

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: P367148

Luminaire Tested: **MSA-SA2A-727-U-T4W**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367148
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2A-727-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6740 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

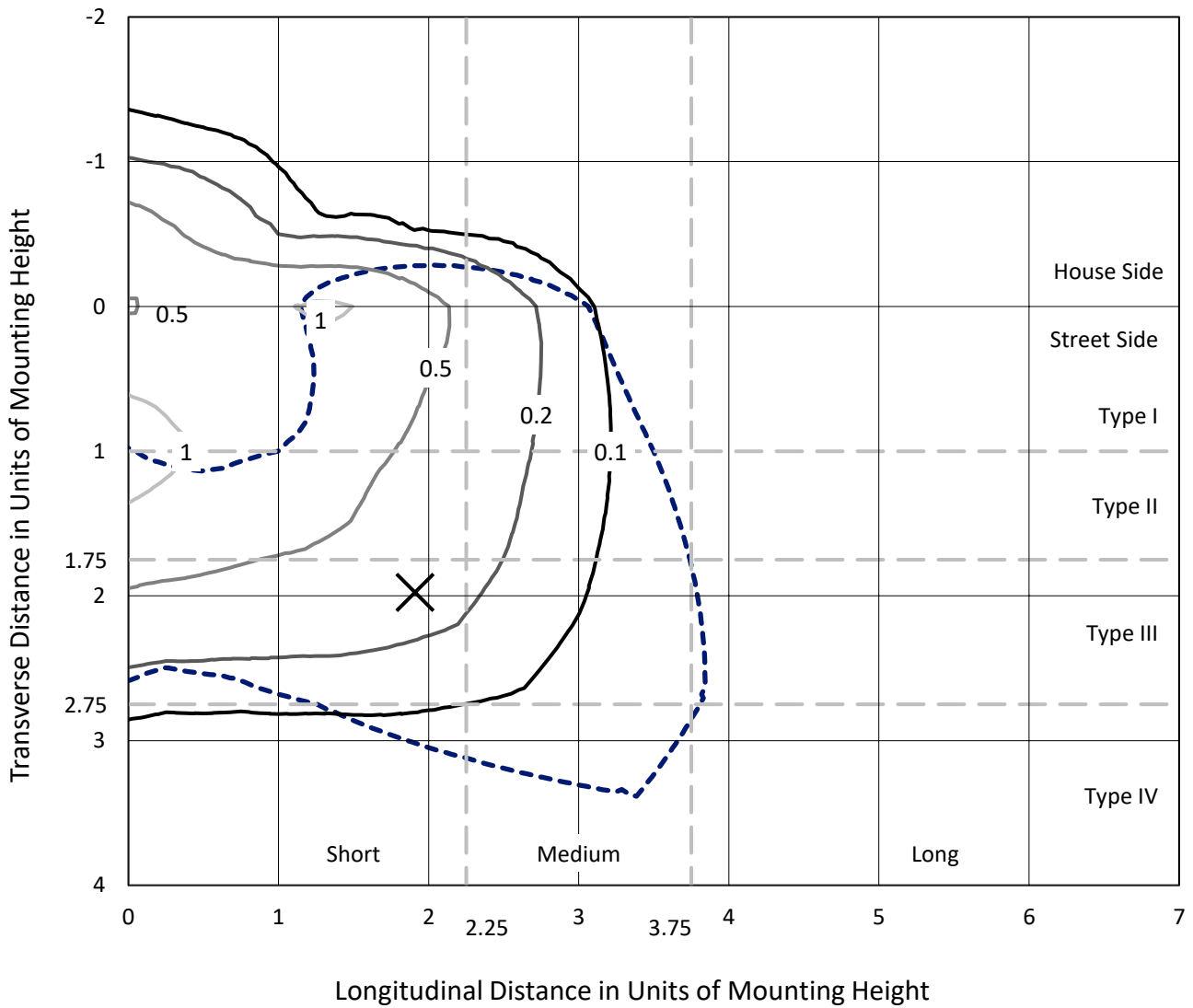
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

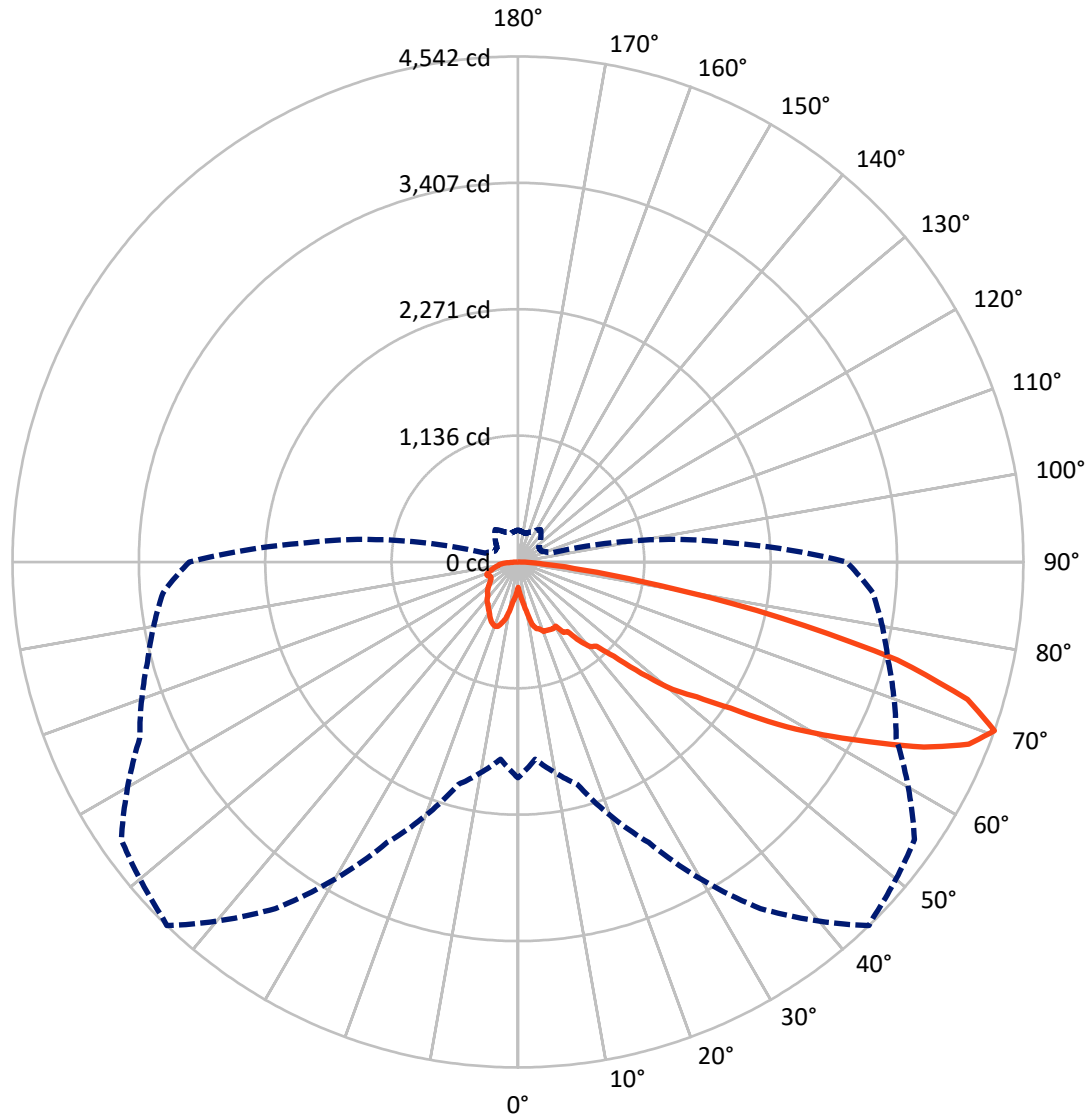
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1487.1	0.0	1487.1
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	5252.9	0.0	5252.9
	% Fixture	77.9	0.0	77.9
Total	Lumens	6740.0	0.0	6740.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	0.5
10°-20°	165.4	2.5
20°-30°	309.1	4.6
30°-40°	496.2	7.4
40°-50°	837.5	12.4
50°-60°	1492.4	22.1
60°-70°	2041.4	30.3
70°-80°	1200.5	17.8
80°-90°	161.6	2.4
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°	6740.0	100.0
0°-180°	6740.0	100.0

Coefficient of Utilization



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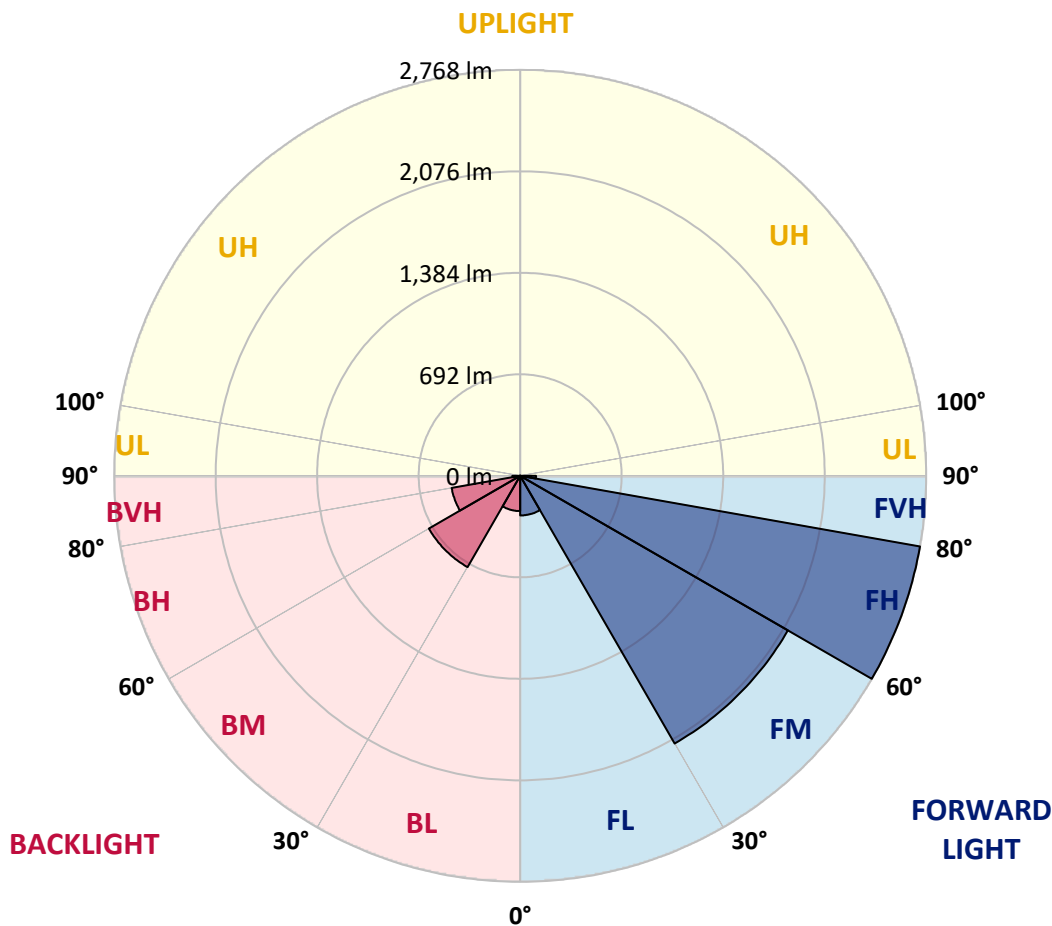
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	270.1	4.0			
FM (30°-60°)	2107.4	31.3			
FH (60°-80°)	2767.7	41.1			G2/5000
FVH (80°-90°)	107.7	1.6			G2/225
BL (0°-30°)	240.3	3.6	B1/500		
BM (30°-60°)	718.6	10.7	B1/1000		
BH (60°-80°)	474.2	7.0	B1/500		G1/500
