

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: P596611

Luminaire Tested: **MSA-SA2C-827-U-SL2-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596611
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-17)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA2C-827-U-SL2-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7433 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

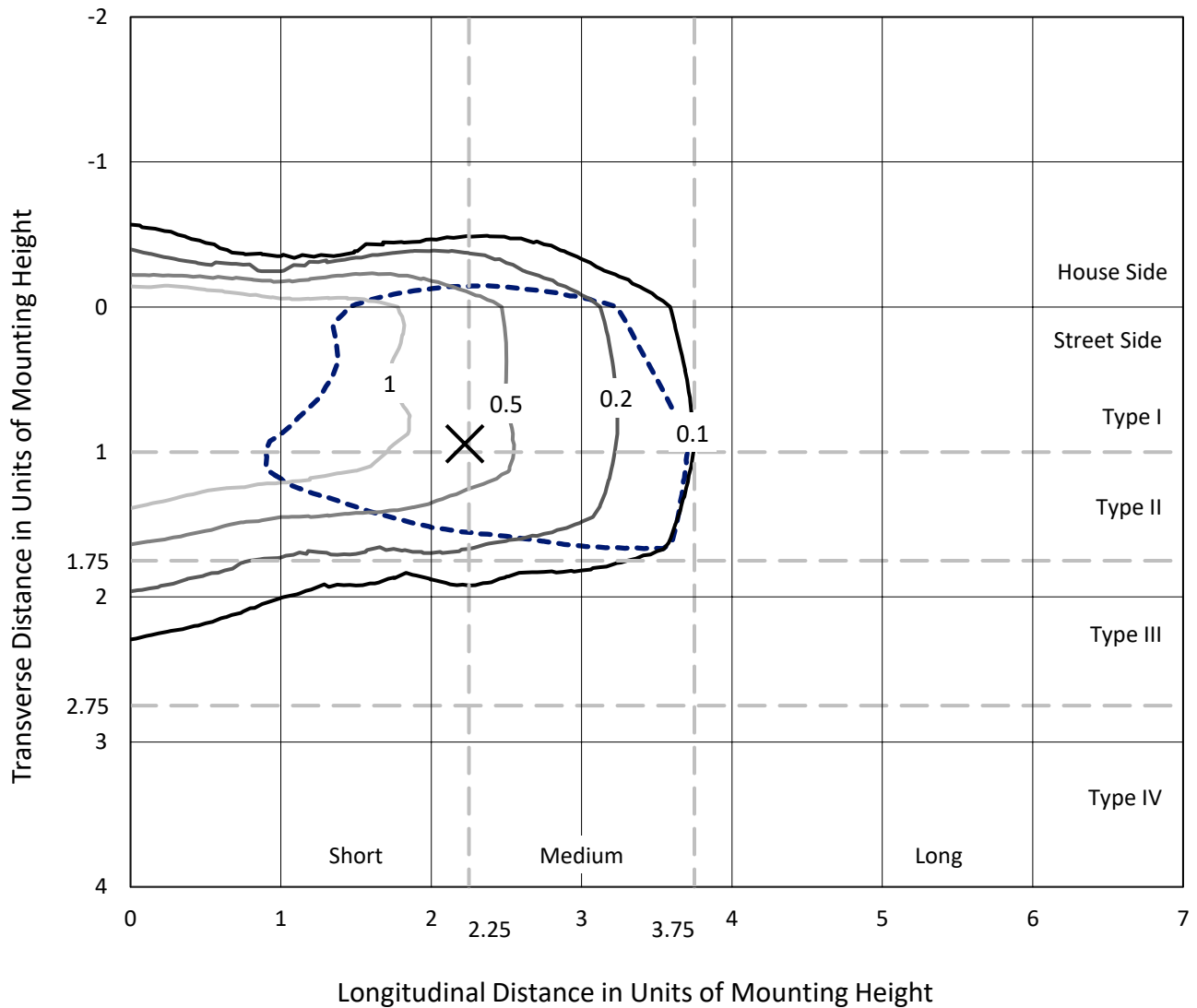
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596611
 CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

