

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: LUMARK

Report Number: P196411

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196411
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-5MQ-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6903 lumens
Efficiency: N/A
Efficacy: 103.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G1

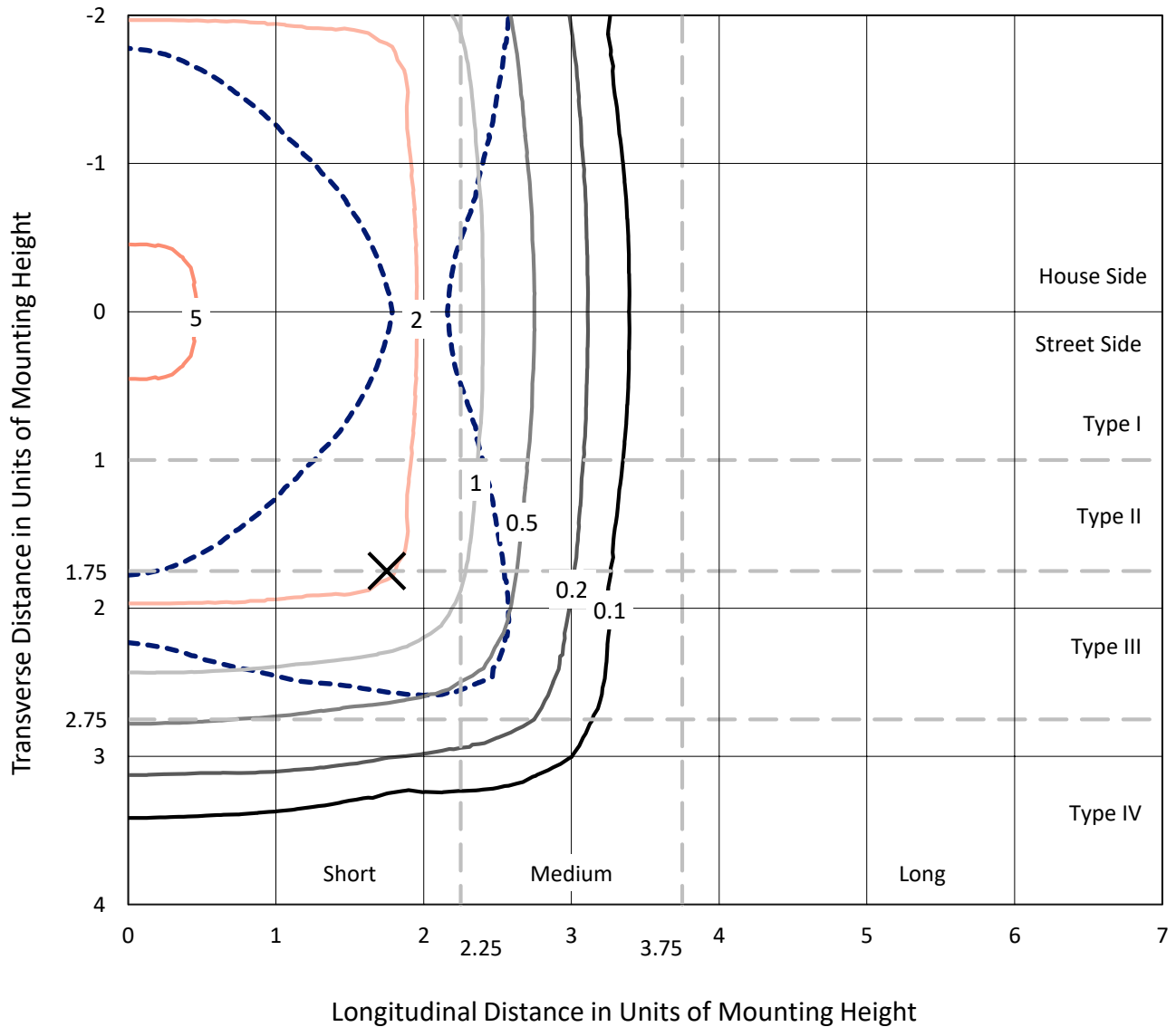
Input Watts (W): 67
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

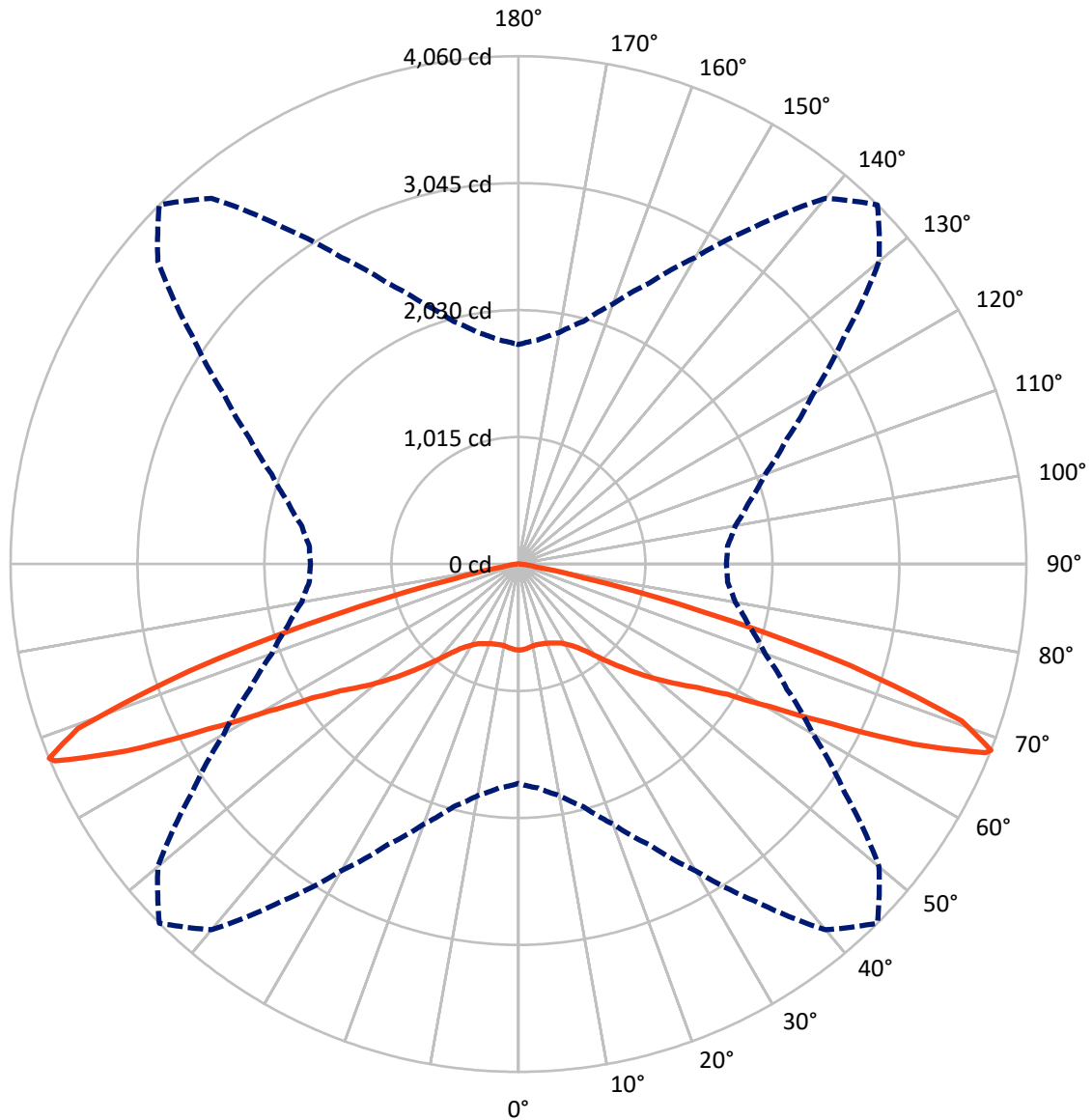
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3451.5	0.0	3451.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3451.5	0.0	3451.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	6903.0	0.0	6903.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	0.9
10°-20°	186.9	2.7
20°-30°	317.7	4.6
30°-40°	519.9	7.5
40°-50°	929.1	13.5
50°-60°	1569.2	22.7
60°-70°	2433.2	35.2
70°-80°	836.6	12.1
80°-90°	46.0	0.7
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°	6903.0	100.0
0°-180°	6903.0	100.0

Coefficient of Utilization



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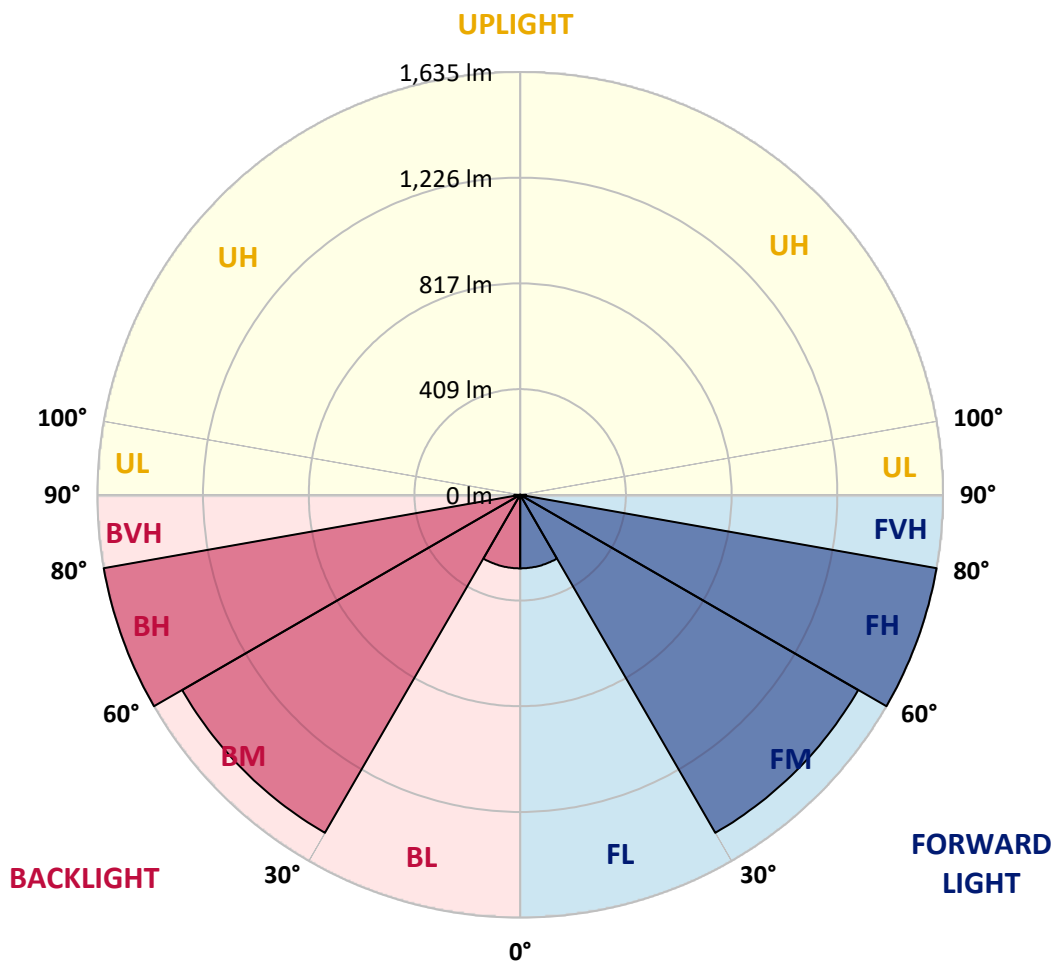
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	284.5	4.1			
FM	(30°-60°)	1509.1	21.9			
FH	(60°-80°)	1634.9	23.7			G1/1800
