

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: P194965

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P194965
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-7060
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6506 lumens
Efficiency: N/A
Efficacy: 110.3 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

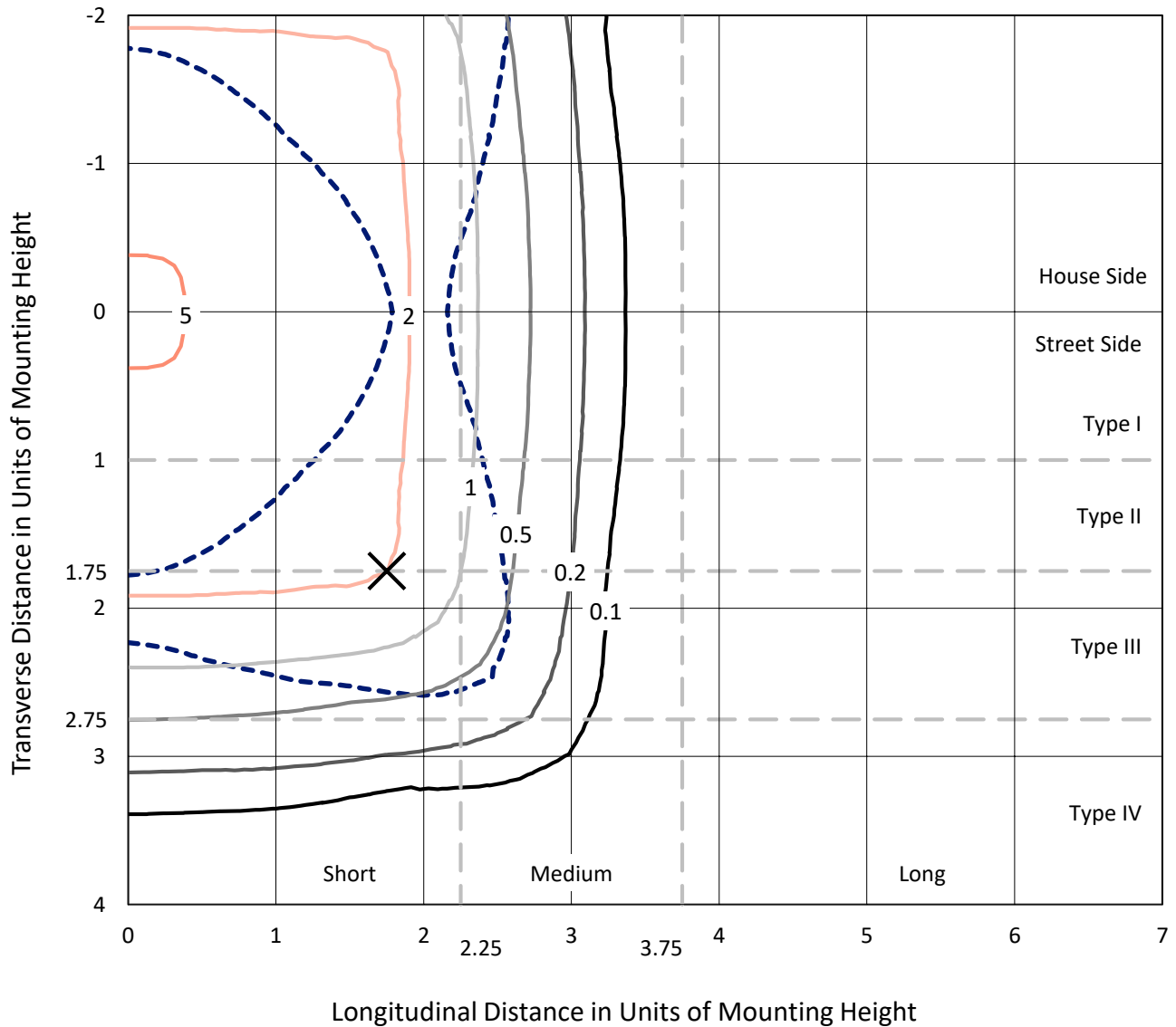
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

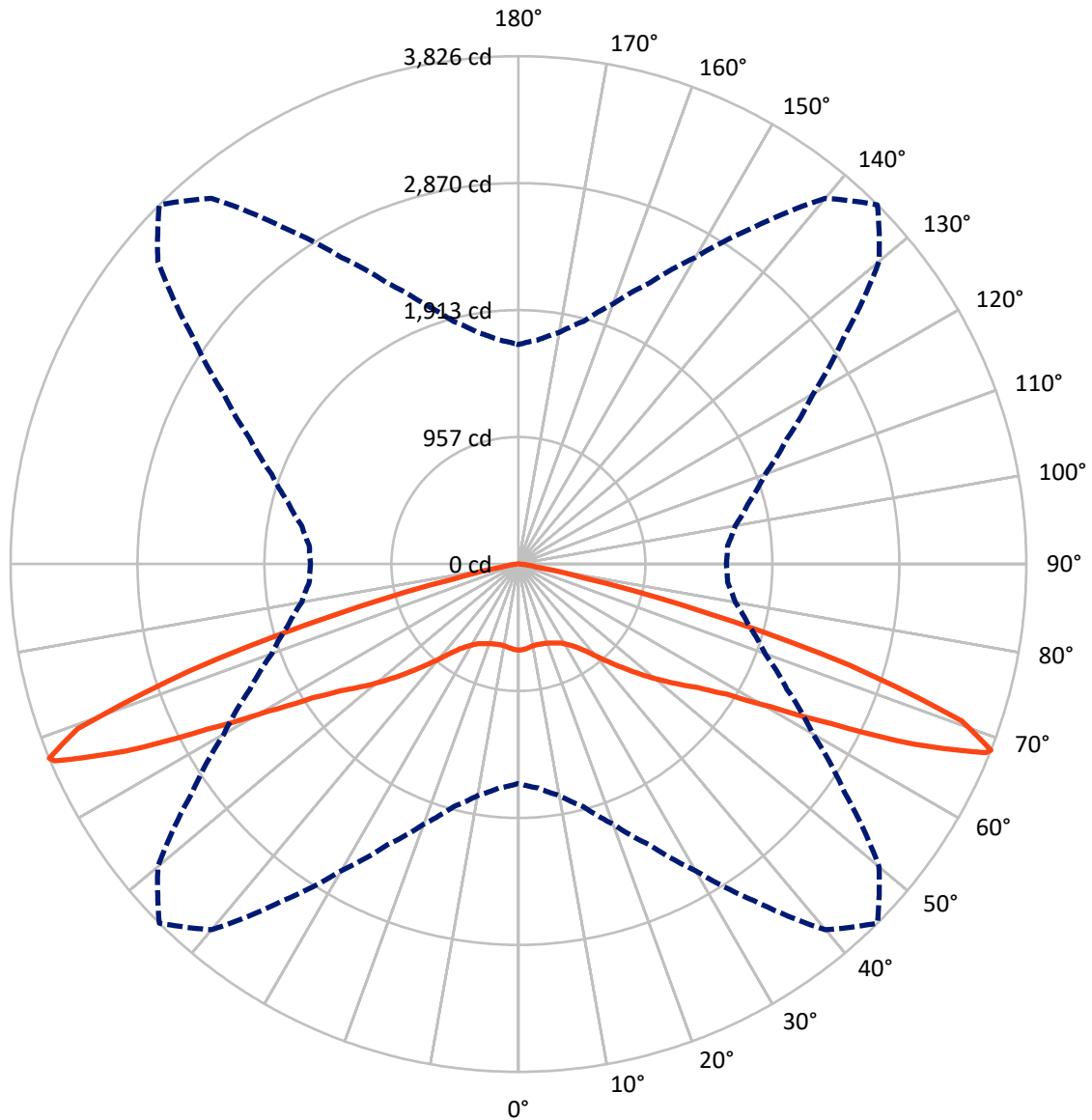
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.5 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	3253.0	0.0	3253.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3253.0	0.0	3253.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	6506.0	0.0	6506.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.7	0.9
10°-20°	176.1	2.7
20°-30°	299.4	4.6
30°-40°	490.0	7.5
40°-50°	875.7	13.5
50°-60°	1478.9	22.7
60°-70°	2293.3	35.2
70°-80°	788.5	12.1
80°-90°	43.3	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°	6506.0	100.0
0°-180°	6506.0	100.0



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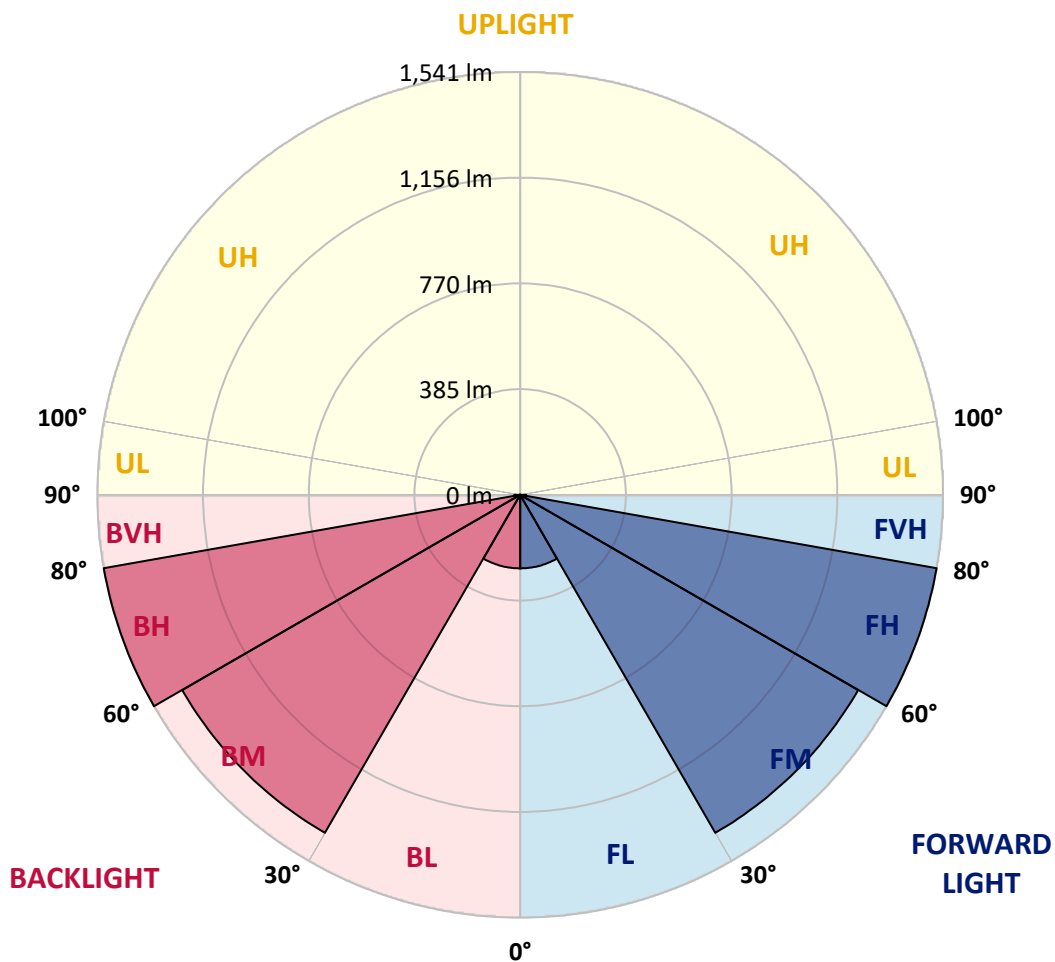
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	268.1	4.1			
FM	(30°-60°)	1422.3	21.9			
FH	(60°-80°)	1540.9	23.7			G1/1800
