

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: P596517

Luminaire Tested: **MSA-SA1B-827-U-T4W-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-15)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA1B-827-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: 2807 lumens
Efficiency: N/A
Efficacy: 63.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B0 - U0 - G1

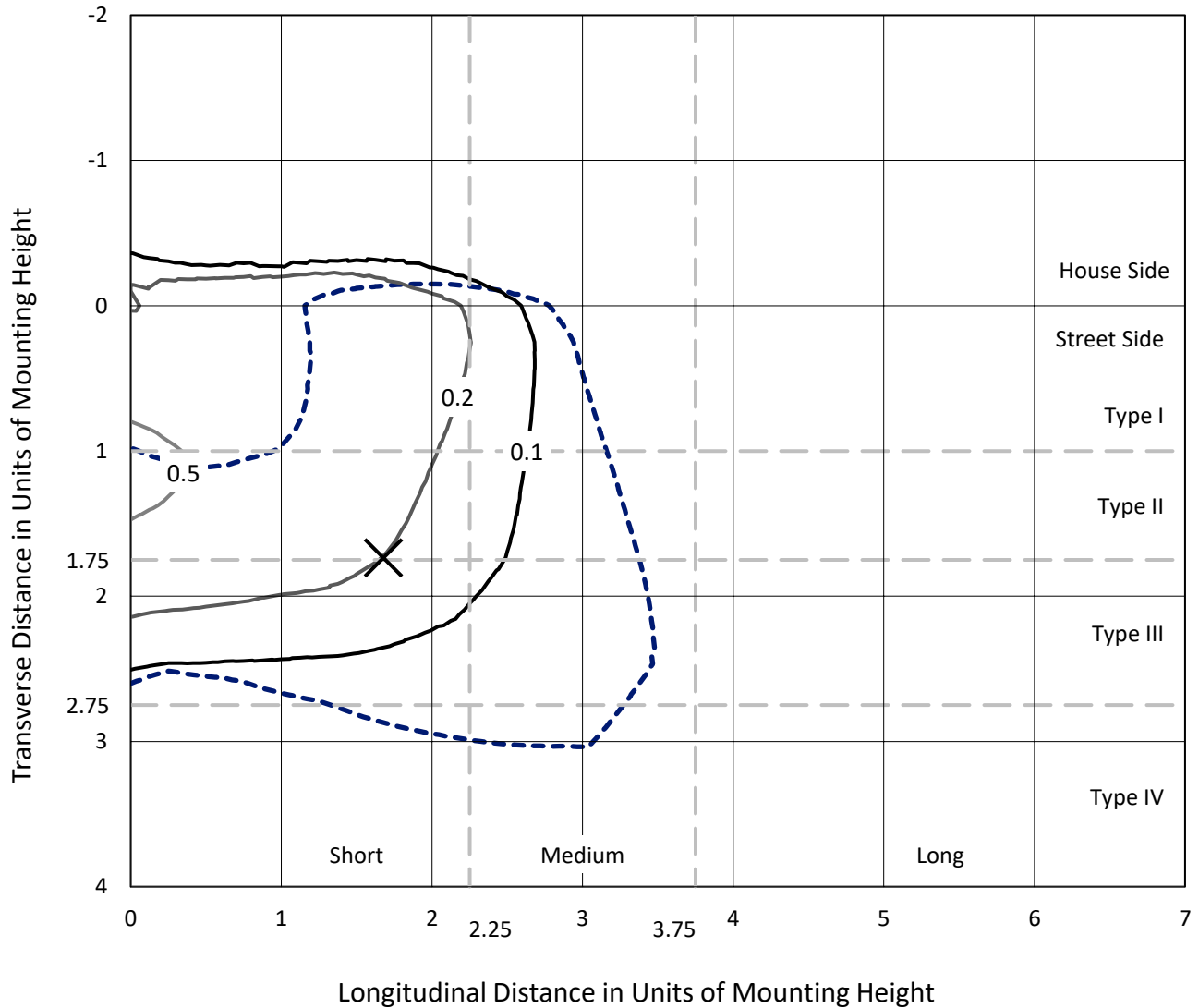
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596517
 CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

