

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: P270331

Luminaire Tested: **NAV-AF-02-D-UNV-5WQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270331
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-02-D-UNV-5WQ-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8895.2 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 85
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

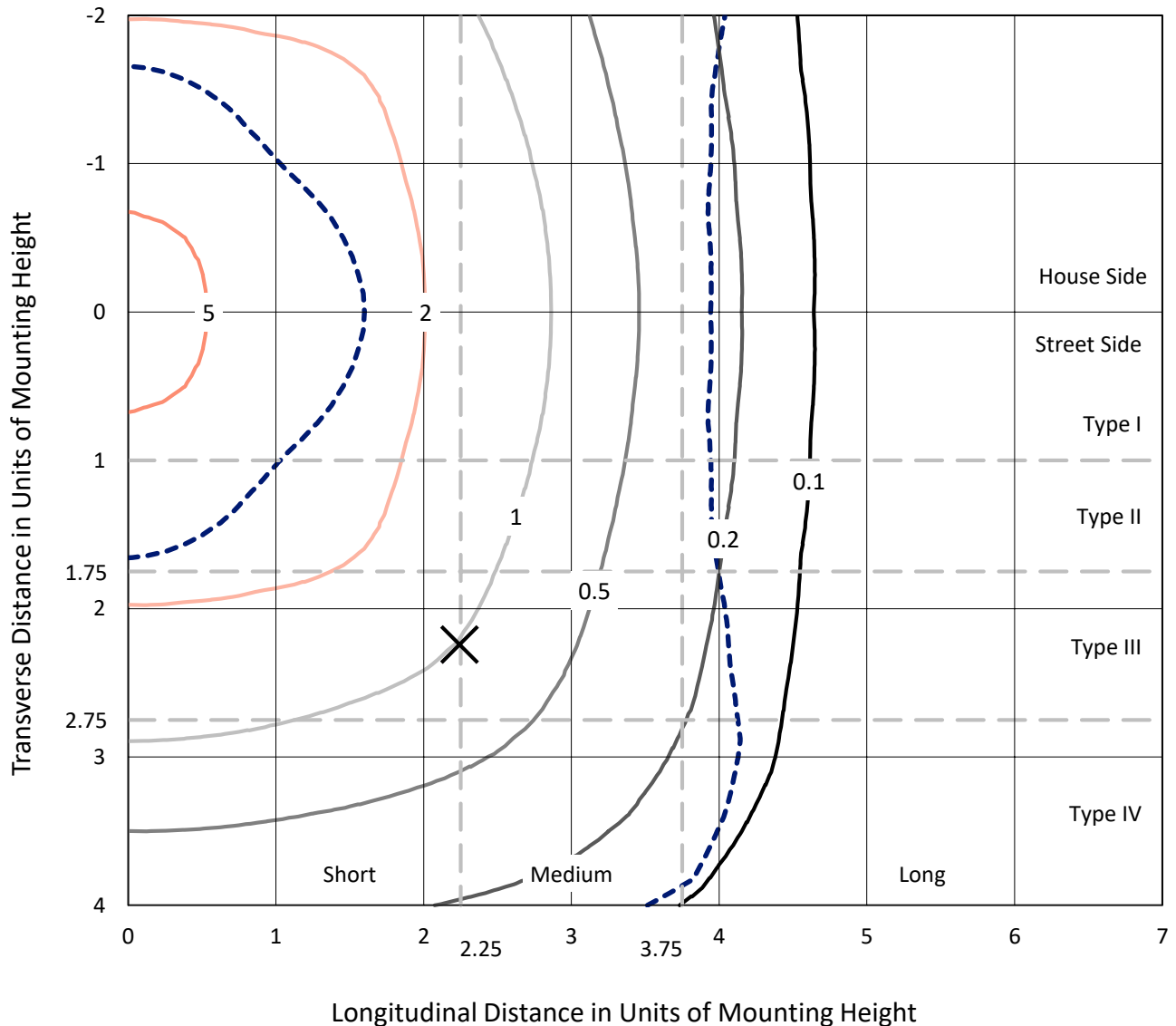


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Iso-Footcandle Lines of Horizontal Illumination

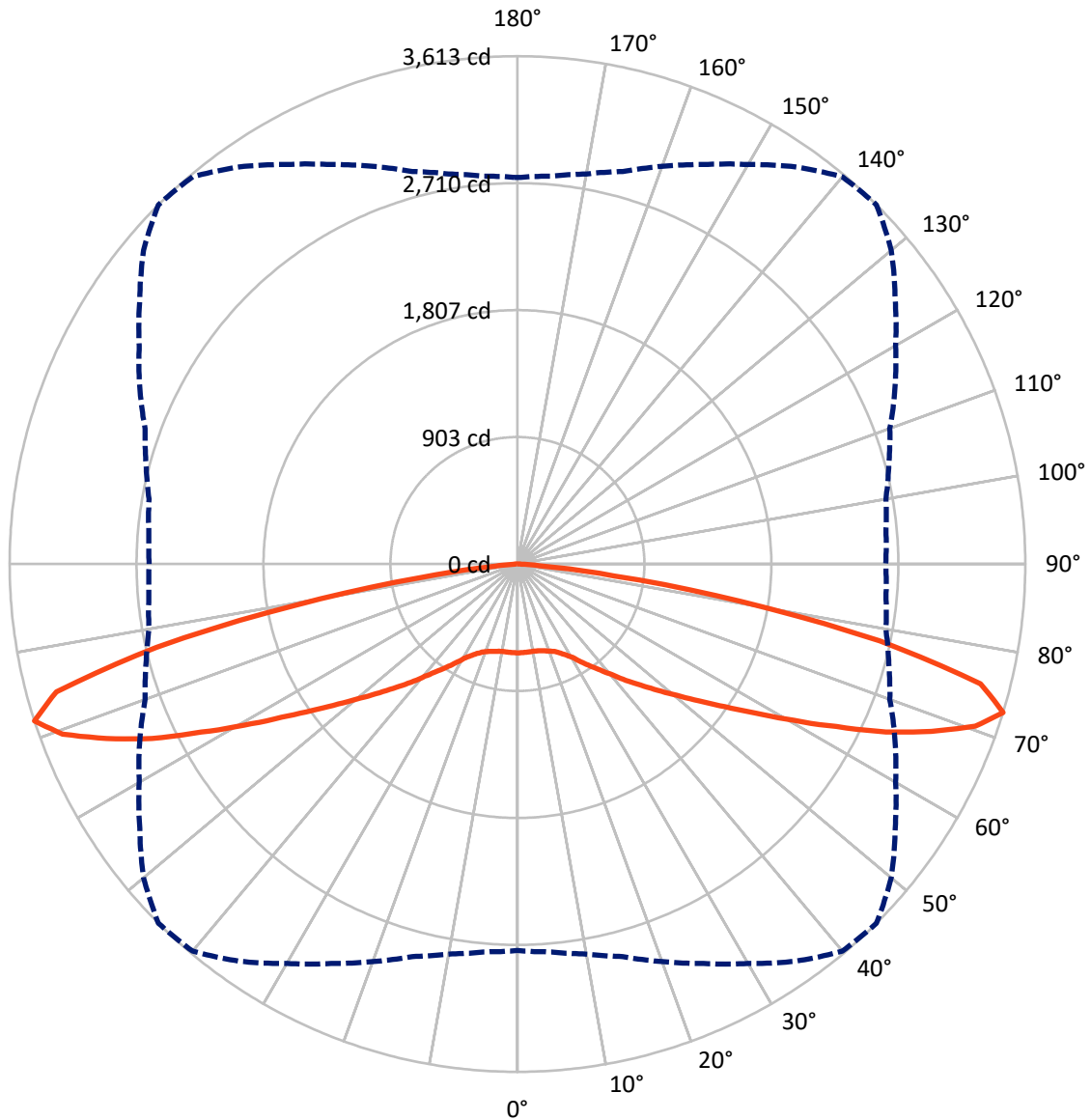
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.3 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
House Side	Lumens	4447.6	0.0	4447.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	4447.6	0.0	4447.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	8895.2	0.0	8895.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	0.7
10°-20°	182.7	2.1
20°-30°	329.8	3.7
30°-40°	562.5	6.3
40°-50°	957.7	10.8
50°-60°	1541.3	17.3
60°-70°	2563.1	28.8
70°-80°	2479.5	27.9
80°-90°	218.2	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°	8895.2	100.0
0°-180°	8895.2	100.0



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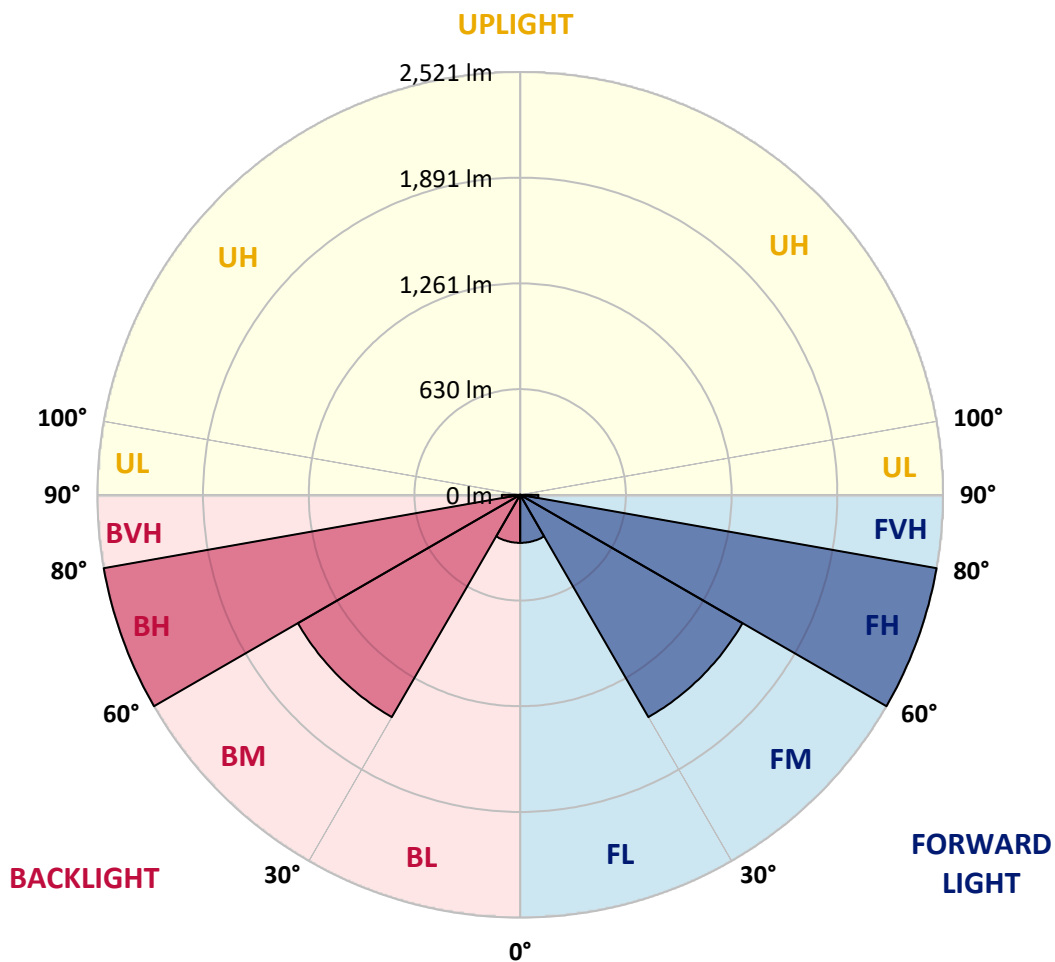
