

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: P596716

Luminaire Tested: **MSA-SA3C-827-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-14)
Test Lab: INNOVATIONS CENTER
Issue Date: 5/27/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA3C-827-U-T4W
Description: MESA POST TOP DECORATIVE LUMINAIRE. (3) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13570 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

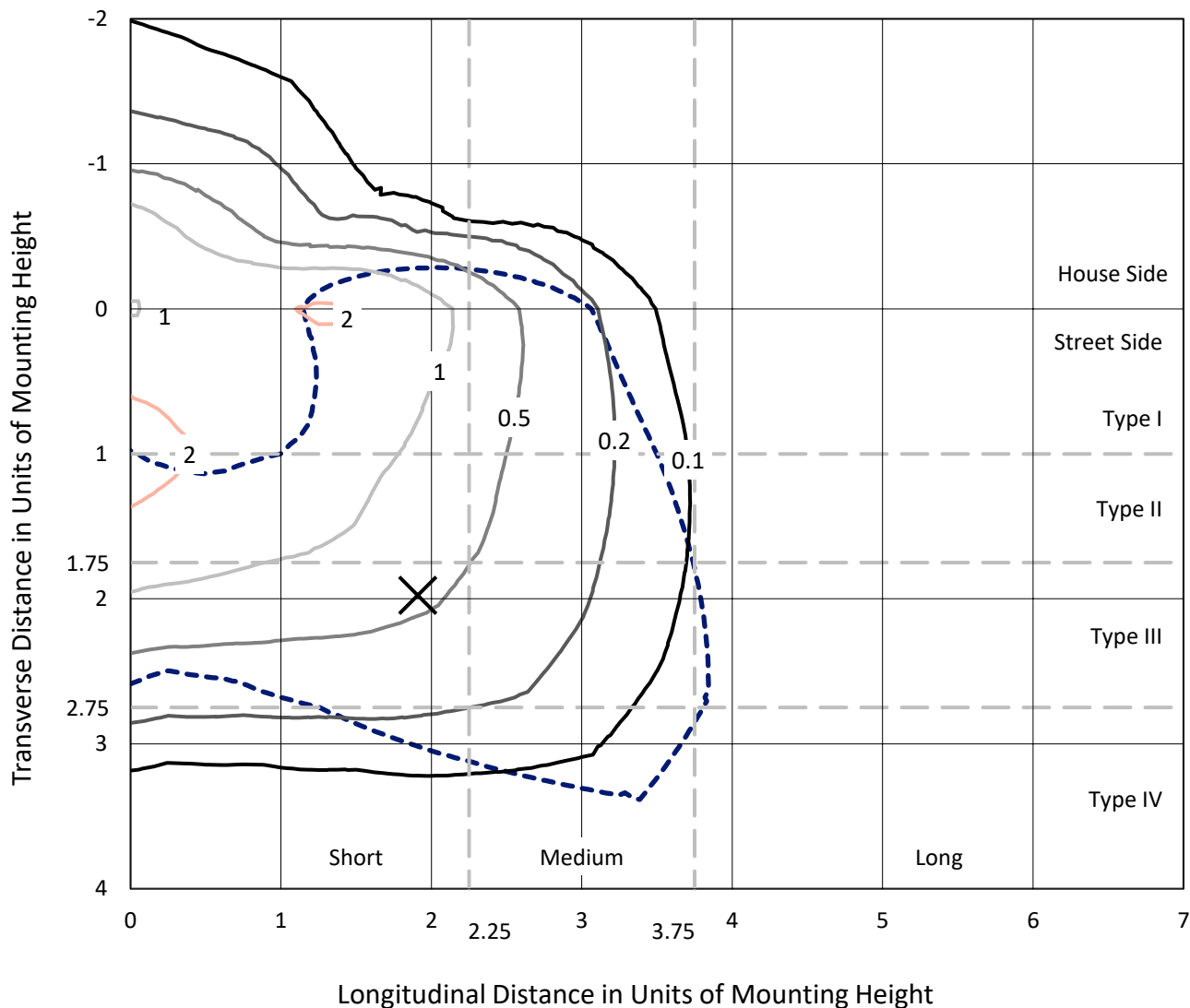
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

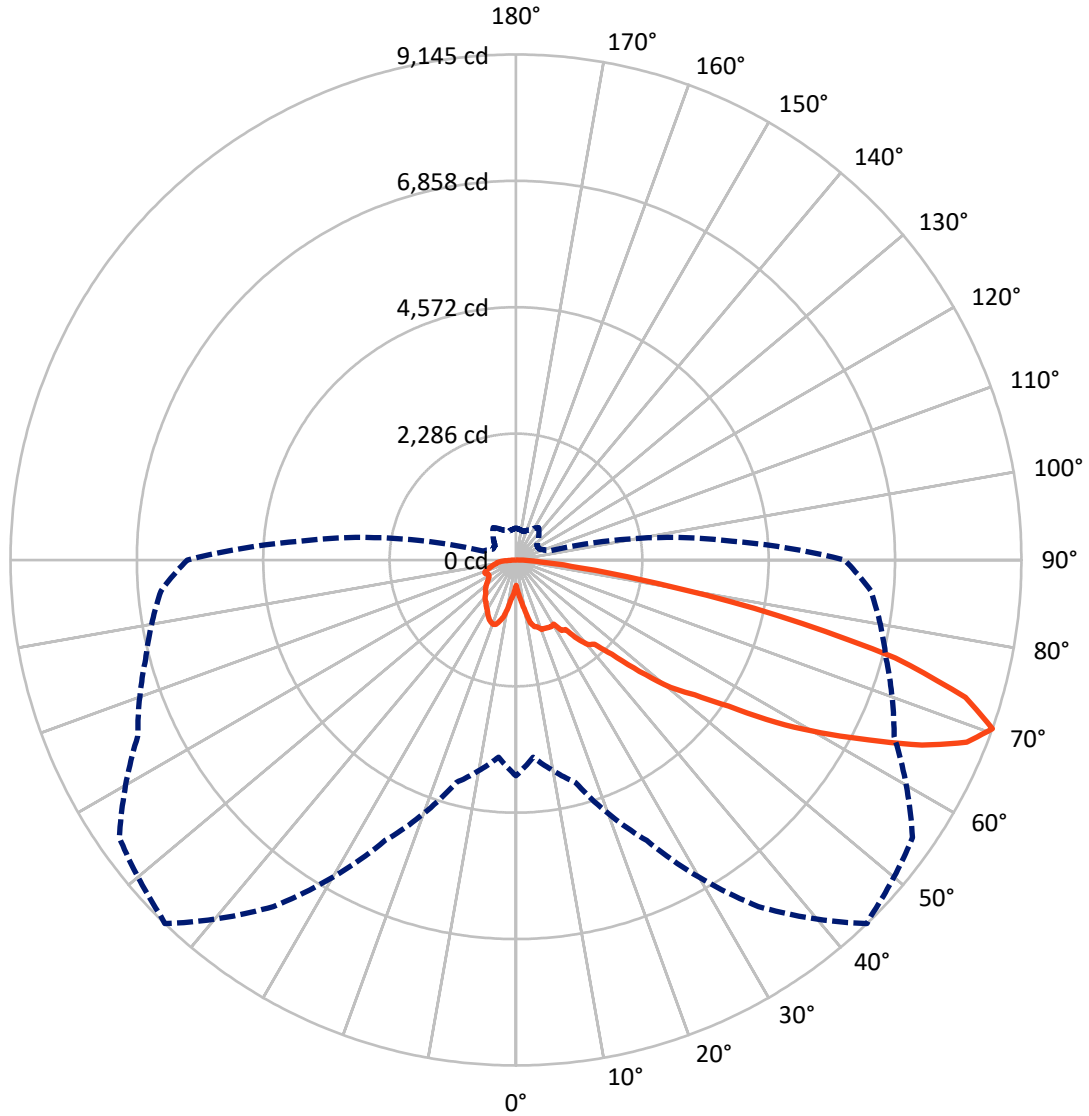
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2994.1	0.0	2994.1
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	10575.9	0.0	10575.9
	% Fixture	77.9	0.0	77.9
Total	Lumens	13570.0	0.0	13570.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.3	0.5
10°-20°	333.0	2.5
20°-30°	622.3	4.6
30°-40°	999.0	7.4
40°-50°	1686.2	12.4
50°-60°	3004.7	22.1
60°-70°	4110.1	30.3
70°-80°	2416.9	17.8
80°-90°	325.4	2.4
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°	13570.0	100.0
0°-180°	13570.0	100.0

Coefficient of Utilization



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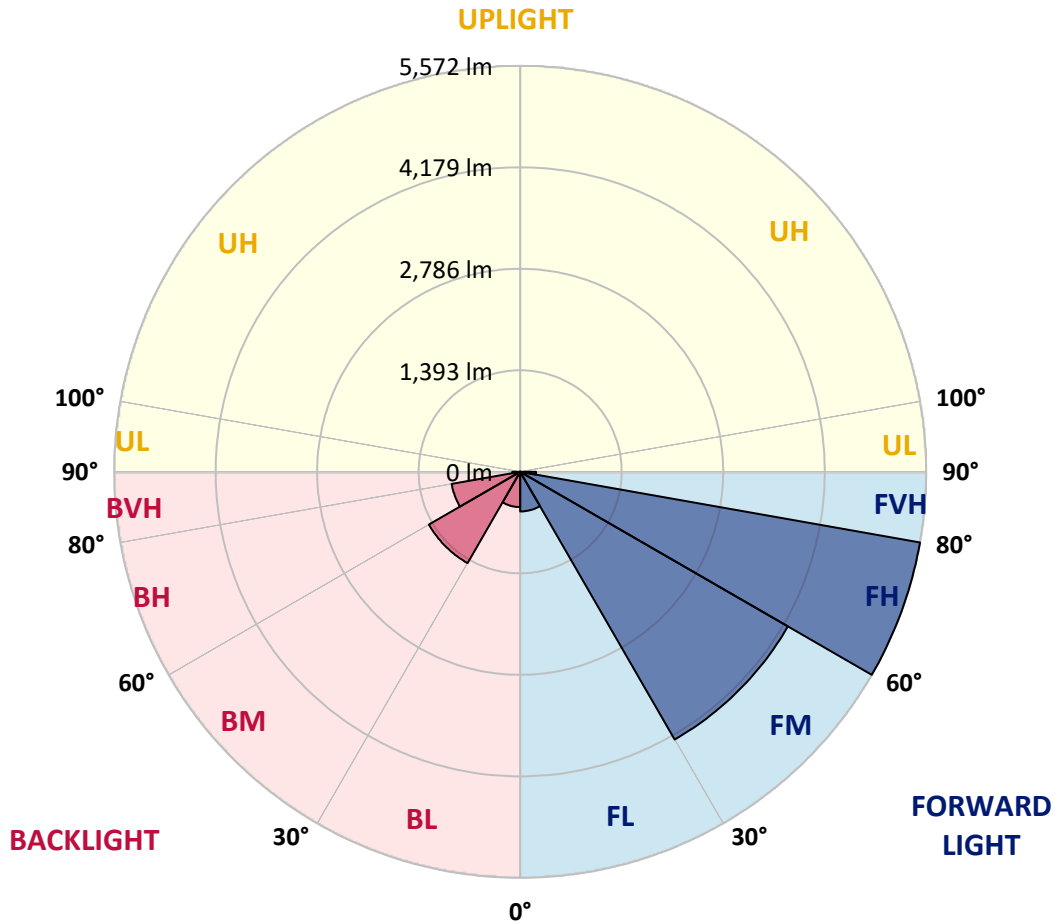
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	543.8	4.0			
FM (30°-60°)	4243.0	31.3			
FH (60°-80°)	5572.3	41.1			G3/7500
FVH (80°-90°)	216.9	1.6			G2/225
BL (0°-30°)	483.9	3.6	B1/500		
BM (30°-60°)	1446.9	10.7	B2/2500		
