

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: P196405

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196405
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 6292.2 lumens
Efficiency: N/A
Efficacy: 106.6 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

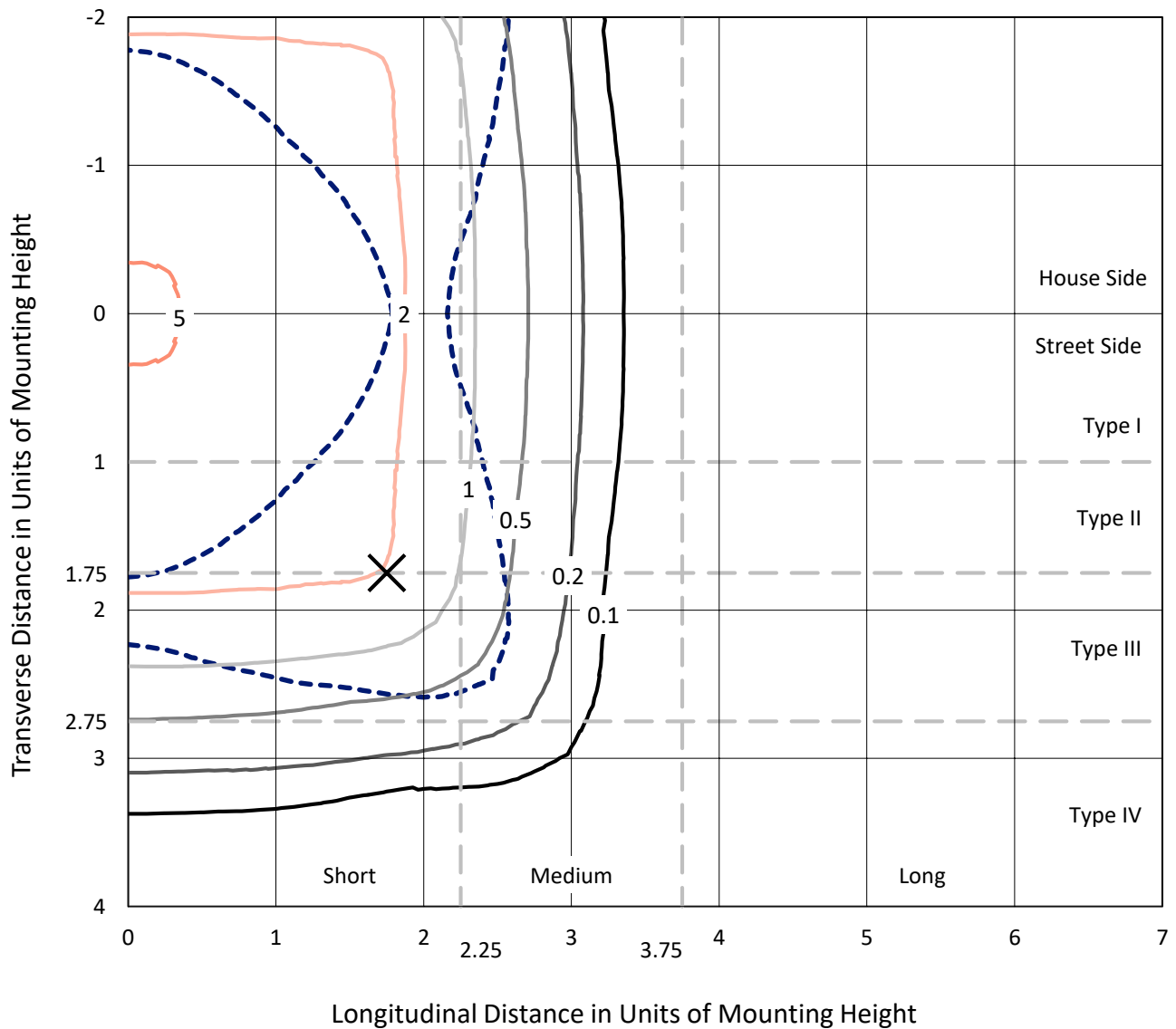
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

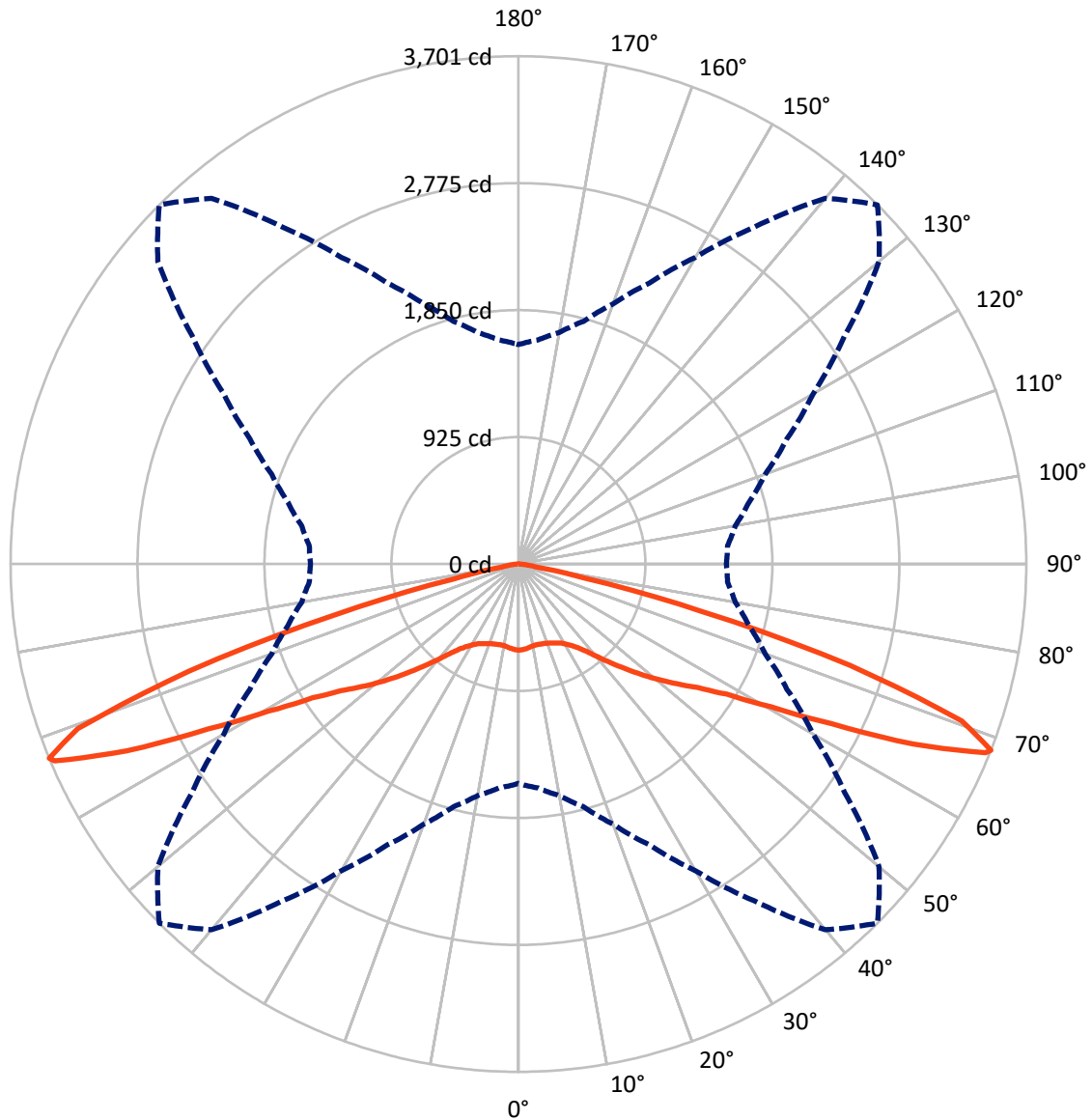
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 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	3146.1	0.0	3146.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	3146.1	0.0	3146.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	6292.2	0.0	6292.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	0.9
10°-20°	170.3	2.7
20°-30°	289.6	4.6
30°-40°	473.9	7.5
40°-50°	846.9	13.5
50°-60°	1430.3	22.7
60°-70°	2217.9	35.2
70°-80°	762.6	12.1
80°-90°	41.9	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°	6292.2	100.0
0°-180°	6292.2	100.0



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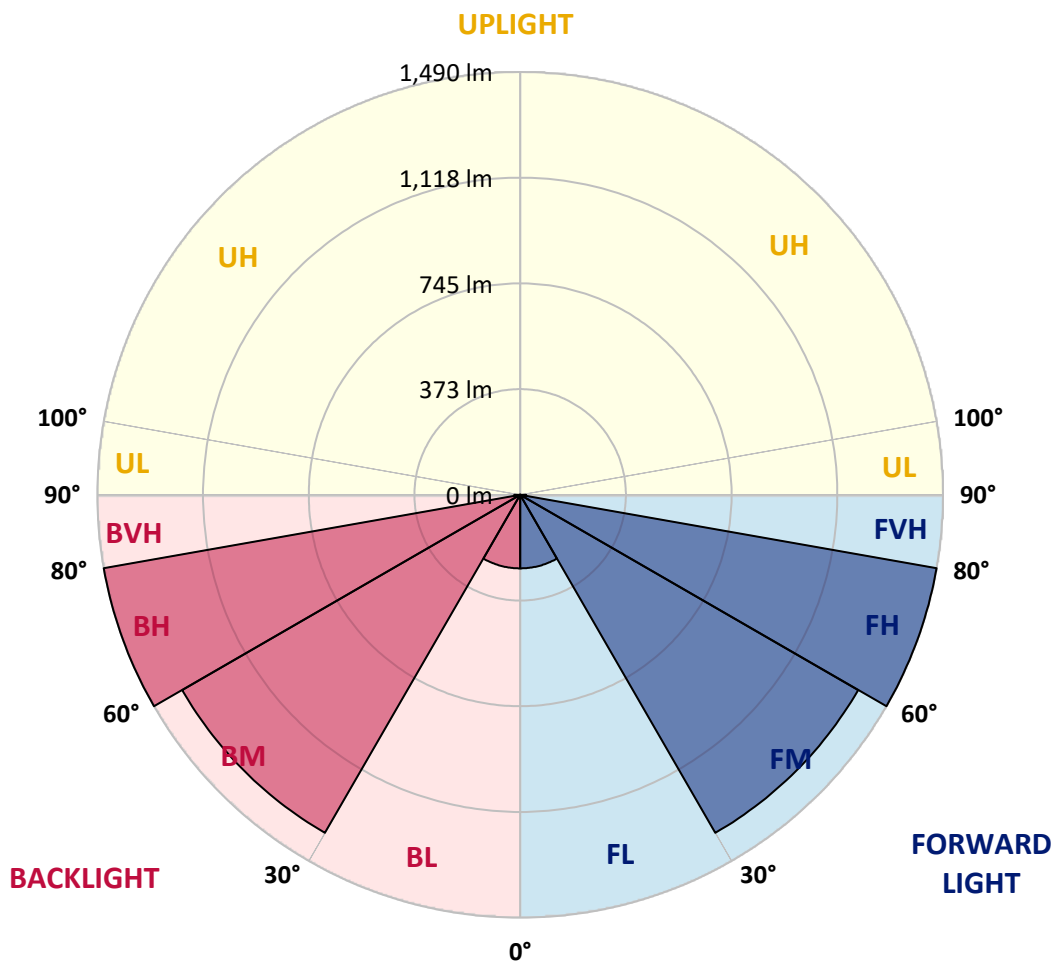
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	259.3	4.1			
FM	(30°-60°)	1375.6	21.9			
FH	(60°-80°)	1490.2	23.7			G1/1800
FVH	(80°-90°)	21.0	0.3			G1/100
BL	(0°-30°)	259.3	4.1	B1/500		
