

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: P597143

Luminaire Tested: **MSA-SA4C-835-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P597143
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-21)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-835-U-SL4-HSS
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16406 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

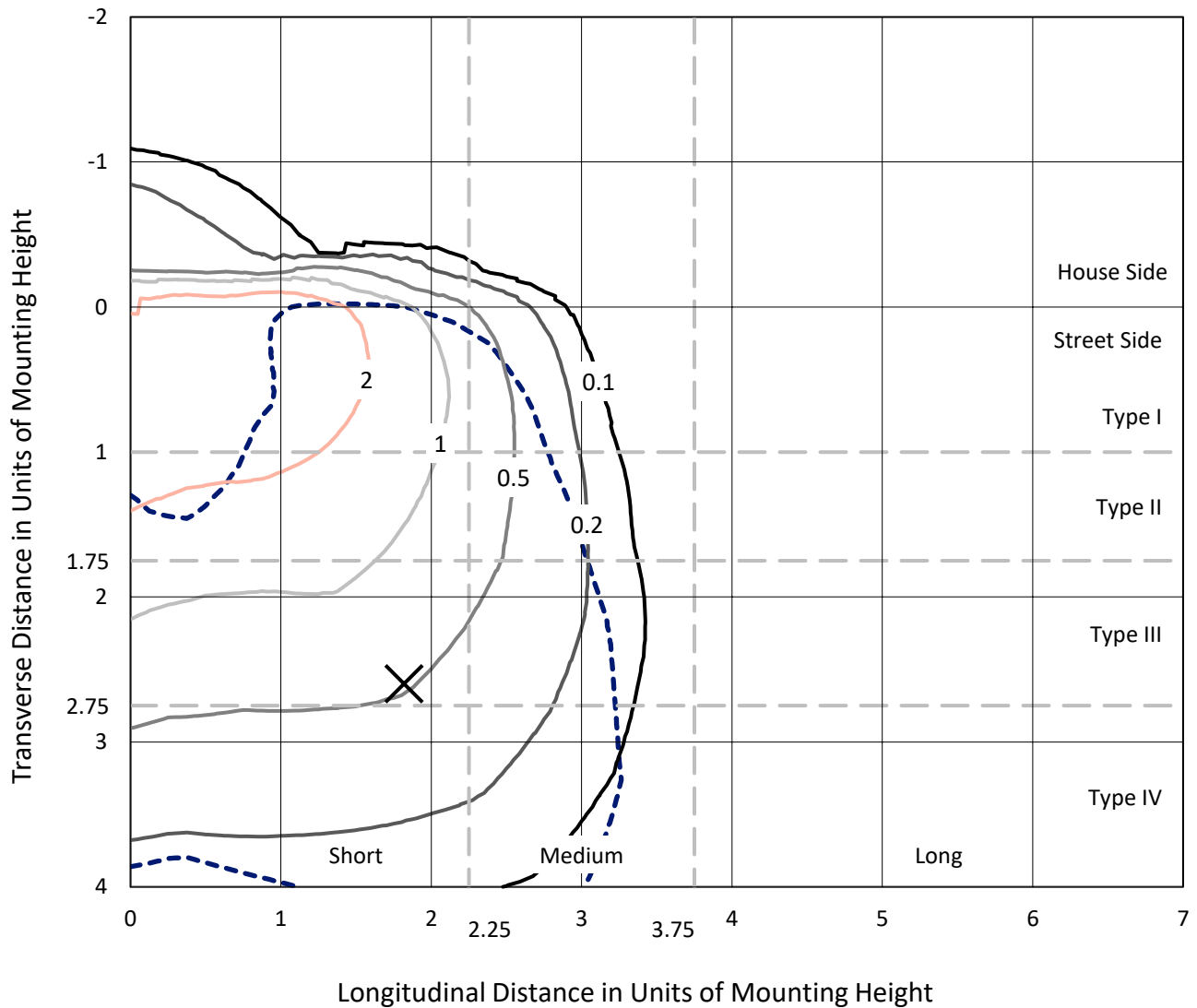
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P597143
 CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

