

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: P596615

Luminaire Tested: **MSA-SA2C-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596615
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-SA2C-827-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: 7500 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

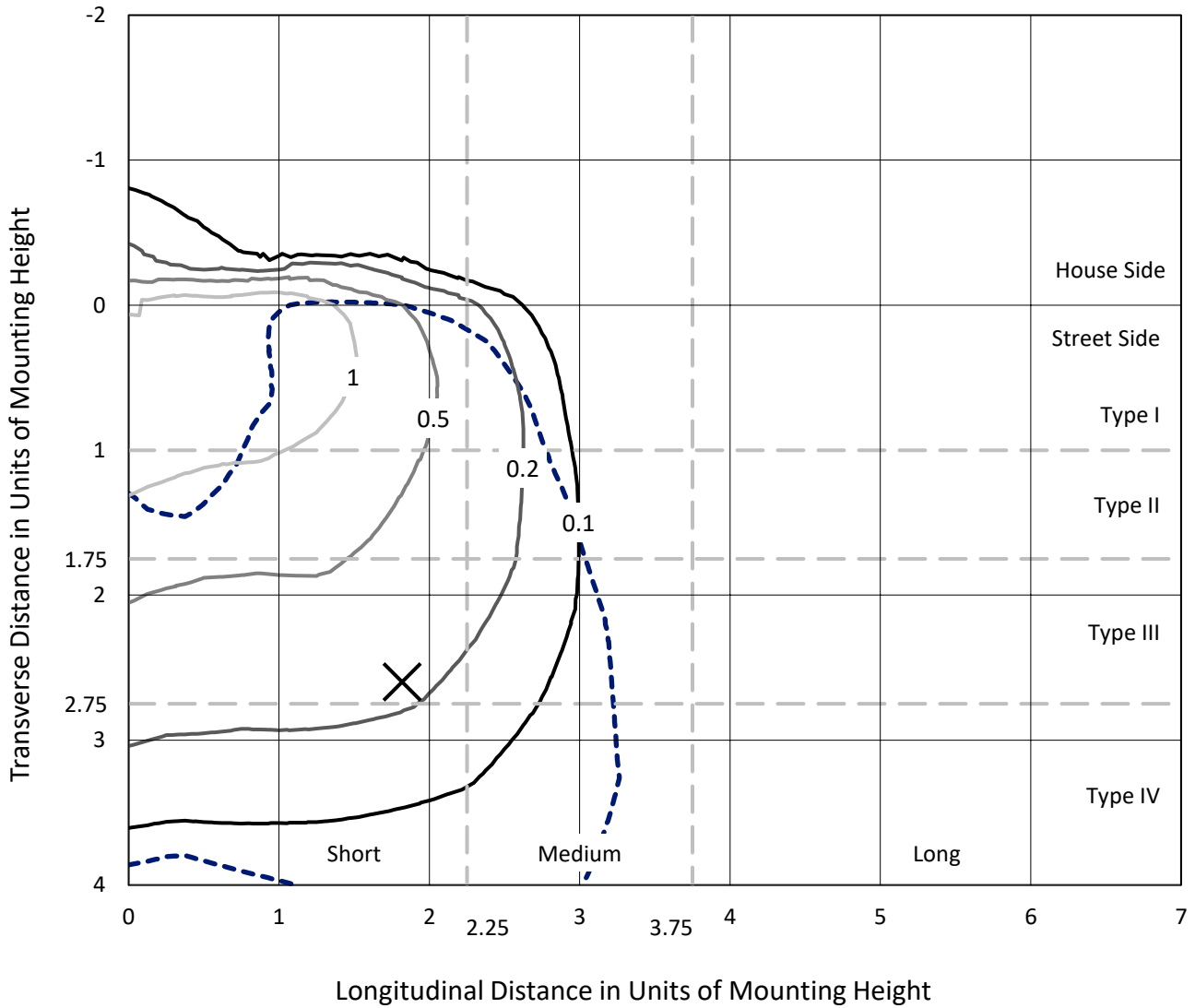
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

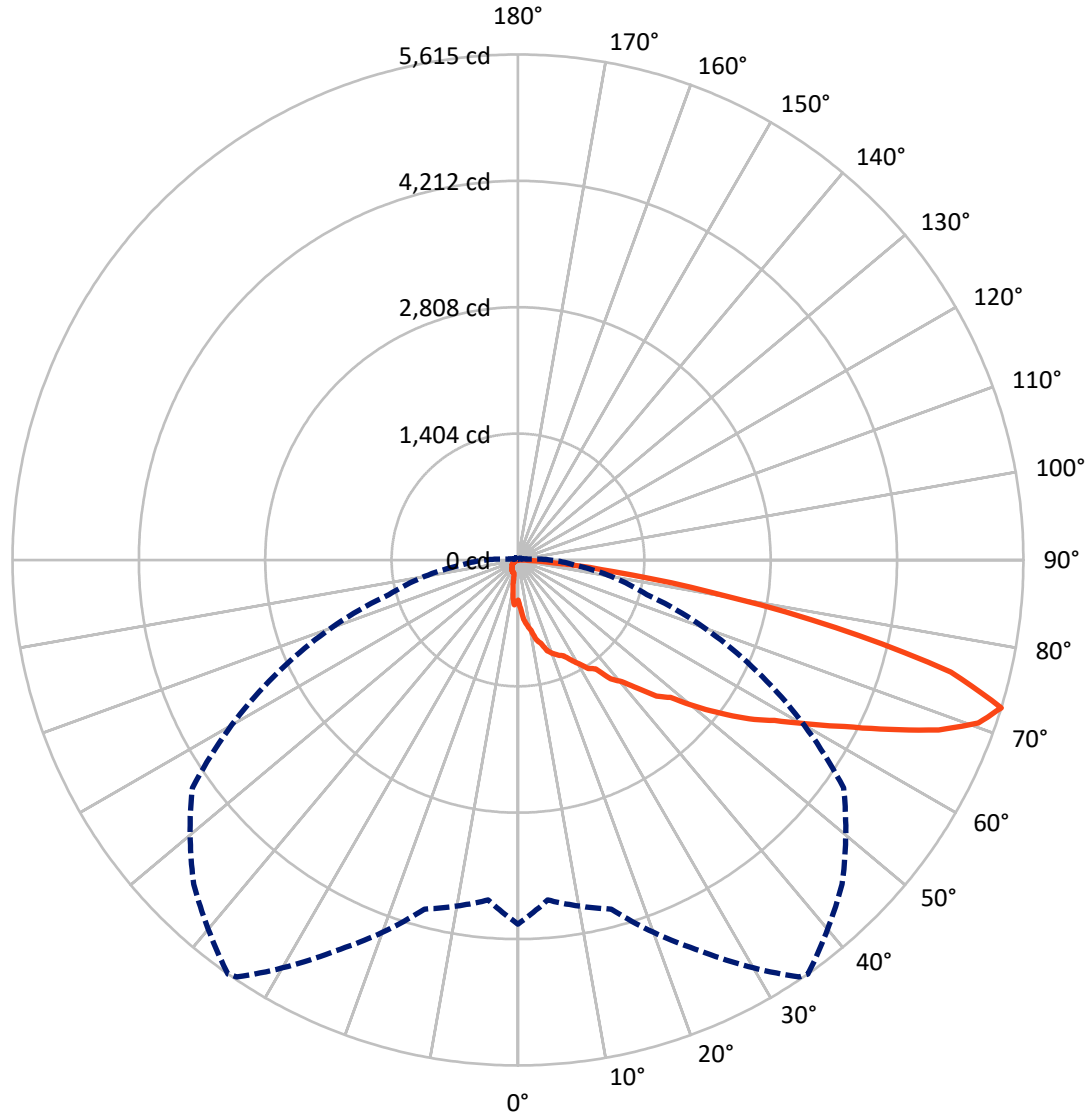
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 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
House Side	Lumens	585.0	0.0	585.0
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	6915.0	0.0	6915.0
	% Fixture	92.2	0.0	92.2
Total	Lumens	7500.0	0.0	7500.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	0.8
10°-20°	191.9	2.6
20°-30°	349.5	4.7
30°-40°	602.9	8.0
40°-50°	1071.8	14.3
50°-60°	1599.3	21.3
60°-70°	2043.3	27.2
70°-80°	1421.6	19.0
80°-90°	162.6	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°	7500.0	100.0
0°-180°	7500.0	100.0

Coefficient of Utilization



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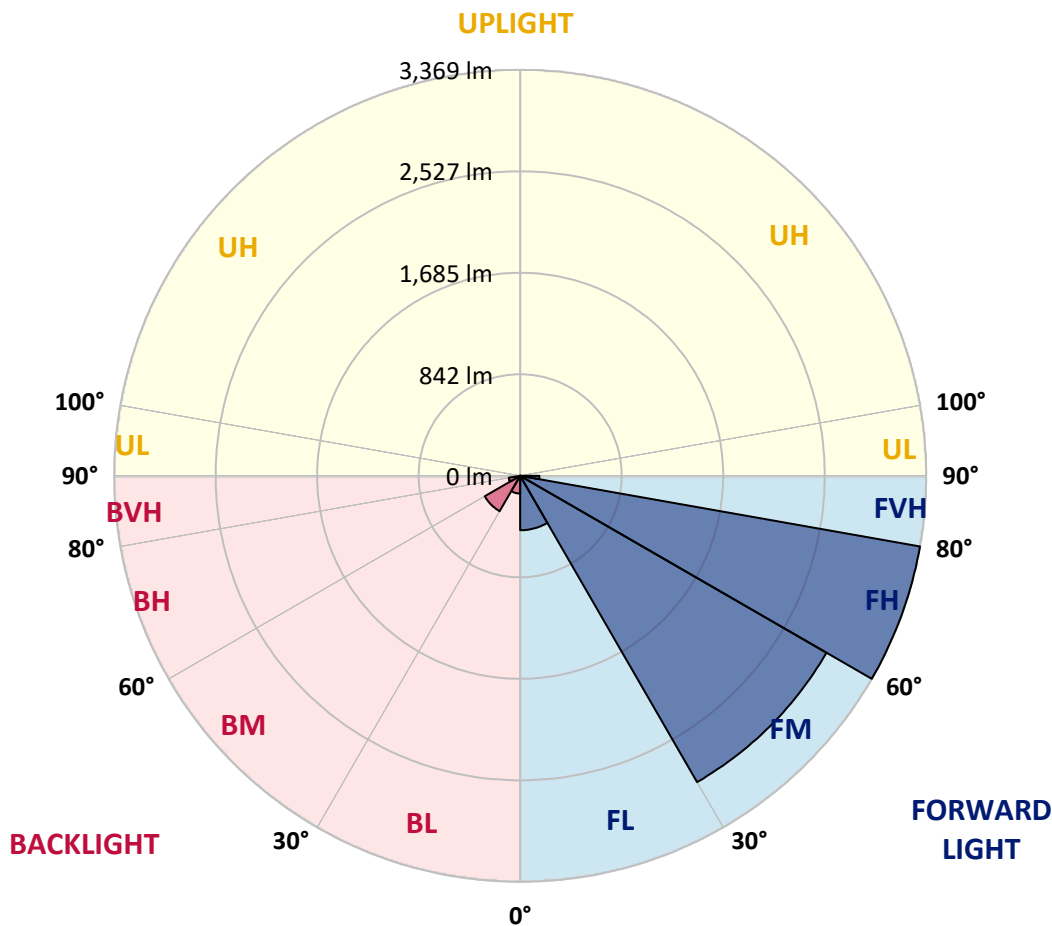
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	451.3	6.0			
FM (30°-60°)	2934.8	39.1			
FH (60°-80°)	3369.0	44.9			G2/5000
FVH (80°-90°)	159.9	2.1			G2/225
BL (0°-30°)	147.1	2.0	B1/500		