FVH	(80°-90°)	21.7	0.3			G1/100
BL	(0°-30°)	268.1	4.1	B1/500		
BM	(30°-60°)	1422.3	21.9	B2/2500		
BH	(60°-80°)	1540.9	23.7	B3/2500		G1/1800
BVH	(80°-90°)	21.7	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°	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
2.5°	651.8	651.8	652.6	652.2	651.0	649.8	648.6	647.4	646.6	645.8	645.0
5°	645.0	645.0	646.2	645.4	644.6	643.4	642.6	641.4	640.6	639.8	640.2
7.5°	636.2	637.0	637.8	637.4	635.8	635.4	634.3	633.9	633.1	631.9	632.3
10°	628.7	629.1	629.9	629.5	629.1	627.9	627.5	627.1	626.7	625.1	624.7
12.5°	621.1	621.9	622.7	623.1	622.7	623.1	623.5	623.9	623.5	622.7	622.7
15°	615.1	615.9	617.1	618.3	618.7	621.1	622.7	624.3	625.5	625.9	624.7
17.5°	611.9	613.1	614.7	617.1	619.1	621.9	624.7	627.1	629.1	629.5	628.3
20°	611.5	612.7	615.1	617.9	621.5	625.1	629.5	633.1	635.0	636.2	635.0
22.5°	614.3	615.9	619.1	622.7	627.1	631.9	637.4	641.4	645.4	647.0	645.8
25°	622.3	623.9	627.5	631.9	636.6	642.6	648.2	653.4	657.4	659.4	657.8
27.5°	639.0	639.4	643.4	648.2	653.8	659.0	666.1	668.5	671.7	673.7	671.7
30°	662.5	663.3	666.9	674.5	679.7	686.4	690.4	692.8	696.4	698.4	696.0
32.5°	698.4	699.2	702.4	709.5	714.3	719.5	724.3	725.9	729.5	731.9	729.1
35°	749.0	750.6	753.4	758.2	762.1	766.1	769.7	768.5	770.9	774.1	771.3
