

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: P367565

Luminaire Tested: **MSA-SA2D-730-U-T4W-HSS**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367565
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-SA2D-730-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: 9260 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

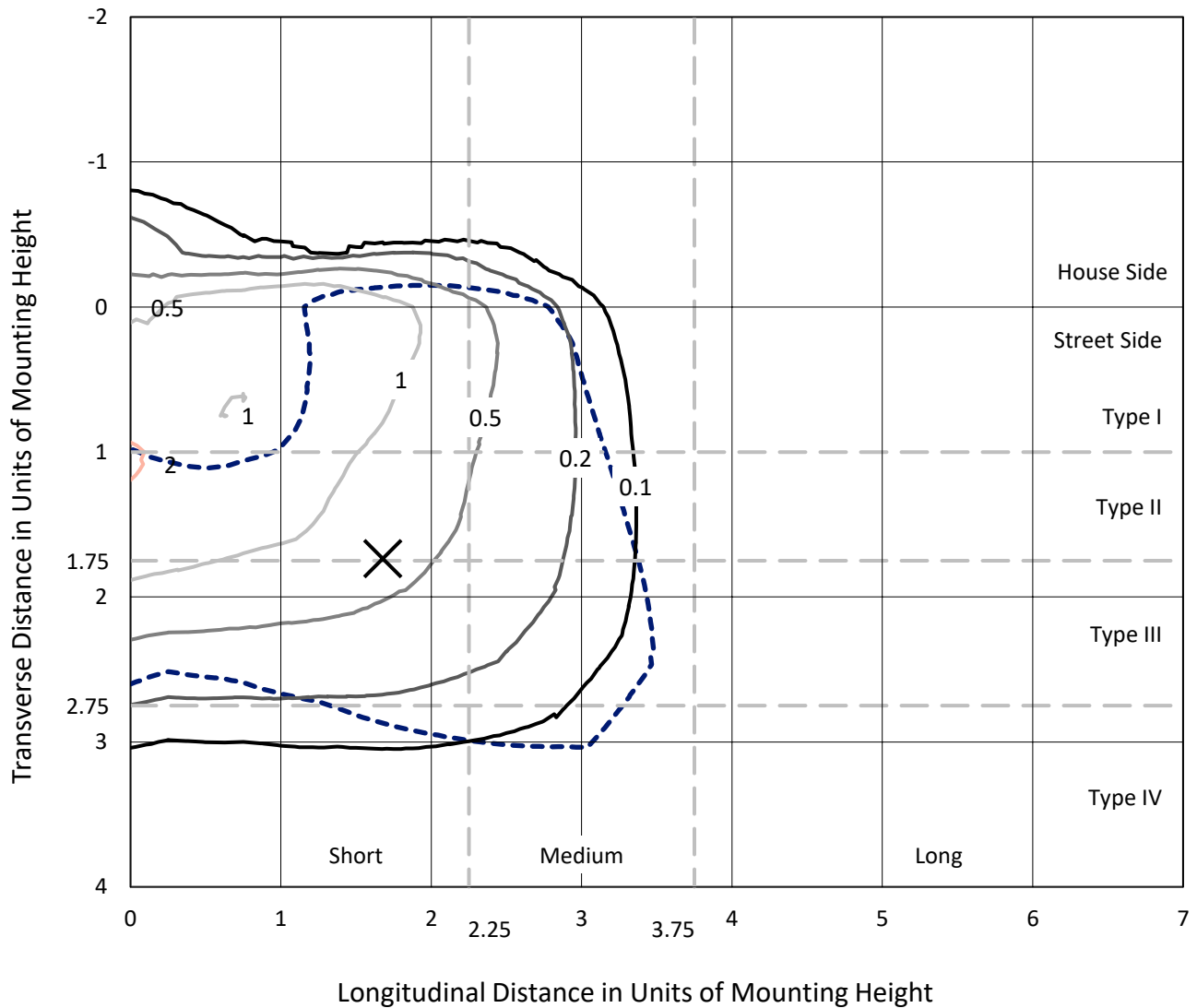
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367565
 CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

