

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: P596945

Luminaire Tested: **MSA-SA2B-835-U-SL4-HSS**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596945  
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-SA2B-835-U-SL4-HSS  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) 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: 6792 lumens  
Efficiency: N/A  
Efficacy: 79.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

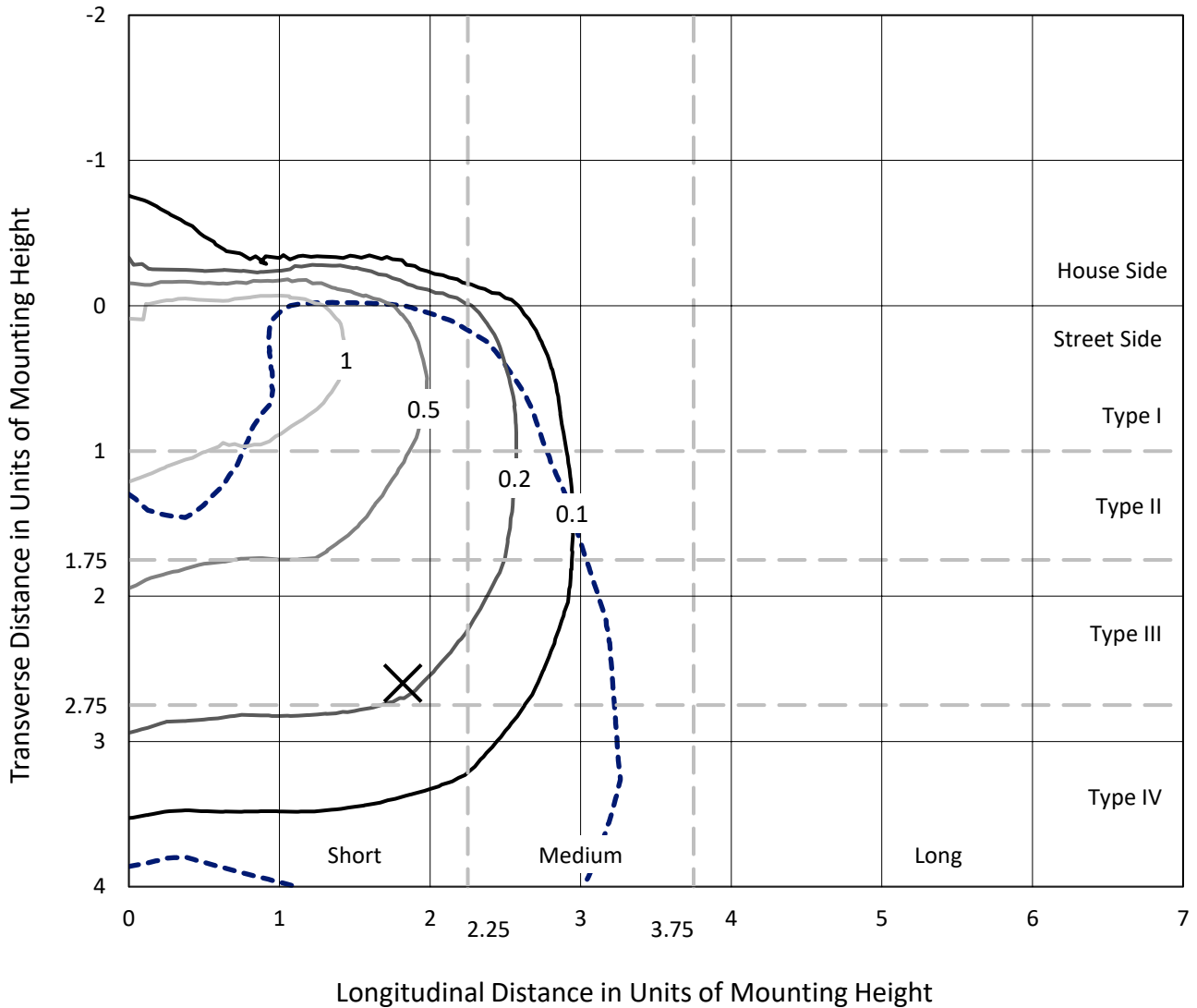
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

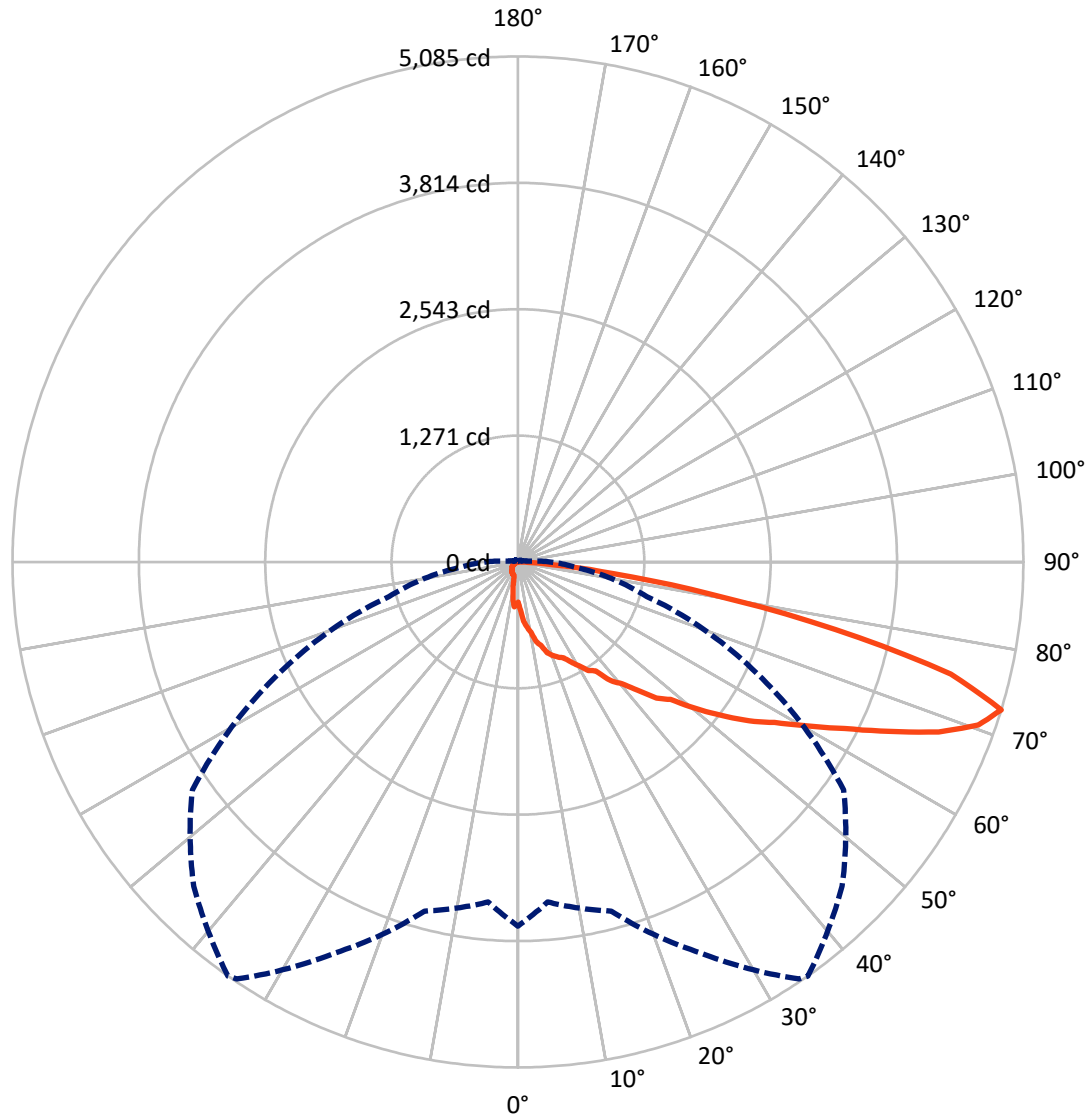
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	529.8	0.0	529.8
	% Fixture	7.8	0.0	7.8
<b>Street Side</b>	Lumens	6262.2	0.0	6262.2
	% Fixture	92.2	0.0	92.2
<b>Total</b>	Lumens	6792.0	0.0	6792.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.6	0.8
10°-20°	173.8	2.6
20°-30°	316.5	4.7
30°-40°	546.0	8.0
40°-50°	970.6	14.3
50°-60°	1448.3	21.3
60°-70°	1850.4	27.2
70°-80°	1287.4	19.0
80°-90°	147.3	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°	6792.0	100.0
0°-180°	6792.0	100.0

**Coefficient of Utilization**

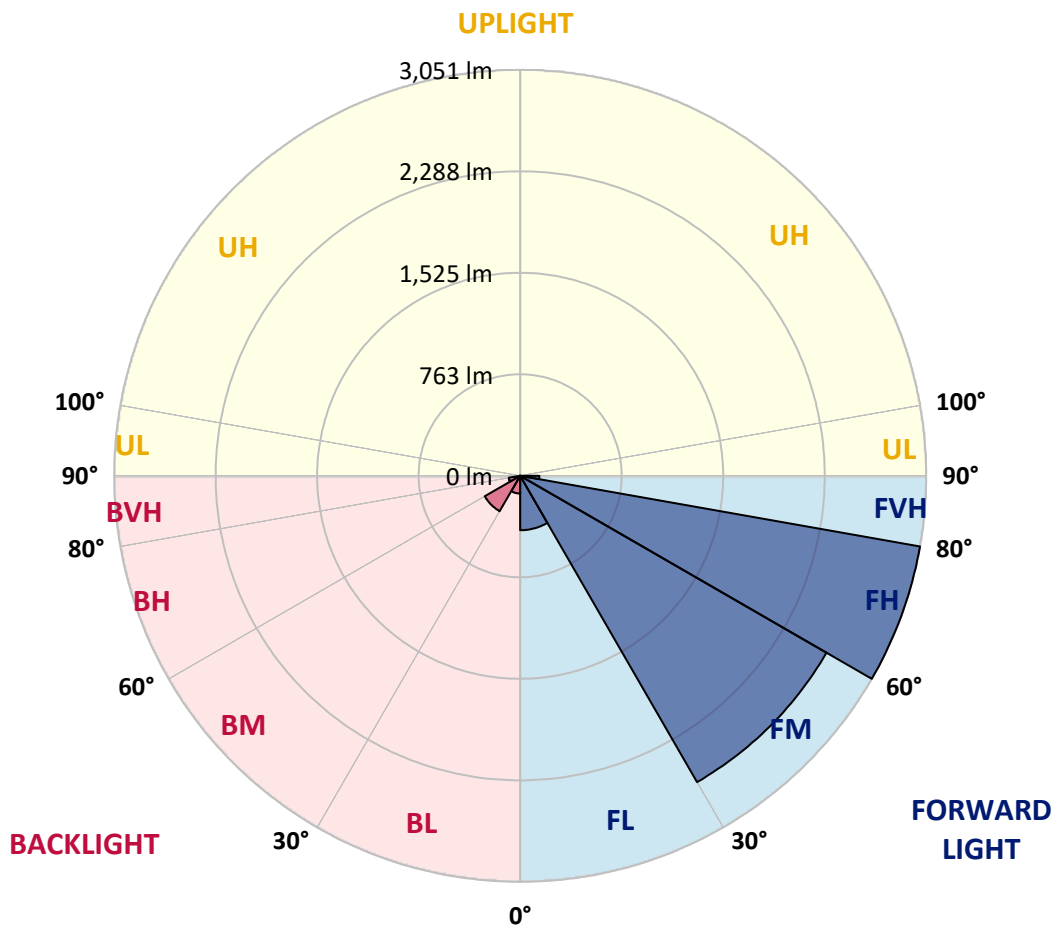


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	408.7	6.0			
FM (30°-60°)	2657.7	39.1			
FH (60°-80°)	3051.0	44.9			G2/5000
FVH (80°-90°)	144.8	2.1			G2/225
