

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: P596791

Luminaire Tested: **MSA-SA4C-827-U-SL4-HSS**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596791
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-827-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: 14629 lumens
Efficiency: N/A
Efficacy: 65.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

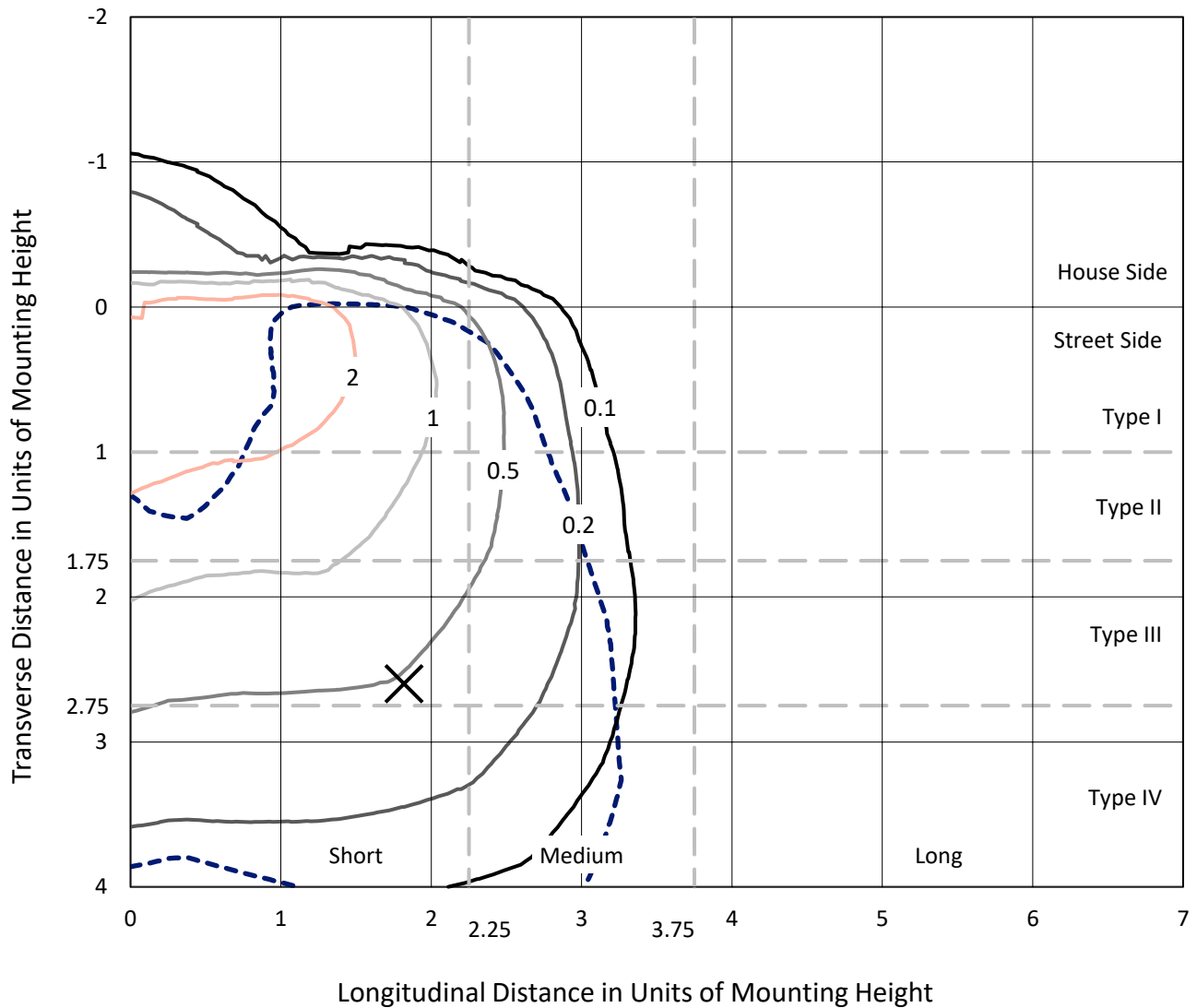
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

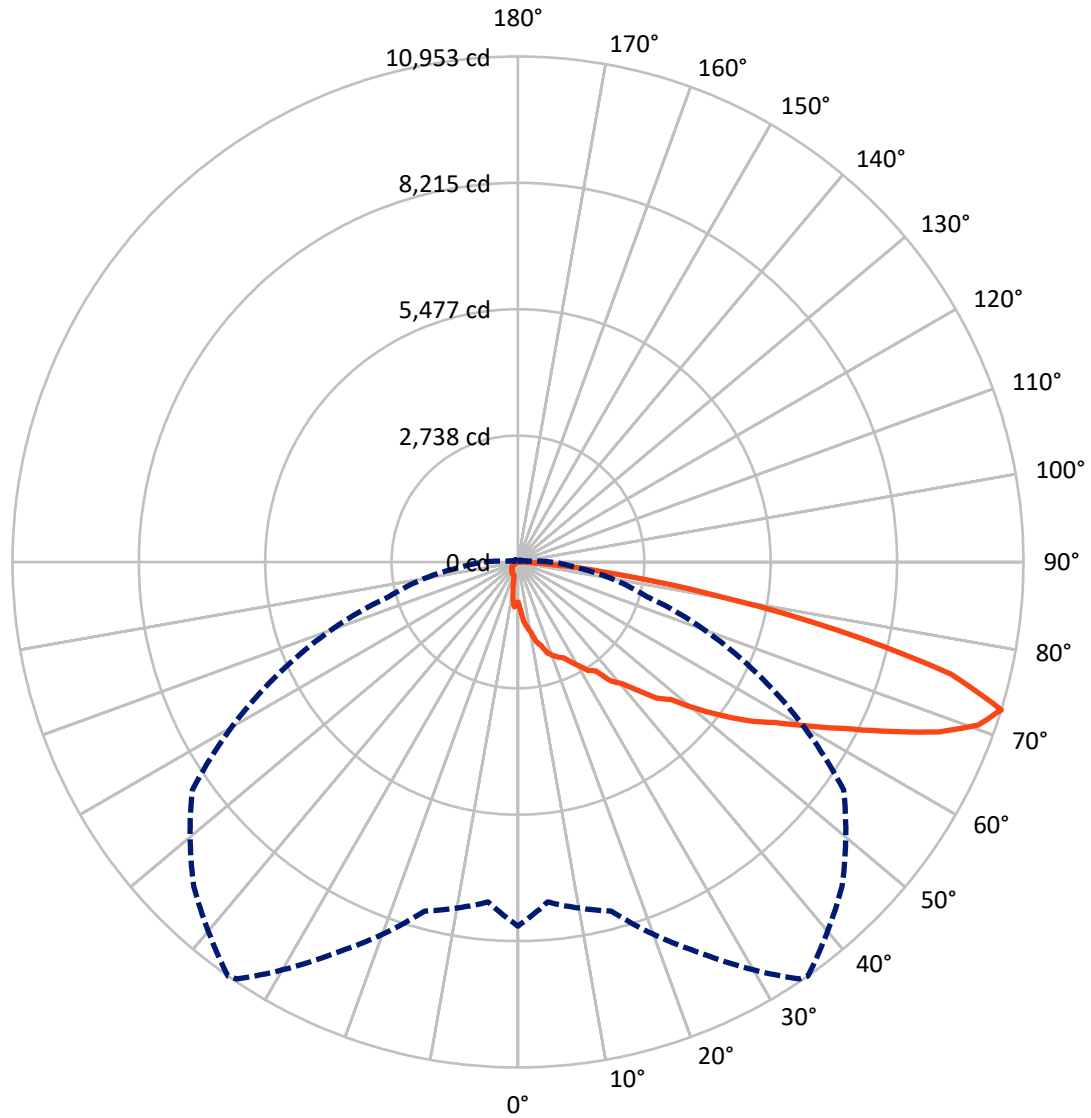
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.3 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	1141.0	0.0	1141.0
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	13488.0	0.0	13488.0
	% Fixture	92.2	0.0	92.2
Total	Lumens	14629.0	0.0	14629.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.1	0.8
10°-20°	374.4	2.6
20°-30°	681.8	4.7
30°-40°	1176.0	8.0
40°-50°	2090.5	14.3
50°-60°	3119.5	21.3
60°-70°	3985.6	27.2
70°-80°	2772.9	19.0
80°-90°	317.2	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°	14629.0	100.0
0°-180°	14629.0	100.0

Coefficient of Utilization



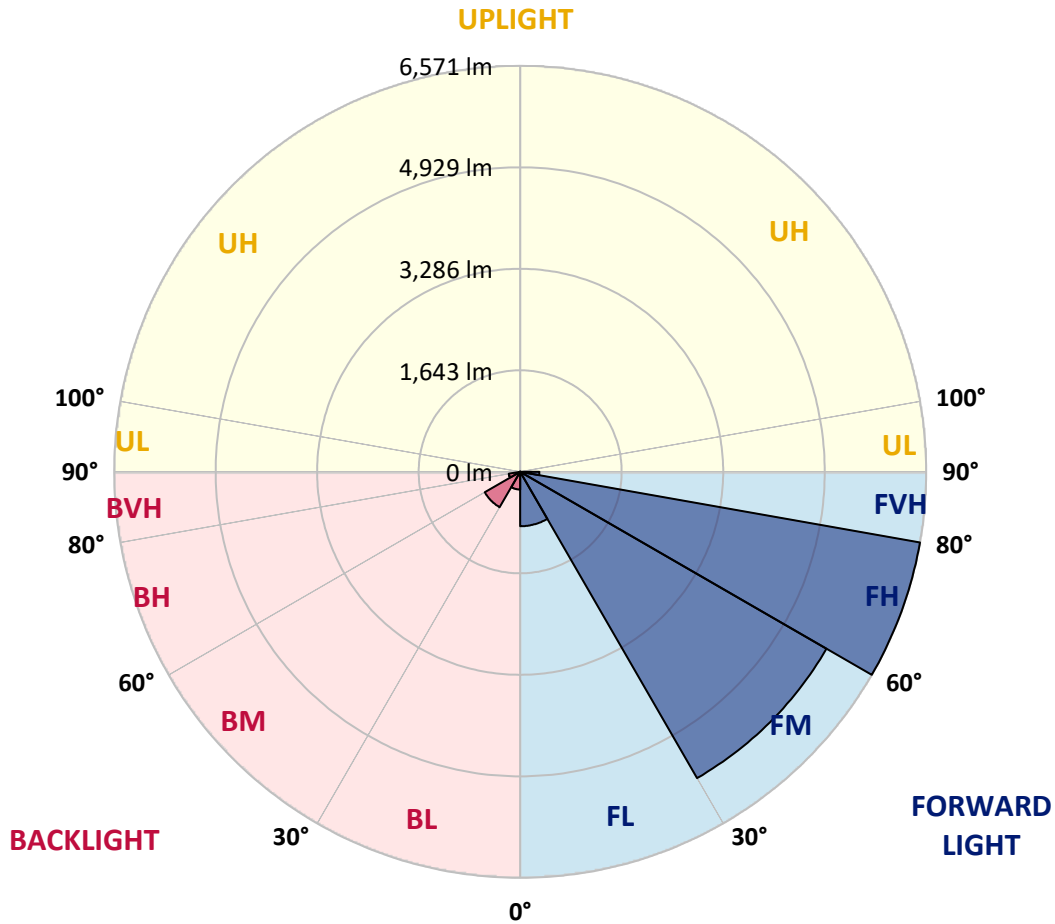
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	880.3	6.0			
FM (30°-60°)	5724.4	39.1			
FH (60°-80°)	6571.4	44.9			G3/7500
FVH (80°-90°)	311.9	2.1			G3/500
BL (0°-30°)	287.0	2.0	B1/500		
BM (30°-60°)	661.7	4.5	B1/1000		
