

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: P596687

Luminaire Tested: **MSA-SA3B-827-U-T2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596687
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-9)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3B-827-U-T2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8150 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

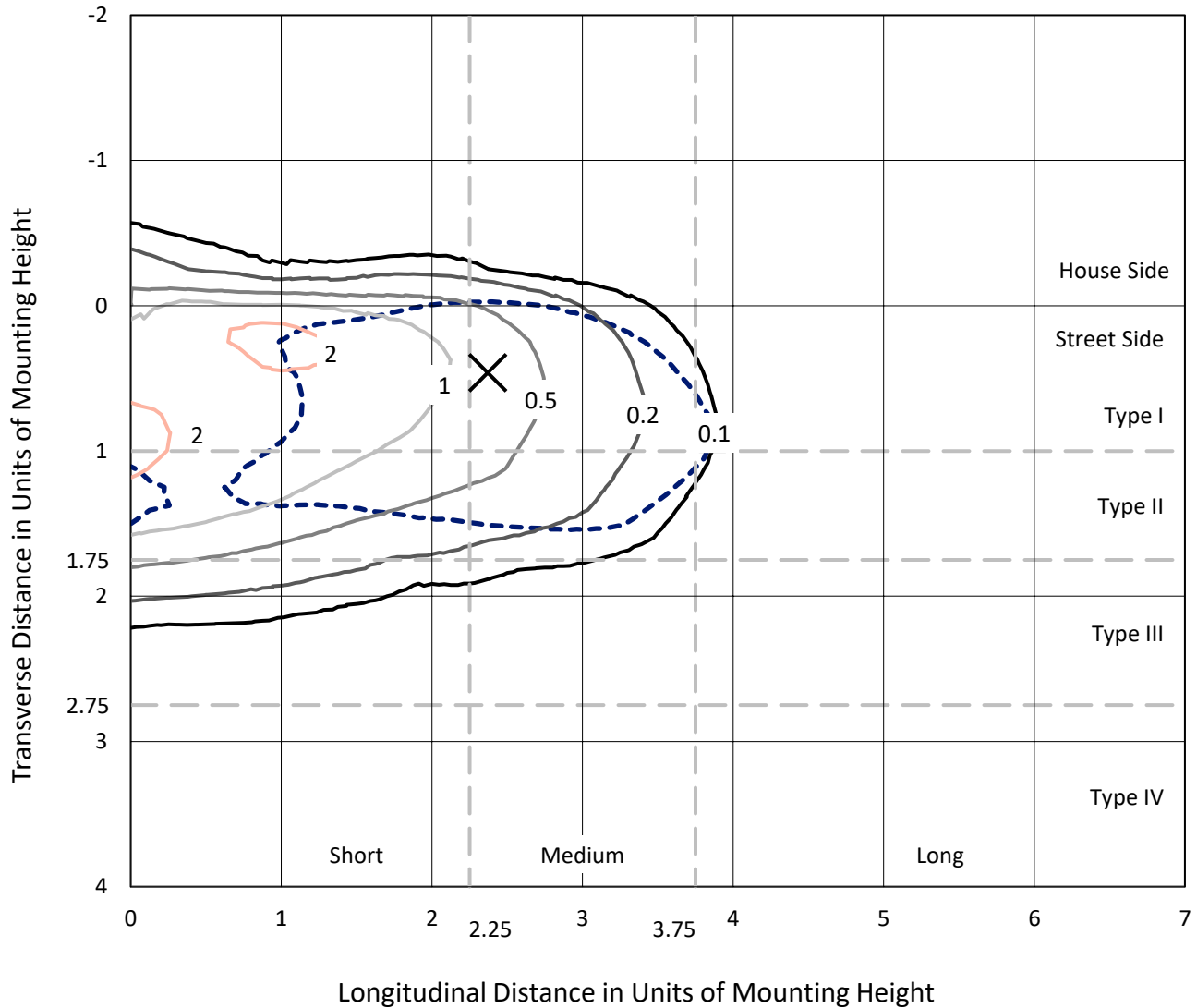
Input Watts (W): 126
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

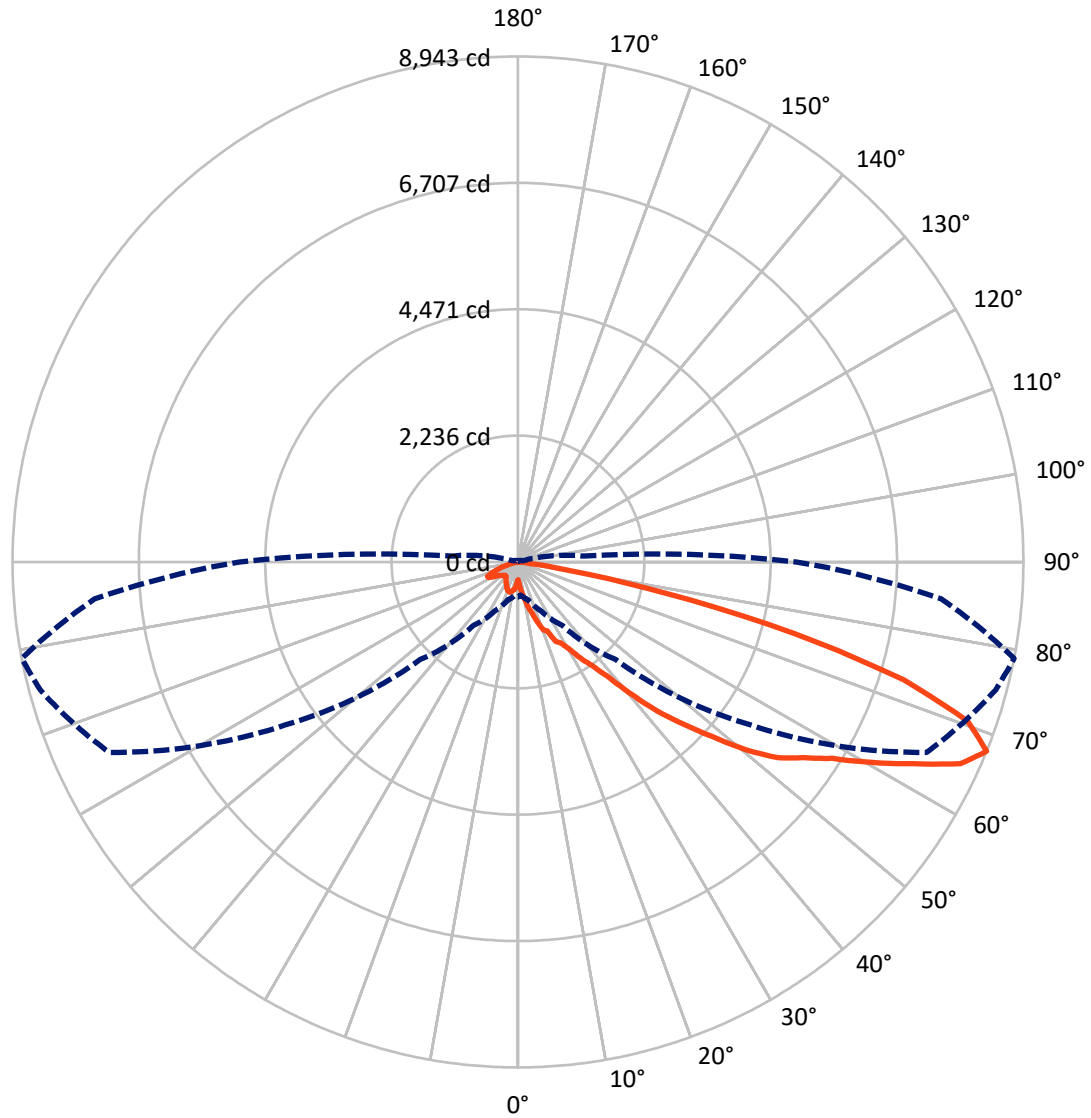
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	535.5	0.0	535.5
	% Fixture	6.6	0.0	6.6
Street Side	Lumens	7614.5	0.0	7614.5
	% Fixture	93.4	0.0	93.4
Total	Lumens	8150.0	0.0	8150.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	0.6
10°-20°	182.1	2.2
20°-30°	351.3	4.3
30°-40°	690.1	8.5
40°-50°	1382.5	17.0
50°-60°	2209.8	27.1
60°-70°	2223.4	27.3
70°-80°	1003.0	12.3
80°-90°	62.0	0.8
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°	8150.0	100.0
0°-180°	8150.0	100.0

Coefficient of Utilization



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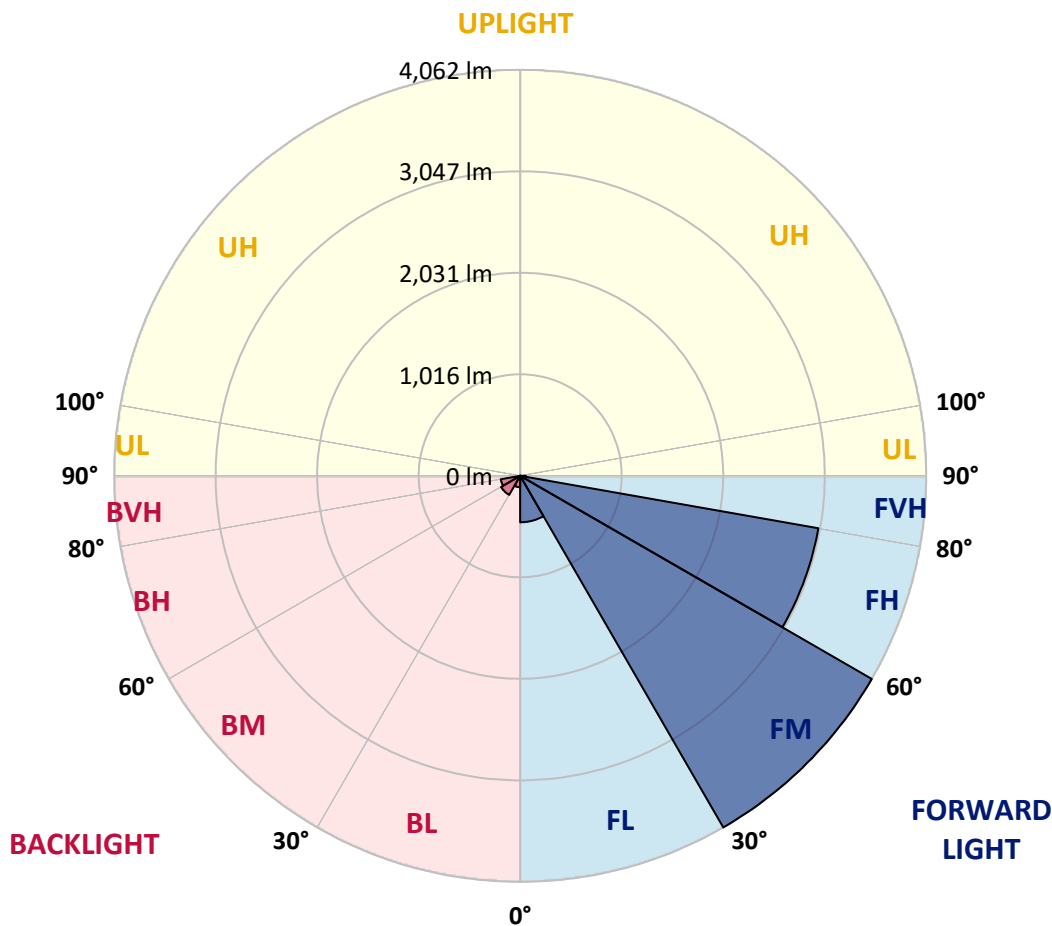
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	465.3	5.7			
FM (30°-60°)	4062.1	49.8			
FH (60°-80°)	3029.0	37.2			G2/5000
FVH (80°-90°)	58.1	0.7			G1/100
BL (0°-30°)	113.8	1.4	B1/500		
