

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: P881596

Luminaire Tested: **NAV-SB1A-827-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881596
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-SB1A-827-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 350mA 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: 2664 lumens
Efficiency: N/A
Efficacy: 86.2 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

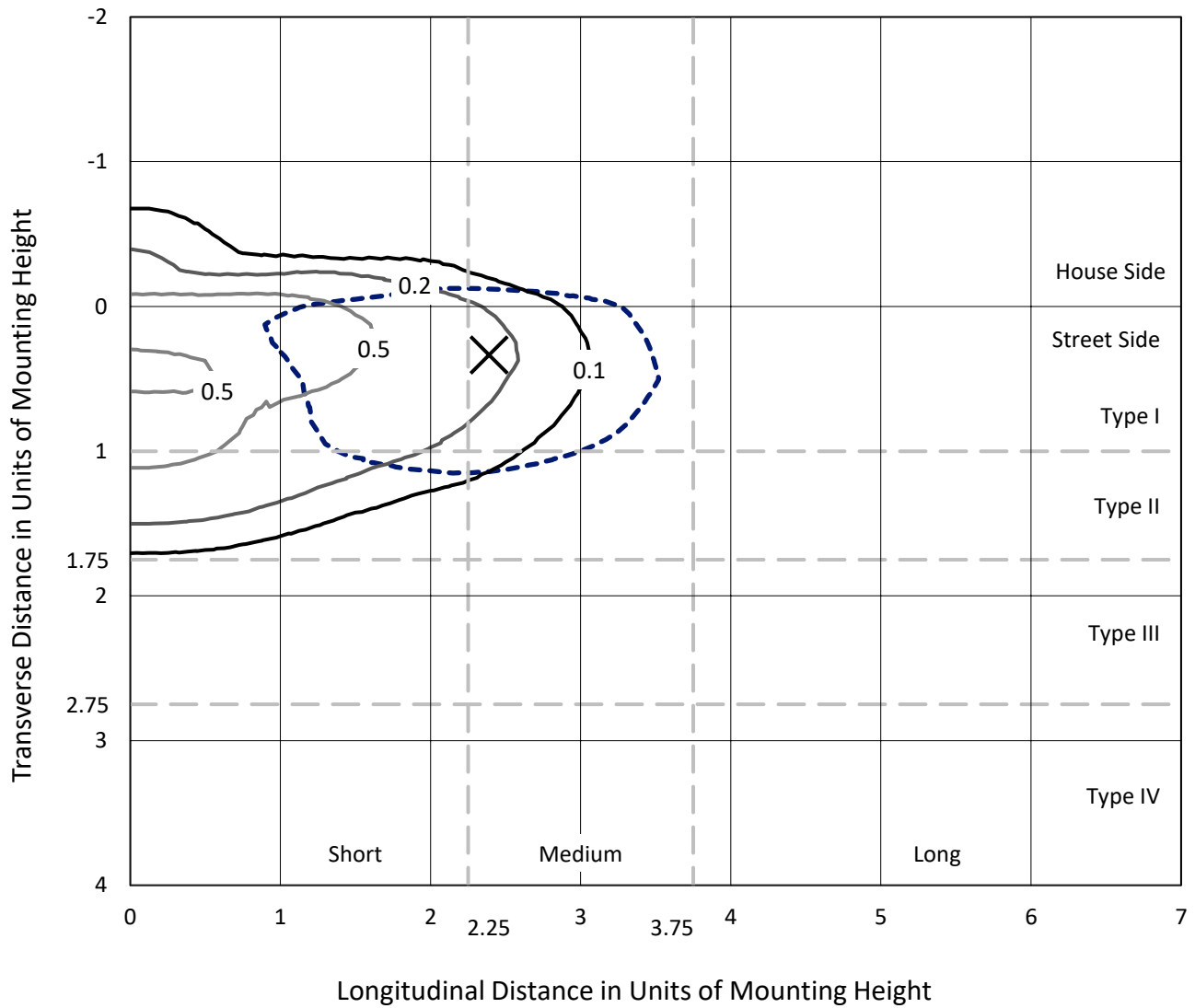
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

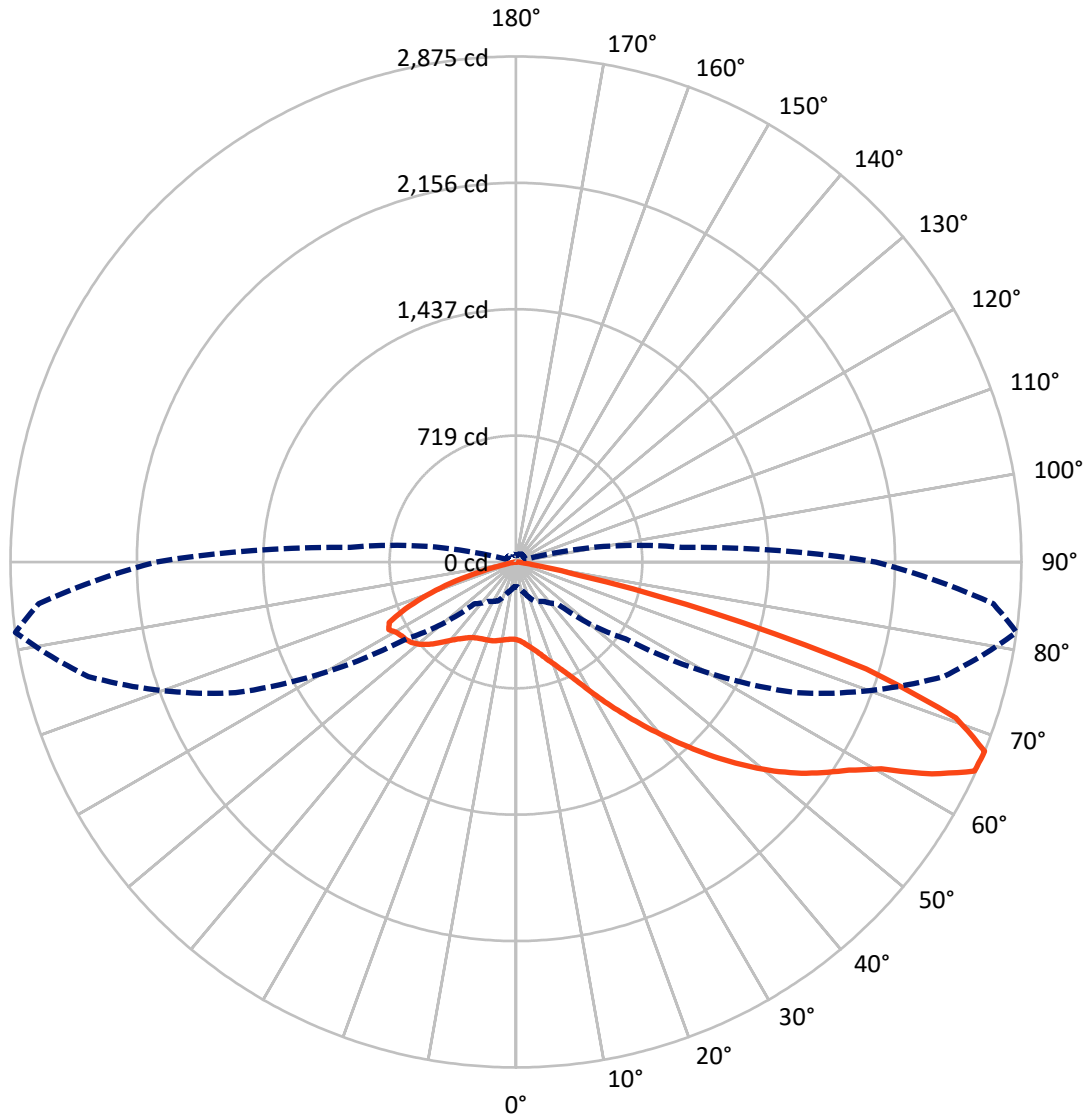
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.9 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	482.6	0.0	482.6
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	2181.4	0.0	2181.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	2664.0	0.0	2664.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	1.5
10°-20°	102.2	3.8
20°-30°	163.7	6.1
30°-40°	289.4	10.9
40°-50°	507.0	19.0
50°-60°	676.2	25.4
60°-70°	629.6	23.6
70°-80°	241.6	9.1
80°-90°	15.0	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°	2664.0	100.0
0°-180°	2664.0	100.0

Coefficient of Utilization



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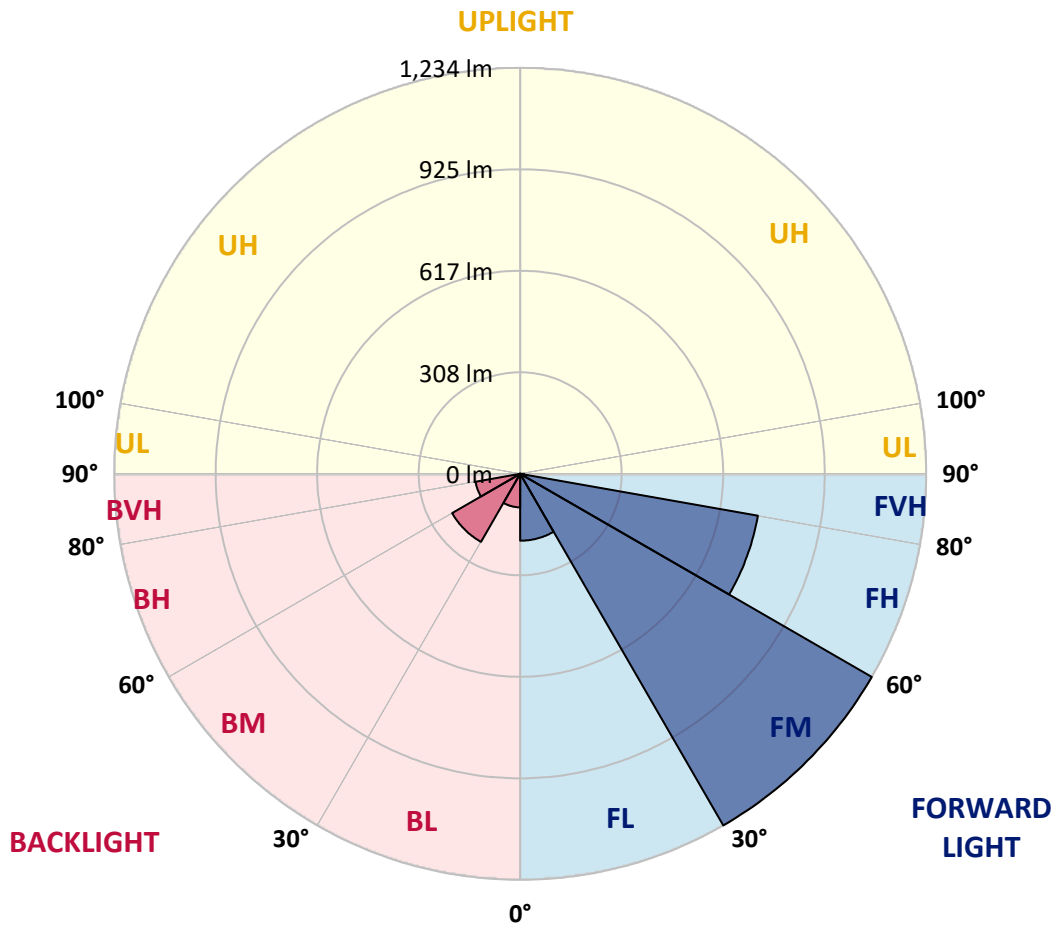
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	203.2	7.6			
