

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: P368484

Luminaire Tested: **MSA-SA4C-730-U-T2**

Issue Date: 12/2/2019

Test Information

Test Method: LM-79-08
Report Number: P368484
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-543-8)
Test Lab: INNOVATION CENTER
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: MSA-SA4C-730-U-T2
Description: MESA POST TOP DECORATIVE LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS.
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21856 lumens
Efficiency: N/A
Efficacy: 97.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

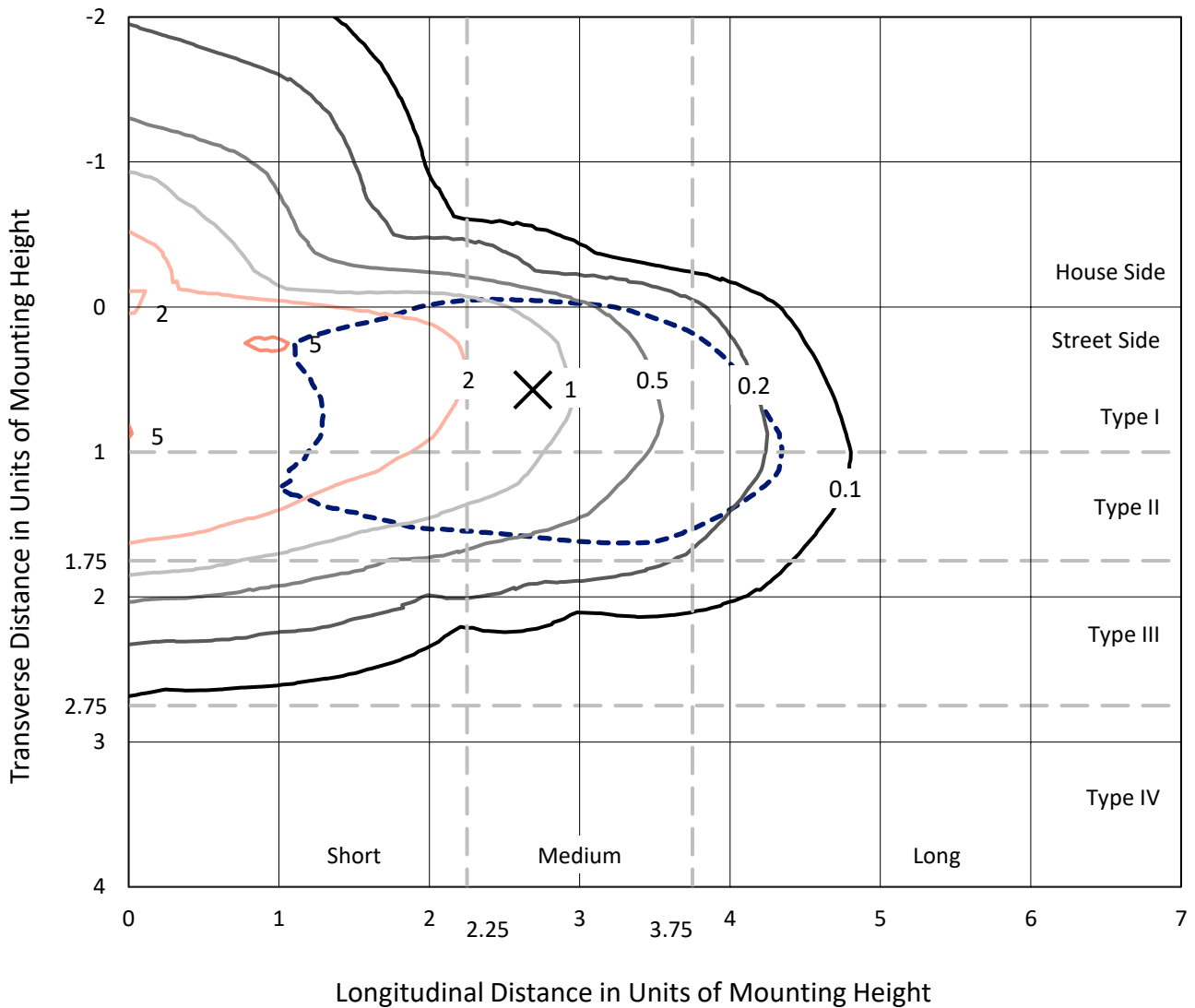
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

