

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: P884754

Luminaire Tested: **NAV-SB5D-722-U-SL4**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884754
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-722-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 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: 40789 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B4 - U0 - G5

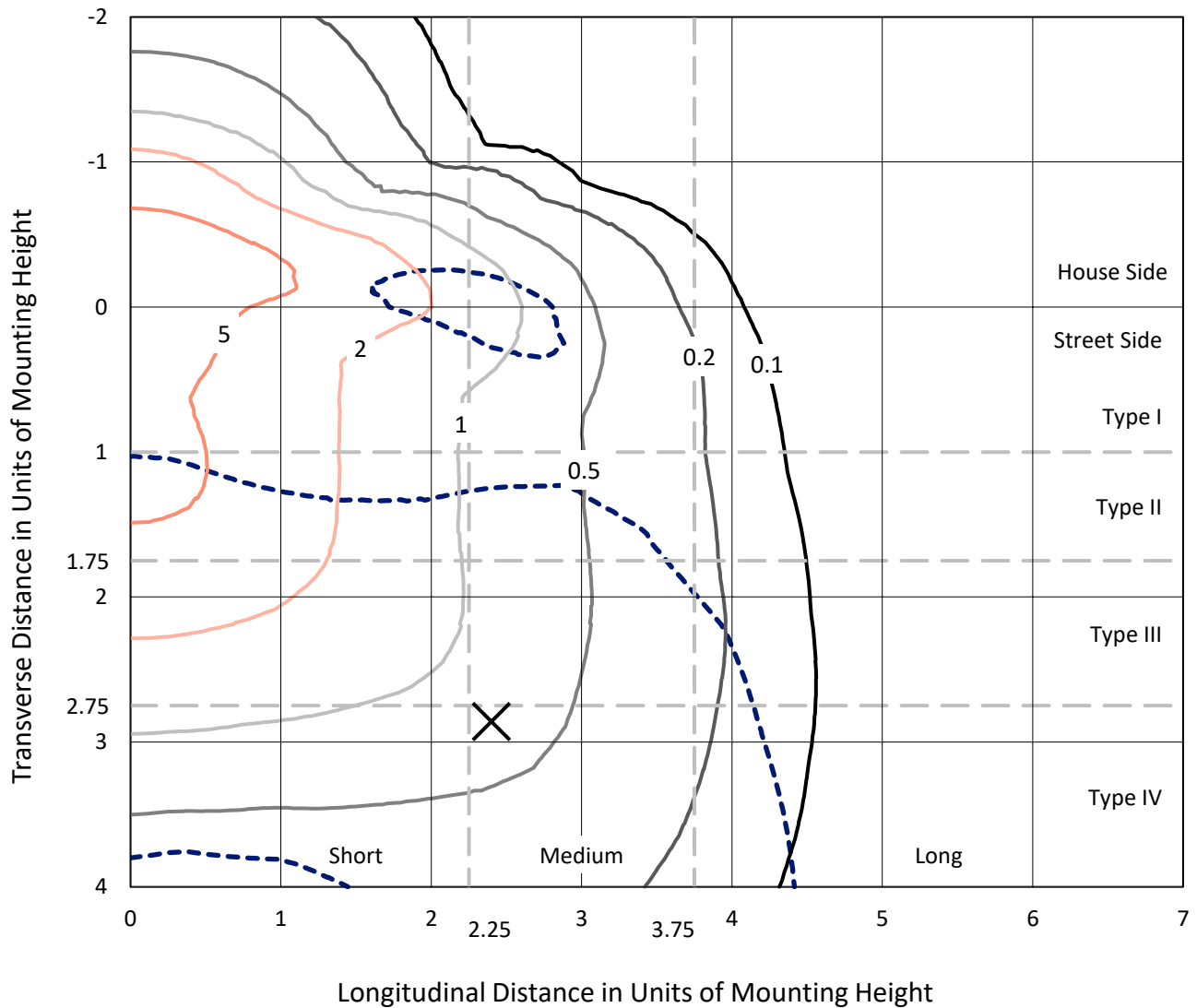
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

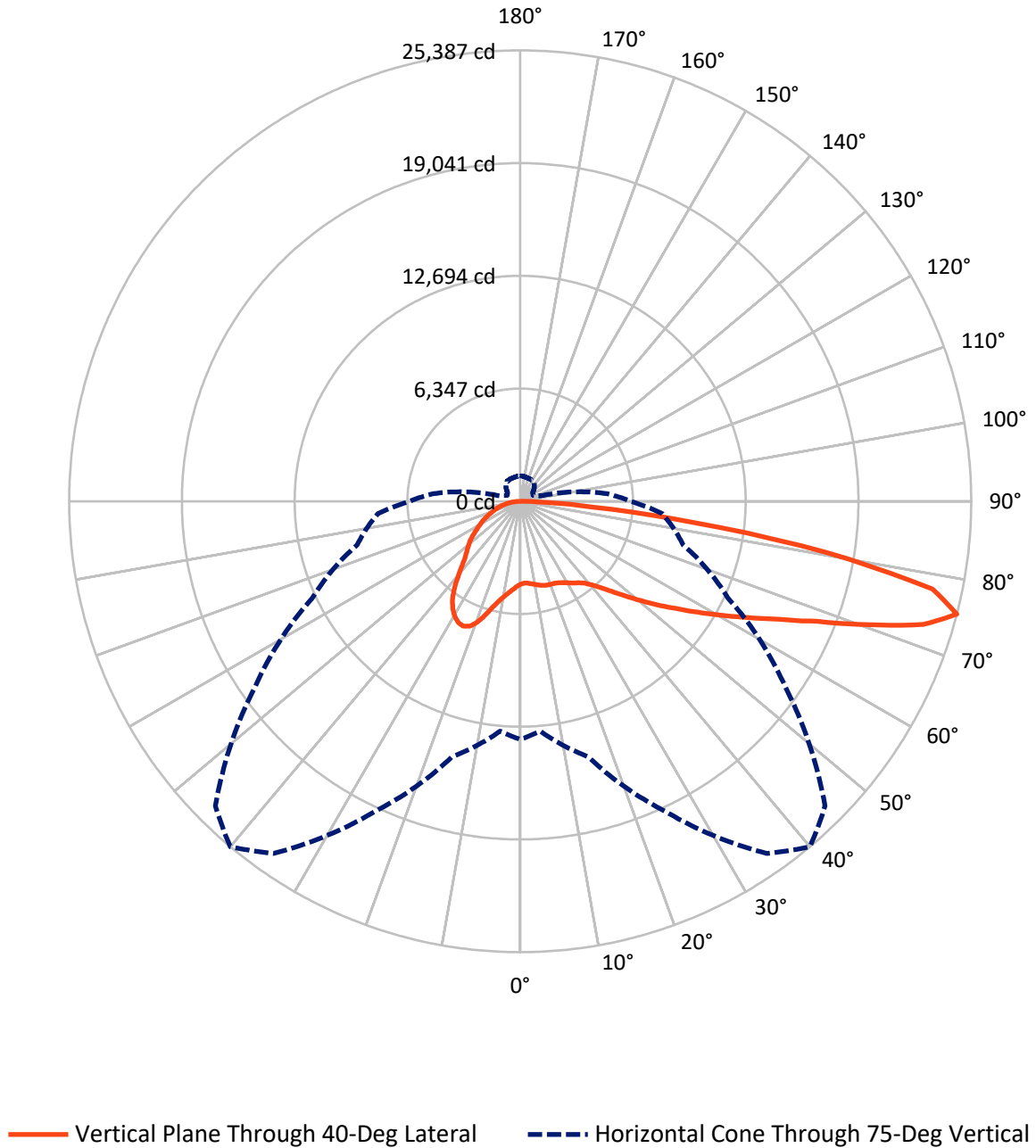
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12637.8	0.0	12637.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	28151.2	0.0	28151.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	40789.0	0.0	40789.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	465.6	1.1
10°-20°	1563.2	3.8
20°-30°	2854.2	7.0
30°-40°	4048.1	9.9
40°-50°	5466.1	13.4
50°-60°	7353.4	18.0
60°-70°	9333.2	22.9
70°-80°	8470.4	20.8
80°-90°	1234.7	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°	40789.0	100.0
0°-180°	40789.0	100.0

Coefficient of Utilization



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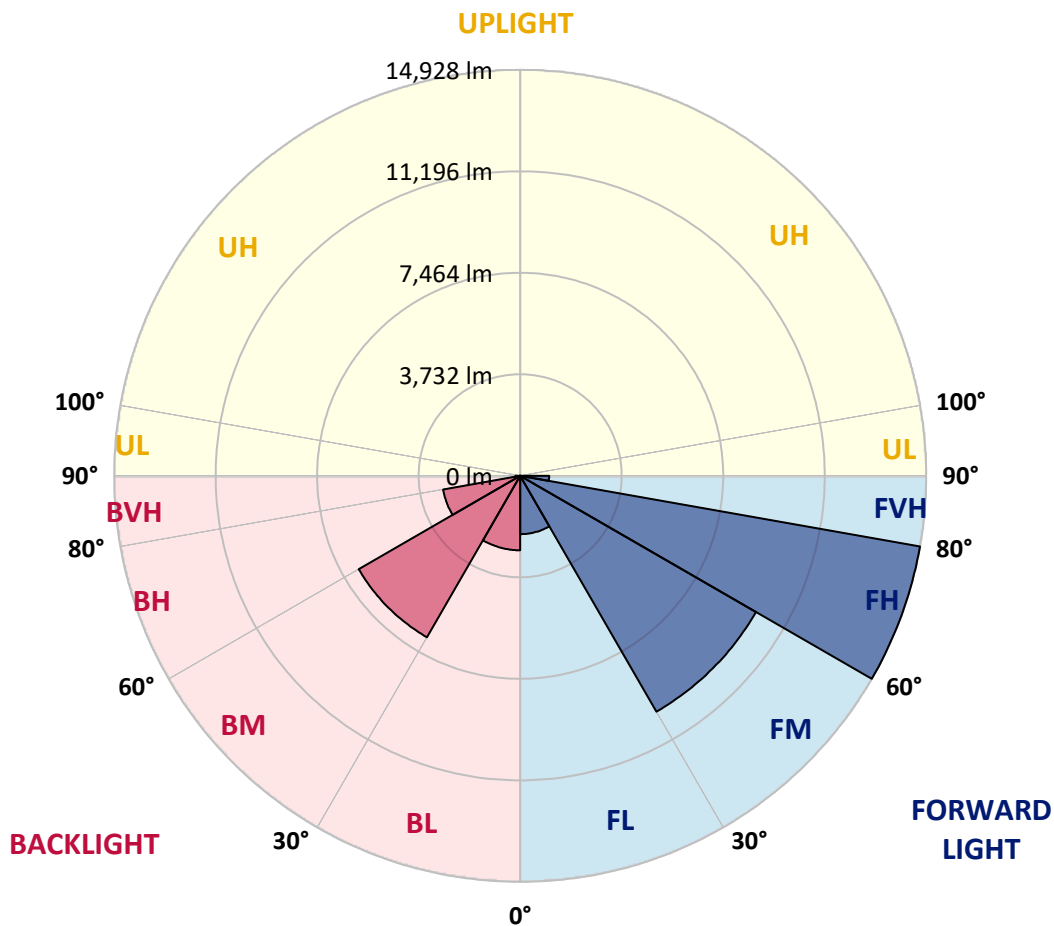
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2145.5	5.3			
FM (30°-60°)	10012.8	24.5			
FH (60°-80°)	14928.1	36.6			G5
FVH (80°-90°)	1064.7	2.6			G5
BL (0°-30°)	2737.5	6.7	B4/5000		
BM (30°-60°)	6854.9	16.8	B4/8500		
BH (60°-80°)	2875.5	7.0	B4/5000		G4/5000
