

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: P367290

Luminaire Tested: **MSA-SA2B-730-U-SL4**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-20)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2B-730-U-SL4
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8836 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

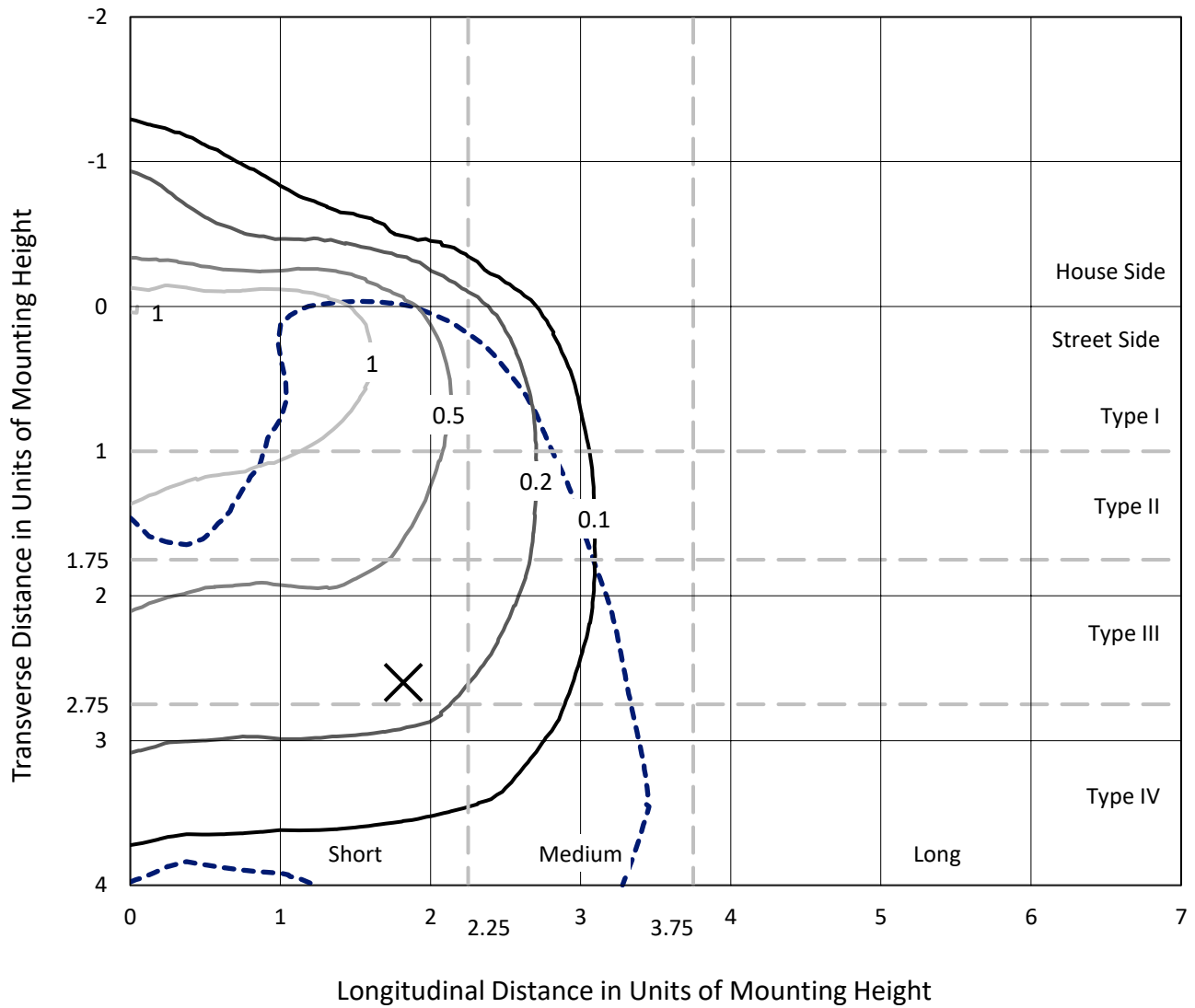
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367290
 CATALOG NUMBER: MSA-SA2B-730-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

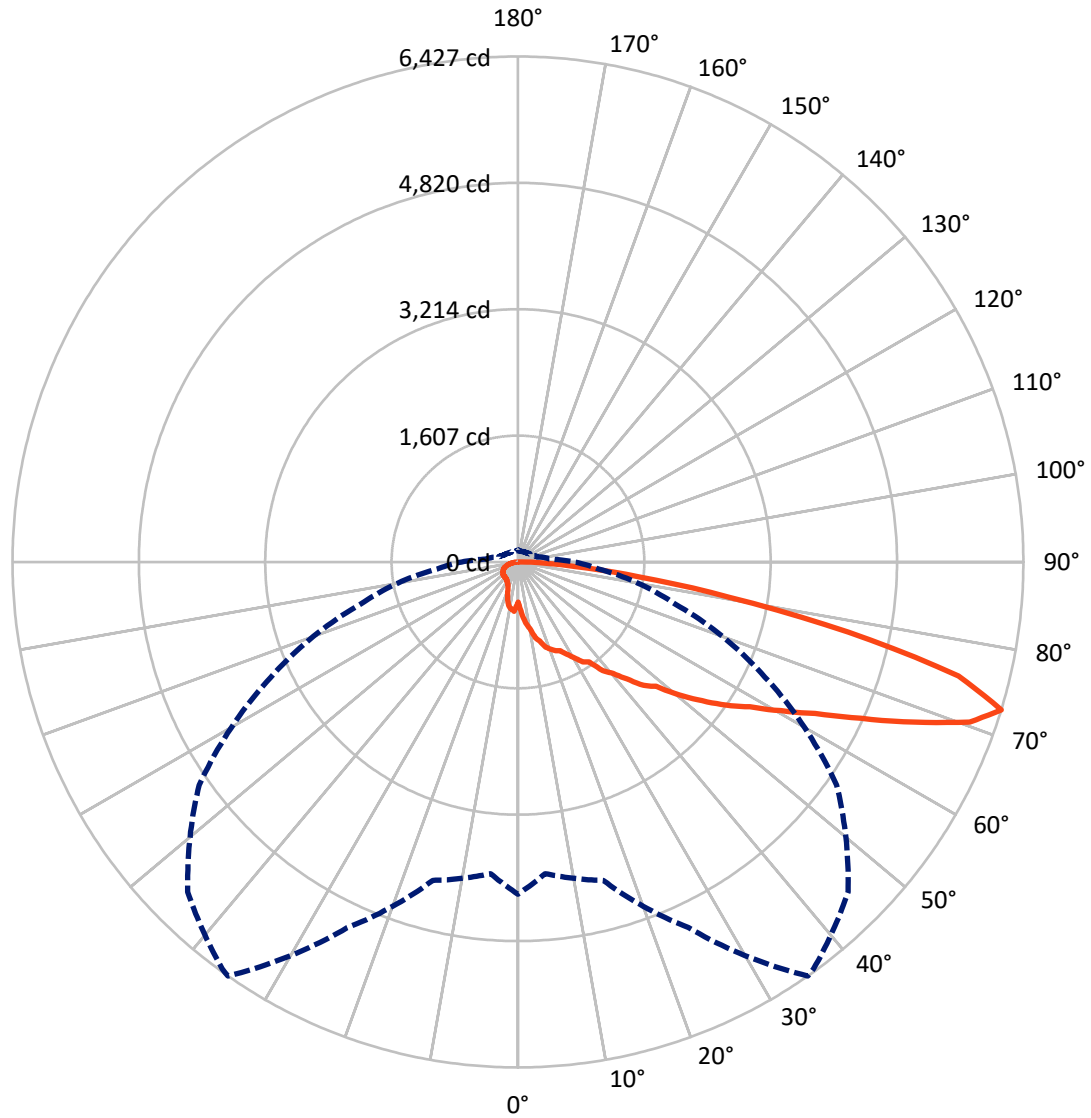
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P367290
CATALOG NUMBER: MSA-SA2B-730-U-SL4

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367290

CATALOG NUMBER: MSA-SA2B-730-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1185.8	0.0	1185.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	7650.2	0.0	7650.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	8836.0	0.0	8836.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	0.8
10°-20°	239.1	2.7
20°-30°	415.4	4.7
30°-40°	694.2	7.9
40°-50°	1204.9	13.6
50°-60°	1821.6	20.6
60°-70°	2359.8	26.7
70°-80°	1741.3	19.7
80°-90°	291.8	3.3
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°	8836.0	100.0
0°-180°	8836.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367290

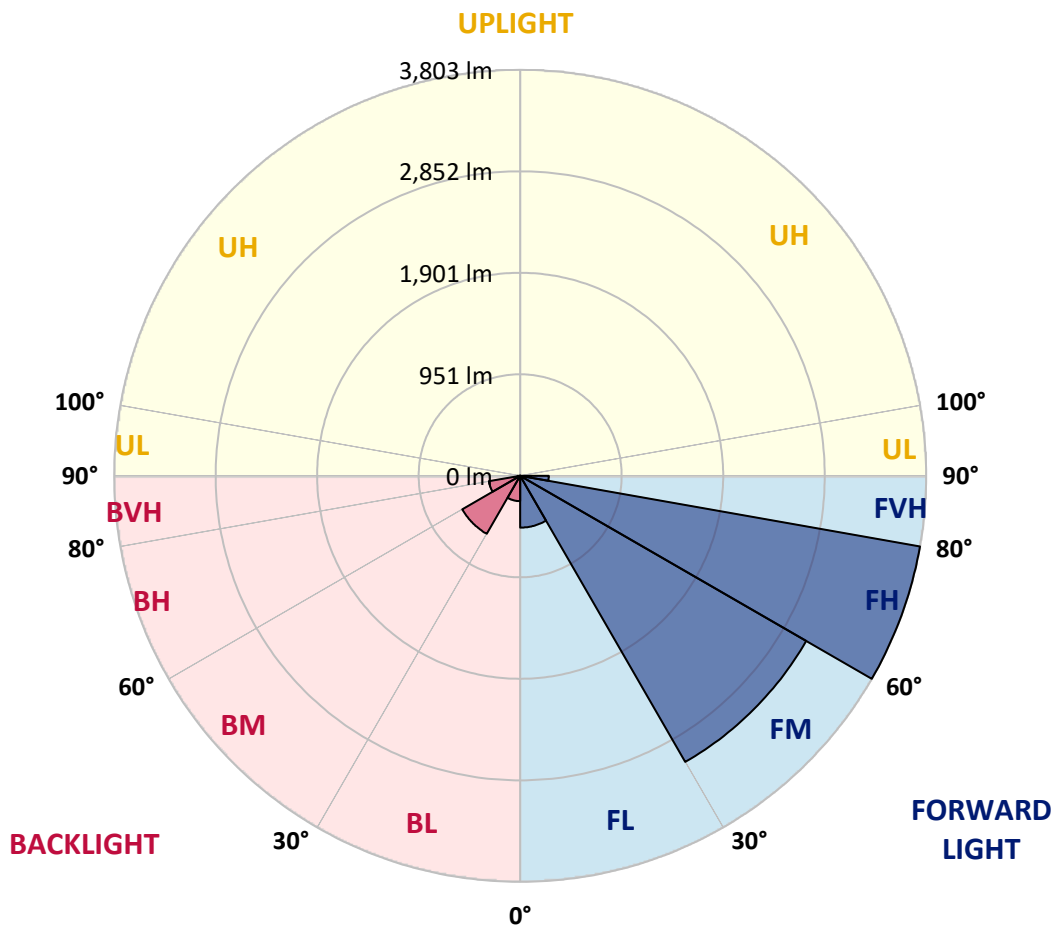
CATALOG NUMBER: MSA-SA2B-730-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	485.3	5.5			