BM (30°-60°)	339.2	4.5	B1/1000		
BH (60°-80°)	95.9	1.3	B0/110		G0/110
BVH (80°-90°)	2.7	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°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8
2.5°	568.6	546.3	510.1	512.8	529.0	532.4	537.3	524.4	513.1	493.1	532.0
5°	728.4	696.4	676.0	669.6	660.2	660.9	637.9	646.2	644.0	658.7	676.4
7.5°	818.5	800.8	775.2	768.0	733.3	729.5	701.3	739.3	743.1	737.8	766.9
10°	854.3	831.0	834.0	807.2	789.9	794.4	798.9	801.9	806.8	811.7	776.3
12.5°	875.5	879.6	920.7	892.8	910.1	910.1	940.7	908.3	909.4	873.9	880.0
15°	970.5	993.5	975.0	974.6	955.8	960.7	996.1	970.5	983.7	973.1	932.4
17.5°	1089.6	1094.1	1059.1	1043.6	1060.6	1060.9	1045.9	1044.7	998.7	1076.4	1027.0
20°	1127.7	1153.3	1103.6	1043.2	1113.7	1110.3	1109.2	1091.5	1014.9	1122.8	1082.1
22.5°	1231.4	1194.8	1160.9	1121.3	1148.8	1148.8	1144.6	1105.8	1076.0	1118.6	1136.0
25°	1263.8	1268.3	1224.2	1211.4	1212.1	1178.2	1175.2	1158.6	1129.9	1202.7	1168.0
27.5°	1375.4	1373.5	1267.6	1303.4	1257.8	1258.1	1174.8	1212.1	1217.0	1206.9	1245.7
30°	1485.1	1515.6	1355.8	1401.0	1353.1	1338.8	1257.4	1290.6	1299.2	1287.5	1336.6
32.5°	1625.0	1669.8	1514.5	1470.0	1396.9	1437.6	1381.4	1303.0	1346.0	1450.4	1477.9
35°	1773.1	1795.0	1629.5	1567.3	1484.7	1484.3	1482.5	1488.9	1536.4	1654.0	1677.4
37.5°	2039.3	1987.7	1838.0	1695.5	1714.0	1672.9	1644.2	1674.4	1723.8	1917.5	2017.5
