

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: P884094

Luminaire Tested: **NAV-SB4D-730-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4D-730-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 70 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

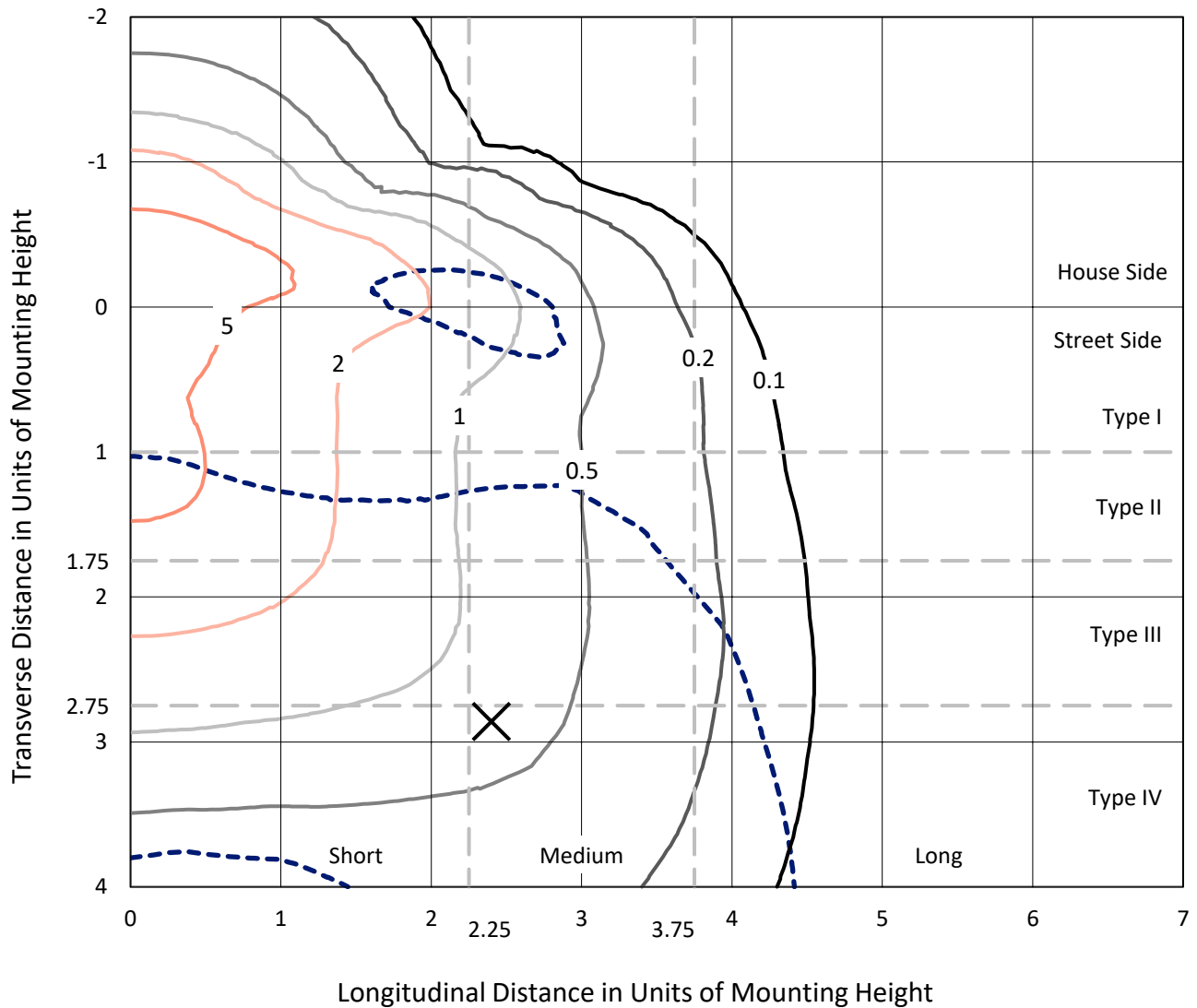
Lumens per Lamp: N/A  
Luminaire Lumens: 40241 lumens  
Efficiency: N/A  
Efficacy: 137.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 293.6  
Input Voltage (V): 120.0  
Input Current (Ain): 2.469  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

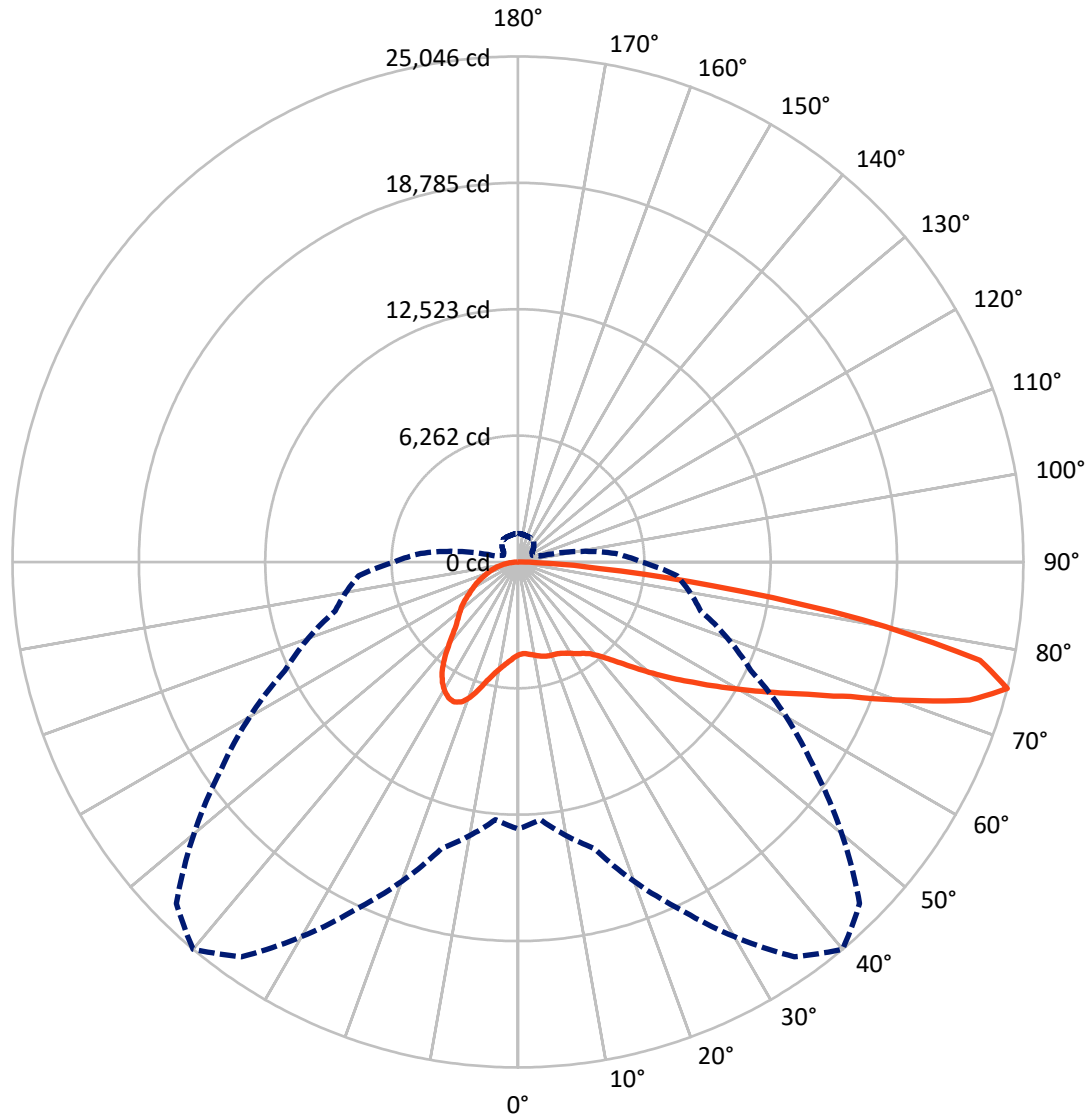
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12468.0	0.0	12468.0
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	27773.0	0.0	27773.0
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	40241.0	0.0	40241.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	459.3	1.1
10°-20°	1542.2	3.8
20°-30°	2815.9	7.0
30°-40°	3993.7	9.9
40°-50°	5392.7	13.4
50°-60°	7254.6	18.0
60°-70°	9207.8	22.9
70°-80°	8356.6	20.8
80°-90°	1218.1	3.0
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°	40241.0	100.0
0°-180°	40241.0	100.0

**Coefficient of Utilization**



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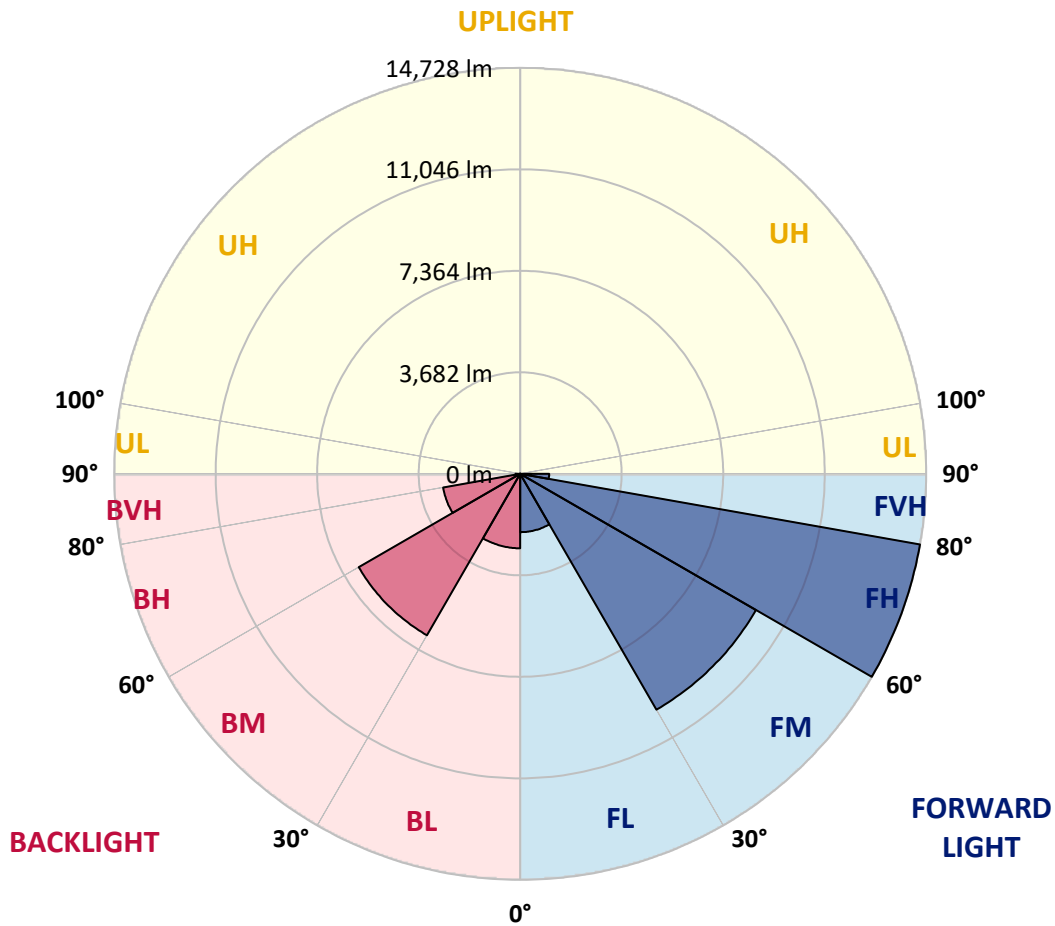
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2116.7	5.3			
FM (30°-60°)	9878.3	24.5			
FH (60°-80°)	14727.6	36.6			G5
FVH (80°-90°)	1050.4	2.6			G5
BL (0°-30°)	2700.7	6.7	B4/5000		
BM (30°-60°)	6762.8	16.8	B4/8500		
BH (60°-80°)	2836.8	7.0	B4/5000		G4/5000