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	286.4	3.2			
FM (30°-60°)	1530.7	17.2			
FH (60°-80°)	2521.3	28.3			G2/5000
FVH (80°-90°)	109.1	1.2			G2/225
BL (0°-30°)	286.4	3.2	B1/500		
BM (30°-60°)	1530.7	17.2	B2/2500		
BH (60°-80°)	2521.3	28.3	B4/5000		G2/5000
BVH (80°-90°)	109.1	1.2			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
2.5°	637.3	637.3	637.8	637.3	636.2	635.7	634.1	632.9	631.9	631.2	630.3
5°	637.8	637.8	638.3	637.8	636.8	635.7	634.6	632.9	631.9	630.7	630.3
7.5°	640.0	640.6	641.1	640.6	638.3	637.3	635.7	634.1	631.9	630.7	629.6
10°	644.4	644.4	644.4	643.8	642.3	640.0	637.8	636.2	633.5	630.7	629.2
12.5°	647.7	648.2	648.2	647.1	645.0	642.3	640.0	638.3	636.2	634.1	632.3
15°	652.7	652.7	652.1	650.0	646.6	644.4	643.4	642.7	642.3	641.1	639.6
17.5°	662.5	662.0	660.3	657.0	653.2	651.5	650.5	650.5	650.5	650.0	648.8
20°	676.8	676.8	674.5	669.1	665.7	664.1	662.5	662.5	662.5	660.9	659.1
22.5°	699.7	700.3	696.9	690.3	686.0	682.7	680.6	678.8	677.3	676.2	673.4
25°	731.0	730.4	726.5	718.4	715.1	711.7	707.3	704.6	702.5	700.8	697.5
27.5°	763.7	763.2	758.9	751.7	749.5	744.7	741.3	737.5	734.8	731.9	728.7
30°	805.9	803.3	799.9	794.5	793.4	789.5	785.2	779.6	775.2	770.8	767.1
32.5°	843.7	843.7	838.7	836.1	838.3	836.6	837.1	833.8	831.1	829.5	825.6
