

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: P367147

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

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367147
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
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-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5011 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

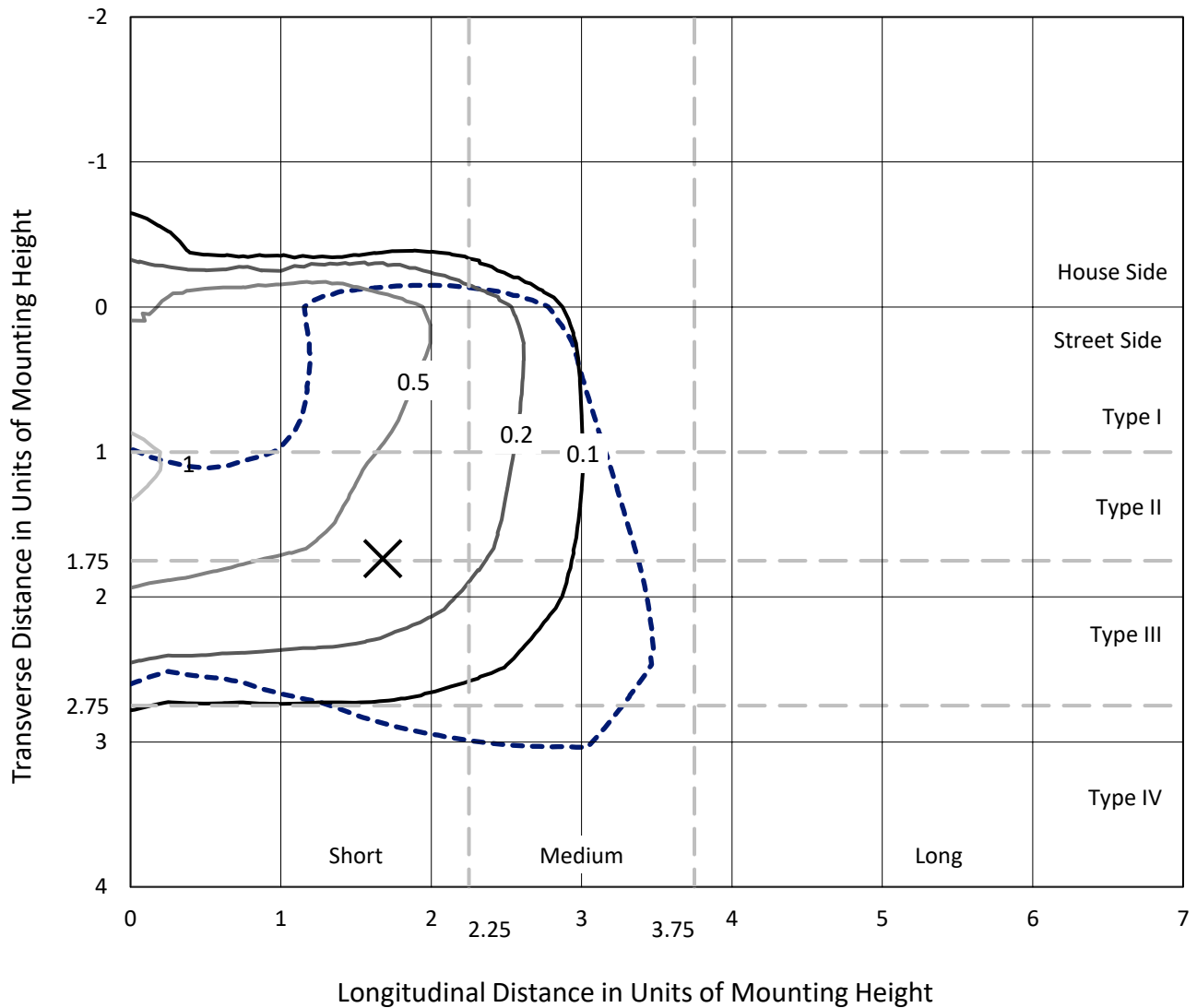
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

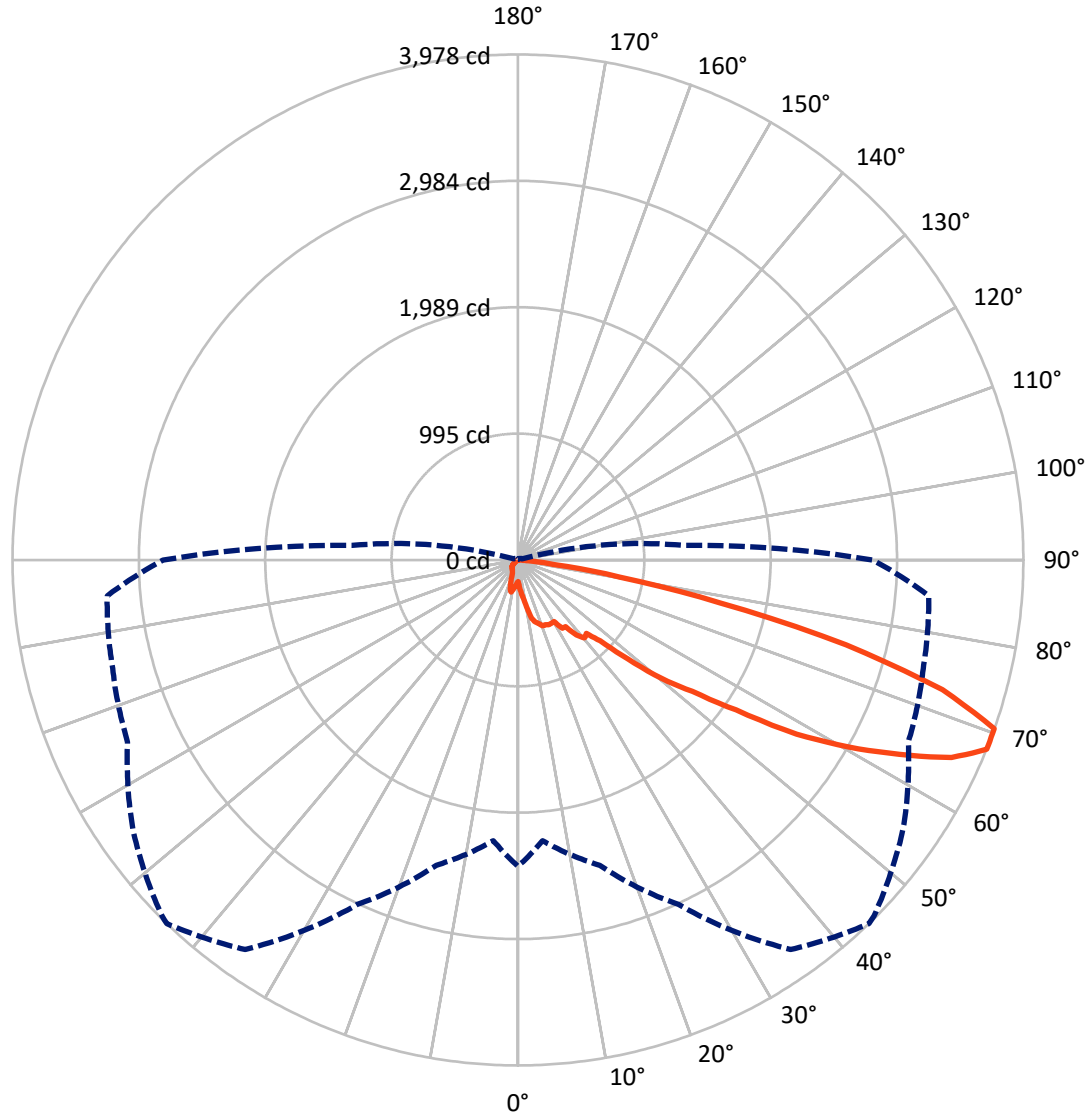
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	509.0	0.0	509.0
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	4502.0	0.0	4502.0
	% Fixture	89.8	0.0	89.8
Total	Lumens	5011.0	0.0	5011.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.0	0.5
10°-20°	104.8	2.1
20°-30°	185.6	3.7
30°-40°	301.7	6.0
40°-50°	603.6	12.0
50°-60°	1238.4	24.7
60°-70°	1701.2	33.9
70°-80°	799.6	16.0
80°-90°	51.2	1.0
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°	5011.0	100.0
0°-180°	5011.0	100.0

Coefficient of Utilization



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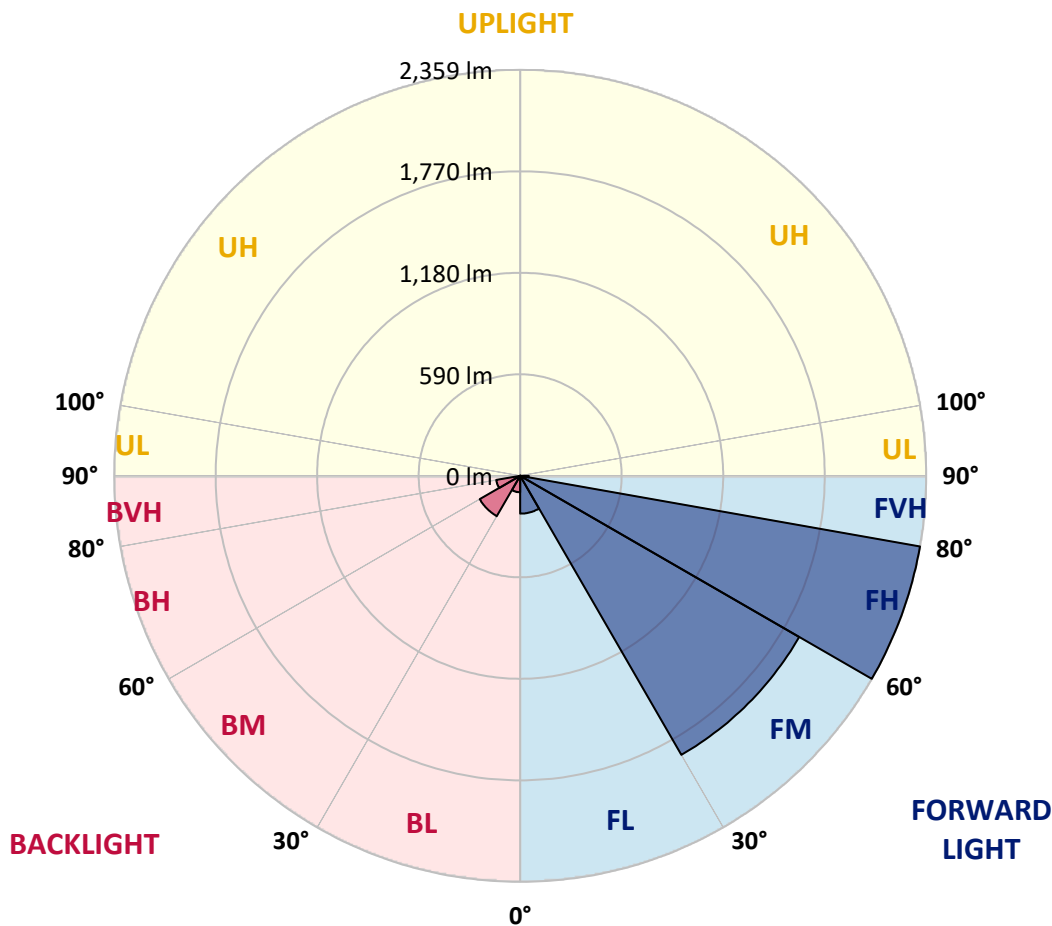
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	219.8	4.4			
FM (30°-60°)	1872.5	37.4			
FH (60°-80°)	2359.5	47.1			G2/5000
FVH (80°-90°)	50.2	1.0			G1/100
