

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: P270263

Luminaire Tested: **NAV-AF-01-D-UNV-RW-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270263
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-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 800mA LIGHTSQUARE WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4382.3 lumens
Efficiency: N/A
Efficacy: 99.6 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): 44
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

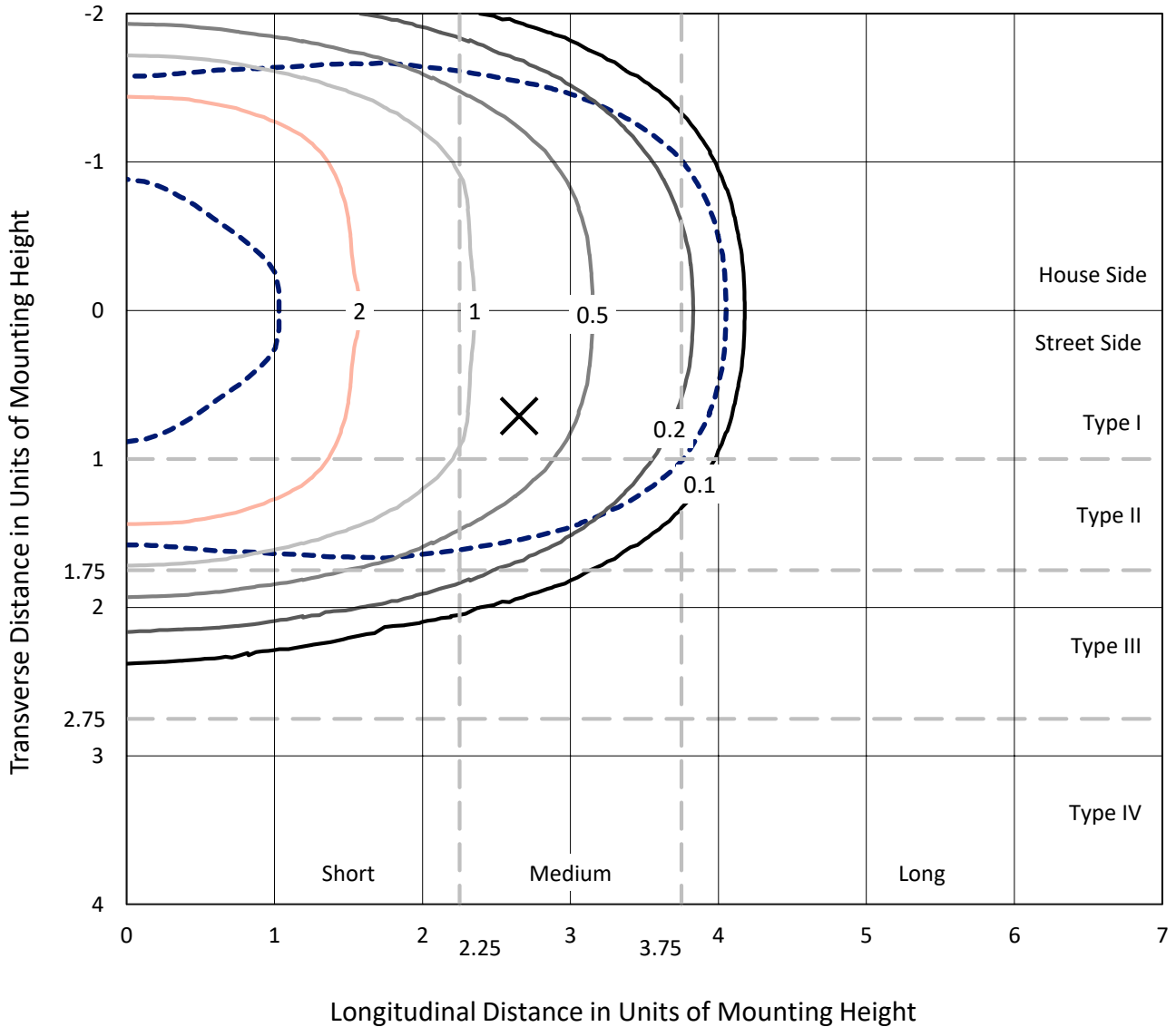


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Iso-Footcandle Lines of Horizontal Illumination

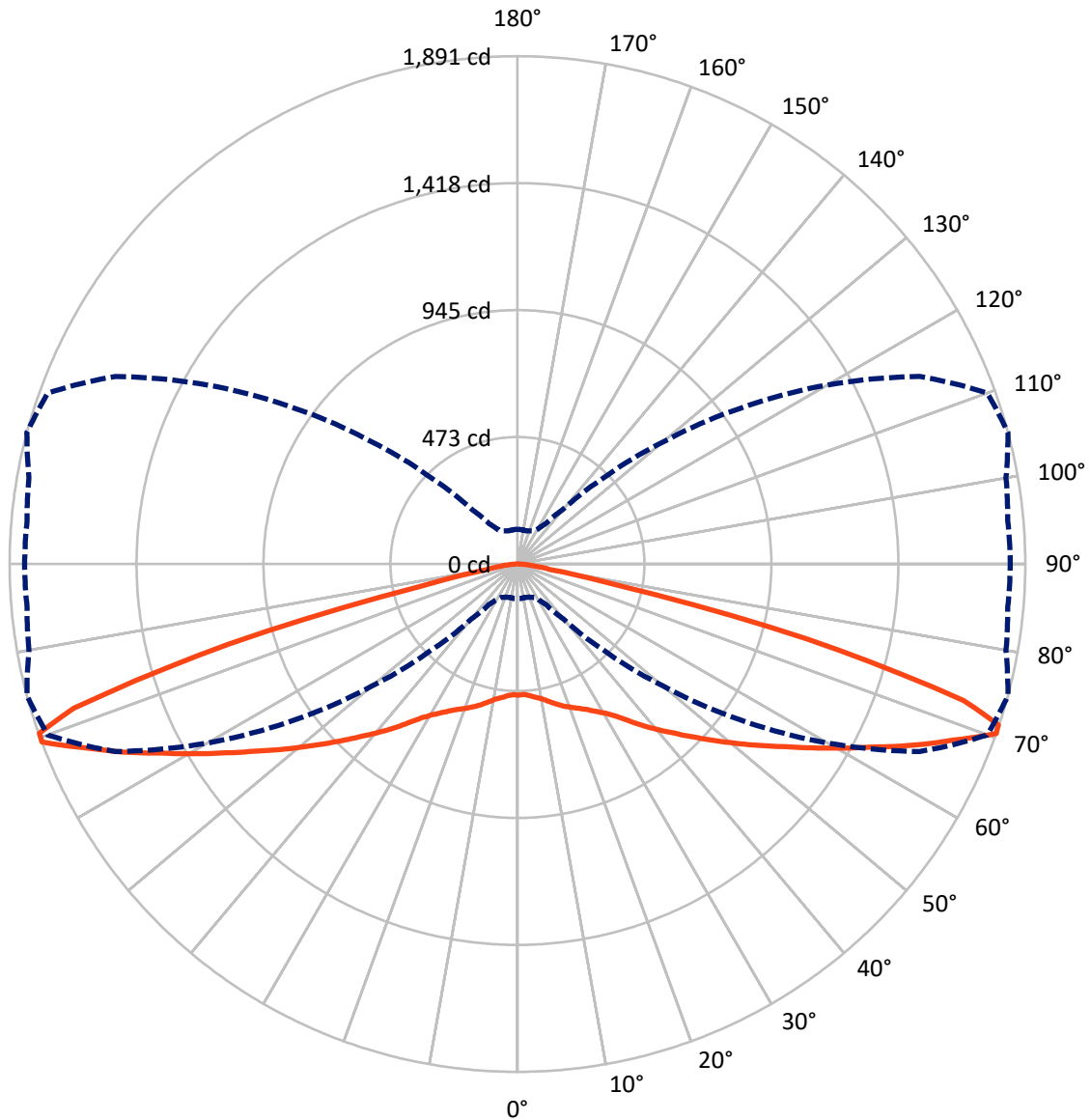
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.9 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	2191.2	0.0	2191.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2191.2	0.0	2191.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	4382.3	0.0	4382.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	1.1
10°-20°	145.2	3.3
20°-30°	272.7	6.2
30°-40°	480.3	11.0
40°-50°	796.0	18.2
50°-60°	1107.3	25.3
60°-70°	1045.4	23.9
70°-80°	446.5	10.2
80°-90°	42.2	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°	4382.3	100.0
0°-180°	4382.3	100.0



