

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: P366971

Luminaire Tested: **MSA-SA1C-760-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P366971
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-SA1C-760-U-T4W-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (1) 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: 4728 lumens
Efficiency: N/A
Efficacy: 80.1 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

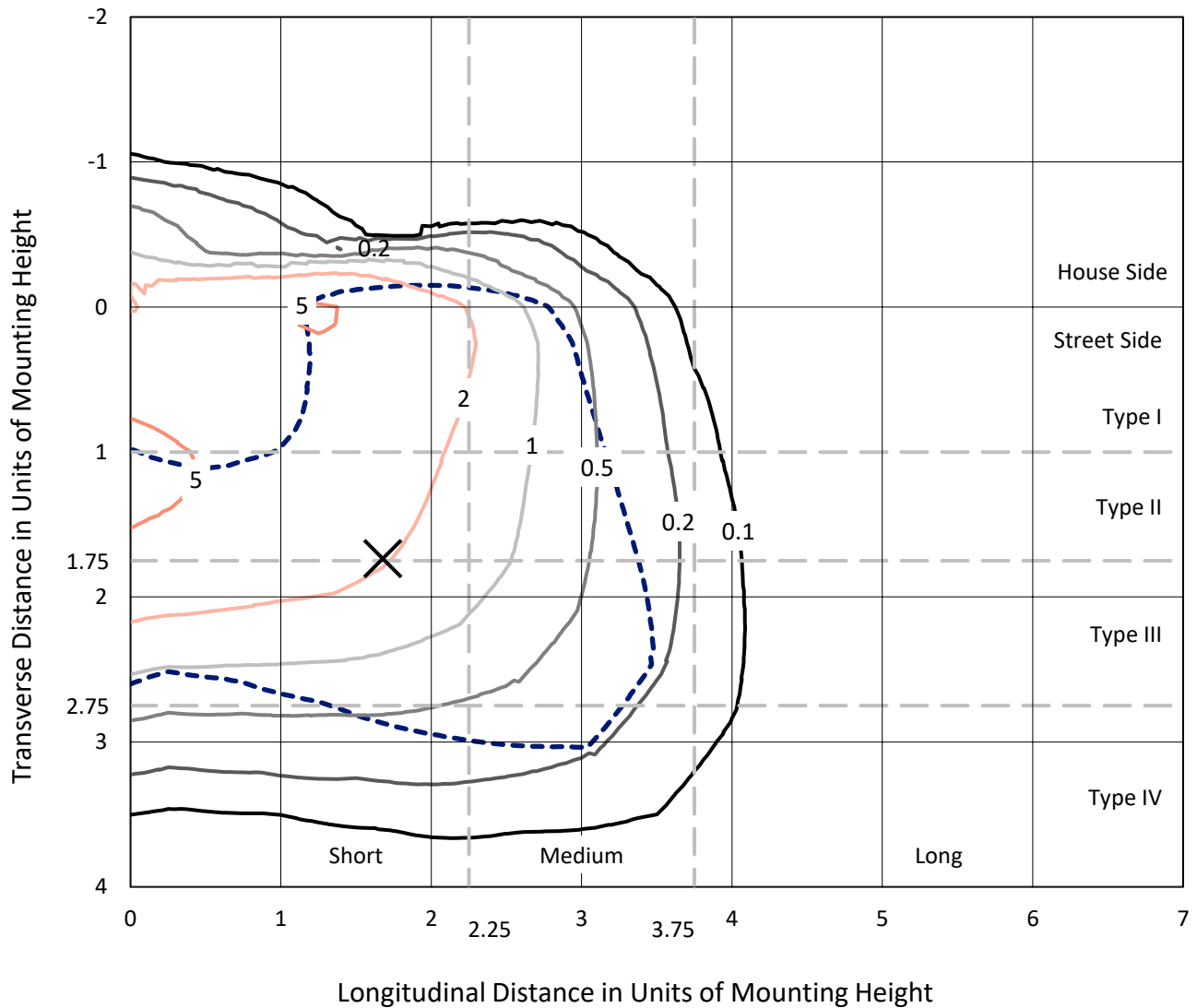
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

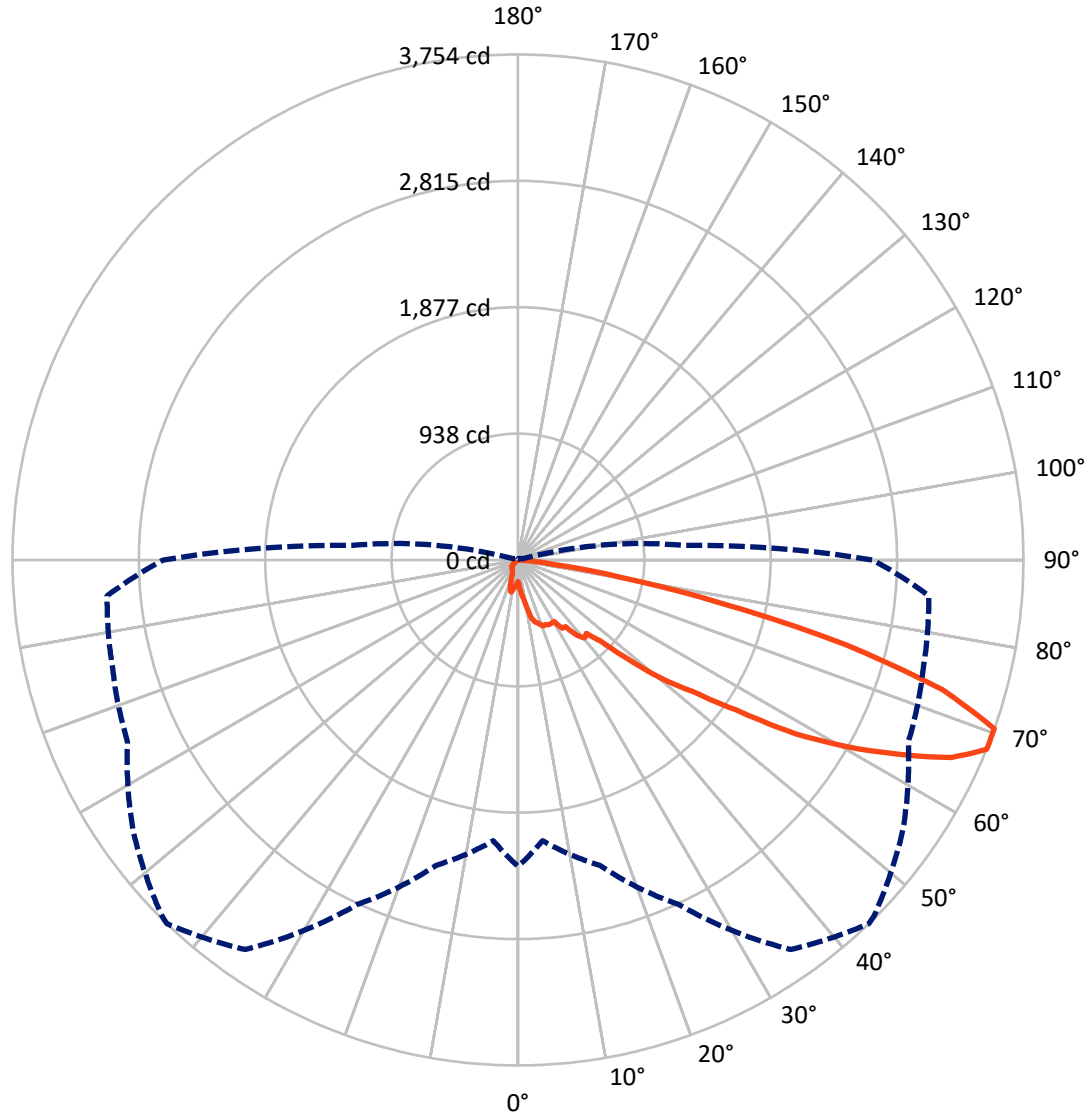
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 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	480.3	0.0	480.3
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	4247.7	0.0	4247.7
	% Fixture	89.8	0.0	89.8
Total	Lumens	4728.0	0.0	4728.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.6	0.5
10°-20°	98.8	2.1
20°-30°	175.1	3.7
30°-40°	284.6	6.0
40°-50°	569.5	12.0
50°-60°	1168.4	24.7
60°-70°	1605.1	33.9
70°-80°	754.4	16.0
80°-90°	48.3	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°	4728.0	100.0
0°-180°	4728.0	100.0

Coefficient of Utilization

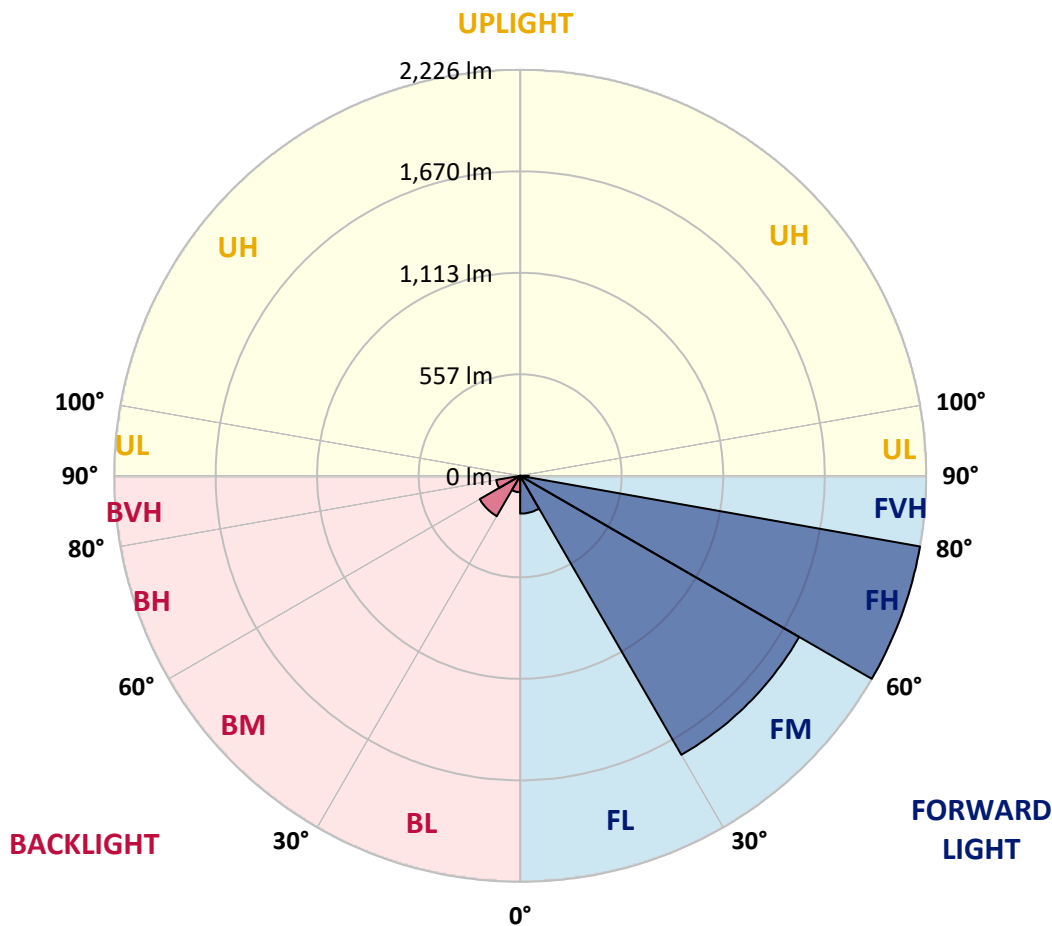


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	207.4	4.4			
FM (30°-60°)	1766.8	37.4			
