

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: P884764

Luminaire Tested: **NAV-SB5D-727-U-SL4**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884764  
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-727-U-SL4  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL  
LIGHT ELIMINATOR OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

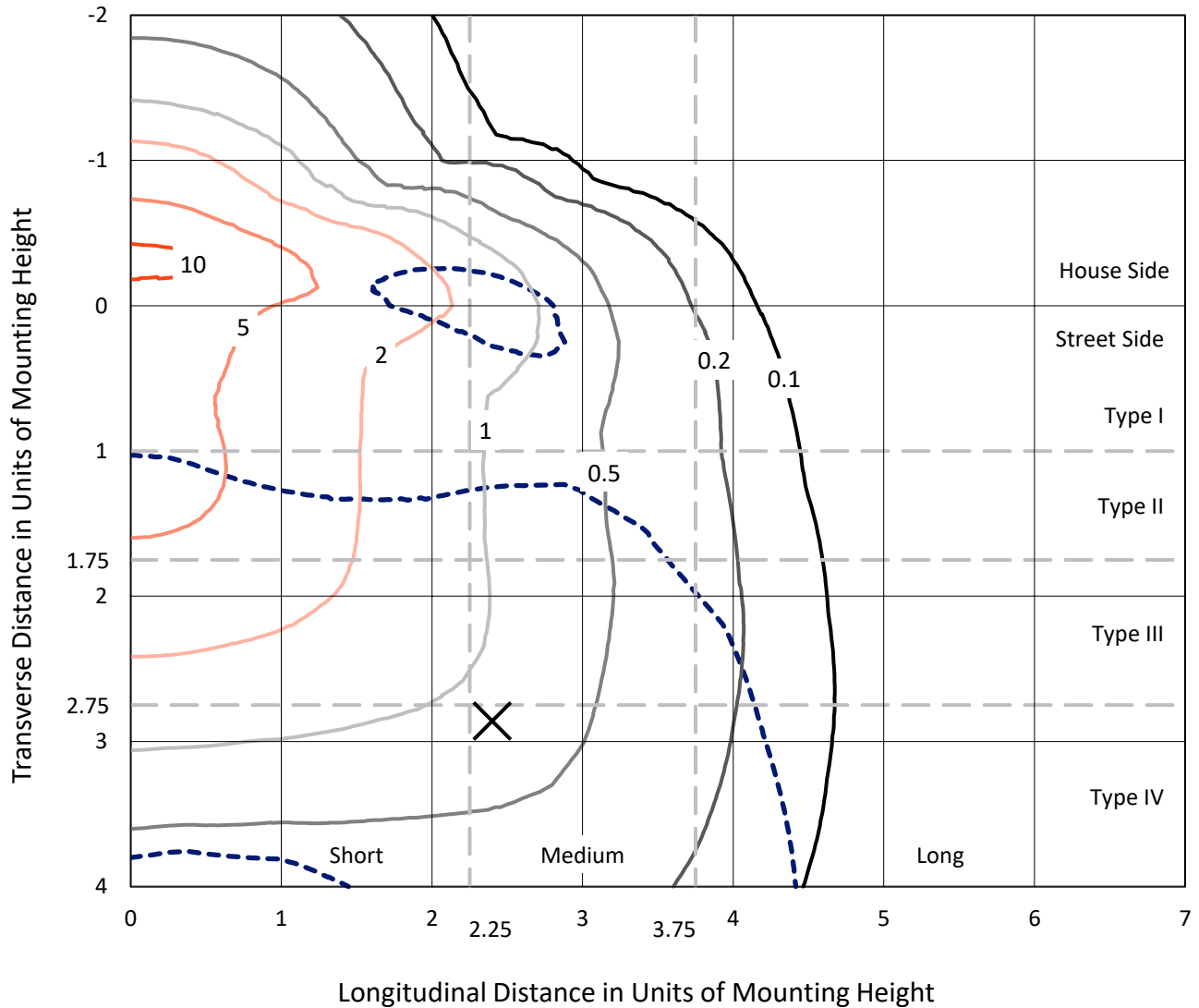
Lumens per Lamp: N/A  
Luminaire Lumens: 46387 lumens  
Efficiency: N/A  
Efficacy: 127.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B4 - U0 - G5  
  
Input Watts (W): 364.9  
Input Voltage (V): 120.0  
Input Current (Ain): 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

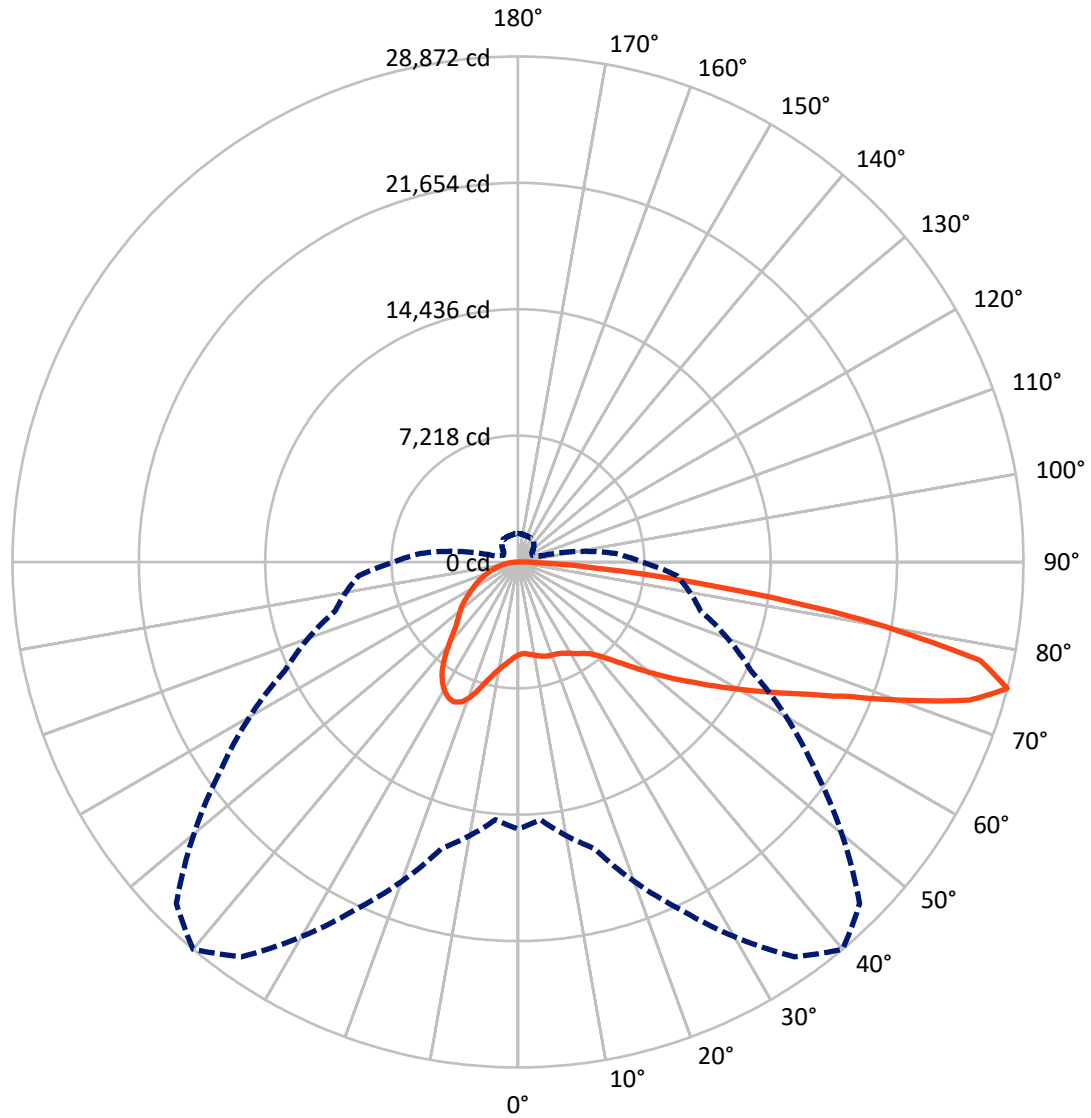
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11 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	14372.2	0.0	14372.2
	% Fixture	31.0	0.0	31.0
<b>Street Side</b>	Lumens	32014.8	0.0	32014.8
	% Fixture	69.0	0.0	69.0
<b>Total</b>	Lumens	46387.0	0.0	46387.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	529.5	1.1
10°-20°	1777.7	3.8
20°-30°	3246.0	7.0
30°-40°	4603.7	9.9
40°-50°	6216.3	13.4
50°-60°	8362.6	18.0
60°-70°	10614.1	22.9
70°-80°	9632.9	20.8
80°-90°	1404.2	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°	46387.0	100.0
0°-180°	46387.0	100.0

**Coefficient of Utilization**



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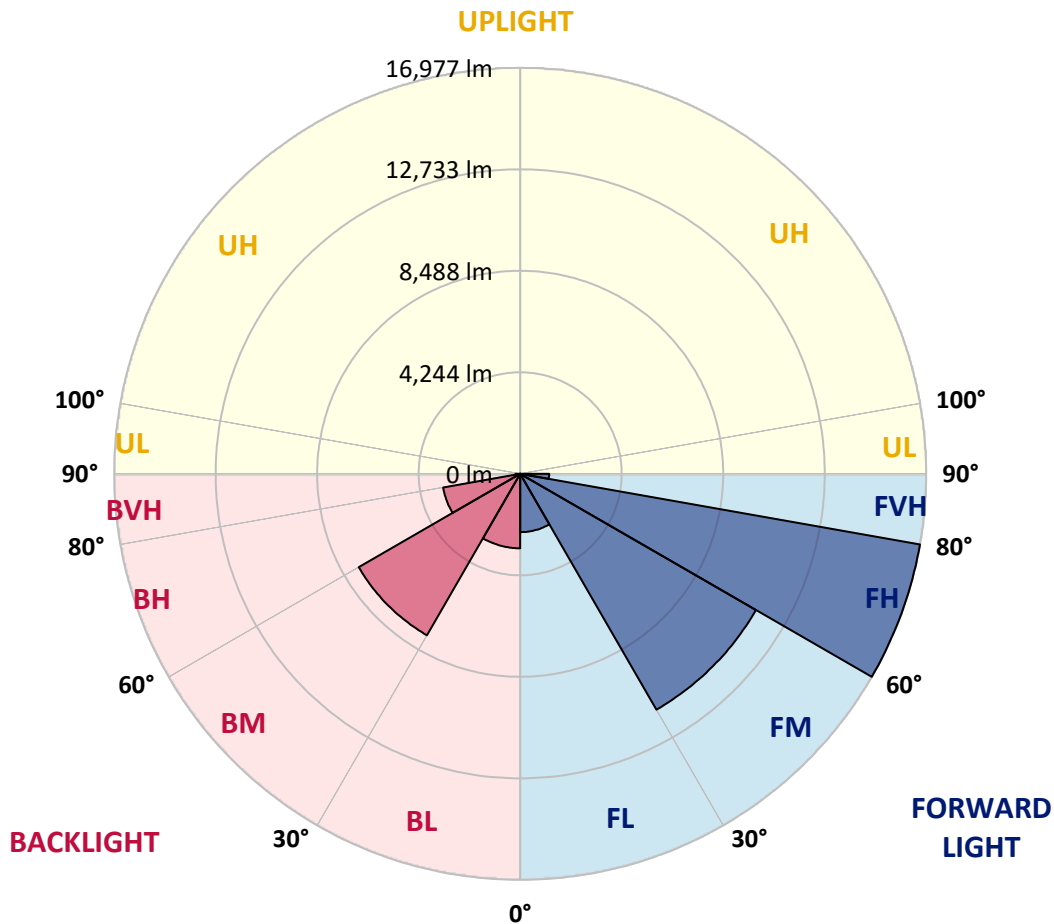
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2440.0	5.3			
FM (30°-60°)	11387.0	24.5			
FH (60°-80°)	16976.9	36.6			G5