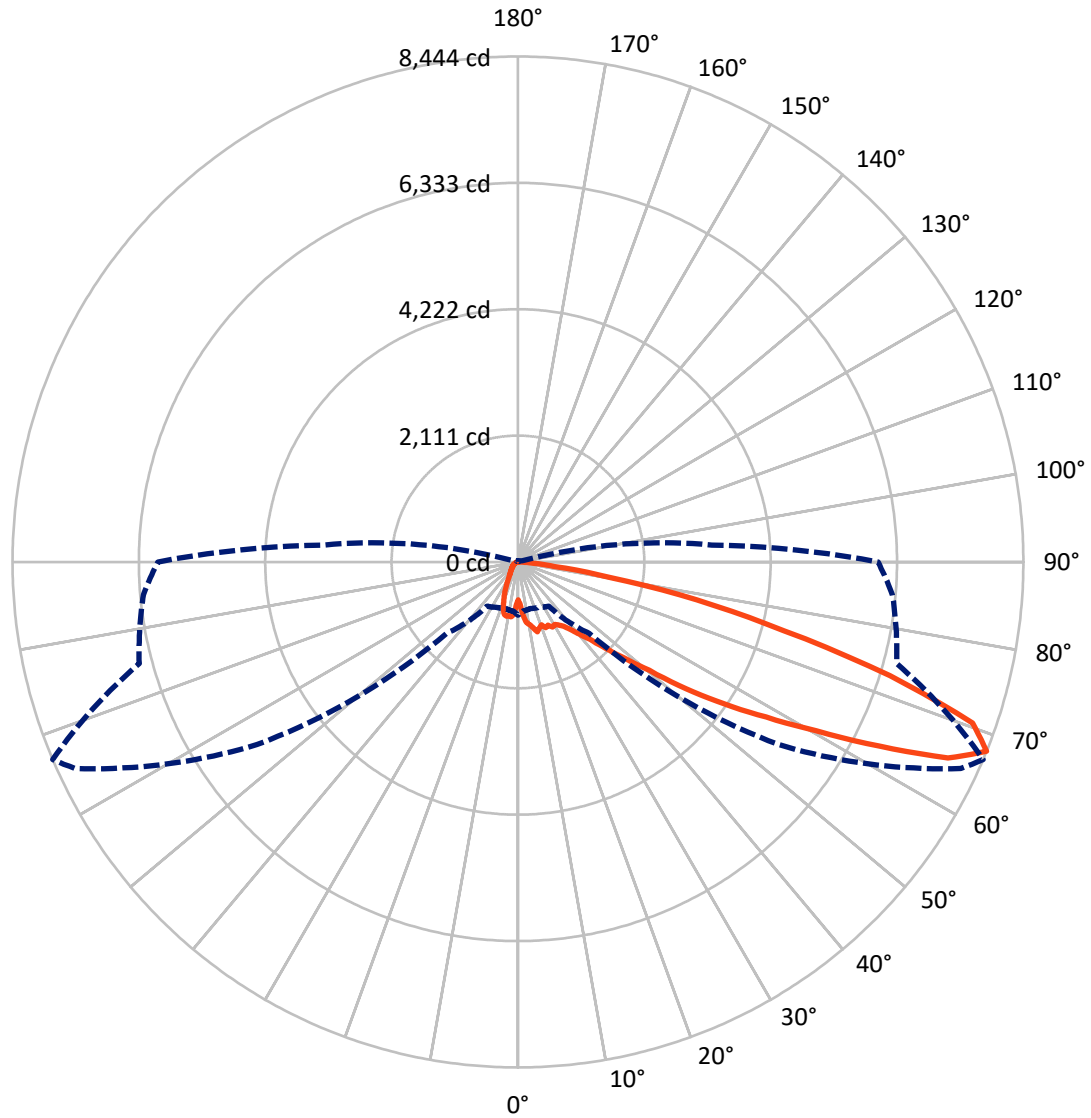
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P596611
CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P596611
 CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	919.2	0.0	919.2
	% Fixture	12.4	0.0	12.4
Street Side	Lumens	6513.8	0.0	6513.8
	% Fixture	87.6	0.0	87.6
Total	Lumens	7433.0	0.0	7433.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	1.1
10°-20°	235.1	3.2
20°-30°	368.5	5.0
30°-40°	594.2	8.0
40°-50°	1091.8	14.7
50°-60°	1843.9	24.8
60°-70°	2038.5	27.4
70°-80°	1066.9	14.4
80°-90°	114.6	1.5
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°	7433.0	100.0
0°-180°	7433.0	100.0