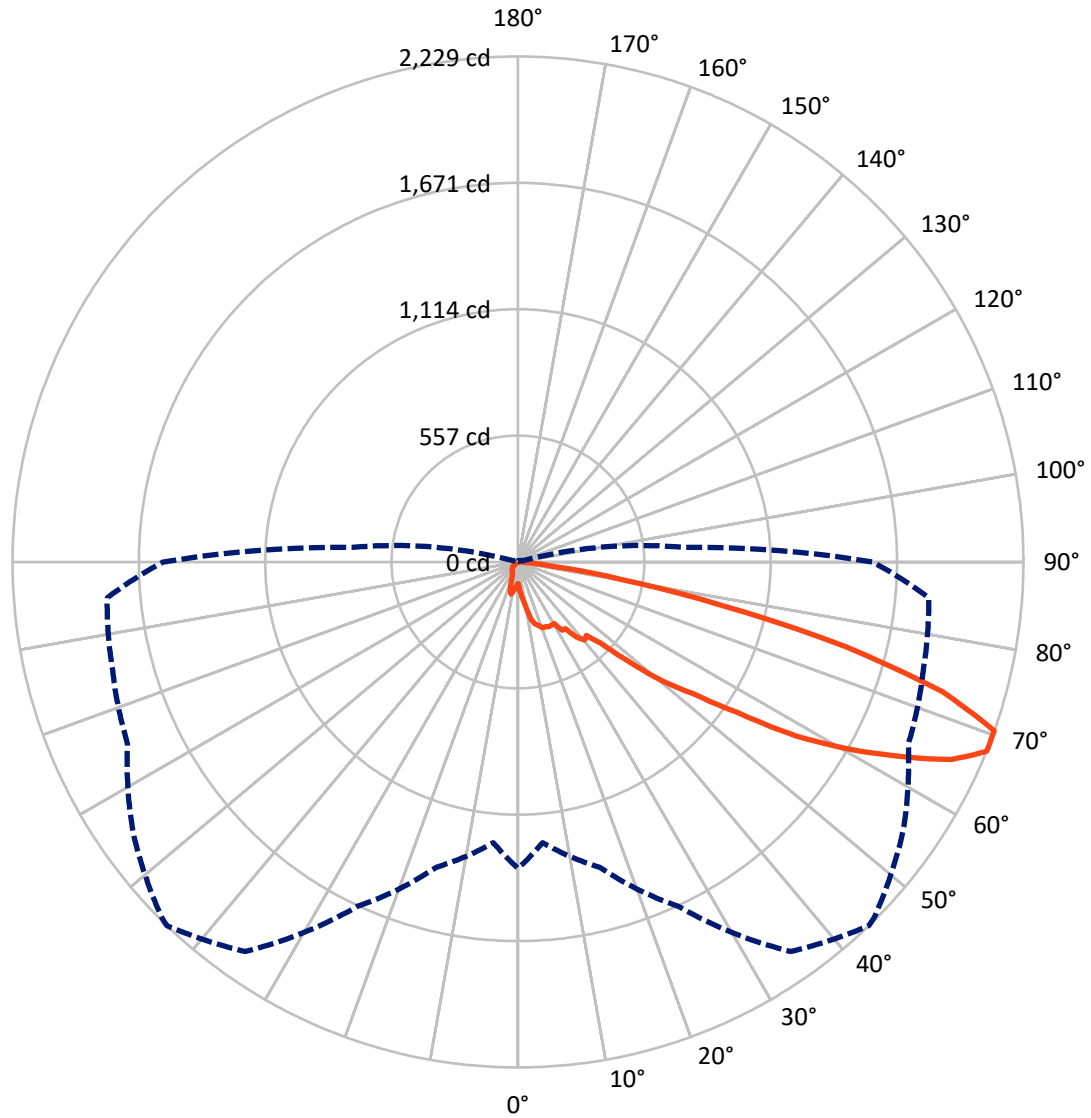
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P596517
CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596517
 CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	285.1	0.0	285.1
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	2521.9	0.0	2521.9
	% Fixture	89.8	0.0	89.8
Total	Lumens	2807.0	0.0	2807.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	14.0	0.5
10°-20°	58.7	2.1
20°-30°	104.0	3.7
30°-40°	169.0	6.0
40°-50°	338.1	12.0
50°-60°	693.7	24.7
60°-70°	952.9	33.9
70°-80°	447.9	16.0
80°-90°	28.7	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°	2807.0	100.0
0°-180°	2807.0	100.0