FVH (80°-90°)	1210.9	2.6			G5
BL (0°-30°)	3113.2	6.7	B4/5000		
BM (30°-60°)	7795.7	16.8	B4/8500		
BH (60°-80°)	3270.1	7.0	B4/5000		G4/5000
BVH (80°-90°)	193.3	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°	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4
2.5°	5223.2	5252.7	5245.4	5235.5	5235.5	5238.0	5235.5	5252.7	5270.0	5287.2	5314.3
5°	5277.4	5306.9	5292.1	5279.8	5270.0	5267.5	5260.1	5257.7	5267.5	5289.7	5326.6
7.5°	5383.1	5412.7	5390.5	5368.4	5348.7	5338.9	5329.0	5314.3	5306.9	5319.2	5370.8
10°	5501.2	5530.8	5503.7	5464.3	5432.4	5420.0	5410.2	5395.4	5385.6	5393.0	5449.6
12.5°	5619.3	5648.9	5612.0	5557.8	5516.0	5508.6	5496.3	5491.4	5488.9	5486.5	5543.1
15°	5730.0	5754.7	5707.9	5643.9	5599.7	5587.4	5575.0	5582.4	5594.7	5609.5	5673.5
17.5°	5816.2	5840.8	5771.9	5688.2	5646.4	5641.5	5634.1	5658.7	5693.1	5730.0	5808.8
20°	5894.9	5919.5	5830.9	5717.7	5668.5	5668.5	5671.0	5722.7	5771.9	5826.0	5934.3
22.5°	6005.6	6025.3	5917.0	5762.0	5690.7	5695.6	5715.3	5767.0	5828.5	5902.3	6052.3
25°	6170.4	6185.2	6052.3	5845.7	5764.5	5779.3	5796.5	5821.1	5880.1	5966.2	6168.0
27.5°	6436.2	6448.5	6273.8	5993.3	5870.3	5894.9	5919.5	5902.3	5929.3	6003.1	6261.5
30°	6810.1	6817.5	6596.1	6224.6	6049.9	6062.2	6067.1	5995.8	5944.1	6003.1	6327.9
32.5°	7253.0	7250.5	6987.3	6505.0	6254.1	6241.8	6200.0	6059.7	5939.2	5990.8	6386.9
35°	7939.4	7912.3	7572.8	6898.7	6485.4	6409.1	6310.7	6131.1	5963.8	5978.5	6438.6
37.5°	9076.1	8992.4	8522.5	7543.3	6829.8	6635.4	6490.3	6246.7	6017.9	5973.6	6500.1
40°	10357.9	10252.1	9735.4	8426.5	7346.5	7034.0	6800.3	6411.6	6106.5	5995.8	6591.2
