

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: P882248

Luminaire Tested: **NAV-SB2A-740-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7730 lumens
Efficiency: N/A
Efficacy: 134.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

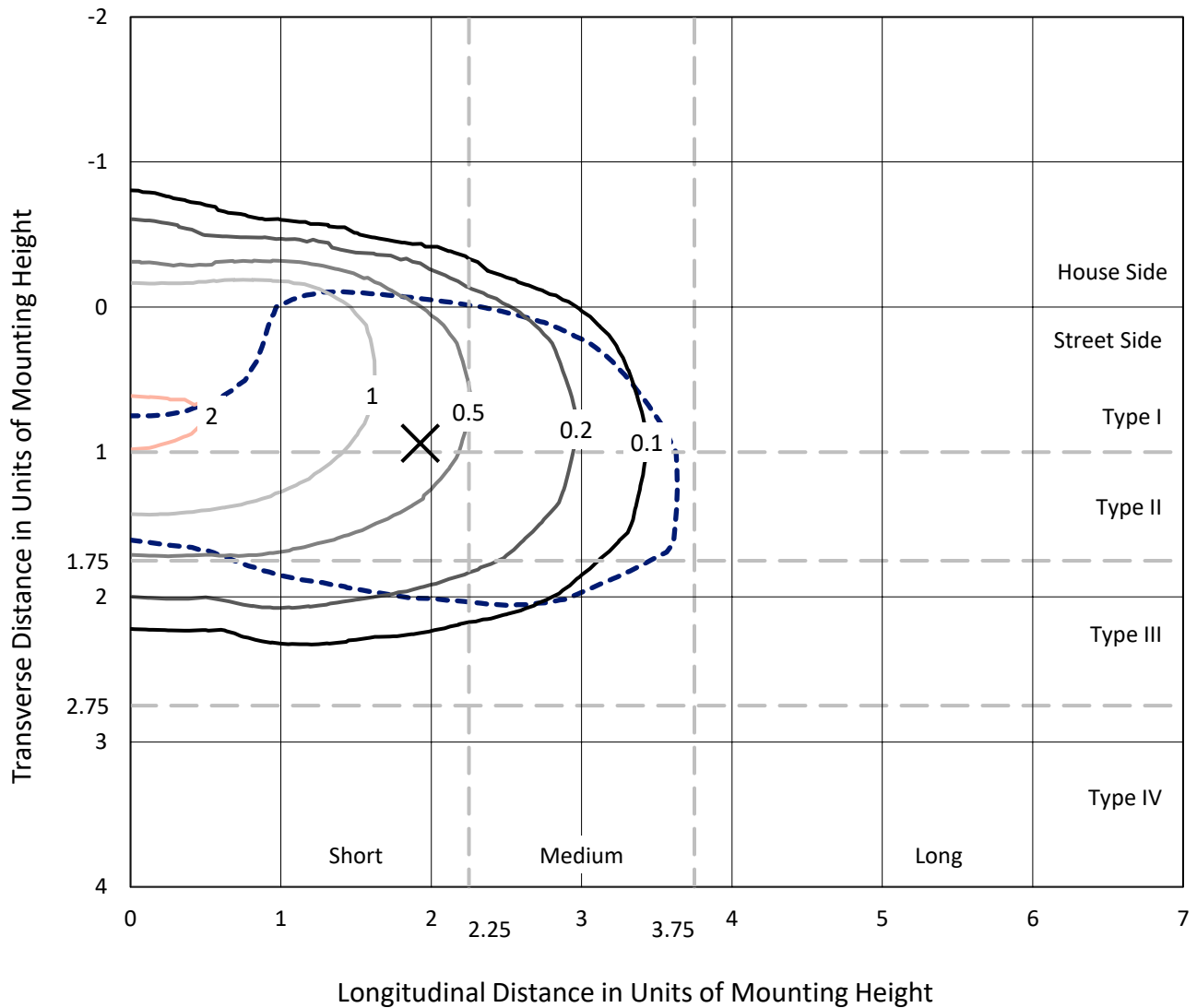
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

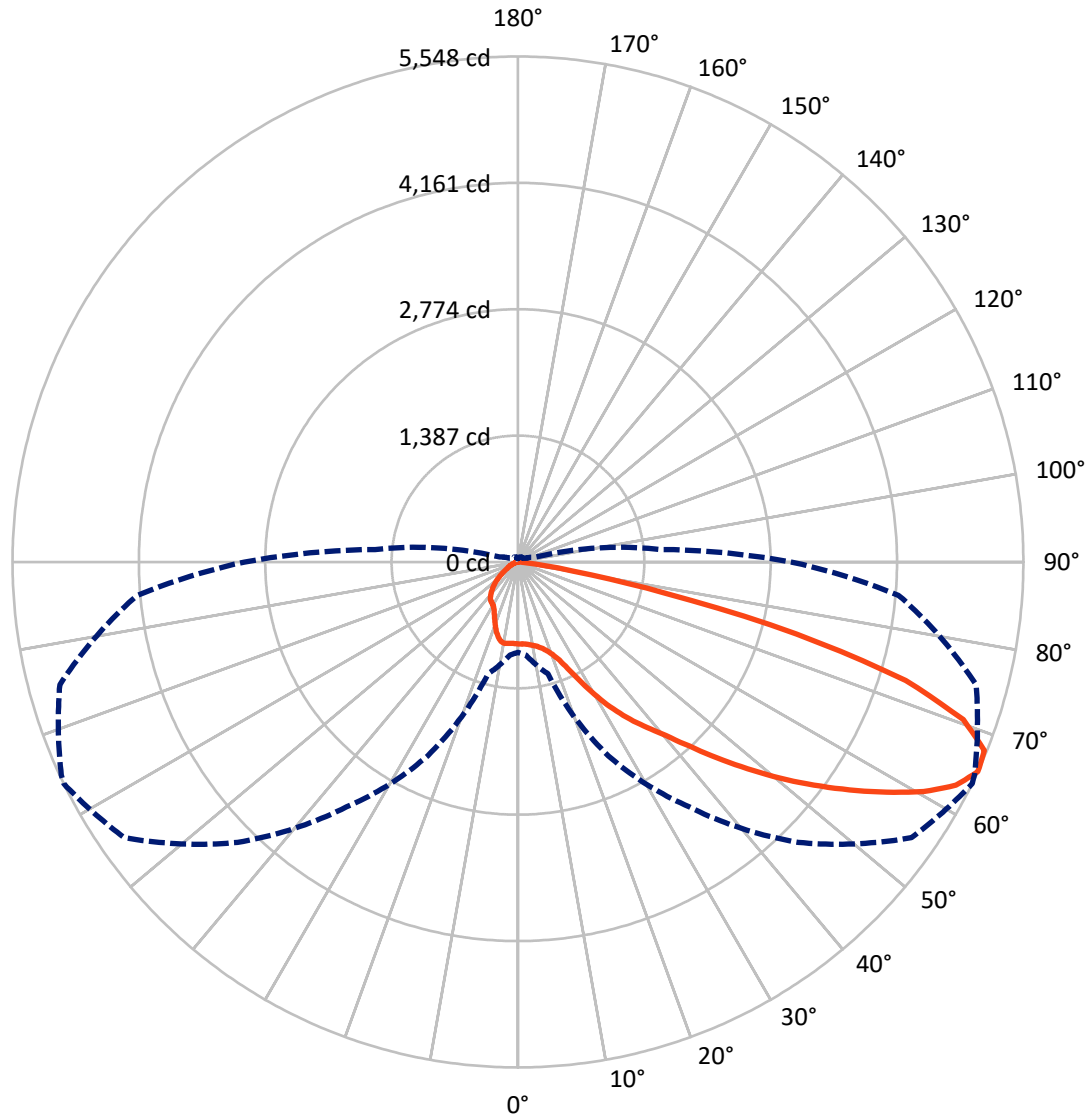
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1033.7	0.0	1033.7
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	6696.3	0.0	6696.3
	% Fixture	86.6	0.0	86.6
Total	Lumens	7730.0	0.0	7730.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.9	1.1
10°-20°	225.0	2.9
20°-30°	426.3	5.5
30°-40°	862.7	11.2
40°-50°	1469.6	19.0
50°-60°	1998.5	25.9
60°-70°	1876.7	24.3
70°-80°	751.9	9.7
80°-90°	36.4	0.5
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°	7730.0	100.0
0°-180°	7730.0	100.0

Coefficient of Utilization



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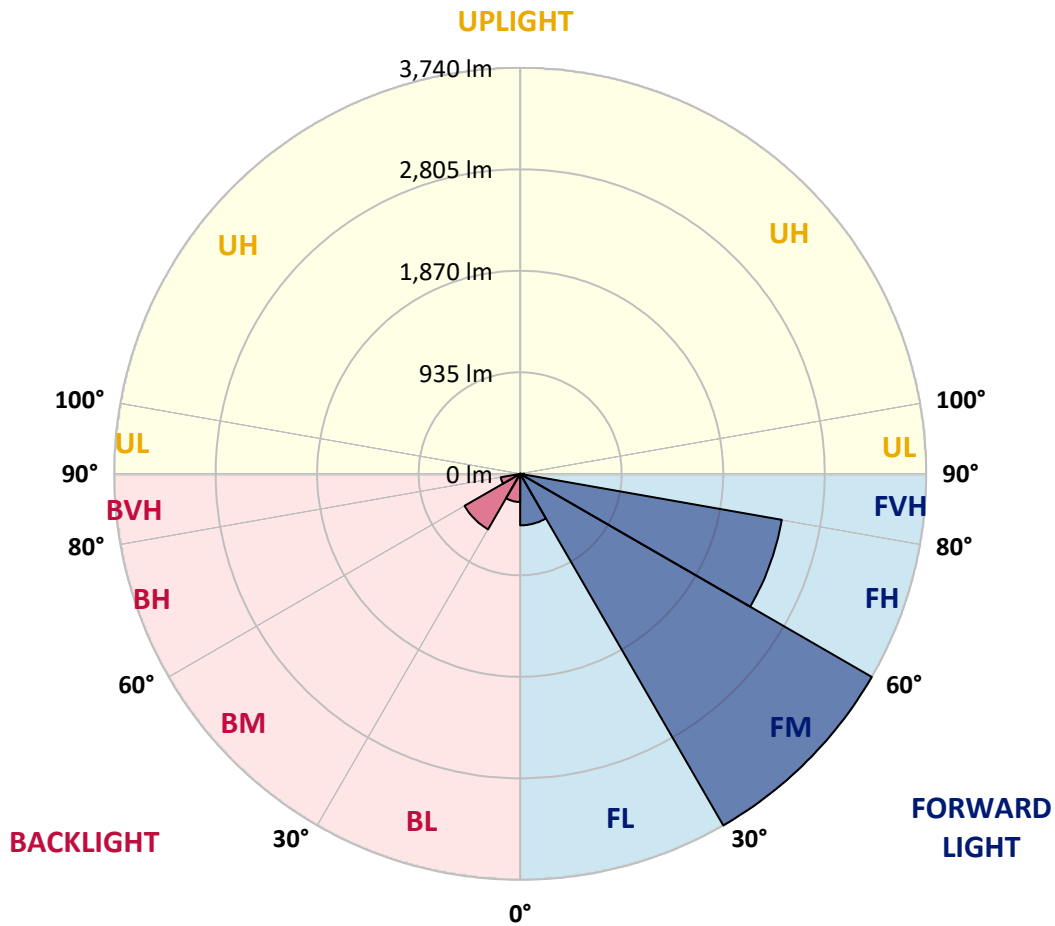
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	474.7	6.1			
FM (30°-60°)	3739.8	48.4			
FH (60°-80°)	2447.1	31.7			G2/5000
FVH (80°-90°)	34.6	0.4			G1/100
BL (0°-30°)	259.5	3.4	B1/500		
BM (30°-60°)	591.0	7.6	B1/1000		
BH (60°-80°)	181.4	2.3	B1/500		G1/500