Coefficient of Utilization

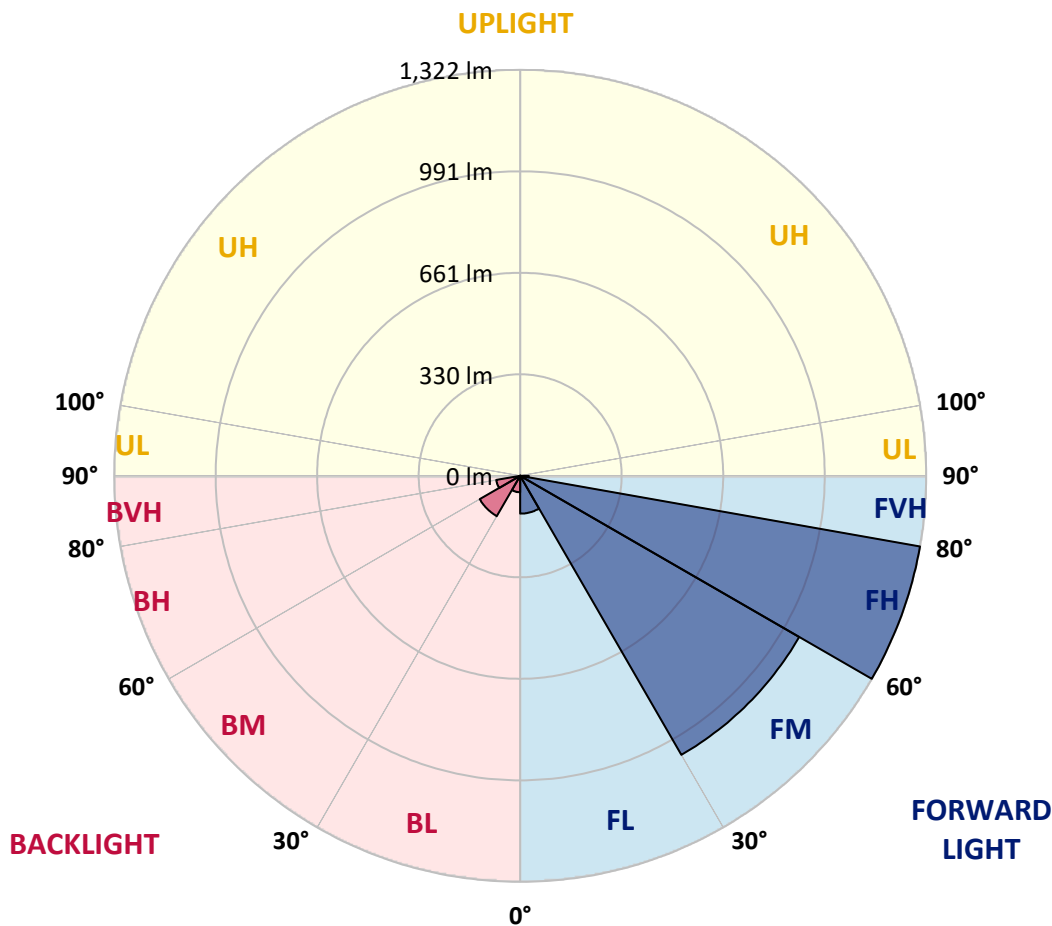


REPORT NUMBER: P596517
 CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	123.1	4.4			
FM (30°-60°)	1048.9	37.4			
FH (60°-80°)	1321.7	47.1			G1/1800
FVH (80°-90°)	28.1	1.0			G1/100
BL (0°-30°)	53.5	1.9	B0/110		
BM (30°-60°)	151.9	5.4	B0/220		
BH (60°-80°)	79.1	2.8	B0/110		G0/110
BVH (80°-90°)	0.6	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1
 Type IV Short