BVH (80°-90°)	167.7	0.4			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G5**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6
2.5°	4531.2	4556.8	4550.4	4541.9	4541.9	4544.0	4541.9	4556.8	4571.7	4586.7	4610.1
5°	4578.1	4603.7	4590.9	4580.3	4571.7	4569.6	4563.2	4561.1	4569.6	4588.8	4620.8
7.5°	4669.9	4695.5	4676.3	4657.1	4640.0	4631.5	4623.0	4610.1	4603.7	4614.4	4659.2
10°	4772.4	4798.0	4774.5	4740.3	4712.6	4701.9	4693.4	4680.6	4672.0	4678.4	4727.5
12.5°	4874.8	4900.4	4868.4	4821.4	4785.2	4778.8	4768.1	4763.8	4761.7	4759.6	4808.6
15°	4970.9	4992.2	4951.6	4896.1	4857.7	4847.1	4836.4	4842.8	4853.5	4866.3	4921.8
17.5°	5045.6	5066.9	5007.1	4934.6	4898.3	4894.0	4887.6	4909.0	4938.8	4970.9	5039.1
20°	5113.9	5135.2	5058.4	4960.2	4917.5	4917.5	4919.6	4964.4	5007.1	5054.1	5148.0
22.5°	5209.9	5227.0	5133.1	4998.6	4936.7	4941.0	4958.0	5002.9	5056.2	5120.3	5250.4
25°	5352.9	5365.7	5250.4	5071.2	5000.7	5013.5	5028.5	5049.8	5101.0	5175.7	5350.8
27.5°	5583.4	5594.1	5442.5	5199.2	5092.5	5113.9	5135.2	5120.3	5143.7	5207.8	5431.9
30°	5907.8	5914.2	5722.1	5399.9	5248.3	5259.0	5263.3	5201.4	5156.5	5207.8	5489.5
32.5°	6292.0	6289.9	6061.5	5643.2	5425.5	5414.8	5378.5	5256.9	5152.3	5197.1	5540.7
35°	6887.5	6864.0	6569.5	5984.7	5626.1	5559.9	5474.6	5318.7	5173.6	5186.4	5585.5
37.5°	7873.5	7801.0	7393.3	6543.9	5924.9	5756.3	5630.4	5419.1	5220.6	5182.1	5638.9
40°	8985.5	8893.7	8445.5	7310.1	6373.1	6102.0	5899.3	5562.1	5297.4	5201.4	5717.9
42.5°	10304.5	10174.3	9692.0	8212.9	6940.8	6548.1	6242.9	5743.5	5410.5	5263.3	5824.6
