

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: P195499

Luminaire Tested: **NAV-AF-01-D-UNV-5WQ-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195499  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
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-5WQ-7050-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6972 lumens  
Efficiency: N/A  
Efficacy: 104.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G2

Input Watts (W): 67  
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

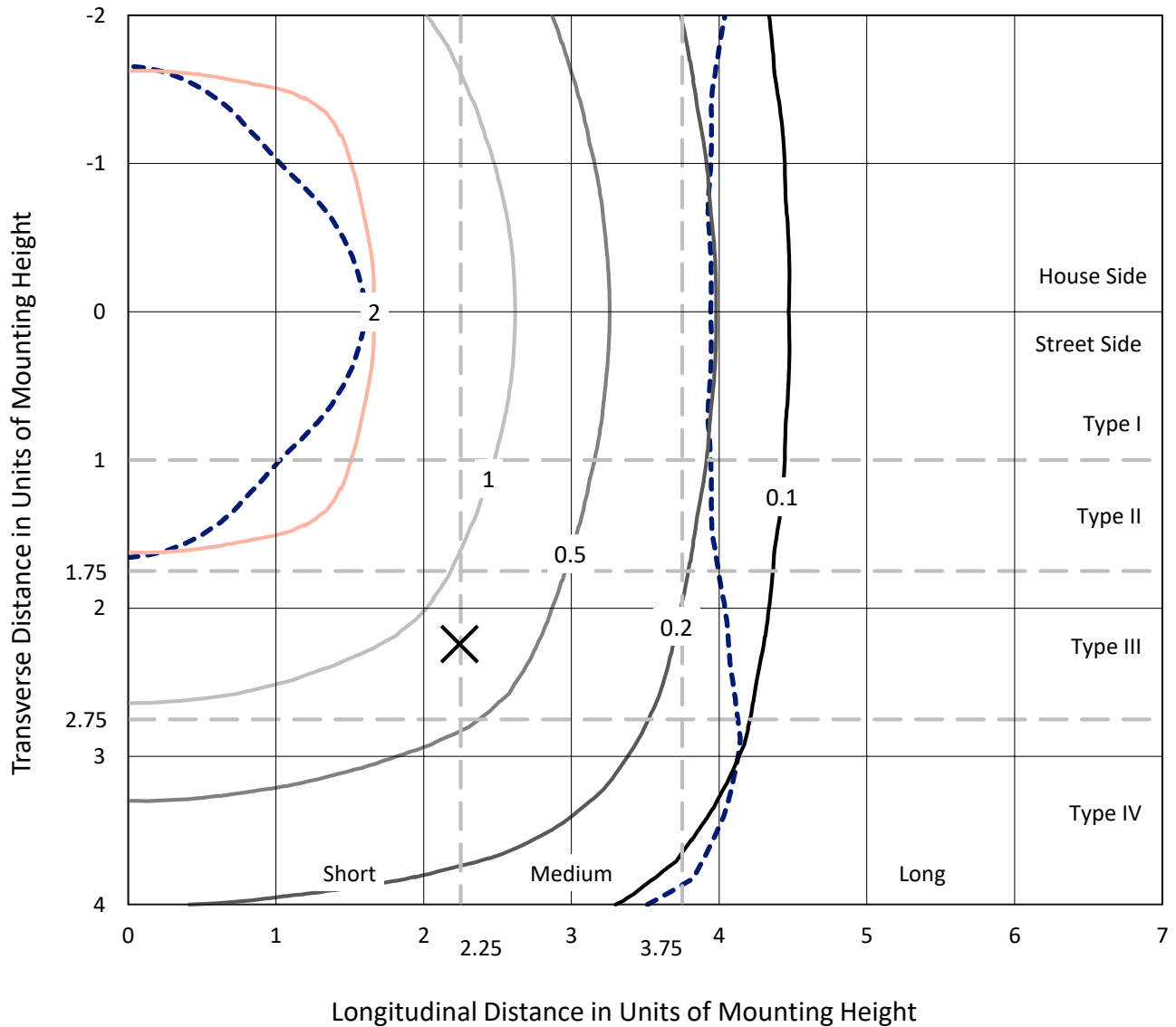


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### Iso-Footcandle Lines of Horizontal Illumination

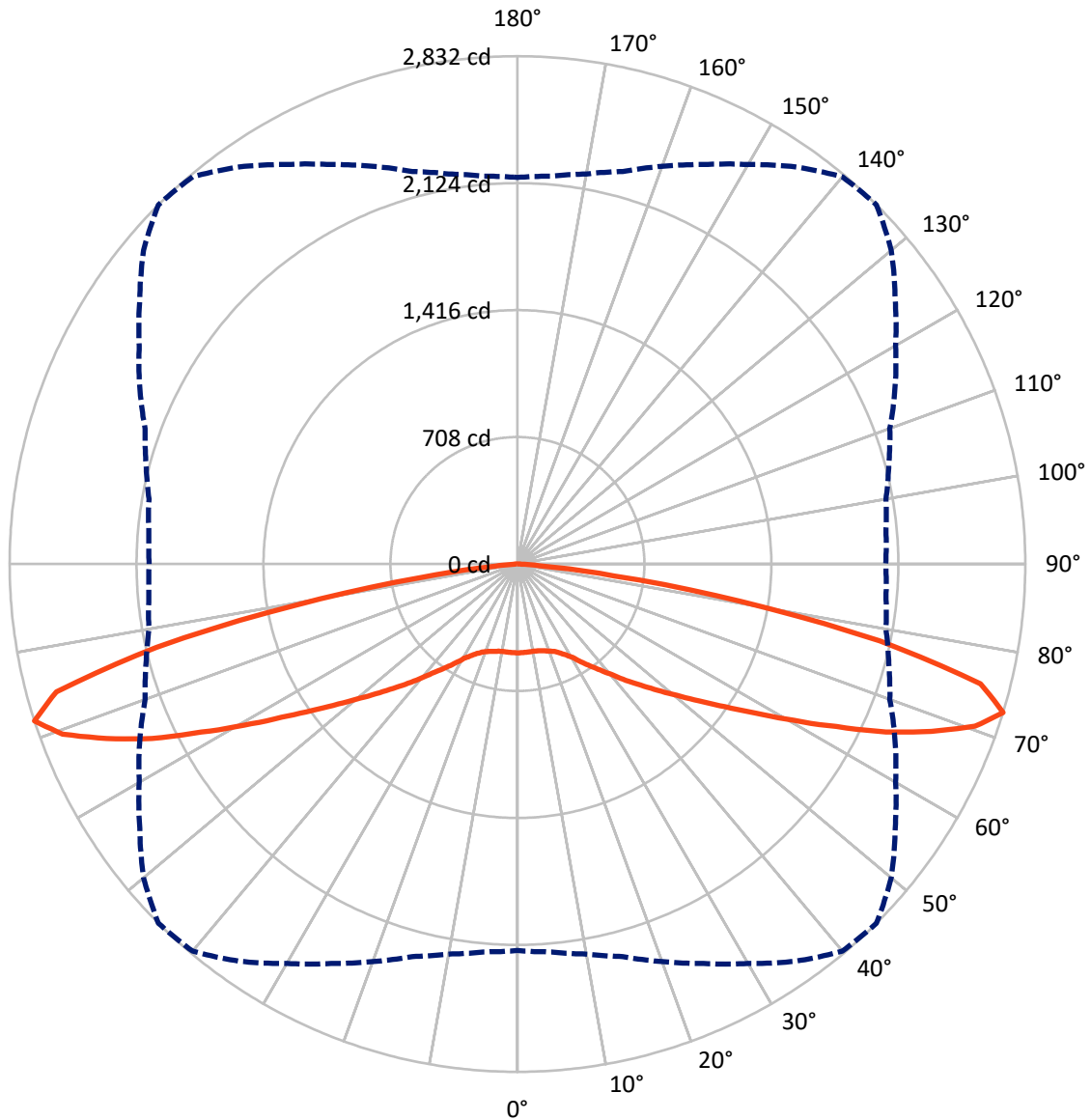
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3486.0	0.0	3486.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3486.0	0.0	3486.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	6972.0	0.0	6972.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.3	0.7
10°-20°	143.2	2.1
20°-30°	258.5	3.7
30°-40°	440.9	6.3
40°-50°	750.6	10.8
50°-60°	1208.0	17.3
60°-70°	2009.0	28.8
70°-80°	1943.5	27.9
80°-90°	171.0	2.5
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°	6972.0	100.0
0°-180°	6972.0	100.0



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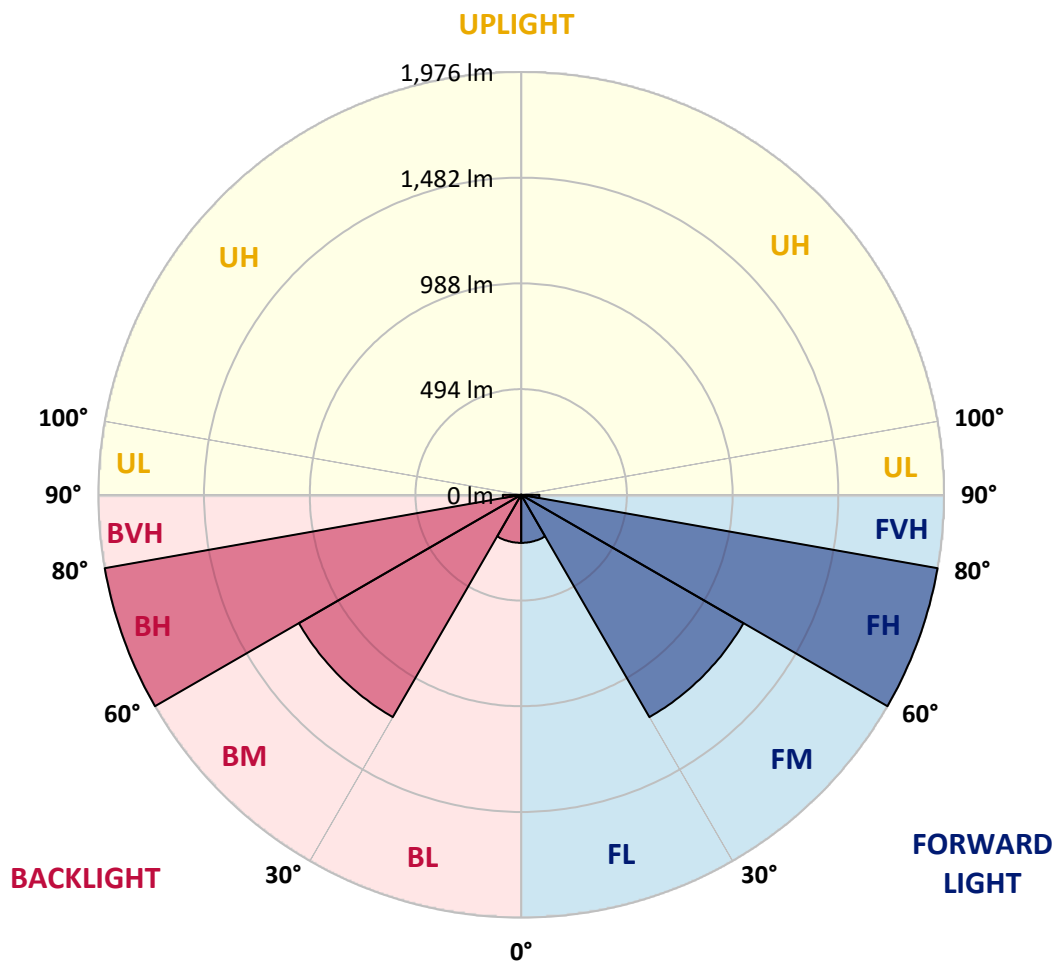
