

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: P596622

Luminaire Tested: **MSA-SA2C-827-U-T2**

Issue Date: 5/27/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P596622  
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-SA2C-827-U-T2  
Description: MESA POST TOP DECORATIVE LUMINAIRE. (2) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9045 lumens  
Efficiency: N/A  
Efficacy: 80.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

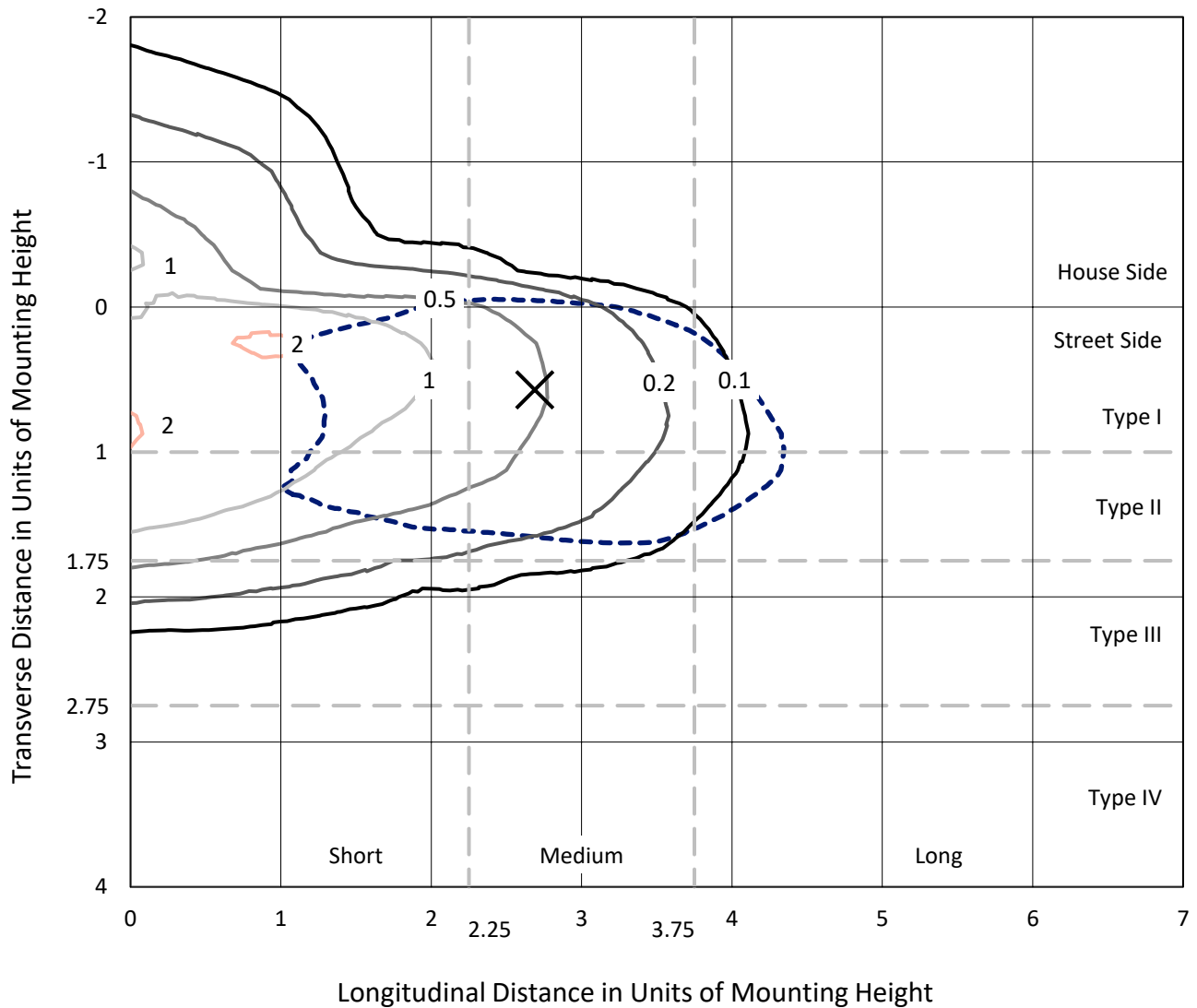
Input Watts (W): 113  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

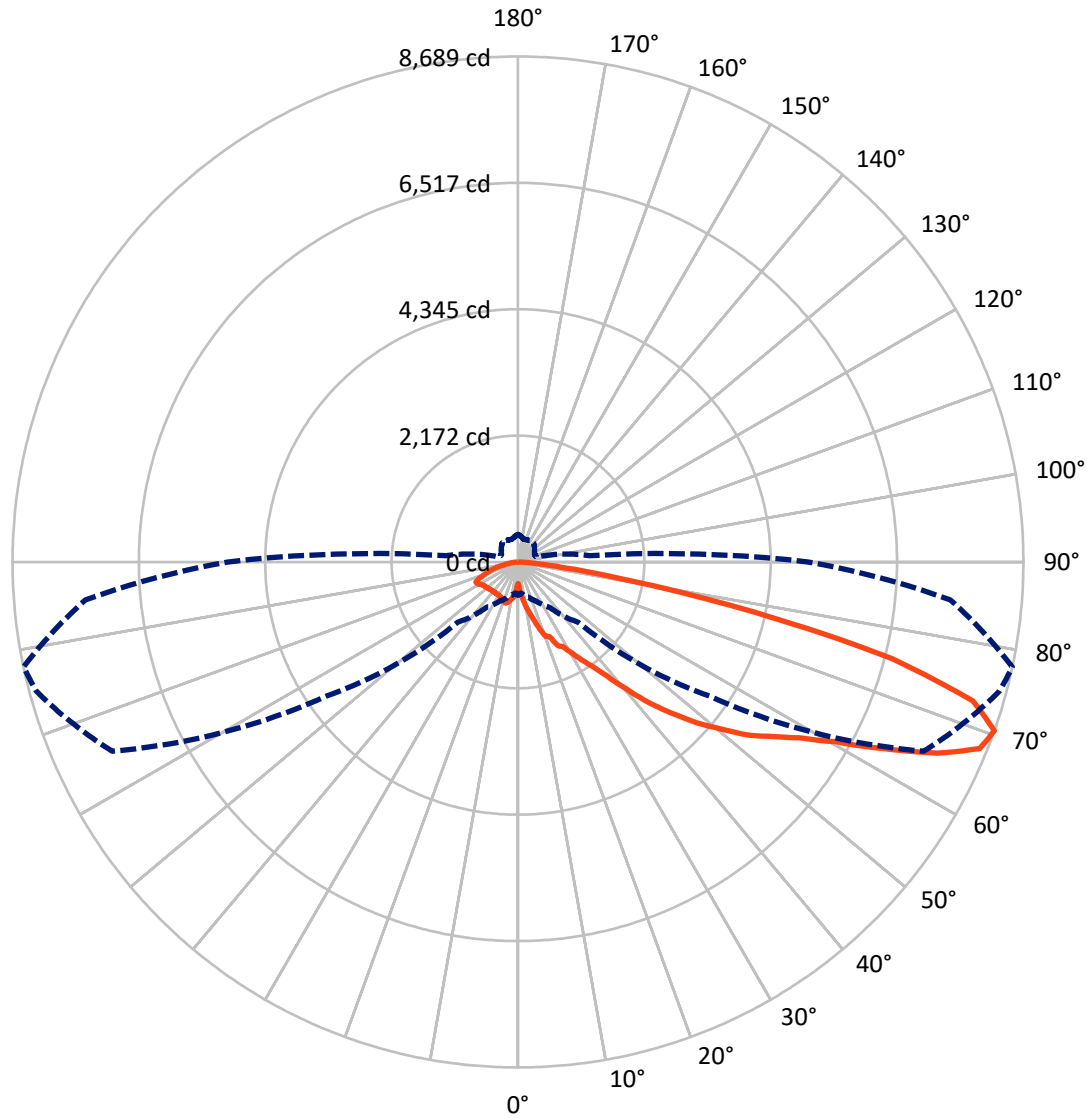
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.2 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
<b>House Side</b>	Lumens	1614.4	0.0	1614.4
	% Fixture	17.8	0.0	17.8
<b>Street Side</b>	Lumens	7430.6	0.0	7430.6
	% Fixture	82.2	0.0	82.2
<b>Total</b>	Lumens	9045.0	0.0	9045.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.0	0.6
10°-20°	251.1	2.8
20°-30°	483.3	5.3
30°-40°	814.1	9.0
40°-50°	1408.6	15.6
50°-60°	2126.7	23.5
60°-70°	2355.6	26.0
70°-80°	1358.1	15.0
80°-90°	190.5	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°	9045.0	100.0
0°-180°	9045.0	100.0

**Coefficient of Utilization**



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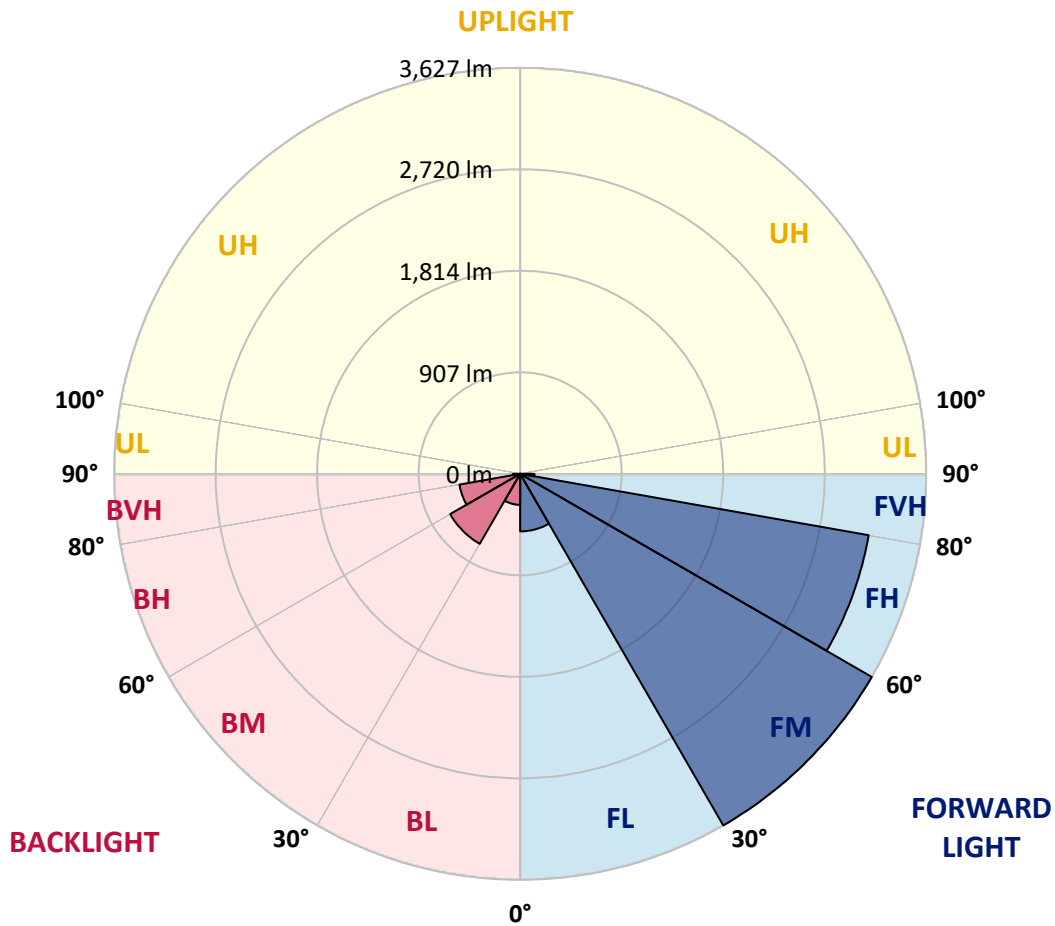
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	514.2	5.7			
FM (30°-60°)	3627.3	40.1			