Iso-Footcandle Lines of Horizontal Illumination

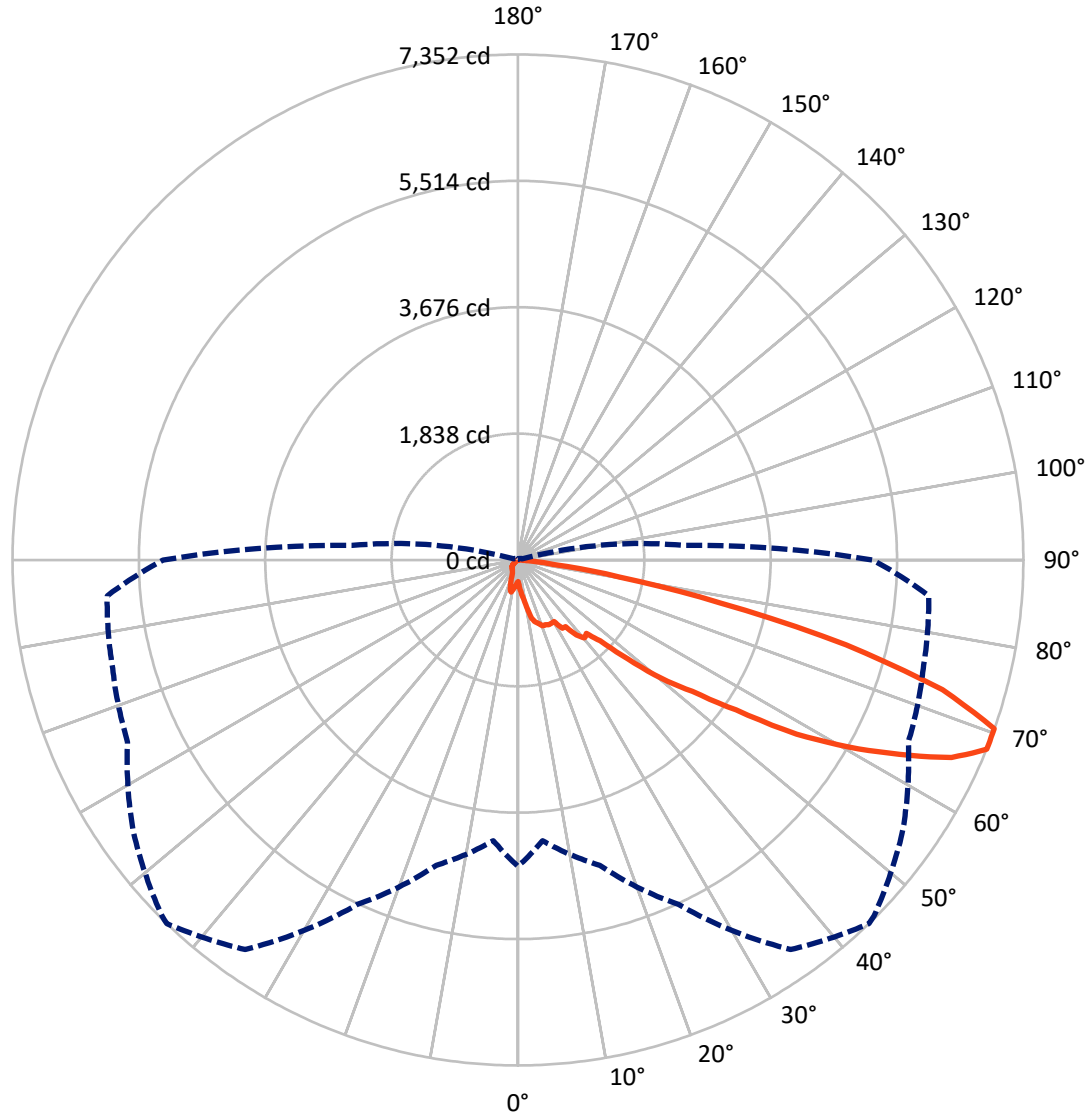
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 fc
 Type IV - Short - N/A

REPORT NUMBER: P367565
CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367565
 CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	940.6	0.0	940.6
	% Fixture	10.2	0.0	10.2
Street Side	Lumens	8319.4	0.0	8319.4
	% Fixture	89.8	0.0	89.8
Total	Lumens	9260.0	0.0	9260.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.2	0.5
10°-20°	193.6	2.1
20°-30°	343.0	3.7
30°-40°	557.4	6.0
40°-50°	1115.5	12.0
50°-60°	2288.4	24.7
60°-70°	3143.7	33.9
70°-80°	1477.6	16.0
80°-90°	94.6	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°	9260.0	100.0
0°-180°	9260.0	100.0