BL (0°-30°)	133.2	2.0	B1/500		
BM (30°-60°)	307.2	4.5	B1/1000		
BH (60°-80°)	86.9	1.3	B0/110		G0/110
BVH (80°-90°)	2.5	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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6
2.5°	514.9	494.7	462.0	464.3	479.0	482.1	486.5	474.9	464.7	446.6	481.8
5°	659.6	630.6	612.2	606.4	597.8	598.5	577.7	585.2	583.2	596.5	612.5
7.5°	741.3	725.2	702.0	695.5	664.1	660.7	635.1	669.6	673.0	668.2	694.5
10°	773.7	752.5	755.3	731.0	715.3	719.4	723.5	726.2	730.7	735.1	703.0
12.5°	792.8	796.6	833.8	808.5	824.2	824.2	851.9	822.5	823.5	791.4	796.9
15°	878.8	899.7	882.9	882.6	865.5	870.0	902.1	878.8	890.8	881.2	844.4
17.5°	986.7	990.8	959.1	945.1	960.5	960.8	947.1	946.1	904.5	974.8	930.1
20°	1021.2	1044.4	999.4	944.7	1008.6	1005.5	1004.5	988.4	919.1	1016.8	979.9
22.5°	1115.1	1082.0	1051.3	1015.4	1040.3	1040.3	1036.6	1001.4	974.5	1013.0	1028.7
25°	1144.5	1148.6	1108.6	1097.0	1097.7	1067.0	1064.2	1049.2	1023.3	1089.2	1057.8
27.5°	1245.5	1243.8	1147.9	1180.3	1139.0	1139.4	1063.9	1097.7	1102.1	1092.9	1128.1
30°	1344.9	1372.6	1227.8	1268.8	1225.4	1212.4	1138.7	1168.7	1176.6	1166.0	1210.4
32.5°	1471.6	1512.2	1371.5	1331.2	1265.0	1301.9	1251.0	1180.0	1218.9	1313.5	1338.4
35°	1605.8	1625.6	1475.7	1419.3	1344.6	1344.2	1342.5	1348.3	1391.3	1497.9	1519.0
37.5°	1846.8	1800.0	1664.5	1535.4	1552.2	1514.9	1489.0	1516.3	1561.0	1736.5	1827.0