BVH (80°-90°)	1.8	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1
2.5°	896.0	902.2	900.6	899.1	898.6	899.6	900.1	899.6	899.6	899.6	900.1
5°	878.9	884.1	884.1	887.7	892.9	899.1	903.7	904.8	905.8	907.4	906.9
7.5°	846.2	850.4	853.5	865.4	878.4	894.9	908.9	916.2	917.2	922.9	925.0
10°	823.9	829.1	834.3	846.7	865.4	890.3	914.1	931.7	934.3	947.8	954.0
12.5°	822.9	828.1	834.8	848.3	870.1	896.5	925.5	950.9	955.6	975.3	988.2
15°	833.8	840.0	846.2	862.8	886.1	918.3	949.3	981.0	985.6	1013.6	1027.6
17.5°	856.1	864.4	869.0	885.6	910.5	946.2	987.2	1023.4	1027.6	1060.2	1077.9
20°	900.1	910.0	911.5	925.0	949.3	987.7	1036.4	1081.5	1086.7	1124.0	1143.7
22.5°	991.3	1005.3	992.9	999.6	1021.4	1059.7	1112.6	1169.6	1176.8	1219.3	1236.9
25°	1152.0	1171.7	1139.5	1128.1	1137.5	1177.4	1243.7	1315.7	1324.0	1358.2	1367.0
27.5°	1467.5	1442.2	1393.4	1345.8	1317.8	1340.6	1415.2	1504.3	1514.7	1547.9	1537.5
30°	1814.2	1791.9	1726.1	1620.4	1554.1	1550.5	1619.4	1718.9	1730.8	1762.4	1730.8
32.5°	2161.4	2140.2	2068.7	1938.6	1823.6	1766.5	1814.2	1924.6	1930.8	1951.0	1904.4
35°	2502.9	2481.1	2409.6	2276.5	2135.0	2005.4	1996.1	2120.5	2122.6	2143.8	2074.4
37.5°	2846.5	2828.3	2752.2	2621.6	2482.2	2303.4	2216.9	2306.0	2308.6	2329.3	2257.3
40°	3091.6	3099.4	3047.0	2946.0	2826.3	2630.9	2464.6	2503.4	2487.9	2522.6	2479.6