37.5°	818.3	817.9	818.7	822.3	826.3	828.7	834.2	831.5	833.9	836.6	835.0
40°	899.2	899.2	898.8	905.2	906.8	909.1	915.1	911.5	914.7	917.9	915.1
42.5°	991.2	992.8	994.8	1000.0	1004.4	1005.2	1008.0	1006.4	1010.3	1013.1	1010.3
45°	1097.2	1099.6	1102.0	1113.9	1115.9	1117.5	1119.5	1114.3	1118.7	1121.1	1120.3
47.5°	1207.2	1211.5	1216.7	1229.1	1237.0	1240.6	1242.2	1236.2	1236.6	1240.2	1240.6
50°	1331.5	1336.2	1341.4	1355.4	1362.9	1369.3	1371.3	1364.5	1365.3	1368.1	1368.9
52.5°	1446.2	1451.8	1462.9	1481.6	1492.4	1503.6	1504.4	1496.0	1499.6	1501.6	1500.0
55°	1554.2	1561.3	1576.1	1601.2	1620.7	1642.6	1652.6	1643.4	1643.4	1641.8	1641.0
57.5°	1680.1	1688.0	1703.2	1732.2	1759.3	1790.8	1817.9	1827.1	1843.8	1849.4	1840.6
60°	1869.7	1878.1	1893.6	1931.8	1966.1	2011.9	2056.5	2092.8	2151.8	2183.6	2154.9
62.5°	2043.0	2055.7	2092.4	2159.3	2233.4	2318.3	2416.7	2486.8	2594.0	2647.4	2575.3
65°	2003.6	2029.4	2101.2	2206.3	2359.3	2543.4	2743.8	2936.2	3157.7	3271.3	3124.6
67.5°	1750.2	1772.1	1849.4	1971.7	2162.5	2416.3	2727.8	3126.2	3583.2	3796.0	3536.6
68°	1653.4	1694.4	1771.3	1892.8	2085.2	2334.6	2667.3	3097.6	3596.4	3826.2	3546.2
70°	1267.7	1282.4	1356.2	1465.3	1672.9	1917.5	2253.3	2743.8	3307.5	3544.2	3256.1
72.5°	602.4	611.1	659.0	766.5	898.4	1097.6	1394.0	1856.5	2364.5	2610.7	2323.5