Coefficient of Utilization

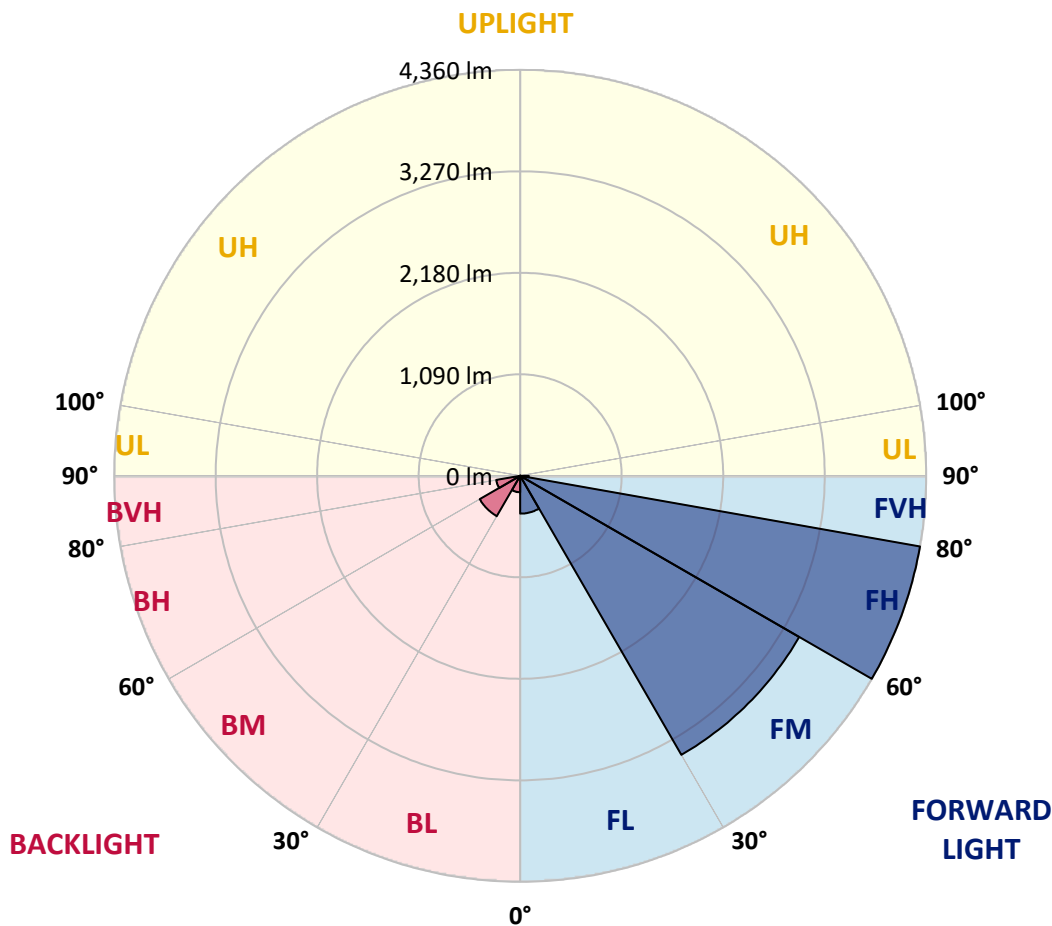


REPORT NUMBER: P367565
 CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	406.2	4.4			
FM (30°-60°)	3460.3	37.4			
FH (60°-80°)	4360.2	47.1			G2/5000
FVH (80°-90°)	92.7	1.0			G1/100
BL (0°-30°)	176.6	1.9	B1/500		
BM (30°-60°)	501.1	5.4	B1/1000		
BH (60°-80°)	261.0	2.8	B1/500		G1/500
BVH (80°-90°)	1.9	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 IV Short





