

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: P884844

Luminaire Tested: **NAV-SB5D-835-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884844  
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-SB5D-835-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

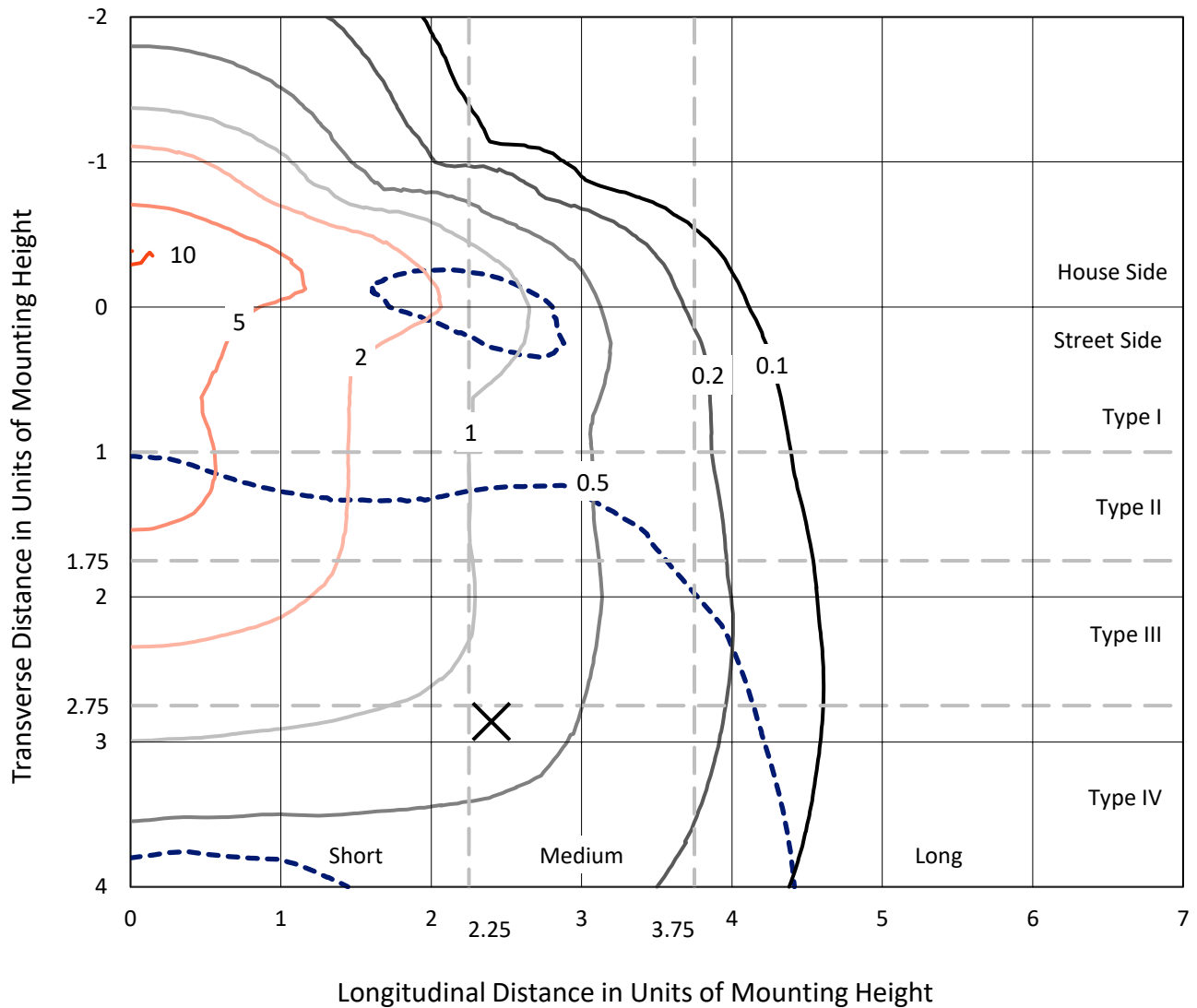
Lumens per Lamp: N/A  
Luminaire Lumens: 43188 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 3.094  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 3.28  
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

