

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: P197005

Luminaire Tested: **NAV-AF-01-D-UNV-RW-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197005
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5094 lumens
Efficiency: N/A
Efficacy: 86.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

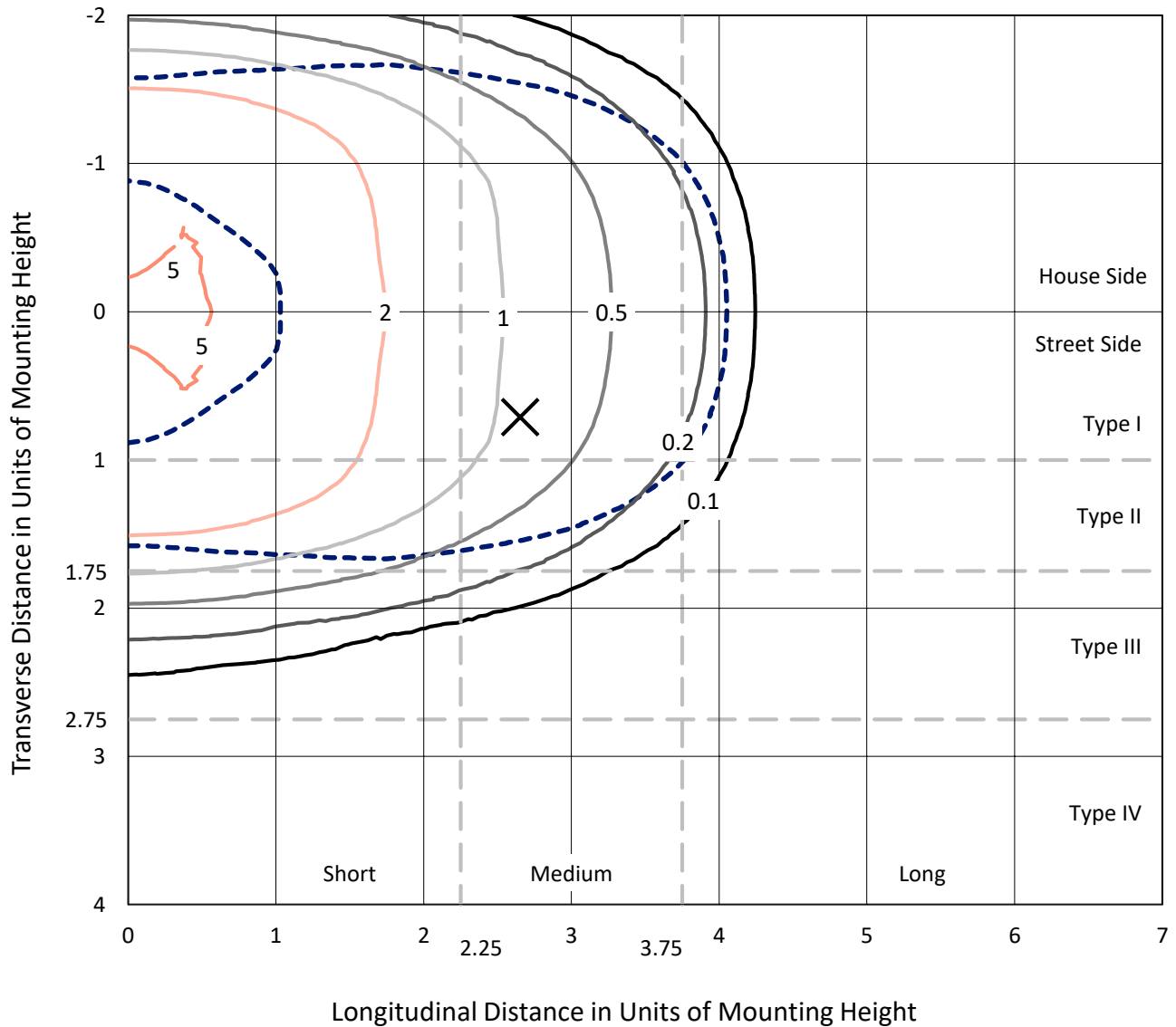
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

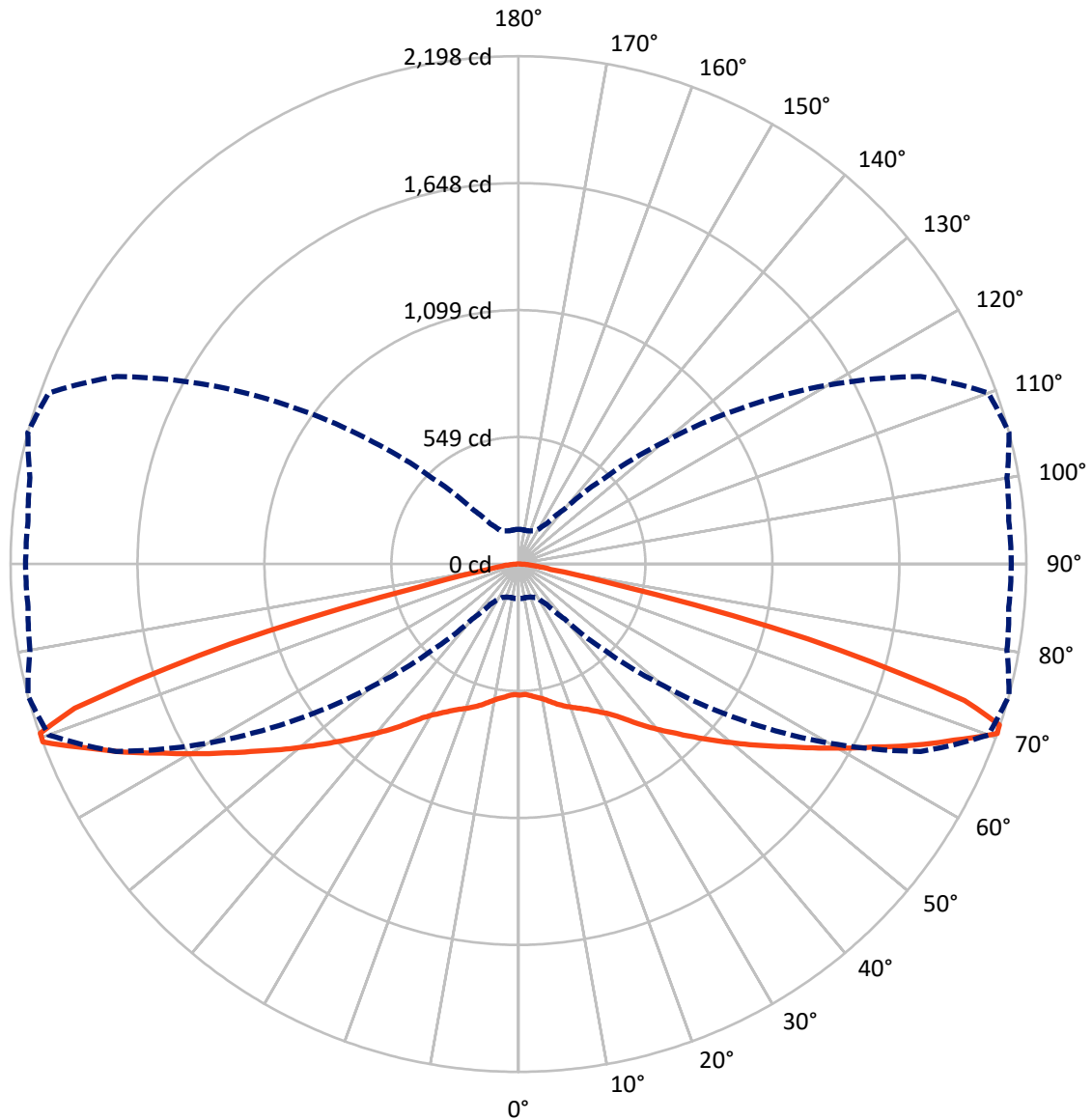
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2547.0	0.0	2547.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2547.0	0.0	2547.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5094.0	0.0	5094.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.4	1.1
10°-20°	168.7	3.3
20°-30°	316.9	6.2
30°-40°	558.3	11.0
40°-50°	925.3	18.2
50°-60°	1287.2	25.3
60°-70°	1215.1	23.9
70°-80°	519.0	10.2
80°-90°	49.0	1.0
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°	5094.0	100.0
0°-180°	5094.0	100.0



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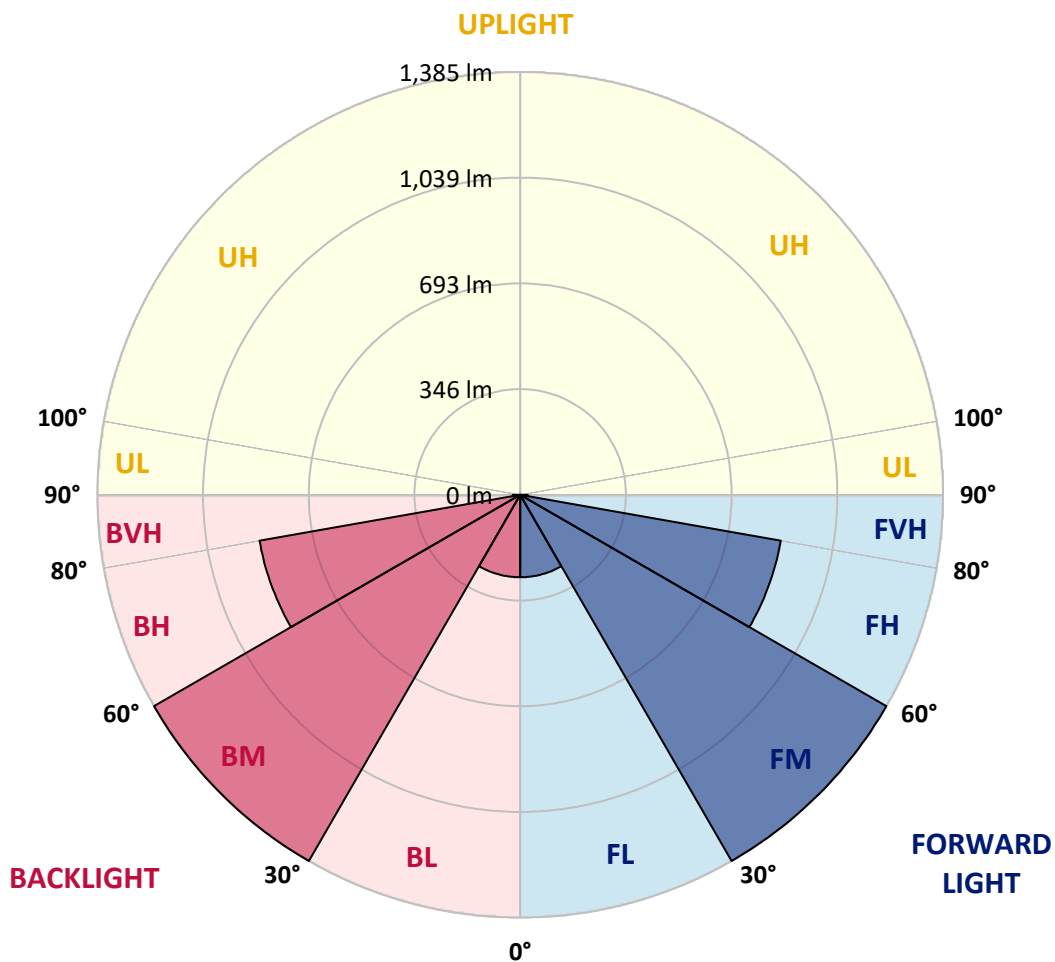
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	270.0	5.3			
FM (30°-60°)	1385.4	27.2			
FH (60°-80°)	867.1	17.0			G1/1800
FVH (80°-90°)	24.5	0.5			G1/100