FH (60°-80°)	2226.2	47.1			G2/5000
FVH (80°-90°)	47.3	1.0			G1/100
BL (0°-30°)	90.2	1.9	B0/110		
BM (30°-60°)	255.8	5.4	B1/1000		
BH (60°-80°)	133.3	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°	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3
2.5°	202.6	196.1	186.7	188.8	189.8	192.7	192.9	189.3	178.8	176.0	188.8
5°	283.9	268.0	265.1	259.1	247.2	240.6	239.1	245.6	237.2	234.6	238.0
7.5°	362.7	349.1	334.2	326.2	301.1	285.7	285.0	287.6	289.1	280.0	284.7
10°	415.1	400.2	397.1	378.0	356.4	352.7	351.2	341.3	333.2	326.4	303.7
12.5°	462.5	462.2	468.0	440.6	437.2	440.9	439.6	404.1	396.0	367.6	361.1
15°	525.6	541.2	516.5	493.5	464.3	476.8	473.5	450.8	445.3	426.0	398.1
17.5°	591.0	595.2	553.8	518.6	511.0	494.6	498.0	489.9	462.2	477.6	450.0
20°	592.6	601.7	557.4	499.3	522.5	521.7	521.9	514.1	477.6	513.6	488.3
22.5°	614.5	592.1	550.9	513.9	518.0	521.9	526.1	516.5	508.7	517.5	522.2
25°	605.6	596.8	557.1	532.6	528.7	531.9	532.9	545.2	540.2	561.6	549.8
27.5°	628.6	615.8	544.9	549.3	535.5	531.9	525.6	566.5	581.1	564.2	595.5
30°	667.9	666.1	566.0	572.5	561.8	529.8	546.5	599.9	618.2	607.7	645.8
32.5°	729.5	735.7	627.8	585.6	591.0	605.4	599.1	599.9	646.0	669.3	699.5
35°	816.8	813.4	688.0	635.1	606.4	608.8	617.6	660.1	719.8	718.3	750.3
37.5°	988.4	951.3	794.7	685.7	694.3	706.0	699.5	756.6	762.3	764.4	841.1