BL (0°-30°)	95.6	1.9	B0/110		
BM (30°-60°)	271.1	5.4	B1/1000		
BH (60°-80°)	141.2	2.8	B1/500		G1/500
BVH (80°-90°)	1.0	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°	35°	44°	45°	55°	65°	75°	85°
0°	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8
2.5°	214.7	207.8	197.8	200.1	201.2	204.2	204.5	200.6	189.6	186.5	200.1
5°	300.9	284.1	281.0	274.7	261.9	255.0	253.4	260.3	251.4	248.7	252.3
7.5°	384.4	370.0	354.2	345.7	319.1	302.8	302.0	304.8	306.4	296.8	301.7
10°	439.9	424.1	420.8	400.7	377.7	373.9	372.2	361.7	353.1	346.0	321.9
12.5°	490.2	489.9	496.0	467.0	463.4	467.3	465.9	428.3	419.7	389.6	382.7
15°	557.1	573.6	547.4	523.1	492.1	505.4	501.8	477.8	472.0	451.5	421.9
17.5°	626.4	630.8	586.9	549.6	541.6	524.2	527.8	519.2	489.9	506.2	476.9
20°	628.1	637.7	590.8	529.1	553.7	552.9	553.2	544.9	506.2	544.3	517.5
22.5°	651.3	627.5	583.9	544.6	549.0	553.2	557.6	547.4	539.1	548.5	553.5
25°	641.9	632.5	590.5	564.5	560.4	563.7	564.8	577.8	572.5	595.2	582.8
27.5°	666.2	652.7	577.5	582.2	567.6	563.7	557.1	600.4	615.9	598.0	631.1
30°	707.9	706.0	599.9	606.8	595.5	561.5	579.2	635.8	655.2	644.1	684.4
32.5°	773.1	779.8	665.4	620.6	626.4	641.6	635.0	635.8	684.7	709.3	741.4
35°	865.7	862.1	729.2	673.1	642.7	645.2	654.6	699.6	762.9	761.3	795.2
37.5°	1047.5	1008.3	842.2	726.7	735.8	748.3	741.4	801.9	808.0	810.2	891.4