FVH	(80°-90°)	23.0	0.3			G1/100
BL	(0°-30°)	284.5	4.1	B1/500		
BM	(30°-60°)	1509.1	21.9	B2/2500		
BH	(60°-80°)	1634.9	23.7	B3/2500		G1/1800
BVH	(80°-90°)	23.0	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	688.6	688.6	688.6	688.6	688.6	688.6	688.6	688.6	688.6	688.6	688.6
2.5°	691.5	691.5	692.3	691.9	690.7	689.4	688.3	686.9	686.0	685.2	684.4
5°	684.4	684.4	685.6	684.8	684.0	682.7	681.8	680.5	679.7	678.8	679.3
7.5°	675.1	675.9	676.8	676.4	674.6	674.2	672.9	672.5	671.7	670.5	670.9
10°	667.0	667.5	668.3	667.9	667.5	666.2	665.7	665.4	665.0	663.2	662.7
12.5°	659.1	659.8	660.7	661.1	660.7	661.1	661.6	662.0	661.6	660.7	660.7
15°	652.8	653.5	654.8	656.0	656.4	659.1	660.7	662.4	663.6	664.1	662.7
17.5°	649.3	650.5	652.3	654.8	656.8	659.8	662.7	665.4	667.5	667.9	666.6
20°	648.9	650.1	652.8	655.7	659.4	663.2	667.9	671.7	673.8	675.1	673.8
22.5°	651.8	653.5	656.8	660.7	665.4	670.5	676.4	680.5	684.8	686.4	685.2
25°	660.3	662.0	665.7	670.5	675.4	681.8	687.8	693.2	697.5	699.6	697.9
27.5°	678.1	678.5	682.7	687.8	693.7	699.1	706.8	709.3	712.7	714.8	712.7
30°	703.0	703.8	707.6	715.6	721.1	728.3	732.6	735.1	738.9	741.0	738.5
32.5°	741.0	741.9	745.2	752.8	757.9	763.4	768.5	770.2	774.0	776.5	773.5
35°	794.7	796.4	799.3	804.3	808.6	812.9	816.7	815.4	818.0	821.3	818.4