35°	896.2	896.2	894.2	890.8	891.4	887.5	886.9	887.5	889.7	889.7	885.3
37.5°	966.3	967.5	960.4	959.2	956.5	951.0	948.3	949.4	954.3	957.1	951.0
40°	1053.4	1055.6	1053.4	1046.3	1043.0	1033.7	1028.2	1028.2	1032.1	1034.8	1032.6
42.5°	1139.4	1143.3	1139.4	1133.9	1131.1	1124.0	1121.4	1123.5	1128.5	1131.8	1128.5
45°	1235.2	1238.0	1233.1	1226.5	1223.1	1219.3	1217.7	1219.3	1224.7	1228.1	1226.9
47.5°	1329.3	1333.3	1327.2	1324.5	1324.5	1320.6	1325.0	1329.3	1334.3	1342.0	1338.7
50°	1421.4	1426.2	1422.5	1422.9	1427.3	1434.6	1442.7	1451.4	1460.3	1468.4	1469.5
52.5°	1503.5	1511.2	1511.7	1521.5	1535.3	1546.3	1569.2	1588.4	1609.1	1616.3	1612.9
55°	1590.0	1600.4	1614.1	1629.3	1651.4	1673.7	1712.6	1747.2	1774.5	1791.5	1788.7
57.5°	1713.7	1724.1	1738.4	1763.6	1796.4	1827.1	1880.2	1933.8	1975.5	2001.2	1988.6
60°	1874.1	1885.2	1903.7	1930.5	1973.2	2014.9	2087.8	2164.8	2229.5	2259.1	2236.1
62.5°	2086.6	2097.0	2109.0	2144.7	2192.3	2245.9	2337.3	2436.5	2518.6	2547.1	2514.7
65°	2389.3	2402.0	2405.8	2434.8	2481.4	2531.2	2629.7	2741.4	2835.1	2881.6	2816.9
67.5°	2730.5	2735.3	2750.7	2784.7	2832.3	2877.2	2955.0	3060.6	3150.4	3176.1	3107.1
70°	2930.4	2940.2	2967.0	3014.1	3071.0	3141.6	3226.5	3340.3	3442.2	3454.3	3366.7
72.5°	2749.6	2769.8	2817.5	2890.8	3010.2	3135.7	3281.8	3449.9	3596.1	3613.1	3472.4
