0	302.9	281.6	273.7	285.8
55°	1985.2	1154.0	242.5	233.7	267.2	318.2	339.7	299.4	263.8	257.8	268.6
57.5°	1983.9	1049.4	226.2	220.6	253.2	303.5	326.8	280.6	252.9	249.4	259.9
60°	1912.4	926.7	213.7	209.9	238.9	282.0	303.8	268.4	242.3	240.6	252.1
62.5°	1750.2	800.0	201.7	198.6	225.4	266.8	292.9	254.8	231.4	231.2	242.1
65°	1433.3	642.2	190.4	189.6	213.0	251.9	282.6	243.3	220.1	223.9	235.0
67.5°	987.6	451.3	178.3	180.6	201.5	237.5	274.7	235.6	208.2	216.0	226.0
70°	541.9	279.1	164.9	169.5	186.9	220.8	262.4	223.1	192.7	204.7	211.6
72.5°	275.7	186.1	148.2	155.5	169.1	196.3	239.4	205.1	176.0	180.6	184.2
75°	185.2	140.1	129.6	137.6	147.4	172.9	212.4	188.2	160.1	159.5	163.5
77.5°	139.9	109.5	110.0	119.2	125.6	152.0	190.9	174.1	146.6	145.3	151.3
80°	102.4	83.0	88.6	98.1	103.9	136.5	176.9	158.3	128.4	123.1	128.1
82.5°	67.9	58.9	65.6	75.1	79.7	114.1	160.6	134.4	104.7	91.1	91.8
85°	32.0	30.9	39.1	43.7	49.6	70.7	120.2	93.0	66.7	55.2	57.7
87.5°	7.3	9.8	12.8	12.7	14.8	19.0	37.4	26.1	19.4	13.2	8.8
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)