

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: P367267

Luminaire Tested: **MSA-SA2B-727-U-SL4-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367267
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-727-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6890 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

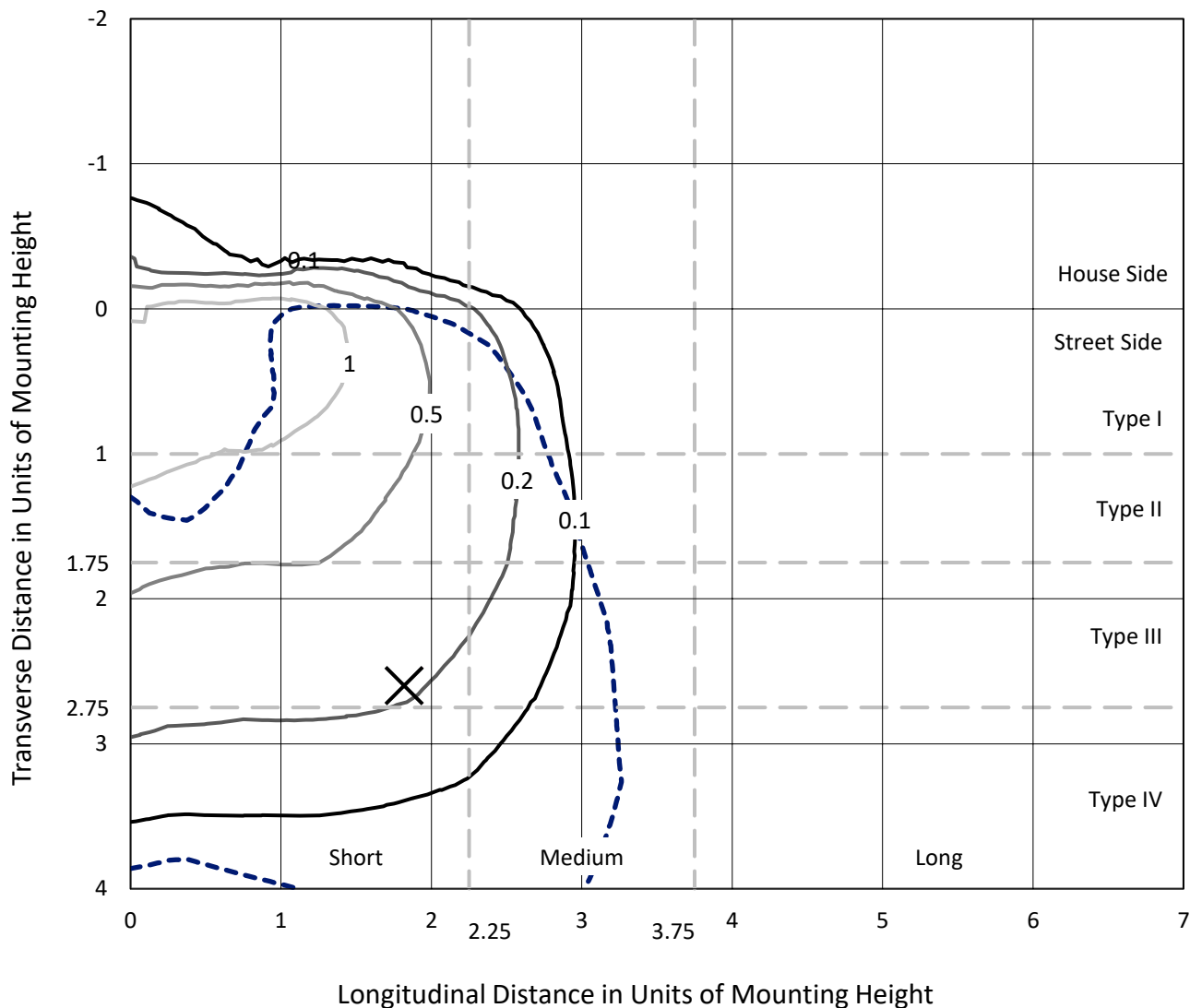
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

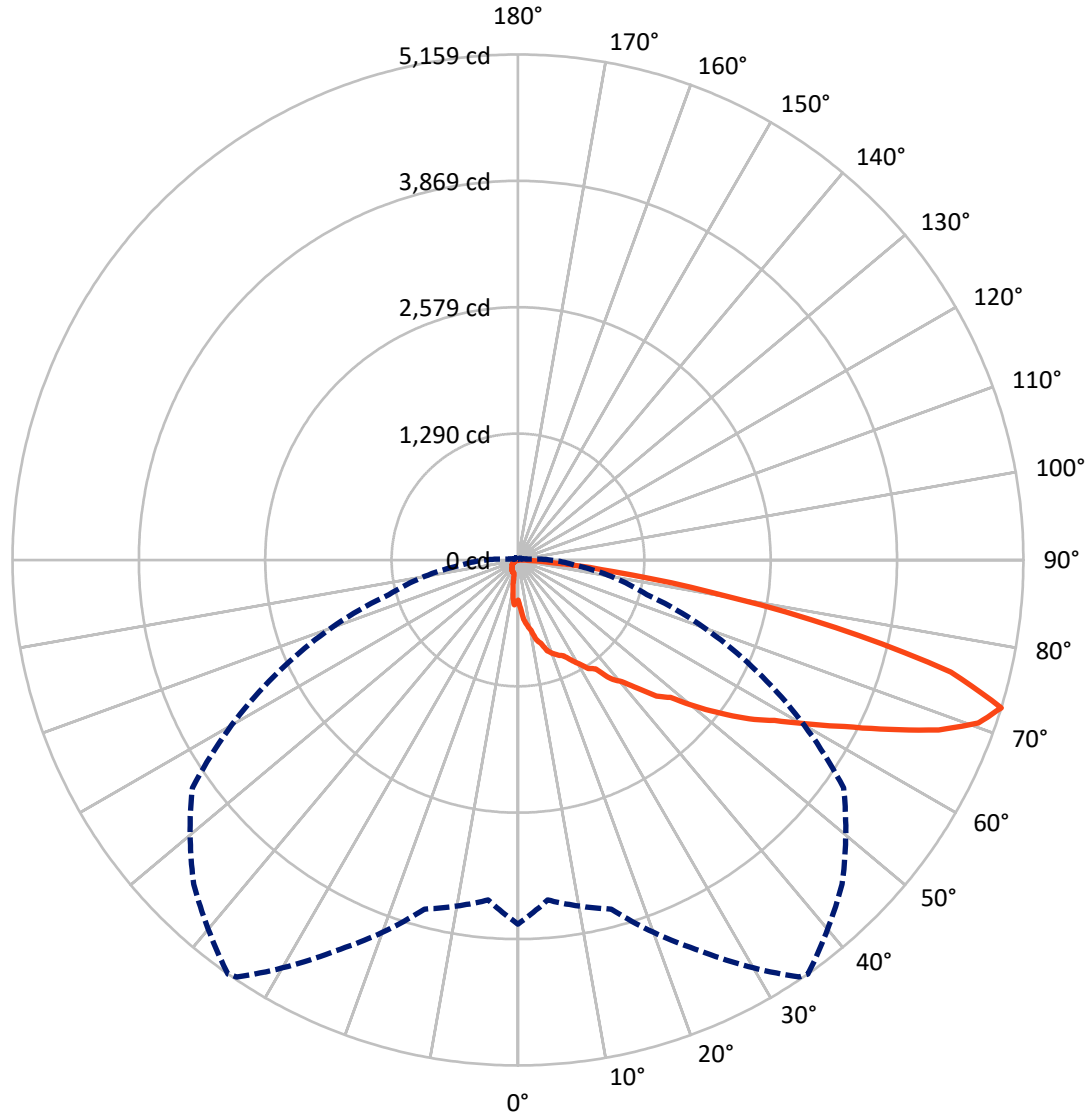
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	537.4	0.0	537.4
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	6352.6	0.0	6352.6
	% Fixture	92.2	0.0	92.2
Total	Lumens	6890.0	0.0	6890.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	0.8
10°-20°	176.3	2.6
20°-30°	321.1	4.7
30°-40°	553.9	8.0
40°-50°	984.6	14.3
50°-60°	1469.3	21.3
60°-70°	1877.1	27.2
70°-80°	1306.0	19.0
80°-90°	149.4	2.2
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°	6890.0	100.0
0°-180°	6890.0	100.0

Coefficient of Utilization

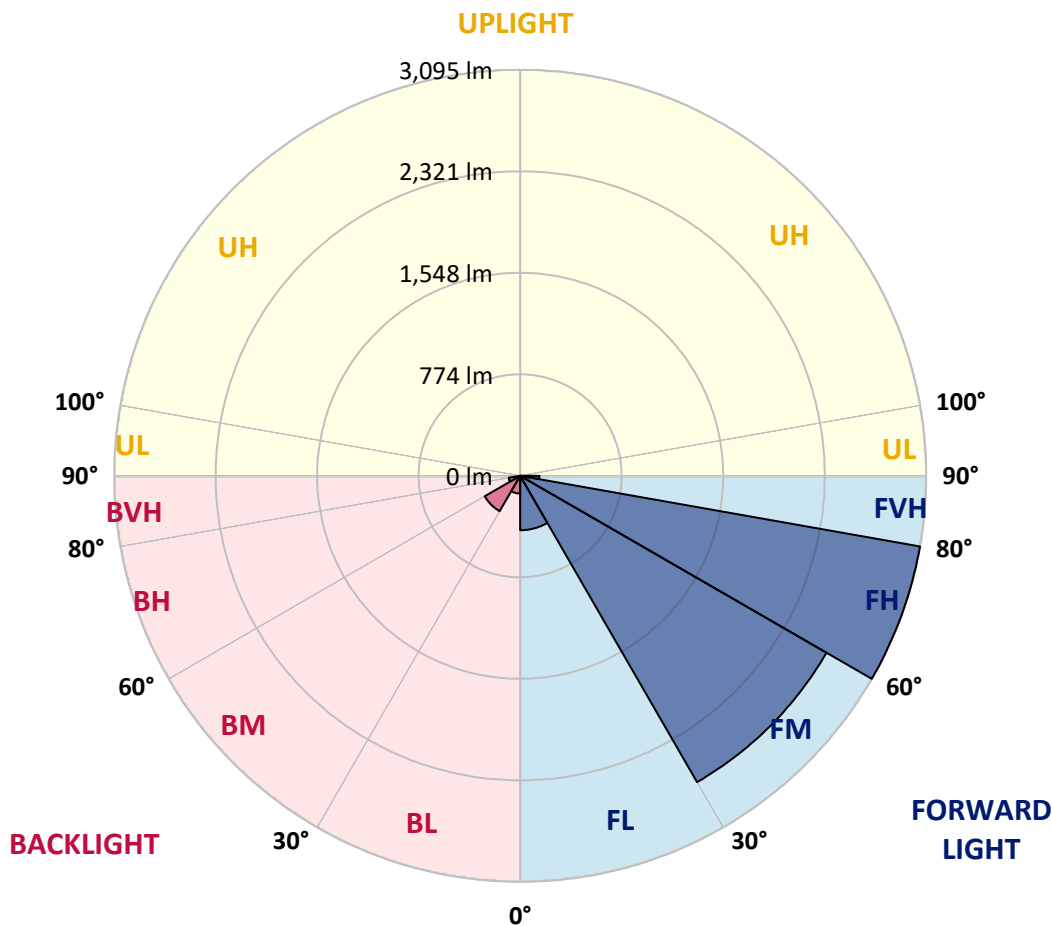


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.6	6.0			
FM (30°-60°)	2696.1	39.1			
FH (60°-80°)	3095.0	44.9			G2/5000
FVH (80°-90°)	146.9	2.1			G2/225
BL (0°-30°)	135.2	2.0	B1/500		
BM (30°-60°)	311.6	4.5	B1/1000		
BH (60°-80°)	88.1	1.3	B0/110		G0/110