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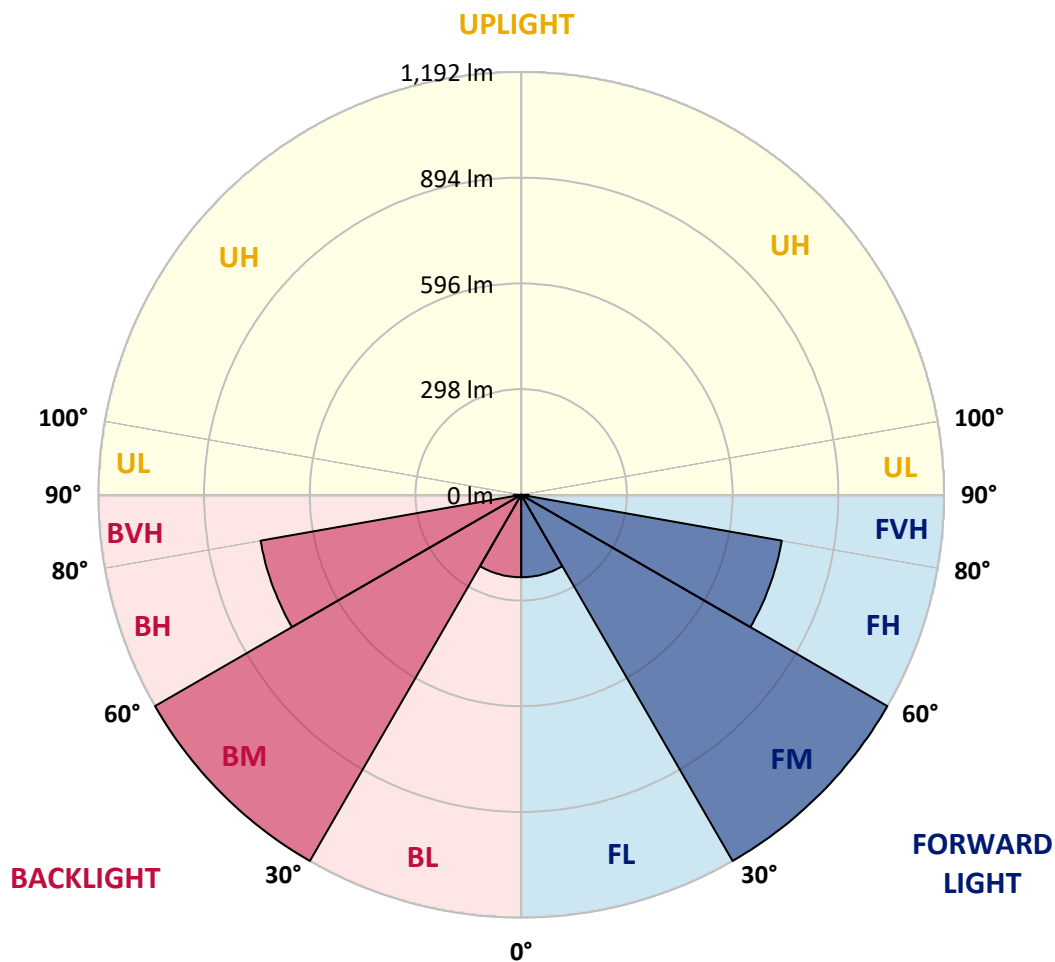
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	232.3	5.3			
FM	(30°-60°)	1191.8	27.2			
FH	(60°-80°)	745.9	17.0			G1/1800
FVH	(80°-90°)	21.1	0.5			G1/100
BL	(0°-30°)	232.3	5.3	B1/500		
BM	(30°-60°)	1191.8	27.2	B2/2500		
BH	(60°-80°)	745.9	17.0	B2/1000		G2/1000
BVH	(80°-90°)	21.1	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°	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
2.5°	491.1	490.7	491.1	490.3	490.5	490.3	490.3	489.0	489.0	488.6	487.7
5°	485.5	486.2	486.2	486.2	486.9	486.9	488.0	488.3	489.0	489.9	490.5
7.5°	476.6	476.7	477.5	478.1	479.8	482.0	484.1	486.6	488.9	491.6	494.5
10°	468.7	469.4	470.7	472.1	475.2	477.9	481.8	485.5	489.3	494.1	498.6
12.5°	464.7	465.5	467.7	470.0	474.6	478.1	483.4	489.3	494.5	499.0	504.2
15°	465.2	465.5	468.6	471.5	478.1	483.1	490.5	497.7	503.9	508.9	514.9
17.5°	473.1	473.8	476.7	481.1	487.5	493.8	501.8	509.2	517.7	523.4	530.5
20°	488.9	489.7	493.0	497.7	504.5	511.0	519.3	527.0	535.7	542.7	549.9
22.5°	509.2	510.5	514.1	519.8	526.8	534.8	543.3	551.2	559.5	566.3	572.3
25°	536.4	537.9	541.9	547.5	554.4	563.0	571.9	580.0	588.5	593.7	598.7
27.5°	572.8	575.6	579.8	584.3	590.5	599.4	607.8	614.6	622.9	628.6	631.9
30°	622.0	625.8	629.2	634.2	638.5	648.1	654.8	660.3	666.5	669.9	670.7