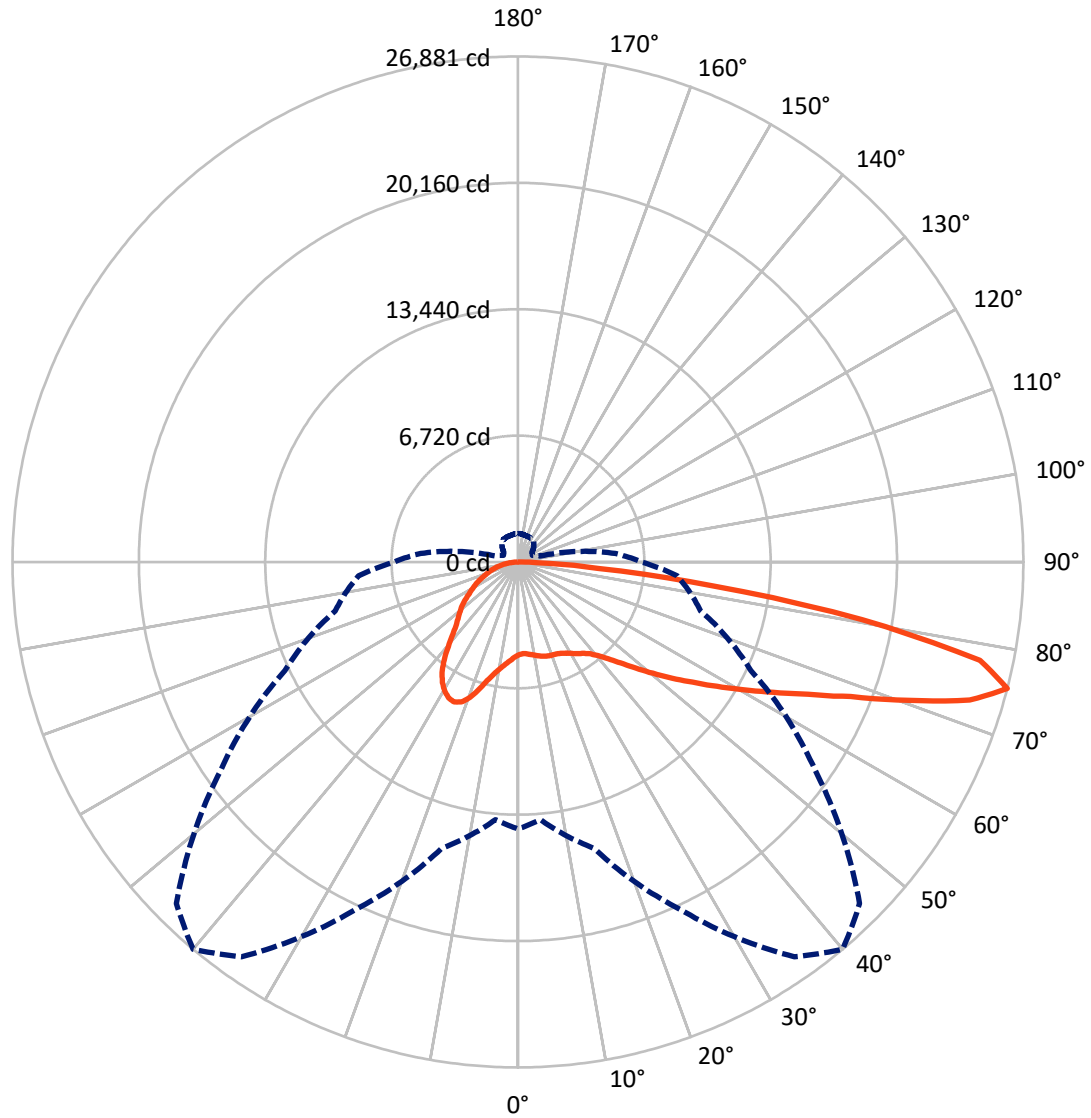
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.2 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	13381.1	0.0	13381.1
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	29806.9	0.0	29806.9
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	43188.0	0.0	43188.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	493.0	1.1
10°-20°	1655.1	3.8
20°-30°	3022.1	7.0
30°-40°	4286.2	9.9
40°-50°	5787.6	13.4
50°-60°	7785.9	18.0
60°-70°	9882.1	22.9
70°-80°	8968.6	20.8
80°-90°	1307.3	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°	43188.0	100.0
0°-180°	43188.0	100.0