BM (30°-60°)	220.3	2.7	B1/1000		
BH (60°-80°)	197.4	2.4	B1/500		G1/500
BVH (80°-90°)	3.9	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	79°	85°
0°	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0
2.5°	424.1	408.8	384.1	398.1	397.2	404.3	390.9	376.0	352.2	376.0	377.8
5°	610.6	582.3	564.3	560.7	540.9	522.5	518.5	503.2	491.5	470.4	489.3
7.5°	760.6	747.6	715.7	712.1	663.6	636.6	645.2	638.4	593.9	571.9	590.3
10°	824.4	801.9	806.4	801.9	781.3	788.9	771.4	751.2	715.7	679.3	633.5
12.5°	849.1	845.5	882.8	878.3	926.8	985.3	946.2	912.5	830.3	821.3	758.8
15°	902.1	924.6	919.2	938.1	969.1	1068.4	1067.5	1075.6	988.4	941.7	851.4
17.5°	949.3	965.9	939.0	960.5	1045.0	1105.2	1185.6	1154.2	1164.1	1116.4	976.7
20°	929.1	948.0	921.0	908.0	1056.7	1170.8	1278.2	1255.3	1314.6	1284.9	1092.2
22.5°	1055.3	1019.8	952.0	909.8	1020.7	1169.5	1311.0	1406.7	1396.3	1323.6	1199.6
25°	1211.2	1189.7	1108.4	1033.8	1043.7	1161.4	1414.3	1554.9	1585.5	1554.5	1301.5
27.5°	1421.5	1416.6	1250.3	1218.0	1121.8	1125.9	1430.5	1741.8	1672.2	1623.7	1420.6
30°	1696.0	1656.9	1459.7	1417.5	1275.5	1205.8	1529.3	1903.1	1851.9	1785.9	1532.5
32.5°	1991.2	1997.0	1745.4	1606.1	1492.0	1409.4	1490.2	1978.6	2074.3	2020.8	1672.2
35°	2326.3	2352.4	2044.6	1881.1	1659.2	1537.4	1658.3	2210.4	2382.0	2241.4	1859.5
37.5°	2842.5	2841.6	2482.2	2156.5	1995.2	1863.1	1938.2	2421.1	2760.3	2562.6	2195.6