42.5°	11878.3	11728.3	11172.2	9467.2	8000.9	7548.2	7196.4	6620.7	6236.9	6067.1	6714.2
45°	13745.7	13546.4	12759.1	10640.8	8825.1	8222.3	7752.4	6938.1	6436.2	6204.9	6898.7
47.5°	15632.8	15682.0	14562.5	11984.1	9814.2	9053.9	8448.7	7415.4	6726.5	6426.3	7196.4
50°	17637.9	17672.4	16356.1	13472.6	10936.1	9993.8	9231.1	7949.2	7130.0	6741.2	7641.7
52.5°	19202.7	19207.6	17984.8	15030.0	12104.7	11027.1	10074.9	8559.4	7597.4	7159.5	8234.6
55°	20181.9	20169.6	19126.4	16503.7	13448.0	12112.1	11009.9	9253.2	8168.2	7651.5	8980.1
57.5°	20892.9	20856.0	19913.7	17770.8	14879.9	13393.9	12067.8	10040.5	8842.3	8237.1	9961.8
60°	21163.5	21141.4	20447.6	18865.6	16385.6	14811.0	13288.1	10921.3	9607.5	8928.4	11223.9
62.5°	21266.9	21308.7	20971.6	19926.0	17997.1	16380.7	14629.0	11974.3	10468.6	9710.8	12554.9
65°	21631.0	21707.3	21638.4	21313.6	19817.7	18218.6	16407.8	13226.6	11408.4	10549.8	13945.0
67.5°	22351.9	22428.1	22457.7	22974.3	22041.9	20509.1	18627.0	14786.4	12508.2	11420.7	14990.6
70°	22334.6	22312.5	22834.1	24295.5	24826.9	23680.4	21618.7	16705.5	13819.5	12144.1	15123.5
72.5°	20329.5	20152.3	21385.0	24280.7	27144.5	26992.0	25272.2	19180.5	14951.3	12232.6	13123.3
75°	15251.4	14779.0	16956.4	21881.9	27530.8	28871.7	27594.8	20715.8	14683.1	10808.1	9132.6
77.5°	6522.3	6047.4	8613.5	16198.6	24639.9	26989.5	25464.1	18073.4	11720.9	7147.2	4485.1
80°	1707.5	1705.0	2603.0	7344.0	16757.1	19930.9	17485.4	11671.7	6696.9	2553.8	1237.5
82.5°	706.1	688.9	957.1	2856.4	8187.9	11184.5	9127.7	5206.0	2418.5	691.3	410.9
85°	263.3	260.8	465.0	986.6	2888.4	4613.1	3338.6	1331.0	602.8	337.1	184.5