75°	220.7	222.7	233.9	259.4	308.8	383.7	525.9	813.5	1204.4	1436.2	1209.1
77.5°	119.1	119.5	123.9	130.3	139.0	149.0	170.5	228.7	368.9	502.0	389.6
80°	74.9	74.5	78.9	84.1	90.0	94.8	96.8	103.6	116.7	136.7	125.5
82.5°	38.2	41.8	51.8	57.4	66.1	67.7	65.7	65.3	69.3	74.9	77.3
85°	21.1	18.7	27.5	36.7	39.8	41.0	41.4	39.0	38.2	37.4	39.4
87.5°	10.8	10.0	12.0	18.3	19.5	15.9	16.3	13.9	9.6	9.6	10.0
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°	649.0	649.0	649.0	649.0	649.0	649.0	649.0	649.0
2.5°	644.2	644.6	643.8	643.8	643.8	644.2	643.8	643.4
5°	639.0	639.8	639.8	640.2	640.6	640.6	640.6	640.6
7.5°	631.5	631.9	632.7	632.7	632.7	632.7	632.7	632.7
10°	624.3	623.5	623.1	622.3	622.3	621.1	621.5	621.9
12.5°	620.7	619.1	618.3	617.1	616.3	615.1	615.1	615.5
15°	622.3	619.9	617.5	616.7	615.9	615.1	614.3	614.7
17.5°	625.5	622.7	619.9	618.3	616.7	615.5	615.1	615.5
20°	632.3	628.3	623.9	621.1	617.9	617.1	615.9	617.1
22.5°	641.4	636.6	631.1	625.9	622.3	620.7	619.1	620.3
25°	652.6	647.4	641.8	635.8	631.9	630.7	628.7	628.7
27.5°	668.1	663.7	659.0	653.4	649.4	648.2	645.0	645.0
30°	692.8	688.4	684.1	679.3	675.3	674.1	670.1	670.1
32.5°	725.5	720.7	717.9	713.9	710.7	708.8	704.0	703.6
35°	769.3	764.9	764.5	761.7	758.6	759.0	754.2	753.4
37.5°	832.3	828.7	829.9	827.5	824.7	827.1	824.3	824.3
