

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: P881776

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

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
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-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3601 lumens
Efficiency: N/A
Efficacy: 90.5 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

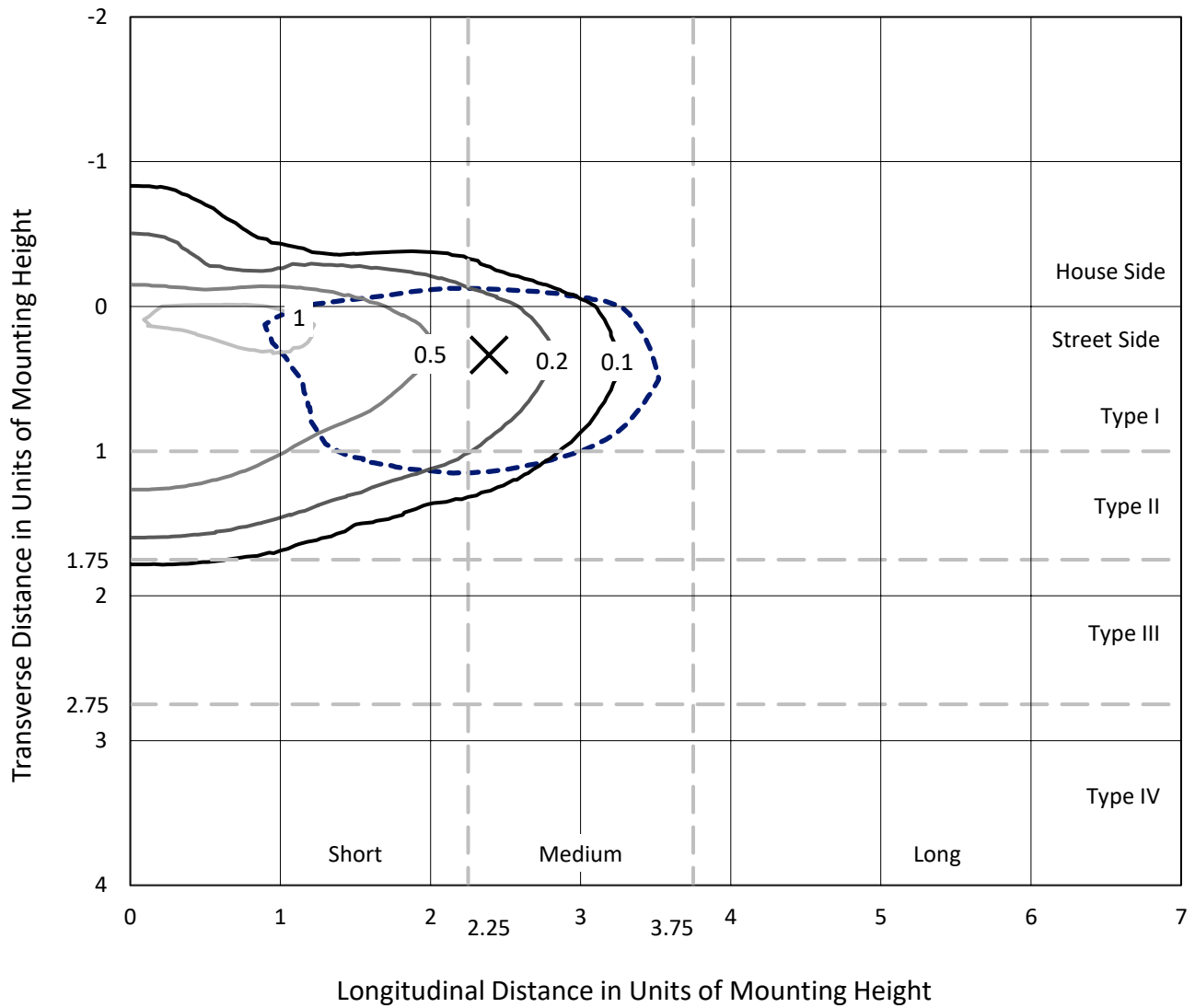
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

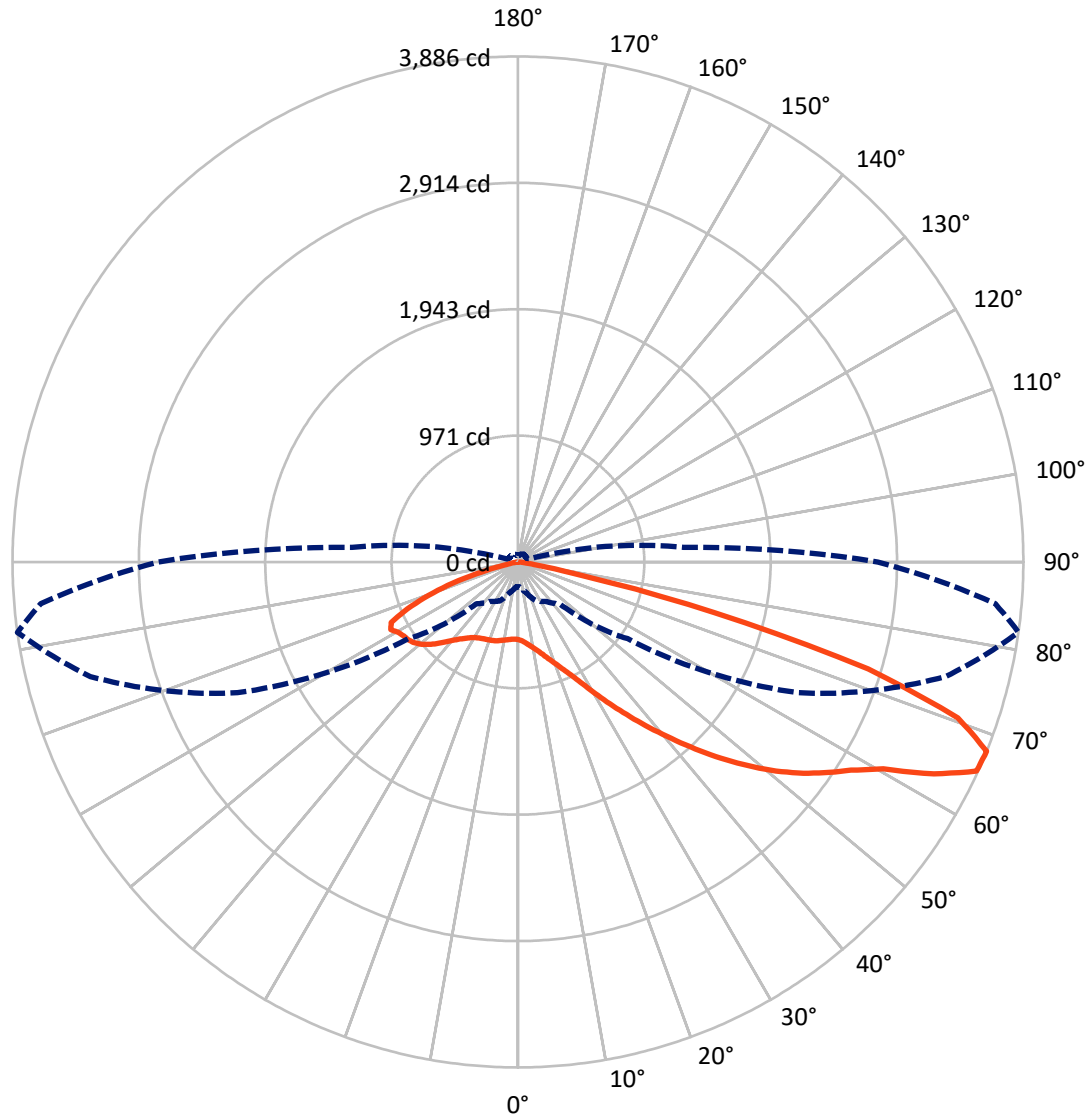
✕ Max cd
 - - - 1/2 Max cd



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 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	652.3	0.0	652.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	2948.7	0.0	2948.7
	% Fixture	81.9	0.0	81.9
Total	Lumens	3601.0	0.0	3601.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.1	1.5
10°-20°	138.1	3.8
20°-30°	221.2	6.1
30°-40°	391.2	10.9
40°-50°	685.4	19.0
50°-60°	914.1	25.4
60°-70°	851.0	23.6
70°-80°	326.6	9.1
80°-90°	20.3	0.6
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°	3601.0	100.0
0°-180°	3601.0	100.0

Coefficient of Utilization



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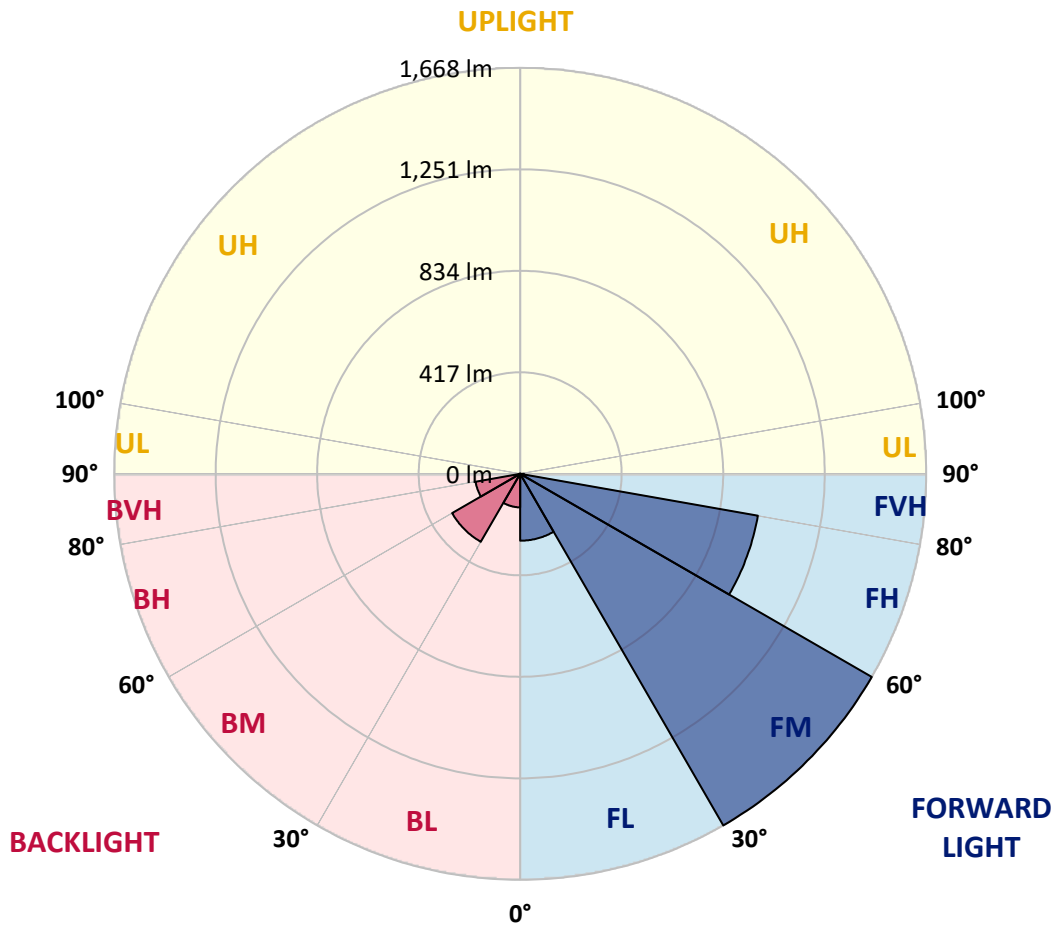
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	274.7	7.6			
FM (30°-60°)	1667.8	46.3			
FH (60°-80°)	991.4	27.5			G1/1800
