

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: P367400

Luminaire Tested: **MSA-SA2C-727-U-SL4**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P367400
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-SA2C-727-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: 10049 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

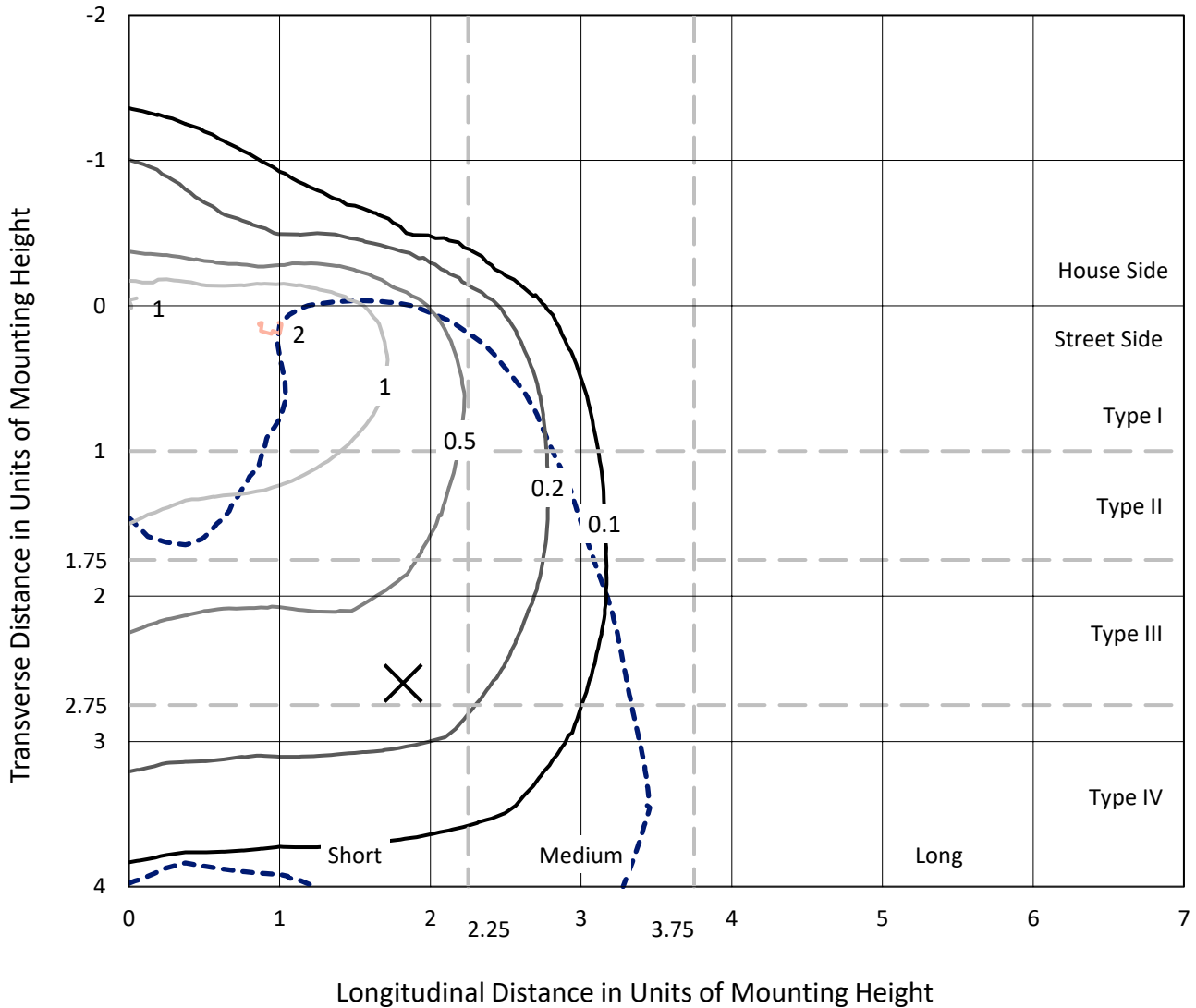
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P367400
 CATALOG NUMBER: MSA-SA2C-727-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