BH (60°-80°)	187.1	1.3	B1/500		G1/500
BVH (80°-90°)	5.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4
2.5°	1109.0	1065.6	995.0	1000.1	1031.8	1038.4	1047.9	1022.9	1000.9	961.9	1037.6
5°	1420.8	1358.3	1318.6	1306.1	1287.7	1289.2	1244.3	1260.5	1256.1	1284.7	1319.3
7.5°	1596.6	1562.0	1512.0	1498.0	1430.4	1423.0	1367.8	1442.1	1449.5	1439.2	1495.8
10°	1666.4	1620.8	1626.7	1574.5	1540.7	1549.5	1558.3	1564.2	1573.8	1583.3	1514.2
12.5°	1707.6	1715.7	1795.8	1741.4	1775.3	1775.3	1834.8	1771.6	1773.8	1704.7	1716.4
15°	1892.9	1937.8	1901.7	1901.0	1864.2	1873.8	1942.9	1892.9	1918.7	1898.1	1818.6
17.5°	2125.3	2134.1	2065.7	2035.6	2068.7	2069.4	2040.0	2037.8	1948.1	2099.6	2003.2
20°	2199.6	2249.6	2152.5	2034.8	2172.4	2165.7	2163.5	2129.0	1979.7	2190.0	2110.6
22.5°	2401.8	2330.5	2264.3	2187.1	2240.8	2240.8	2232.7	2156.9	2098.8	2181.9	2215.8
25°	2465.1	2473.9	2387.8	2362.8	2364.3	2298.1	2292.2	2259.9	2204.0	2345.9	2278.3
27.5°	2682.7	2679.1	2472.4	2542.3	2453.3	2454.0	2291.5	2364.3	2373.9	2354.0	2429.8
30°	2896.7	2956.3	2644.5	2732.7	2639.3	2611.4	2452.6	2517.3	2534.2	2511.4	2607.0
32.5°	3169.6	3257.1	2954.1	2867.3	2724.7	2804.1	2694.5	2541.5	2625.4	2829.1	2882.8
35°	3458.6	3501.2	3178.4	3057.1	2896.0	2895.3	2891.6	2904.1	2996.7	3226.2	3271.8
37.5°	3977.8	3877.0	3585.1	3307.1	3343.1	3263.0	3207.1	3265.9	3362.2	3740.2	3935.1
40°	4267.5	4194.7	3783.6	3618.9	3440.2	3469.6	3621.1	3614.5	3871.1	4266.8	4558.7
