

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: P596710

Luminaire Tested: **MSA-SA3C-827-U-T2**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-827-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13348 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

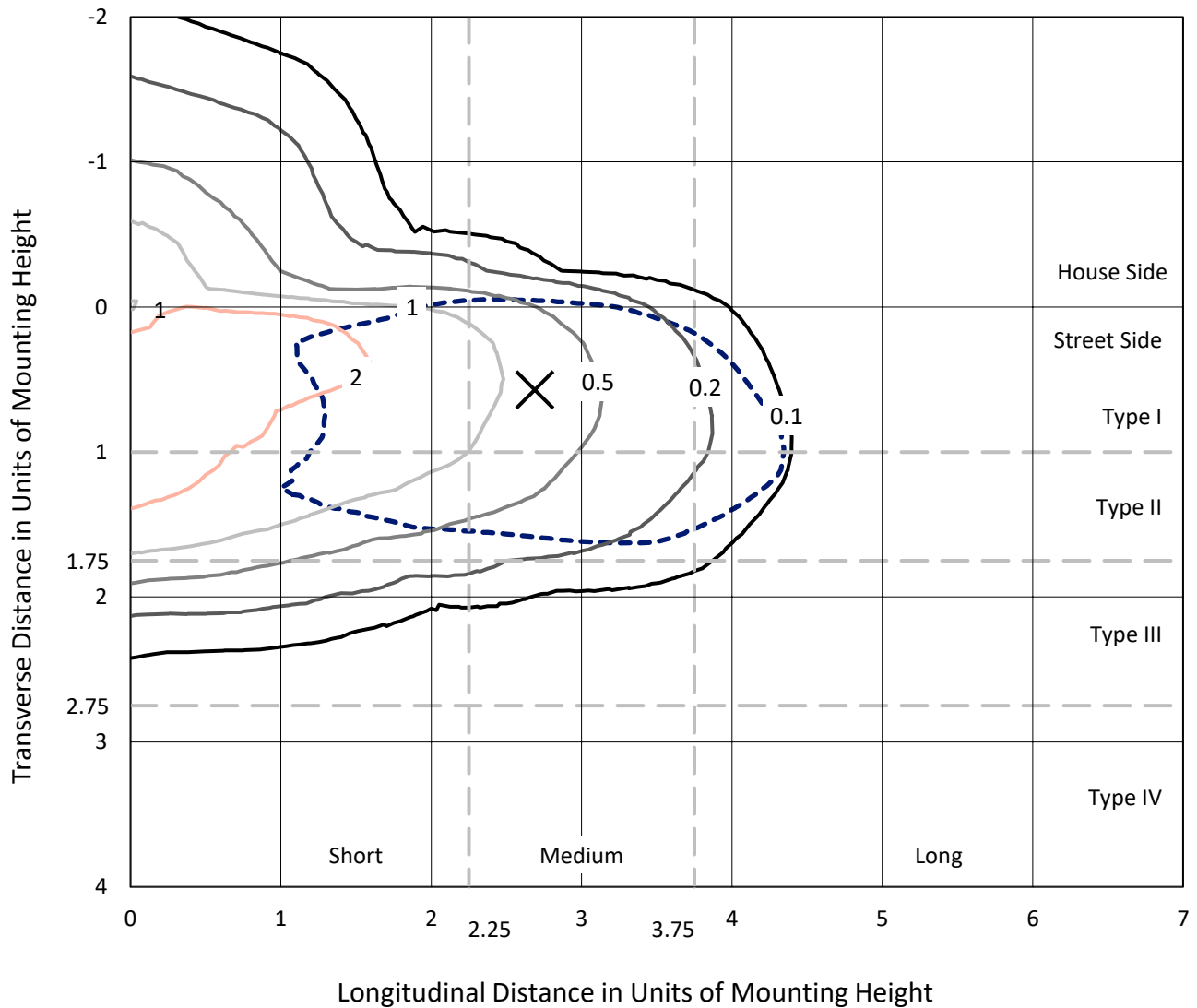
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

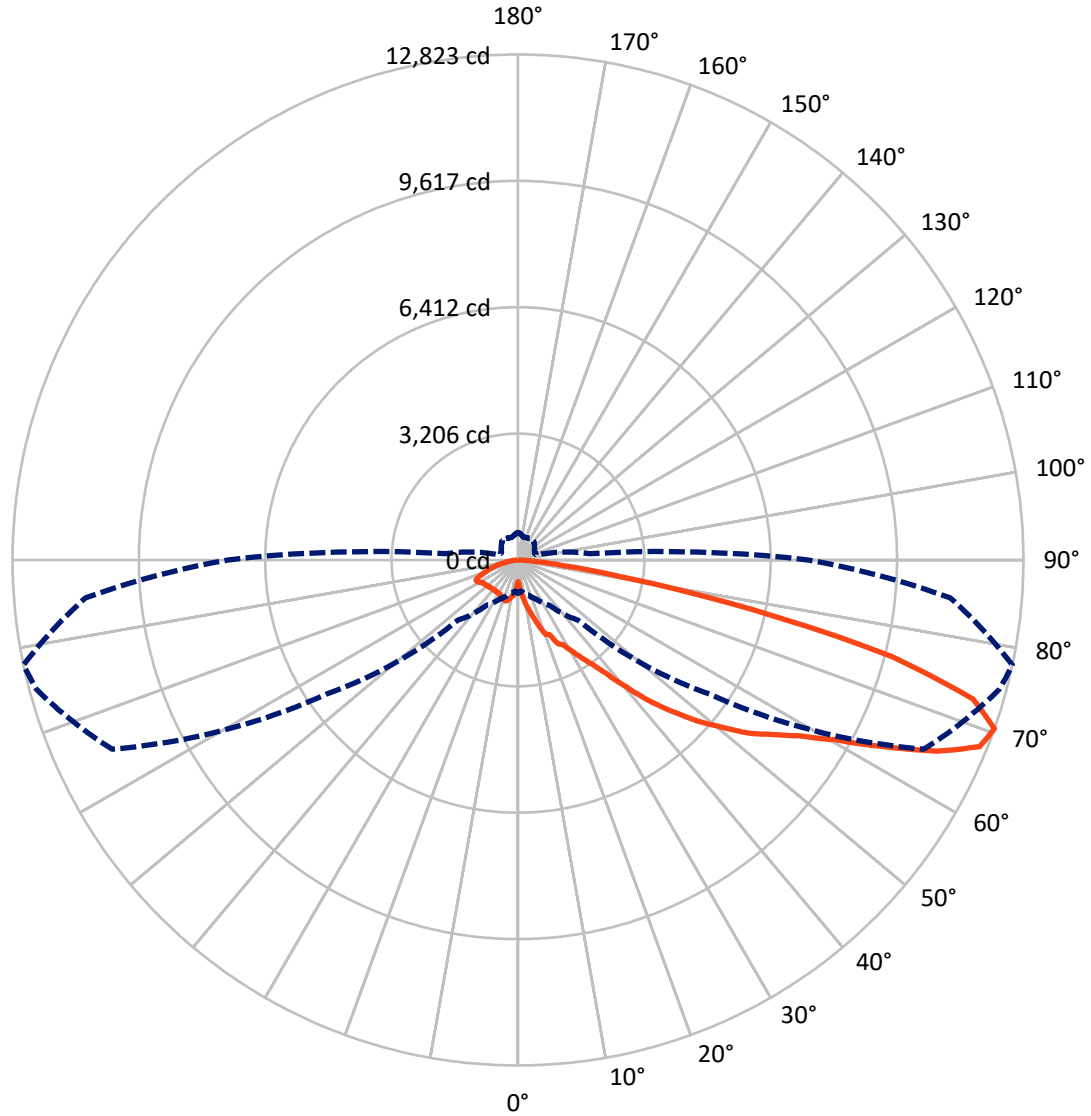
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2382.4	0.0	2382.4
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	10965.6	0.0	10965.6
	% Fixture	82.2	0.0	82.2
Total	Lumens	13348.0	0.0	13348.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.1	0.6
10°-20°	370.5	2.8
20°-30°	713.2	5.3
30°-40°	1201.4	9.0
40°-50°	2078.7	15.6
50°-60°	3138.5	23.5
60°-70°	3476.3	26.0
70°-80°	2004.2	15.0
80°-90°	281.1	2.1
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°	13348.0	100.0
0°-180°	13348.0	100.0

Coefficient of Utilization

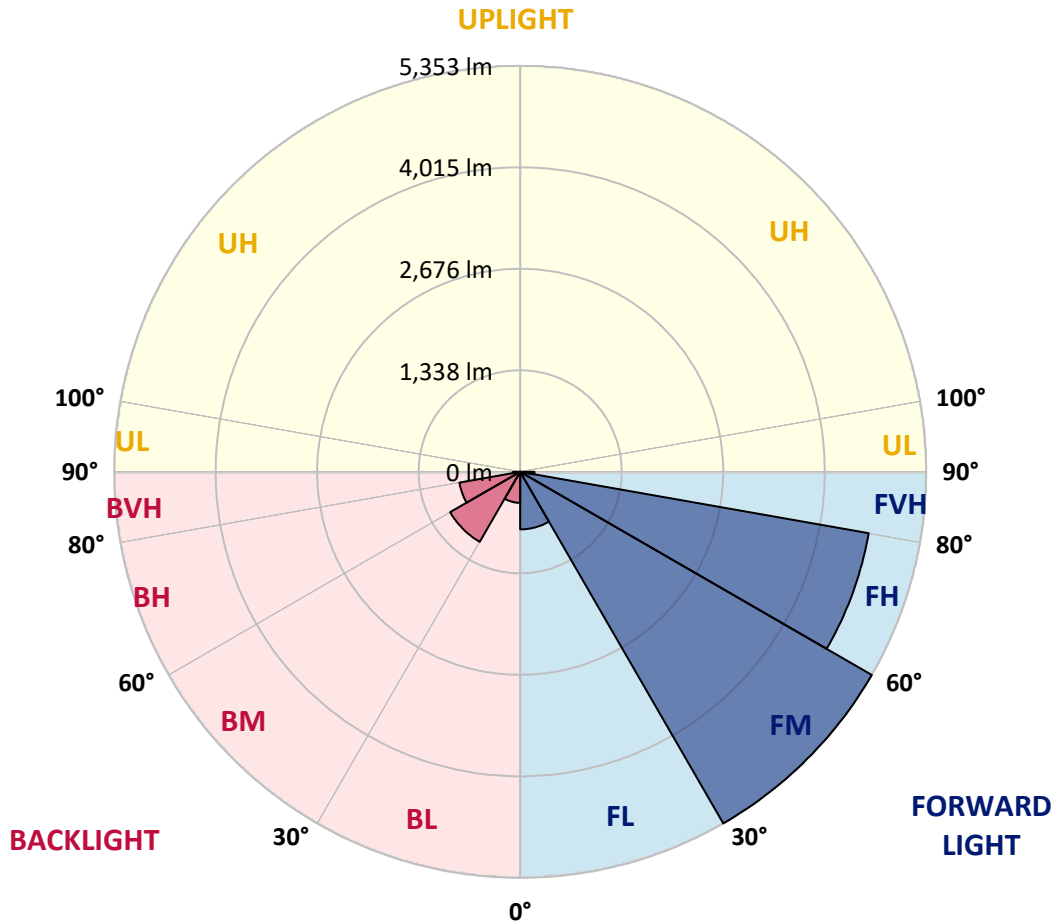


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	758.8	5.7			
FM (30°-60°)	5352.9	40.1			
FH (60°-80°)	4666.3	35.0			G2/5000
FVH (80°-90°)	187.5	1.4			G2/225
BL (0°-30°)	409.1	3.1	B1/500		
BM (30°-60°)	1065.6	8.0	B2/2500		
BH (60°-80°)	814.2	6.1	B2/1000		G2/1000
BVH (80°-90°)	93.6	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2