FM (30°-60°)	1233.9	46.3			
FH (60°-80°)	733.4	27.5			G1/1800
FVH (80°-90°)	10.9	0.4			G1/100
BL (0°-30°)	101.9	3.8	B0/110		
BM (30°-60°)	238.8	9.0	B1/1000		
BH (60°-80°)	137.7	5.2	B1/500		G1/500
BVH (80°-90°)	4.1	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°	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3
2.5°	466.5	469.1	467.6	466.8	465.5	463.6	462.0	457.3	452.3	449.0	447.9
5°	475.9	478.5	478.4	479.1	480.1	480.7	480.3	474.9	467.8	462.2	459.0
7.5°	467.8	470.9	473.4	477.2	483.9	491.0	494.5	493.3	486.0	478.4	474.3
10°	445.0	448.2	454.2	463.2	477.4	492.7	505.6	511.5	506.9	498.5	492.9
12.5°	403.2	406.4	418.1	437.7	461.5	488.1	512.7	528.6	529.8	521.3	514.8
15°	356.2	359.4	371.9	396.5	432.7	475.5	516.5	546.6	556.8	549.5	541.6
17.5°	327.0	329.9	339.3	359.1	396.8	450.2	515.2	565.8	589.0	583.3	573.9
20°	318.2	320.7	325.1	338.9	370.4	423.9	506.4	583.8	623.7	620.5	609.9
22.5°	327.6	329.9	331.2	337.4	357.1	406.6	495.2	602.3	664.0	664.4	651.5
25°	349.3	351.6	350.0	353.9	362.5	401.2	491.0	623.9	714.7	718.9	704.3
27.5°	384.9	385.1	381.5	381.3	382.6	409.3	495.4	647.1	778.5	786.4	768.4
30°	456.5	453.6	439.6	424.5	417.6	433.5	507.7	674.6	853.9	867.9	845.3
32.5°	566.8	562.6	536.9	500.6	464.2	472.4	529.8	705.8	936.0	961.3	933.7
35°	686.5	685.3	658.5	604.6	540.9	527.8	565.6	746.9	1025.6	1065.8	1033.0