FVH (80°-90°)	14.7	0.4			G1/100
BL (0°-30°)	137.8	3.8	B1/500		
BM (30°-60°)	322.8	9.0	B1/1000		
BH (60°-80°)	186.2	5.2	B1/500		G1/500
BVH (80°-90°)	5.5	0.2			G0/10
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°	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6
2.5°	630.5	634.2	632.1	631.0	629.2	626.6	624.6	618.1	611.3	606.9	605.4
5°	643.2	646.9	646.6	647.6	648.9	649.7	649.2	641.9	632.3	624.8	620.4
7.5°	632.3	636.5	639.9	645.0	654.1	663.7	668.4	666.8	657.0	646.6	641.2
10°	601.5	605.9	613.9	626.1	645.3	666.0	683.4	691.5	685.2	673.8	666.3
12.5°	545.0	549.4	565.2	591.6	623.8	659.8	693.0	714.5	716.1	704.7	695.9
15°	481.5	485.9	502.7	535.9	584.9	642.7	698.2	738.9	752.6	742.8	732.2
17.5°	442.0	445.9	458.6	485.3	536.4	608.5	696.4	764.8	796.2	788.4	775.7
20°	430.1	433.5	439.5	458.1	500.6	573.0	684.5	789.2	843.1	838.7	824.5
22.5°	442.8	445.9	447.7	456.0	482.7	549.6	669.4	814.1	897.6	898.1	880.7
25°	472.1	475.2	473.2	478.3	490.0	542.4	663.7	843.4	966.0	971.7	952.0
27.5°	520.3	520.6	515.7	515.4	517.2	553.3	669.7	874.8	1052.3	1063.0	1038.6
30°	617.0	613.2	594.2	573.7	564.4	585.9	686.3	911.8	1154.2	1173.2	1142.6
32.5°	766.1	760.4	725.7	676.7	627.4	638.6	716.1	954.1	1265.2	1299.4	1262.1
35°	927.9	926.3	890.0	817.2	731.1	713.5	764.6	1009.6	1386.3	1440.7	1396.4
37.5°	1078.3	1077.5	1056.8	970.9	866.2	818.0	842.3	1082.2	1515.9	1594.7	1542.4