2.5°	700.6	675.5	637.7	653.3	672.2	674.4	668.3	633.8	622.1	648.3	656.0
5°	981.6	939.3	913.7	905.3	877.0	818.0	860.3	838.6	843.0	830.2	855.3
7.5°	1218.1	1189.7	1151.8	1141.3	1076.2	1030.0	1058.9	1049.5	1003.8	986.0	1014.4
10°	1338.3	1307.1	1308.8	1285.9	1268.7	1273.1	1258.7	1216.9	1183.0	1159.1	1090.6
12.5°	1410.6	1418.4	1460.1	1448.4	1513.5	1567.0	1526.3	1464.6	1357.2	1335.5	1267.6
15°	1582.5	1611.5	1572.5	1590.3	1618.1	1720.5	1703.8	1690.5	1577.0	1534.7	1409.5
17.5°	1759.5	1765.0	1706.1	1696.6	1763.4	1815.1	1880.2	1805.1	1819.0	1789.5	1587.0
20°	1797.3	1835.7	1751.1	1692.7	1830.2	1932.5	2013.2	1933.6	2007.1	2014.9	1733.3
22.5°	1935.9	1889.7	1778.4	1721.1	1841.3	1967.0	2098.4	2142.9	2119.5	2053.8	1874.7
25°	2032.1	2007.7	1894.1	1830.7	1876.3	1992.1	2222.4	2338.7	2359.3	2350.4	2009.3
27.5°	2210.8	2223.0	1989.3	2007.1	1943.7	1954.2	2297.0	2598.6	2470.1	2434.5	2176.3
30°	2492.9	2438.3	2176.3	2190.7	2085.6	2067.8	2454.5	2822.8	2707.7	2664.8	2313.7
32.5°	2787.2	2792.2	2474.0	2350.4	2294.2	2276.4	2423.3	2940.3	3008.1	2952.5	2521.3
35°	3202.3	3173.4	2796.7	2634.2	2431.1	2400.0	2645.3	3280.8	3405.4	3249.6	2767.8
37.5°	3834.5	3747.1	3308.6	2933.0	2782.8	2747.2	2962.5	3586.3	3866.7	3673.1	3170.6
40°	4341.9	4164.4	3766.0	3308.6	3054.3	3098.3	3187.9	3956.9	4345.3	4236.2	3543.4
42.5°	4746.5	4589.0	4089.9	3768.3	3422.7	3368.2	3466.1	4416.0	4996.3	4889.5	4008.6