BL (0°-30°)	270.0	5.3	B1/500		
BM (30°-60°)	1385.4	27.2	B2/2500		
BH (60°-80°)	867.1	17.0	B2/1000		G2/1000
BVH (80°-90°)	24.5	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3
2.5°	570.8	570.5	570.8	569.8	570.1	569.8	569.8	568.5	568.5	567.9	566.9
5°	564.4	565.0	565.0	565.0	566.0	566.0	567.3	567.6	568.5	569.5	570.1
7.5°	553.9	554.2	555.1	555.8	557.7	560.2	562.8	565.7	568.2	571.4	574.9
10°	544.9	545.6	547.2	548.8	552.3	555.5	559.9	564.4	568.9	574.3	579.7
12.5°	540.1	541.1	543.6	546.2	551.6	555.8	561.8	568.9	574.9	580.0	586.1
15°	540.8	541.1	544.6	548.1	555.8	561.5	570.1	578.4	585.8	591.5	598.6
17.5°	550.0	550.7	554.2	559.3	566.6	574.0	583.2	591.8	601.7	608.4	616.7
20°	568.2	569.2	573.0	578.4	586.4	594.1	603.7	612.6	622.8	630.8	639.1
22.5°	591.8	593.4	597.6	604.3	612.3	621.5	631.4	640.7	650.3	658.2	665.3
25°	623.5	625.4	629.8	636.5	644.5	654.4	664.6	674.2	684.1	690.2	695.9
27.5°	665.9	669.1	673.9	679.3	686.3	696.9	706.4	714.4	724.0	730.7	734.5
30°	723.0	727.5	731.3	737.1	742.2	753.4	761.0	767.4	774.8	778.6	779.6
32.5°	793.0	797.1	800.9	805.1	812.1	822.3	829.7	833.2	837.0	836.4	832.9
35°	871.8	875.0	877.2	884.6	896.1	902.8	908.2	909.5	910.1	903.4	896.7
37.5°	954.8	958.6	960.6	972.0	982.9	990.6	993.1	996.0	994.1	982.9	970.8