BVH (80°-90°)	170.0	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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3
2.5°	4592.9	4618.8	4612.4	4603.7	4603.7	4605.9	4603.7	4618.8	4634.0	4649.1	4672.9
5°	4640.5	4666.4	4653.5	4642.6	4634.0	4631.8	4625.3	4623.2	4631.8	4651.3	4683.7
7.5°	4733.5	4759.5	4740.0	4720.5	4703.2	4694.6	4685.9	4672.9	4666.4	4677.3	4722.7
10°	4837.3	4863.3	4839.5	4804.9	4776.8	4766.0	4757.3	4744.3	4735.7	4742.2	4791.9
12.5°	4941.2	4967.2	4934.7	4887.1	4850.3	4843.8	4833.0	4828.7	4826.5	4824.4	4874.1
15°	5038.5	5060.2	5019.1	4962.8	4923.9	4913.1	4902.2	4908.7	4919.6	4932.5	4988.8
17.5°	5114.3	5135.9	5075.3	5001.8	4965.0	4960.7	4954.2	4975.8	5006.1	5038.5	5107.8
20°	5183.5	5205.1	5127.2	5027.7	4984.5	4984.5	4986.6	5032.1	5075.3	5122.9	5218.1
22.5°	5280.8	5298.2	5203.0	5066.7	5003.9	5008.3	5025.6	5071.0	5125.1	5190.0	5321.9
25°	5425.8	5438.8	5321.9	5140.2	5068.8	5081.8	5097.0	5118.6	5170.5	5246.2	5423.6
27.5°	5659.4	5670.3	5516.7	5270.0	5161.9	5183.5	5205.1	5190.0	5213.8	5278.7	5505.8
30°	5988.3	5994.8	5800.1	5473.4	5319.8	5330.6	5334.9	5272.2	5226.8	5278.7	5564.2
32.5°	6377.7	6375.5	6144.0	5720.0	5499.3	5488.5	5451.8	5328.4	5222.4	5267.9	5616.2
35°	6981.3	6957.5	6658.9	6066.2	5702.7	5635.6	5549.1	5391.2	5244.1	5257.0	5661.6
37.5°	7980.8	7907.2	7494.0	6633.0	6005.6	5834.7	5707.0	5492.9	5291.7	5252.7	5715.7
40°	9107.9	9014.9	8560.5	7409.6	6459.9	6185.1	5979.6	5637.8	5369.5	5272.2	5795.7
42.5°	10444.9	10312.9	9824.0	8324.7	7035.4	6637.3	6327.9	5821.7	5484.2	5334.9	5903.9