45°	5134.3	4813.8	4453.8	4164.4	3832.2	3898.5	3884.0	4884.5	5794.8	5466.0	4419.8
47.5°	5517.2	5216.1	4839.4	4450.5	4116.0	4528.4	4374.2	5232.8	6333.5	6089.7	4852.8
50°	6009.1	5678.0	5249.0	4857.8	4657.5	4959.0	4700.3	5527.7	6936.7	6650.6	5261.2
52.5°	6335.7	6013.5	5637.4	5358.0	5339.7	5223.4	5157.1	5901.1	7465.3	7291.7	5694.1
55°	6297.3	5986.8	5816.5	5847.1	6074.2	5681.9	5627.9	6453.7	8016.7	7815.8	6161.5
57.5°	5816.0	5477.1	5513.3	5694.7	6304.5	6487.0	6395.2	7044.0	8508.6	8417.4	6739.7
60°	4530.6	4356.4	4650.8	4982.4	5996.3	6723.0	7368.5	7764.1	9114.0	9259.8	7647.8
62.5°	2943.0	2710.4	3175.6	3738.8	5076.5	6567.2	8359.5	9129.6	10105.6	10436.7	9027.8
65°	1524.7	1487.4	1812.9	2330.4	3534.0	5599.5	8708.9	10561.9	11310.9	11696.5	10346.0
67.5°	1108.4	1039.4	1190.2	1494.6	2157.3	3818.3	8046.8	11657.5	12278.5	12631.9	11112.2
70°	844.1	792.9	908.1	1096.8	1408.9	2156.8	5940.1	11358.7	12651.9	12823.3	11010.4
72.5°	632.1	588.2	688.9	864.7	1085.6	1214.2	3511.2	9339.4	12014.8	12073.2	9881.9
75°	504.7	470.8	514.2	682.8	884.7	826.3	1865.2	6766.4	9761.7	9811.8	7548.2
77.5°	414.0	385.1	402.9	511.9	688.3	621.6	925.4	4304.1	6197.7	6120.9	4246.8
80°	337.8	312.7	321.1	370.0	524.2	464.1	519.7	2245.3	2956.4	2837.3	1766.2
82.5°	259.9	238.7	255.4	272.1	379.5	333.3	303.3	1021.6	1210.8	1127.9	647.7
85°	174.2	154.7	222.0	204.2	248.2	204.8	165.8	406.8	451.3	420.7	227.6
87.5°	47.9	45.1	74.6	101.8	101.8	77.3	60.7	98.5	125.8	110.2	53.4