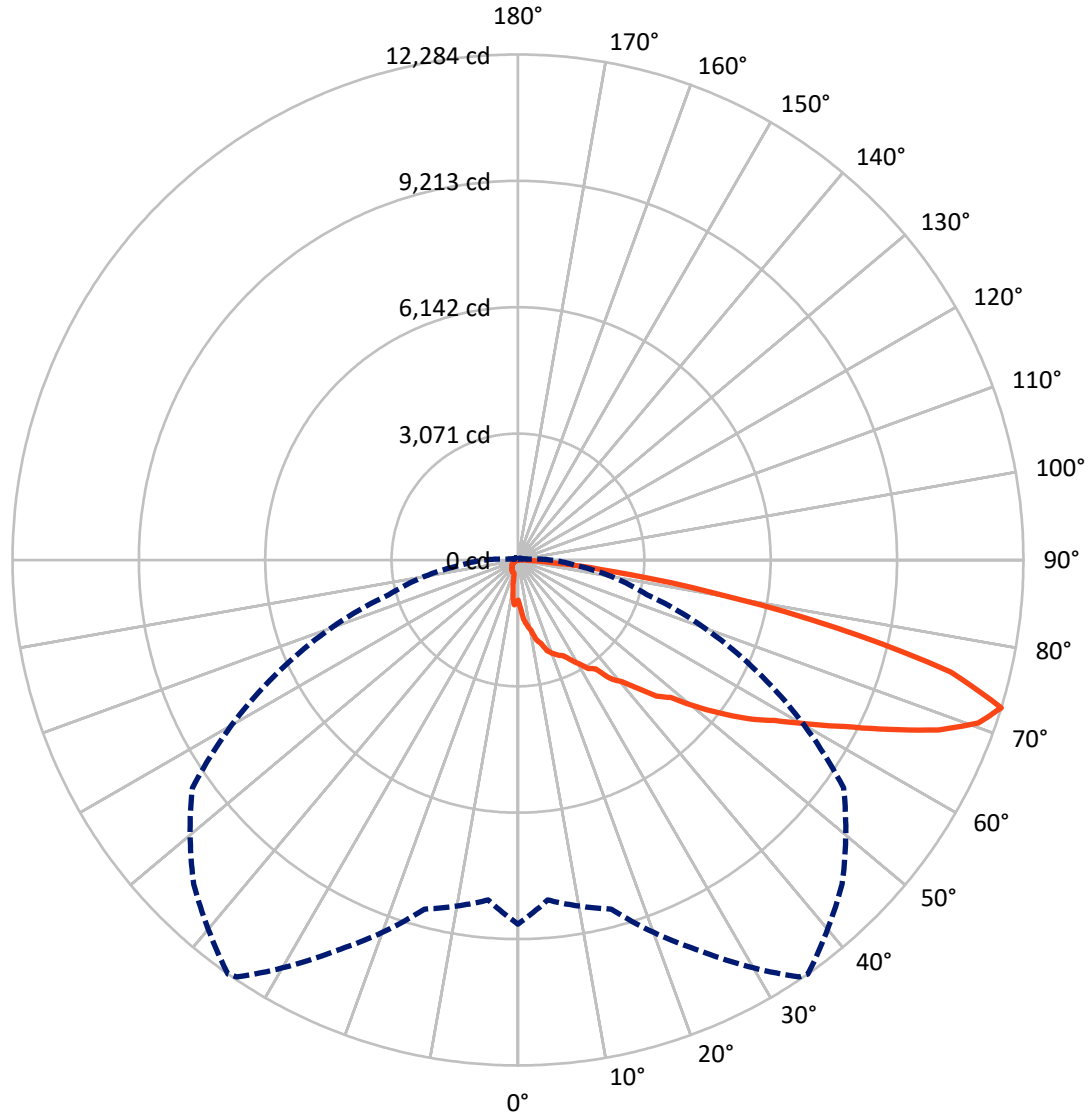
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

REPORT NUMBER: P597143
CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P597143
 CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1279.6	0.0	1279.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	15126.4	0.0	15126.4
	% Fixture	92.2	0.0	92.2
Total	Lumens	16406.0	0.0	16406.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.6	0.8
10°-20°	419.9	2.6
20°-30°	764.6	4.7
30°-40°	1318.8	8.0
40°-50°	2344.4	14.3
50°-60°	3498.5	21.3
60°-70°	4469.7	27.2
70°-80°	3109.7	19.0
80°-90°	355.7	2.2
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°	16406.0	100.0
0°-180°	16406.0	100.0