BVH (80°-90°)	2.5	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4
2.5°	522.3	501.9	468.6	471.0	485.9	489.1	493.6	481.8	471.4	453.0	488.7
5°	669.2	639.7	621.0	615.1	606.5	607.2	586.0	593.7	591.6	605.1	621.4
7.5°	751.9	735.7	712.1	705.5	673.7	670.2	644.2	679.2	682.7	677.8	704.5
10°	784.9	763.4	766.1	741.6	725.6	729.8	733.9	736.7	741.2	745.7	713.2
12.5°	804.2	808.1	845.8	820.2	836.1	836.1	864.2	834.4	835.4	802.9	808.4
15°	891.5	912.7	895.7	895.3	878.0	882.5	915.1	891.5	903.7	894.0	856.5
17.5°	1001.0	1005.1	972.9	958.7	974.3	974.7	960.8	959.8	917.5	988.9	943.5
20°	1036.0	1059.5	1013.8	958.4	1023.1	1020.0	1019.0	1002.7	932.4	1031.5	994.1
22.5°	1131.2	1097.6	1066.4	1030.1	1055.4	1055.4	1051.5	1015.9	988.5	1027.6	1043.6
25°	1161.0	1165.2	1124.6	1112.9	1113.5	1082.4	1079.6	1064.4	1038.0	1104.9	1073.0
27.5°	1263.5	1261.8	1164.5	1197.4	1155.5	1155.8	1079.3	1113.5	1118.0	1108.7	1144.4
30°	1364.3	1392.4	1245.5	1287.1	1243.1	1229.9	1155.1	1185.6	1193.6	1182.8	1227.8
32.5°	1492.8	1534.0	1391.3	1350.5	1283.3	1320.7	1269.1	1197.0	1236.5	1332.4	1357.7
35°	1628.9	1649.0	1497.0	1439.8	1364.0	1363.6	1361.9	1367.8	1411.4	1519.5	1541.0
37.5°	1873.5	1826.0	1688.5	1557.6	1574.6	1536.8	1510.5	1538.2	1583.6	1761.6	1853.4
40°	2009.9	1975.6	1782.0	1704.4	1620.3	1634.1	1705.5	1702.4	1823.2	2009.6	2147.1