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°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2
2.5°	659.4	647.1	614.9	612.1	619.9	621.0	616.0	604.3	598.2	631.6	626.6
5°	849.1	805.7	779.6	755.7	722.3	698.3	704.5	721.2	726.7	751.8	754.5
7.5°	996.6	939.3	882.0	805.2	754.5	722.3	746.8	764.6	778.5	814.1	828.5
10°	1060.6	998.3	917.0	836.3	822.4	828.0	814.1	818.5	840.2	841.9	849.1
12.5°	1179.7	1109.0	962.7	889.8	885.9	897.5	892.5	913.1	928.2	968.8	951.5
15°	1293.7	1203.6	997.2	922.6	906.5	929.8	957.1	991.6	1023.9	1062.3	1042.8
17.5°	1432.3	1296.5	998.8	907.6	910.3	960.4	988.8	1007.7	1104.0	1156.9	1130.1
20°	1519.7	1306.0	961.5	870.3	910.3	955.4	994.9	1015.5	1123.5	1203.0	1221.4
22.5°	1598.7	1309.3	932.6	850.2	875.8	935.4	994.9	1040.6	1109.6	1185.8	1188.6
25°	1642.1	1306.5	895.3	851.9	875.3	904.8	957.6	999.4	1050.6	1156.9	1159.6
27.5°	1753.4	1270.4	858.6	858.6	870.8	872.0	939.3	963.8	971.0	1067.8	1085.1
30°	1785.6	1278.2	854.1	857.5	863.6	852.5	882.0	898.1	908.7	992.1	994.9
32.5°	1837.4	1215.8	867.5	847.5	839.7	838.0	845.2	859.7	864.2	915.4	924.8
35°	1900.3	1190.8	872.0	844.7	829.1	820.8	842.5	824.7	838.6	898.7	905.3
37.5°	2105.0	1156.3	894.8	844.7	824.7	815.2	804.6	813.0	862.5	920.4	956.0
40°	2235.8	1166.9	889.2	853.0	809.6	800.7	782.9	813.5	890.3	992.7	1019.4
42.5°	2465.1	1173.0	895.9	849.1	814.6	780.1	791.8	825.2	905.9	964.3	1005.5
