

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: P882218

Luminaire Tested: **NAV-SB2A-727-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882218
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-727-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2700K, 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: 6498 lumens
Efficiency: N/A
Efficacy: 113.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

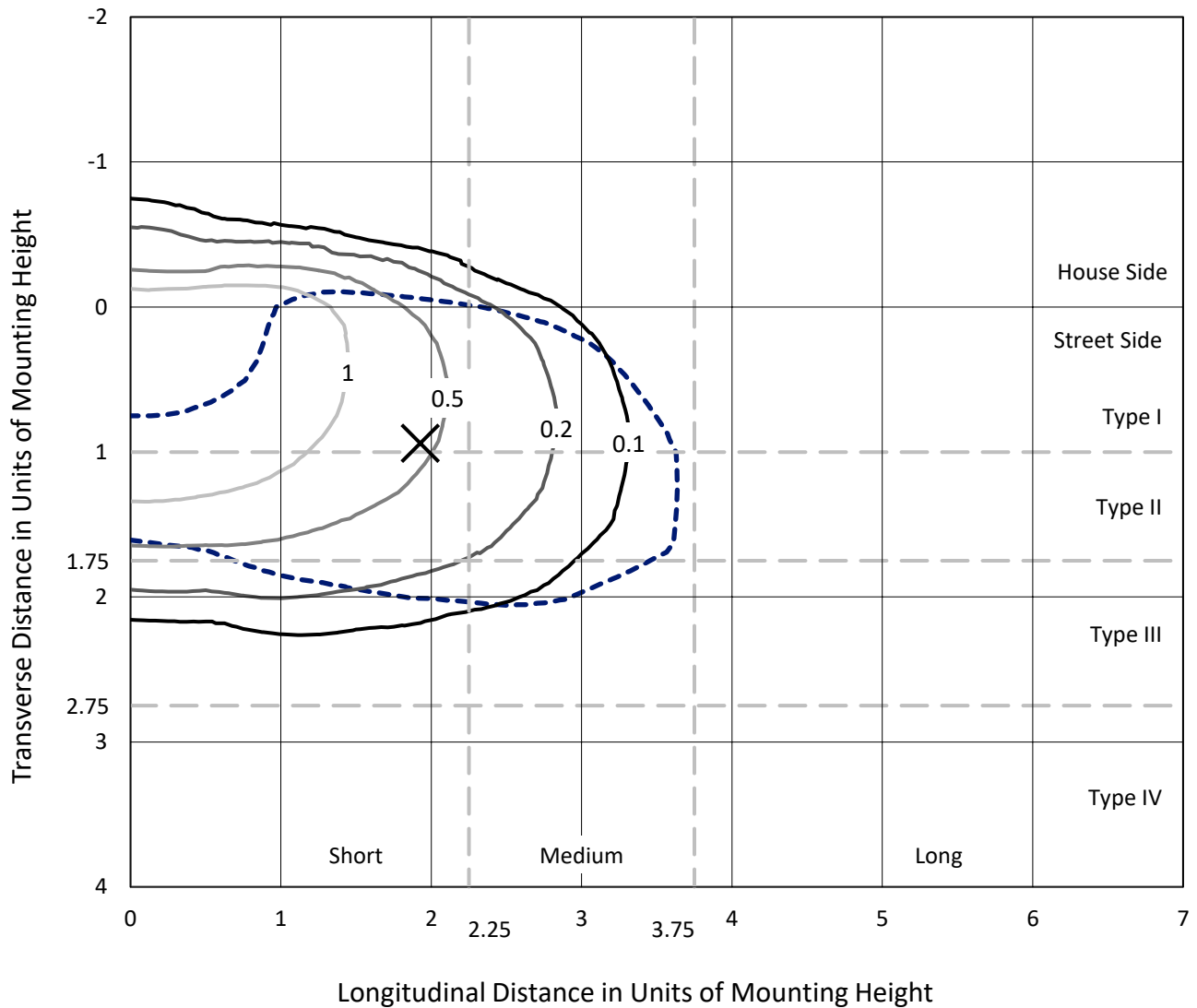
Input Watts (W): 57.3
Input Voltage (V): 120.0
Input Current (Ain): 0.484
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.038
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

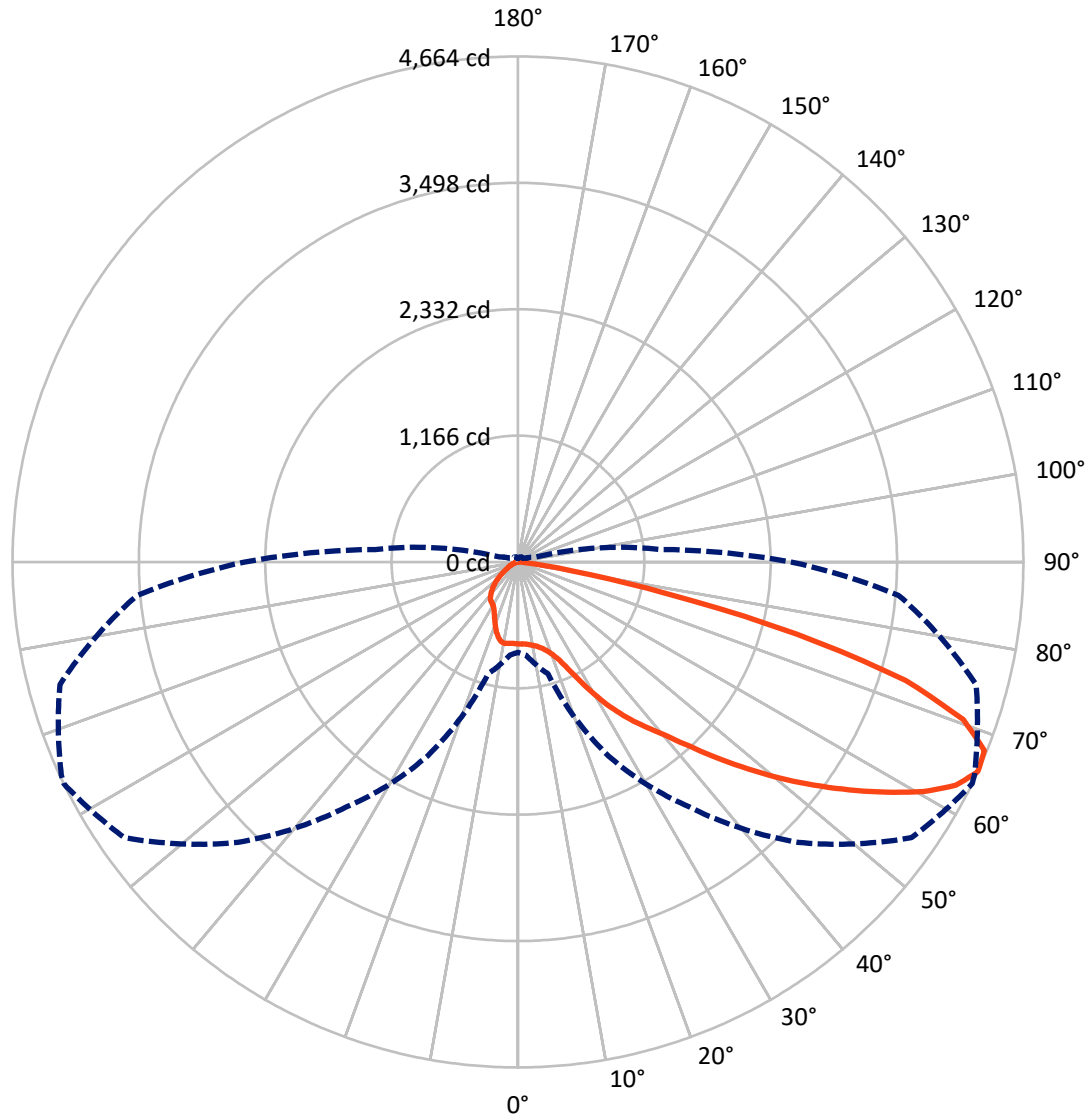
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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	869.0	0.0	869.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	5629.0	0.0	5629.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	6498.0	0.0	6498.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	1.1
10°-20°	189.1	2.9
20°-30°	358.4	5.5
30°-40°	725.2	11.2
40°-50°	1235.4	19.0
50°-60°	1680.0	25.9
60°-70°	1577.6	24.3
70°-80°	632.1	9.7
80°-90°	30.6	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°	6498.0	100.0
0°-180°	6498.0	100.0

Coefficient of Utilization



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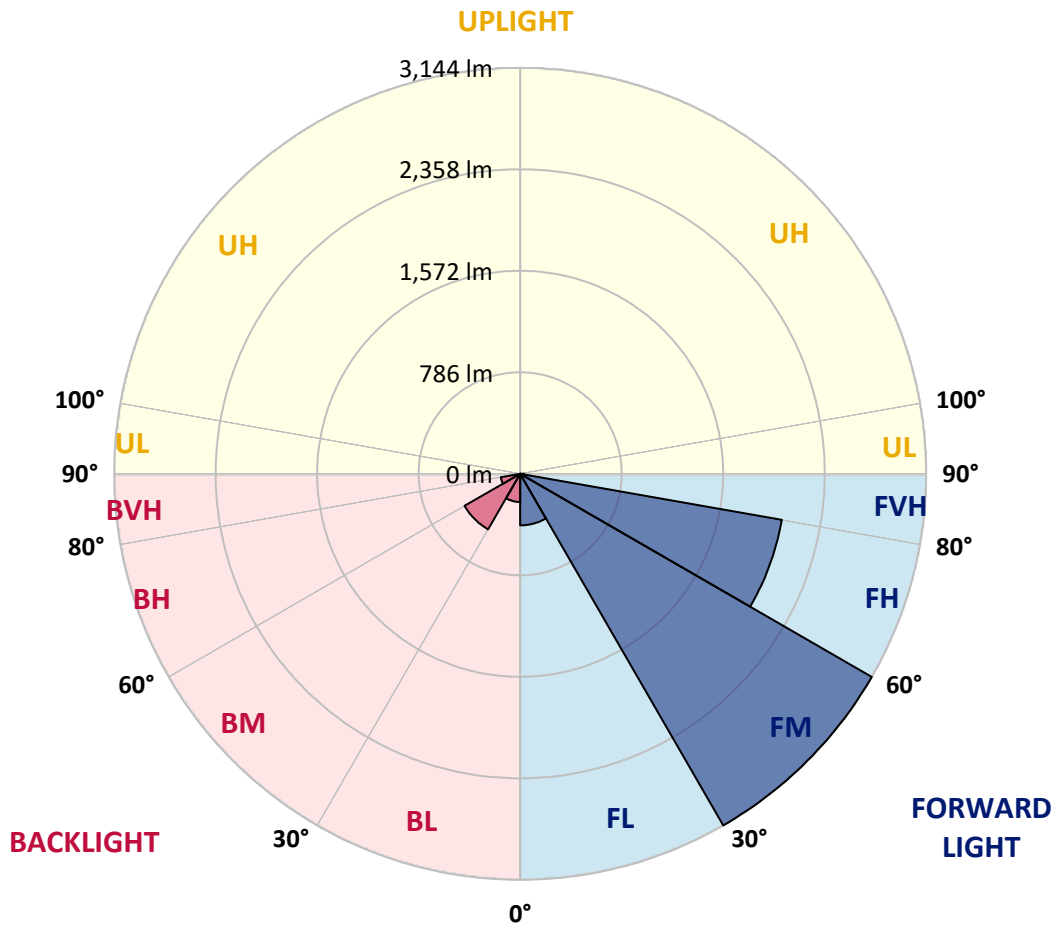
