

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: P881773

Luminaire Tested: **NAV-SB1B-830-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881773
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-830-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3442 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

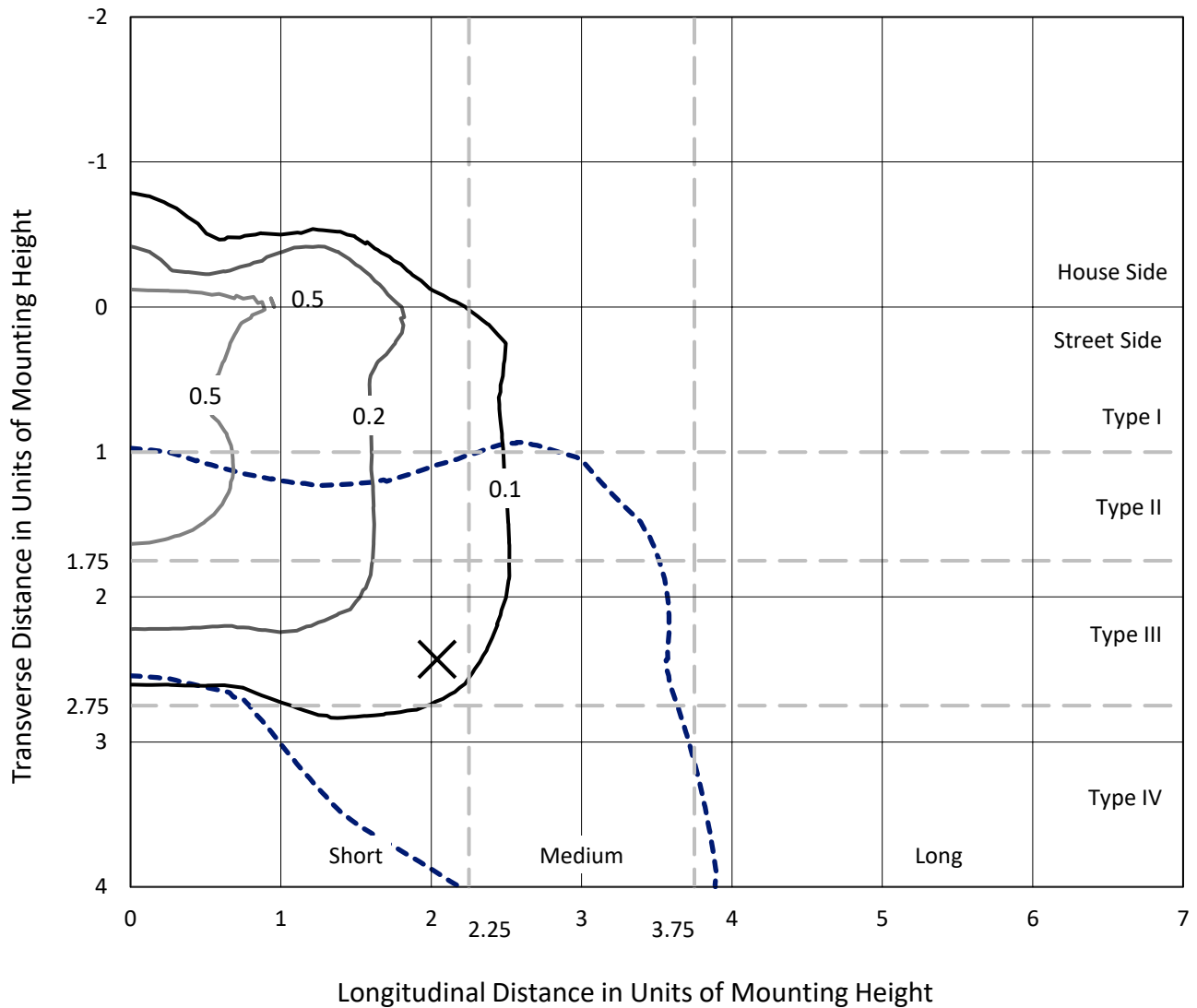
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

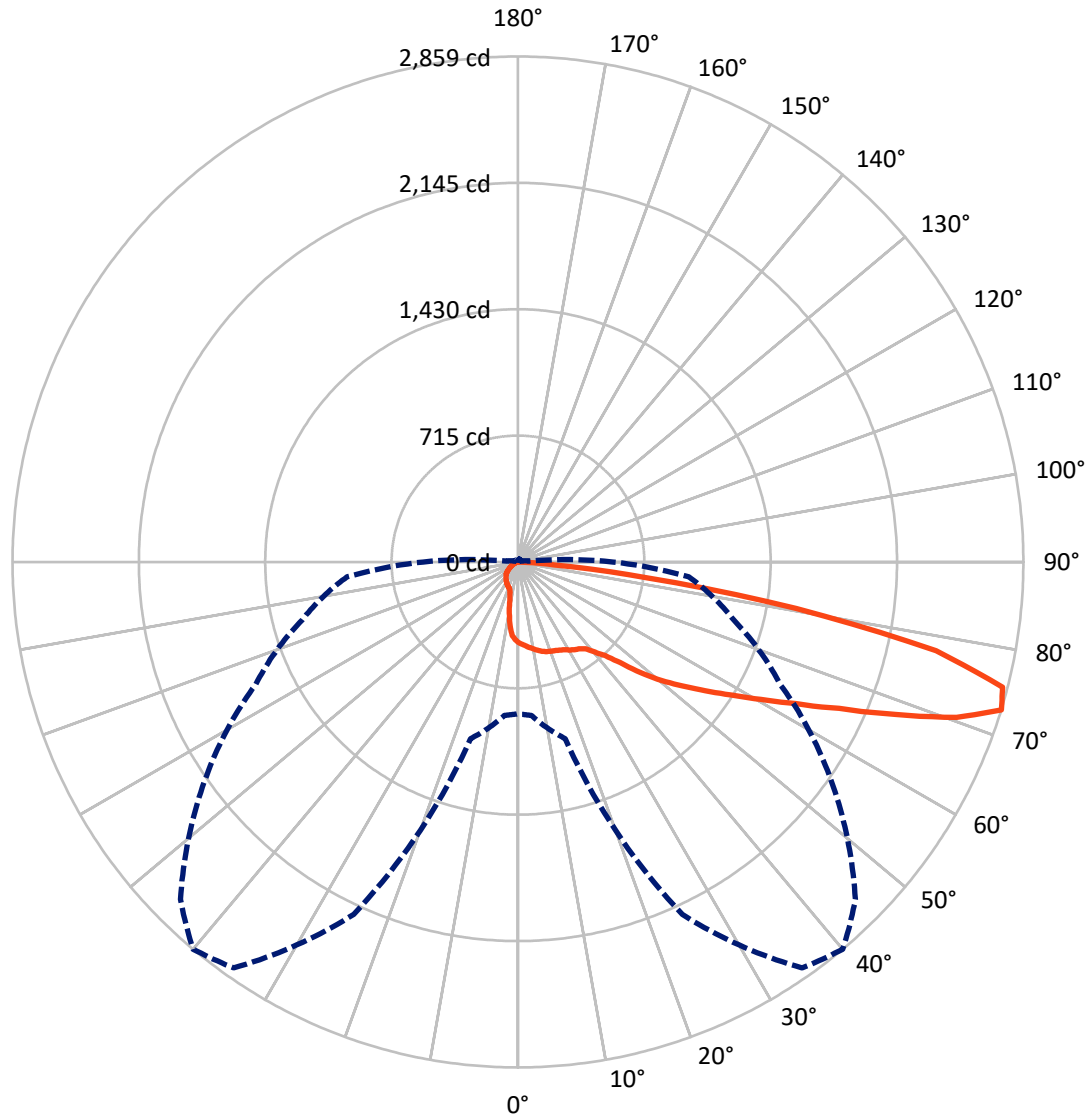
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	444.5	0.0	444.5
	% Fixture	12.9	0.0	12.9
Street Side	Lumens	2997.5	0.0	2997.5
	% Fixture	87.1	0.0	87.1
Total	Lumens	3442.0	0.0	3442.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.6	1.2
10°-20°	113.0	3.3
20°-30°	182.9	5.3
30°-40°	270.0	7.8
40°-50°	454.4	13.2
50°-60°	705.6	20.5
60°-70°	882.9	25.7
70°-80°	722.9	21.0
80°-90°	68.5	2.0
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°	3442.0	100.0
0°-180°	3442.0	100.0

Coefficient of Utilization



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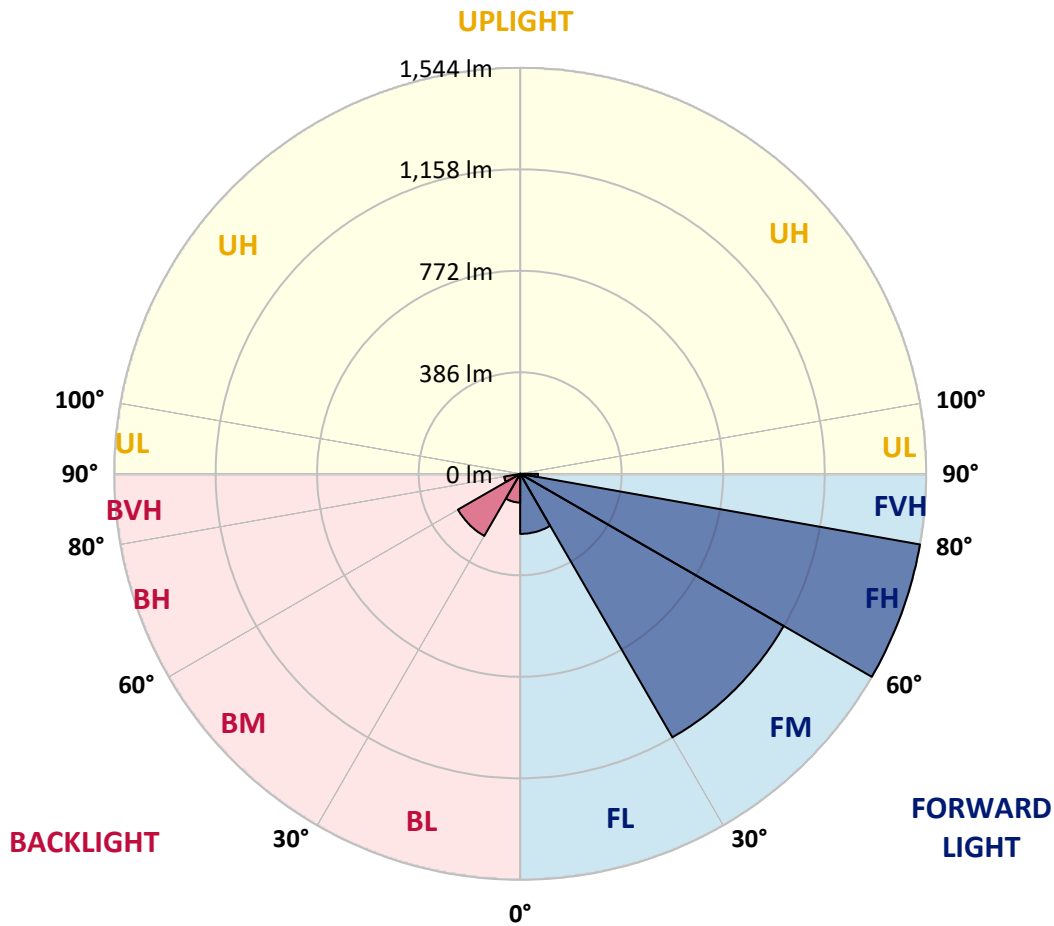
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	228.4	6.6			
FM (30°-60°)	1157.1	33.6			
FH (60°-80°)	1543.9	44.9			G1/1800
FVH (80°-90°)	68.0	2.0			G1/100
BL (0°-30°)	109.1	3.2	B0/110		
BM (30°-60°)	273.0	7.9	B1/1000		