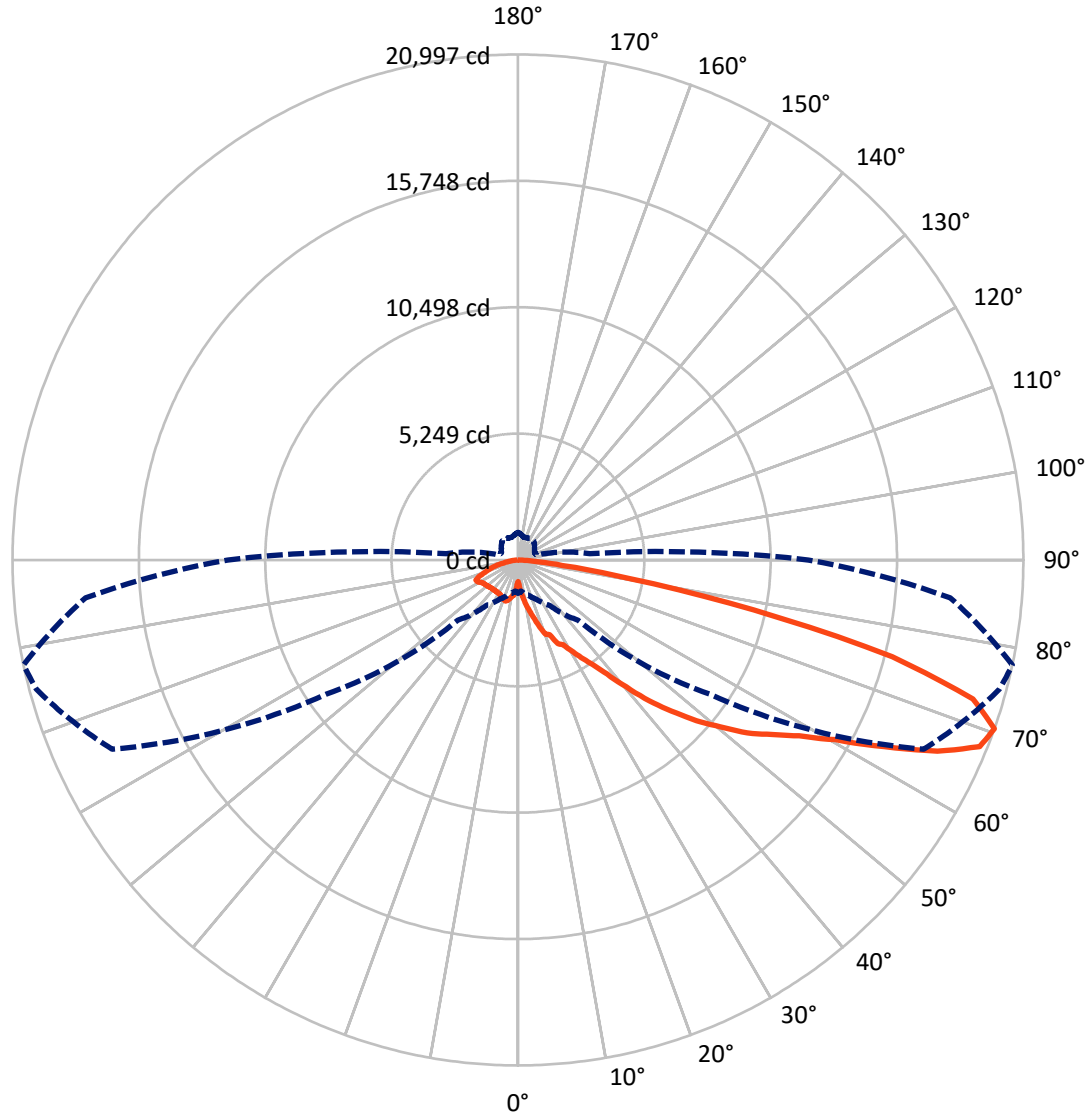
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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	3901.0	0.0	3901.0
	% Fixture	17.8	0.0	17.8
Street Side	Lumens	17955.0	0.0	17955.0
	% Fixture	82.2	0.0	82.2
Total	Lumens	21856.0	0.0	21856.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	0.6
10°-20°	606.7	2.8
20°-30°	1167.9	5.3
30°-40°	1967.1	9.0
40°-50°	3403.6	15.6
50°-60°	5139.0	23.5
60°-70°	5692.1	26.0
70°-80°	3281.7	15.0
80°-90°	460.3	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°	21856.0	100.0
0°-180°	21856.0	100.0