BM	(30°-60°)	1375.6	21.9	B2/2500		
BH	(60°-80°)	1490.2	23.7	B3/2500		G1/1800
BVH	(80°-90°)	21.0	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°	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7
2.5°	630.3	630.3	631.2	630.8	629.6	628.5	627.2	626.2	625.4	624.6	623.9
5°	623.9	623.9	625.0	624.2	623.5	622.2	621.4	620.4	619.6	618.9	619.2
7.5°	615.3	616.1	616.9	616.6	614.9	614.6	613.4	613.1	612.3	611.1	611.6
10°	608.0	608.3	609.1	608.8	608.3	607.3	606.8	606.5	606.1	604.5	604.2
12.5°	600.7	601.5	602.2	602.7	602.2	602.7	603.0	603.4	603.0	602.2	602.2
15°	594.9	595.7	596.9	597.9	598.4	600.7	602.2	603.7	605.0	605.3	604.2
17.5°	591.8	592.9	594.5	596.9	598.7	601.5	604.2	606.5	608.3	608.8	607.6
20°	591.4	592.6	594.9	597.6	601.0	604.5	608.8	612.3	614.1	615.3	614.1
22.5°	594.2	595.7	598.7	602.2	606.5	611.1	616.6	620.4	624.2	625.7	624.6
25°	601.8	603.4	606.8	611.1	615.6	621.4	626.9	631.9	635.8	637.6	636.1
27.5°	618.1	618.4	622.2	626.9	632.3	637.3	644.2	646.6	649.6	651.5	649.6
30°	640.8	641.6	644.9	652.3	657.3	663.9	667.8	670.1	673.5	675.4	673.1
32.5°	675.4	676.2	679.3	686.2	690.8	695.9	700.5	702.0	705.5	707.8	705.2
35°	724.4	725.9	728.6	733.2	737.1	741.0	744.4	743.3	745.5	748.7	745.9
37.5°	791.5	791.0	791.8	795.3	799.1	801.4	806.9	804.1	806.5	809.2	807.7
