

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: P596738

Luminaire Tested: **MSA-SA3D-827-U-T4W**

Issue Date: 5/27/2021

Test Information

Test Method: LM-79-08
Report Number: P596738
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-SA3D-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: 14836 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G3

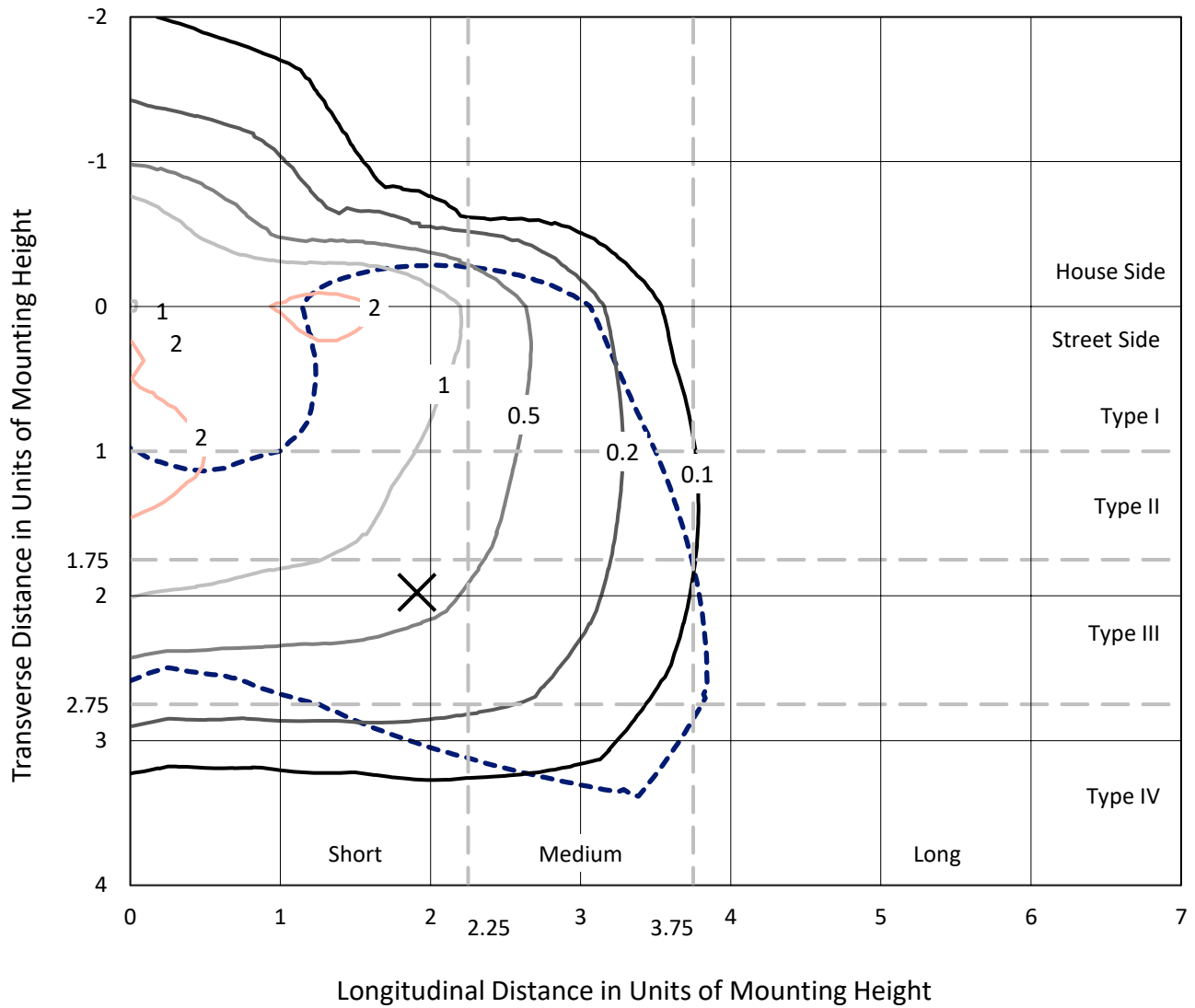
Input Watts (W): 192
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P596738
 CATALOG NUMBER: MSA-SA3D-827-U-T4W