BVH (80°-90°)	53.9	0.8			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°	35°	44°	45°	55°	65°	75°	85°
0°	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1
2.5°	278.0	272.5	259.2	263.6	269.2	271.4	270.8	270.3	261.7	258.7	273.9
5°	377.8	365.6	356.0	352.1	339.4	329.4	323.3	339.4	336.9	341.0	351.5
7.5°	471.7	464.0	442.2	434.4	408.5	391.3	389.4	402.1	405.4	398.8	416.7
10°	532.3	519.0	514.6	496.1	478.1	475.3	473.7	467.9	459.9	459.3	443.3
12.5°	579.2	586.2	589.7	568.5	569.0	579.0	573.7	550.2	536.7	512.9	514.9
15°	663.5	673.5	645.0	631.5	605.5	620.4	618.5	598.9	596.9	581.5	563.5
17.5°	737.0	741.5	693.9	663.0	654.1	632.6	638.4	638.9	613.5	641.2	625.1
20°	743.1	758.9	704.2	642.5	669.1	666.3	667.1	661.6	628.2	673.8	667.7
22.5°	773.0	748.9	699.7	654.7	661.6	665.7	669.6	663.0	661.1	686.5	705.0
25°	767.4	759.7	710.0	671.8	672.7	673.5	675.4	695.3	693.1	727.7	737.3
27.5°	819.1	807.2	713.0	703.6	682.1	677.4	664.1	705.5	737.9	737.0	790.4
30°	917.5	905.4	783.8	756.4	717.4	669.3	694.8	750.0	775.5	784.0	851.7
32.5°	1071.2	1091.1	923.0	812.8	764.4	753.9	751.1	745.6	808.6	850.9	912.5
35°	1291.7	1275.9	1087.2	933.5	813.9	768.8	774.9	808.6	883.5	910.9	967.8
37.5°	1544.3	1511.7	1297.5	1070.3	956.5	900.1	879.9	912.5	929.1	950.7	1067.0
40°	1801.0	1721.4	1503.9	1250.2	1042.1	999.6	981.9	941.8	980.8	1024.5	1172.3
42.5°	2048.9	1987.3	1728.6	1465.0	1186.4	1034.7	1025.0	985.8	1106.5	1152.7	1324.3