40°	1241.3	1192.0	962.8	792.3	709.4	761.3	758.2	772.2	810.6	824.9	936.7
42.5°	1574.4	1508.2	1258.7	988.4	782.4	746.7	766.0	792.6	921.4	962.3	1084.8
45°	1942.6	1808.6	1553.8	1267.8	965.4	854.6	869.2	918.8	1097.3	1165.1	1300.4
47.5°	2181.1	2063.3	1846.1	1515.5	1156.3	1098.1	1099.4	1110.1	1304.1	1429.7	1611.2
50°	2388.4	2263.0	2061.5	1774.4	1493.9	1383.9	1358.8	1309.6	1567.4	1739.2	1940.5
52.5°	2680.9	2534.4	2276.8	2078.1	1879.0	1619.8	1610.9	1627.6	1877.9	2058.6	2278.1
55°	2944.8	2766.7	2520.8	2395.7	2318.0	1966.6	1974.1	2002.0	2276.5	2372.2	2578.5
57.5°	3061.3	2868.4	2741.9	2685.6	2644.2	2440.3	2414.7	2398.0	2591.0	2627.5	2893.1
60°	3137.7	2954.1	2896.8	2909.8	3035.5	2819.1	2795.9	2698.9	2851.2	2881.1	3175.2
62.5°	3089.4	2922.1	2934.3	3043.0	3322.0	3179.7	3112.7	2950.5	3063.9	3088.1	3377.8
65°	2785.7	2611.3	2768.8	3031.8	3540.5	3537.1	3506.1	3182.8	3181.7	3212.8	3393.4
67.5°	2275.5	2092.5	2347.2	2821.7	3531.4	3753.7	3739.1	3490.9	3198.7	3115.8	3062.3
70°	1582.0	1423.2	1712.1	2330.3	3216.7	3752.2	3728.7	3698.0	3064.7	2682.0	2374.3
72.5°	822.0	734.7	1003.7	1605.7	2564.1	3296.7	3374.1	3323.6	2616.8	1948.6	1398.2
75°	279.2	250.5	414.0	852.3	1704.5	2517.4	2608.2	2556.8	1777.3	1045.5	553.0
77.5°	108.2	100.6	148.3	346.0	855.1	1534.0	1632.6	1580.2	953.2	383.0	130.1