37.5°	868.3	867.8	868.7	872.4	876.7	879.2	885.1	882.2	884.8	887.7	886.0
40°	954.1	954.1	953.7	960.4	962.1	964.6	971.0	967.2	970.6	973.9	971.0
42.5°	1051.7	1053.4	1055.6	1061.0	1065.6	1066.5	1069.4	1067.8	1072.0	1075.0	1072.0
45°	1164.1	1166.7	1169.2	1181.8	1184.1	1185.7	1187.8	1182.3	1187.0	1189.5	1188.6
47.5°	1280.8	1285.4	1291.0	1304.0	1312.5	1316.3	1318.0	1311.6	1312.1	1315.9	1316.3
50°	1412.7	1417.7	1423.2	1438.1	1446.0	1452.8	1455.0	1447.8	1448.7	1451.6	1452.4
52.5°	1534.4	1540.3	1552.1	1572.0	1583.5	1595.3	1596.2	1587.3	1591.1	1593.2	1591.5
55°	1648.9	1656.6	1672.2	1698.9	1719.6	1742.8	1753.4	1743.7	1743.7	1742.0	1741.1
57.5°	1782.6	1791.0	1807.0	1838.0	1866.7	1900.1	1928.9	1938.6	1956.3	1962.2	1952.9
60°	1983.8	1992.7	2009.2	2049.7	2086.1	2134.7	2182.0	2220.4	2283.1	2316.9	2286.5
62.5°	2167.7	2181.2	2220.0	2291.0	2369.8	2459.8	2564.2	2638.6	2752.2	2808.9	2732.3
65°	2125.8	2153.3	2229.3	2341.0	2503.2	2698.6	2911.2	3115.4	3350.4	3470.8	3315.4
67.5°	1857.0	1880.3	1962.2	2092.0	2294.5	2563.8	2894.3	3317.0	3801.9	4027.7	3752.4
68°	1754.2	1797.8	1879.4	2008.3	2212.5	2477.1	2830.1	3286.5	3815.8	4059.7	3762.6
70°	1345.1	1360.8	1439.0	1554.8	1774.9	2034.5	2390.8	2911.2	3509.3	3760.3	3454.8
72.5°	639.1	648.5	699.1	813.3	953.2	1164.6	1479.1	1969.8	2508.8	2770.0	2465.2