FM (30°-60°)	3094.1	35.0			
FH (60°-80°)	3802.9	43.0			G2/5000
FVH (80°-90°)	268.0	3.0			G3/500
BL (0°-30°)	237.0	2.7	B1/500		
BM (30°-60°)	626.7	7.1	B1/1000		
BH (60°-80°)	298.2	3.4	B1/500		G1/500
BVH (80°-90°)	23.9	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





REPORT NUMBER: P367290
 CATALOG NUMBER: MSA-SA2B-730-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	637.0	606.4	580.0	578.9	603.4	612.8	609.1	600.8	591.0	570.2	615.5
5°	798.0	754.3	746.0	736.2	713.9	719.9	683.7	711.3	719.9	739.9	770.1
7.5°	893.0	867.4	847.4	839.1	800.7	796.1	769.3	808.6	825.2	822.5	867.4
10°	930.4	907.0	908.5	881.4	868.9	874.2	877.2	878.0	888.1	896.4	873.8
12.5°	949.6	958.7	991.9	973.4	989.2	995.6	1027.3	994.9	996.0	953.4	976.8
15°	1046.5	1069.2	1049.9	1049.2	1044.3	1054.8	1082.0	1060.1	1077.1	1063.5	1033.3
17.5°	1163.5	1170.2	1133.3	1118.2	1137.8	1134.4	1127.6	1131.0	1088.8	1167.2	1130.3
20°	1199.3	1226.1	1177.4	1118.2	1183.1	1191.7	1190.2	1175.5	1103.1	1216.2	1180.4
22.5°	1303.4	1267.2	1228.7	1191.0	1224.2	1229.1	1220.8	1185.7	1161.6	1204.6	1232.8
25°	1350.5	1341.8	1292.8	1288.3	1251.7	1234.4	1248.7	1238.5	1214.7	1291.3	1260.0
27.5°	1458.4	1448.2	1335.4	1381.8	1328.6	1324.1	1248.3	1282.2	1306.0	1300.3	1347.1
30°	1580.6	1592.2	1427.4	1473.8	1412.4	1404.1	1327.9	1370.9	1387.1	1392.4	1450.8
32.5°	1716.3	1748.4	1584.7	1546.6	1513.8	1519.5	1455.0	1376.5	1439.5	1562.8	1588.1
35°	1863.4	1876.6	1705.0	1647.7	1562.1	1556.0	1557.2	1567.0	1630.7	1771.4	1791.0
