

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: P195979

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195979  
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-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 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: 7132 lumens  
Efficiency: N/A  
Efficacy: 106.4 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

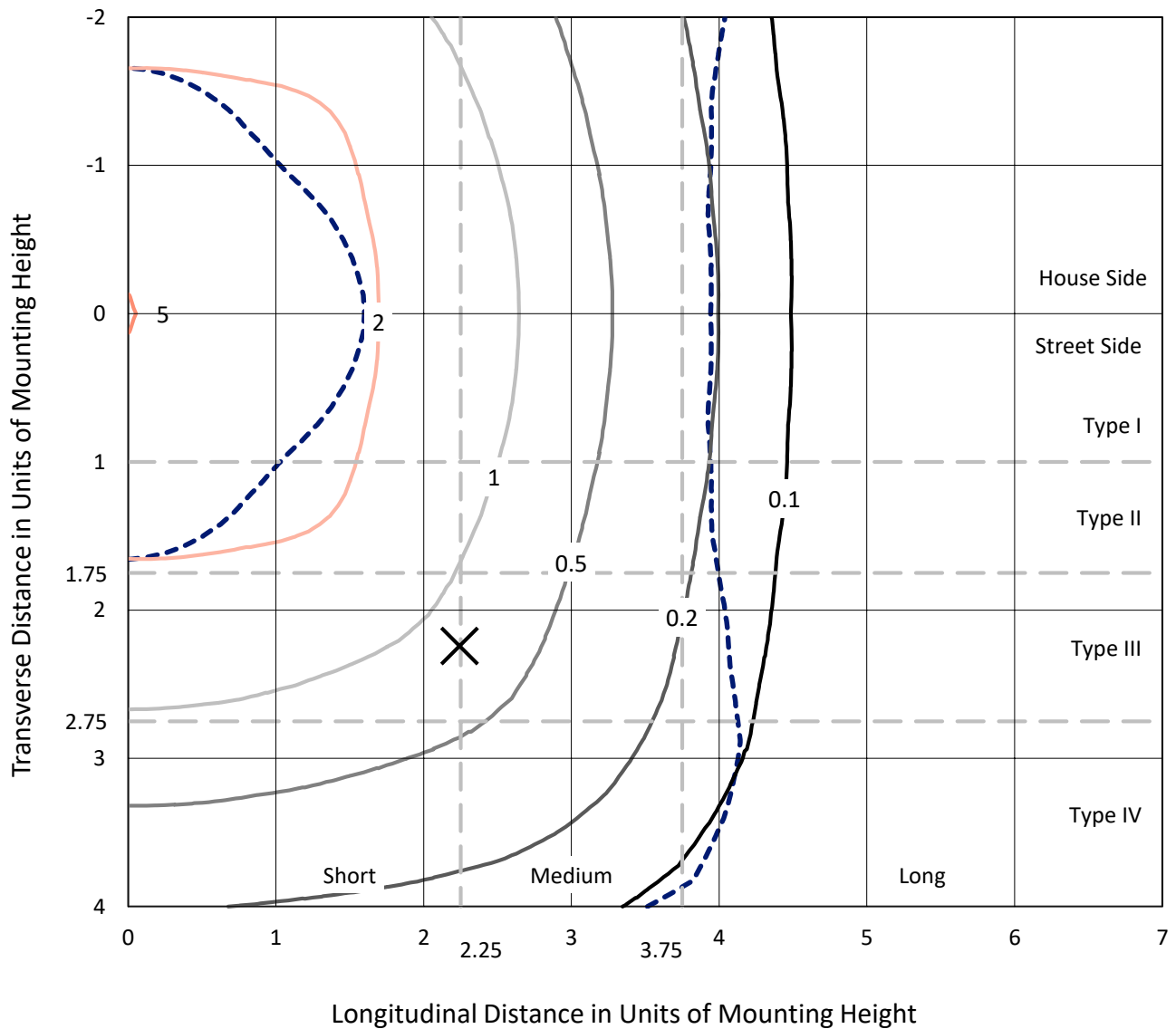


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

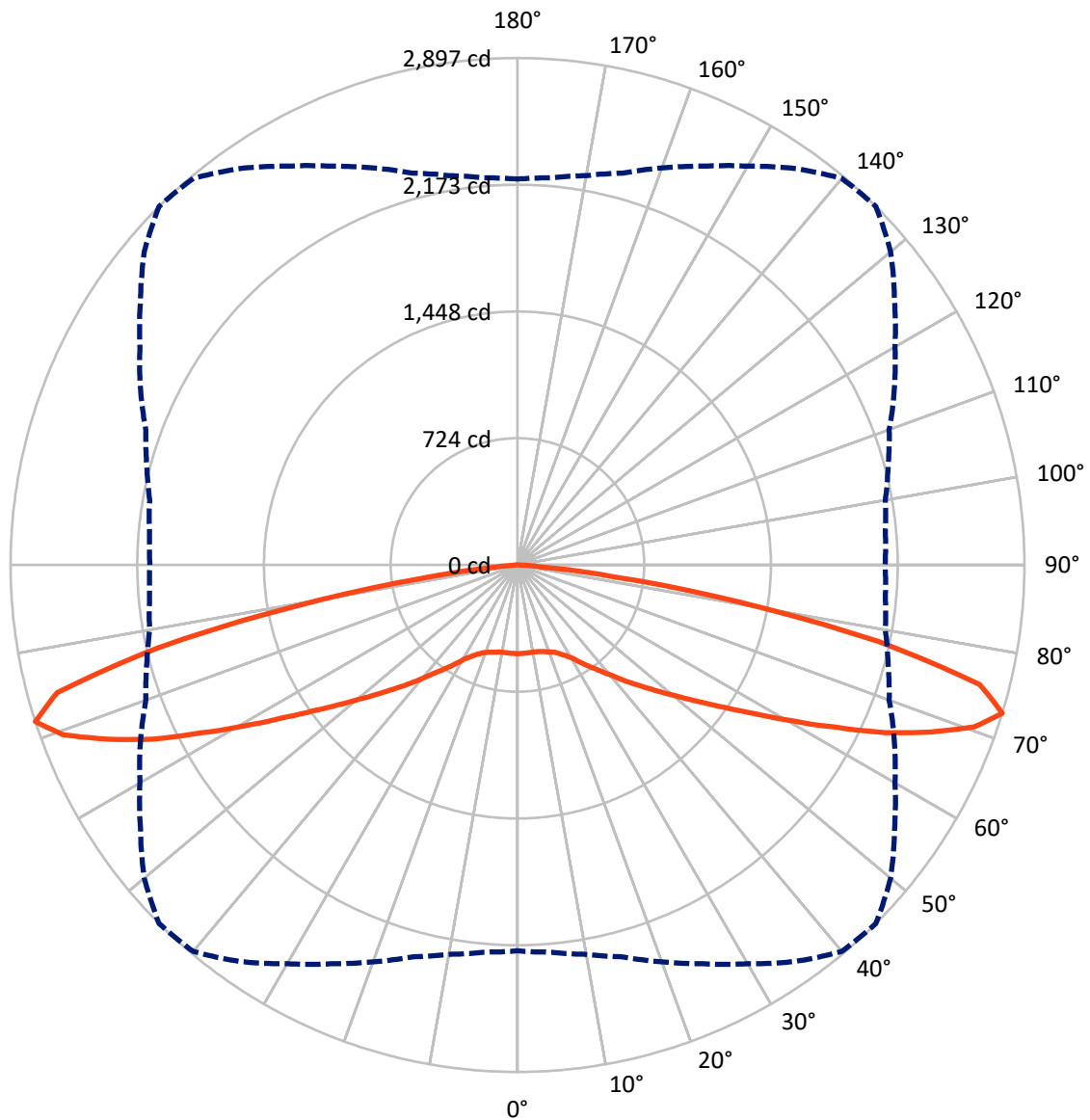


Based on 10 foot mounting height. Maximum calculated value = 5.1 fc  
 Type V - Short - Semi-Cutoff

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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	3566.0	0.0	3566.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	3566.0	0.0	3566.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	7132.0	0.0	7132.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.4	0.7
10°-20°	146.5	2.1
20°-30°	264.4	3.7
30°-40°	451.0	6.3
40°-50°	767.9	10.8
50°-60°	1235.7	17.3
60°-70°	2055.1	28.8
70°-80°	1988.1	27.9
80°-90°	175.0	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°	7132.0	100.0
0°-180°	7132.0	100.0



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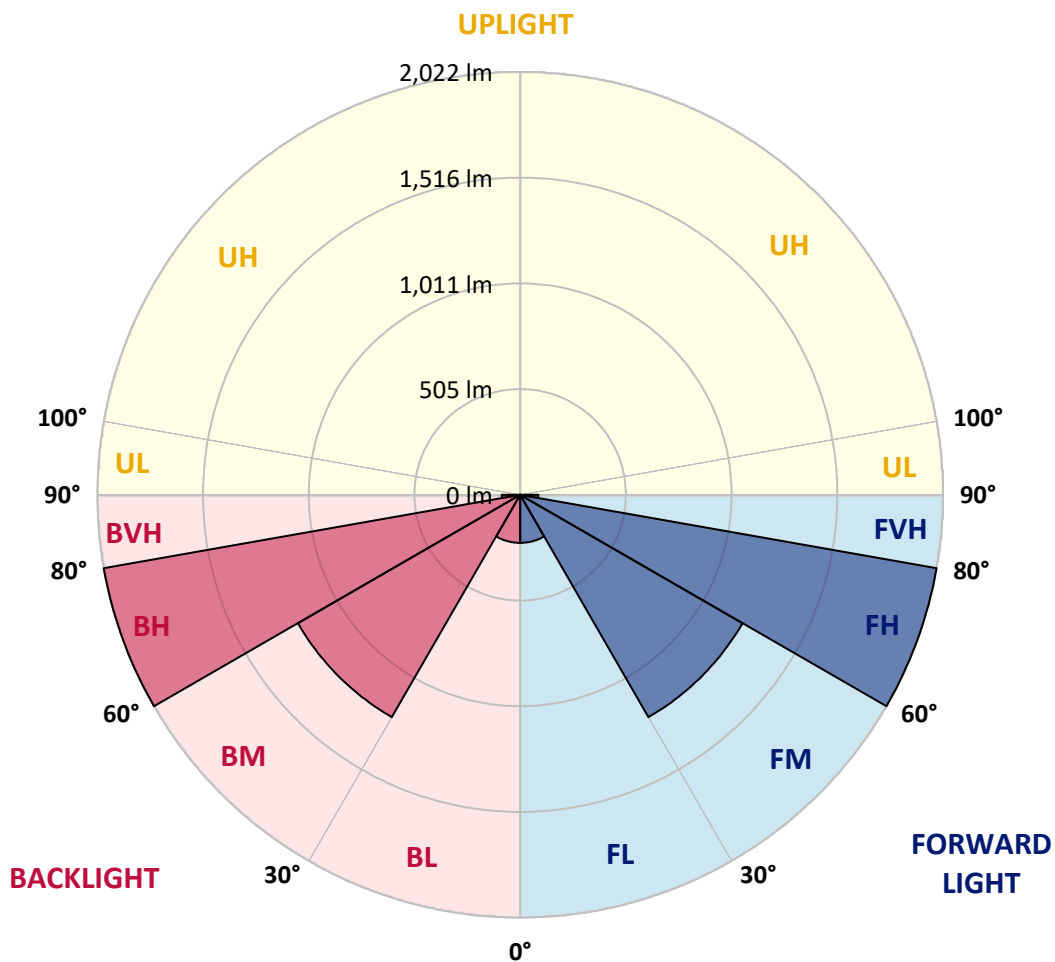