42.5°	3302.0	3317.5	3271.9	3221.1	3151.7	2979.7	2771.3	2764.6	2739.7	2758.4	2713.8
45°	3483.9	3496.8	3455.9	3444.0	3442.4	3321.7	3106.6	3066.2	3031.5	3027.9	2974.5
47.5°	3550.7	3575.6	3593.2	3633.1	3710.8	3660.1	3453.3	3390.6	3351.7	3323.2	3238.8
50°	3576.1	3602.5	3662.6	3778.7	3962.7	3984.4	3798.4	3727.9	3680.3	3628.4	3504.1
52.5°	3541.9	3589.1	3669.9	3865.3	4132.1	4244.6	4129.5	4067.9	4013.5	3929.0	3744.5
55°	3340.3	3387.5	3552.8	3864.2	4216.6	4427.0	4442.5	4415.1	4353.9	4220.7	3938.8
57.5°	2915.4	2985.4	3247.0	3732.6	4215.0	4584.0	4749.3	4769.0	4700.6	4509.9	4091.7
60°	2326.7	2421.6	2740.8	3440.9	4085.0	4669.0	5018.3	5116.7	5044.2	4794.9	4215.6
62.5°	1623.5	1733.4	2035.5	2983.8	3787.5	4607.8	5214.7	5396.5	5341.6	5049.9	4263.2
65°	990.3	1025.5	1269.1	2348.0	3281.8	4351.9	5275.3	5547.9	5529.7	5205.9	4192.8
67.5°	659.7	689.2	759.2	1610.1	2547.5	3840.4	5130.2	5521.4	5526.6	5180.5	3934.7
70°	397.5	422.9	468.5	936.4	1651.0	3039.8	4680.9	5184.6	5214.7	4841.0	3445.5
72.5°	163.8	180.9	222.3	424.4	855.0	1929.3	3727.4	4451.3	4521.3	4070.5	2644.4
75°	92.8	101.6	130.6	213.0	371.0	899.1	2257.8	3160.0	3263.1	2805.5	1590.9
77.5°	61.7	65.8	84.5	137.8	208.8	306.8	964.9	1646.3	1843.2	1532.3	688.7
80°	41.5	45.1	58.0	92.2	135.8	131.6	307.3	609.9	750.4	526.5	167.9
82.5°	28.0	28.5	41.5	60.6	86.0	63.7	90.7	189.7	238.4	152.4	63.7