45°	12086.9	11911.6	11219.4	9356.7	7760.1	7230.1	6816.9	6100.8	5659.4	5456.1	6066.2
47.5°	13746.2	13789.5	12805.1	10537.9	8629.8	7961.3	7429.1	6520.5	5914.7	5650.8	6327.9
50°	15509.4	15539.7	14382.2	11846.7	9616.3	8787.7	8117.1	6989.9	6269.5	5927.7	6719.5
52.5°	16885.3	16889.6	15814.4	13216.2	10643.9	9696.3	8859.1	7526.4	6680.6	6295.5	7240.9
55°	17746.3	17735.5	16818.2	14512.0	11825.1	10650.4	9681.2	8136.5	7182.5	6728.2	7896.4
57.5°	18371.5	18339.1	17510.5	15626.2	13084.2	11777.5	10611.4	8828.8	7775.2	7243.0	8759.6
60°	18609.5	18590.0	17980.0	16588.9	14408.2	13023.6	11684.5	9603.3	8448.1	7851.0	9869.4
62.5°	18700.4	18737.2	18440.8	17521.3	15825.2	14403.9	12863.5	10529.2	9205.2	8538.9	11039.8
65°	19020.6	19087.6	19027.0	18741.5	17426.1	16019.9	14427.7	11630.4	10031.7	9276.6	12262.1
67.5°	19654.4	19721.5	19747.5	20201.8	19381.8	18034.0	16379.1	13002.0	10998.7	10042.5	13181.6
70°	19639.3	19619.8	20078.5	21363.5	21830.8	20822.7	19009.7	14689.4	12151.8	10678.5	13298.4
72.5°	17876.1	17720.4	18804.2	21350.5	23868.7	23734.6	22222.4	16865.8	13146.9	10756.4	11539.5
75°	13410.9	12995.5	14910.1	19241.2	24208.4	25387.4	24264.6	18215.8	12911.1	9503.8	8030.5
77.5°	5735.2	5317.6	7574.0	14243.8	21666.4	23732.4	22391.1	15892.3	10306.4	6284.7	3943.9
80°	1501.4	1499.2	2288.9	6457.7	14734.9	17525.7	15375.2	10263.1	5888.8	2245.6	1088.2
82.5°	620.9	605.8	841.6	2511.7	7199.8	9834.8	8026.2	4577.7	2126.6	607.9	361.3
85°	231.5	229.3	408.9	867.5	2539.8	4056.4	2935.7	1170.4	530.0	296.4	162.3
87.5°	64.9	62.7	88.7	300.7	618.7	938.9	501.9	192.5	149.3	116.8	47.6