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	229.6	3.2			
FM	(30°-60°)	1227.3	17.2			
FH	(60°-80°)	2021.6	28.3			G2/5000
FVH	(80°-90°)	87.5	1.2			G1/100
BL	(0°-30°)	229.6	3.2	B1/500		
BM	(30°-60°)	1227.3	17.2	B2/2500		
BH	(60°-80°)	2021.6	28.3	B3/2500		G2/5000
BVH	(80°-90°)	87.5	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°	507.1	507.1	507.1	507.1	507.1	507.1	507.1	507.1	507.1	507.1	507.1
2.5°	511.0	511.0	511.4	511.0	510.1	509.6	508.3	507.5	506.6	506.2	505.2
5°	511.4	511.4	511.9	511.4	510.6	509.6	508.8	507.5	506.6	505.7	505.2
7.5°	513.2	513.6	514.0	513.6	511.9	511.0	509.6	508.3	506.6	505.7	504.8
10°	516.7	516.7	516.7	516.3	515.0	513.2	511.4	510.1	507.9	505.7	504.4
12.5°	519.4	519.8	519.8	518.8	517.1	515.0	513.2	511.9	510.1	508.3	507.1
15°	523.2	523.2	522.8	521.1	518.4	516.7	515.8	515.4	515.0	514.0	512.7
17.5°	531.2	530.7	529.4	526.8	523.8	522.4	521.5	521.5	521.5	521.1	520.2
20°	542.6	542.6	540.8	536.4	533.8	532.4	531.2	531.2	531.2	529.9	528.6
22.5°	561.0	561.5	558.8	553.5	550.0	547.4	545.6	544.3	543.0	542.2	539.9
25°	586.0	585.6	582.6	575.9	573.4	570.7	567.1	565.0	563.2	561.9	559.2
27.5°	612.4	611.9	608.5	602.7	601.0	597.0	594.4	591.4	589.1	587.0	584.3
30°	646.2	643.9	641.4	637.0	636.1	633.0	629.5	625.1	621.6	618.1	615.0