40°	3296.8	3197.9	2863.7	2489.4	2237.8	2201.9	2147.5	2709.6	3164.2	3045.2	2494.4
42.5°	3636.0	3566.3	3162.4	2871.3	2559.5	2445.4	2426.1	3132.3	3760.4	3593.7	2920.7
45°	4041.6	3813.4	3516.0	3253.6	2936.0	2902.7	2857.4	3561.4	4454.1	4078.5	3291.4
47.5°	4405.1	4190.4	3909.1	3572.2	3207.3	3481.4	3307.1	3938.3	4958.6	4605.9	3700.2
50°	4711.1	4482.8	4167.9	3911.4	3755.0	3941.0	3650.3	4248.8	5503.6	5217.8	4082.5
52.5°	4867.0	4608.6	4365.1	4206.5	4302.2	4260.4	4115.8	4624.8	5968.1	5754.3	4421.3
55°	4738.9	4486.4	4384.4	4463.1	4753.7	4632.9	4644.6	5207.5	6406.6	6111.9	4716.0
57.5°	4171.0	3940.6	3985.9	4201.1	4758.2	5074.5	5247.5	5773.6	6758.4	6557.6	5170.7
60°	3155.2	2969.7	3137.7	3519.6	4310.8	4986.5	5675.2	6339.7	7261.1	7198.2	5858.9
62.5°	1926.9	1826.3	2064.4	2540.6	3435.1	4554.7	5924.5	7094.4	7798.9	7865.8	6589.0
65°	983.0	937.6	1136.2	1554.9	2320.9	3741.5	5744.4	7563.5	8354.7	8601.8	7284.9
67.5°	619.1	589.9	695.9	948.4	1369.4	2440.4	5029.6	7973.7	8747.3	8942.7	7517.2
70°	429.1	410.6	502.3	651.0	863.9	1314.6	3734.3	7590.9	8436.0	8445.0	6955.2
72.5°	272.3	257.9	347.3	482.1	637.5	678.8	2140.8	5956.4	7221.1	7138.0	5632.5
75°	176.6	169.4	220.6	353.1	489.7	418.7	1058.0	4019.2	5177.9	5047.6	3741.1
77.5°	126.7	122.2	147.8	235.9	348.6	292.9	474.4	2395.5	2968.8	2683.9	1816.0