45°	2308.7	2165.8	1958.8	1707.3	1397.3	1206.9	1192.5	1122.0	1276.8	1373.0	1538.8
47.5°	2483.4	2351.0	2169.7	1904.1	1573.9	1494.8	1467.5	1347.0	1487.4	1612.3	1870.1
50°	2648.6	2512.4	2322.0	2119.4	1893.6	1802.7	1744.4	1543.7	1749.6	1953.0	2294.9
52.5°	2885.2	2763.3	2498.8	2336.3	2237.1	2013.6	1970.2	1859.9	2056.4	2330.8	2759.2
55°	3138.1	2972.0	2732.4	2642.3	2602.2	2315.9	2280.5	2210.3	2464.8	2717.4	3210.5
57.5°	3249.7	3076.4	2944.3	2890.4	2887.1	2755.3	2714.7	2665.8	2882.4	3049.1	3635.2
60°	3338.4	3152.4	3099.6	3129.8	3239.2	3152.4	3099.6	3056.5	3222.3	3376.8	3981.8
62.5°	3322.1	3135.6	3162.7	3254.4	3533.8	3559.2	3518.6	3414.1	3559.2	3645.4	4180.5
65°	3059.0	2886.6	3044.4	3262.1	3807.7	4010.8	4008.6	3735.3	3785.6	3785.6	4159.5
67.5°	2598.0	2419.5	2677.9	3193.9	3997.0	4368.7	4369.2	4075.7	3806.3	3771.5	3834.5
70°	1940.0	1778.4	2068.8	2781.6	3801.6	4542.0	4516.8	4350.4	3749.4	3445.1	3203.0
72.5°	1158.8	1054.3	1321.5	2024.9	3242.8	4223.3	4290.2	4034.0	3432.4	2865.0	2289.6
75°	526.2	480.9	621.0	1163.2	2315.1	3522.7	3595.4	3404.5	2726.3	2060.5	1323.2
77.5°	225.2	213.1	271.1	516.0	1276.5	2409.0	2558.0	2433.1	1847.2	1197.5	585.3
80°	144.8	137.1	166.6	248.2	592.8	1301.7	1429.9	1383.2	941.0	465.7	206.2
82.5°	86.5	84.0	111.4	155.9	323.3	572.9	645.6	662.7	390.8	208.9	118.0
85°	47.3	47.8	61.1	94.5	194.0	223.0	238.8	259.8	184.1	121.0	57.2
