

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: P881777

Luminaire Tested: **NAV-SB1B-830-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881777  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1B-830-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

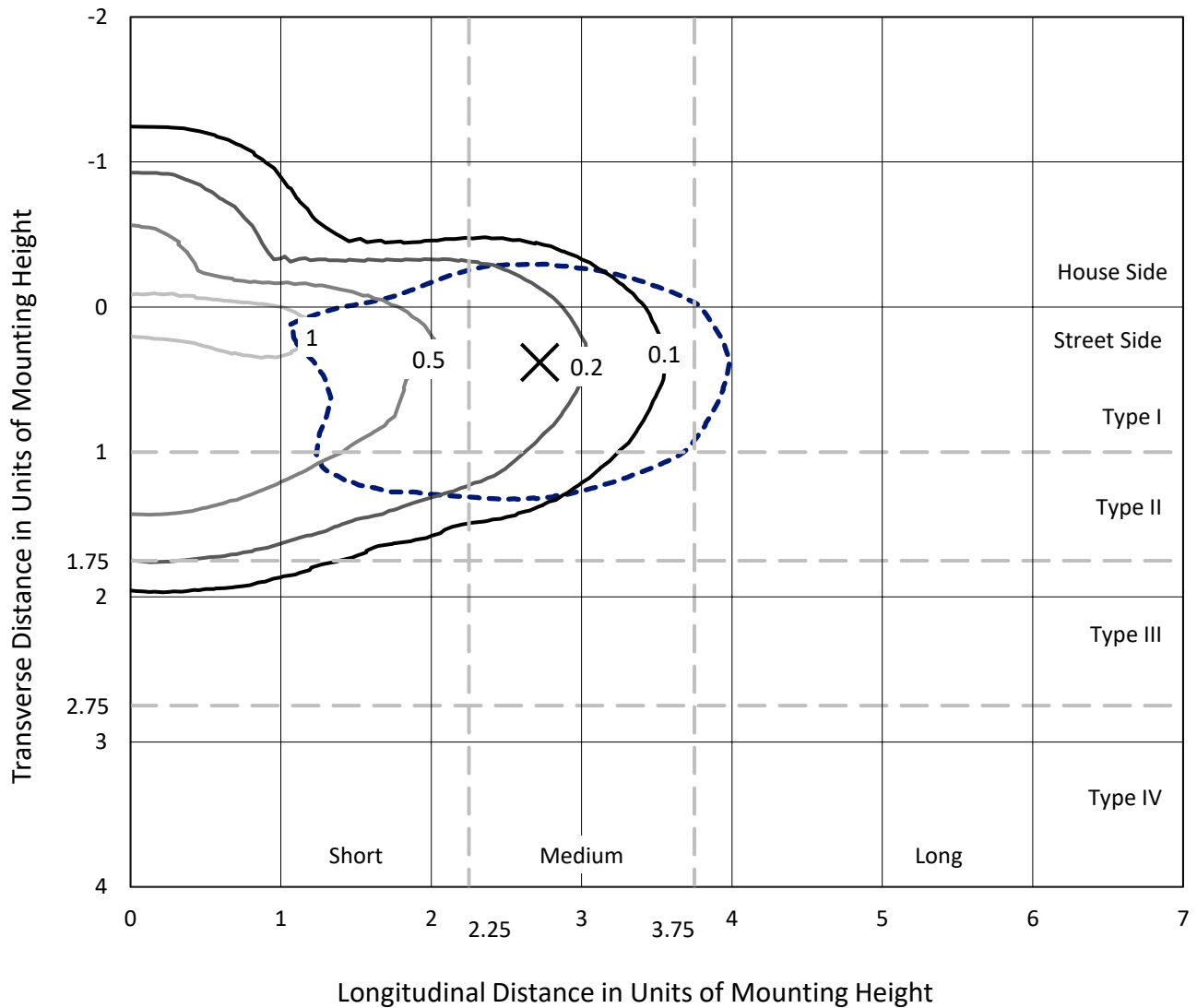
Lumens per Lamp: N/A  
Luminaire Lumens: 4886 lumens  
Efficiency: N/A  
Efficacy: 122.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

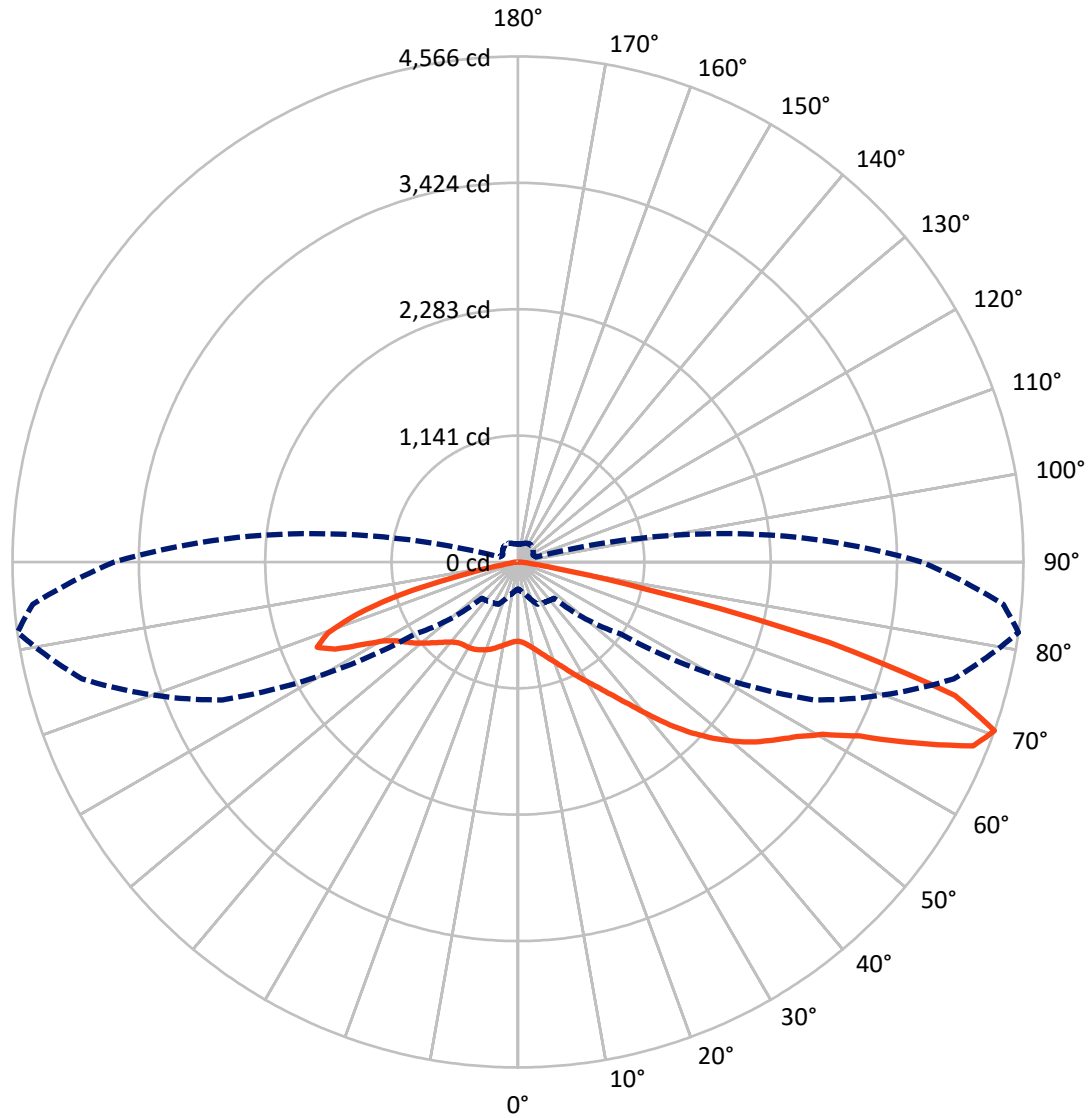
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1204.5	0.0	1204.5
	% Fixture	24.7	0.0	24.7
<b>Street Side</b>	Lumens	3681.5	0.0	3681.5
	% Fixture	75.3	0.0	75.3
<b>Total</b>	Lumens	4886.0	0.0	4886.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	1.4
10°-20°	194.3	4.0
20°-30°	325.1	6.7
30°-40°	507.9	10.4
40°-50°	808.8	16.6
50°-60°	1125.6	23.0
60°-70°	1177.4	24.1
70°-80°	615.4	12.6
80°-90°	63.9	1.3
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°	4886.0	100.0
0°-180°	4886.0	100.0

**Coefficient of Utilization**

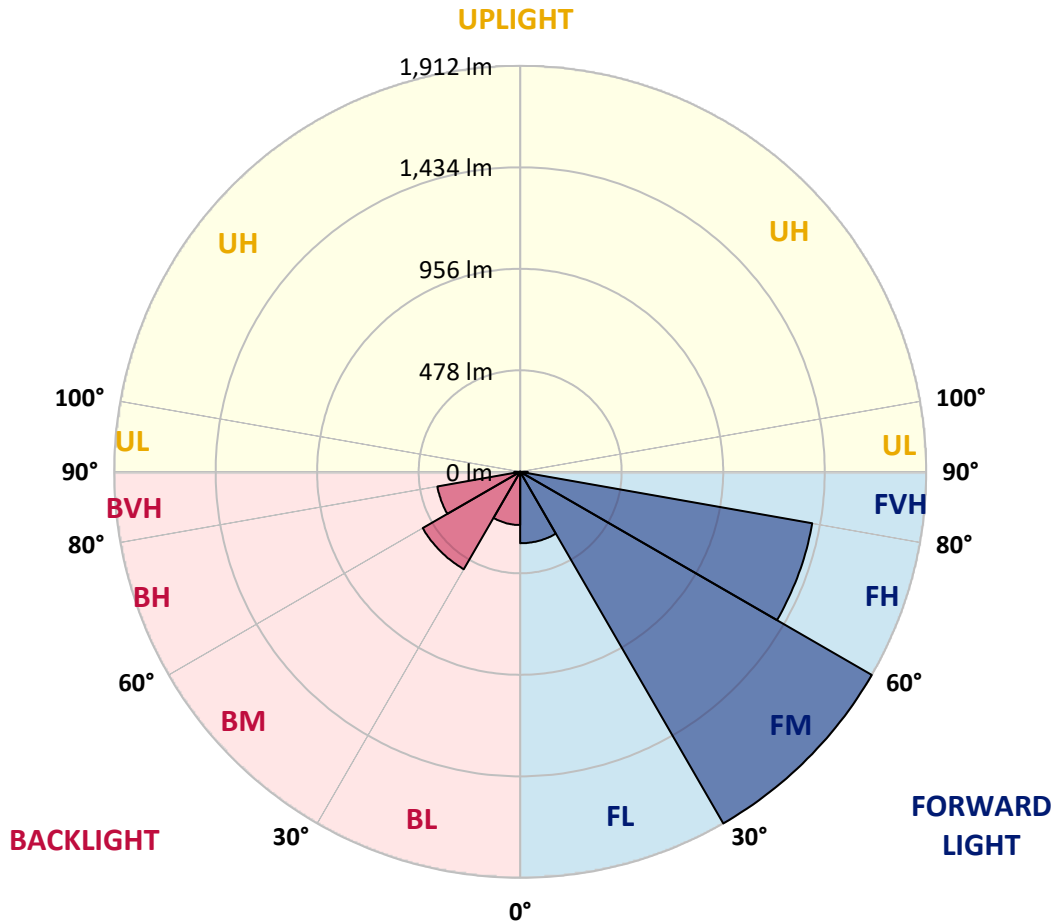


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	336.5	6.9			
FM (30°-60°)	1912.3	39.1			
FH (60°-80°)	1396.9	28.6			G1/1800
FVH (80°-90°)	35.8	0.7			G1/100
BL (0°-30°)	250.6	5.1	B1/500		
BM (30°-60°)	529.9	10.8	B1/1000		
BH (60°-80°)	395.9	8.1	B1/500		G1/500