40°	1981.3	1947.5	1756.7	1680.2	1597.2	1610.9	1681.2	1678.1	1797.3	1981.0	2116.5
42.5°	2112.1	2080.0	1892.2	1830.4	1723.9	1761.1	1791.8	1830.8	2074.9	2371.3	2445.7
45°	2228.5	2134.3	2001.8	2004.2	1948.9	1953.3	2007.6	2043.5	2396.5	2700.4	2752.6
47.5°	2298.9	2221.4	2094.4	2092.0	2088.5	2067.7	2323.5	2356.2	2652.9	3013.8	3018.6
50°	2397.9	2300.9	2189.6	2191.7	2270.5	2314.6	2619.8	2616.4	2900.5	3275.4	3165.1
52.5°	2521.1	2402.7	2280.1	2371.3	2493.1	2564.8	2812.7	2913.8	3166.5	3439.6	3222.4
55°	2678.9	2530.7	2412.6	2529.3	2795.3	2823.0	3001.5	3214.9	3456.3	3607.2	3240.9
57.5°	2863.9	2687.1	2591.5	2779.6	3044.9	3045.6	3276.4	3535.9	3634.2	3675.5	3220.1
60°	3063.3	2857.1	2760.8	2930.2	3320.1	3348.1	3582.0	3713.1	3814.8	3710.0	3182.8
62.5°	3238.8	3011.1	2936.3	3135.4	3621.9	3688.2	3848.3	3829.5	3945.3	3753.4	3088.3
65°	3447.8	3210.5	3161.3	3455.3	4015.9	4107.1	4147.4	4036.1	3989.0	3719.9	2842.1
67.5°	3654.7	3432.8	3431.4	3810.1	4532.5	4563.9	4521.6	4327.3	3938.1	3424.9	2391.1
70°	3800.5	3562.2	3652.0	4198.6	5002.0	4913.9	4735.7	4464.9	3570.7	2624.9	1562.1
72.5°	3663.6	3433.8	3636.3	4336.9	5060.0	5085.3	4611.7	3999.6	2652.9	1342.5	565.4
75°	2784.0	2643.4	3157.2	3847.6	4492.6	4498.4	3849.3	2820.9	1306.3	364.7	156.4
77.5°	1402.3	1357.5	1998.4	2731.5	3277.8	3268.2	2644.7	1511.2	420.3	121.2	78.9