45°	2702.1	1191.9	891.4	837.5	803.5	819.6	803.5	833.6	872.0	873.6	904.8
47.5°	2934.7	1268.1	882.0	813.5	800.7	843.0	801.8	806.8	809.6	819.6	856.4
50°	3207.9	1349.4	868.6	780.1	804.6	844.1	808.0	783.5	780.7	813.5	854.7
52.5°	3518.4	1441.2	851.4	747.9	781.8	833.6	829.1	785.1	761.2	792.9	834.1
55°	3884.0	1545.8	831.3	715.6	756.8	834.7	840.8	773.5	761.8	796.3	840.2
57.5°	4369.8	1697.2	792.4	668.8	726.2	817.4	810.7	760.1	749.0	785.7	831.3
60°	5198.9	1988.2	736.7	622.7	693.3	775.1	786.3	736.2	725.0	765.7	813.5
62.5°	6309.0	2338.2	669.4	577.6	653.3	729.5	755.7	701.7	700.6	752.3	802.4
65°	7342.3	2536.8	599.8	536.4	612.1	687.2	721.2	669.4	671.6	736.7	786.8
67.5°	7771.9	2303.1	537.5	499.7	564.8	638.8	692.8	644.4	637.1	715.6	761.8
70°	7368.5	1829.6	483.6	460.7	511.4	586.5	653.3	611.0	594.3	665.5	701.7
72.5°	6519.9	1525.2	432.9	415.1	464.6	531.4	599.8	565.9	544.2	598.7	631.0
75°	5096.5	1251.4	375.0	370.0	411.2	481.3	544.2	520.8	493.0	527.5	559.8
77.5°	2901.9	791.8	314.9	318.3	347.8	421.8	477.4	459.1	430.7	445.2	482.4
80°	1161.3	399.5	253.2	255.4	280.4	346.7	395.6	389.0	359.5	371.1	396.7
82.5°	434.0	219.2	187.0	188.1	213.1	274.3	337.8	334.4	306.6	298.3	312.7
85°	172.5	108.5	114.6	119.6	143.6	197.5	271.0	240.4	207.6	182.0	190.9
87.5°	41.2	34.5	40.1	42.3	46.7	61.8	99.0	79.6	81.8	65.7	49.0
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)