

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: P270241

Luminaire Tested: **NAV-AF-01-D-UNV-5MQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270241
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-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 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: 5652.3 lumens
Efficiency: N/A
Efficacy: 95.8 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

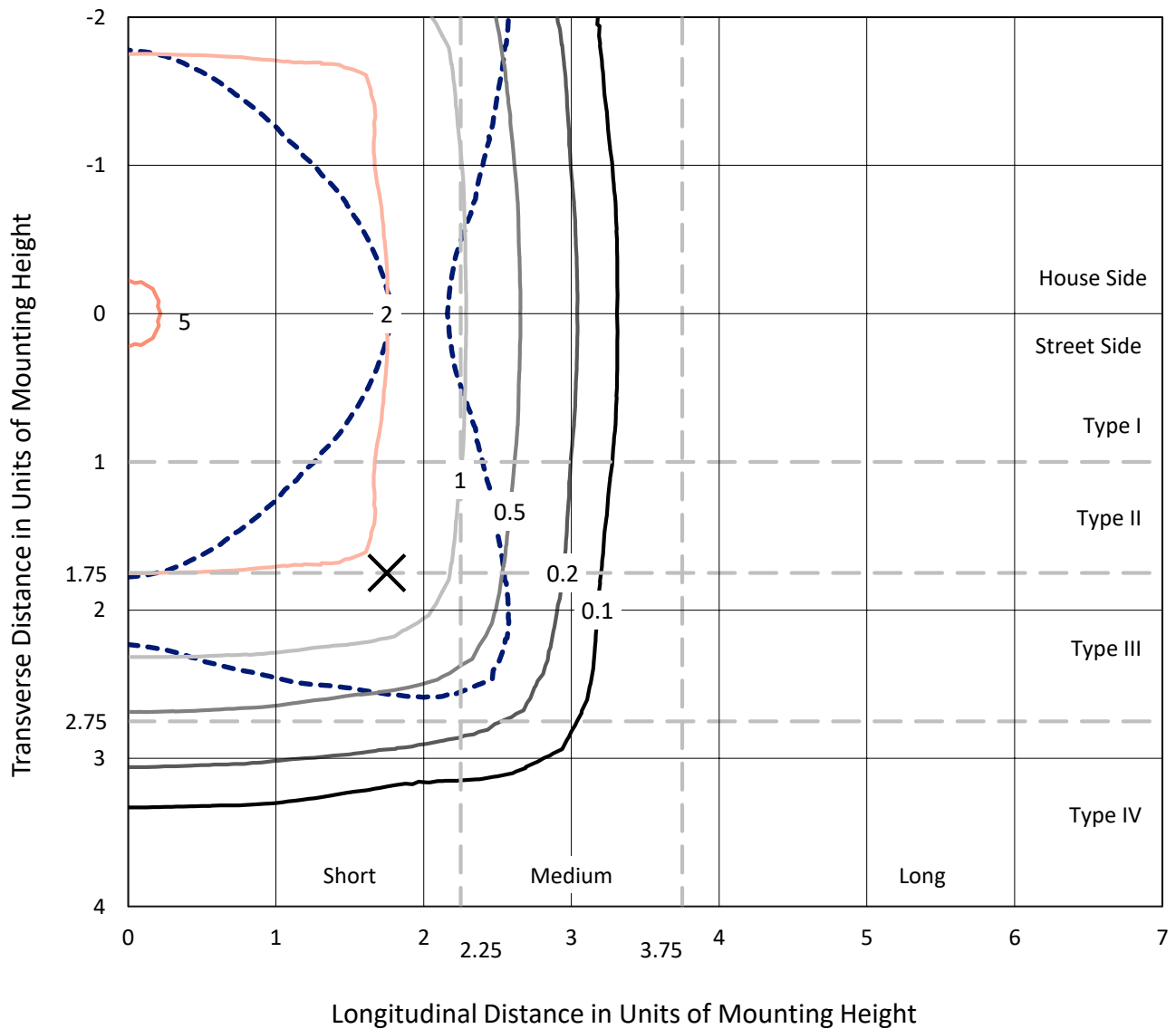
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270241
 CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027