37.5°	797.7	797.1	781.8	718.3	640.8	605.1	623.2	800.6	1121.5	1179.8	1141.0
40°	899.4	901.1	885.7	829.0	750.9	704.3	701.4	866.9	1228.1	1303.9	1257.8
42.5°	987.2	989.1	973.6	931.6	859.7	814.0	797.5	948.3	1332.3	1437.2	1382.7
45°	1046.9	1058.7	1056.4	1022.9	971.3	923.9	913.0	1050.3	1451.0	1578.5	1514.7
47.5°	1063.7	1074.7	1091.9	1096.5	1065.1	1018.5	1031.5	1173.2	1571.0	1720.1	1647.4
50°	1022.1	1032.3	1068.1	1115.9	1137.8	1123.4	1146.8	1305.0	1694.0	1861.2	1777.6
52.5°	940.0	950.4	995.6	1071.2	1160.4	1205.7	1262.4	1434.9	1813.1	1994.9	1900.9
55°	821.3	832.2	890.3	975.9	1117.2	1239.6	1358.9	1564.5	1922.2	2115.2	2012.2
57.5°	659.8	667.9	728.3	848.0	1008.7	1205.9	1430.1	1706.1	2025.0	2233.3	2122.5
60°	430.0	437.1	507.3	640.8	828.8	1093.1	1444.3	1863.9	2161.6	2387.0	2271.1
62.5°	286.0	290.8	332.4	430.4	583.7	876.5	1361.2	1989.9	2361.8	2654.3	2526.0
65°	196.2	201.0	242.6	310.9	377.1	579.8	1122.4	1973.3	2543.3	2866.7	2714.9
67.5°	140.0	144.0	179.3	243.8	272.9	336.8	760.9	1760.0	2517.2	2874.7	2725.1
70°	100.3	102.6	131.8	189.9	216.9	202.4	423.1	1346.1	2204.0	2654.5	2517.6
72.5°	70.2	71.0	91.5	144.6	174.7	147.7	201.4	897.4	1666.9	2083.5	1951.8
75°	47.6	48.5	61.6	106.1	140.2	112.8	106.6	481.2	978.6	1153.3	1033.8
77.5°	29.2	29.5	39.7	72.5	104.9	85.9	68.7	203.9	378.6	371.7	316.9
80°	16.5	16.5	25.3	45.1	71.5	55.4	48.1	86.7	119.9	105.3	92.8