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	224.5	3.2			
FM	(30°-60°)	1199.8	17.2			
FH	(60°-80°)	1976.2	28.3			G2/5000
FVH	(80°-90°)	85.5	1.2			G1/100
BL	(0°-30°)	224.5	3.2	B1/500		
BM	(30°-60°)	1199.8	17.2	B2/2500		
BH	(60°-80°)	1976.2	28.3	B3/2500		G2/5000
BVH	(80°-90°)	85.5	1.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	495.7	495.7	495.7	495.7	495.7	495.7	495.7	495.7	495.7	495.7	495.7
2.5°	499.5	499.5	499.9	499.5	498.7	498.2	496.9	496.1	495.2	494.8	493.9
5°	499.9	499.9	500.4	499.9	499.1	498.2	497.4	496.1	495.2	494.4	493.9
7.5°	501.7	502.1	502.5	502.1	500.4	499.5	498.2	496.9	495.2	494.4	493.5
10°	505.1	505.1	505.1	504.7	503.4	501.7	499.9	498.7	496.5	494.4	493.1
12.5°	507.7	508.1	508.1	507.2	505.5	503.4	501.7	500.4	498.7	496.9	495.7
15°	511.5	511.5	511.1	509.4	506.8	505.1	504.2	503.8	503.4	502.5	501.2
17.5°	519.3	518.8	517.5	515.0	512.0	510.7	509.8	509.8	509.8	509.4	508.5
20°	530.4	530.4	528.7	524.4	521.8	520.5	519.3	519.3	519.3	518.0	516.7
22.5°	548.4	548.9	546.3	541.1	537.7	535.1	533.4	532.1	530.8	530.0	527.8
25°	572.9	572.5	569.5	563.0	560.5	557.9	554.4	552.3	550.6	549.3	546.7
27.5°	598.7	598.2	594.8	589.2	587.5	583.6	581.1	578.1	575.9	573.8	571.2
30°	631.7	629.5	627.0	622.7	621.8	618.8	615.4	611.1	607.7	604.2	601.2