BVH (80°-90°)	28.1	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**  
 Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
2.5°	733.5	737.6	736.3	735.0	735.0	733.2	732.9	730.3	728.3	724.9	724.1
5°	742.8	747.2	746.7	747.7	751.1	751.9	752.6	751.1	746.9	742.8	741.0
7.5°	734.5	739.4	741.0	747.2	757.6	766.9	773.9	776.8	772.9	766.9	764.1
10°	706.5	711.9	717.4	732.2	750.6	772.6	791.3	802.4	801.6	795.9	791.0
12.5°	649.7	655.4	667.1	695.9	729.6	768.5	803.2	826.5	834.6	830.4	821.9
15°	604.3	609.3	618.1	647.6	691.5	750.6	807.6	853.0	873.5	871.1	860.8
17.5°	603.0	605.1	610.6	624.6	658.3	722.6	802.9	878.9	918.1	917.8	904.8
20°	625.9	626.6	629.8	632.6	651.8	701.3	791.0	900.4	968.1	968.1	954.1
22.5°	657.5	657.0	660.1	657.5	666.8	699.5	783.5	919.4	1023.8	1028.0	1010.4
25°	704.9	702.3	701.6	695.6	697.4	716.3	791.8	940.9	1089.9	1098.5	1076.5
27.5°	768.2	764.1	761.2	747.5	742.8	751.1	817.2	966.8	1163.6	1178.4	1150.4
30°	850.6	843.1	839.0	815.1	798.3	799.6	855.6	1001.3	1240.6	1264.4	1228.9
32.5°	963.2	951.5	940.4	901.2	870.4	860.2	905.1	1049.0	1324.1	1362.2	1316.5
35°	1089.2	1079.8	1067.9	1007.5	960.1	936.7	972.0	1115.6	1421.8	1482.2	1422.8
37.5°	1210.5	1202.5	1208.2	1126.8	1065.6	1031.6	1059.6	1205.1	1542.4	1631.6	1556.1
40°	1336.0	1329.8	1330.5	1252.8	1181.5	1143.4	1165.9	1317.3	1680.6	1809.1	1716.3