FH (60°-80°)	3162.0	35.0			G2/5000
FVH (80°-90°)	127.1	1.4			G2/225
BL (0°-30°)	277.2	3.1	B1/500		
BM (30°-60°)	722.1	8.0	B1/1000		
BH (60°-80°)	551.7	6.1	B2/1000		G2/1000
BVH (80°-90°)	63.4	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°	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8
2.5°	474.7	457.8	432.1	442.7	455.5	457.0	452.9	429.5	421.6	439.3	444.6
5°	665.1	636.5	619.1	613.5	594.3	554.3	582.9	568.2	571.3	562.6	579.5
7.5°	825.4	806.2	780.5	773.4	729.2	697.9	717.6	711.1	680.2	668.2	687.4
10°	906.8	885.7	886.9	871.4	859.7	862.7	852.9	824.6	801.6	785.4	739.0
12.5°	955.9	961.1	989.4	981.5	1025.6	1061.8	1034.3	992.4	919.7	905.0	859.0
15°	1072.4	1092.0	1065.6	1077.6	1096.5	1165.9	1154.6	1145.5	1068.6	1039.9	955.1
17.5°	1192.3	1196.0	1156.1	1149.7	1194.9	1230.0	1274.1	1223.2	1232.6	1212.6	1075.4
20°	1217.9	1243.9	1186.6	1147.0	1240.2	1309.5	1364.2	1310.3	1360.1	1365.3	1174.6
22.5°	1311.8	1280.5	1205.1	1166.3	1247.7	1332.9	1421.9	1452.1	1436.2	1391.7	1270.3
25°	1377.0	1360.4	1283.5	1240.5	1271.5	1349.9	1506.0	1584.8	1598.8	1592.7	1361.6
27.5°	1498.1	1506.4	1348.0	1360.1	1317.1	1324.2	1556.5	1760.9	1673.8	1649.7	1474.7
30°	1689.2	1652.3	1474.7	1484.5	1413.2	1401.2	1663.2	1912.8	1834.8	1805.8	1567.8
32.5°	1888.7	1892.1	1676.4	1592.7	1554.6	1542.6	1642.1	1992.4	2038.4	2000.7	1708.5
35°	2170.0	2150.4	1895.1	1785.0	1647.4	1626.3	1792.6	2223.2	2307.6	2202.1	1875.5