REPORT NUMBER: P367565

CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0
2.5°	396.8	384.0	365.6	369.7	371.7	377.3	377.9	370.7	350.3	344.7	369.7
5°	556.1	524.9	519.3	507.6	484.1	471.3	468.2	481.0	464.7	459.6	466.2
7.5°	710.3	683.7	654.6	638.8	589.8	559.6	558.1	563.2	566.3	548.4	557.6
10°	812.9	783.8	777.7	740.4	698.0	690.9	687.8	668.4	652.6	639.3	594.9
12.5°	905.8	905.3	916.6	862.9	856.3	863.5	860.9	791.5	775.6	720.0	707.2
15°	1029.4	1060.0	1011.5	966.6	909.4	933.9	927.3	882.9	872.1	834.3	779.7
17.5°	1157.6	1165.7	1084.6	1015.6	1000.8	968.6	975.3	959.5	905.3	935.5	881.3
20°	1160.6	1178.5	1091.7	977.8	1023.3	1021.7	1022.3	1006.9	935.5	1005.9	956.4
22.5°	1203.5	1159.6	1078.9	1006.4	1014.6	1022.3	1030.4	1011.5	996.2	1013.6	1022.8
25°	1186.2	1168.8	1091.2	1043.2	1035.5	1041.7	1043.7	1067.7	1058.0	1099.9	1076.9
27.5°	1231.1	1206.1	1067.2	1075.9	1048.8	1041.7	1029.4	1109.6	1138.2	1105.0	1166.3
30°	1308.2	1304.6	1108.6	1121.3	1100.4	1037.6	1070.3	1174.9	1210.7	1190.3	1264.8
32.5°	1428.7	1441.0	1229.6	1146.8	1157.6	1185.7	1173.4	1174.9	1265.3	1310.8	1370.0
35°	1599.8	1593.1	1347.5	1243.9	1187.7	1192.3	1209.7	1292.9	1409.8	1406.8	1469.6
37.5°	1935.8	1863.2	1556.4	1342.9	1359.8	1382.8	1370.0	1481.8	1493.0	1497.1	1647.3
40°	2431.1	2334.5	1885.7	1551.8	1389.4	1491.0	1484.9	1512.5	1587.5	1615.6	1834.7
42.5°	3083.6	2953.9	2465.3	1935.8	1532.4	1462.4	1500.2	1552.3	1804.5	1884.7	2124.7
45°	3804.6	3542.2	3043.3	2483.1	1890.8	1673.8	1702.4	1799.4	2149.2	2282.0	2547.0
47.5°	4271.8	4041.0	3615.7	2968.2	2264.6	2150.7	2153.3	2174.2	2554.1	2800.2	3155.6
50°	4677.8	4432.2	4037.5	3475.3	2925.8	2710.4	2661.3	2564.8	3069.8	3406.3	3800.5
52.5°	5250.7	4963.7	4459.2	4070.1	3680.0	3172.5	3155.1	3187.8	3678.0	4031.8	4461.8
55°	5767.4	5418.7	4937.2	4692.1	4539.9	3851.6	3866.4	3921.0	4458.7	4646.1	5050.0
57.5°	5995.7	5617.8	5370.2	5259.9	5178.7	4779.4	4729.3	4696.7	5074.5	5146.0	5666.3
60°	6145.3	5785.8	5673.5	5699.0	5945.1	5521.3	5475.9	5285.9	5584.1	5642.8	6218.8
62.5°	6050.8	5723.0	5747.0	5959.9	6506.3	6227.5	6096.3	5778.7	6000.8	6048.3	6615.6
65°	5456.0	5114.4	5422.8	5938.0	6934.2	6927.6	6866.8	6233.6	6231.6	6292.3	6646.2
67.5°	4456.7	4098.2	4597.1	5526.4	6916.3	7351.9	7323.3	6837.2	6264.8	6102.4	5997.7
70°	3098.4	2787.5	3353.2	4563.9	6300.0	7348.8	7302.9	7242.6	6002.3	5252.7	4650.2
72.5°	1610.0	1438.9	1965.9	3144.9	5021.9	6456.8	6608.4	6509.4	5125.1	3816.4	2738.4
75°	546.9	490.7	810.9	1669.2	3338.4	4930.5	5108.2	5007.6	3480.9	2047.6	1083.0
77.5°	211.9	197.1	290.5	677.6	1674.8	3004.5	3197.5	3094.9	1866.8	750.1	254.8
80°	120.5	116.4	160.3	305.3	738.4	1494.6	1630.4	1478.7	673.0	252.8	66.4
82.5°	51.1	52.6	89.4	164.9	371.2	527.5	588.2	536.7	281.9	173.1	24.5
85°	11.2	13.8	42.4	91.9	155.7	150.6	157.8	175.1	173.1	127.1	10.7
87.5°	0.0	0.0	13.3	25.0	37.3	24.5	19.4	34.2	53.1	51.1	4.6
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: P367565