37.5°	2135.3	2074.2	1923.7	1778.6	1749.9	1693.7	1731.8	1762.0	1825.7	2041.4	2123.6
40°	2302.8	2257.5	2028.2	1944.1	1864.9	1870.2	1941.5	1941.1	2091.6	2314.1	2439.7
42.5°	2457.8	2408.4	2192.3	2107.8	2032.7	2051.2	2071.6	2107.4	2395.9	2754.6	2811.9
45°	2582.6	2474.4	2319.0	2300.1	2238.3	2213.8	2300.1	2357.5	2759.8	3111.0	3144.1
47.5°	2667.5	2578.4	2426.5	2409.9	2364.2	2424.2	2659.9	2696.9	3041.9	3468.9	3466.2
50°	2796.4	2674.6	2537.3	2528.7	2657.3	2689.3	2976.7	2972.9	3316.5	3766.0	3703.8
52.5°	2945.0	2791.5	2642.6	2735.7	2931.8	2947.7	3196.9	3298.4	3616.3	4052.7	3890.1
55°	3115.9	2944.3	2800.2	2924.7	3216.6	3169.8	3422.1	3669.9	3991.6	4354.7	4024.7
57.5°	3327.4	3119.3	3002.7	3192.0	3476.4	3517.9	3744.5	4056.4	4293.6	4542.6	4122.8
60°	3550.7	3306.3	3199.6	3379.9	3840.3	3887.9	4109.6	4377.7	4632.3	4719.4	4104.3
62.5°	3763.8	3499.4	3402.9	3625.4	4243.9	4361.5	4525.2	4696.0	4914.0	4762.4	3880.7
65°	4001.0	3736.2	3675.5	4009.3	4791.1	4908.0	5121.8	5070.5	5010.6	4610.1	3510.7
67.5°	4252.2	3983.3	3994.6	4454.7	5436.4	5456.3	5784.8	5443.9	4897.1	4206.5	2889.6
70°	4387.2	4111.9	4228.4	4929.5	6092.9	6064.3	6131.4	5544.2	4434.3	3325.2	1991.6
72.5°	4223.5	3978.0	4191.4	5129.4	6427.1	6396.2	5936.8	4948.7	3467.0	2067.8	1032.6
75°	3576.0	3339.1	3665.7	4572.3	5786.0	5814.6	5052.4	3680.1	1984.8	831.6	428.8
77.5°	2429.9	2307.7	2587.5	3408.1	4297.8	4397.0	3748.7	2151.9	833.5	344.3	259.5
80°	1284.1	1226.1	1432.7	1963.3	2721.4	2795.3	2204.3	1071.8	426.9	222.9	185.2