Iso-Footcandle Lines of Horizontal Illumination

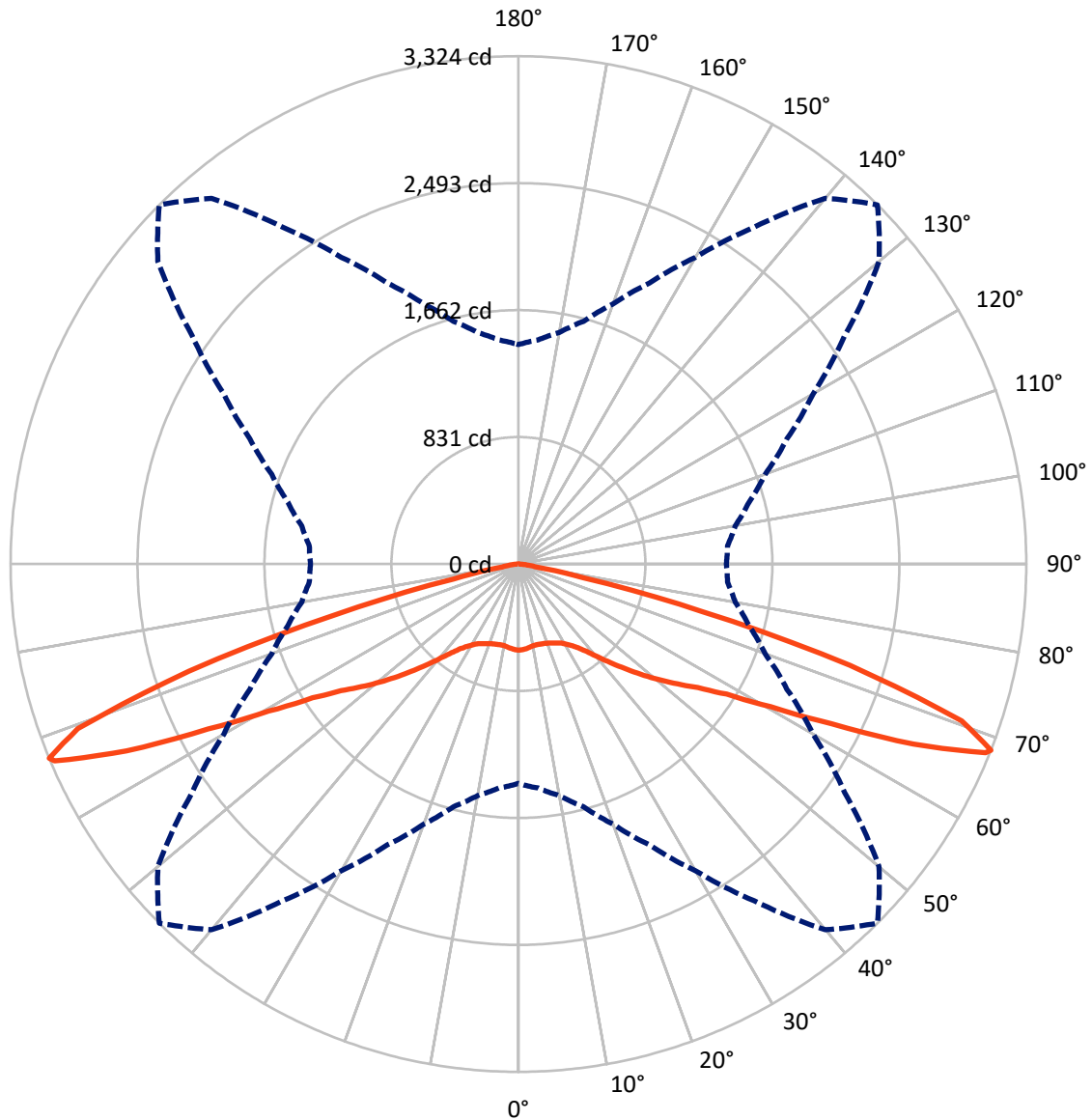
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270241
CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270241

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2826.2	0.0	2826.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2826.2	0.0	2826.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	5652.3	0.0	5652.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	0.9
10°-20°	153.0	2.7
20°-30°	260.1	4.6
30°-40°	425.7	7.5
40°-50°	760.8	13.5
50°-60°	1284.9	22.7
60°-70°	1992.4	35.2
70°-80°	685.0	12.1
80°-90°	37.7	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°	5652.3	100.0
0°-180°	5652.3	100.0