87.5°	73.8	71.3	100.9	342.0	703.6	1067.8	570.8	219.0	169.8	132.9	54.1
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°	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4	5304.4
2.5°	5321.6	5333.9	5356.1	5373.3	5395.4	5420.0	5454.5	5476.6	5498.8	5513.5	5503.7
5°	5343.8	5370.8	5427.4	5484.0	5550.4	5612.0	5683.3	5735.0	5776.8	5789.1	5794.0
7.5°	5393.0	5437.3	5533.2	5629.2	5735.0	5835.8	5939.2	6027.7	6099.1	6126.2	6128.6
10°	5479.1	5538.1	5673.5	5808.8	5949.0	6104.0	6236.9	6364.8	6465.7	6507.5	6510.0
12.5°	5587.4	5661.2	5838.3	6025.3	6219.6	6433.7	6605.9	6763.4	6888.9	6945.4	6945.4
15°	5727.6	5823.5	6049.9	6300.8	6586.2	6883.9	7102.9	7277.6	7417.8	7486.7	7481.8
17.5°	5880.1	6008.1	6293.5	6672.3	7080.8	7471.9	7727.8	7855.8	8000.9	8067.3	8064.9
20°	6027.7	6185.2	6593.6	7144.7	7688.4	8104.2	8310.9	8345.4	8355.2	8362.6	8382.3
22.5°	6180.3	6391.9	6970.0	7740.1	8323.2	8611.1	8640.6	8493.0	8286.3	8190.4	8217.4
25°	6347.6	6628.1	7462.1	8397.0	8869.4	8903.8	8677.5	8318.3	7927.1	7747.5	7774.6
27.5°	6510.0	6901.2	8052.6	9024.4	9263.0	8960.4	8473.3	7964.0	7491.6	7302.2	7324.3
30°	6672.3	7213.6	8704.6	9573.0	9442.6	8820.2	8151.0	7582.7	7107.8	6908.5	6930.7
32.5°	6837.2	7577.7	9454.9	9969.2	9410.7	8522.5	7750.0	7154.6	6736.3	6527.2	6554.2
35°	7024.2	8025.5	10166.0	10185.7	9196.6	8084.6	7221.0	6642.8	6278.7	6111.4	6148.3
37.5°	7267.7	8593.8	10793.4	10239.8	8822.6	7442.4	6564.1	6037.6	5737.4	5661.2	5715.3
40°	7570.4	9277.8	11273.1	10153.7	8269.1	6662.5	5845.7	5425.0	5255.2	5272.4	5331.5