75°	234.2	236.3	248.1	275.3	327.6	407.1	558.0	863.1	1277.9	1523.8	1282.9
77.5°	126.4	126.8	131.4	138.2	147.5	158.1	181.0	242.7	391.4	532.6	413.4
80°	79.4	79.0	83.7	89.1	95.5	100.6	102.7	110.0	123.9	145.0	133.2
82.5°	40.5	44.4	54.9	60.8	70.2	71.9	69.7	69.3	73.5	79.4	82.1
85°	22.4	19.8	29.2	38.9	42.3	43.4	43.9	41.4	40.5	39.8	41.8
87.5°	11.4	10.6	12.7	19.4	20.8	16.9	17.4	14.7	10.2	10.2	10.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	688.6	688.6	688.6	688.6	688.6	688.6	688.6	688.6
2.5°	683.5	684.0	683.1	683.1	683.1	683.5	683.1	682.7
5°	678.1	678.8	678.8	679.3	679.7	679.7	679.7	679.7
7.5°	670.0	670.5	671.3	671.3	671.3	671.3	671.3	671.3
10°	662.4	661.6	661.1	660.3	660.3	659.1	659.4	659.8
12.5°	658.7	656.8	656.0	654.8	653.9	652.8	652.8	653.1
15°	660.3	657.7	655.2	654.4	653.5	652.8	651.8	652.3
17.5°	663.6	660.7	657.7	656.0	654.4	653.1	652.8	653.1
20°	670.9	666.6	662.0	659.1	655.7	654.8	653.5	654.8
22.5°	680.5	675.4	669.5	664.1	660.3	658.7	656.8	658.2
25°	692.3	686.9	681.0	674.6	670.5	669.1	667.0	667.0
27.5°	708.9	704.2	699.1	693.2	689.0	687.8	684.4	684.4
30°	735.1	730.4	725.8	720.7	716.5	715.2	710.9	710.9
32.5°	769.7	764.7	761.7	757.5	754.1	752.0	746.9	746.5
35°	816.2	811.6	811.1	808.2	804.8	805.2	800.3	799.3