BH (60°-80°)	61.9	1.8	B0/110		G0/110
BVH (80°-90°)	0.5	0.0			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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7
2.5°	469.5	471.3	470.3	468.2	467.7	466.6	465.3	464.8	463.0	461.5	459.6
5°	482.7	484.5	483.2	480.4	479.1	477.8	476.0	474.4	470.8	467.4	463.3
7.5°	497.2	498.8	497.2	493.1	491.0	489.5	486.9	484.5	480.4	475.5	470.3
10°	513.3	514.6	512.3	506.8	503.4	501.1	498.8	496.2	492.3	486.9	480.6
12.5°	528.3	529.9	526.3	519.8	515.9	513.6	511.0	508.9	505.0	499.8	493.3
15°	542.1	544.4	538.2	531.2	526.8	525.0	522.4	521.1	518.5	514.9	508.9
17.5°	552.4	554.0	547.5	539.2	534.3	533.0	531.2	532.0	531.4	529.6	525.7
20°	561.3	562.3	553.7	543.6	538.2	538.4	537.9	540.5	541.6	541.6	541.3
22.5°	572.1	572.4	561.5	548.8	542.3	544.2	544.9	547.8	549.9	551.9	556.6
25°	586.4	585.9	572.9	555.6	549.9	552.4	554.3	555.3	557.6	561.0	571.6
27.5°	607.7	606.1	589.5	566.4	559.7	562.0	565.4	564.9	563.9	566.4	584.3
30°	634.6	632.6	610.5	581.7	575.5	577.6	578.6	574.0	566.4	568.8	595.5
32.5°	677.4	673.8	643.2	598.9	589.3	591.6	590.3	580.7	569.6	571.9	606.6
35°	751.8	743.0	699.7	634.6	604.8	602.2	599.1	589.8	576.0	573.7	616.0
37.5°	909.9	894.4	820.5	704.4	640.1	623.2	613.6	604.3	583.0	573.7	626.6
40°	1088.3	1072.5	987.2	821.0	698.7	670.1	647.3	621.4	590.3	577.1	643.2