40°	869.6	869.6	869.2	875.3	877.0	879.3	885.1	881.6	884.7	887.7	885.1
42.5°	958.6	960.2	962.1	967.2	971.4	972.2	974.8	973.3	977.1	979.8	977.1
45°	1061.1	1063.4	1065.8	1077.3	1079.3	1080.8	1082.8	1077.8	1082.0	1084.3	1083.6
47.5°	1167.4	1171.7	1176.7	1188.6	1196.4	1199.8	1201.5	1195.7	1196.0	1199.4	1199.8
50°	1287.7	1292.3	1297.4	1310.8	1318.1	1324.3	1326.2	1319.7	1320.5	1323.1	1323.9
52.5°	1398.6	1404.1	1414.9	1432.9	1443.5	1454.1	1454.9	1446.8	1450.3	1452.3	1450.8
55°	1503.1	1510.1	1524.2	1548.5	1567.5	1588.6	1598.3	1589.4	1589.4	1587.9	1587.1
57.5°	1624.9	1632.6	1647.2	1675.4	1701.5	1732.0	1758.2	1767.0	1783.2	1788.6	1780.2
60°	1808.2	1816.3	1831.4	1868.4	1901.5	1945.8	1988.9	2024.0	2081.1	2111.9	2084.1
62.5°	1975.9	1988.2	2023.7	2088.4	2160.0	2242.1	2337.3	2405.2	2508.7	2560.4	2490.7
65°	1937.7	1962.8	2032.1	2133.9	2281.8	2459.9	2653.6	2839.7	3054.1	3163.8	3022.0
67.5°	1692.7	1713.8	1788.6	1906.9	2091.4	2336.9	2638.2	3023.5	3465.4	3671.2	3420.4
68°	1599.0	1638.7	1713.0	1830.6	2016.7	2258.0	2579.6	2995.8	3478.2	3700.5	3429.6
70°	1226.1	1240.3	1311.5	1417.2	1617.9	1854.4	2179.2	2653.6	3198.9	3427.7	3149.2
72.5°	582.6	591.1	637.3	741.4	868.8	1061.6	1348.1	1795.5	2286.8	2525.0	2247.1