75°	2205.3	2228.3	2285.3	2365.7	2507.1	2693.2	2904.6	3157.0	3376.0	3403.9	3217.8
77.5°	1175.5	1204.0	1286.6	1395.1	1596.6	1843.0	2097.5	2385.4	2571.7	2634.6	2500.5
80°	296.3	311.5	351.4	414.9	551.4	750.1	969.6	1279.5	1510.6	1608.5	1510.6
82.5°	115.0	126.5	137.4	145.0	158.2	185.6	256.2	417.7	562.9	693.1	600.1
85°	44.3	47.2	67.9	77.3	77.3	84.9	97.5	115.0	142.3	155.4	130.3
87.5°	17.5	19.1	23.5	36.1	37.2	32.9	35.0	39.4	30.2	25.2	28.4
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°	632.3	632.3	632.3	632.3	632.3	632.3	632.3	632.3
2.5°	629.6	629.2	627.9	628.5	627.9	627.9	627.9	627.9
5°	629.2	629.2	627.9	627.9	627.9	628.5	627.9	627.9
7.5°	628.5	627.9	626.8	626.4	626.4	625.8	625.8	625.8
10°	627.5	626.4	625.3	624.7	624.7	623.7	623.7	623.7
12.5°	630.3	628.5	627.5	626.8	626.8	626.8	627.5	627.5
15°	637.8	634.6	632.9	632.3	632.9	634.1	634.6	635.1
17.5°	646.2	642.7	640.0	639.0	639.6	641.1	642.7	643.8
20°	656.5	653.7	650.5	649.4	649.4	651.5	652.7	654.2
22.5°	671.3	669.1	666.4	664.7	663.6	666.4	668.0	669.1
25°	694.7	692.7	690.3	688.8	688.2	690.9	692.1	692.7
27.5°	726.0	723.9	722.7	722.1	720.5	721.6	723.2	722.7
30°	766.6	768.2	766.6	766.6	763.7	764.8	763.7	762.8
32.5°	820.7	819.1	814.1	810.9	807.0	807.0	805.4	803.8
35°	874.9	869.5	866.8	868.3	866.8	867.9	865.1	862.4