Iso-Footcandle Lines of Horizontal Illumination

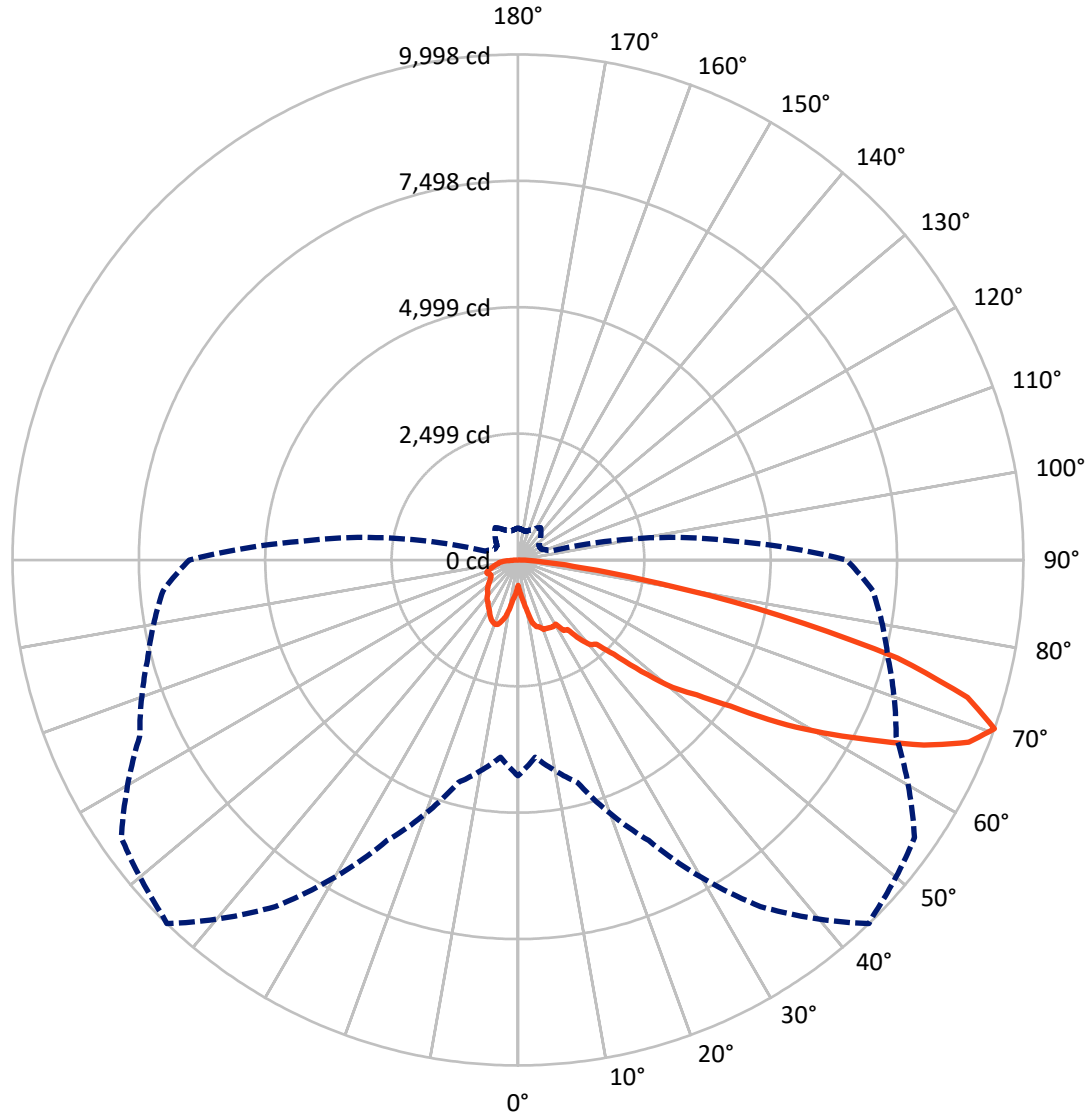
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

REPORT NUMBER: P596738
CATALOG NUMBER: MSA-SA3D-827-U-T4W

Luminous Intensity Polar Plot



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

REPORT NUMBER: P596738
 CATALOG NUMBER: MSA-SA3D-827-U-T4W

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3273.4	0.0	3273.4
	% Fixture	22.1	0.0	22.1
Street Side	Lumens	11562.6	0.0	11562.6
	% Fixture	77.9	0.0	77.9
Total	Lumens	14836.0	0.0	14836.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.1	0.5
10°-20°	364.1	2.5
20°-30°	680.4	4.6
30°-40°	1092.2	7.4
40°-50°	1843.5	12.4
50°-60°	3285.0	22.1
60°-70°	4493.5	30.3
70°-80°	2642.4	17.8
80°-90°	355.8	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°	14836.0	100.0
0°-180°	14836.0	100.0