BH (60°-80°)	954.7	7.0	B2/1000		G2/1000
BVH (80°-90°)	108.5	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3
2.5°	559.7	548.6	521.9	530.8	541.9	546.4	545.3	544.2	526.9	520.8	551.4
5°	760.6	736.1	716.7	708.9	683.3	663.2	651.0	683.3	678.3	686.6	707.8
7.5°	949.8	934.2	890.3	874.7	822.4	787.9	784.0	809.6	816.3	802.9	839.1
10°	1071.6	1044.9	1036.0	998.8	962.6	957.0	953.7	942.0	925.9	924.8	892.5
12.5°	1166.2	1180.1	1187.4	1144.5	1145.6	1165.7	1155.1	1107.8	1080.5	1032.7	1036.6
15°	1335.9	1356.0	1298.7	1271.4	1219.1	1249.1	1245.2	1205.7	1201.8	1170.7	1134.5
17.5°	1483.9	1492.8	1397.1	1334.8	1317.0	1273.6	1285.3	1286.4	1235.2	1290.9	1258.6
20°	1496.2	1527.9	1417.7	1293.6	1347.1	1341.5	1343.2	1332.0	1264.7	1356.5	1344.3
22.5°	1556.3	1507.9	1408.8	1318.1	1332.0	1340.4	1348.2	1334.8	1330.9	1382.1	1419.4
25°	1545.1	1529.6	1429.4	1352.6	1354.3	1356.0	1359.9	1399.9	1395.5	1465.0	1484.5
27.5°	1649.2	1625.3	1435.5	1416.6	1373.2	1363.8	1337.0	1420.5	1485.6	1483.9	1591.3
30°	1847.3	1822.8	1578.0	1522.9	1444.4	1347.6	1398.8	1510.1	1561.3	1578.5	1714.8
32.5°	2156.6	2196.7	1858.4	1636.4	1539.0	1517.9	1512.3	1501.2	1628.0	1713.2	1837.3
35°	2600.7	2568.9	2188.9	1879.5	1638.6	1547.9	1560.2	1628.0	1778.8	1833.9	1948.5
37.5°	3109.2	3043.6	2612.3	2155.0	1925.7	1812.2	1771.6	1837.3	1870.6	1914.0	2148.3
40°	3626.1	3465.9	3028.0	2517.2	2098.2	2012.5	1976.9	1896.2	1974.7	2062.6	2360.3
