

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: P967210

Luminaire Tested: **NAV-SB4D-735-U-T3R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967210
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-735-U-T3R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42914.7 lumens
Efficiency: N/A
Efficacy: 146.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B4 - U0 - G5

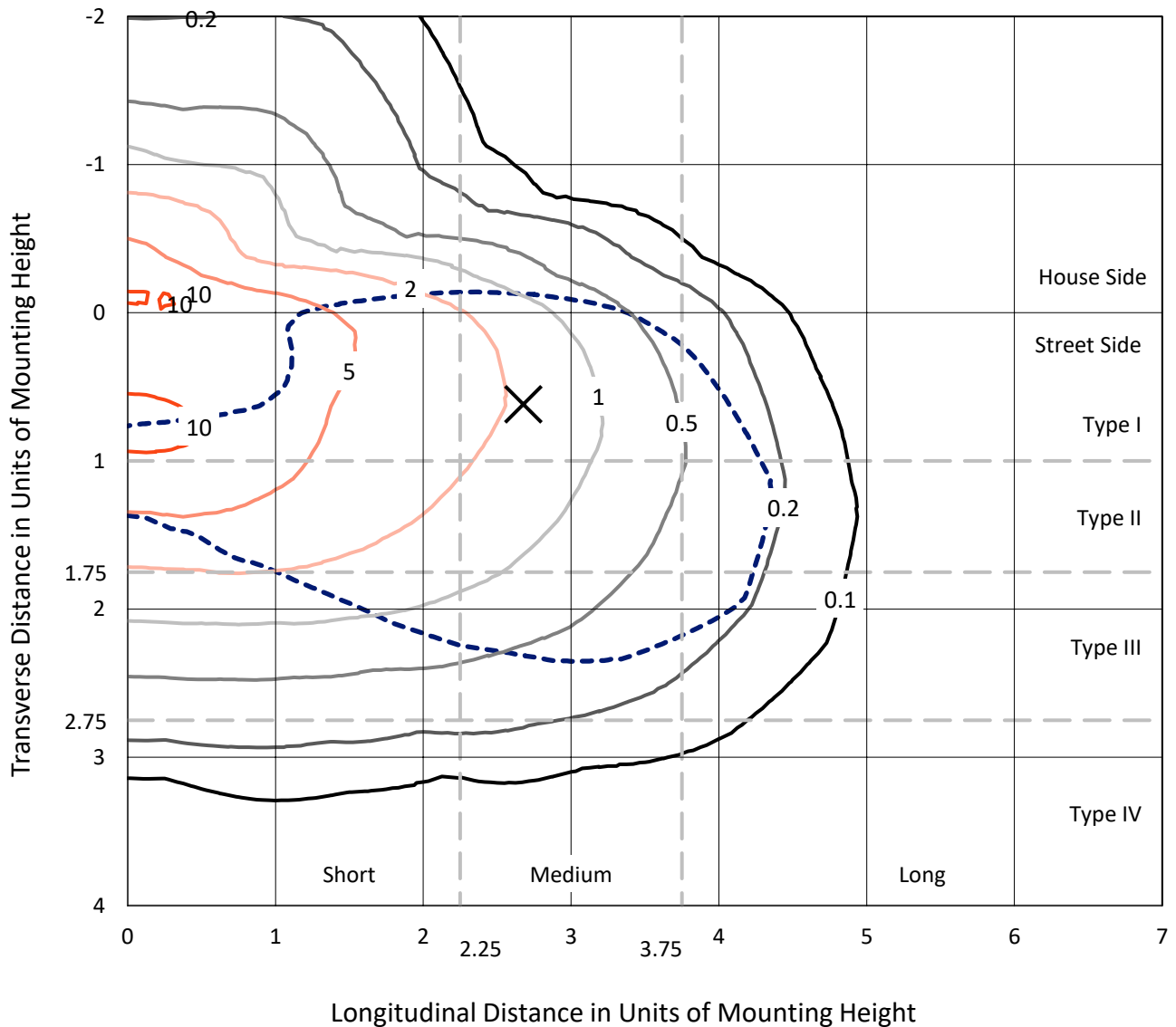
Input Watts (W): 293.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