40°	912.7	911.5	912.7	911.1	911.5	911.9	909.5	910.3
42.5°	1009.9	1006.8	1013.9	1013.1	1011.9	1015.1	1009.5	1005.6
45°	1121.9	1120.7	1127.9	1129.1	1126.7	1128.7	1118.7	1118.3
47.5°	1243.4	1243.4	1249.8	1249.0	1246.6	1247.0	1235.0	1227.5
50°	1370.1	1369.3	1375.7	1374.1	1370.9	1370.5	1358.1	1350.6
52.5°	1502.0	1502.0	1511.1	1506.7	1499.2	1495.6	1480.5	1470.5
55°	1647.8	1645.8	1648.6	1634.2	1619.5	1608.7	1590.0	1582.4
57.5°	1832.2	1809.1	1789.2	1770.9	1750.2	1737.4	1715.5	1707.5
60°	2094.0	2032.2	2005.5	1968.9	1934.6	1917.5	1888.4	1872.9
62.5°	2456.5	2354.1	2281.6	2200.8	2122.7	2067.7	2023.5	2003.9
65°	2875.6	2652.5	2468.1	2294.8	2147.8	2031.0	1966.1	1945.8
67.5°	3035.0	2625.5	2307.1	2058.5	1880.0	1741.0	1663.3	1647.0
68°	3001.1	2563.3	2232.6	1978.1	1798.8	1658.5	1581.2	1566.5
70°	2647.4	2162.5	1813.5	1560.1	1392.8	1259.3	1204.8	1181.3
72.5°	1804.7	1388.8	1065.3	852.2	727.1	642.6	592.4	575.3
75°	830.7	561.3	374.9	280.1	237.8	217.5	202.0	198.0
77.5°	242.2	176.1	151.4	140.2	131.9	124.7	119.5	119.1
80°	115.1	108.0	104.8	97.6	90.0	83.3	78.5	79.3
82.5°	77.3	75.3	75.3	68.1	56.2	48.2	39.8	35.9
85°	41.0	42.6	45.0	42.6	37.1	27.5	17.9	19.5
87.5°	13.9	15.9	16.7	16.3	14.7	11.2	8.4	8.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)