40°	1215.7	1218.0	1197.3	1120.5	1015.0	952.0	948.1	1171.9	1660.1	1762.5	1700.2
42.5°	1334.4	1337.0	1316.0	1259.2	1162.0	1100.3	1078.0	1281.8	1800.8	1942.7	1869.0
45°	1415.1	1431.1	1428.0	1382.6	1312.9	1248.9	1234.1	1419.7	1961.3	2133.7	2047.4
47.5°	1437.9	1452.6	1476.0	1482.2	1439.7	1376.7	1394.3	1585.9	2123.6	2325.1	2226.8
50°	1381.6	1395.4	1443.8	1508.4	1537.9	1518.5	1550.1	1764.0	2289.8	2515.9	2402.8
52.5°	1270.6	1284.6	1345.8	1448.0	1568.5	1629.7	1706.5	1939.5	2450.8	2696.6	2569.6
55°	1110.2	1124.9	1203.5	1319.1	1510.2	1675.6	1836.9	2114.8	2598.3	2859.2	2719.9
57.5°	891.9	902.8	984.4	1146.2	1363.5	1630.0	1933.1	2306.1	2737.3	3018.9	2869.0
60°	581.3	590.9	685.8	866.2	1120.3	1477.5	1952.2	2519.5	2921.9	3226.5	3069.9
62.5°	386.6	393.0	449.3	581.8	788.9	1184.8	1840.0	2689.9	3192.6	3587.9	3414.5
65°	265.2	271.7	328.0	420.3	509.7	783.8	1517.2	2667.3	3437.8	3874.9	3669.9
67.5°	189.3	194.7	242.4	329.5	368.9	455.3	1028.5	2379.0	3402.6	3885.8	3683.6
70°	135.6	138.7	178.1	256.7	293.2	273.5	571.9	1819.5	2979.2	3588.2	3403.1
72.5°	94.9	95.9	123.7	195.5	236.2	199.6	272.2	1213.1	2253.3	2816.4	2638.3
75°	64.3	65.6	83.2	143.4	189.5	152.4	144.2	650.5	1322.8	1558.9	1397.4
77.5°	39.4	39.9	53.7	98.0	141.8	116.1	92.8	275.6	511.8	502.5	428.3
80°	22.3	22.3	34.2	60.9	96.7	74.9	65.1	117.2	162.0	142.3	125.5