REPORT NUMBER: P596517

CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
2.5°	120.3	116.4	110.8	112.1	112.7	114.4	114.5	112.4	106.2	104.5	112.1
5°	168.6	159.1	157.4	153.9	146.7	142.9	141.9	145.8	140.9	139.3	141.3
7.5°	215.3	207.3	198.4	193.6	178.8	169.6	169.2	170.7	171.7	166.2	169.0
10°	246.4	237.6	235.7	224.4	211.6	209.4	208.5	202.6	197.8	193.8	180.3
12.5°	274.6	274.4	277.8	261.6	259.6	261.7	261.0	239.9	235.1	218.2	214.4
15°	312.0	321.3	306.6	293.0	275.7	283.1	281.1	267.6	264.4	252.9	236.4
17.5°	350.9	353.4	328.8	307.9	303.4	293.6	295.6	290.8	274.4	283.6	267.2
20°	351.8	357.2	330.9	296.4	310.2	309.7	309.9	305.2	283.6	304.9	289.9
22.5°	364.8	351.5	327.1	305.1	307.6	309.9	312.4	306.6	302.0	307.2	310.0
25°	359.6	354.3	330.8	316.2	313.9	315.8	316.4	323.7	320.7	333.4	326.4
27.5°	373.2	365.6	323.5	326.1	317.9	315.8	312.0	336.3	345.0	335.0	353.5
30°	396.6	395.5	336.0	339.9	333.6	314.5	324.4	356.2	367.0	360.8	383.4
32.5°	433.1	436.8	372.7	347.6	350.9	359.4	355.7	356.2	383.6	397.3	415.3
35°	484.9	482.9	408.5	377.1	360.0	361.4	366.7	391.9	427.4	426.4	445.5
37.5°	586.8	564.8	471.8	407.1	412.2	419.2	415.3	449.2	452.6	453.8	499.3
40°	736.9	707.7	571.6	470.4	421.2	452.0	450.1	458.5	481.2	489.7	556.1
42.5°	934.7	895.4	747.3	586.8	464.5	443.3	454.8	470.5	547.0	571.3	644.1
45°	1153.3	1073.7	922.5	752.7	573.2	507.4	516.1	545.5	651.5	691.7	772.1
47.5°	1294.9	1225.0	1096.0	899.8	686.5	652.0	652.7	659.1	774.2	848.8	956.6
50°	1418.0	1343.5	1223.9	1053.5	886.9	821.6	806.7	777.5	930.6	1032.6	1152.1
52.5°	1591.6	1504.7	1351.7	1233.8	1115.5	961.7	956.4	966.3	1114.9	1222.2	1352.5
55°	1748.3	1642.6	1496.6	1422.3	1376.2	1167.5	1172.0	1188.6	1351.6	1408.4	1530.8
57.5°	1817.5	1702.9	1627.9	1594.4	1569.8	1448.8	1433.6	1423.7	1538.2	1559.9	1717.6
60°	1862.8	1753.9	1719.8	1727.6	1802.2	1673.7	1659.9	1602.3	1692.7	1710.5	1885.1
62.5°	1834.2	1734.8	1742.1	1806.6	1972.3	1887.8	1848.0	1751.7	1819.0	1833.4	2005.4
65°	1653.9	1550.3	1643.8	1800.0	2102.0	2100.0	2081.5	1889.6	1889.0	1907.4	2014.7
67.5°	1351.0	1242.3	1393.5	1675.2	2096.6	2228.6	2219.9	2072.6	1899.1	1849.8	1818.1
70°	939.2	845.0	1016.5	1383.5	1909.7	2227.7	2213.7	2195.5	1819.5	1592.3	1409.6
72.5°	488.0	436.2	595.9	953.3	1522.3	1957.3	2003.2	1973.2	1553.6	1156.9	830.1
75°	165.8	148.7	245.8	506.0	1012.0	1494.6	1548.5	1518.0	1055.2	620.7	328.3
77.5°	64.2	59.7	88.1	205.4	507.7	910.8	969.3	938.1	565.9	227.4	77.2
80°	36.5	35.3	48.6	92.6	223.8	453.1	494.2	448.3	204.0	76.6	20.1