75°	213.5	215.3	226.1	250.9	298.6	371.1	508.6	786.7	1164.8	1389.0	1169.4
77.5°	115.2	115.6	119.8	125.9	134.5	144.1	164.9	221.1	356.8	485.4	376.8
80°	72.4	72.0	76.3	81.3	87.1	91.7	93.6	100.2	112.9	132.2	121.4
82.5°	37.0	40.4	50.0	55.5	63.9	65.5	63.6	63.2	67.0	72.4	74.8
85°	20.4	18.1	26.6	35.4	38.6	39.7	40.1	37.8	37.0	36.2	38.1
87.5°	10.4	9.7	11.6	17.7	18.9	15.4	15.9	13.4	9.3	9.3	9.7
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	627.7	627.7	627.7	627.7	627.7	627.7	627.7	627.7
2.5°	623.0	623.5	622.7	622.7	622.7	623.0	622.7	622.2
5°	618.1	618.9	618.9	619.2	619.6	619.6	619.6	619.6
7.5°	610.8	611.1	611.9	611.9	611.9	611.9	611.9	611.9
10°	603.7	603.0	602.7	601.8	601.8	600.7	601.0	601.5
12.5°	600.3	598.7	597.9	596.9	596.1	594.9	594.9	595.4
15°	601.8	599.5	597.2	596.4	595.7	594.9	594.2	594.5
17.5°	605.0	602.2	599.5	597.9	596.4	595.4	594.9	595.4
20°	611.6	607.6	603.4	600.7	597.6	596.9	595.7	596.9
22.5°	620.4	615.6	610.3	605.3	601.8	600.3	598.7	600.0
25°	631.2	626.2	620.7	614.9	611.1	610.0	608.0	608.0
27.5°	646.2	641.9	637.3	631.9	628.0	626.9	623.9	623.9
30°	670.1	665.8	661.6	656.9	653.2	651.9	648.1	648.1
32.5°	701.7	697.1	694.4	690.5	687.4	685.5	680.8	680.4
35°	744.0	739.8	739.3	736.7	733.6	734.0	729.5	728.6
37.5°	804.9	801.4	802.6	800.4	797.6	799.9	797.1	797.1