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	399.1	6.1			
FM (30°-60°)	3143.7	48.4			
FH (60°-80°)	2057.1	31.7			G2/5000
FVH (80°-90°)	29.1	0.4			G1/100
BL (0°-30°)	218.2	3.4	B1/500		
BM (30°-60°)	496.8	7.6	B1/1000		
BH (60°-80°)	152.5	2.3	B1/500		G1/500
BVH (80°-90°)	1.5	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-G2

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8
2.5°	753.2	758.4	757.1	755.8	755.3	756.2	756.7	756.2	756.2	756.2	756.7
5°	738.8	743.2	743.2	746.2	750.6	755.8	759.7	760.6	761.4	762.8	762.3
7.5°	711.4	714.8	717.5	727.5	738.4	752.3	764.1	770.2	771.0	775.8	777.6
10°	692.6	697.0	701.3	711.8	727.5	748.4	768.4	783.2	785.4	796.7	802.0
12.5°	691.8	696.1	701.8	713.1	731.4	753.6	778.0	799.3	803.3	819.8	830.7
15°	700.9	706.1	711.4	725.3	744.9	771.9	798.0	824.6	828.5	852.1	863.8
17.5°	719.6	726.6	730.5	744.5	765.4	795.4	829.8	860.3	863.8	891.3	906.1
20°	756.7	764.9	766.2	777.6	798.0	830.3	871.2	909.1	913.5	944.8	961.4
22.5°	833.3	845.1	834.6	840.3	858.6	890.8	935.3	983.2	989.3	1025.0	1039.8
25°	968.4	984.9	957.9	948.3	956.2	989.7	1045.5	1106.0	1113.0	1141.7	1149.1
27.5°	1233.7	1212.3	1171.4	1131.3	1107.8	1126.9	1189.7	1264.6	1273.3	1301.2	1292.5
30°	1525.1	1506.3	1451.0	1362.2	1306.4	1303.3	1361.3	1444.9	1454.9	1481.5	1454.9
32.5°	1816.9	1799.1	1739.0	1629.6	1532.9	1485.0	1525.1	1617.9	1623.1	1640.1	1600.9