80°	76.4	75.9	106.9	147.8	248.0	206.7	219.2	1087.7	1151.0	938.5	554.9
82.5°	38.2	39.5	59.8	95.2	159.5	135.2	100.2	362.1	309.1	227.8	112.3
85°	9.0	11.2	31.4	65.6	80.0	53.9	47.6	94.8	84.9	64.2	32.8
87.5°	0.0	0.0	9.9	15.7	21.6	9.0	16.2	18.0	22.9	18.0	6.7
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°	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0	314.0
2.5°	378.3	372.9	340.1	331.6	330.7	321.2	323.5	314.5	314.9	335.2	335.2
5°	482.1	450.6	419.2	391.3	372.4	345.5	335.6	331.6	328.0	336.1	341.0
7.5°	566.1	519.8	463.2	402.5	346.4	307.8	302.4	292.5	288.9	297.0	303.3
10°	603.4	545.9	468.1	379.6	327.1	295.6	269.6	255.6	252.9	252.5	254.7
12.5°	682.4	611.0	473.5	371.1	314.0	279.4	249.8	226.4	204.9	207.1	204.9
15°	745.8	661.3	473.5	350.4	282.6	248.0	195.9	184.2	181.1	186.0	182.0
17.5°	841.5	711.2	449.7	313.6	255.6	192.7	173.0	172.1	178.4	185.5	181.1
20°	899.0	717.9	409.7	271.4	209.8	167.1	159.9	152.8	161.7	167.6	165.3
22.5°	958.7	718.4	369.8	248.9	168.9	152.3	140.6	134.8	136.1	141.5	142.4
25°	984.4	700.9	332.5	219.2	153.2	136.1	124.0	117.7	115.5	118.2	117.3
27.5°	1054.0	667.2	292.0	186.9	145.6	120.9	109.6	102.0	95.2	99.7	100.6
30°	1063.9	656.4	270.0	166.2	135.7	106.9	97.0	89.0	84.0	90.3	90.3
32.5°	1095.3	597.1	258.8	157.7	125.3	98.8	85.4	79.5	78.6	82.7	83.1
35°	1143.8	571.0	242.2	151.0	115.9	89.4	76.8	74.1	73.2	76.4	76.4