40°	882.7	881.6	882.7	881.1	881.6	881.9	879.6	880.4
42.5°	976.8	973.7	980.6	979.8	978.6	981.8	976.3	972.5
45°	1085.1	1083.9	1090.9	1091.9	1089.7	1091.6	1082.0	1081.5
47.5°	1202.5	1202.5	1208.7	1208.0	1205.6	1206.0	1194.4	1187.1
50°	1325.1	1324.3	1330.4	1328.9	1325.9	1325.5	1313.6	1306.2
52.5°	1452.6	1452.6	1461.5	1457.2	1449.9	1446.5	1431.9	1422.2
55°	1593.6	1591.7	1594.4	1580.6	1566.2	1555.9	1537.9	1530.5
57.5°	1772.0	1749.7	1730.4	1712.7	1692.7	1680.3	1659.1	1651.5
60°	2025.2	1965.5	1939.7	1904.2	1871.1	1854.4	1826.4	1811.3
62.5°	2375.9	2276.8	2206.7	2128.5	2053.0	1999.8	1957.0	1938.2
65°	2781.2	2565.4	2387.0	2219.4	2077.2	1964.3	1901.5	1881.9
67.5°	2935.2	2539.1	2231.3	1990.9	1818.3	1683.8	1608.7	1592.9
68°	2902.6	2479.1	2159.3	1913.0	1739.6	1604.0	1529.3	1515.0
70°	2560.4	2091.4	1753.9	1508.9	1347.0	1217.9	1165.1	1142.5
72.5°	1745.4	1343.3	1030.4	824.2	703.2	621.4	572.9	556.3
75°	803.4	542.9	362.5	270.9	230.0	210.5	195.3	191.5
77.5°	234.3	170.3	146.4	135.6	127.5	120.6	115.6	115.2
80°	111.3	104.5	101.3	94.4	87.1	80.6	75.9	76.7
82.5°	74.8	72.8	72.8	65.9	54.3	46.7	38.6	34.6
85°	39.7	41.2	43.6	41.2	35.8	26.6	17.4	18.9
87.5°	13.4	15.4	16.2	15.9	14.2	10.8	8.0	8.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)