37.5°	939.0	935.8	935.1	940.0	939.0	940.0	940.0	936.3
40°	1023.9	1021.6	1025.4	1033.7	1037.1	1036.5	1037.5	1032.6
42.5°	1121.4	1117.5	1119.1	1126.3	1130.1	1131.1	1130.6	1126.3
45°	1218.8	1219.9	1219.9	1227.5	1231.3	1233.6	1229.7	1228.1
47.5°	1328.9	1330.5	1326.6	1331.6	1332.6	1336.5	1333.3	1330.5
50°	1455.9	1449.9	1441.1	1442.7	1442.7	1441.6	1437.7	1434.6
52.5°	1597.6	1583.9	1567.5	1562.1	1556.0	1550.0	1542.4	1536.3
55°	1759.2	1735.6	1706.1	1692.3	1680.9	1667.2	1649.6	1643.7
57.5°	1946.4	1905.9	1866.5	1841.9	1812.3	1794.3	1771.7	1770.6
60°	2168.7	2113.9	2044.5	2007.7	1978.2	1956.8	1939.8	1933.3
62.5°	2425.6	2331.3	2256.4	2216.8	2182.4	2169.2	2147.8	2150.6
65°	2688.8	2593.0	2520.3	2488.5	2456.1	2447.4	2427.7	2434.8
67.5°	2974.1	2895.2	2815.3	2785.7	2756.2	2747.5	2727.2	2733.3
70°	3229.8	3129.5	3038.6	2980.7	2930.4	2889.8	2864.1	2853.6
72.5°	3280.7	3107.1	2964.2	2819.2	2735.3	2661.9	2631.9	2620.4
75°	2947.8	2678.4	2474.8	2304.5	2210.3	2103.6	2092.1	2076.2
77.5°	2293.1	1986.4	1739.9	1521.0	1394.4	1264.3	1219.3	1185.4
80°	1367.7	1051.2	814.8	571.1	466.0	375.0	352.7	329.0
82.5°	489.4	313.7	211.3	164.7	147.3	135.7	127.0	115.5
85°	118.2	99.6	94.1	85.3	84.4	71.8	50.9	45.5
87.5°	37.8	34.5	35.0	33.3	35.0	26.3	21.4	19.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)