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°	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3	4664.3
2.5°	4679.4	4690.2	4709.7	4724.9	4744.3	4766.0	4796.2	4815.7	4835.2	4848.2	4839.5
5°	4698.9	4722.7	4772.4	4822.2	4880.6	4934.7	4997.4	5042.9	5079.6	5090.5	5094.8
7.5°	4742.2	4781.1	4865.5	4949.8	5042.9	5131.6	5222.4	5300.3	5363.1	5386.8	5389.0
10°	4817.9	4869.8	4988.8	5107.8	5231.1	5367.4	5484.2	5596.7	5685.4	5722.2	5724.3
12.5°	4913.1	4978.0	5133.7	5298.2	5469.1	5657.3	5808.7	5947.2	6057.5	6107.3	6107.3
15°	5036.4	5120.8	5319.8	5540.5	5791.4	6053.2	6245.7	6399.3	6522.6	6583.2	6578.9
17.5°	5170.5	5283.0	5534.0	5867.1	6226.2	6570.2	6795.2	6907.7	7035.4	7093.8	7091.6
20°	5300.3	5438.8	5797.9	6282.5	6760.6	7126.2	7307.9	7338.2	7346.9	7353.4	7370.7
22.5°	5434.4	5620.5	6128.9	6806.0	7318.8	7571.9	7597.8	7468.0	7286.3	7201.9	7225.7
25°	5581.6	5828.2	6561.6	7383.7	7799.0	7829.3	7630.3	7314.4	6970.5	6812.5	6836.3
27.5°	5724.3	6068.3	7080.8	7935.3	8145.2	7879.1	7450.7	7002.9	6587.5	6421.0	6440.4
30°	5867.1	6343.1	7654.1	8417.8	8303.1	7755.8	7167.3	6667.6	6250.0	6074.8	6094.3
32.5°	6012.1	6663.3	8313.9	8766.1	8275.0	7494.0	6814.7	6291.1	5923.4	5739.5	5763.3
35°	6176.5	7057.0	8939.1	8956.4	8086.8	7108.9	6349.6	5841.2	5521.0	5373.9	5406.3
37.5°	6390.7	7556.7	9490.8	9004.0	7757.9	6544.3	5771.9	5309.0	5045.0	4978.0	5025.6
40°	6656.8	8158.2	9912.7	8928.3	7271.2	5858.5	5140.2	4770.3	4621.0	4636.2	4688.1
42.5°	7002.9	8831.0	10209.1	8733.6	6594.0	5151.0	4586.4	4422.0	4493.4	4553.9	4610.2