Coefficient of Utilization



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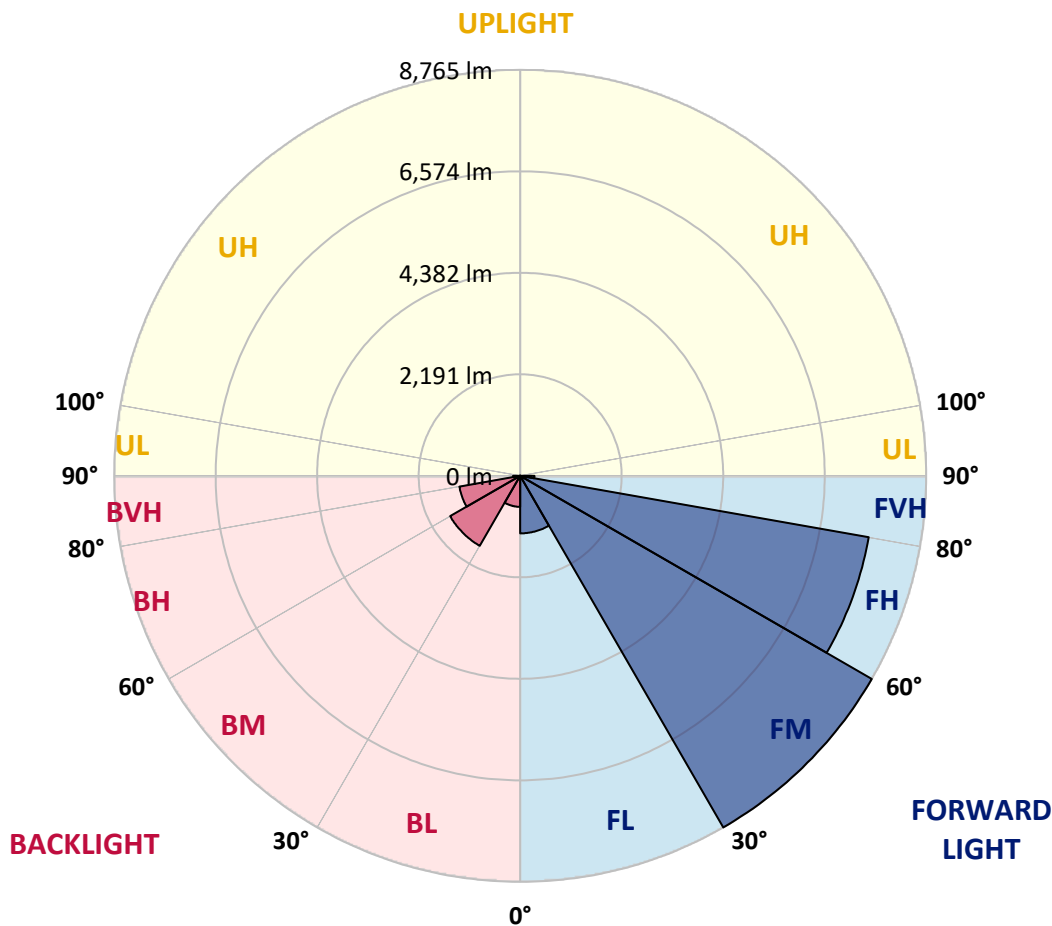
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1242.5	5.7			
FM (30°-60°)	8764.9	40.1			
FH (60°-80°)	7640.6	35.0			G4/12000
FVH (80°-90°)	307.0	1.4			G3/500
BL (0°-30°)	669.8	3.1	B2/1000		
BM (30°-60°)	1744.8	8.0	B2/2500		
BH (60°-80°)	1333.2	6.1	B3/2500		G3/2500
BVH (80°-90°)	153.2	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1
2.5°	1147.1	1106.1	1044.1	1069.7	1100.6	1104.3	1094.3	1037.8	1018.6	1061.5	1074.2
5°	1607.2	1538.0	1496.1	1482.4	1435.9	1339.4	1408.6	1373.1	1380.4	1359.4	1400.4
7.5°	1994.5	1948.0	1886.0	1868.7	1762.1	1686.5	1733.9	1718.4	1643.7	1614.5	1661.0
10°	2191.3	2140.2	2143.0	2105.6	2077.4	2084.7	2061.0	1992.6	1937.0	1897.9	1785.8
12.5°	2309.7	2322.5	2390.8	2371.7	2478.3	2565.7	2499.2	2398.1	2222.2	2186.7	2075.5
15°	2591.2	2638.6	2574.8	2604.0	2649.5	2817.2	2789.9	2768.0	2582.1	2512.9	2307.9
17.5°	2881.0	2890.1	2793.5	2778.0	2887.4	2972.1	3078.7	2955.7	2978.5	2930.2	2598.5
20°	2942.9	3005.8	2867.3	2771.6	2996.7	3164.3	3296.4	3166.2	3286.4	3299.2	2838.2
22.5°	3169.8	3094.2	2912.0	2818.1	3014.9	3220.8	3435.8	3508.7	3470.5	3363.0	3069.6
25°	3327.4	3287.3	3101.5	2997.6	3072.3	3261.8	3639.0	3829.5	3863.2	3848.6	3290.1
27.5°	3619.9	3639.9	3257.3	3286.4	3182.6	3199.9	3761.1	4254.9	4044.5	3986.2	3563.4
30°	4081.8	3992.5	3563.4	3587.1	3414.9	3385.7	4019.0	4622.1	4433.5	4363.4	3788.5
32.5°	4563.8	4572.0	4050.9	3848.6	3756.6	3727.4	3967.9	4814.4	4925.5	4834.4	4128.3
35°	5243.5	5196.1	4579.3	4313.3	3980.7	3929.7	4331.5	5372.0	5576.1	5321.0	4531.9
37.5°	6278.6	6135.5	5417.5	4802.5	4556.5	4498.2	4850.8	5872.2	6331.4	6014.3	5191.6
40°	7109.5	6818.9	6166.5	5417.5	5001.2	5073.1	5219.8	6479.0	7115.0	6936.4	5802.0
42.5°	7771.9	7514.0	6696.8	6170.1	5604.3	5515.0	5675.4	7230.7	8181.0	8006.0	6563.7
45°	8406.9	7882.1	7292.6	6818.9	6274.9	6383.3	6359.6	7997.8	9488.4	8950.0	7237.1
47.5°	9033.8	8540.9	7924.0	7287.2	6739.6	7414.7	7162.3	8568.2	10370.4	9971.3	7945.9
50°	9839.2	9297.1	8594.6	7954.1	7626.1	8119.9	7696.3	9051.1	11358.1	10889.8	8614.7