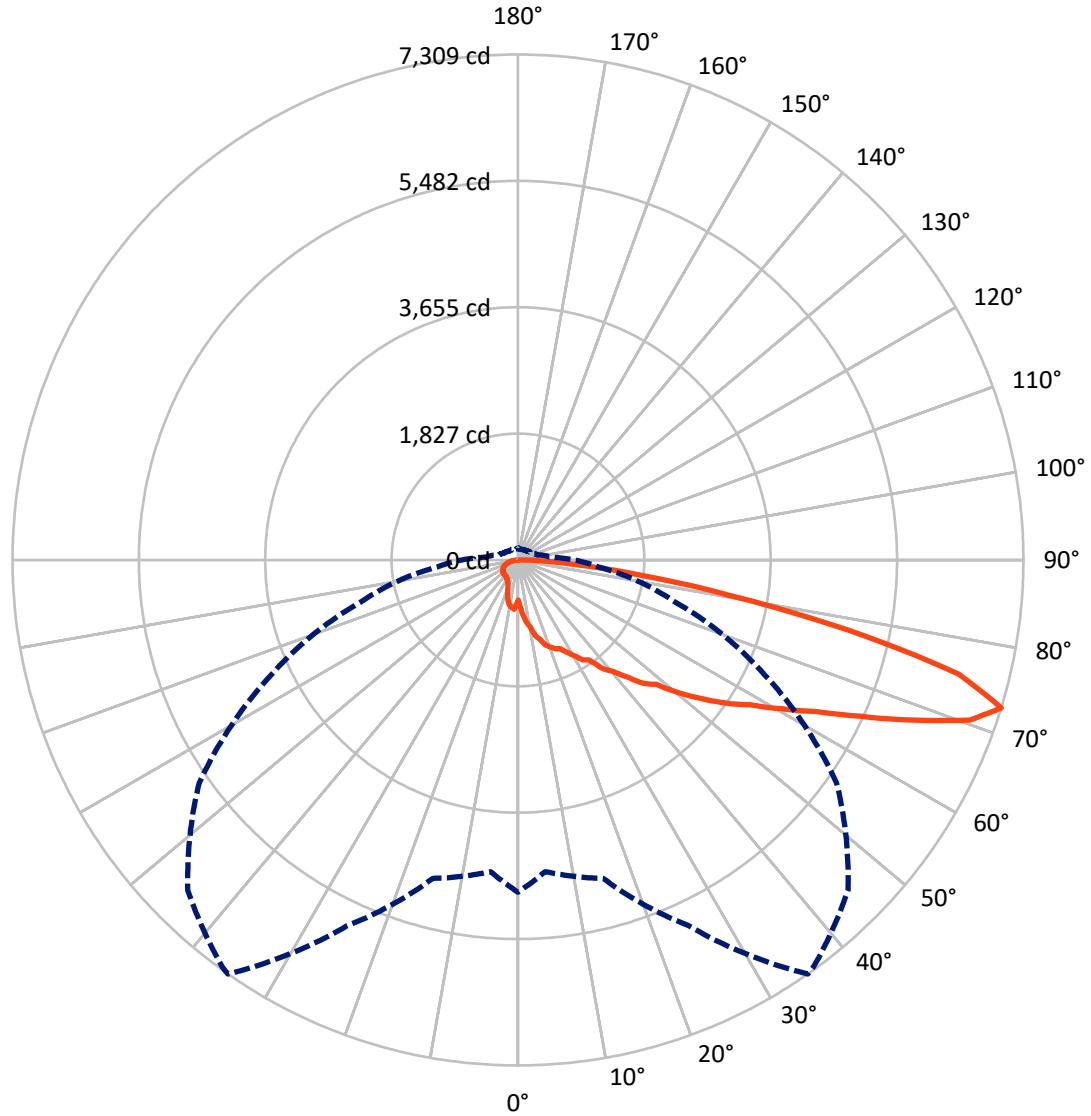
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2 fc
 Type IV - Short - N/A

REPORT NUMBER: P367400
CATALOG NUMBER: MSA-SA2C-727-U-SL4

Luminous Intensity Polar Plot



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

REPORT NUMBER: P367400

CATALOG NUMBER: MSA-SA2C-727-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1348.5	0.0	1348.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	8700.4	0.0	8700.4
	% Fixture	86.6	0.0	86.6
Total	Lumens	10049.0	0.0	10049.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.2	0.8
10°-20°	271.9	2.7
20°-30°	472.4	4.7
30°-40°	789.5	7.9
40°-50°	1370.4	13.6
50°-60°	2071.6	20.6
60°-70°	2683.8	26.7
70°-80°	1980.3	19.7
80°-90°	331.9	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°	10049.0	100.0
0°-180°	10049.0	100.0