Coefficient of Utilization

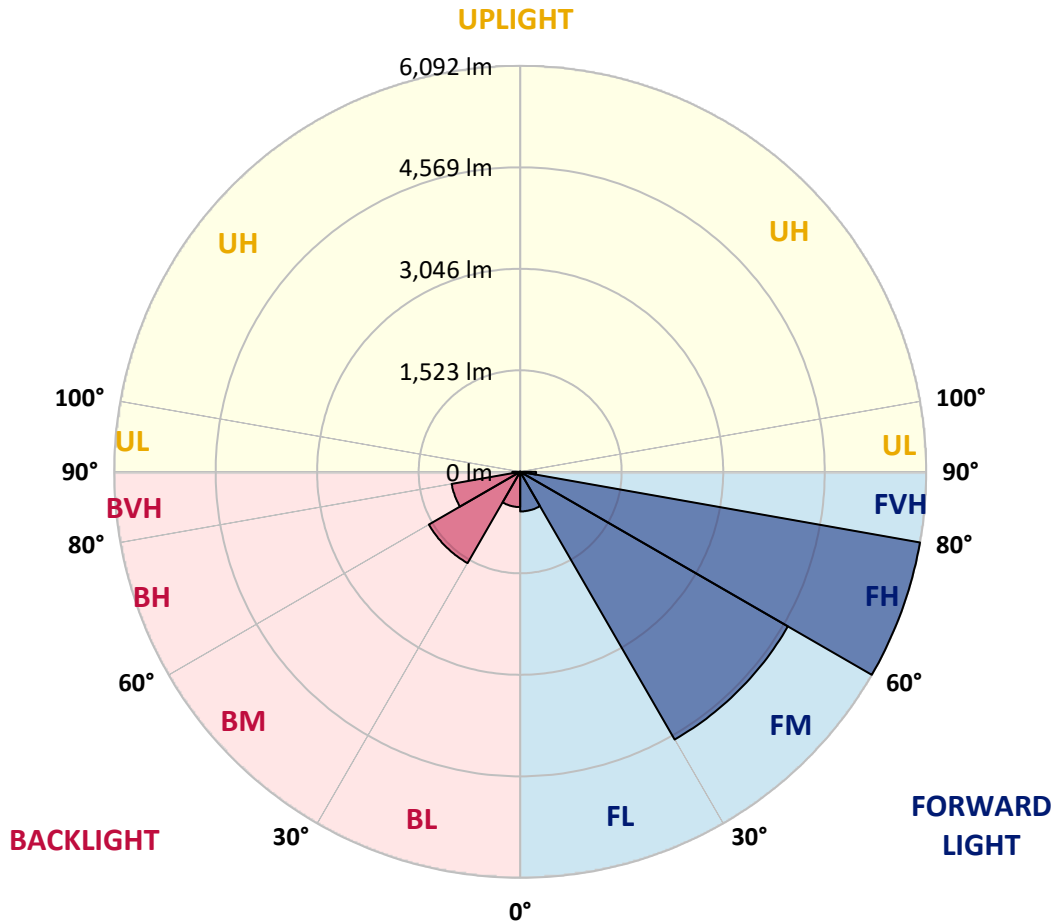


REPORT NUMBER: P596738
 CATALOG NUMBER: MSA-SA3D-827-U-T4W

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	594.5	4.0			
FM (30°-60°)	4638.8	31.3			
FH (60°-80°)	6092.1	41.1			G3/7500
FVH (80°-90°)	237.1	1.6			G3/500
BL (0°-30°)	529.1	3.6	B2/1000		
BM (30°-60°)	1581.9	10.7	B2/2500		
BH (60°-80°)	1043.8	7.0	B3/2500		G3/2500
BVH (80°-90°)	118.7	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3
 Type IV Short