82.5°	9.2	9.4	18.4	28.0	47.4	32.8	26.5	40.1	51.8	45.8	39.9
85°	3.8	4.2	11.3	13.2	22.6	16.3	10.7	16.9	19.2	17.1	12.5
87.5°	0.4	0.6	3.5	2.5	2.7	3.3	1.5	3.3	2.7	2.7	1.9
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°	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3	441.3
2.5°	444.2	441.3	434.0	425.6	414.5	409.1	401.8	396.8	392.6	393.0	389.2
5°	452.8	445.6	429.3	408.9	383.6	365.6	346.4	333.2	322.4	320.1	314.9
7.5°	464.7	453.2	424.6	388.0	345.2	312.8	283.9	265.3	252.0	247.8	243.6
10°	480.1	463.4	418.7	361.7	300.2	258.9	227.9	213.3	204.3	201.2	198.9
12.5°	497.9	475.1	410.8	329.7	253.8	214.1	194.3	187.0	184.1	183.2	182.6
15°	520.4	489.7	398.9	291.7	214.4	186.6	178.2	177.2	177.6	177.2	177.0
17.5°	547.0	505.6	379.6	252.6	188.0	172.6	169.6	170.3	171.3	171.1	170.7
20°	576.2	521.3	354.8	217.9	169.9	162.6	160.9	161.7	162.5	162.1	161.9
22.5°	609.4	538.2	327.4	190.8	157.9	153.4	151.5	151.7	151.7	150.9	150.6
25°	649.1	556.8	298.6	171.7	148.6	145.2	142.9	142.1	141.0	138.7	138.3
27.5°	696.4	576.6	271.0	158.2	141.4	138.1	135.4	133.5	130.6	126.8	126.4
30°	749.8	600.5	247.6	149.8	135.6	132.3	129.3	126.4	122.2	117.4	117.0
32.5°	812.5	626.2	230.5	144.2	130.4	127.0	123.3	119.9	115.3	110.5	110.7
35°	887.3	657.3	220.6	140.4	126.4	121.8	117.8	113.9	110.5	106.3	105.9
37.5°	968.4	690.3	217.5	138.5	123.7	116.6	112.0	109.3	108.9	106.4	106.3