40°	2187.9	2150.5	1939.8	1855.3	1763.7	1778.8	1856.5	1853.1	1984.7	2187.5	2337.2
42.5°	2332.3	2296.8	2089.5	2021.2	1903.6	1944.7	1978.6	2021.6	2291.2	2618.4	2700.6
45°	2460.8	2356.8	2210.5	2213.1	2152.1	2157.0	2216.9	2256.5	2646.3	2981.9	3039.6
47.5°	2538.5	2452.9	2312.7	2310.0	2306.3	2283.3	2565.7	2601.8	2929.5	3328.0	3333.3
50°	2647.8	2540.8	2417.9	2420.1	2507.2	2555.8	2892.9	2889.1	3202.8	3616.8	3495.0
52.5°	2783.9	2653.1	2517.8	2618.4	2753.0	2832.2	3105.9	3217.5	3496.5	3798.1	3558.4
55°	2958.1	2794.5	2664.1	2793.0	3086.7	3117.2	3314.4	3550.1	3816.6	3983.3	3578.7
57.5°	3162.5	2967.2	2861.6	3069.4	3362.3	3363.1	3617.9	3904.5	4013.0	4058.7	3555.7
60°	3382.7	3154.9	3048.6	3235.6	3666.2	3697.1	3955.4	4100.1	4212.5	4096.7	3514.6
62.5°	3576.5	3325.0	3242.4	3462.2	3999.5	4072.6	4249.4	4228.7	4356.5	4144.6	3410.2
65°	3807.2	3545.2	3490.9	3815.5	4434.6	4535.2	4579.7	4456.8	4404.8	4107.7	3138.4
67.5°	4035.7	3790.6	3789.1	4207.2	5005.0	5039.7	4992.9	4778.4	4348.6	3781.9	2640.3
70°	4196.7	3933.5	4032.7	4636.3	5523.4	5426.1	5229.3	4930.3	3942.9	2898.6	1724.9
72.5°	4045.5	3791.7	4015.3	4789.0	5587.5	5615.4	5092.5	4416.5	2929.5	1482.5	624.4
75°	3074.3	2918.9	3486.3	4248.7	4960.9	4967.3	4250.6	3115.0	1442.5	402.7	172.7
77.5°	1548.4	1499.0	2206.7	3016.2	3619.4	3608.9	2920.4	1668.7	464.1	133.8	87.1
80°	783.8	744.2	939.2	1627.2	2149.4	2165.3	1667.6	747.3	234.1	72.8	60.3