42.5°	4549.2	4480.0	4075.6	3942.5	3713.0	3793.2	3859.4	3943.2	4469.0	5107.3	5267.7
45°	4799.9	4597.0	4311.6	4316.8	4197.7	4207.2	4324.1	4401.4	5161.8	5816.3	5928.8
47.5°	4951.4	4784.5	4510.9	4505.8	4498.4	4453.6	5004.4	5075.0	5714.0	6491.4	6501.7
50°	5164.7	4955.9	4716.1	4720.5	4890.4	4985.3	5642.7	5635.4	6247.2	7054.7	6817.1
52.5°	5430.2	5175.0	4911.0	5107.3	5369.9	5524.3	6058.2	6275.9	6820.1	7408.4	6940.7
55°	5769.9	5450.8	5196.3	5447.8	6020.7	6080.3	6464.9	6924.5	7444.4	7769.5	6980.4
57.5°	6168.5	5787.6	5581.7	5986.9	6558.3	6559.8	7056.9	7615.8	7827.6	7916.6	6935.5
60°	6598.0	6153.8	5946.4	6311.2	7151.0	7211.3	7715.1	7997.5	8216.6	7990.8	6855.4
62.5°	6976.0	6485.5	6324.4	6753.2	7801.1	7943.8	8288.7	8248.2	8497.5	8084.2	6651.7
65°	7426.1	6915.0	6809.1	7442.2	8649.8	8846.1	8932.9	8693.1	8591.7	8012.2	6121.5
67.5°	7871.7	7393.7	7390.8	8206.3	9762.4	9830.1	9738.9	9320.4	8482.1	7376.8	5150.0
70°	8185.7	7672.4	7865.8	9043.2	10773.6	10583.9	10200.0	9616.8	7690.8	5653.7	3364.4
72.5°	7890.8	7395.9	7832.0	9341.0	10898.6	10953.0	9933.0	8614.5	5714.0	2891.6	1217.8
75°	5996.4	5693.5	6800.2	8287.2	9676.4	9688.9	8290.9	6075.9	2813.6	785.4	336.8
77.5°	3020.3	2923.9	4304.3	5883.2	7059.8	7039.2	5696.4	3254.9	905.3	261.1	169.9
80°	1528.9	1451.7	1831.9	3174.0	4192.5	4223.4	3252.7	1457.6	456.7	141.9	117.7