52.5°	10374.1	9846.5	9230.6	8773.2	8743.1	8552.7	8444.3	9662.5	12223.6	11939.4	9323.5
55°	10311.2	9802.8	9524.0	9574.1	9945.8	9303.5	9215.1	10567.2	13126.6	12797.6	10088.9
57.5°	9523.1	8968.2	9027.4	9324.4	10323.0	10621.9	10471.5	11533.9	13932.0	13782.6	11035.5
60°	7418.4	7133.2	7615.2	8158.2	9818.3	11008.2	12065.1	12712.9	14923.3	15162.0	12522.5
62.5°	4818.9	4438.1	5199.8	6121.8	8312.2	10753.1	13687.8	14948.8	16546.9	17089.0	14782.1
65°	2496.5	2435.4	2968.4	3815.8	5786.5	9168.6	14260.0	17294.0	18520.4	19151.8	16940.5
67.5°	1815.0	1702.0	1948.9	2447.3	3532.4	6252.1	13175.8	19088.0	20104.9	20683.4	18195.1
70°	1382.2	1298.4	1487.0	1795.8	2307.0	3531.5	9726.2	18598.8	20716.2	20996.8	18028.4
72.5°	1035.0	963.1	1128.0	1415.9	1777.6	1988.1	5749.2	15292.3	19673.0	19768.7	16180.6
75°	826.4	770.8	841.9	1117.9	1448.7	1353.0	3054.1	11079.3	15983.8	16065.8	12359.4
77.5°	677.9	630.5	659.7	838.2	1127.1	1017.7	1515.2	7047.5	10148.1	10022.4	6953.7
80°	553.1	512.1	525.7	605.9	858.3	759.9	851.0	3676.4	4840.8	4645.8	2891.9
82.5°	425.5	390.9	418.2	445.5	621.4	545.8	496.6	1672.8	1982.6	1846.8	1060.5
85°	285.2	253.3	363.5	334.4	406.4	335.3	271.5	666.0	738.9	688.8	372.6
87.5°	78.4	73.8	122.1	166.7	166.7	126.6	99.3	161.3	205.9	180.4	87.5
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°	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1	891.1
2.5°	1079.7	1059.6	1006.8	1002.2	1015.0	1016.8	1008.6	989.5	979.5	1034.1	1025.9
5°	1390.4	1319.3	1276.5	1237.3	1182.6	1143.5	1153.5	1180.8	1189.9	1230.9	1235.5
7.5°	1631.8	1538.0	1444.1	1318.4	1235.5	1182.6	1222.7	1251.9	1274.7	1333.0	1356.7
10°	1736.6	1634.6	1501.5	1369.4	1346.6	1355.8	1333.0	1340.3	1375.8	1378.5	1390.4
12.5°	1931.6	1815.9	1576.2	1456.9	1450.5	1469.6	1461.4	1495.2	1519.8	1586.3	1558.0
15°	2118.4	1970.8	1632.7	1510.6	1484.2	1522.5	1567.1	1623.6	1676.5	1739.3	1707.4
17.5°	2345.2	2122.9	1635.5	1486.0	1490.6	1572.6	1619.1	1650.0	1807.7	1894.2	1850.5
20°	2488.3	2138.4	1574.4	1425.0	1490.6	1564.4	1629.1	1662.8	1839.6	1969.8	1999.9
22.5°	2617.7	2143.9	1527.0	1392.2	1434.1	1531.6	1629.1	1703.8	1816.8	1941.6	1946.2