40°	1315.6	1263.3	1020.4	839.7	751.9	806.8	803.5	818.5	859.1	874.3	992.8
42.5°	1668.7	1598.5	1334.1	1047.5	829.2	791.4	811.8	840.0	976.5	1019.9	1149.8
45°	2058.8	1916.8	1646.9	1343.7	1023.2	905.8	921.2	973.7	1163.0	1234.9	1378.3
47.5°	2311.7	2186.8	1956.6	1606.2	1225.5	1163.9	1165.2	1176.6	1382.1	1515.3	1707.6
50°	2531.4	2398.4	2184.8	1880.6	1583.3	1466.7	1440.2	1387.9	1661.2	1843.3	2056.6
52.5°	2841.4	2686.1	2413.1	2202.5	1991.4	1716.8	1707.4	1725.1	1990.3	2181.8	2414.5
55°	3121.0	2932.3	2671.7	2539.1	2456.7	2084.3	2092.3	2121.8	2412.8	2514.2	2732.8
57.5°	3244.5	3040.1	2906.0	2846.4	2802.4	2586.3	2559.3	2541.6	2746.1	2784.7	3066.3
60°	3325.5	3131.0	3070.2	3084.0	3217.2	2987.8	2963.2	2860.4	3021.8	3053.6	3365.3
62.5°	3274.4	3097.0	3110.0	3225.2	3520.8	3370.0	3299.0	3127.1	3247.3	3273.0	3580.0
65°	2952.5	2767.6	2934.5	3213.3	3752.4	3748.8	3715.9	3373.3	3372.2	3405.1	3596.6
67.5°	2411.7	2217.7	2487.7	2990.6	3742.7	3978.4	3963.0	3699.9	3390.1	3302.3	3245.6
70°	1676.7	1508.4	1814.6	2469.7	3409.2	3976.8	3951.9	3919.3	3248.1	2842.5	2516.4
72.5°	871.2	778.7	1063.8	1701.8	2717.6	3494.0	3576.1	3522.5	2773.4	2065.2	1481.9
75°	295.9	265.5	438.8	903.3	1806.6	2668.1	2764.3	2709.9	1883.7	1108.0	586.1
77.5°	114.7	106.7	157.2	366.7	906.3	1625.9	1730.3	1674.8	1010.2	405.9	137.9