45°	11924.5	11751.6	11068.6	9231.0	7655.8	7132.9	6725.3	6018.8	5583.4	5382.8	5984.7
47.5°	13561.5	13604.2	12633.1	10396.3	8513.8	7854.3	7329.3	6432.9	5835.3	5574.9	6242.9
50°	15301.0	15330.9	14189.0	11687.6	9487.1	8669.6	8008.0	6896.0	6185.3	5848.1	6629.2
52.5°	16658.4	16662.7	15601.9	13038.6	10500.9	9566.1	8740.1	7425.3	6590.8	6210.9	7143.6
55°	17507.9	17497.2	16592.3	14317.1	11666.2	10507.3	9551.1	8027.2	7086.0	6637.8	7790.3
57.5°	18124.7	18092.7	17275.3	15416.3	12908.4	11619.3	10468.9	8710.2	7670.8	7145.7	8641.9
60°	18359.5	18340.3	17738.4	16366.0	14214.6	12848.7	11527.5	9474.3	8334.6	7745.5	9736.8
62.5°	18449.1	18485.4	18193.0	17285.9	15612.6	14210.4	12690.7	10387.8	9081.6	8424.2	10891.5
65°	18765.0	18831.2	18771.4	18489.7	17192.0	15804.7	14233.8	11474.1	9896.9	9152.0	12097.4
67.5°	19390.4	19456.5	19482.1	19930.4	19121.4	17791.8	16159.0	12827.3	10850.9	9907.6	13004.5
70°	19375.4	19356.2	19808.7	21076.5	21537.5	20542.9	18754.3	14492.1	11988.5	10535.0	13119.7
72.5°	17636.0	17482.3	18551.6	21063.7	23548.0	23415.7	21923.8	16639.2	12970.3	10611.9	11384.5
75°	13230.7	12820.9	14709.8	18982.7	23883.1	25046.3	23938.6	17971.0	12737.7	9376.1	7922.6
77.5°	5658.1	5246.2	7472.3	14052.4	21375.3	23413.6	22090.3	15678.8	10167.9	6200.2	3890.9
80°	1481.2	1479.1	2258.1	6371.0	14536.9	17290.2	15168.7	10125.3	5809.6	2215.4	1073.6
82.5°	612.6	597.6	830.3	2478.0	7103.0	9702.7	7918.4	4516.2	2098.0	599.7	356.4
85°	228.4	226.2	403.4	855.9	2505.7	4001.9	2896.3	1154.7	522.9	292.4	160.1