37.5°	2598.3	2539.2	2242.0	1987.5	1885.7	1861.6	2007.5	2430.2	2620.2	2489.0	2148.5
40°	2942.2	2821.9	2552.0	2242.0	2069.7	2099.5	2160.2	2681.3	2944.5	2870.6	2401.1
42.5°	3216.4	3109.6	2771.4	2553.5	2319.3	2282.4	2348.7	2992.4	3385.7	3313.3	2716.4
45°	3479.2	3262.0	3018.0	2821.9	2596.8	2641.7	2631.9	3309.9	3926.7	3703.9	2995.0
47.5°	3738.6	3534.6	3279.3	3015.8	2789.1	3068.5	2964.1	3545.9	4291.7	4126.6	3288.4
50°	4071.9	3847.6	3556.8	3291.8	3156.0	3360.4	3185.1	3745.8	4700.5	4506.7	3565.1
52.5°	4293.3	4074.9	3820.0	3630.8	3618.3	3539.5	3494.6	3998.8	5058.7	4941.0	3858.5
55°	4267.2	4056.8	3941.5	3962.2	4116.0	3850.2	3813.6	4373.2	5432.4	5296.2	4175.2
57.5°	3941.1	3711.4	3736.0	3858.9	4272.1	4395.8	4333.6	4773.3	5765.7	5703.8	4567.0
60°	3070.1	2952.0	3151.5	3376.2	4063.2	4555.7	4993.1	5261.2	6175.9	6274.7	5182.4
62.5°	1994.3	1836.7	2151.9	2533.5	3440.0	4450.1	5664.6	6186.5	6847.9	7072.2	6117.5
65°	1033.2	1007.9	1228.5	1579.1	2394.7	3794.4	5901.4	7157.1	7664.6	7925.9	7010.8
67.5°	751.1	704.4	806.5	1012.8	1461.9	2587.4	5452.7	7899.5	8320.3	8559.7	7530.0
70°	572.0	537.3	615.4	743.2	954.7	1461.5	4025.2	7697.0	8573.3	8689.4	7461.0
72.5°	428.3	398.6	466.8	586.0	735.7	822.8	2379.3	6328.6	8141.6	8181.2	6696.3
75°	342.0	319.0	348.4	462.7	599.5	559.9	1263.9	4585.1	6614.8	6648.8	5114.9
77.5°	280.5	260.9	273.0	346.9	466.4	421.2	627.1	2916.6	4199.7	4147.7	2877.8
80°	228.9	211.9	217.6	250.7	355.2	314.5	352.2	1521.5	2003.3	1922.7	1196.8