42.5°	1472.4	1467.7	1452.1	1383.2	1303.1	1267.5	1288.3	1447.0	1828.9	2011.4	1892.1
45°	1625.1	1622.2	1607.7	1528.6	1436.8	1396.9	1424.9	1590.1	1977.9	2201.7	2068.7
47.5°	1757.0	1759.4	1757.6	1690.9	1595.8	1537.2	1570.6	1739.4	2116.6	2380.6	2238.0
50°	1820.6	1832.7	1850.6	1829.9	1770.8	1711.1	1717.6	1883.6	2248.9	2548.3	2400.3
52.5°	1787.4	1810.4	1859.2	1892.4	1915.2	1902.7	1885.4	2026.7	2373.3	2699.7	2553.8
55°	1663.7	1696.1	1777.0	1857.1	1973.5	2064.0	2086.8	2185.3	2494.6	2833.0	2698.9
57.5°	1438.4	1491.0	1563.6	1725.7	1921.7	2142.0	2321.7	2405.5	2623.2	2975.3	2850.9
60°	1052.1	1122.6	1212.8	1454.0	1740.2	2100.3	2521.6	2743.5	2806.0	3159.7	3048.7
62.5°	673.3	716.9	799.8	1026.9	1356.0	1886.4	2582.8	3166.1	3115.8	3462.0	3345.3
65°	461.0	489.0	564.9	692.5	876.6	1404.2	2418.9	3483.0	3607.9	3941.1	3852.4
67.5°	335.0	356.2	421.0	532.8	571.2	830.9	1877.1	3468.4	4086.3	4434.7	4296.8
70°	244.2	259.3	313.7	421.0	439.5	462.3	1137.1	2948.4	4075.9	4565.9	4400.8
72.5°	181.0	191.3	227.9	326.7	355.7	312.2	562.9	2142.8	3502.4	4129.8	3997.3
75°	130.9	138.7	165.7	249.9	284.7	237.7	280.8	1252.2	2443.1	2905.1	2928.4
77.5°	100.1	106.0	123.7	183.0	227.9	178.4	174.2	576.1	1158.4	1164.1	1229.4
80°	80.4	84.3	93.9	128.9	174.7	133.5	113.6	232.6	366.1	309.8	325.1
82.5°	59.1	65.6	79.3	90.5	125.0	92.0	69.2	117.4	139.2	119.8	120.8
85°	33.7	38.1	48.0	64.8	79.9	56.3	39.7	52.1	64.8	53.1	47.4