40°	1044.5	1048.7	1054.4	1064.3	1077.1	1084.4	1087.6	1087.3	1085.7	1072.6	1052.8
42.5°	1132.6	1137.7	1142.5	1159.8	1170.3	1182.7	1184.3	1184.0	1180.5	1165.5	1142.5
45°	1207.3	1213.4	1223.3	1242.4	1259.4	1274.4	1280.4	1282.7	1279.1	1263.2	1237.0
47.5°	1268.9	1273.1	1285.5	1308.8	1330.5	1352.6	1364.7	1373.3	1373.0	1361.5	1333.7
50°	1311.1	1315.9	1331.2	1357.4	1384.5	1410.3	1434.3	1453.8	1463.0	1454.7	1428.9
52.5°	1323.2	1329.3	1349.4	1380.7	1412.3	1447.1	1482.8	1517.3	1538.0	1543.1	1523.0
55°	1272.1	1278.8	1308.2	1351.6	1403.6	1455.0	1509.3	1558.5	1601.2	1621.0	1613.1
57.5°	1123.4	1128.1	1165.5	1221.7	1296.1	1386.4	1477.7	1567.7	1641.1	1692.5	1701.5
60°	888.4	894.5	935.3	994.7	1079.3	1193.6	1321.3	1468.8	1612.7	1730.5	1788.9
62.5°	599.5	603.7	642.9	697.2	789.8	899.9	1042.3	1229.0	1434.3	1644.7	1809.4
65°	314.8	314.8	341.3	379.2	453.0	551.6	697.5	889.0	1133.3	1396.0	1671.5
67.5°	182.6	182.3	188.3	197.0	220.3	260.2	340.6	481.4	712.5	1018.3	1331.8
70°	150.7	149.7	148.8	148.8	152.3	158.3	173.7	212.3	310.6	525.1	819.5
71°	144.0	143.3	140.8	139.8	141.4	144.6	151.3	169.2	220.6	358.2	612.0
72.5°	136.0	134.4	130.6	129.0	129.3	130.6	132.5	139.5	155.1	203.7	348.9
75°	123.9	120.0	115.2	113.0	112.0	111.7	111.7	113.6	117.2	122.9	143.0