35°	2104.0	2085.7	2025.6	1913.6	1794.7	1685.8	1678.0	1782.5	1784.3	1802.1	1743.8
37.5°	2392.8	2377.6	2313.5	2203.8	2086.6	1936.3	1863.5	1938.5	1940.6	1958.1	1897.5
40°	2598.9	2605.4	2561.4	2476.4	2375.8	2211.6	2071.8	2104.4	2091.4	2120.6	2084.4
42.5°	2775.7	2788.8	2750.4	2707.8	2649.4	2504.8	2329.6	2324.0	2303.1	2318.8	2281.3
45°	2928.6	2939.5	2905.1	2895.1	2893.8	2792.3	2611.5	2577.5	2548.3	2545.3	2500.4
47.5°	2984.8	3005.7	3020.5	3054.1	3119.4	3076.7	2902.9	2850.2	2817.5	2793.6	2722.6
50°	3006.2	3028.4	3078.9	3176.5	3331.1	3349.4	3193.0	3133.8	3093.7	3050.1	2945.6
52.5°	2977.4	3017.0	3085.0	3249.2	3473.6	3568.1	3471.4	3419.5	3373.8	3302.8	3147.7
55°	2807.9	2847.6	2986.5	3248.4	3544.6	3721.4	3734.5	3711.4	3660.0	3548.1	3311.1
57.5°	2450.7	2509.6	2729.5	3137.7	3543.3	3853.4	3992.4	4008.9	3951.4	3791.1	3439.6
60°	1955.9	2035.6	2303.9	2892.5	3433.9	3924.9	4218.5	4301.2	4240.2	4030.7	3543.7
62.5°	1364.8	1457.1	1711.1	2508.2	3183.9	3873.5	4383.6	4536.5	4490.3	4245.0	3583.8
65°	832.5	862.1	1066.8	1973.8	2758.7	3658.3	4434.5	4663.7	4648.4	4376.1	3524.5
67.5°	554.5	579.4	638.2	1353.4	2141.5	3228.3	4312.5	4641.4	4645.8	4354.8	3307.6
70°	334.1	355.5	393.8	787.1	1387.9	2555.3	3934.9	4358.3	4383.6	4069.5	2896.4
72.5°	137.7	152.0	186.9	356.8	718.8	1621.8	3133.3	3741.9	3800.7	3421.7	2222.9
75°	78.0	85.4	109.8	179.0	311.9	755.8	1898.0	2656.4	2743.0	2358.4	1337.3