42.5°	4125.2	4001.1	3480.3	2949.5	2388.7	2083.2	2063.7	1984.7	2227.9	2320.8	2666.3
45°	4648.2	4360.6	3943.8	3437.5	2813.2	2429.8	2400.9	2259.0	2570.6	2764.2	3098.1
47.5°	4999.9	4733.4	4368.4	3833.7	3168.7	3009.6	2954.5	2711.9	2994.6	3246.1	3765.2
50°	5332.6	5058.3	4674.9	4267.1	3812.5	3629.4	3512.0	3108.1	3522.6	3932.1	4620.4
52.5°	5808.9	5563.5	5031.0	4703.9	4504.1	4054.0	3966.6	3744.6	4140.2	4692.7	5555.2
55°	6318.0	5983.6	5501.2	5319.8	5239.1	4662.7	4591.5	4450.2	4962.6	5471.2	6463.8
57.5°	6542.8	6193.9	5928.0	5819.5	5812.8	5547.4	5465.6	5367.1	5803.3	6138.8	7319.0
60°	6721.4	6346.9	6240.7	6301.3	6521.7	6346.9	6240.7	6153.9	6487.7	6798.7	8016.7
62.5°	6688.6	6313.0	6367.5	6552.3	7114.8	7166.0	7084.2	6873.9	7166.0	7339.6	8416.8
65°	6158.9	5811.7	6129.4	6567.8	7666.2	8075.1	8070.7	7520.4	7621.7	7621.7	8374.5
67.5°	5230.8	4871.4	5391.6	6430.4	8047.3	8795.7	8796.8	8205.9	7663.4	7593.3	7720.2
70°	3906.0	3580.5	4165.3	5600.2	7653.9	9144.6	9093.9	8759.0	7548.8	6936.2	6448.8
72.5°	2333.0	2122.7	2660.7	4076.8	6528.9	8503.0	8637.7	8121.9	6910.6	5768.3	4609.8
75°	1059.4	968.1	1250.2	2341.9	4661.0	7092.5	7238.9	6854.4	5489.0	4148.6	2664.1
77.5°	453.5	429.0	545.8	1038.8	2570.0	4850.2	5150.1	4898.6	3719.0	2410.9	1178.5
80°	291.6	276.0	335.5	499.7	1193.5	2620.7	2878.9	2784.8	1894.6	937.5	415.1
82.5°	174.2	169.1	224.2	313.8	651.0	1153.4	1299.8	1334.3	786.8	420.6	237.6
85°	95.1	96.3	123.0	190.3	390.6	449.0	480.7	523.0	370.6	243.7	115.2