85°	16.1	15.5	30.6	35.2	38.3	26.4	27.5	57.0	74.6	64.3	36.3
87.5°	2.1	3.1	11.9	9.3	5.2	5.7	5.7	9.8	14.5	15.5	7.8
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°	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1	899.1
2.5°	900.1	899.6	898.0	896.5	892.9	890.8	891.8	890.8	890.3	890.8	892.9
5°	906.9	905.3	901.2	896.0	888.7	879.9	874.2	865.9	858.1	853.5	854.5
7.5°	925.0	923.4	917.7	903.2	879.9	843.1	809.4	779.9	757.6	744.7	745.2
10°	954.0	951.4	942.6	910.5	849.3	769.0	702.2	646.7	610.4	593.3	591.8
12.5°	988.2	985.1	969.6	903.7	791.3	665.9	573.6	512.0	478.3	463.3	461.7
15°	1028.6	1024.5	993.9	871.6	706.8	551.9	467.4	421.3	399.5	386.1	386.6
17.5°	1078.9	1071.6	1012.0	823.4	615.1	464.8	402.1	367.4	348.2	335.3	334.2
20°	1144.2	1132.3	1026.6	765.9	530.6	409.9	358.1	329.1	314.5	303.1	301.1
22.5°	1235.4	1218.3	1044.2	703.7	471.0	372.1	325.4	304.2	292.3	279.3	277.2
25°	1348.4	1328.1	1065.9	646.2	430.1	339.4	301.6	284.0	270.0	255.0	253.4
27.5°	1506.4	1470.1	1091.9	599.0	394.9	311.4	279.8	260.1	244.1	231.6	229.0
30°	1682.6	1623.0	1114.7	570.5	362.7	285.5	251.3	231.6	216.6	207.8	206.2
32.5°	1849.5	1768.6	1129.7	558.1	333.7	256.0	220.2	199.0	187.6	185.0	186.6
35°	2007.0	1900.2	1128.1	546.2	307.8	226.5	189.7	167.9	159.1	160.6	160.6
37.5°	2188.4	2040.7	1117.2	527.5	286.6	199.5	163.2	144.1	136.3	136.8	138.9