42.5°	2142.6	2110.0	1919.5	1856.8	1748.8	1786.5	1817.7	1857.2	2104.8	2405.5	2481.0
45°	2260.7	2165.1	2030.7	2033.1	1977.0	1981.5	2036.6	2073.0	2431.1	2739.4	2792.4
47.5°	2332.0	2253.4	2124.6	2122.1	2118.7	2097.6	2357.0	2390.2	2691.2	3057.3	3062.2
50°	2432.5	2334.1	2221.2	2223.3	2303.3	2348.0	2657.6	2654.2	2942.3	3322.6	3210.8
52.5°	2557.5	2437.3	2313.0	2405.5	2529.1	2601.9	2853.3	2955.8	3212.1	3489.2	3268.9
55°	2717.5	2567.2	2447.4	2565.8	2835.6	2863.7	3044.8	3261.3	3506.2	3659.3	3287.6
57.5°	2905.3	2725.9	2628.9	2819.7	3088.8	3089.5	3323.7	3586.9	3686.7	3728.6	3266.5
60°	3107.5	2898.3	2800.7	2972.5	3368.0	3396.4	3633.7	3766.7	3869.9	3763.5	3228.8
62.5°	3285.6	3054.5	2978.7	3180.6	3674.2	3741.4	3903.8	3884.8	4002.2	3807.5	3132.8
65°	3497.5	3256.8	3206.9	3505.2	4073.9	4166.4	4207.2	4094.3	4046.5	3773.6	2883.1
67.5°	3707.4	3482.3	3480.9	3865.0	4597.9	4629.8	4586.8	4389.8	3994.9	3474.3	2425.6
70°	3855.3	3613.6	3704.7	4259.2	5074.2	4984.8	4804.0	4529.3	3622.2	2662.8	1584.6
72.5°	3716.4	3483.3	3688.7	4399.5	5133.1	5158.7	4678.3	4057.3	2691.2	1361.9	573.6
75°	2824.2	2681.5	3202.8	3903.1	4557.4	4563.3	3904.9	2861.6	1325.2	369.9	158.6
77.5°	1422.5	1377.1	2027.2	2770.9	3325.1	3315.4	2682.9	1533.0	426.4	123.0	80.0
80°	720.1	683.7	862.8	1494.9	1974.6	1989.1	1531.9	686.5	215.1	66.8	55.4
82.5°	442.3	419.8	472.1	676.4	958.4	981.6	581.2	434.7	133.3	39.5	50.6