Coefficient of Utilization



REPORT NUMBER: P270241

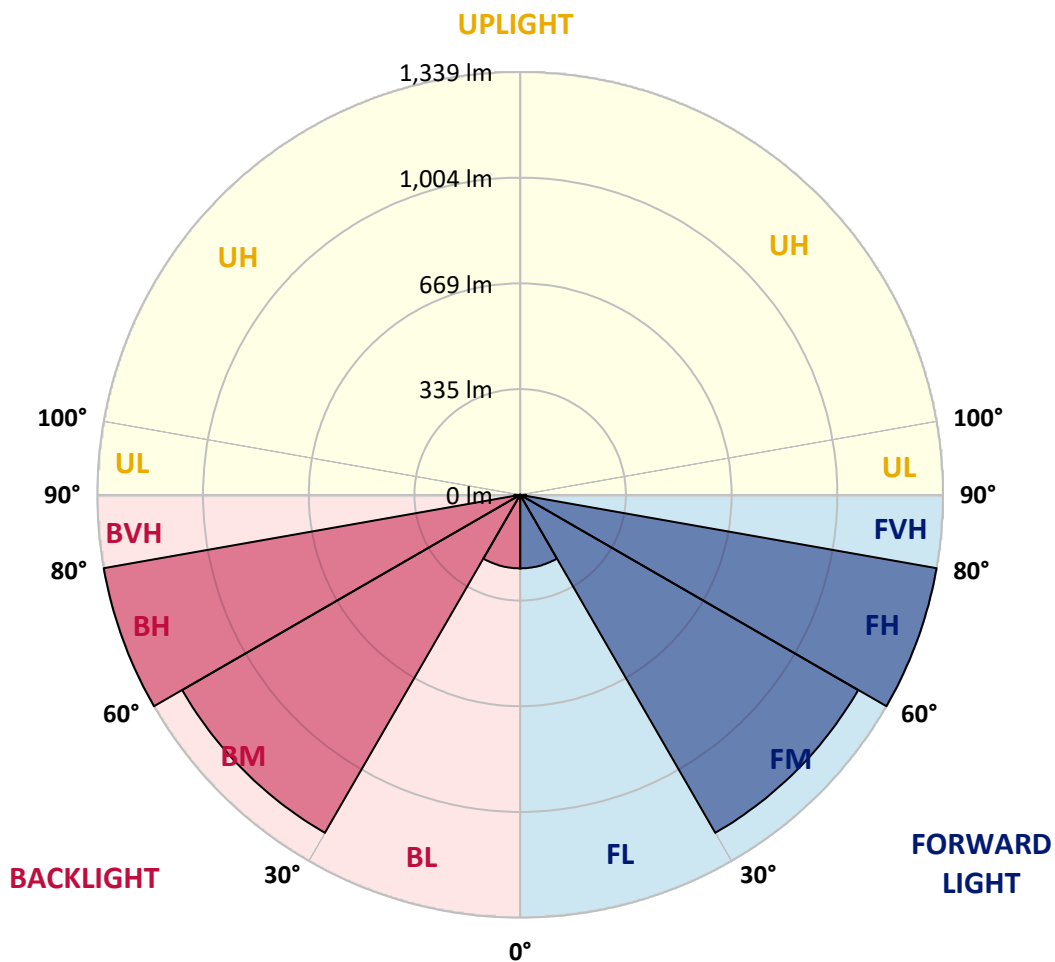
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	233.0	4.1			
FM	(30°-60°)	1235.7	21.9			
FH	(60°-80°)	1338.7	23.7			G1/1800
FVH	(80°-90°)	18.8	0.3			G1/100
BL	(0°-30°)	233.0	4.1	B1/500		
BM	(30°-60°)	1235.7	21.9	B2/2500		
BH	(60°-80°)	1338.7	23.7	B3/2500		G1/1800
BVH	(80°-90°)	18.8	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