40°	2399.3	2202.9	1110.5	492.3	263.2	174.6	141.5	125.9	120.2	118.1	117.6
42.5°	2624.2	2359.9	1111.5	452.4	234.2	152.4	126.4	113.5	108.3	106.7	106.2
45°	2850.1	2509.6	1113.1	410.9	203.7	135.3	115.6	104.7	101.6	99.5	99.5
47.5°	3062.6	2637.1	1084.1	366.4	173.6	122.3	106.7	99.5	96.9	94.3	94.3
50°	3260.5	2722.1	1014.1	314.5	149.8	111.9	100.0	94.8	92.2	89.6	89.6
52.5°	3414.4	2735.6	898.6	261.2	133.2	104.2	95.9	91.2	88.1	85.5	85.0
55°	3482.8	2651.1	734.3	211.4	120.2	97.4	91.7	87.1	83.4	80.8	80.3
57.5°	3465.2	2473.4	572.6	170.0	107.8	90.7	86.5	83.4	79.3	75.1	74.6
60°	3378.7	2235.5	431.7	141.5	96.4	83.4	80.8	78.2	72.5	66.3	65.3
62.5°	3228.9	1936.5	307.8	117.1	83.9	75.1	74.1	72.0	63.7	52.3	51.3
65°	2999.9	1573.3	207.3	97.4	72.0	65.8	66.3	62.7	51.8	38.9	37.8
67.5°	2665.1	1150.4	132.7	79.8	60.1	54.9	55.4	53.4	44.0	33.2	31.6
70°	2238.6	761.8	86.5	60.6	48.2	42.5	45.6	46.1	37.3	26.9	25.9
72.5°	1641.1	449.8	60.6	45.1	35.2	29.5	37.3	38.3	30.1	20.2	19.2
75°	935.4	213.5	45.6	32.6	21.8	20.7	29.0	29.0	20.7	13.5	12.4
77.5°	392.8	89.1	32.1	21.2	12.4	11.9	19.7	18.1	10.4	6.2	6.2
80°	113.5	39.9	17.1	10.4	5.2	4.7	7.8	5.7	2.6	1.0	1.0
82.5°	44.6	17.6	6.7	4.1	2.1	2.1	1.0	0.0	0.0	0.0	0.0
85°	26.4	7.3	3.1	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.7	1.6	1.0	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)