32.5°	661.3	661.3	657.4	655.3	657.0	655.7	656.2	653.6	651.4	650.1	647.1
35°	702.5	702.5	700.8	698.2	698.6	695.6	695.2	695.6	697.4	697.4	693.9
37.5°	757.4	758.3	752.7	751.9	749.7	745.4	743.3	744.1	748.0	750.1	745.4
40°	825.7	827.4	825.7	820.1	817.5	810.2	805.9	805.9	808.9	811.1	809.4
42.5°	893.0	896.0	893.0	888.7	886.6	881.0	878.9	880.6	884.5	887.0	884.5
45°	968.1	970.3	966.4	961.3	958.7	955.7	954.4	955.7	960.0	962.6	961.7
47.5°	1042.0	1045.0	1040.2	1038.1	1038.1	1035.1	1038.5	1042.0	1045.8	1051.8	1049.2
50°	1114.0	1117.9	1114.9	1115.3	1118.8	1124.3	1130.8	1137.7	1144.5	1151.0	1151.8
52.5°	1178.4	1184.4	1184.9	1192.6	1203.3	1211.9	1229.9	1244.9	1261.2	1266.8	1264.2
55°	1246.2	1254.4	1265.1	1277.1	1294.3	1311.9	1342.4	1369.4	1390.8	1404.1	1402.0
57.5°	1343.2	1351.4	1362.5	1382.3	1408.0	1432.0	1473.7	1515.7	1548.3	1568.5	1558.6
60°	1468.9	1477.5	1492.1	1513.1	1546.6	1579.2	1636.3	1696.8	1747.5	1770.6	1752.6
62.5°	1635.5	1643.6	1653.0	1680.9	1718.3	1760.3	1832.0	1909.7	1974.0	1996.4	1971.0
65°	1872.8	1882.6	1885.6	1908.4	1944.9	1983.9	2061.2	2148.7	2222.1	2258.6	2207.9
67.5°	2140.1	2144.0	2156.0	2182.6	2219.9	2255.1	2316.1	2398.9	2469.3	2489.4	2435.4
70°	2296.8	2304.5	2325.5	2362.4	2407.0	2462.4	2528.9	2618.2	2698.0	2707.4	2638.8