82.5°	697.7	673.2	784.1	1009.6	1546.2	1610.7	1143.1	712.0	287.8	139.5	113.1
85°	468.8	459.3	532.9	542.3	731.3	752.4	598.9	548.3	172.7	68.3	74.7
87.5°	234.6	225.1	280.6	247.8	279.1	279.5	274.6	350.0	43.7	22.6	13.6
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: P367290
 CATALOG NUMBER: MSA-SA2B-730-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6	510.6
2.5°	616.2	603.0	557.4	557.0	563.8	559.3	562.7	544.2	536.3	572.5	570.6
5°	766.0	726.4	688.3	675.1	659.6	626.0	627.9	628.3	622.6	644.1	645.6
7.5°	853.8	806.3	771.2	701.1	646.0	603.0	608.7	615.1	608.7	637.4	647.9
10°	866.6	828.9	787.1	709.0	672.4	633.6	594.4	559.7	555.5	542.3	546.5
12.5°	942.8	911.5	824.0	738.4	695.8	636.2	564.6	525.0	491.8	497.4	486.9
15°	1005.4	983.2	878.3	766.3	664.5	590.6	514.4	460.1	430.3	426.9	416.4
17.5°	1090.3	1058.6	883.2	747.1	624.2	535.5	449.5	388.1	375.2	370.0	364.7
20°	1131.0	1074.1	865.5	686.8	577.0	469.9	385.4	332.6	328.9	338.3	336.4
22.5°	1166.5	1086.9	849.7	650.2	503.5	403.5	341.7	307.0	302.8	314.9	317.2
25°	1187.2	1123.5	832.3	612.8	457.8	354.1	308.9	289.3	290.0	305.9	304.0
27.5°	1280.7	1136.3	788.6	568.7	405.4	317.5	293.0	282.8	278.7	300.6	302.5
30°	1339.6	1220.0	778.8	522.0	366.6	290.8	278.7	274.6	273.8	300.2	302.1
32.5°	1448.9	1247.9	783.3	471.0	331.5	282.5	268.1	267.8	275.3	300.6	303.6
35°	1600.5	1365.6	761.4	442.0	312.3	269.6	259.8	262.9	275.7	303.2	307.4
37.5°	1896.2	1476.5	768.2	414.8	305.9	265.5	257.6	259.5	280.2	310.0	321.3