77.5°	51.8	55.3	71.0	115.9	175.6	257.9	811.1	1383.9	1549.5	1288.1	578.9
80°	34.8	37.9	48.8	77.5	114.1	110.6	258.3	512.7	630.8	442.6	141.1
82.5°	23.5	24.0	34.8	51.0	72.3	53.6	76.2	159.4	200.4	128.1	53.6
85°	13.5	13.1	25.7	29.6	32.2	22.2	23.1	47.9	62.7	54.0	30.5
87.5°	1.7	2.6	10.0	7.8	4.4	4.8	4.8	8.3	12.2	13.1	6.5
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°	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8	755.8
2.5°	756.7	756.2	754.9	753.6	750.6	748.8	749.7	748.8	748.4	748.8	750.6
5°	762.3	761.0	757.5	753.2	747.1	739.7	734.9	727.9	721.4	717.5	718.3
7.5°	777.6	776.3	771.5	759.3	739.7	708.7	680.4	655.6	636.9	626.0	626.4
10°	802.0	799.8	792.4	765.4	714.0	646.4	590.3	543.6	513.1	498.8	497.5
12.5°	830.7	828.1	815.0	759.7	665.2	559.8	482.2	430.4	402.1	389.4	388.1
15°	864.7	861.2	835.5	732.7	594.2	463.9	392.9	354.2	335.9	324.5	325.0
17.5°	906.9	900.8	850.7	692.2	517.1	390.7	338.0	308.8	292.7	281.8	281.0
20°	961.8	951.8	862.9	643.8	446.1	344.6	301.0	276.6	264.4	254.8	253.1
22.5°	1038.5	1024.1	877.8	591.6	396.0	312.8	273.6	255.7	245.7	234.8	233.1
25°	1133.5	1116.5	896.1	543.2	361.6	285.3	253.5	238.7	227.0	214.3	213.0
27.5°	1266.3	1235.8	917.8	503.6	331.9	261.8	235.2	218.7	205.2	194.7	192.5
30°	1414.4	1364.3	937.0	479.6	304.9	240.0	211.3	194.7	182.1	174.7	173.4
32.5°	1554.7	1486.7	949.6	469.2	280.5	215.2	185.1	167.3	157.7	155.5	156.8
35°	1687.1	1597.4	948.3	459.1	258.8	190.4	159.4	141.1	133.7	135.0	135.0