Coefficient of Utilization



REPORT NUMBER: P597143

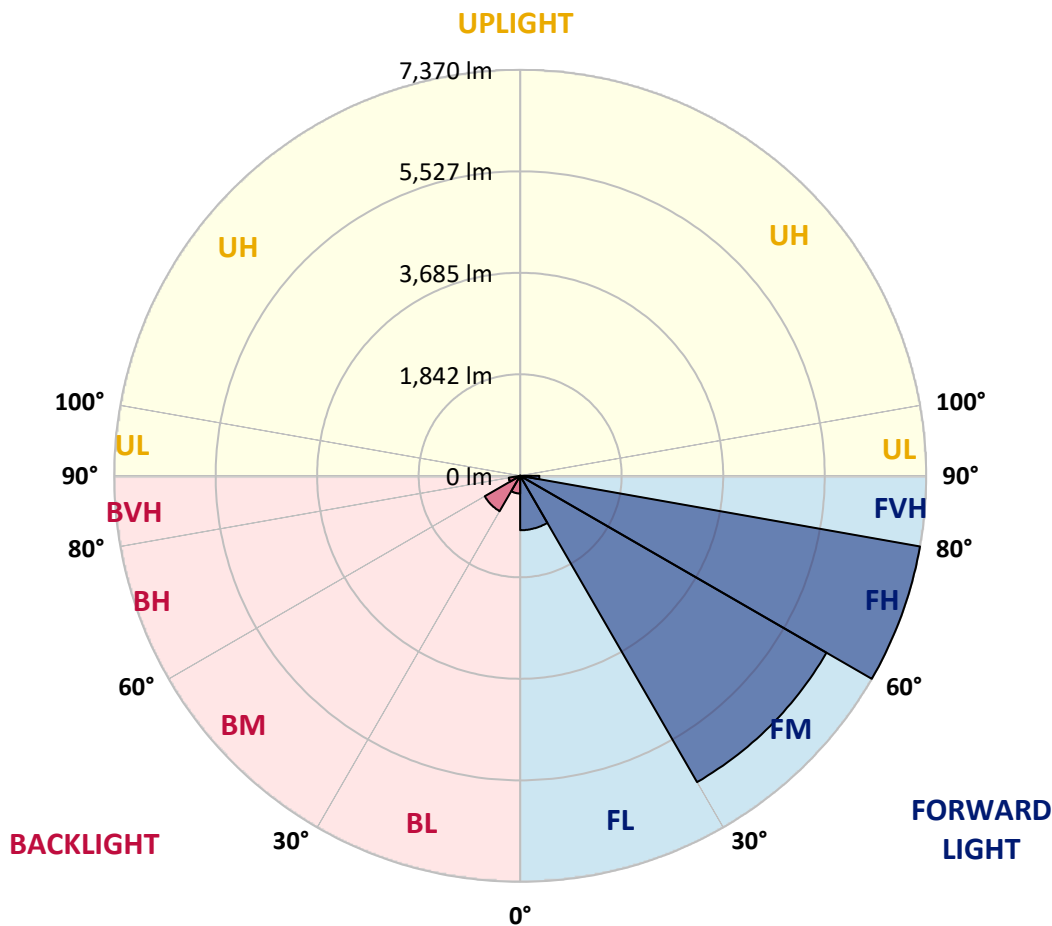
CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	987.3	6.0			
FM (30°-60°)	6419.7	39.1			
FH (60°-80°)	7369.6	44.9			G3/7500
FVH (80°-90°)	349.7	2.1			G3/500
BL (0°-30°)	321.8	2.0	B1/500		
BM (30°-60°)	742.0	4.5	B1/1000		
BH (60°-80°)	209.8	1.3	B1/500		G1/500
BVH (80°-90°)	6.0	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-G3