87.5°	11.9	15.6	16.9	25.4	34.7	23.3	15.3	15.0	21.3	15.8	13.2
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3	716.3
2.5°	721.5	720.2	715.1	708.1	700.8	693.8	691.5	686.5	683.2	681.3	683.4
5°	736.1	731.9	719.7	704.2	687.8	670.2	657.8	646.3	638.1	630.3	633.4
7.5°	756.8	749.5	728.5	701.3	672.3	643.0	621.2	604.6	593.5	586.2	587.8
10°	780.9	769.8	737.6	696.9	652.1	610.1	584.4	570.1	563.1	559.2	560.3
12.5°	808.6	792.8	746.9	686.8	621.2	573.2	555.6	551.5	551.7	552.0	552.5
15°	842.9	820.8	754.5	664.8	581.0	545.0	541.9	548.6	555.6	559.0	558.7
17.5°	881.5	850.4	755.8	628.5	541.6	526.8	536.7	551.2	561.8	566.5	567.5
20°	923.0	880.5	746.4	577.1	509.2	512.0	529.7	548.3	560.0	566.0	567.5
22.5°	970.4	912.6	724.1	523.2	482.8	496.0	516.7	534.9	547.0	553.0	554.6
25°	1024.6	948.6	689.1	477.8	459.9	477.8	498.6	513.6	523.5	528.9	530.5
27.5°	1084.8	986.2	642.5	441.8	440.0	459.2	476.3	487.9	493.1	497.3	498.8
30°	1145.2	1020.5	585.9	414.6	422.6	440.8	452.9	458.1	459.7	460.5	462.3
32.5°	1210.5	1050.0	526.6	392.0	406.0	422.9	430.1	432.5	425.2	420.3	421.8
35°	1289.6	1081.7	468.5	374.1	389.7	404.2	406.5	404.5	395.9	385.8	386.3
37.5°	1387.3	1121.1	422.1	361.4	374.4	384.0	381.1	380.6	381.4	369.5	370.2
40°	1507.1	1172.4	388.1	351.6	361.9	364.0	356.0	360.4	364.3	346.1	346.6
42.5°	1640.1	1234.4	366.6	344.8	351.6	346.6	334.2	339.1	338.6	314.7	314.5