CATALOG NUMBER: MSA-SA2D-730-U-T4W-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0	312.0
2.5°	374.3	369.2	337.0	335.0	337.0	331.4	330.9	319.1	320.2	346.7	348.8
5°	466.2	440.7	413.1	404.4	396.2	377.9	388.1	388.1	388.1	404.9	410.0
7.5°	549.4	515.2	476.4	443.7	412.1	389.1	404.9	416.2	422.8	444.7	455.0
10°	587.2	553.5	518.8	472.3	447.8	439.1	420.7	411.0	422.8	418.2	423.8
12.5°	667.9	637.3	577.5	529.5	511.1	481.5	427.4	389.6	364.6	360.5	359.5
15°	746.5	727.6	647.5	583.1	519.3	450.9	358.5	308.4	281.9	277.3	277.8
17.5°	846.1	819.0	701.1	608.7	500.4	377.3	276.8	233.9	231.8	243.1	244.1
20°	912.5	868.1	728.1	587.7	438.1	285.4	216.5	206.3	222.6	243.1	241.0
22.5°	975.8	927.8	763.9	569.3	339.6	216.5	199.1	200.2	213.9	235.9	241.5
25°	1017.7	1000.3	807.8	526.4	258.9	187.4	190.5	198.1	209.9	230.8	230.8
27.5°	1143.8	1062.6	802.7	443.2	199.1	174.6	181.8	191.5	197.6	222.6	225.2
30°	1220.4	1193.8	829.2	358.5	174.6	158.3	172.1	180.8	184.8	213.4	214.5
32.5°	1314.3	1255.6	861.4	264.5	162.4	157.3	154.2	160.8	172.6	197.6	199.1
35°	1428.7	1411.3	815.5	207.8	158.3	147.1	140.9	144.5	152.2	169.0	172.6
37.5°	1662.1	1558.9	787.9	178.2	158.3	143.5	136.8	127.7	128.7	140.4	147.1
40°	1858.6	1827.0	710.8	173.1	151.1	138.4	122.0	110.8	103.1	106.7	109.3
42.5°	2219.7	2073.1	611.2	170.5	144.5	125.1	103.7	91.9	80.2	81.2	85.3
45°	2657.8	2341.7	522.4	168.0	139.9	111.8	87.3	73.5	61.3	61.8	65.9
47.5°	3242.9	2733.3	414.6	160.3	131.7	99.6	70.5	56.2	49.0	50.6	54.1
50°	3907.8	3077.0	327.8	148.6	122.0	87.8	57.2	45.4	42.9	44.4	48.5
52.5°	4501.6	3330.3	270.6	137.9	108.3	71.5	48.0	40.3	39.3	40.3	43.4
55°	5029.6	3477.3	226.2	125.6	92.9	57.7	43.4	37.3	36.8	36.3	38.3
57.5°	5524.9	3519.7	176.7	106.2	75.6	50.0	40.3	34.7	33.7	32.2	33.7
60°	5885.9	3447.2	129.7	85.3	61.8	45.4	37.8	31.1	29.6	27.1	28.1
62.5°	6060.0	3248.6	98.0	68.4	52.6	41.4	33.7	27.1	25.0	22.0	22.5
65°	5894.6	2921.2	77.1	57.7	44.9	34.7	28.6	23.0	20.4	17.4	17.4
67.5°	5161.8	2423.4	65.4	50.0	37.8	29.6	23.5	20.9	16.9	14.3	13.8
70°	3788.8	1743.3	56.2	43.9	32.7	25.5	19.9	18.9	16.3	13.8	12.8
72.5°	2138.5	986.5	48.0	38.8	27.6	21.4	16.9	17.4	15.8	12.8	11.7
75°	816.0	332.4	39.8	32.2	22.5	16.3	14.3	14.3	14.3	10.7	9.2
77.5°	202.2	84.8	31.7	26.0	17.9	10.7	11.7	12.3	12.3	9.2	6.6
80°	55.7	28.6	18.9	18.9	12.8	6.1	8.2	8.2	6.6	3.1	0.0
82.5°	20.4	10.7	6.6	8.2	5.6	2.0	3.1	2.0	1.5	0.0	0.0
85°	8.7	5.6	4.1	4.6	2.6	0.0	0.5	1.0	0.0	0.0	0.0
87.5°	3.6	2.6	2.0	2.0	1.0	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)