85°	85.6	90.1	271.2	338.7	382.7	373.7	172.1	357.8	40.2	23.6	36.7
87.5°	0.0	1.4	62.7	110.5	110.8	98.4	39.1	79.3	5.5	6.6	4.5
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°	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4	410.4
2.5°	494.6	489.4	446.1	441.3	442.3	435.0	432.6	417.4	413.6	437.1	441.3
5°	614.4	579.8	539.6	525.1	502.6	464.5	458.9	449.2	438.5	442.6	439.5
7.5°	687.9	641.8	598.9	522.3	458.9	403.5	394.5	377.9	361.3	361.6	372.3
10°	699.6	660.9	601.6	508.5	436.1	366.8	306.5	262.9	243.1	225.5	230.7
12.5°	767.9	731.9	622.8	504.3	402.8	294.8	215.8	173.2	154.5	148.2	147.5
15°	822.6	794.2	658.8	491.5	329.0	207.5	154.5	142.0	138.5	144.4	142.7
17.5°	904.0	852.7	655.0	438.5	250.8	157.6	142.4	140.6	144.8	148.2	149.3
20°	939.7	865.9	629.0	355.4	187.7	144.4	138.9	135.4	143.0	153.4	151.4
22.5°	975.7	888.4	598.5	290.9	151.0	138.2	135.1	132.3	138.2	148.2	150.7
25°	992.0	924.4	564.6	227.2	140.3	130.9	128.8	129.9	134.7	143.7	142.7
27.5°	1074.1	928.6	499.8	179.4	135.8	125.7	125.7	128.2	128.2	140.3	139.2
30°	1125.3	998.9	447.2	151.0	130.6	118.5	122.6	123.7	121.9	135.1	136.1
32.5°	1215.4	1018.3	395.9	138.5	122.3	117.4	116.7	117.4	118.8	131.6	132.0
35°	1353.9	1113.9	325.9	133.7	118.1	112.2	107.4	111.2	114.6	124.0	125.7
37.5°	1624.8	1211.9	265.7	129.9	116.0	107.4	105.6	104.9	111.2	121.9	125.4