87.5°	15.8	18.2	24.6	38.4	69.1	63.0	63.3	73.5	77.7	50.3	18.2
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°	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1	229.1
2.5°	276.4	271.4	258.7	259.5	264.2	265.3	266.7	258.7	257.0	272.2	273.6
5°	353.2	336.9	329.4	326.9	319.7	317.3	330.5	336.6	342.7	354.6	360.4
7.5°	414.8	396.6	383.0	370.6	360.1	354.0	376.4	393.5	404.0	428.4	439.4
10°	443.0	427.3	422.3	412.3	420.3	438.6	442.7	443.3	466.5	465.9	470.6
12.5°	499.1	488.9	472.6	476.2	497.2	516.0	510.7	518.7	527.0	546.9	537.8
15°	550.2	547.5	532.3	534.8	538.9	562.4	565.4	573.4	586.2	601.9	591.1
17.5°	613.2	612.1	575.1	571.8	581.5	604.4	597.2	583.1	625.1	642.0	637.6
20°	656.1	647.8	600.3	586.2	610.8	613.8	605.5	583.1	619.6	656.4	666.3
22.5°	691.7	682.1	633.1	605.5	600.5	601.9	601.9	597.8	615.7	645.9	645.6
25°	720.5	729.6	667.4	640.9	614.3	581.2	577.0	580.6	590.9	648.9	647.0
27.5°	792.6	767.4	679.0	659.1	604.7	552.4	563.8	569.3	572.6	636.2	646.7
30°	839.6	847.3	720.5	669.9	590.6	520.4	524.3	540.3	559.6	634.8	637.8
32.5°	902.9	886.3	785.1	651.9	553.0	501.0	493.9	515.4	544.2	612.4	620.7
35°	961.7	981.4	812.5	648.6	526.7	472.0	479.8	487.2	517.1	587.5	597.2
37.5°	1099.9	1055.1	889.3	632.6	504.9	457.4	449.1	460.4	485.8	540.3	562.7
40°	1204.9	1207.7	905.9	612.4	463.2	436.4	418.7	430.0	440.8	484.2	493.9
42.5°	1402.0	1341.7	946.5	568.2	436.9	404.9	394.9	399.9	401.5	419.8	435.8