80°	709.8	674.0	850.5	1473.6	1946.5	1960.9	1510.2	676.7	212.0	65.9	54.6
82.5°	436.0	413.8	465.4	666.8	944.7	967.6	572.9	428.5	131.5	38.9	49.8
85°	84.3	88.8	267.3	333.9	377.3	368.4	169.7	352.7	39.6	23.2	36.2
87.5°	0.0	1.4	61.8	108.9	109.3	97.0	38.6	78.2	5.5	6.5	4.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6	404.6
2.5°	487.6	482.4	439.8	435.0	436.0	428.8	426.5	411.4	407.7	430.9	435.0
5°	605.7	571.6	532.0	517.6	495.4	457.9	452.4	442.8	432.3	436.4	433.3
7.5°	678.1	632.7	590.3	514.9	452.4	397.8	388.9	372.5	356.1	356.5	367.0
10°	689.7	651.5	593.1	501.2	429.9	361.6	302.2	259.1	239.7	222.3	227.4
12.5°	757.0	721.4	613.9	497.1	397.1	290.6	212.7	170.7	152.3	146.1	145.5
15°	810.9	782.9	649.4	484.5	324.4	204.5	152.3	140.0	136.6	142.4	140.7
17.5°	891.1	840.6	645.7	432.3	247.2	155.4	140.3	138.6	142.7	146.1	147.2
20°	926.3	853.6	620.0	350.3	185.1	142.4	136.9	133.5	141.0	151.3	149.2
22.5°	961.8	875.8	590.0	286.8	148.9	136.2	133.2	130.4	136.2	146.1	148.5
25°	977.9	911.3	556.5	224.0	138.3	129.1	127.0	128.0	132.8	141.7	140.7
27.5°	1058.8	915.4	492.7	176.9	133.8	123.9	123.9	126.3	126.3	138.3	137.3
30°	1109.3	984.7	440.8	148.9	128.7	116.8	120.9	121.9	120.2	133.2	134.2
32.5°	1198.1	1003.8	390.3	136.6	120.5	115.7	115.1	115.7	117.1	129.7	130.1
35°	1334.7	1098.0	321.3	131.8	116.4	110.6	105.8	109.6	113.0	122.2	123.9