82.5°	15.5	15.9	27.1	50.0	112.5	159.9	178.3	162.7	85.4	52.5	7.4
85°	3.4	4.2	12.8	27.9	47.2	45.7	47.8	53.1	52.5	38.5	3.3
87.5°	0.0	0.0	4.0	7.6	11.3	7.4	5.9	10.4	16.1	15.5	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596517
 CATALOG NUMBER: MSA-SA1B-827-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
2.5°	113.5	111.9	102.2	101.5	102.2	100.5	100.3	96.7	97.0	105.1	105.7
5°	141.3	133.6	125.2	122.6	120.1	114.5	117.6	117.6	117.6	122.7	124.3
7.5°	166.5	156.2	144.4	134.5	124.9	117.9	122.7	126.1	128.2	134.8	137.9
10°	178.0	167.8	157.3	143.2	135.7	133.1	127.5	124.6	128.2	126.8	128.5
12.5°	202.5	193.2	175.1	160.5	154.9	146.0	129.6	118.1	110.5	109.3	109.0
15°	226.3	220.6	196.3	176.8	157.4	136.7	108.7	93.5	85.4	84.0	84.2
17.5°	256.5	248.3	212.5	184.5	151.7	114.4	83.9	70.9	70.3	73.7	74.0
20°	276.6	263.1	220.7	178.2	132.8	86.5	65.6	62.5	67.5	73.7	73.1
22.5°	295.8	281.2	231.6	172.6	102.9	65.6	60.4	60.7	64.9	71.5	73.2
25°	308.5	303.2	244.9	159.6	78.5	56.8	57.7	60.1	63.6	70.0	70.0
27.5°	346.7	322.1	243.3	134.4	60.4	52.9	55.1	58.0	59.9	67.5	68.3
30°	369.9	361.9	251.4	108.7	52.9	48.0	52.2	54.8	56.0	64.7	65.0
32.5°	398.4	380.6	261.1	80.2	49.2	47.7	46.7	48.8	52.3	59.9	60.4
35°	433.1	427.8	247.2	63.0	48.0	44.6	42.7	43.8	46.1	51.2	52.3
37.5°	503.8	472.6	238.8	54.0	48.0	43.5	41.5	38.7	39.0	42.6	44.6
40°	563.4	553.8	215.5	52.5	45.8	41.9	37.0	33.6	31.3	32.3	33.1
42.5°	672.8	628.4	185.3	51.7	43.8	37.9	31.4	27.9	24.3	24.6	25.8
45°	805.7	709.8	158.3	50.9	42.4	33.9	26.5	22.3	18.6	18.7	20.0
47.5°	983.0	828.6	125.7	48.6	39.9	30.2	21.4	17.0	14.9	15.3	16.4
50°	1184.6	932.7	99.4	45.0	37.0	26.6	17.3	13.8	13.0	13.5	14.7
52.5°	1364.6	1009.5	82.0	41.8	32.8	21.7	14.5	12.2	11.9	12.2	13.2
55°	1524.6	1054.1	68.6	38.1	28.2	17.5	13.2	11.3	11.1	11.0	11.6
57.5°	1674.8	1066.9	53.6	32.2	22.9	15.2	12.2	10.5	10.2	9.8	10.2
60°	1784.2	1045.0	39.3	25.8	18.7	13.8	11.5	9.4	9.0	8.2	8.5
62.5°	1837.0	984.7	29.7	20.7	15.9	12.5	10.2	8.2	7.6	6.7	6.8
65°	1786.8	885.5	23.4	17.5	13.6	10.5	8.7	7.0	6.2	5.3	5.3
67.5°	1564.7	734.6	19.8	15.2	11.5	9.0	7.1	6.3	5.1	4.3	4.2
70°	1148.5	528.4	17.0	13.3	9.9	7.7	6.0	5.7	5.0	4.2	3.9
72.5°	648.2	299.0	14.5	11.8	8.4	6.5	5.1	5.3	4.8	3.9	3.6
75°	247.3	100.8	12.1	9.8	6.8	5.0	4.3	4.3	4.3	3.3	2.8
77.5°	61.3	25.7	9.6	7.9	5.4	3.3	3.6	3.7	3.7	2.8	2.0
80°	16.9	8.7	5.7	5.7	3.9	1.9	2.5	2.5	2.0	0.9	0.0
82.5°	6.2	3.3	2.0	2.5	1.7	0.6	0.9	0.6	0.5	0.0	0.0
85°	2.6	1.7	1.2	1.4	0.8	0.0	0.2	0.3	0.0	0.0	0.0
87.5°	1.1	0.8	0.6	0.6	0.3	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)