**Coefficient of Utilization**



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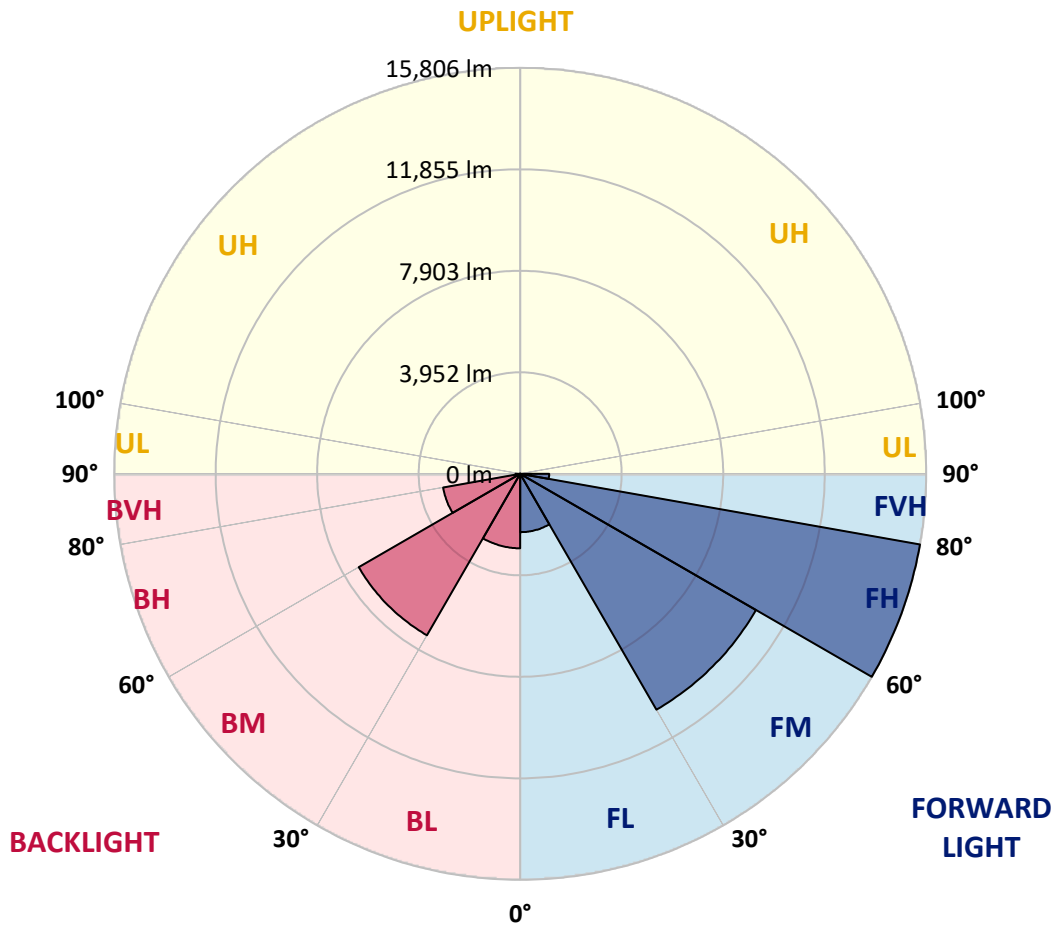
CATALOG NUMBER: NAV-SB5D-835-U-SL4

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2271.7	5.3			
FM (30°-60°)	10601.7	24.5			
FH (60°-80°)	15806.1	36.6			G5
FVH (80°-90°)	1127.3	2.6			G5
BL (0°-30°)	2898.5	6.7	B4/5000		
BM (30°-60°)	7258.0	16.8	B4/8500		
BH (60°-80°)	3044.6	7.0	B4/5000		G4/5000
BVH (80°-90°)	180.0	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