82.5°	12.4	12.7	24.9	37.9	64.0	44.3	35.8	54.2	70.0	62.0	53.9
85°	5.2	5.7	15.3	17.9	30.6	22.0	14.5	22.8	25.9	23.1	16.9
87.5°	0.5	0.8	4.7	3.4	3.6	4.4	2.1	4.4	3.6	3.6	2.6
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°	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6	596.6
2.5°	600.5	596.6	586.7	575.3	560.3	553.0	543.2	536.4	530.7	531.2	526.0
5°	612.1	602.3	580.2	552.7	518.5	494.2	468.2	450.3	435.8	432.7	425.7
7.5°	628.2	612.6	574.0	524.5	466.7	422.9	383.7	358.6	340.7	335.0	329.3
10°	648.9	626.4	566.0	489.0	405.7	350.0	308.0	288.3	276.1	272.0	268.9
12.5°	673.0	642.2	555.3	445.7	343.0	289.3	262.6	252.8	248.9	247.6	246.8
15°	703.4	661.9	539.3	394.3	289.9	252.3	240.9	239.6	240.1	239.6	239.3
17.5°	739.4	683.4	513.1	341.4	254.1	233.3	229.2	230.2	231.5	231.3	230.7
20°	778.8	704.7	479.6	294.5	229.7	219.9	217.5	218.6	219.6	219.1	218.8
22.5°	823.7	727.5	442.6	258.0	213.4	207.4	204.8	205.1	205.1	204.0	203.5
25°	877.3	752.6	403.7	232.0	200.9	196.3	193.2	192.1	190.6	187.4	186.9
27.5°	941.4	779.3	366.3	213.9	191.1	186.7	183.0	180.4	176.6	171.4	170.9
30°	1013.5	811.8	334.7	202.5	183.3	178.9	174.7	170.9	165.2	158.7	158.2
32.5°	1098.2	846.5	311.6	195.0	176.3	171.6	166.7	162.0	155.8	149.3	149.6
35°	1199.3	888.5	298.2	189.8	170.9	164.6	159.2	154.0	149.3	143.6	143.1
37.5°	1309.0	933.1	294.0	187.2	167.2	157.6	151.4	147.8	147.3	143.9	143.6