82.5°	481.5	457.0	513.9	736.3	1043.2	1068.5	632.6	473.2	145.2	43.0	55.0
85°	93.1	98.0	295.2	368.7	416.6	406.8	187.4	389.5	43.7	25.6	40.0
87.5°	0.0	1.5	68.2	120.3	120.6	107.1	42.6	86.3	6.0	7.2	4.9
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°	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8
2.5°	538.4	532.7	485.6	480.3	481.5	473.5	470.9	454.3	450.2	475.8	480.3
5°	668.8	631.1	587.4	571.6	547.1	505.6	499.6	489.0	477.3	481.8	478.4
7.5°	748.8	698.6	651.9	568.6	499.6	439.2	429.4	411.3	393.2	393.6	405.3
10°	761.6	719.4	654.9	553.5	474.7	399.3	333.7	286.2	264.7	245.4	251.1
12.5°	835.9	796.7	677.9	548.9	438.5	320.8	234.9	188.5	168.2	161.4	160.6
15°	895.4	864.5	717.1	535.0	358.2	225.8	168.2	154.6	150.8	157.2	155.3
17.5°	984.0	928.2	713.0	477.3	273.0	171.5	155.0	153.1	157.6	161.4	162.5
20°	1022.9	942.6	684.7	386.8	204.3	157.2	151.2	147.4	155.7	167.0	164.8
22.5°	1062.1	967.1	651.5	316.7	164.4	150.4	147.0	144.0	150.4	161.4	164.0
25°	1079.8	1006.3	614.5	247.3	152.7	142.5	140.3	141.4	146.7	156.5	155.3
27.5°	1169.2	1010.8	544.0	195.3	147.8	136.9	136.9	139.5	139.5	152.7	151.6
30°	1225.0	1087.3	486.7	164.4	142.1	128.9	133.5	134.6	132.7	147.0	148.2
32.5°	1323.0	1108.5	430.9	150.8	133.1	127.8	127.1	127.8	129.3	143.3	143.6
35°	1473.8	1212.5	354.8	145.5	128.6	122.2	116.9	121.0	124.8	135.0	136.9