42.5°	7964.0	10043.0	11610.2	9932.2	7499.0	5858.0	5215.8	5028.9	5110.1	5178.9	5242.9
45°	8475.7	10837.6	11819.3	9555.8	6628.1	5176.5	4844.3	4888.6	4950.1	4957.5	5006.7
47.5°	9130.2	11642.2	11957.1	8987.5	5739.9	4696.7	4608.1	4618.0	4605.7	4554.0	4593.4
50°	9947.0	12424.5	12080.1	8234.6	4984.6	4396.6	4278.5	4244.0	4074.3	3907.0	3929.1
52.5°	10877.0	13142.9	12131.8	7299.7	4396.6	4145.6	3953.7	3737.2	3419.8	3368.2	3385.4
55°	11910.3	13807.2	11998.9	6150.8	3902.0	3823.3	3533.0	3272.2	3237.8	3193.5	3200.9
57.5°	13145.4	14523.2	11728.3	4868.9	3395.2	3446.9	3164.0	3193.5	3132.0	3063.1	3050.8
60°	14496.1	15263.7	11253.4	3700.3	2871.2	2977.0	3068.0	3065.5	3048.3	2991.7	2972.0
62.5°	15711.5	15750.9	10318.5	2834.3	2411.1	2612.8	2861.3	2858.9	2844.1	2812.1	2799.8
65°	16434.8	15677.1	8758.7	2231.5	2032.2	2312.7	2580.9	2600.5	2603.0	2600.5	2600.5
67.5°	16306.9	14813.5	6618.2	1776.3	1719.8	2007.6	2302.8	2329.9	2349.6	2354.5	2359.4
70°	14860.2	12916.6	4315.4	1417.1	1441.7	1739.4	2039.6	2066.7	2083.9	2103.6	2113.4
72.5°	11583.1	9496.8	2470.1	1146.5	1198.2	1508.2	1778.8	1810.8	1820.6	1857.5	1872.3
75°	7058.6	5584.9	1333.5	902.9	984.1	1289.2	1520.5	1557.4	1574.6	1618.9	1623.8
77.5°	3355.9	2418.5	760.2	703.6	792.2	1053.0	1284.3	1326.1	1279.4	1304.0	1284.3
80°	1134.2	898.0	479.8	536.3	605.2	821.7	1028.4	1070.2	971.8	966.9	957.1
82.5°	396.1	364.1	305.1	356.7	391.2	588.0	777.5	831.6	723.3	720.9	686.4
85°	155.0	147.6	169.8	194.4	233.7	361.7	511.7	538.8	445.3	359.2	354.3
87.5°	32.0	34.4	41.8	44.3	71.3	125.5	184.5	226.3	179.6	152.5	140.2
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)