42.5°	1274.4	1257.1	1169.4	965.7	782.4	723.8	681.3	635.1	602.2	587.4	665.2
45°	1482.3	1460.6	1346.0	1116.6	904.0	813.0	736.0	663.4	623.0	605.9	695.3
47.5°	1701.7	1673.4	1522.0	1263.0	1034.9	936.4	836.1	714.0	653.6	633.3	736.0
50°	1896.1	1868.1	1703.7	1416.2	1157.3	1053.8	950.1	783.9	699.4	672.2	790.7
52.5°	2035.8	2014.6	1869.1	1574.4	1284.5	1164.0	1053.6	865.4	757.5	722.0	855.2
55°	2129.4	2110.0	1986.3	1724.2	1432.6	1285.3	1155.4	953.8	827.5	781.6	926.5
57.5°	2186.2	2175.0	2071.1	1858.0	1579.3	1418.1	1272.1	1051.0	909.9	851.9	1006.1
60°	2206.4	2197.3	2123.7	1985.5	1756.6	1577.5	1409.2	1160.6	1010.0	931.7	1087.8
62.5°	2152.5	2154.3	2161.6	2136.7	1943.5	1764.1	1573.6	1292.3	1121.0	1022.2	1164.5
65°	1898.7	1913.7	2051.6	2304.1	2191.1	1998.0	1782.8	1453.1	1248.0	1125.1	1225.4
67.5°	1572.0	1593.8	1765.4	2402.1	2455.0	2301.6	2074.2	1657.9	1399.4	1229.8	1248.5
70°	1203.4	1226.7	1434.6	2381.7	2702.1	2633.4	2434.5	1918.4	1556.2	1302.4	1189.7
72.5°	858.9	870.8	1034.6	2199.4	2803.5	2859.4	2700.0	2165.2	1636.3	1262.3	970.3
75°	603.5	601.4	710.1	1771.1	2645.6	2832.0	2606.9	2031.7	1480.8	1002.8	598.3
77.5°	262.9	263.4	354.6	1075.6	2111.5	2418.7	2167.0	1272.6	1032.3	531.4	252.5
80°	68.2	70.3	130.1	428.3	1271.3	1596.4	1321.6	559.4	477.0	129.6	48.2
82.5°	24.1	25.7	59.9	134.5	469.0	732.1	588.5	178.9	124.4	37.1	13.0