32.5°	682.2	685.8	689.0	692.7	698.6	707.4	713.8	716.8	720.1	719.5	716.5
35°	750.1	752.8	754.7	761.0	770.8	776.7	781.3	782.5	783.0	777.3	771.5
37.5°	821.4	824.7	826.4	836.2	845.6	852.1	854.4	856.9	855.1	845.6	835.2
40°	898.6	902.2	907.1	915.6	926.6	932.9	935.7	935.3	934.0	922.7	905.8
42.5°	974.4	978.8	982.8	997.7	1006.8	1017.5	1018.9	1018.6	1015.5	1002.7	982.8
45°	1038.6	1043.9	1052.4	1068.9	1083.4	1096.3	1101.5	1103.5	1100.5	1086.7	1064.2
47.5°	1091.6	1095.3	1106.0	1125.9	1144.6	1163.7	1174.1	1181.5	1181.2	1171.3	1147.3
50°	1127.9	1132.0	1145.2	1167.6	1191.1	1213.3	1233.9	1250.7	1258.6	1251.5	1229.2
52.5°	1138.3	1143.5	1160.9	1187.7	1215.0	1245.0	1275.7	1305.2	1323.2	1327.5	1310.3
55°	1094.3	1100.2	1125.4	1162.8	1207.5	1251.8	1298.4	1340.7	1377.6	1394.6	1387.7
57.5°	966.3	970.4	1002.7	1050.9	1114.9	1192.7	1271.2	1348.6	1411.9	1456.1	1463.8
60°	764.3	769.5	804.6	855.7	928.5	1026.9	1136.6	1263.6	1387.4	1488.8	1539.1
62.5°	515.7	519.3	553.0	599.8	679.4	774.2	896.7	1057.3	1233.9	1414.9	1556.7
65°	270.7	270.7	293.6	326.3	389.7	474.6	600.1	764.8	974.9	1200.9	1437.9
67.5°	157.2	156.8	162.1	169.4	189.5	223.8	293.0	414.2	613.0	876.0	1145.8
70°	129.6	128.7	128.0	128.0	131.1	136.3	149.4	182.6	267.2	451.8	705.0
71°	123.8	123.2	121.1	120.4	121.7	124.4	130.2	145.5	189.7	308.1	526.4