82.5°	176.1	161.8	173.1	184.4	257.2	225.9	205.5	692.3	820.5	764.3	438.9
85°	118.0	104.8	150.4	138.4	168.2	138.8	112.4	275.6	305.8	285.1	154.2
87.5°	32.4	30.5	50.5	69.0	69.0	52.4	41.1	66.7	85.2	74.7	36.2
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°	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8	368.8
2.5°	446.8	438.5	416.7	414.8	420.0	420.8	417.4	409.5	405.3	428.0	424.6
5°	575.4	546.0	528.3	512.1	489.4	473.2	477.4	488.7	492.4	509.4	511.3
7.5°	675.3	636.5	597.6	545.6	511.3	489.4	506.0	518.1	527.5	551.6	561.4
10°	718.7	676.5	621.4	566.7	557.3	561.1	551.6	554.7	569.4	570.5	575.4
12.5°	799.4	751.5	652.3	602.9	600.3	608.2	604.8	618.8	628.9	656.5	644.8
15°	876.7	815.6	675.7	625.2	614.2	630.1	648.6	671.9	693.8	719.8	706.6
17.5°	970.6	878.6	676.8	615.0	616.9	650.8	670.0	682.9	748.1	783.9	765.8
20°	1029.8	885.0	651.6	589.7	616.9	647.4	674.2	688.1	761.3	815.2	827.7
22.5°	1083.3	887.2	632.0	576.2	593.5	633.8	674.2	705.1	751.9	803.5	805.4
25°	1112.7	885.3	606.7	577.3	593.1	613.1	648.9	677.2	711.9	783.9	785.8
27.5°	1188.1	860.8	581.8	581.8	590.1	590.9	636.5	653.1	658.0	723.6	735.3
30°	1210.0	866.1	578.8	581.1	585.2	577.7	597.6	608.6	615.7	672.3	674.2
32.5°	1245.1	823.9	587.8	574.3	569.0	567.9	572.8	582.6	585.6	620.3	626.7
35°	1287.7	806.9	590.9	572.4	561.8	556.2	570.9	558.8	568.2	609.0	613.5
37.5°	1426.4	783.5	606.3	572.4	558.8	552.4	545.2	550.9	584.4	623.7	647.8
40°	1515.0	790.7	602.5	578.0	548.6	542.6	530.5	551.3	603.3	672.7	690.8