80°	65.2	63.0	86.8	165.2	399.6	808.8	882.3	800.2	364.2	136.8	35.9
82.5°	27.6	28.5	48.4	89.3	200.9	285.4	318.3	290.4	152.5	93.7	13.3
85°	6.1	7.5	22.9	49.7	84.3	81.5	85.4	94.8	93.7	68.8	5.8
87.5°	0.0	0.0	7.2	13.5	20.2	13.3	10.5	18.5	28.7	27.6	2.5
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°	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8	168.8
2.5°	202.5	199.8	182.4	181.3	182.4	179.3	179.1	172.7	173.3	187.6	188.7
5°	252.3	238.5	223.5	218.8	214.4	204.5	210.0	210.0	210.0	219.1	221.9
7.5°	297.3	278.8	257.8	240.1	223.0	210.6	219.1	225.2	228.8	240.7	246.2
10°	317.8	299.5	280.7	255.6	242.3	237.6	227.7	222.4	228.8	226.3	229.3
12.5°	361.4	344.8	312.5	286.5	276.6	260.6	231.3	210.8	197.3	195.1	194.5
15°	404.0	393.8	350.4	315.6	281.0	244.0	194.0	166.9	152.5	150.0	150.3
17.5°	457.9	443.2	379.4	329.4	270.8	204.2	149.8	126.6	125.4	131.5	132.1
20°	493.8	469.7	394.0	318.0	237.1	154.5	117.2	111.6	120.5	131.5	130.4
22.5°	528.0	502.1	413.4	308.1	183.8	117.2	107.8	108.3	115.8	127.7	130.7
25°	550.7	541.3	437.1	284.9	140.1	101.4	103.1	107.2	113.6	124.9	124.9
27.5°	619.0	575.0	434.4	239.8	107.8	94.5	98.4	103.6	106.9	120.5	121.9
30°	660.4	646.0	448.7	194.0	94.5	85.7	93.1	97.8	100.0	115.5	116.1
32.5°	711.2	679.5	466.1	143.1	87.9	85.1	83.4	87.0	93.4	106.9	107.8
35°	773.1	763.7	441.3	112.5	85.7	79.6	76.3	78.2	82.3	91.5	93.4