37.5°	1768.6	1319.2	289.2	141.4	126.3	116.9	115.0	114.2	121.0	132.7	136.5
40°	2007.3	1508.1	235.3	138.0	121.8	113.9	109.0	109.3	115.4	124.0	129.7
42.5°	2345.1	1644.6	199.4	132.7	115.4	107.5	101.8	105.2	107.8	116.9	120.6
45°	2627.1	1750.5	175.7	129.3	109.0	101.4	96.9	100.7	98.0	102.6	107.8
47.5°	2851.4	1842.9	158.0	121.0	104.8	98.0	92.4	91.2	86.7	87.8	92.7
50°	2974.7	1827.4	143.3	112.7	99.5	94.6	86.7	78.8	72.8	72.4	75.4
52.5°	3018.5	1744.9	131.2	105.6	93.1	87.1	78.0	67.1	61.1	59.2	61.8
55°	3030.5	1626.1	120.3	97.6	87.1	77.7	68.2	56.6	50.1	47.1	49.8
57.5°	2991.3	1443.2	109.7	90.1	79.9	68.6	58.4	46.4	40.3	36.6	38.8
60°	2894.4	1211.0	100.3	80.7	72.4	60.7	49.4	37.3	30.9	27.5	28.7
62.5°	2679.9	949.3	90.1	72.0	64.5	53.2	41.5	29.4	23.4	20.4	20.7
65°	2353.4	707.7	78.4	63.7	57.3	46.0	33.2	22.6	17.7	15.1	14.7
67.5°	1874.9	479.6	66.7	55.0	50.9	38.8	26.4	17.7	13.9	12.1	11.3
70°	1102.0	241.7	55.4	47.5	43.7	32.4	20.7	14.3	12.8	11.3	10.6
72.5°	363.5	104.4	43.4	39.2	36.2	26.0	16.2	13.2	12.4	10.9	10.2
75°	126.7	60.3	32.0	30.2	28.7	19.6	13.6	12.1	12.1	10.6	9.4
77.5°	82.9	46.8	23.8	21.9	21.5	14.3	11.7	11.3	10.6	8.7	7.2
80°	69.0	26.4	16.6	15.5	15.1	9.0	9.4	8.3	6.4	3.8	1.5
82.5°	63.7	15.8	8.7	9.4	8.7	3.4	5.3	4.5	3.4	1.5	0.0
85°	37.3	7.2	4.9	4.9	3.8	0.8	2.6	2.6	1.5	0.4	0.0
87.5°	4.1	3.4	2.6	2.6	1.9	0.0	1.1	0.8	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)