REPORT NUMBER: P270241

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	563.9	563.9	563.9	563.9	563.9	563.9	563.9	563.9	563.9	563.9	563.9
2.5°	566.2	566.2	567.0	566.7	565.6	564.6	563.4	562.5	561.8	561.1	560.5
5°	560.5	560.5	561.4	560.7	560.1	558.9	558.2	557.3	556.6	556.0	556.2
7.5°	552.7	553.4	554.2	553.9	552.4	552.1	551.0	550.8	550.0	549.0	549.4
10°	546.2	546.4	547.2	546.9	546.4	545.5	545.1	544.8	544.5	543.0	542.8
12.5°	539.6	540.3	541.0	541.4	541.0	541.4	541.7	542.0	541.7	541.0	541.0
15°	534.4	535.1	536.2	537.1	537.5	539.6	541.0	542.3	543.5	543.7	542.8
17.5°	531.6	532.6	534.0	536.2	537.8	540.3	542.8	544.8	546.4	546.9	545.8
20°	531.3	532.3	534.4	536.8	539.9	543.0	546.9	550.0	551.6	552.7	551.6
22.5°	533.8	535.1	537.8	541.0	544.8	549.0	553.9	557.3	560.7	562.1	561.1
25°	540.6	542.0	545.1	549.0	553.0	558.2	563.1	567.6	571.1	572.8	571.4
27.5°	555.2	555.5	558.9	563.1	568.0	572.5	578.7	580.8	583.5	585.2	583.5
30°	575.6	576.4	579.3	586.0	590.5	596.4	599.9	602.0	605.0	606.7	604.6
32.5°	606.7	607.4	610.2	616.4	620.5	625.1	629.3	630.6	633.8	635.8	633.5
35°	650.7	652.1	654.5	658.6	662.1	665.6	668.7	667.7	669.7	672.6	670.0
37.5°	711.0	710.6	711.3	714.4	717.8	719.9	724.8	722.3	724.5	726.9	725.6
40°	781.2	781.2	780.8	786.3	787.8	789.9	795.1	791.9	794.7	797.4	795.1
42.5°	861.1	862.6	864.3	868.8	872.6	873.3	875.7	874.3	877.7	880.2	877.7
45°	953.2	955.3	957.4	967.7	969.5	970.9	972.7	968.2	972.0	974.0	973.4
47.5°	1048.7	1052.5	1057.0	1067.7	1074.7	1077.8	1079.3	1074.1	1074.4	1077.4	1077.8
50°	1156.7	1160.9	1165.5	1177.5	1184.1	1189.6	1191.3	1185.5	1186.2	1188.5	1189.3
52.5°	1256.4	1261.3	1271.0	1287.2	1296.7	1306.2	1306.9	1299.7	1302.8	1304.6	1303.3
55°	1350.2	1356.5	1369.2	1391.0	1408.1	1427.0	1435.8	1427.8	1427.8	1426.4	1425.7
57.5°	1459.7	1466.6	1479.7	1505.0	1528.5	1555.9	1579.4	1587.3	1601.9	1606.7	1599.2
60°	1624.3	1631.6	1645.2	1678.4	1708.1	1747.9	1786.6	1818.2	1869.5	1897.1	1872.2
62.5°	1775.0	1786.0	1817.9	1876.0	1940.3	2014.1	2099.6	2160.6	2253.6	2300.0	2237.4
65°	1740.6	1763.2	1825.4	1916.9	2049.8	2209.7	2383.7	2550.9	2743.5	2842.1	2714.7
67.5°	1520.6	1539.5	1606.7	1713.0	1878.7	2099.2	2369.9	2716.0	3113.0	3297.9	3072.6
68°	1436.4	1472.1	1538.8	1644.4	1811.6	2028.4	2317.3	2691.1	3124.5	3324.2	3080.8
70°	1101.4	1114.2	1178.1	1273.1	1453.4	1665.8	1957.6	2383.7	2873.6	3079.1	2828.9
72.5°	523.4	531.0	572.5	666.0	780.4	953.6	1211.0	1612.9	2054.2	2268.2	2018.6
75°	191.8	193.4	203.1	225.4	268.2	333.4	456.9	706.7	1046.3	1247.7	1050.5
77.5°	103.5	103.8	107.6	113.1	120.8	129.4	148.1	198.6	320.5	436.0	338.5
80°	65.0	64.7	68.5	73.0	78.2	82.4	84.1	90.0	101.4	118.8	109.1
82.5°	33.2	36.3	44.9	49.9	57.4	58.8	57.1	56.8	60.2	65.0	67.2
85°	18.3	16.3	23.9	31.8	34.7	35.7	36.0	34.0	33.2	32.5	34.2
87.5°	9.3	8.7	10.4	15.9	17.0	13.8	14.3	12.0	8.4	8.4	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P270241