40°	1429.1	986.0	297.1	185.6	163.3	150.9	144.2	143.4	144.7	138.7	139.0
42.5°	1556.1	1048.7	302.3	183.8	157.9	144.2	137.7	137.7	136.6	128.3	128.3
45°	1693.5	1121.1	307.5	179.4	151.4	137.4	132.5	130.7	126.3	118.2	118.0
47.5°	1832.0	1194.7	311.4	171.4	143.6	131.7	127.3	123.1	116.7	109.4	109.1
50°	1963.4	1260.8	307.2	159.4	134.8	126.3	121.6	115.9	108.9	104.0	103.2
52.5°	2080.8	1318.1	289.6	145.4	125.5	120.6	116.4	110.4	104.7	99.6	99.0
55°	2183.0	1364.5	258.5	132.2	117.2	115.6	111.5	104.0	96.2	91.8	91.3
57.5°	2281.0	1399.8	219.6	121.3	109.7	110.2	104.0	97.2	90.0	85.3	84.8
60°	2411.4	1446.9	180.2	111.2	101.6	103.2	96.4	91.5	82.4	76.5	75.7
62.5°	2619.9	1520.3	143.1	98.8	92.3	92.8	90.0	84.0	73.1	66.1	65.6
65°	2785.3	1493.4	112.8	85.3	81.7	82.4	82.4	76.0	64.3	56.3	55.5
67.5°	2766.6	1278.7	90.0	72.1	71.6	72.1	73.9	68.4	57.0	50.6	49.5
70°	2548.6	1017.1	72.1	59.9	62.2	60.9	66.1	62.5	51.3	44.9	44.1
72.5°	2079.5	732.7	55.0	49.5	47.7	49.8	59.6	56.3	42.8	35.5	34.7
75°	1215.2	391.0	41.0	39.1	34.5	41.5	52.9	48.0	32.7	26.2	25.4
77.5°	395.6	136.4	30.1	28.8	25.7	33.4	45.1	40.4	26.7	20.7	20.0
80°	106.0	41.2	20.5	18.9	16.6	24.9	35.8	32.1	19.2	13.5	13.2
82.5°	42.5	17.4	11.9	10.6	9.1	17.1	28.3	25.9	14.3	8.6	8.6
85°	13.7	5.7	4.4	3.4	4.1	10.6	16.9	17.6	10.1	4.4	3.4
87.5°	1.8	0.8	0.8	1.0	0.8	1.8	5.2	4.9	2.9	0.5	0.0
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)