Coefficient of Utilization



REPORT NUMBER: P367400

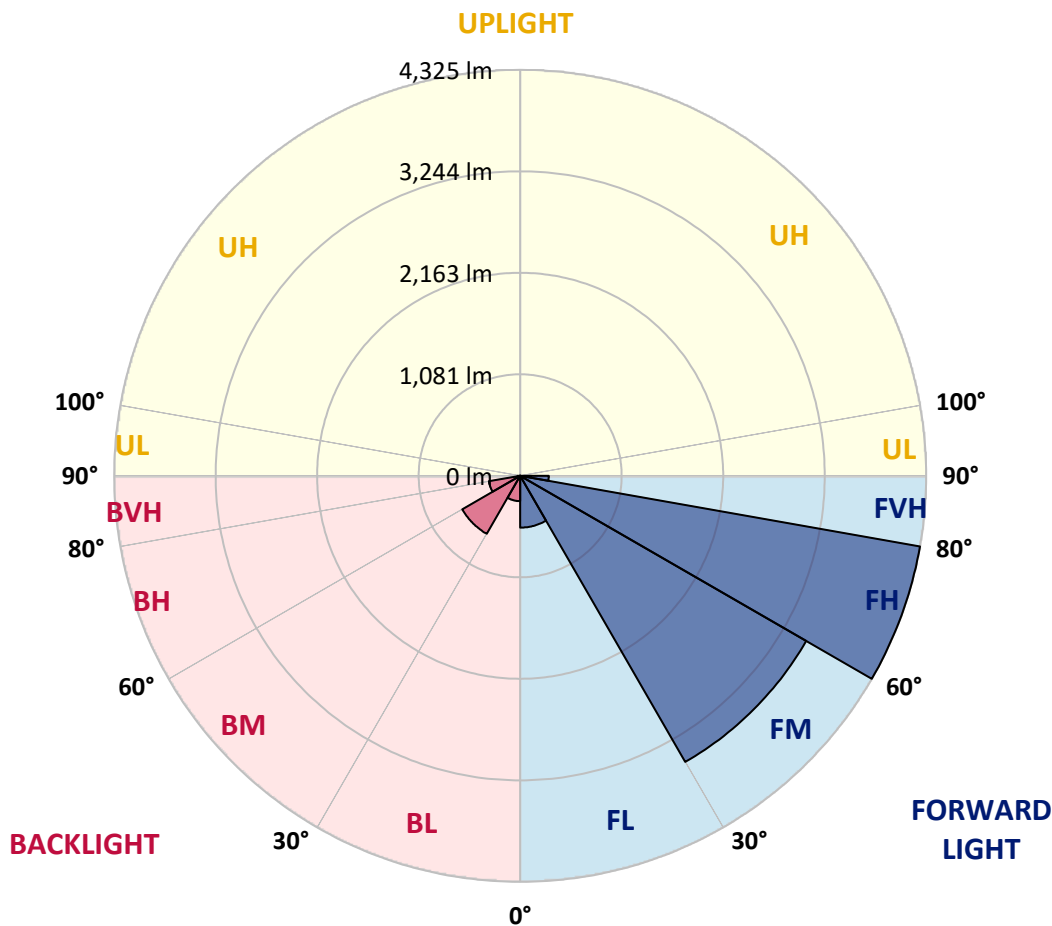
CATALOG NUMBER: MSA-SA2C-727-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	551.9	5.5			
FM (30°-60°)	3518.8	35.0			
FH (60°-80°)	4325.0	43.0			G2/5000
FVH (80°-90°)	304.7	3.0			G3/500
BL (0°-30°)	269.6	2.7	B1/500		
BM (30°-60°)	712.7	7.1	B1/1000		
BH (60°-80°)	339.1	3.4	B1/500		G1/500
BVH (80°-90°)	27.2	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: P367400