45°	1652.6	1511.4	962.6	508.8	402.4	391.9	371.7	369.2	360.1	362.6	376.7
47.5°	1999.5	1776.2	951.0	445.5	371.7	375.0	346.0	334.7	322.0	325.0	338.3
50°	2448.0	2114.4	950.1	391.9	350.7	352.9	329.1	308.7	296.0	302.3	313.9
52.5°	2951.2	2453.8	954.0	355.1	327.8	326.7	318.1	293.2	283.0	289.6	302.9
55°	3432.7	2745.6	982.7	331.9	304.0	305.9	309.2	288.2	276.9	283.0	296.8
57.5°	3851.6	2976.1	972.0	307.3	281.9	290.7	299.6	281.3	272.8	281.6	295.4
60°	4144.6	3083.1	886.8	283.8	265.6	277.7	294.9	280.5	279.4	298.5	315.0
62.5°	4251.5	3043.5	721.0	265.3	255.9	276.1	305.7	298.7	299.8	323.3	346.3
65°	4095.4	2835.7	537.8	253.4	248.4	284.1	330.5	309.5	294.3	313.7	334.7
67.5°	3651.3	2466.2	393.0	243.2	239.9	296.8	353.5	308.4	280.2	299.8	317.0
70°	2954.0	1946.7	304.3	230.2	228.5	288.2	355.7	300.1	265.0	277.7	287.4
72.5°	2024.1	1332.9	252.0	217.8	208.9	255.4	337.7	281.6	246.8	254.3	262.3
75°	1131.1	748.1	212.0	202.3	182.9	227.4	316.7	270.6	233.2	235.5	246.5
77.5°	507.7	323.6	179.9	181.8	159.5	201.2	289.3	252.9	212.5	207.5	218.6
80°	192.1	157.8	145.9	153.7	134.0	174.4	260.9	236.8	190.7	184.3	190.7
82.5°	111.4	95.6	108.3	118.3	106.4	160.3	249.0	222.2	168.0	152.0	157.5
85°	51.7	49.5	64.9	76.8	74.3	124.9	213.1	167.2	119.7	101.1	111.9
87.5°	13.5	15.2	22.9	27.1	27.6	42.8	82.1	62.2	46.7	35.4	34.0
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)