77.5°	109.8	104.4	99.3	97.0	95.4	94.5	93.9	92.6	91.9	94.5	101.8
80°	92.9	87.1	83.0	81.7	80.8	78.8	76.3	73.7	72.1	73.4	77.9
82.5°	71.8	66.1	66.7	67.0	65.4	62.2	59.7	56.8	53.9	53.3	55.5
85°	57.1	54.3	52.4	56.5	53.0	49.2	45.6	40.9	34.2	28.1	30.6
87.5°	24.6	24.9	35.8	53.9	47.2	38.0	31.6	25.5	16.3	12.1	12.4
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°	567.3	567.3	567.3	567.3	567.3	567.3	567.3	567.3
2.5°	566.6	566.6	565.7	565.0	565.0	565.0	564.4	564.7
5°	570.5	571.1	571.7	571.4	572.4	573.3	573.0	572.7
7.5°	576.8	578.8	580.7	581.6	582.9	584.2	584.5	583.5
10°	583.2	587.1	589.9	592.5	594.1	595.4	596.3	596.0
12.5°	591.2	596.6	601.7	606.9	610.4	612.3	614.2	613.6
15°	604.3	610.4	616.7	623.5	628.9	631.8	634.6	634.0
17.5°	622.2	627.6	632.7	639.4	646.1	649.3	652.5	652.2
20°	644.5	648.7	651.5	655.4	661.8	665.3	668.1	667.2
22.5°	670.1	671.3	671.7	672.9	678.0	682.2	686.0	687.0
25°	697.8	696.9	695.0	694.0	697.5	702.0	706.8	708.0
27.5°	732.3	729.1	724.3	720.5	721.5	727.2	732.6	733.9
30°	775.7	768.4	758.2	750.8	749.5	755.6	761.4	763.3
32.5°	825.2	815.3	801.3	790.1	785.3	790.7	795.8	798.7
35°	883.9	873.1	856.2	841.8	834.1	837.7	846.6	849.8
37.5°	953.5	938.5	919.7	901.5	888.7	889.4	898.9	902.8