Coefficient of Utilization



REPORT NUMBER: P596611

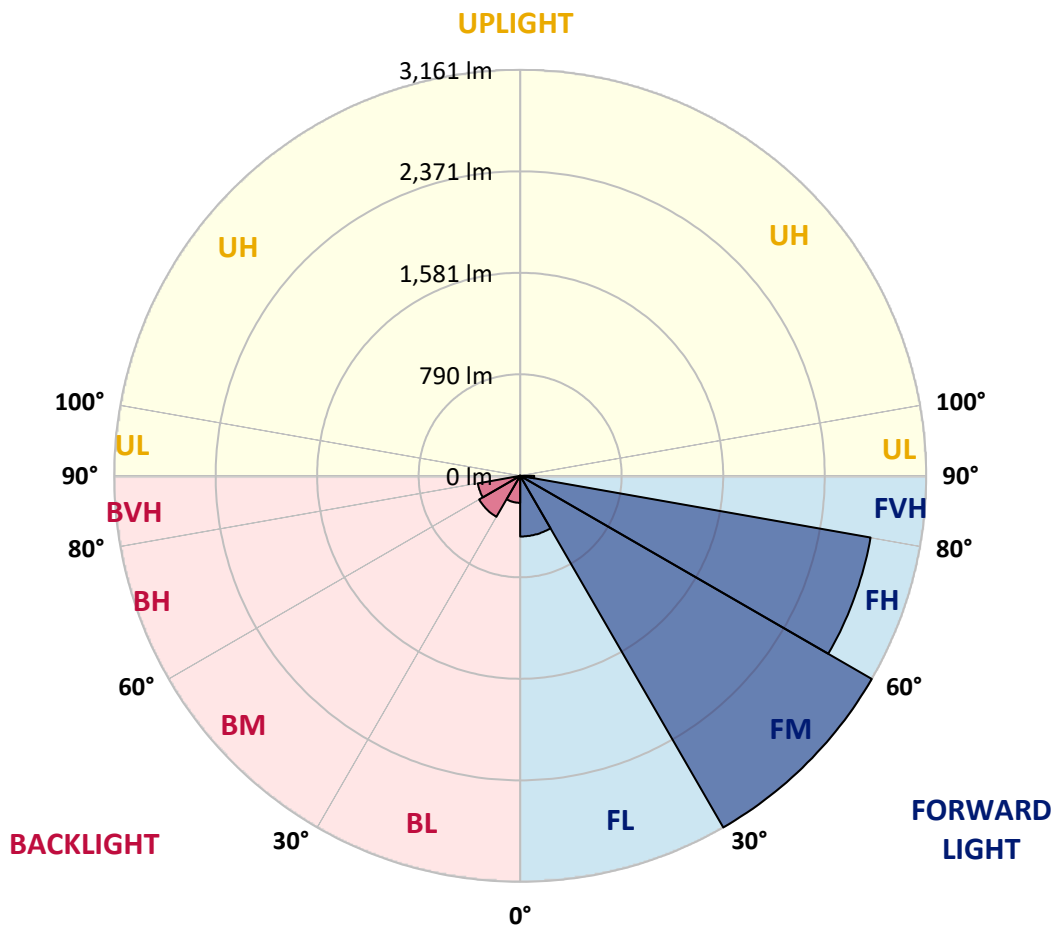
CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	472.6	6.4			
FM (30°-60°)	3161.3	42.5			
FH (60°-80°)	2770.2	37.3			G2/5000
FVH (80°-90°)	109.7	1.5			G2/225
BL (0°-30°)	210.5	2.8	B1/500		
BM (30°-60°)	368.6	5.0	B1/1000		
BH (60°-80°)	335.3	4.5	B1/500		G1/500
BVH (80°-90°)	4.9	0.1			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 II Short