40°	1844.0	1385.4	216.1	126.8	111.9	104.6	100.1	100.4	106.0	114.0	119.1
42.5°	2154.4	1510.8	183.2	121.9	106.0	98.7	93.5	96.6	99.1	107.4	110.8
45°	2413.4	1608.1	161.4	118.8	100.1	93.2	89.0	92.5	90.1	94.2	99.1
47.5°	2619.5	1693.0	145.1	111.2	96.3	90.1	84.9	83.8	79.7	80.7	85.2
50°	2732.8	1678.8	131.6	103.6	91.4	86.9	79.7	72.4	66.8	66.5	69.3
52.5°	2773.0	1603.0	120.5	97.0	85.6	80.0	71.7	61.7	56.1	54.4	56.8
55°	2784.0	1493.8	110.5	89.7	80.0	71.4	62.7	52.0	46.1	43.3	45.7
57.5°	2748.0	1325.9	100.8	82.8	73.4	63.0	53.7	42.6	37.1	33.6	35.7
60°	2659.0	1112.5	92.1	74.1	66.5	55.8	45.4	34.3	28.4	25.3	26.3
62.5°	2461.9	872.1	82.8	66.2	59.2	48.8	38.1	27.0	21.5	18.7	19.0
65°	2162.0	650.1	72.0	58.5	52.6	42.3	30.5	20.8	16.3	13.9	13.5
67.5°	1722.4	440.6	61.3	50.6	46.8	35.7	24.2	16.3	12.8	11.1	10.4
70°	1012.4	222.0	50.9	43.6	40.2	29.8	19.0	13.2	11.8	10.4	9.7
72.5°	333.9	95.9	39.8	36.0	33.3	23.9	14.9	12.1	11.4	10.0	9.4
75°	116.4	55.4	29.4	27.7	26.3	18.0	12.5	11.1	11.1	9.7	8.7
77.5°	76.2	42.9	21.8	20.1	19.7	13.2	10.7	10.4	9.7	8.0	6.6
80°	63.4	24.2	15.2	14.2	13.9	8.3	8.7	7.6	5.9	3.5	1.4
82.5°	58.5	14.5	8.0	8.7	8.0	3.1	4.8	4.2	3.1	1.4	0.0
85°	34.3	6.6	4.5	4.5	3.5	0.7	2.4	2.4	1.4	0.3	0.0
87.5°	3.8	3.1	2.4	2.4	1.7	0.0	1.0	0.7	0.0	0.0	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)