25°	2688.7	2139.3	1466.0	1394.9	1433.2	1481.5	1568.0	1636.4	1720.2	1894.2	1898.8
27.5°	2871.0	2080.1	1405.9	1405.9	1425.9	1427.7	1538.0	1578.1	1589.9	1748.4	1776.7
30°	2923.8	2092.9	1398.6	1404.0	1414.1	1395.8	1444.1	1470.6	1487.9	1624.5	1629.1
32.5°	3008.5	1990.8	1420.4	1387.6	1374.9	1372.2	1384.0	1407.7	1415.0	1498.8	1514.3
35°	3111.5	1949.8	1427.7	1383.1	1357.6	1343.9	1379.4	1350.3	1373.1	1471.5	1482.4
37.5°	3446.8	1893.3	1465.1	1383.1	1350.3	1334.8	1317.5	1331.2	1412.2	1507.0	1565.3
40°	3660.9	1910.6	1456.0	1396.8	1325.7	1311.1	1282.0	1332.1	1457.8	1625.4	1669.2
42.5°	4036.3	1920.6	1466.9	1390.4	1333.9	1277.4	1296.5	1351.2	1483.3	1579.0	1646.4
45°	4424.4	1951.6	1459.6	1371.2	1315.7	1342.1	1315.7	1364.9	1427.7	1430.5	1481.5
47.5°	4805.3	2076.5	1444.1	1332.1	1311.1	1380.4	1312.9	1321.1	1325.7	1342.1	1402.2
50°	5252.6	2209.5	1422.3	1277.4	1317.5	1382.2	1323.0	1282.9	1278.3	1332.1	1399.5
52.5°	5761.0	2359.8	1394.0	1224.6	1280.1	1364.9	1357.6	1285.6	1246.4	1298.4	1365.8
55°	6359.6	2531.1	1361.2	1171.7	1239.1	1366.7	1376.7	1266.5	1247.3	1303.8	1375.8
57.5°	7155.1	2778.9	1297.4	1095.2	1189.0	1338.4	1327.5	1244.6	1226.4	1286.5	1361.2
60°	8512.6	3255.4	1206.3	1019.5	1135.3	1269.2	1287.4	1205.4	1187.2	1253.7	1332.1
62.5°	10330.3	3828.5	1096.1	945.7	1069.7	1194.5	1237.3	1148.9	1147.1	1231.8	1313.8
65°	12022.3	4153.8	982.2	878.3	1002.2	1125.2	1180.8	1096.1	1099.7	1206.3	1288.3
67.5°	12725.7	3771.1	880.1	818.2	924.8	1046.0	1134.3	1055.1	1043.2	1171.7	1247.3
70°	12065.1	2995.8	791.8	754.4	837.3	960.3	1069.7	1000.4	973.1	1089.7	1148.9
72.5°	10675.6	2497.4	708.9	679.7	760.8	870.1	982.2	926.6	891.1	980.4	1033.2
75°	8345.0	2049.1	614.1	605.9	673.3	788.1	891.1	852.8	807.3	863.7	916.6
77.5°	4751.5	1296.5	515.7	521.2	569.5	690.6	781.7	751.7	705.2	728.9	789.9
80°	1901.5	654.2	414.6	418.2	459.2	567.6	647.8	636.9	588.6	607.7	649.6
82.5°	710.7	359.0	306.1	308.0	349.0	449.2	553.1	547.6	502.0	488.4	512.1
85°	282.4	177.7	187.7	195.9	235.1	323.4	443.7	393.6	339.8	297.9	312.5
87.5°	67.4	56.5	65.6	69.2	76.5	101.1	162.2	130.3	133.9	107.5	80.2
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)