40°	2130.4	1677.5	757.7	401.3	297.2	264.7	252.7	260.2	279.8	313.8	324.0
42.5°	2469.8	1837.8	758.8	387.7	296.8	261.7	251.9	261.0	279.1	310.4	324.3
45°	2761.0	1981.4	775.0	379.8	293.0	266.6	250.8	262.1	274.2	298.3	313.8
47.5°	2999.7	2141.7	791.6	372.2	291.5	271.2	249.7	254.2	265.9	284.7	298.7
50°	3194.3	2254.5	812.7	370.7	291.5	268.9	246.6	246.3	256.1	271.2	284.4
52.5°	3345.9	2334.1	827.0	372.6	291.5	260.2	242.9	239.9	245.9	256.8	270.0
55°	3455.7	2358.6	815.4	377.5	291.1	252.3	236.1	233.4	236.5	244.0	256.4
57.5°	3499.8	2294.1	745.6	368.8	291.1	246.6	227.8	224.8	227.8	233.4	245.9
60°	3389.3	2086.7	644.9	346.6	285.5	239.1	218.4	216.5	221.0	225.9	238.0
62.5°	3112.1	1811.0	537.4	320.2	273.8	232.7	209.3	209.7	216.9	223.6	235.7
65°	2681.4	1477.6	448.0	293.4	259.1	222.5	199.9	202.5	212.7	221.8	233.8
67.5°	2110.1	1094.8	377.1	267.4	238.3	205.9	189.3	190.1	197.2	205.9	217.6
70°	1410.5	696.6	310.0	236.8	211.2	184.4	173.1	170.5	168.6	176.1	186.3
72.5°	715.4	411.5	254.6	202.5	181.8	161.0	152.4	145.6	140.3	144.8	152.7
75°	374.9	287.8	205.5	168.2	150.1	136.9	130.5	121.4	117.7	120.3	126.0
77.5°	265.1	225.1	166.3	133.1	122.2	108.6	109.7	100.3	97.3	98.8	104.8
80°	203.7	178.4	127.8	100.7	94.3	81.1	84.9	79.2	75.4	74.7	79.2
82.5°	138.8	134.3	90.9	70.5	66.0	56.6	61.8	59.6	54.7	51.7	53.9
85°	93.5	89.0	55.4	40.7	38.8	29.4	37.7	36.2	32.1	27.5	27.9
87.5°	16.2	29.8	15.8	10.2	9.4	3.4	8.7	8.3	7.5	3.8	3.0
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)