40°	1057.2	729.4	219.8	137.3	120.8	111.6	106.6	106.1	107.0	102.6	102.8
42.5°	1151.2	775.8	223.6	136.0	116.8	106.6	101.8	101.8	101.1	94.9	94.9
45°	1252.8	829.3	227.5	132.7	112.0	101.7	98.0	96.7	93.4	87.5	87.3
47.5°	1355.3	883.8	230.4	126.8	106.3	97.4	94.2	91.1	86.3	80.9	80.7
50°	1452.5	932.7	227.3	118.0	99.7	93.4	90.0	85.7	80.6	76.9	76.3
52.5°	1539.4	975.1	214.2	107.6	92.8	89.2	86.1	81.7	77.5	73.7	73.3
55°	1615.0	1009.4	191.2	97.8	86.7	85.5	82.5	76.9	71.2	67.9	67.5
57.5°	1687.5	1035.5	162.5	89.8	81.1	81.5	76.9	71.9	66.6	63.1	62.7
60°	1783.9	1070.4	133.3	82.3	75.2	76.3	71.4	67.7	61.0	56.6	56.0
62.5°	1938.2	1124.7	105.9	73.1	68.3	68.7	66.6	62.1	54.1	48.9	48.5
65°	2060.5	1104.8	83.4	63.1	60.4	61.0	61.0	56.2	47.6	41.6	41.0
67.5°	2046.7	946.0	66.6	53.3	52.9	53.3	54.7	50.6	42.2	37.4	36.6
70°	1885.4	752.4	53.3	44.3	46.0	45.1	48.9	46.2	38.0	33.2	32.6
72.5°	1538.4	542.0	40.7	36.6	35.3	36.8	44.1	41.6	31.6	26.3	25.7
75°	899.0	289.2	30.3	29.0	25.5	30.7	39.1	35.5	24.2	19.4	18.8
77.5°	292.7	100.9	22.2	21.3	19.0	24.7	33.4	29.9	19.8	15.3	14.8
80°	78.4	30.5	15.2	14.0	12.3	18.4	26.5	23.8	14.2	10.0	9.8
82.5°	31.5	12.9	8.8	7.9	6.7	12.7	20.9	19.2	10.5	6.3	6.3
85°	10.2	4.2	3.3	2.5	3.1	7.9	12.5	13.0	7.5	3.3	2.5
87.5°	1.3	0.6	0.6	0.8	0.6	1.3	3.8	3.6	2.1	0.4	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)