CATALOG NUMBER: MSA-SA2C-727-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7
2.5°	724.4	689.7	659.7	658.4	686.2	697.0	692.7	683.2	672.1	648.5	700.0
5°	907.6	857.8	848.4	837.2	811.9	818.8	777.6	808.9	818.8	841.5	875.8
7.5°	1015.6	986.5	963.7	954.3	910.6	905.4	875.0	919.6	938.4	935.4	986.5
10°	1058.1	1031.5	1033.2	1002.3	988.2	994.2	997.6	998.5	1010.1	1019.5	993.8
12.5°	1080.0	1090.3	1128.0	1107.0	1125.0	1132.3	1168.3	1131.4	1132.7	1084.3	1110.9
15°	1190.2	1215.9	1194.1	1193.2	1187.6	1199.6	1230.5	1205.6	1224.9	1209.5	1175.2
17.5°	1323.2	1330.9	1288.9	1271.7	1294.0	1290.1	1282.4	1286.3	1238.2	1327.5	1285.4
20°	1363.9	1394.4	1339.0	1271.7	1345.5	1355.3	1353.6	1336.9	1254.5	1383.2	1342.5
22.5°	1482.3	1441.1	1397.4	1354.5	1392.2	1397.8	1388.4	1348.5	1321.0	1369.9	1402.1
25°	1535.9	1526.0	1470.3	1465.1	1423.5	1403.8	1420.1	1408.5	1381.5	1468.6	1433.0
27.5°	1658.6	1647.0	1518.7	1571.5	1511.0	1505.9	1419.7	1458.3	1485.3	1478.9	1532.0
30°	1797.5	1810.8	1623.4	1676.2	1606.2	1596.8	1510.2	1559.1	1577.5	1583.5	1650.0
32.5°	1951.9	1988.4	1802.3	1758.9	1721.6	1728.1	1654.7	1565.5	1637.1	1777.4	1806.1
35°	2119.2	2134.2	1939.1	1873.9	1776.5	1769.7	1770.9	1782.1	1854.6	2014.6	2036.9
37.5°	2428.5	2359.0	2187.8	2022.7	1990.1	1926.2	1969.5	2003.8	2076.3	2321.7	2415.2
40°	2618.9	2567.4	2306.6	2211.0	2120.9	2126.9	2208.0	2207.6	2378.7	2631.8	2774.6
42.5°	2795.2	2739.0	2493.2	2397.1	2311.8	2332.8	2356.0	2396.7	2724.8	3132.7	3197.9
45°	2937.1	2814.0	2637.3	2615.9	2545.5	2517.7	2615.9	2681.1	3138.7	3538.0	3575.8
47.5°	3033.6	2932.4	2759.6	2740.7	2688.8	2757.0	3025.1	3067.1	3459.5	3945.1	3942.1
50°	3180.3	3041.8	2885.7	2875.8	3022.1	3058.5	3385.3	3381.1	3771.8	4283.0	4212.3
52.5°	3349.3	3174.7	3005.3	3111.3	3334.3	3352.3	3635.8	3751.2	4112.8	4609.0	4424.1
55°	3543.6	3348.5	3184.6	3326.2	3658.1	3604.9	3891.9	4173.7	4539.5	4952.6	4577.3
57.5°	3784.2	3547.5	3414.9	3630.2	3953.6	4000.8	4258.6	4613.3	4883.1	5166.1	4688.8
60°	4038.1	3760.2	3638.8	3843.8	4367.5	4421.6	4673.8	4978.7	5268.2	5367.3	4667.8
62.5°	4280.5	3979.8	3870.0	4123.1	4826.5	4960.3	5146.4	5340.7	5588.6	5416.2	4413.4
65°	4550.2	4249.2	4180.1	4559.7	5448.8	5581.8	5824.9	5766.6	5698.4	5242.9	3992.7
67.5°	4835.9	4530.1	4543.0	5066.2	6182.7	6205.4	6579.0	6191.2	5569.3	4784.0	3286.3
70°	4989.4	4676.3	4808.9	5606.2	6929.4	6896.8	6973.1	6305.3	5043.1	3781.6	2265.0
72.5°	4803.3	4524.1	4766.8	5833.5	7309.4	7274.2	6751.8	5628.1	3942.9	2351.7	1174.3
75°	4066.9	3797.5	4168.9	5200.0	6580.2	6612.8	5746.0	4185.2	2257.3	945.7	487.7
77.5°	2763.4	2624.5	2942.7	3876.0	4887.8	5000.6	4263.3	2447.3	947.9	391.6	295.1
80°	1460.4	1394.4	1629.4	2232.9	3095.0	3179.0	2506.9	1218.9	485.5	253.5	210.6
82.5°	793.5	765.6	891.7	1148.2	1758.5	1831.8	1300.0	809.8	327.3	158.7	128.7
85°	533.1	522.4	606.0	616.8	831.6	855.7	681.1	623.6	196.4	77.6	84.9