80°	61.5	59.4	81.9	155.9	377.0	763.1	832.5	755.0	343.6	129.1	33.9
82.5°	26.1	26.9	45.6	84.2	189.5	269.3	300.3	274.0	143.9	88.4	12.5
85°	5.7	7.0	21.6	46.9	79.5	76.9	80.6	89.4	88.4	64.9	5.5
87.5°	0.0	0.0	6.8	12.8	19.0	12.5	9.9	17.5	27.1	26.1	2.3
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°	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3	159.3
2.5°	191.1	188.5	172.1	171.0	172.1	169.2	168.9	162.9	163.5	177.0	178.1
5°	238.0	225.0	210.9	206.5	202.3	192.9	198.1	198.1	198.1	206.7	209.4
7.5°	280.5	263.1	243.2	226.6	210.4	198.7	206.7	212.5	215.9	227.1	232.3
10°	299.8	282.6	264.9	241.2	228.6	224.2	214.8	209.9	215.9	213.5	216.4
12.5°	341.0	325.4	294.9	270.4	261.0	245.9	218.2	198.9	186.1	184.1	183.5
15°	381.2	371.5	330.6	297.7	265.1	230.2	183.0	157.5	143.9	141.6	141.8
17.5°	432.0	418.2	358.0	310.8	255.5	192.7	141.3	119.4	118.4	124.1	124.6
20°	465.9	443.2	371.8	300.1	223.7	145.7	110.5	105.3	113.7	124.1	123.1
22.5°	498.2	473.7	390.0	290.7	173.4	110.5	101.7	102.2	109.2	120.4	123.3
25°	519.6	510.7	412.4	268.8	132.2	95.7	97.2	101.2	107.2	117.8	117.8
27.5°	584.0	542.5	409.8	226.3	101.7	89.2	92.8	97.8	100.9	113.7	115.0
30°	623.1	609.5	423.4	183.0	89.2	80.8	87.9	92.3	94.4	109.0	109.5
32.5°	671.1	641.1	439.8	135.0	82.9	80.3	78.7	82.1	88.1	100.9	101.7
35°	729.5	720.6	416.4	106.1	80.8	75.1	72.0	73.8	77.7	86.3	88.1