REPORT NUMBER: P596738

CATALOG NUMBER: MSA-SA3D-827-U-T4W

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3
2.5°	612.0	599.8	570.6	580.3	592.5	597.4	596.2	594.9	576.1	569.4	602.8
5°	831.6	804.8	783.5	775.0	747.0	725.1	711.7	747.0	741.5	750.7	773.8
7.5°	1038.4	1021.4	973.3	956.3	899.1	861.4	857.1	885.1	892.4	877.8	917.3
10°	1171.6	1142.4	1132.7	1091.9	1052.4	1046.3	1042.7	1029.9	1012.2	1011.0	975.7
12.5°	1275.0	1290.2	1298.1	1251.3	1252.5	1274.4	1262.9	1211.2	1181.4	1129.0	1133.3
15°	1460.6	1482.5	1419.8	1390.0	1332.8	1365.7	1361.4	1318.2	1314.0	1279.9	1240.4
17.5°	1622.4	1632.1	1527.5	1459.4	1439.9	1392.4	1405.2	1406.4	1350.5	1411.3	1376.0
20°	1635.8	1670.4	1550.0	1414.3	1472.7	1466.7	1468.5	1456.3	1382.7	1483.1	1469.7
22.5°	1701.5	1648.5	1540.3	1441.1	1456.3	1465.4	1474.0	1459.4	1455.1	1511.1	1551.8
25°	1689.3	1672.3	1562.8	1478.8	1480.6	1482.5	1486.7	1530.5	1525.7	1601.7	1623.0
27.5°	1803.1	1776.9	1569.5	1548.8	1501.3	1491.0	1461.8	1553.0	1624.2	1622.4	1739.8
30°	2019.6	1992.8	1725.2	1665.0	1579.2	1473.3	1529.3	1651.0	1706.9	1725.8	1874.8
32.5°	2357.8	2401.6	2031.8	1789.1	1682.6	1659.5	1653.4	1641.2	1779.9	1873.0	2008.7
35°	2843.3	2808.6	2393.1	2054.9	1791.5	1692.3	1705.7	1779.9	1944.8	2005.0	2130.3
37.5°	3399.3	3327.5	2856.1	2356.0	2105.4	1981.3	1936.9	2008.7	2045.2	2092.6	2348.7
40°	3964.4	3789.2	3310.5	2752.0	2294.0	2200.3	2161.4	2073.1	2158.9	2255.0	2580.5
42.5°	4510.1	4374.4	3805.0	3224.7	2611.5	2277.5	2256.2	2169.9	2435.7	2537.3	2915.1
45°	5081.9	4767.4	4311.8	3758.2	3075.7	2656.5	2624.9	2469.8	2810.4	3022.1	3387.1
47.5°	5466.3	5175.0	4775.9	4191.3	3464.4	3290.4	3230.2	2964.9	3274.0	3548.9	4116.5
50°	5830.1	5530.2	5111.1	4665.2	4168.2	3968.1	3839.7	3398.1	3851.3	4299.0	5051.5
52.5°	6350.8	6082.6	5500.4	5142.7	4924.3	4432.2	4336.7	4094.0	4526.5	5130.5	6073.4
55°	6907.4	6541.8	6014.4	5816.1	5727.9	5097.7	5019.8	4865.3	5425.6	5981.6	7066.8
57.5°	7153.2	6771.8	6481.0	6362.4	6355.1	6064.9	5975.5	5867.8	6344.8	6711.6	8001.8
60°	7348.5	6939.1	6822.9	6889.2	7130.1	6939.1	6822.9	6728.0	7093.0	7433.0	8764.6
62.5°	7312.6	6902.0	6961.6	7163.5	7778.6	7834.5	7745.1	7515.2	7834.5	8024.3	9202.0
65°	6733.5	6353.9	6701.2	7180.6	8381.4	8828.5	8823.6	8222.0	8332.7	8332.7	9155.8
67.5°	5718.8	5325.8	5894.6	7030.3	8798.1	9616.3	9617.5	8971.5	8378.4	8301.7	8440.4
70°	4270.4	3914.5	4553.9	6122.7	8368.0	9997.7	9942.3	9576.1	8253.0	7583.3	7050.4
72.5°	2550.7	2320.7	2909.0	4457.1	7138.0	9296.3	9443.5	8879.6	7555.3	6306.4	5039.9
75°	1158.2	1058.5	1366.9	2560.4	5095.9	7754.2	7914.2	7493.9	6001.1	4535.6	2912.6
77.5°	495.8	469.0	596.8	1135.7	2809.8	5302.7	5630.6	5355.6	4066.0	2635.8	1288.4
80°	318.8	301.7	366.8	546.3	1304.8	2865.2	3147.4	3044.6	2071.3	1025.0	453.8
82.5°	190.4	184.9	245.2	343.1	711.7	1261.0	1421.0	1458.7	860.2	459.9	259.8
85°	104.0	105.2	134.4	208.0	427.0	490.9	525.6	571.8	405.1	266.4	125.9
87.5°	34.7	40.1	54.1	84.6	152.1	138.7	139.3	161.8	170.9	110.7	40.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P596738
 CATALOG NUMBER: MSA-SA3D-827-U-T4W