82.5°	939.1	891.3	1002.3	1436.2	2034.8	2084.1	1234.0	922.9	283.1	83.8	107.4
85°	181.6	191.2	575.8	719.2	812.6	793.5	365.5	759.7	85.3	50.0	78.0
87.5°	0.0	2.9	133.1	234.6	235.3	208.9	83.1	168.4	11.8	14.0	9.6
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°	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4	871.4
2.5°	1050.1	1039.1	947.2	936.9	939.1	923.7	918.5	886.2	878.1	928.1	936.9
5°	1304.6	1231.1	1145.8	1114.9	1067.1	986.2	974.4	953.8	931.0	939.8	933.2
7.5°	1460.5	1362.7	1271.5	1109.0	974.4	856.7	837.6	802.3	767.0	767.8	790.6
10°	1485.5	1403.1	1277.4	1079.6	925.9	778.8	650.8	558.2	516.2	478.7	489.8
12.5°	1630.4	1553.9	1322.2	1070.7	855.3	625.8	458.2	367.7	328.0	314.8	313.3
15°	1746.6	1686.3	1398.7	1043.5	698.6	440.5	328.0	301.5	294.2	306.7	303.0
17.5°	1919.4	1810.6	1390.6	931.0	532.4	334.6	302.2	298.6	307.4	314.8	317.0
20°	1995.1	1838.5	1335.5	754.5	398.6	306.7	294.9	287.5	303.7	325.8	321.4
22.5°	2071.6	1886.3	1270.8	617.7	320.6	293.4	286.8	280.9	293.4	314.8	319.9
25°	2106.2	1962.8	1198.7	482.4	297.8	278.0	273.6	275.8	286.1	305.2	303.0
27.5°	2280.5	1971.6	1061.2	380.9	288.3	266.9	266.9	272.1	272.1	297.8	295.6
30°	2389.3	2120.9	949.4	320.6	277.2	251.5	260.3	262.5	258.9	286.8	289.0
32.5°	2580.5	2162.1	840.6	294.2	259.6	249.3	247.8	249.3	252.2	279.5	280.2
35°	2874.7	2365.0	692.0	283.9	250.8	238.3	228.0	236.1	243.4	263.3	266.9
37.5°	3449.8	2573.2	564.1	275.8	246.4	228.0	224.3	222.8	236.1	258.9	266.2