87.5°	31.7	36.7	49.5	77.3	139.1	126.9	127.4	148.0	156.4	101.3	36.7
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°	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3	461.3
2.5°	556.4	546.4	520.8	522.5	531.9	534.2	536.9	520.8	517.5	548.1	550.8
5°	711.1	678.3	663.2	658.2	643.8	638.8	665.5	677.7	689.9	713.9	725.6
7.5°	835.2	798.4	771.2	746.1	725.0	712.8	757.8	792.3	813.5	862.4	884.7
10°	891.9	860.2	850.2	830.2	846.3	883.0	891.4	892.5	939.2	938.1	947.6
12.5°	1004.9	984.3	951.5	958.7	1001.0	1038.8	1028.2	1044.4	1061.1	1101.1	1082.8
15°	1107.8	1102.2	1071.6	1076.6	1085.0	1132.3	1138.4	1154.5	1180.1	1211.9	1190.2
17.5°	1234.7	1232.4	1157.9	1151.2	1170.7	1216.9	1202.4	1174.0	1258.6	1292.5	1283.6
20°	1320.9	1304.2	1208.5	1180.1	1229.7	1235.8	1219.1	1174.0	1247.5	1321.5	1341.5
22.5°	1392.7	1373.2	1274.7	1219.1	1209.1	1211.9	1211.9	1203.5	1239.7	1300.3	1299.8
25°	1450.6	1468.9	1343.7	1290.3	1236.9	1170.1	1161.8	1169.0	1189.6	1306.4	1302.6
27.5°	1595.8	1545.1	1367.1	1327.0	1217.4	1112.3	1135.1	1146.2	1152.9	1280.9	1302.0
30°	1690.4	1705.9	1450.6	1348.7	1189.0	1047.7	1055.5	1087.8	1126.7	1278.1	1284.2
32.5°	1817.8	1784.4	1580.8	1312.6	1113.4	1008.8	994.3	1037.7	1095.6	1233.0	1249.7
35°	1936.3	1975.8	1635.8	1305.9	1060.5	950.3	965.9	980.9	1041.0	1182.9	1202.4
37.5°	2214.5	2124.4	1790.5	1273.6	1016.6	920.9	904.2	927.0	978.2	1087.8	1132.8
40°	2425.9	2431.5	1823.9	1233.0	932.5	878.6	843.0	865.8	887.5	974.8	994.3