87.5°	64.0	61.9	87.5	296.7	610.4	926.3	495.2	190.0	147.3	115.3	47.0
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°	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6	4601.6
2.5°	4616.6	4627.2	4646.4	4661.4	4680.6	4701.9	4731.8	4751.0	4770.2	4783.0	4774.5
5°	4635.8	4659.2	4708.3	4757.4	4815.0	4868.4	4930.3	4975.1	5011.4	5022.1	5026.3
7.5°	4678.4	4716.9	4800.1	4883.3	4975.1	5062.6	5152.3	5229.1	5291.0	5314.5	5316.6
10°	4753.1	4804.4	4921.8	5039.1	5160.8	5295.3	5410.5	5521.5	5609.0	5645.3	5647.4
12.5°	4847.1	4911.1	5064.8	5227.0	5395.6	5581.3	5730.7	5867.3	5976.1	6025.2	6025.2
15°	4968.7	5052.0	5248.3	5466.0	5713.6	5971.9	6161.8	6313.3	6435.0	6494.8	6490.5
17.5°	5101.0	5212.0	5459.6	5788.3	6142.6	6482.0	6703.9	6814.9	6940.8	6998.5	6996.3
20°	5229.1	5365.7	5720.0	6198.1	6669.8	7030.5	7209.8	7239.6	7248.2	7254.6	7271.7
22.5°	5361.4	5545.0	6046.6	6714.6	7220.4	7470.1	7495.8	7367.7	7188.4	7105.2	7128.7
25°	5506.6	5749.9	6473.4	7284.5	7694.3	7724.1	7527.8	7216.2	6876.8	6721.0	6744.5
27.5°	5647.4	5986.8	6985.7	7828.7	8035.7	7773.2	7350.6	6908.8	6499.0	6334.7	6353.9
30°	5788.3	6257.9	7551.3	8304.7	8191.6	7651.6	7071.0	6578.0	6166.1	5993.2	6012.4
32.5°	5931.3	6573.7	8202.2	8648.3	8163.8	7393.3	6723.1	6206.6	5843.8	5662.4	5685.9
35°	6093.5	6962.2	8819.0	8836.1	7978.1	7013.4	6264.3	5762.7	5446.8	5301.7	5333.7
37.5°	6304.8	7455.2	9363.3	8883.1	7653.7	6456.3	5694.4	5237.6	4977.3	4911.1	4958.0
40°	6567.3	8048.6	9779.5	8808.4	7173.5	5779.8	5071.2	4706.2	4558.9	4573.9	4625.1
42.5°	6908.8	8712.3	10071.9	8616.3	6505.4	5081.8	4524.8	4362.6	4433.0	4492.8	4548.3