Type IV Short





REPORT NUMBER: P597143
 CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3
2.5°	1243.7	1195.0	1115.9	1121.6	1157.1	1164.5	1175.2	1147.2	1122.5	1078.7	1163.7
5°	1593.4	1523.3	1478.7	1464.7	1444.1	1445.7	1395.4	1413.6	1408.6	1440.8	1479.6
7.5°	1790.5	1751.7	1695.6	1680.0	1604.1	1595.8	1534.0	1617.3	1625.5	1614.0	1677.5
10°	1868.8	1817.7	1824.3	1765.7	1727.8	1737.7	1747.6	1754.2	1764.9	1775.6	1698.1
12.5°	1915.0	1924.1	2014.0	1953.0	1990.9	1990.9	2057.7	1986.8	1989.2	1911.7	1924.9
15°	2122.9	2173.2	2132.7	2131.9	2090.7	2101.4	2178.9	2122.9	2151.7	2128.6	2039.6
17.5°	2383.5	2393.4	2316.7	2282.8	2320.0	2320.8	2287.8	2285.3	2184.7	2354.6	2246.6
20°	2466.8	2522.8	2414.0	2282.0	2436.2	2428.8	2426.4	2387.6	2220.2	2456.0	2367.0
22.5°	2693.6	2613.6	2539.3	2452.7	2512.9	2512.9	2503.9	2418.9	2353.8	2447.0	2484.9
25°	2764.5	2774.4	2677.9	2649.9	2651.5	2577.3	2570.7	2534.4	2471.7	2630.9	2555.0
27.5°	3008.6	3004.5	2772.7	2851.1	2751.3	2752.1	2569.9	2651.5	2662.2	2640.0	2724.9
30°	3248.6	3315.4	2965.7	3064.7	2960.0	2928.6	2750.5	2823.0	2842.0	2816.4	2923.7
32.5°	3554.6	3652.7	3312.9	3215.6	3055.6	3144.7	3021.8	2850.3	2944.3	3172.7	3232.9
35°	3878.7	3926.5	3564.5	3428.4	3247.8	3247.0	3242.8	3256.9	3360.8	3618.1	3669.2
37.5°	4461.0	4348.0	4020.6	3708.8	3749.2	3659.3	3596.6	3662.6	3770.7	4194.6	4413.1
40°	4785.9	4704.3	4243.2	4058.5	3858.1	3891.1	4061.0	4053.5	4341.4	4785.1	5112.5
42.5°	5101.8	5024.2	4570.6	4421.4	4164.1	4253.9	4328.2	4422.2	5011.9	5727.7	5907.5
45°	5383.0	5155.4	4835.4	4841.2	4707.5	4718.3	4849.4	4936.0	5788.8	6522.8	6649.0
47.5°	5552.9	5365.7	5058.9	5053.1	5044.9	4994.6	5612.3	5691.5	6408.1	7279.9	7291.4
50°	5792.1	5557.8	5289.0	5293.9	5484.4	5590.8	6328.1	6319.9	7006.1	7911.6	7645.2
52.5°	6089.8	5803.6	5507.5	5727.7	6022.2	6195.4	6794.1	7038.2	7648.5	8308.3	7783.8
55°	6470.8	6112.9	5827.5	6109.6	6752.1	6818.9	7250.2	7765.6	8348.7	8713.3	7828.3
57.5°	6917.8	6490.6	6259.7	6714.1	7354.9	7356.6	7914.1	8540.9	8778.4	8878.2	7778.0
60°	7399.5	6901.3	6668.8	7077.8	8019.7	8087.3	8652.2	8968.9	9214.7	8961.5	7688.1
62.5°	7823.4	7273.3	7092.7	7573.5	8748.7	8908.7	9295.5	9250.2	9529.7	9066.2	7459.7
65°	8328.1	7754.9	7636.2	8346.3	9700.5	9920.7	10018.0	9749.1	9635.3	8985.4	6865.0
67.5°	8827.9	8291.8	8288.5	9203.1	10948.3	11024.1	10921.9	10452.6	9512.4	8272.9	5775.6
70°	9180.1	8604.4	8821.3	10141.7	12082.3	11869.5	11439.0	10785.0	8625.0	6340.5	3773.1
72.5°	8849.3	8294.3	8783.4	10475.7	12222.5	12283.5	11139.6	9660.9	6408.1	3242.8	1365.8
75°	6724.8	6385.0	7626.3	9293.9	10851.8	10865.8	9298.0	6813.9	3155.4	880.8	377.7
77.5°	3387.2	3279.1	4827.1	6597.8	7917.4	7894.3	6388.3	3650.2	1015.2	292.8	190.5
80°	1714.6	1628.0	2054.4	3559.5	4701.8	4736.4	3647.8	1634.6	512.2	159.2	132.0
82.5°	1053.2	999.6	1124.1	1610.7	2282.0	2337.3	1383.9	1035.0	317.5	94.0	120.4