42.5°	2822.7	2701.4	1905.7	1144.0	879.7	815.1	795.1	805.1	808.5	845.2	877.5
45°	3327.3	3043.0	1938.0	1024.3	810.1	789.0	748.4	743.4	725.0	730.0	758.4
47.5°	4025.6	3576.0	1914.6	896.9	748.4	755.0	696.6	673.8	648.2	654.3	681.0
50°	4928.7	4257.1	1912.9	789.0	706.1	710.5	662.7	621.5	595.9	608.7	632.1
52.5°	5941.9	4940.3	1920.7	715.0	659.9	657.7	640.4	590.3	569.8	583.1	609.8
55°	6911.1	5527.9	1978.6	668.2	612.0	615.9	622.6	580.3	557.5	569.8	597.6
57.5°	7754.7	5992.0	1956.9	618.7	567.5	585.3	603.1	566.4	549.2	567.0	594.8
60°	8344.5	6207.3	1785.5	571.4	534.7	559.2	593.7	564.8	562.5	600.9	634.3
62.5°	8559.8	6127.7	1451.7	534.2	515.2	555.9	615.4	601.5	603.7	651.0	697.2
65°	8245.4	5709.3	1082.8	510.2	500.2	572.0	665.5	623.2	592.6	631.5	673.8
67.5°	7351.3	4965.4	791.2	489.6	483.0	597.6	711.6	621.0	564.2	603.7	638.2
70°	5947.4	3919.3	612.6	463.5	460.1	580.3	716.1	604.3	533.6	559.2	578.7
72.5°	4075.1	2683.6	507.4	438.4	420.6	514.1	679.9	567.0	496.9	511.9	528.0
75°	2277.4	1506.2	426.8	407.3	368.3	457.9	637.6	544.7	469.6	474.1	496.3
77.5°	1022.1	651.6	362.2	366.1	321.0	405.1	582.6	509.1	427.9	417.9	440.1
80°	386.7	317.7	293.8	309.4	269.9	351.1	525.2	476.8	383.9	371.1	383.9
82.5°	224.2	192.5	218.1	238.1	214.2	322.7	501.3	447.4	338.3	306.0	317.2
85°	104.0	99.6	130.8	154.7	149.7	251.5	429.0	336.6	240.9	203.6	225.3
87.5°	27.3	30.6	46.2	54.5	55.6	86.2	165.3	125.2	94.0	71.2	68.4
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)