72.5°	2155.1	2171.0	2208.4	2265.9	2359.4	2457.7	2572.3	2704.0	2818.6	2831.9	2721.6
75°	1728.6	1746.6	1791.2	1854.3	1965.0	2110.9	2276.6	2474.4	2646.1	2668.0	2522.1
77.5°	921.4	943.7	1008.5	1093.4	1251.4	1444.5	1644.0	1869.8	2015.7	2065.0	1959.9
80°	232.2	244.2	275.5	325.3	432.1	587.9	760.0	1002.9	1184.0	1260.8	1184.0
82.5°	90.1	99.1	107.7	113.7	124.0	145.5	200.8	327.4	441.2	543.3	470.3
85°	34.8	36.9	53.2	60.5	60.5	66.5	76.4	90.1	111.6	121.9	102.1
87.5°	13.7	15.0	18.5	28.3	29.2	25.7	27.5	30.9	23.6	19.7	22.3
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°	495.7	495.7	495.7	495.7	495.7	495.7	495.7	495.7
2.5°	493.5	493.1	492.2	492.7	492.2	492.2	492.2	492.2
5°	493.1	493.1	492.2	492.2	492.2	492.7	492.2	492.2
7.5°	492.7	492.2	491.4	490.9	490.9	490.5	490.5	490.5
10°	491.8	490.9	490.1	489.6	489.6	488.8	488.8	488.8
12.5°	493.9	492.7	491.8	491.4	491.4	491.4	491.8	491.8
15°	499.9	497.4	496.1	495.7	496.1	496.9	497.4	497.8
17.5°	506.4	503.8	501.7	500.8	501.2	502.5	503.8	504.7
20°	514.5	512.4	509.8	509.0	509.0	510.7	511.5	512.8
22.5°	526.1	524.4	522.3	521.0	520.1	522.3	523.6	524.4
25°	544.6	542.9	541.1	539.9	539.4	541.6	542.4	542.9
27.5°	569.0	567.3	566.5	566.0	564.7	565.6	566.9	566.5
30°	600.8	602.1	600.8	600.8	598.7	599.5	598.7	597.8
32.5°	643.3	642.0	638.1	635.6	632.6	632.6	631.3	630.0