REPORT NUMBER: P596611

CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
2.5°	747.3	722.1	679.1	691.5	716.4	737.2	727.3	708.1	708.5	688.9	759.4
5°	869.5	835.6	810.7	819.4	818.2	817.5	863.8	881.6	889.1	921.5	969.4
7.5°	904.6	892.5	866.5	874.4	848.4	850.3	931.7	1008.6	1020.7	1040.7	1125.9
10°	891.0	867.6	877.0	877.0	877.4	919.6	974.3	1047.8	1062.6	1139.5	1148.5
12.5°	876.3	877.4	914.7	908.0	959.2	1035.0	1053.5	1136.1	1128.9	1195.7	1294.8
15°	931.0	959.6	935.5	944.9	949.8	1038.8	1068.6	1178.3	1210.0	1294.4	1358.9
17.5°	1024.8	1028.6	978.5	964.9	1000.3	1025.6	1085.6	1138.3	1159.5	1381.2	1472.4
20°	1041.8	1065.9	1015.0	936.6	1011.7	1046.3	1088.2	1113.5	1122.5	1407.9	1536.5
22.5°	1144.0	1117.2	1035.8	976.2	997.7	1035.4	1061.4	1137.6	1191.9	1357.4	1598.0
25°	1196.4	1189.2	1111.6	1060.7	1038.8	1035.8	1095.4	1153.0	1170.4	1409.8	1613.1
27.5°	1322.0	1305.8	1155.3	1148.9	1076.9	1013.5	1096.5	1200.2	1232.6	1360.4	1669.6
30°	1492.8	1486.7	1286.5	1282.4	1167.8	1053.9	1157.6	1229.2	1209.6	1385.7	1707.3
32.5°	1664.7	1713.7	1509.0	1392.1	1306.1	1202.1	1140.2	1220.2	1255.2	1447.2	1776.7
35°	1872.5	1907.9	1699.4	1614.6	1423.4	1271.4	1255.2	1306.5	1321.6	1520.3	1855.5
37.5°	2236.0	2182.4	2004.8	1860.4	1760.1	1519.2	1439.2	1398.5	1433.6	1619.5	2016.5
40°	2504.4	2470.5	2251.8	2165.5	1934.7	1793.7	1584.8	1546.7	1585.9	1721.3	2128.5
42.5°	2828.3	2757.8	2551.9	2493.5	2255.9	1984.1	1772.2	1785.4	1760.9	1922.2	2324.9
45°	3121.3	2962.2	2847.6	2860.8	2734.1	2366.8	2084.8	2078.4	2058.0	2213.3	2531.6
47.5°	3318.5	3179.4	3067.8	3031.2	3016.1	3039.9	2536.5	2422.6	2407.5	2519.1	2857.0
50°	3424.5	3272.1	3134.1	3141.7	3447.8	3678.2	3002.5	2840.8	2846.4	2962.9	3301.9
52.5°	3353.2	3180.9	3035.3	3176.7	3782.7	4103.9	3774.0	3387.1	3518.3	3488.6	3898.8
55°	3024.0	2874.3	2771.0	3024.0	3819.2	4562.0	4723.8	4209.5	4180.1	4112.2	4507.4
57.5°	2470.1	2341.2	2277.4	2544.4	3419.2	4931.2	5677.8	5138.9	4888.2	4603.9	5012.6
60°	1840.4	1745.4	1679.0	1820.1	2694.1	4572.6	6302.6	6014.9	5724.5	5077.9	5466.6
62.5°	1363.1	1285.8	1215.3	1228.1	1855.1	3932.7	6542.4	6942.8	6776.1	5578.2	5894.9
65°	1087.8	1017.3	967.9	939.6	1148.9	2958.8	6208.7	7703.3	7895.6	6049.5	6204.1
67.5°	888.4	828.8	804.3	836.7	901.2	1686.6	5317.3	8164.8	8443.9	6549.5	6280.3
70°	722.8	673.8	671.2	758.6	829.9	1028.2	3911.2	7846.2	8056.3	6634.7	5823.7
72.5°	503.8	482.3	516.6	640.6	822.4	856.3	2246.1	6493.0	6500.5	5859.9	4790.2
75°	285.1	281.7	336.0	510.9	800.9	847.6	1252.2	4588.4	4591.8	4432.0	3318.5
77.5°	156.9	146.7	195.7	345.4	687.8	828.0	807.7	3133.0	3052.7	2466.3	1515.8
80°	72.4	68.2	106.0	221.3	503.0	783.2	647.4	1722.0	1552.7	803.5	369.9
82.5°	29.8	28.3	48.6	142.2	317.9	630.8	545.6	763.9	613.1	152.7	114.2