37.5°	1839.6	1715.4	939.2	443.5	240.9	167.7	137.2	121.1	114.6	115.0	116.7
40°	2016.9	1851.8	933.5	413.8	221.3	146.8	118.9	105.9	101.1	99.3	98.9
42.5°	2205.9	1983.8	934.4	380.3	196.9	128.1	106.3	95.4	91.0	89.7	89.3
45°	2395.9	2109.7	935.7	345.4	171.2	113.7	97.1	88.0	85.4	83.6	83.6
47.5°	2574.5	2216.8	911.3	308.0	145.9	102.8	89.7	83.6	81.5	79.3	79.3
50°	2740.9	2288.3	852.5	264.4	125.9	94.1	84.1	79.7	77.5	75.4	75.4
52.5°	2870.2	2299.6	755.3	219.5	112.0	87.6	80.6	76.7	74.1	71.9	71.4
55°	2927.7	2228.6	617.3	177.7	101.1	81.9	77.1	73.2	70.1	68.0	67.5
57.5°	2912.9	2079.2	481.4	142.9	90.6	76.2	72.7	70.1	66.6	63.2	62.7
60°	2840.2	1879.2	362.9	118.9	81.0	70.1	68.0	65.8	61.0	55.8	54.9
62.5°	2714.3	1627.9	258.8	98.4	70.6	63.2	62.3	60.5	53.6	44.0	43.1
65°	2521.8	1322.5	174.2	81.9	60.5	55.3	55.8	52.7	43.6	32.7	31.8
67.5°	2240.3	967.1	111.5	67.1	50.5	46.2	46.6	44.9	37.0	27.9	26.6
70°	1881.8	640.3	72.7	51.0	40.5	35.7	38.3	38.8	31.4	22.7	21.8
72.5°	1379.6	378.1	51.0	37.9	29.6	24.8	31.4	32.2	25.3	17.0	16.1
75°	786.3	179.5	38.3	27.4	18.3	17.4	24.4	24.4	17.4	11.3	10.5
77.5°	330.2	74.9	27.0	17.9	10.5	10.0	16.6	15.2	8.7	5.2	5.2
80°	95.4	33.5	14.4	8.7	4.4	3.9	6.5	4.8	2.2	0.9	0.9
82.5°	37.5	14.8	5.7	3.5	1.7	1.7	0.9	0.0	0.0	0.0	0.0
85°	22.2	6.1	2.6	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.7	1.3	0.9	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)