32.5°	676.5	676.5	672.5	670.3	672.1	670.7	671.3	668.6	666.4	665.0	662.0
35°	718.6	718.6	716.9	714.2	714.6	711.6	711.2	711.6	713.4	713.4	709.8
37.5°	774.8	775.7	770.0	769.2	766.9	762.5	760.4	761.2	765.2	767.3	762.5
40°	844.7	846.4	844.7	838.9	836.3	828.8	824.4	824.4	827.5	829.7	828.0
42.5°	913.5	916.6	913.5	909.1	906.9	901.2	899.1	900.8	904.8	907.4	904.8
45°	990.3	992.6	988.6	983.4	980.7	977.6	976.3	977.6	982.0	984.7	983.8
47.5°	1065.9	1069.0	1064.1	1061.9	1061.9	1058.9	1062.3	1065.9	1069.8	1075.9	1073.3
50°	1139.6	1143.6	1140.5	1140.9	1144.5	1150.1	1156.8	1163.8	1170.8	1177.4	1178.2
52.5°	1205.4	1211.6	1212.1	1220.0	1230.9	1239.7	1258.1	1273.5	1290.1	1295.9	1293.2
55°	1274.8	1283.2	1294.1	1306.4	1324.0	1342.0	1373.2	1400.8	1422.7	1436.3	1434.2
57.5°	1374.0	1382.4	1393.8	1414.0	1440.3	1464.9	1507.5	1550.5	1583.8	1604.5	1594.4
60°	1502.6	1511.4	1526.3	1547.8	1582.1	1615.4	1673.9	1735.7	1787.6	1811.2	1792.8
62.5°	1673.0	1681.3	1690.9	1719.5	1757.7	1800.7	1874.0	1953.5	2019.3	2042.2	2016.2
65°	1915.8	1925.8	1928.9	1952.2	1989.5	2029.4	2108.5	2198.0	2273.1	2310.4	2258.6
67.5°	2189.2	2193.2	2205.5	2232.7	2270.8	2306.9	2369.3	2454.0	2526.0	2546.5	2491.3
70°	2349.5	2357.4	2378.9	2416.6	2462.2	2518.9	2586.9	2678.3	2759.9	2769.5	2699.4
72.5°	2204.6	2220.8	2259.1	2317.9	2413.6	2514.1	2631.3	2766.1	2883.3	2896.9	2784.1