85°	7.0	8.3	32.1	41.2	97.0	206.9	142.8	34.7	30.6	19.2	3.4
87.5°	0.0	1.0	6.5	5.7	5.7	3.9	7.3	3.9	4.9	2.3	1.0
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°	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7	455.7
2.5°	458.1	456.3	452.4	448.2	444.3	440.7	439.7	435.8	434.0	434.2	434.0
5°	460.4	457.0	449.5	440.5	431.1	420.5	411.7	399.2	388.6	387.3	386.5
7.5°	466.6	461.2	449.0	431.4	408.0	378.8	351.5	324.6	309.3	301.0	300.5
10°	476.2	469.0	450.3	416.6	367.1	314.7	273.5	239.5	222.2	214.1	212.6
12.5°	487.6	479.6	452.4	391.5	314.2	245.5	200.9	180.2	176.5	176.0	175.8
15°	503.7	494.9	454.7	357.5	256.9	186.9	166.4	166.7	169.5	171.1	170.8
17.5°	521.6	512.8	451.3	316.0	200.4	159.7	159.2	161.5	165.7	167.2	167.0
20°	539.7	531.4	439.4	267.3	162.0	152.2	154.2	156.8	161.0	163.1	163.1
22.5°	558.4	551.2	420.5	215.4	146.2	146.7	149.3	151.9	156.6	158.9	158.9
25°	578.4	572.1	395.3	172.7	139.5	141.0	144.4	147.5	152.4	155.3	155.3
27.5°	598.6	593.9	366.8	144.1	133.3	135.1	139.0	143.1	148.0	151.4	151.7
30°	620.6	618.0	344.0	133.5	127.3	128.8	133.3	137.9	143.4	147.5	148.0
32.5°	643.2	642.7	332.9	141.3	121.8	122.9	126.8	131.4	138.2	143.4	143.9
35°	665.5	666.5	326.4	163.3	120.0	117.2	119.8	123.9	132.0	138.4	139.5
37.5°	694.0	696.6	326.1	187.2	124.4	111.5	113.3	116.1	123.1	130.7	132.0