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3	504.3
2.5°	608.3	597.4	569.4	571.2	581.6	584.0	587.0	569.4	565.7	599.2	602.2
5°	777.4	741.5	725.1	719.6	703.8	698.3	727.5	740.9	754.3	780.5	793.2
7.5°	913.1	872.9	843.1	815.8	792.6	779.3	828.5	866.2	889.4	942.9	967.2
10°	975.1	940.5	929.5	907.6	925.3	965.4	974.5	975.7	1026.8	1025.6	1036.0
12.5°	1098.6	1076.1	1040.2	1048.1	1094.4	1135.7	1124.2	1141.8	1160.1	1203.9	1183.8
15°	1211.2	1205.1	1171.6	1177.1	1186.2	1237.9	1244.6	1262.3	1290.2	1324.9	1301.2
17.5°	1349.9	1347.4	1265.9	1258.6	1279.9	1330.4	1314.6	1283.5	1376.0	1413.1	1403.4
20°	1444.1	1425.9	1321.3	1290.2	1344.4	1351.1	1332.8	1283.5	1363.8	1444.8	1466.7
22.5°	1522.6	1501.3	1393.7	1332.8	1321.9	1324.9	1324.9	1315.8	1355.3	1421.6	1421.0
25°	1585.9	1606.0	1469.1	1410.7	1352.3	1279.3	1270.2	1278.1	1300.6	1428.3	1424.1
27.5°	1744.7	1689.3	1494.6	1450.8	1331.0	1216.0	1241.0	1253.1	1260.4	1400.3	1423.5
30°	1848.1	1865.1	1585.9	1474.6	1300.0	1145.5	1154.0	1189.3	1231.8	1397.3	1404.0
32.5°	1987.4	1950.9	1728.2	1435.0	1217.2	1102.9	1087.1	1134.5	1197.8	1348.0	1366.3
35°	2116.9	2160.1	1788.5	1427.7	1159.5	1039.0	1056.0	1072.5	1138.2	1293.3	1314.6
37.5°	2421.1	2322.6	1957.6	1392.4	1111.4	1006.8	988.5	1013.5	1069.4	1189.3	1238.5
40°	2652.3	2658.3	1994.1	1348.0	1019.5	960.5	921.6	946.5	970.3	1065.8	1087.1
42.5°	3086.0	2953.4	2083.5	1250.7	961.7	891.2	869.3	880.2	883.9	924.0	959.3
45°	3637.7	3326.9	2118.8	1119.9	885.7	862.6	818.2	812.7	792.6	798.1	829.1
47.5°	4401.2	3909.7	2093.2	980.6	818.2	825.5	761.6	736.7	708.7	715.4	744.6
50°	5388.5	4654.2	2091.4	862.6	772.0	776.8	724.5	679.5	651.5	665.5	691.0
52.5°	6496.2	5401.3	2099.9	781.7	721.5	719.0	700.2	645.4	622.9	637.5	666.7
55°	7555.9	6043.6	2163.2	730.6	669.1	673.4	680.7	634.5	609.5	622.9	653.3
57.5°	8478.1	6551.0	2139.5	676.4	620.5	640.0	659.4	619.3	600.4	619.9	650.3
60°	9122.9	6786.4	1952.1	624.7	584.6	611.4	649.1	617.4	615.0	657.0	693.5
62.5°	9358.4	6699.4	1587.1	584.0	563.3	607.7	672.8	657.6	660.0	711.7	762.2
65°	9014.7	6241.9	1183.8	557.8	546.9	625.4	727.5	681.3	647.9	690.4	736.7
67.5°	8037.1	5428.6	865.0	535.3	528.0	653.3	778.0	678.9	616.8	660.0	697.7
70°	6502.3	4285.0	669.8	506.7	503.1	634.5	782.9	660.6	583.4	611.4	632.7
72.5°	4455.3	2933.9	554.8	479.4	459.9	562.1	743.4	619.9	543.2	559.7	577.3
75°	2489.8	1646.7	466.6	445.3	402.7	500.6	697.1	595.5	513.4	518.3	542.6
77.5°	1117.5	712.3	396.0	400.3	351.0	442.9	636.9	556.6	467.8	456.8	481.2
80°	422.8	347.3	321.2	338.2	295.0	383.8	574.3	521.3	419.7	405.7	419.7
82.5°	245.2	210.5	238.5	260.4	234.2	352.8	548.1	489.1	369.9	334.6	346.7
85°	113.8	108.9	143.0	169.1	163.6	275.0	469.0	368.0	263.4	222.6	246.4
87.5°	29.8	33.5	50.5	59.6	60.8	94.3	180.7	136.9	102.8	77.9	74.8
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)