37.5°	883.1	879.2	880.5	878.0	875.0	877.6	874.6	874.6
40°	968.5	967.2	968.5	966.7	967.2	967.6	965.1	965.9
42.5°	1071.7	1068.2	1075.7	1075.0	1073.7	1077.1	1071.2	1066.9
45°	1190.4	1189.1	1196.7	1197.9	1195.4	1197.6	1187.0	1186.5
47.5°	1319.3	1319.3	1326.1	1325.2	1322.7	1323.1	1310.4	1302.4
50°	1453.7	1452.8	1459.6	1457.9	1454.6	1454.1	1441.0	1432.9
52.5°	1593.6	1593.6	1603.4	1598.7	1590.7	1586.9	1570.8	1560.2
55°	1748.3	1746.2	1749.1	1734.0	1718.3	1706.9	1687.1	1679.0
57.5°	1944.0	1919.5	1898.4	1878.9	1857.0	1843.4	1820.2	1811.7
60°	2221.8	2156.2	2128.0	2089.0	2052.7	2034.5	2003.6	1987.2
62.5°	2606.4	2497.7	2420.8	2335.1	2252.2	2193.8	2147.0	2126.1
65°	3051.2	2814.4	2618.7	2434.9	2278.8	2155.0	2086.1	2064.6
67.5°	3220.2	2785.7	2448.0	2184.1	1994.7	1847.2	1764.9	1747.5
68°	3184.3	2719.7	2368.8	2098.8	1908.5	1759.7	1677.7	1662.1
70°	2808.9	2294.5	1924.2	1655.4	1477.8	1336.2	1278.3	1253.3
72.5°	1914.9	1473.6	1130.3	904.2	771.5	681.8	628.6	610.4
75°	881.4	595.6	397.8	297.1	252.4	230.7	214.3	210.1
77.5°	257.0	186.9	160.6	148.8	140.0	132.3	126.8	126.4
80°	122.2	114.5	111.2	103.6	95.5	88.4	83.2	84.1
82.5°	82.1	79.9	79.9	72.3	59.6	51.2	42.3	38.0
85°	43.4	45.3	47.7	45.3	39.4	29.2	19.0	20.8
87.5°	14.7	16.9	17.7	17.4	15.7	11.8	8.8	8.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)