37.5°	1308.3	538.7	223.7	145.1	107.8	84.5	74.6	70.1	70.5	73.2	75.0
40°	1417.5	542.7	196.3	137.9	98.4	80.0	70.1	66.9	66.5	67.8	69.2
42.5°	1620.1	545.9	184.2	130.3	91.2	74.6	65.6	63.3	61.6	62.9	64.2
45°	1846.5	562.5	177.9	124.0	87.2	71.4	61.6	60.2	56.2	57.1	58.9
47.5°	2064.9	623.1	170.3	115.0	83.6	69.6	57.5	54.4	51.7	51.2	53.0
50°	2312.8	682.0	161.7	105.1	80.0	66.9	53.5	48.5	46.7	46.7	48.1
52.5°	2534.8	738.2	153.7	98.4	77.3	62.0	49.9	44.9	43.6	43.6	45.4
55°	2768.4	797.0	146.5	92.1	73.7	57.1	46.7	42.2	41.8	40.9	42.2
57.5°	3180.8	925.5	137.5	86.7	68.7	53.0	44.0	39.5	38.6	37.3	38.6
60°	3781.5	1122.7	125.8	81.3	62.9	50.3	41.8	36.4	35.0	32.8	33.2
62.5°	4368.7	1282.2	112.3	74.6	57.5	47.6	38.2	32.8	30.6	27.9	28.3
65°	4871.9	1345.1	97.9	66.5	52.1	41.3	33.2	28.8	25.6	22.0	21.6
67.5°	4931.2	1187.9	84.0	58.9	46.7	35.0	28.3	25.6	20.7	17.5	16.6
70°	4437.9	885.1	70.1	52.1	40.4	29.7	24.3	22.5	19.3	16.6	15.3
72.5°	3534.0	653.2	58.9	46.3	35.5	25.2	20.7	21.1	19.3	16.2	14.4
75°	2337.1	373.8	48.1	38.6	29.7	20.2	18.9	18.9	18.4	15.3	13.5
77.5°	1124.5	161.3	36.8	30.6	23.8	15.3	17.1	17.1	17.5	13.9	11.2
80°	319.0	48.5	22.9	20.7	17.5	10.3	13.5	13.0	11.7	8.1	4.9
82.5°	57.1	18.9	10.3	10.8	9.9	4.0	7.6	7.2	5.8	3.1	0.4
85°	15.7	7.2	5.8	6.3	4.9	1.3	3.1	4.0	3.1	1.8	0.0
87.5°	4.0	3.1	4.0	4.5	3.6	0.4	1.3	0.4	1.3	0.4	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)