45°	1775.7	1301.8	359.1	339.9	342.0	332.1	318.4	319.7	308.8	287.3	288.0
47.5°	1910.5	1374.1	363.7	335.7	330.0	318.9	308.3	302.6	286.5	270.4	270.4
50°	2042.7	1450.1	380.9	327.5	313.7	307.2	299.5	289.3	272.2	258.5	257.4
52.5°	2165.4	1526.6	400.0	313.7	293.2	297.1	292.2	280.5	263.7	249.7	249.9
55°	2281.5	1603.0	407.6	294.8	274.0	288.3	285.5	263.9	243.7	232.3	231.3
57.5°	2408.1	1695.1	399.3	270.7	258.5	278.2	267.3	243.4	231.8	223.2	222.4
60°	2583.3	1839.5	381.4	240.9	243.7	263.2	244.5	234.6	221.9	212.3	211.8
62.5°	2874.5	2108.9	352.6	211.3	226.3	240.9	233.6	223.7	210.8	201.4	201.4
65°	3304.8	2483.2	298.4	188.2	206.9	219.1	221.9	212.1	198.6	188.7	189.3
67.5°	3667.8	2718.1	225.8	169.0	186.9	201.4	209.5	199.9	185.6	176.0	176.3
70°	3647.9	2547.5	172.4	150.1	169.3	184.1	194.4	186.9	171.6	162.6	163.3
72.5°	3240.0	2131.2	139.5	130.9	151.4	165.9	178.4	172.7	157.1	148.3	148.3
75°	2380.3	1512.8	111.5	111.5	129.1	147.0	160.7	157.1	142.9	136.6	134.8
77.5°	1003.4	634.7	87.4	92.6	107.3	126.3	143.4	144.7	132.2	140.0	127.0
80°	266.8	175.0	66.6	72.9	84.3	104.2	124.7	124.2	110.7	103.4	96.2
82.5°	101.6	69.0	47.4	51.3	60.9	79.9	98.8	101.9	88.4	76.5	76.5
85°	39.1	29.6	29.3	30.9	35.5	52.9	74.7	77.3	66.6	56.5	58.3
87.5°	10.1	8.8	10.9	10.4	16.3	28.3	42.8	44.3	40.7	23.6	33.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)