CATALOG NUMBER: NAV-AF-01-D-UNV-5MQ-7027

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	563.9	563.9	563.9	563.9	563.9	563.9	563.9	563.9
2.5°	559.6	560.1	559.4	559.4	559.4	559.6	559.4	558.9
5°	555.2	556.0	556.0	556.2	556.6	556.6	556.6	556.6
7.5°	548.7	549.0	549.7	549.7	549.7	549.7	549.7	549.7
10°	542.3	541.7	541.4	540.6	540.6	539.6	539.9	540.3
12.5°	539.3	537.8	537.1	536.2	535.5	534.4	534.4	534.9
15°	540.6	538.5	536.5	535.7	535.1	534.4	533.8	534.0
17.5°	543.5	541.0	538.5	537.1	535.7	534.9	534.4	534.9
20°	549.4	545.8	542.0	539.6	536.8	536.2	535.1	536.2
22.5°	557.3	553.0	548.2	543.7	540.6	539.3	537.8	539.0
25°	567.0	562.5	557.6	552.4	549.0	548.0	546.2	546.2
27.5°	580.5	576.6	572.5	567.6	564.1	563.1	560.5	560.5
30°	602.0	598.1	594.3	590.1	586.8	585.6	582.2	582.2
32.5°	630.3	626.2	623.8	620.3	617.5	615.8	611.6	611.2
35°	668.3	664.6	664.1	661.8	659.0	659.4	655.3	654.5
37.5°	723.0	719.9	721.0	719.0	716.5	718.6	716.0	716.0
40°	792.9	791.9	792.9	791.5	791.9	792.2	790.1	790.9
42.5°	877.5	874.7	880.9	880.2	879.1	882.0	877.0	873.6
45°	974.8	973.7	980.0	980.9	978.9	980.6	972.0	971.5
47.5°	1080.2	1080.2	1085.8	1085.2	1083.0	1083.4	1072.9	1066.4
50°	1190.3	1189.6	1195.1	1193.8	1191.1	1190.7	1180.0	1173.4
52.5°	1304.9	1304.9	1312.9	1309.0	1302.5	1299.4	1286.3	1277.6
55°	1431.5	1429.8	1432.3	1419.9	1406.9	1397.7	1381.5	1374.9
57.5°	1591.8	1571.8	1554.4	1538.5	1520.6	1509.4	1490.4	1483.6
60°	1819.2	1765.6	1742.4	1710.6	1680.8	1665.8	1640.7	1627.1
62.5°	2134.3	2045.3	1982.3	1912.0	1844.2	1796.4	1758.0	1741.1
65°	2498.4	2304.5	2144.3	1993.7	1866.0	1764.5	1708.1	1690.5
67.5°	2636.7	2280.9	2004.4	1788.4	1633.4	1512.6	1445.1	1430.9
68°	2607.4	2227.0	1939.7	1718.5	1562.7	1440.9	1373.8	1360.9
70°	2300.0	1878.7	1575.5	1355.5	1210.0	1094.0	1046.6	1026.3
72.5°	1567.9	1206.7	925.6	740.4	631.7	558.2	514.6	499.7
75°	721.7	487.7	325.6	243.4	206.6	189.1	175.4	172.0
77.5°	210.5	153.0	131.5	121.8	114.5	108.3	103.8	103.5
80°	100.0	93.9	91.0	84.8	78.2	72.4	68.2	68.9
82.5°	67.2	65.4	65.4	59.2	48.8	42.0	34.7	31.1
85°	35.7	37.0	39.2	37.0	32.2	23.9	15.6	17.0
87.5°	12.0	13.8	14.6	14.3	12.8	9.7	7.2	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)