45°	7352.8	9401.7	10253.3	8289.7	5749.9	4490.6	4202.5	4240.9	4294.3	4300.7	4343.4
47.5°	7920.5	10099.6	10372.8	7796.7	4979.4	4074.4	3997.6	4006.1	3995.5	3950.6	3984.8
50°	8629.1	10778.4	10479.6	7143.6	4324.1	3814.0	3711.6	3681.7	3534.4	3389.3	3408.5
52.5°	9435.9	11401.6	10524.4	6332.6	3814.0	3596.3	3429.9	3242.0	2966.7	2921.9	2936.8
55°	10332.3	11977.9	10409.1	5335.8	3385.0	3316.7	3064.9	2838.7	2808.8	2770.4	2776.8
57.5°	11403.7	12598.9	10174.3	4223.8	2945.4	2990.2	2744.7	2770.4	2717.0	2657.2	2646.6
60°	12575.5	13241.4	9762.4	3210.0	2490.8	2582.5	2661.5	2659.4	2644.4	2595.3	2578.3
62.5°	13629.8	13664.0	8951.4	2458.7	2091.6	2266.7	2482.2	2480.1	2467.3	2439.5	2428.9
65°	14257.3	13599.9	7598.2	1935.8	1763.0	2006.3	2238.9	2256.0	2258.1	2256.0	2256.0
67.5°	14146.3	12850.8	5741.3	1541.0	1491.9	1741.6	1997.7	2021.2	2038.3	2042.6	2046.8
70°	12891.3	11205.2	3743.6	1229.4	1250.7	1509.0	1769.4	1792.8	1807.8	1824.9	1833.4
72.5°	10048.4	8238.5	2142.9	994.6	1039.4	1308.3	1543.1	1570.9	1579.4	1611.4	1624.2
75°	6123.4	4844.9	1156.8	783.3	853.7	1118.4	1319.0	1351.0	1366.0	1404.4	1408.7
77.5°	2911.2	2098.0	659.5	610.4	687.3	913.5	1114.1	1150.4	1109.9	1131.2	1114.1
80°	983.9	779.0	416.2	465.3	525.0	712.9	892.1	928.4	843.1	838.8	830.3
82.5°	343.6	315.9	264.7	309.5	339.4	510.1	674.4	721.4	627.5	625.4	595.5
85°	134.5	128.1	147.3	168.6	202.8	313.7	443.9	467.4	386.3	311.6	307.3
87.5°	27.7	29.9	36.3	38.4	61.9	108.9	160.1	196.4	155.8	132.3	121.7
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)