45°	7452.9	9529.7	10392.9	8402.6	5828.2	4551.8	4259.7	4298.7	4352.7	4359.2	4402.5
47.5°	8028.4	10237.2	10514.1	7902.9	5047.2	4129.9	4052.0	4060.7	4049.9	4004.4	4039.1
50°	8746.6	10925.1	10622.3	7240.9	4383.0	3866.0	3762.1	3731.9	3582.6	3435.5	3454.9
52.5°	9564.4	11556.8	10667.7	6418.8	3866.0	3645.3	3476.6	3286.2	3007.1	2961.7	2976.8
55°	10473.0	12141.0	10550.9	5408.5	3431.1	3361.9	3106.6	2877.3	2847.0	2808.1	2814.6
57.5°	11559.0	12770.5	10312.9	4281.4	2985.5	3030.9	2782.1	2808.1	2754.0	2693.4	2682.6
60°	12746.7	13421.7	9895.4	3253.7	2524.7	2617.7	2697.8	2695.6	2680.4	2630.7	2613.4
62.5°	13815.4	13850.0	9073.3	2492.2	2120.1	2297.5	2516.0	2513.9	2500.9	2472.8	2461.9
65°	14451.5	13785.1	7701.7	1962.2	1787.0	2033.6	2269.4	2286.7	2288.9	2286.7	2286.7
67.5°	14339.0	13025.8	5819.5	1562.0	1512.2	1765.3	2024.9	2048.7	2066.0	2070.4	2074.7
70°	13066.9	11357.8	3794.6	1246.1	1267.7	1529.5	1793.5	1817.3	1832.4	1849.7	1858.4
72.5°	10185.3	8350.7	2172.0	1008.1	1053.6	1326.2	1564.1	1592.3	1600.9	1633.4	1646.3
75°	6206.8	4910.9	1172.6	794.0	865.4	1133.6	1337.0	1369.4	1384.6	1423.5	1427.8
77.5°	2950.9	2126.6	668.5	618.7	696.6	925.9	1129.3	1166.1	1125.0	1146.6	1129.3
80°	997.3	789.6	421.9	471.6	532.2	722.6	904.3	941.1	854.5	850.2	841.6
82.5°	348.3	320.2	268.3	313.7	344.0	517.1	683.6	731.2	636.0	633.9	603.6
85°	136.3	129.8	149.3	170.9	205.5	318.0	450.0	473.8	391.6	315.9	311.5
87.5°	28.1	30.3	36.8	38.9	62.7	110.3	162.3	199.0	157.9	134.1	123.3
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)