42.5°	1670.4	794.9	607.1	575.4	552.0	528.6	536.6	559.2	613.9	653.5	681.4
45°	1831.0	807.7	604.1	567.5	544.5	555.4	544.5	564.8	590.9	592.0	613.1
47.5°	1988.6	859.3	597.6	551.3	542.6	571.3	543.3	546.7	548.6	555.4	580.3
50°	2173.8	914.4	588.6	528.6	545.2	572.0	547.5	530.9	529.0	551.3	579.2
52.5°	2384.2	976.6	576.9	506.8	529.8	564.8	561.8	532.0	515.8	537.3	565.2
55°	2631.9	1047.5	563.3	484.9	512.8	565.6	569.7	524.1	516.2	539.6	569.4
57.5°	2961.1	1150.0	536.9	453.2	492.1	553.9	549.4	515.1	507.5	532.4	563.3
60°	3522.9	1347.3	499.2	421.9	469.8	525.3	532.8	498.9	491.3	518.8	551.3
62.5°	4275.2	1584.4	453.6	391.4	442.7	494.3	512.1	475.5	474.7	509.8	543.7
65°	4975.4	1719.0	406.5	363.5	414.8	465.7	488.7	453.6	455.1	499.2	533.2
67.5°	5266.5	1560.7	364.2	338.6	382.7	432.9	469.4	436.6	431.7	484.9	516.2
70°	4993.1	1239.8	327.7	312.2	346.5	397.4	442.7	414.0	402.7	451.0	475.5
72.5°	4418.1	1033.5	293.4	281.3	314.8	360.1	406.5	383.5	368.8	405.7	427.6
75°	3453.5	848.0	254.1	250.7	278.7	326.2	368.8	352.9	334.1	357.5	379.3
77.5°	1966.4	536.6	213.4	215.7	235.7	285.8	323.5	311.1	291.8	301.7	326.9
80°	786.9	270.7	171.6	173.1	190.0	234.9	268.1	263.6	243.6	251.5	268.8
82.5°	294.1	148.6	126.7	127.4	144.4	185.9	228.9	226.6	207.8	202.1	211.9
85°	116.9	73.5	77.7	81.1	97.3	133.9	183.6	162.9	140.6	123.3	129.3
87.5°	27.9	23.4	27.1	28.7	31.7	41.9	67.1	53.9	55.4	44.5	33.2
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)