37.5°	848.6	796.0	402.3	91.0	80.8	73.3	69.9	65.2	65.7	71.7	75.1
40°	949.0	932.8	362.9	88.4	77.2	70.7	62.3	56.6	52.7	54.5	55.8
42.5°	1133.3	1058.5	312.1	87.1	73.8	63.9	52.9	46.9	40.9	41.5	43.5
45°	1357.0	1195.6	266.7	85.8	71.4	57.1	44.6	37.5	31.3	31.5	33.6
47.5°	1655.8	1395.6	211.7	81.9	67.3	50.8	36.0	28.7	25.0	25.8	27.6
50°	1995.2	1571.1	167.4	75.9	62.3	44.8	29.2	23.2	21.9	22.7	24.8
52.5°	2298.4	1700.4	138.2	70.4	55.3	36.5	24.5	20.6	20.1	20.6	22.2
55°	2568.0	1775.5	115.5	64.1	47.4	29.5	22.2	19.0	18.8	18.5	19.6
57.5°	2820.9	1797.1	90.2	54.2	38.6	25.5	20.6	17.7	17.2	16.4	17.2
60°	3005.2	1760.1	66.2	43.5	31.5	23.2	19.3	15.9	15.1	13.8	14.3
62.5°	3094.1	1658.7	50.1	34.9	26.9	21.1	17.2	13.8	12.8	11.2	11.5
65°	3009.7	1491.5	39.4	29.5	22.9	17.7	14.6	11.7	10.4	8.9	8.9
67.5°	2635.5	1237.3	33.4	25.5	19.3	15.1	12.0	10.7	8.6	7.3	7.0
70°	1934.5	890.1	28.7	22.4	16.7	13.0	10.2	9.6	8.3	7.0	6.5
72.5°	1091.9	503.7	24.5	19.8	14.1	10.9	8.6	8.9	8.1	6.5	6.0
75°	416.6	169.7	20.3	16.4	11.5	8.3	7.3	7.3	7.3	5.5	4.7
77.5°	103.2	43.3	16.2	13.3	9.1	5.5	6.0	6.3	6.3	4.7	3.4
80°	28.4	14.6	9.6	9.6	6.5	3.1	4.2	4.2	3.4	1.6	0.0
82.5°	10.4	5.5	3.4	4.2	2.9	1.0	1.6	1.0	0.8	0.0	0.0
85°	4.4	2.9	2.1	2.3	1.3	0.0	0.3	0.5	0.0	0.0	0.0
87.5°	1.8	1.3	1.0	1.0	0.5	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)