87.5°	266.8	256.1	319.1	281.8	317.4	317.8	312.2	398.0	49.8	25.7	15.4
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: P367400
 CATALOG NUMBER: MSA-SA2C-727-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7	580.7
2.5°	700.8	685.8	633.9	633.5	641.2	636.1	639.9	618.9	609.9	651.1	648.9
5°	871.1	826.1	782.7	767.7	750.2	712.0	714.1	714.6	708.1	732.6	734.3
7.5°	971.0	917.0	877.1	797.3	734.7	685.8	692.3	699.5	692.3	724.8	736.9
10°	985.6	942.7	895.1	806.3	764.7	720.6	676.0	636.5	631.8	616.8	621.5
12.5°	1072.3	1036.7	937.2	839.8	791.3	723.6	642.1	597.0	559.3	565.7	553.7
15°	1143.5	1118.2	998.9	871.5	755.7	671.7	585.0	523.3	489.4	485.5	473.5
17.5°	1240.0	1203.9	1004.5	849.7	709.8	609.0	511.3	441.3	426.8	420.8	414.8
20°	1286.3	1221.5	984.3	781.0	656.2	534.4	438.3	378.3	374.0	384.7	382.6
22.5°	1326.6	1236.1	966.3	739.4	572.6	458.9	388.6	349.1	344.4	358.1	360.7
25°	1350.2	1277.7	946.6	697.0	520.7	402.7	351.3	329.0	329.8	347.8	345.7
27.5°	1456.6	1292.3	896.8	646.8	461.1	361.1	333.3	321.7	317.0	341.8	344.0
30°	1523.5	1387.5	885.7	593.6	416.9	330.7	317.0	312.2	311.4	341.4	343.6
32.5°	1647.8	1419.2	890.8	535.7	377.0	321.2	305.0	304.5	313.1	341.8	345.3
35°	1820.3	1553.1	866.0	502.7	355.1	306.7	295.5	298.9	313.5	344.8	349.6
37.5°	2156.5	1679.2	873.7	471.8	347.8	301.9	292.9	295.1	318.7	352.6	365.4
40°	2422.9	1907.8	861.7	456.4	338.0	301.1	287.4	295.9	318.2	356.8	368.4
42.5°	2808.9	2090.0	863.0	440.9	337.5	297.7	286.5	296.8	317.4	353.0	368.9
45°	3140.0	2253.5	881.4	431.9	333.3	303.2	285.2	298.1	311.8	339.3	356.8
47.5°	3411.5	2435.7	900.3	423.3	331.5	308.4	283.9	289.1	302.4	323.8	339.7
50°	3632.8	2564.0	924.3	421.6	331.5	305.8	280.5	280.1	291.2	308.4	323.4
52.5°	3805.2	2654.5	940.6	423.8	331.5	295.9	276.2	272.8	279.6	292.1	307.1
55°	3930.0	2682.4	927.3	429.3	331.1	286.9	268.5	265.5	268.9	277.5	291.7
57.5°	3980.2	2609.0	847.9	419.5	331.1	280.5	259.1	255.6	259.1	265.5	279.6
60°	3854.6	2373.1	733.4	394.2	324.7	271.9	248.3	246.2	251.3	256.9	270.6
62.5°	3539.3	2059.6	611.2	364.1	311.4	264.6	238.0	238.5	246.6	254.3	268.1
65°	3049.5	1680.4	509.5	333.7	294.7	253.1	227.3	230.3	241.9	252.2	265.9
67.5°	2399.7	1245.1	428.9	304.1	271.1	234.2	215.3	216.2	224.3	234.2	247.5
70°	1604.1	792.2	352.6	269.4	240.2	209.7	196.9	193.9	191.7	200.3	211.9
72.5°	813.6	467.9	289.5	230.3	206.7	183.1	173.3	165.6	159.6	164.7	173.7
75°	426.3	327.3	233.8	191.3	170.7	155.7	148.4	138.1	133.8	136.8	143.3
77.5°	301.5	256.1	189.1	151.4	139.0	123.5	124.8	114.1	110.7	112.4	119.2
80°	231.6	202.9	145.4	114.5	107.2	92.2	96.5	90.1	85.8	84.9	90.1
82.5°	157.8	152.7	103.4	80.2	75.1	64.3	70.3	67.8	62.2	58.8	61.3
85°	106.4	101.2	63.0	46.3	44.2	33.5	42.9	41.2	36.5	31.3	31.7
87.5°	18.4	33.9	18.0	11.6	10.7	3.9	9.9	9.4	8.6	4.3	3.4
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)