75°	1768.3	1786.7	1832.3	1896.9	2010.1	2159.3	2328.8	2531.2	2706.8	2729.2	2580.0
77.5°	942.5	965.4	1031.6	1118.5	1280.1	1477.7	1681.7	1912.7	2062.0	2112.4	2004.9
80°	237.5	249.8	281.8	332.8	442.0	601.4	777.4	1025.9	1211.2	1289.7	1211.2
82.5°	92.2	101.4	110.2	116.3	126.8	148.8	205.4	334.9	451.3	555.8	481.1
85°	35.6	37.7	54.4	61.9	61.9	68.0	78.2	92.2	114.2	124.7	104.4
87.5°	14.0	15.3	18.9	28.9	29.9	26.3	28.1	31.6	24.1	20.2	22.8
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°	507.1	507.1	507.1	507.1	507.1	507.1	507.1	507.1
2.5°	504.8	504.4	503.5	504.0	503.5	503.5	503.5	503.5
5°	504.4	504.4	503.5	503.5	503.5	504.0	503.5	503.5
7.5°	504.0	503.5	502.7	502.2	502.2	501.8	501.8	501.8
10°	503.1	502.2	501.3	500.8	500.8	500.0	500.0	500.0
12.5°	505.2	504.0	503.1	502.7	502.7	502.7	503.1	503.1
15°	511.4	508.8	507.5	507.1	507.5	508.3	508.8	509.2
17.5°	518.0	515.4	513.2	512.3	512.7	514.0	515.4	516.3
20°	526.3	524.2	521.5	520.7	520.7	522.4	523.2	524.6
22.5°	538.2	536.4	534.3	533.0	532.0	534.3	535.6	536.4
25°	557.1	555.4	553.5	552.3	551.8	554.0	554.8	555.4
27.5°	582.1	580.3	579.5	579.0	577.7	578.6	579.9	579.5
30°	614.6	615.9	614.6	614.6	612.4	613.3	612.4	611.5
32.5°	658.1	656.7	652.7	650.2	647.1	647.1	645.8	644.5