40°	3915.3	2941.6	458.9	269.2	237.5	222.1	212.5	213.3	225.0	241.9	253.0
42.5°	4574.2	3207.8	389.0	258.9	225.0	209.6	198.6	205.2	210.3	228.0	235.3
45°	5124.3	3414.5	342.7	252.2	212.5	197.8	189.0	196.4	191.2	200.0	210.3
47.5°	5561.8	3594.6	308.1	236.1	204.4	191.2	180.2	178.0	169.1	171.3	180.9
50°	5802.3	3564.5	279.5	219.9	194.1	184.6	169.1	153.7	141.9	141.2	147.1
52.5°	5887.6	3403.4	255.9	205.9	181.6	169.9	152.2	130.9	119.1	115.5	120.6
55°	5911.1	3171.8	234.6	190.5	169.9	151.5	133.1	110.3	97.8	91.9	97.1
57.5°	5834.7	2815.1	214.0	175.8	155.9	133.8	114.0	90.5	78.7	71.3	75.7
60°	5645.7	2362.1	195.6	157.4	141.2	118.4	96.3	72.8	60.3	53.7	55.9
62.5°	5227.2	1851.7	175.8	140.5	125.8	103.7	80.9	57.4	45.6	39.7	40.4
65°	4590.4	1380.3	153.0	124.3	111.8	89.7	64.7	44.1	34.6	29.4	28.7
67.5°	3657.1	935.4	130.2	107.4	99.3	75.7	51.5	34.6	27.2	23.5	22.1
70°	2149.6	471.4	108.1	92.7	85.3	63.2	40.4	27.9	25.0	22.1	20.6
72.5°	708.9	203.7	84.6	76.5	70.6	50.7	31.6	25.7	24.3	21.3	19.9
75°	247.1	117.7	62.5	58.8	55.9	38.2	26.5	23.5	23.5	20.6	18.4
77.5°	161.8	91.2	46.3	42.7	41.9	27.9	22.8	22.1	20.6	16.9	14.0
80°	134.6	51.5	32.4	30.2	29.4	17.6	18.4	16.2	12.5	7.4	2.9
82.5°	124.3	30.9	16.9	18.4	16.9	6.6	10.3	8.8	6.6	2.9	0.0
85°	72.8	14.0	9.6	9.6	7.4	1.5	5.1	5.1	2.9	0.7	0.0
87.5°	8.1	6.6	5.1	5.1	3.7	0.0	2.2	1.5	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)