37.5°	1601.7	1194.7	261.9	128.0	114.4	105.8	104.1	103.5	109.6	120.2	123.6
40°	1817.8	1365.7	213.1	125.0	110.3	103.1	98.7	99.0	104.5	112.3	117.5
42.5°	2123.7	1489.3	180.6	120.2	104.5	97.3	92.2	95.3	97.6	105.8	109.3
45°	2379.1	1585.3	159.1	117.1	98.7	91.8	87.7	91.2	88.8	92.9	97.6
47.5°	2582.3	1668.9	143.1	109.6	94.9	88.8	83.7	82.6	78.5	79.6	84.0
50°	2693.9	1654.9	129.7	102.1	90.1	85.7	78.5	71.4	65.9	65.6	68.3
52.5°	2733.5	1580.2	118.8	95.6	84.3	78.9	70.7	60.8	55.3	53.6	56.0
55°	2744.4	1472.6	108.9	88.4	78.9	70.3	61.8	51.2	45.4	42.7	45.1
57.5°	2708.9	1307.0	99.4	81.6	72.4	62.1	52.9	42.0	36.5	33.1	35.2
60°	2621.2	1096.7	90.8	73.1	65.6	55.0	44.7	33.8	28.0	24.9	25.9
62.5°	2426.9	859.7	81.6	65.2	58.4	48.1	37.6	26.6	21.2	18.4	18.8
65°	2131.2	640.9	71.0	57.7	51.9	41.7	30.0	20.5	16.0	13.7	13.3
67.5°	1697.9	434.3	60.4	49.8	46.1	35.2	23.9	16.0	12.6	10.9	10.2
70°	998.0	218.9	50.2	43.0	39.6	29.4	18.8	13.0	11.6	10.2	9.6
72.5°	329.1	94.6	39.3	35.5	32.8	23.6	14.7	12.0	11.3	9.9	9.2
75°	114.7	54.6	29.0	27.3	25.9	17.8	12.3	10.9	10.9	9.6	8.5
77.5°	75.1	42.3	21.5	19.8	19.5	13.0	10.6	10.2	9.6	7.9	6.5
80°	62.5	23.9	15.0	14.0	13.7	8.2	8.5	7.5	5.8	3.4	1.4
82.5°	57.7	14.3	7.9	8.5	7.9	3.1	4.8	4.1	3.1	1.4	0.0
85°	33.8	6.5	4.4	4.4	3.4	0.7	2.4	2.4	1.4	0.3	0.0
87.5°	3.8	3.1	2.4	2.4	1.7	0.0	1.0	0.7	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)