40°	1030.5	1008.8	984.8	962.2	943.6	942.4	951.0	953.9
42.5°	1110.6	1082.8	1054.7	1025.0	1002.1	997.9	1009.1	1009.4
45°	1196.8	1161.0	1126.2	1091.8	1067.8	1060.5	1071.3	1072.6
47.5°	1288.7	1244.0	1202.8	1165.5	1139.6	1128.1	1138.7	1140.6
50°	1384.5	1338.2	1290.3	1248.8	1218.5	1204.4	1216.9	1218.2
52.5°	1479.3	1435.6	1388.0	1340.4	1303.7	1287.8	1302.4	1306.9
55°	1574.7	1532.6	1487.9	1440.4	1394.1	1380.0	1396.0	1400.8
57.5°	1674.0	1633.5	1592.9	1545.1	1500.0	1478.7	1495.9	1502.6
60°	1783.5	1747.8	1709.5	1661.3	1616.9	1592.0	1606.7	1614.3
62.5°	1891.1	1883.8	1849.0	1798.8	1742.7	1717.8	1730.2	1735.6
65°	1900.0	2019.1	2017.5	1967.7	1889.2	1847.4	1850.9	1853.4
67.5°	1658.4	1931.6	2106.3	2121.9	2034.4	1969.0	1961.3	1962.9
70°	1174.1	1549.2	1919.8	2163.1	2197.6	2146.8	2130.2	2132.8
71°	940.8	1329.3	1737.2	2064.4	2195.0	2180.3	2171.1	2177.8
72.5°	600.5	979.4	1376.5	1767.9	2018.5	2090.3	2100.8	2105.0
75°	218.0	421.4	713.2	1021.8	1295.1	1483.1	1586.6	1594.9
77.5°	117.2	151.0	233.4	348.6	438.0	485.9	491.6	493.8
80°	86.2	99.9	114.3	130.6	140.8	142.7	139.2	131.8
82.5°	61.0	69.0	74.7	80.4	84.6	81.1	67.4	51.4
85°	35.4	38.9	42.1	45.0	45.6	43.1	28.4	23.3
87.5°	14.0	15.3	15.0	16.9	16.3	15.0	11.2	9.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)