72.5°	117.0	115.6	112.3	110.9	111.2	112.3	113.9	120.1	133.5	175.2	300.2
75°	106.5	103.2	99.2	97.2	96.4	96.1	96.1	97.7	100.8	105.7	123.1
77.5°	94.5	89.8	85.3	83.5	82.1	81.2	80.8	79.6	79.1	81.2	87.7
80°	79.9	75.0	71.4	70.2	69.4	67.8	65.7	63.4	62.1	63.2	67.1
82.5°	61.9	56.9	57.4	57.8	56.4	53.5	51.4	48.9	46.4	45.9	47.8
85°	49.1	46.7	45.0	48.6	45.5	42.3	39.3	35.2	29.4	24.2	26.4
87.5°	21.1	21.4	30.7	46.4	40.7	32.7	27.2	22.0	14.1	10.4	10.7
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°	488.0	488.0	488.0	488.0	488.0	488.0	488.0	488.0
2.5°	487.5	487.5	486.6	486.2	486.2	486.2	485.5	485.9
5°	490.7	491.4	491.8	491.6	492.5	493.2	493.0	492.7
7.5°	496.3	497.9	499.5	500.4	501.4	502.6	502.8	502.1
10°	501.8	505.0	507.5	509.7	511.0	512.2	513.0	512.8
12.5°	508.6	513.3	517.7	522.0	525.1	526.8	528.5	527.8
15°	519.8	525.1	530.5	536.4	541.0	543.5	546.0	545.5
17.5°	535.2	539.9	544.4	550.1	555.8	558.6	561.4	561.1
20°	554.4	558.0	560.5	563.7	569.3	572.3	574.7	573.9
22.5°	576.4	577.5	577.8	578.9	583.3	587.0	590.1	590.9
25°	600.3	599.4	597.8	597.1	600.1	603.9	608.1	609.1
27.5°	630.0	627.2	623.2	619.8	620.6	625.6	630.3	631.4
30°	667.4	661.1	652.2	645.9	644.9	650.1	655.0	656.7
32.5°	709.9	701.3	689.3	679.7	675.5	680.2	684.7	687.2
35°	760.4	751.2	736.5	724.3	717.6	720.6	728.3	731.1