35°	701.5	697.1	694.9	696.2	694.9	695.8	693.6	691.4
37.5°	752.9	750.2	749.8	753.7	752.9	753.7	753.7	750.6
40°	820.9	819.2	822.2	828.8	831.5	831.0	831.9	828.0
42.5°	899.1	896.0	897.3	903.0	906.0	906.9	906.5	903.0
45°	977.2	978.0	978.0	984.2	987.2	989.1	985.9	984.7
47.5°	1065.4	1066.7	1063.7	1067.7	1068.5	1071.5	1069.0	1066.7
50°	1167.3	1162.5	1155.4	1156.8	1156.8	1155.8	1152.8	1150.1
52.5°	1280.9	1270.0	1256.8	1252.4	1247.6	1242.8	1236.6	1231.8
55°	1410.4	1391.6	1367.9	1356.9	1347.7	1336.7	1322.7	1317.9
57.5°	1560.6	1528.1	1496.5	1476.7	1453.1	1438.6	1420.6	1419.7
60°	1738.8	1694.9	1639.2	1609.8	1586.1	1568.9	1555.3	1550.1
62.5°	1944.7	1869.2	1809.1	1777.5	1749.9	1739.3	1722.1	1724.4
65°	2155.9	2079.0	2020.6	1995.2	1969.3	1962.3	1946.5	1952.2
67.5°	2384.6	2321.4	2257.2	2233.6	2209.9	2202.8	2186.6	2191.5
70°	2589.6	2509.3	2436.4	2389.8	2349.5	2317.0	2296.3	2288.0
72.5°	2630.4	2491.3	2376.7	2260.3	2193.2	2134.4	2110.2	2101.0
75°	2363.5	2147.6	1984.2	1847.8	1772.2	1686.6	1677.3	1664.6
77.5°	1838.4	1592.6	1395.1	1219.6	1118.1	1013.6	977.6	950.4
80°	1096.6	842.8	653.3	457.9	373.6	300.7	282.7	263.8
82.5°	392.5	251.5	169.4	132.2	118.0	108.8	101.9	92.6
85°	94.8	79.9	75.5	68.4	67.6	57.5	40.8	36.4
87.5°	30.3	27.6	28.1	26.8	28.1	21.1	17.1	15.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)