37.5°	899.4	843.6	426.4	96.4	85.7	77.6	74.1	69.1	69.6	76.0	79.6
40°	1005.8	988.7	384.6	93.7	81.8	74.9	66.0	60.0	55.8	57.8	59.1
42.5°	1201.2	1121.9	330.8	92.3	78.2	67.7	56.1	49.7	43.4	43.9	46.1
45°	1438.2	1267.2	282.7	90.9	75.7	60.5	47.3	39.8	33.2	33.4	35.6
47.5°	1754.9	1479.1	224.4	86.8	71.3	53.9	38.1	30.4	26.5	27.4	29.3
50°	2114.7	1665.1	177.4	80.4	66.0	47.5	30.9	24.6	23.2	24.0	26.3
52.5°	2436.0	1802.1	146.4	74.6	58.6	38.7	26.0	21.8	21.3	21.8	23.5
55°	2721.7	1881.7	122.4	68.0	50.3	31.2	23.5	20.2	19.9	19.6	20.7
57.5°	2989.8	1904.7	95.6	57.5	40.9	27.1	21.8	18.8	18.2	17.4	18.2
60°	3185.1	1865.4	70.2	46.1	33.4	24.6	20.4	16.9	16.0	14.6	15.2
62.5°	3279.3	1757.9	53.1	37.0	28.5	22.4	18.2	14.6	13.5	11.9	12.2
65°	3189.8	1580.8	41.7	31.2	24.3	18.8	15.5	12.4	11.1	9.4	9.4
67.5°	2793.3	1311.4	35.4	27.1	20.4	16.0	12.7	11.3	9.1	7.7	7.5
70°	2050.3	943.4	30.4	23.8	17.7	13.8	10.8	10.2	8.8	7.5	6.9
72.5°	1157.2	533.8	26.0	21.0	14.9	11.6	9.1	9.4	8.6	6.9	6.4
75°	441.6	179.9	21.6	17.4	12.2	8.8	7.7	7.7	7.7	5.8	5.0
77.5°	109.4	45.9	17.1	14.1	9.7	5.8	6.4	6.6	6.6	5.0	3.6
80°	30.1	15.5	10.2	10.2	6.9	3.3	4.4	4.4	3.6	1.7	0.0
82.5°	11.1	5.8	3.6	4.4	3.0	1.1	1.7	1.1	0.8	0.0	0.0
85°	4.7	3.0	2.2	2.5	1.4	0.0	0.3	0.6	0.0	0.0	0.0
87.5°	1.9	1.4	1.1	1.1	0.6	0.0	0.0	0.0	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)