REPORT NUMBER: P884844

CATALOG NUMBER: NAV-SB5D-835-U-SL4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6
2.5°	4863.0	4890.5	4883.6	4874.5	4874.5	4876.8	4874.5	4890.5	4906.5	4922.6	4947.8
5°	4913.4	4940.9	4927.2	4915.7	4906.5	4904.2	4897.4	4895.1	4904.2	4924.9	4959.2
7.5°	5011.9	5039.4	5018.8	4998.2	4979.8	4970.7	4961.5	4947.8	4940.9	4952.3	5000.5
10°	5121.9	5149.3	5124.1	5087.5	5057.7	5046.3	5037.1	5023.4	5014.2	5021.1	5073.8
12.5°	5231.8	5259.3	5224.9	5174.5	5135.6	5128.7	5117.3	5112.7	5110.4	5108.1	5160.8
15°	5334.9	5357.8	5314.3	5254.7	5213.5	5202.0	5190.6	5197.4	5208.9	5222.6	5282.2
17.5°	5415.1	5438.0	5373.8	5295.9	5257.0	5252.4	5245.6	5268.5	5300.5	5334.9	5408.2
20°	5488.4	5511.3	5428.8	5323.4	5277.6	5277.6	5279.9	5328.0	5373.8	5424.2	5525.0
22.5°	5591.4	5609.8	5509.0	5364.7	5298.2	5302.8	5321.1	5369.2	5426.5	5495.2	5635.0
25°	5744.9	5758.7	5635.0	5442.5	5367.0	5380.7	5396.7	5419.6	5474.6	5554.8	5742.6
27.5°	5992.3	6003.7	5841.1	5580.0	5465.5	5488.4	5511.3	5495.2	5520.4	5589.1	5829.7
30°	6340.5	6347.3	6141.2	5795.3	5632.7	5644.1	5648.7	5582.3	5534.2	5589.1	5891.5
32.5°	6752.8	6750.5	6505.4	6056.4	5822.8	5811.3	5772.4	5641.8	5529.6	5577.7	5946.5
35°	7391.9	7366.7	7050.6	6422.9	6038.1	5967.1	5875.5	5708.3	5552.5	5566.2	5994.6
37.5°	8450.1	8372.3	7934.8	7023.1	6358.8	6177.8	6042.7	5815.9	5602.9	5561.7	6051.9
40°	9643.6	9545.1	9064.0	7845.4	6839.8	6548.9	6331.3	5969.4	5685.4	5582.3	6136.6
42.5°	11059.2	10919.4	10401.8	8814.4	7449.1	7027.7	6700.1	6164.1	5806.8	5648.7	6251.1
45°	12797.8	12612.2	11879.2	9907.0	8216.5	7655.3	7217.8	6459.6	5992.3	5777.0	6422.9
47.5°	14554.7	14600.5	13558.3	11157.7	9137.3	8429.5	7866.0	6904.0	6262.6	5983.1	6700.1
50°	16421.5	16453.6	15228.1	12543.5	10181.9	9304.6	8594.5	7401.0	6638.3	6276.3	7114.7
52.5°	17878.4	17883.0	16744.5	13993.5	11269.9	10266.6	9380.1	7969.1	7073.5	6665.7	7666.7
55°	18790.1	18778.6	17807.4	15365.6	12520.6	11276.8	10250.6	8615.1	7604.9	7123.9	8360.8
57.5°	19452.1	19417.7	18540.4	16545.2	13853.8	12470.2	11235.6	9348.1	8232.5	7669.0	9274.8
60°	19704.0	19683.4	19037.5	17564.6	15255.6	13789.6	12371.7	10168.1	8944.9	8312.7	10449.9
62.5°	19800.2	19839.2	19525.4	18551.8	16756.0	15251.0	13620.1	11148.5	9746.6	9041.1	11689.1
65°	20139.2	20210.3	20146.1	19843.8	18451.1	16962.1	15276.2	12314.4	10621.7	9822.2	12983.3
67.5°	20810.4	20881.4	20908.9	21389.9	20521.8	19094.7	17342.4	13766.7	11645.6	10633.1	13956.8
70°	20794.4	20773.8	21259.4	22620.0	23114.8	22047.3	20127.8	15553.4	12866.5	11306.6	14080.5
72.5°	18927.5	18762.6	19910.2	22606.3	25272.6	25130.5	23529.4	17857.8	13920.2	11389.0	12218.2
75°	14199.6	13759.8	15787.0	20372.9	25632.2	26880.6	25691.7	19287.1	13670.5	10062.8	8502.8
77.5°	6072.5	5630.4	8019.5	15081.5	22940.7	25128.2	23708.1	16827.0	10912.6	6654.3	4175.8
80°	1589.7	1587.4	2423.5	6837.5	15601.5	18556.4	16279.5	10866.8	6235.1	2377.7	1152.2
82.5°	657.4	641.4	891.1	2659.4	7623.2	10413.2	8498.2	4847.0	2251.7	643.7	382.5
85°	245.1	242.8	432.9	918.5	2689.2	4294.9	3108.4	1239.2	561.2	313.8	171.8
87.5°	68.7	66.4	93.9	318.4	655.1	994.1	531.4	203.9	158.1	123.7	50.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P884844