85°	203.7	214.4	645.8	806.6	911.3	889.9	409.9	851.9	95.7	56.1	87.4
87.5°	0.0	3.3	149.3	263.1	263.9	234.2	93.2	188.9	13.2	15.7	10.7
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: P597143
 CATALOG NUMBER: MSA-SA4C-835-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3	977.3
2.5°	1177.7	1165.3	1062.3	1050.7	1053.2	1035.9	1030.1	993.8	984.7	1040.8	1050.7
5°	1463.1	1380.6	1284.9	1250.3	1196.7	1106.0	1092.8	1069.7	1044.1	1054.0	1046.6
7.5°	1637.9	1528.2	1426.0	1243.7	1092.8	960.8	939.4	899.8	860.2	861.0	886.6
10°	1666.0	1573.6	1432.6	1210.7	1038.3	873.4	729.9	626.0	579.0	536.9	549.3
12.5°	1828.4	1742.7	1482.9	1200.8	959.2	701.8	513.8	412.4	367.8	353.0	351.3
15°	1958.7	1891.1	1568.6	1170.3	783.5	494.0	367.8	338.1	329.9	343.9	339.8
17.5°	2152.5	2030.5	1559.6	1044.1	597.1	375.3	339.0	334.8	344.7	353.0	355.5
20°	2237.5	2061.8	1497.7	846.2	447.0	343.9	330.7	322.5	340.6	365.4	360.4
22.5°	2323.3	2115.4	1425.1	692.8	359.6	329.1	321.6	315.0	329.1	353.0	358.8
25°	2362.0	2201.2	1344.3	541.0	334.0	311.7	306.8	309.3	320.8	342.3	339.8
27.5°	2557.5	2211.1	1190.1	427.2	323.3	299.4	299.4	305.1	305.1	334.0	331.5
30°	2679.5	2378.5	1064.7	359.6	310.9	282.1	292.0	294.4	290.3	321.6	324.1
32.5°	2894.0	2424.7	942.7	329.9	291.1	279.6	277.9	279.6	282.9	313.4	314.2
35°	3223.9	2652.3	776.1	318.3	281.2	267.2	255.7	264.7	273.0	295.3	299.4
37.5°	3868.8	2885.7	632.6	309.3	276.3	255.7	251.5	249.9	264.7	290.3	298.6
40°	4390.9	3298.9	514.6	301.9	266.4	249.1	238.3	239.2	252.4	271.3	283.7
42.5°	5129.8	3597.5	436.3	290.3	252.4	235.0	222.7	230.1	235.9	255.7	263.9
45°	5746.7	3829.2	384.3	282.9	238.3	221.9	212.0	220.2	214.4	224.3	235.9
47.5°	6237.4	4031.3	345.6	264.7	229.3	214.4	202.1	199.6	189.7	192.2	202.9
50°	6507.1	3997.5	313.4	246.6	217.7	207.0	189.7	172.4	159.2	158.3	164.9
52.5°	6602.8	3816.8	287.0	230.9	203.7	190.5	170.7	146.8	133.6	129.5	135.3
55°	6629.2	3557.1	263.1	213.6	190.5	169.9	149.3	123.7	109.7	103.1	108.9
57.5°	6543.4	3157.1	240.0	197.1	174.8	150.1	127.8	101.4	88.2	80.0	84.9
60°	6331.4	2649.0	219.4	176.5	158.3	132.8	108.0	81.6	67.6	60.2	62.7
62.5°	5862.2	2076.7	197.1	157.5	141.0	116.3	90.7	64.3	51.1	44.5	45.4
65°	5148.0	1548.0	171.5	139.4	125.4	100.6	72.6	49.5	38.8	33.0	32.2
67.5°	4101.4	1049.1	146.0	120.4	111.3	84.9	57.7	38.8	30.5	26.4	24.7
70°	2410.7	528.7	121.2	103.9	95.7	70.9	45.4	31.3	28.0	24.7	23.1
72.5°	795.0	228.4	94.8	85.8	79.2	56.9	35.5	28.9	27.2	23.9	22.3
75°	277.1	132.0	70.1	66.0	62.7	42.9	29.7	26.4	26.4	23.1	20.6
77.5°	181.4	102.3	52.0	47.8	47.0	31.3	25.6	24.7	23.1	19.0	15.7
80°	150.9	57.7	36.3	33.8	33.0	19.8	20.6	18.1	14.0	8.2	3.3
82.5°	139.4	34.6	19.0	20.6	19.0	7.4	11.5	9.9	7.4	3.3	0.0
85°	81.6	15.7	10.7	10.7	8.2	1.6	5.8	5.8	3.3	0.8	0.0
87.5°	9.1	7.4	5.8	5.8	4.1	0.0	2.5	1.6	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)