35°	685.8	681.5	679.3	680.6	679.3	680.2	678.0	675.9
37.5°	736.0	733.4	733.0	736.8	736.0	736.8	736.8	733.8
40°	802.5	800.8	803.8	810.2	812.8	812.4	813.2	809.4
42.5°	878.9	875.9	877.2	882.7	885.7	886.6	886.2	882.7
45°	955.3	956.1	956.1	962.1	965.1	966.9	963.8	962.6
47.5°	1041.5	1042.8	1039.8	1043.7	1044.5	1047.5	1045.0	1042.8
50°	1141.1	1136.4	1129.5	1130.8	1130.8	1129.9	1126.9	1124.3
52.5°	1252.2	1241.5	1228.6	1224.3	1219.6	1214.9	1208.9	1204.2
55°	1378.8	1360.4	1337.2	1326.5	1317.5	1306.7	1293.0	1288.3
57.5°	1525.6	1493.8	1462.9	1443.6	1420.5	1406.3	1388.7	1387.8
60°	1699.8	1656.9	1602.4	1573.7	1550.5	1533.7	1520.4	1515.3
62.5°	1901.1	1827.3	1768.5	1737.6	1710.6	1700.3	1683.5	1685.7
65°	2107.5	2032.4	1975.3	1950.4	1925.1	1918.3	1902.8	1908.4
67.5°	2331.1	2269.3	2206.6	2183.5	2160.3	2153.4	2137.5	2142.3
70°	2531.5	2453.0	2381.7	2336.2	2296.8	2265.0	2244.8	2236.7
72.5°	2571.4	2435.4	2323.4	2209.6	2144.0	2086.5	2062.9	2053.9
75°	2310.5	2099.4	1939.7	1806.3	1732.4	1648.8	1639.7	1627.3
77.5°	1797.2	1556.9	1363.8	1192.2	1093.0	990.9	955.7	929.1
80°	1072.0	823.9	638.6	447.6	365.2	294.0	276.4	257.9
82.5°	383.7	245.9	165.6	129.2	115.4	106.4	99.6	90.5
85°	92.7	78.1	73.8	66.9	66.1	56.2	39.9	35.6
87.5°	29.6	27.0	27.5	26.2	27.5	20.6	16.7	15.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)