37.5°	820.3	807.3	791.1	775.5	764.5	765.0	773.4	776.7
40°	886.4	867.9	847.2	827.7	811.8	810.7	818.1	820.6
42.5°	955.4	931.5	907.4	881.9	862.1	858.5	868.1	868.4
45°	1029.5	998.8	968.9	939.2	918.6	912.3	921.7	922.7
47.5°	1108.7	1070.2	1034.8	1002.7	980.4	970.4	979.6	981.3
50°	1191.1	1151.3	1110.0	1074.4	1048.2	1036.1	1046.9	1048.1
52.5°	1272.5	1235.0	1194.0	1153.2	1121.5	1107.9	1120.5	1124.3
55°	1354.7	1318.5	1280.1	1239.1	1199.2	1187.2	1200.9	1205.0
57.5°	1440.2	1405.3	1370.4	1329.2	1290.4	1272.1	1286.9	1292.8
60°	1534.3	1503.7	1470.6	1429.2	1390.9	1369.6	1382.2	1388.8
62.5°	1626.9	1620.6	1590.7	1547.5	1499.2	1477.8	1488.5	1493.2
65°	1634.6	1737.1	1735.6	1692.8	1625.3	1589.3	1592.2	1594.5
67.5°	1426.7	1661.8	1812.1	1825.4	1750.2	1693.9	1687.2	1688.6
70°	1010.1	1332.7	1651.7	1860.8	1890.6	1846.8	1832.6	1834.8
71°	809.4	1143.5	1494.5	1775.9	1888.3	1875.8	1867.8	1873.5
72.5°	516.5	842.6	1184.1	1520.9	1736.5	1798.2	1807.3	1811.0
75°	187.6	362.5	613.5	879.1	1114.2	1276.0	1365.0	1372.0
77.5°	100.8	129.8	200.7	299.9	376.7	418.0	422.9	424.9
80°	74.1	86.0	98.4	112.3	121.1	122.8	119.7	113.5
82.5°	52.5	59.3	64.3	69.2	72.8	69.8	57.9	44.1
85°	30.5	33.4	36.2	38.7	39.3	37.1	24.4	20.0
87.5°	12.0	13.1	12.9	14.6	14.1	12.9	9.6	8.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)