40°	736.5	750.2	342.7	207.7	132.2	106.3	106.8	107.3	111.0	117.2	119.3
42.5°	793.0	833.2	402.6	221.7	135.3	101.6	99.8	97.0	96.4	99.8	101.6
45°	863.3	933.5	507.9	229.4	132.2	96.4	91.5	84.0	81.1	83.5	83.5
47.5°	946.0	1043.5	632.6	231.2	127.0	90.0	81.1	71.3	69.0	69.7	69.5
50°	1026.6	1125.9	742.2	216.2	118.5	81.7	69.7	61.4	59.9	60.1	60.1
52.5°	1097.9	1154.1	773.3	180.7	107.1	71.6	59.9	54.2	53.1	53.1	52.9
55°	1145.1	1123.6	689.6	138.2	92.8	61.2	51.3	48.5	48.0	47.7	47.2
57.5°	1154.9	1024.0	520.8	99.8	72.6	51.6	45.6	44.1	43.0	42.0	41.5
60°	1119.7	858.1	331.6	69.7	54.4	44.1	40.4	39.4	37.3	35.3	34.5
62.5°	1043.5	648.1	183.5	48.5	43.8	37.6	35.8	34.5	30.6	27.2	26.2
65°	941.1	430.9	81.1	37.8	35.8	31.6	30.6	28.8	24.1	20.2	19.4
67.5°	838.1	248.1	36.6	30.3	28.8	25.9	25.1	23.9	20.5	16.9	16.3
70°	720.7	125.7	25.1	24.1	22.3	19.7	20.5	20.2	16.9	13.7	13.2
72.5°	536.6	62.5	18.9	18.1	16.1	14.0	16.9	16.6	13.2	10.4	9.9
75°	303.8	30.8	13.7	12.7	9.6	10.4	13.5	12.7	9.1	6.7	6.2
77.5°	120.5	15.8	9.1	7.8	5.7	7.0	9.9	8.6	4.7	2.9	2.6
80°	27.7	7.8	4.7	3.4	2.6	4.1	5.2	3.1	1.3	0.3	0.0
82.5°	7.8	3.4	1.6	1.3	1.3	1.6	1.3	0.5	0.0	0.0	0.0
85°	2.6	1.6	0.5	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.0
87.5°	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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)