85°	5.3	5.7	20.0	86.0	178.0	290.7	442.3	362.7	266.6	42.2	62.6
87.5°	0.0	0.0	4.1	20.7	43.0	79.6	179.5	101.4	69.8	12.4	18.5
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: P596611
 CATALOG NUMBER: MSA-SA2C-827-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1	633.1
2.5°	773.3	766.9	702.1	705.1	709.6	705.5	704.7	686.6	670.0	724.7	724.0
5°	978.1	932.5	887.6	870.3	832.9	783.9	784.3	768.8	753.0	775.2	775.2
7.5°	1124.0	1061.0	1004.1	902.7	803.9	714.5	706.6	685.5	661.4	690.4	696.1
10°	1158.0	1103.3	1029.7	880.8	787.3	700.2	604.4	525.6	489.0	472.1	469.1
12.5°	1262.4	1221.7	1057.3	892.5	757.9	610.5	453.6	360.1	296.4	291.5	284.7
15°	1332.2	1303.5	1084.4	863.5	633.5	438.9	285.1	218.7	193.1	190.8	187.4
17.5°	1440.4	1390.6	1058.4	771.1	495.5	289.6	191.5	172.7	175.7	182.5	177.2
20°	1484.5	1387.2	1001.8	637.2	348.0	194.2	166.3	156.1	164.0	170.4	167.4
22.5°	1529.7	1397.0	951.7	525.2	227.4	160.6	148.2	142.9	143.7	150.1	150.4
25°	1529.4	1424.2	893.6	409.1	169.3	142.9	133.9	127.1	124.4	129.0	127.8
27.5°	1603.6	1392.9	787.7	303.5	148.9	127.8	119.2	110.9	101.4	106.0	106.0
30°	1604.0	1443.8	713.8	217.9	136.5	113.9	106.3	93.5	82.6	86.3	86.7
32.5°	1646.6	1399.6	645.5	166.7	126.7	105.6	89.0	77.3	70.9	73.1	73.1
35°	1695.3	1437.4	540.7	147.1	116.9	93.9	76.2	66.7	61.8	63.7	63.7
37.5°	1855.9	1429.4	467.9	136.9	110.5	84.8	69.4	58.8	56.6	57.7	59.2
40°	1914.0	1485.6	369.1	130.8	99.9	76.5	61.1	53.2	50.1	50.9	51.3
42.5°	2061.8	1498.1	294.9	125.9	90.5	66.4	54.3	48.6	44.9	44.9	46.0
45°	2225.0	1529.4	234.5	121.8	82.6	59.6	49.0	44.5	38.8	38.1	39.6
47.5°	2461.4	1649.3	191.2	113.5	73.1	55.4	45.2	38.5	33.9	32.4	33.9
50°	2857.0	1852.9	168.9	103.3	66.4	52.0	40.0	32.8	29.4	27.5	28.7
52.5°	3415.0	2204.7	157.2	93.9	60.3	46.8	35.8	28.7	25.3	23.8	24.5
55°	4034.9	2608.1	151.6	84.5	55.1	41.1	31.3	25.3	22.2	20.4	20.7
57.5°	4608.0	2987.4	145.9	75.4	49.8	36.6	27.5	22.2	19.2	17.3	17.7
60°	5172.9	3290.2	132.3	64.9	44.9	32.8	24.1	19.2	17.3	15.1	15.1
62.5°	5672.5	3471.2	112.7	56.2	40.3	29.0	21.5	17.3	15.8	13.6	13.6
65°	6012.6	3479.5	90.9	48.3	35.4	24.9	18.9	16.2	14.7	12.1	11.7
67.5°	6017.5	3253.3	72.8	43.0	31.3	21.9	17.0	15.5	13.6	11.3	10.6
70°	5385.9	2687.7	60.7	37.7	27.1	19.2	14.7	14.7	13.2	10.9	9.8
72.5°	4308.3	2053.8	50.9	32.8	24.1	16.6	13.6	14.0	12.8	10.9	9.8
75°	2895.8	1177.9	42.2	27.9	21.1	14.0	13.2	13.6	13.2	10.9	9.4
77.5°	1333.7	375.2	32.8	23.0	18.1	11.7	12.8	12.8	12.1	9.8	8.3
80°	300.5	92.4	23.8	17.0	14.7	8.7	11.7	10.6	9.4	6.8	4.9
82.5°	109.3	28.3	14.3	10.6	9.0	3.4	7.5	7.5	6.8	4.9	3.0
85°	62.6	14.7	7.9	6.8	4.9	1.5	4.1	4.5	3.8	3.4	1.5
87.5°	20.4	3.4	3.8	4.1	3.8	0.8	1.5	1.5	1.1	0.8	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)