CATALOG NUMBER: NAV-SB5D-835-U-SL4

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6	4938.6
2.5°	4954.6	4966.1	4986.7	5002.7	5023.4	5046.3	5078.3	5098.9	5119.6	5133.3	5124.1
5°	4975.3	5000.5	5053.1	5105.8	5167.7	5224.9	5291.4	5339.5	5378.4	5389.9	5394.4
7.5°	5021.1	5062.3	5151.6	5241.0	5339.5	5433.4	5529.6	5612.1	5678.5	5703.7	5706.0
10°	5101.2	5156.2	5282.2	5408.2	5538.8	5683.1	5806.8	5925.9	6019.8	6058.7	6061.0
12.5°	5202.0	5270.7	5435.7	5609.8	5790.7	5990.0	6150.4	6297.0	6413.8	6466.5	6466.5
15°	5332.6	5421.9	5632.7	5866.3	6132.0	6409.2	6613.1	6775.7	6906.3	6970.4	6965.8
17.5°	5474.6	5593.7	5859.4	6212.2	6592.4	6956.7	7194.9	7314.0	7449.1	7511.0	7508.7
20°	5612.1	5758.7	6138.9	6652.0	7158.2	7545.3	7737.8	7769.8	7779.0	7785.9	7804.2
22.5°	5754.1	5951.1	6489.4	7206.3	7749.2	8017.2	8044.7	7907.3	7714.9	7625.5	7650.7
25°	5909.8	6171.0	6947.5	7817.9	8257.7	8289.8	8079.1	7744.6	7380.4	7213.2	7238.4
27.5°	6061.0	6425.2	7497.2	8402.0	8624.2	8342.5	7888.9	7414.8	6975.0	6798.6	6819.2
30°	6212.2	6716.1	8104.3	8912.9	8791.5	8211.9	7588.9	7059.7	6617.6	6432.1	6452.7
32.5°	6365.7	7055.2	8802.9	9281.6	8761.7	7934.8	7215.5	6661.2	6271.8	6077.1	6102.2
35°	6539.8	7472.0	9464.9	9483.2	8562.4	7527.0	6723.0	6184.7	5845.7	5689.9	5724.3
37.5°	6766.5	8001.2	10049.0	9533.6	8214.2	6929.2	6111.4	5621.2	5341.8	5270.7	5321.1
40°	7048.3	8638.0	10495.7	9453.4	7698.8	6203.0	5442.5	5050.8	4892.8	4908.8	4963.8
42.5°	7414.8	9350.4	10809.5	9247.3	6981.9	5454.0	4856.1	4682.1	4757.6	4821.8	4881.3
45°	7891.2	10090.2	11004.2	8896.8	6171.0	4819.5	4510.3	4551.5	4608.8	4615.6	4661.4
47.5°	8500.5	10839.3	11132.5	8367.7	5344.0	4372.8	4290.4	4299.5	4288.1	4240.0	4276.6
50°	9261.0	11567.7	11247.0	7666.7	4640.8	4093.4	3983.4	3951.3	3793.3	3637.5	3658.1
52.5°	10126.9	12236.6	11295.1	6796.3	4093.4	3859.7	3681.0	3479.5	3184.0	3135.9	3151.9
55°	11089.0	12855.0	11171.4	5726.6	3632.9	3559.6	3289.3	3046.5	3014.5	2973.2	2980.1
57.5°	12238.9	13521.6	10919.4	4533.2	3161.1	3209.2	2945.8	2973.2	2916.0	2851.8	2840.4
60°	13496.4	14211.1	10477.4	3445.1	2673.2	2771.7	2856.4	2854.1	2838.1	2785.4	2767.1
62.5°	14628.0	14664.6	9606.9	2638.8	2244.8	2432.7	2664.0	2661.7	2648.0	2618.2	2606.7
65°	15301.4	14595.9	8154.7	2077.6	1892.1	2153.2	2402.9	2421.2	2423.5	2421.2	2421.2
67.5°	15182.3	13791.9	6161.8	1653.8	1601.2	1869.2	2144.0	2169.2	2187.6	2192.1	2196.7
70°	13835.4	12025.8	4017.8	1319.4	1342.3	1619.5	1898.9	1924.1	1940.2	1958.5	1967.7
72.5°	10784.3	8841.8	2299.8	1067.4	1115.5	1404.2	1656.1	1685.9	1695.1	1729.4	1743.2
75°	6571.8	5199.7	1241.5	840.7	916.3	1200.3	1415.6	1450.0	1466.0	1507.2	1511.8
77.5°	3124.4	2251.7	707.8	655.1	737.6	980.4	1195.7	1234.7	1191.1	1214.0	1195.7
80°	1056.0	836.1	446.7	499.4	563.5	765.1	957.5	996.4	904.8	900.2	891.1
82.5°	368.8	339.0	284.0	332.1	364.2	547.5	723.8	774.2	673.4	671.2	639.1
85°	144.3	137.4	158.1	181.0	217.6	336.7	476.5	501.6	414.6	334.4	329.9
87.5°	29.8	32.1	38.9	41.2	66.4	116.8	171.8	210.7	167.2	142.0	130.6
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)