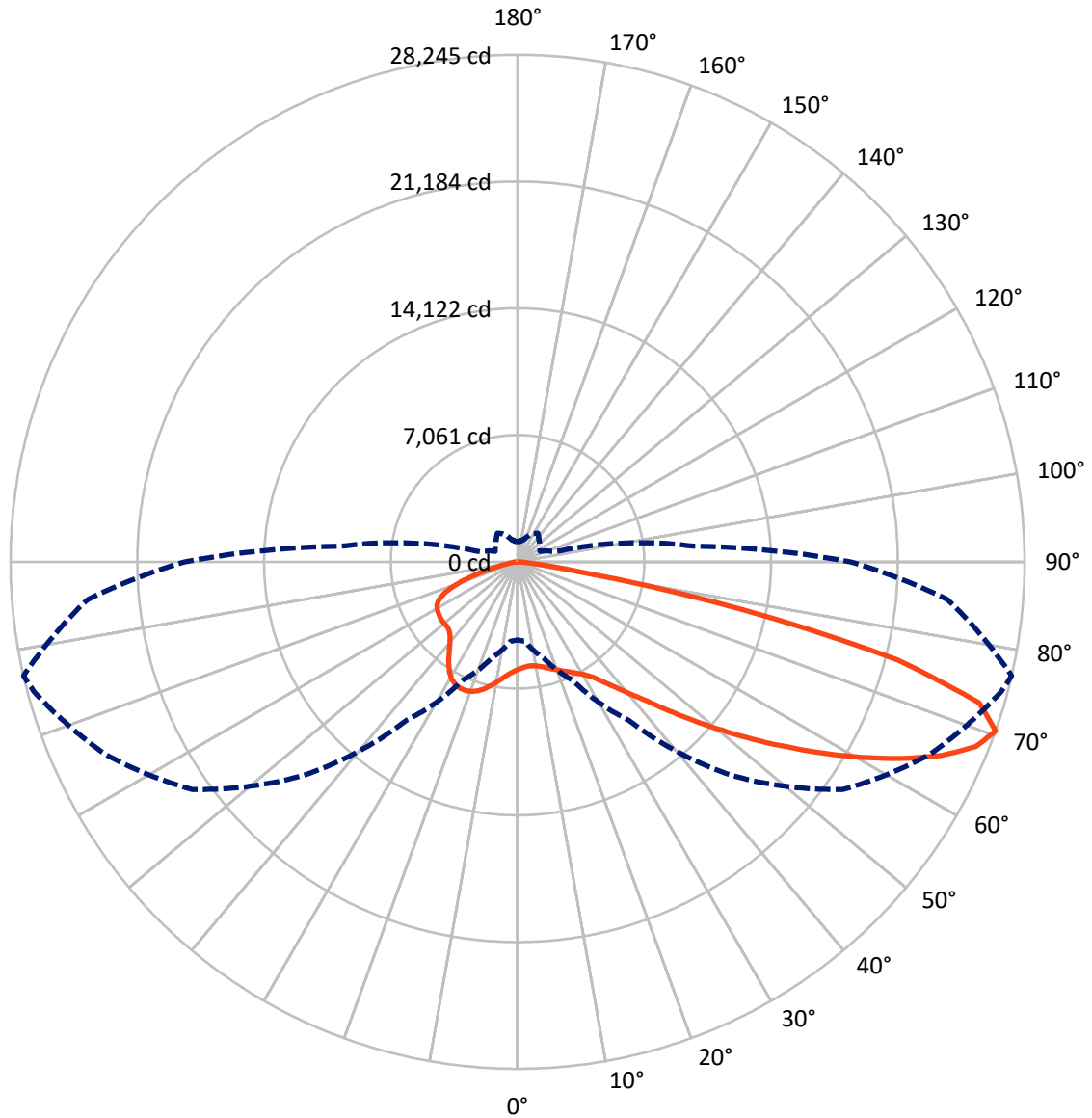
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9397.6	0.0	9397.6
	% Fixture	21.9	0.0	21.9
Street Side	Lumens	33517.0	0.0	33517.0
	% Fixture	78.1	0.0	78.1
Total	Lumens	42914.7	0.0	42914.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	571.0	1.3
10°-20°	1648.0	3.8
20°-30°	2818.2	6.6
30°-40°	4532.0	10.6
40°-50°	7075.7	16.5
50°-60°	9451.4	22.0
60°-70°	10073.7	23.5
70°-80°	6201.3	14.5
80°-90°	543.4	1.3
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°	42914.7	100.0
0°-180°	42914.7	100.0

Coefficient of Utilization

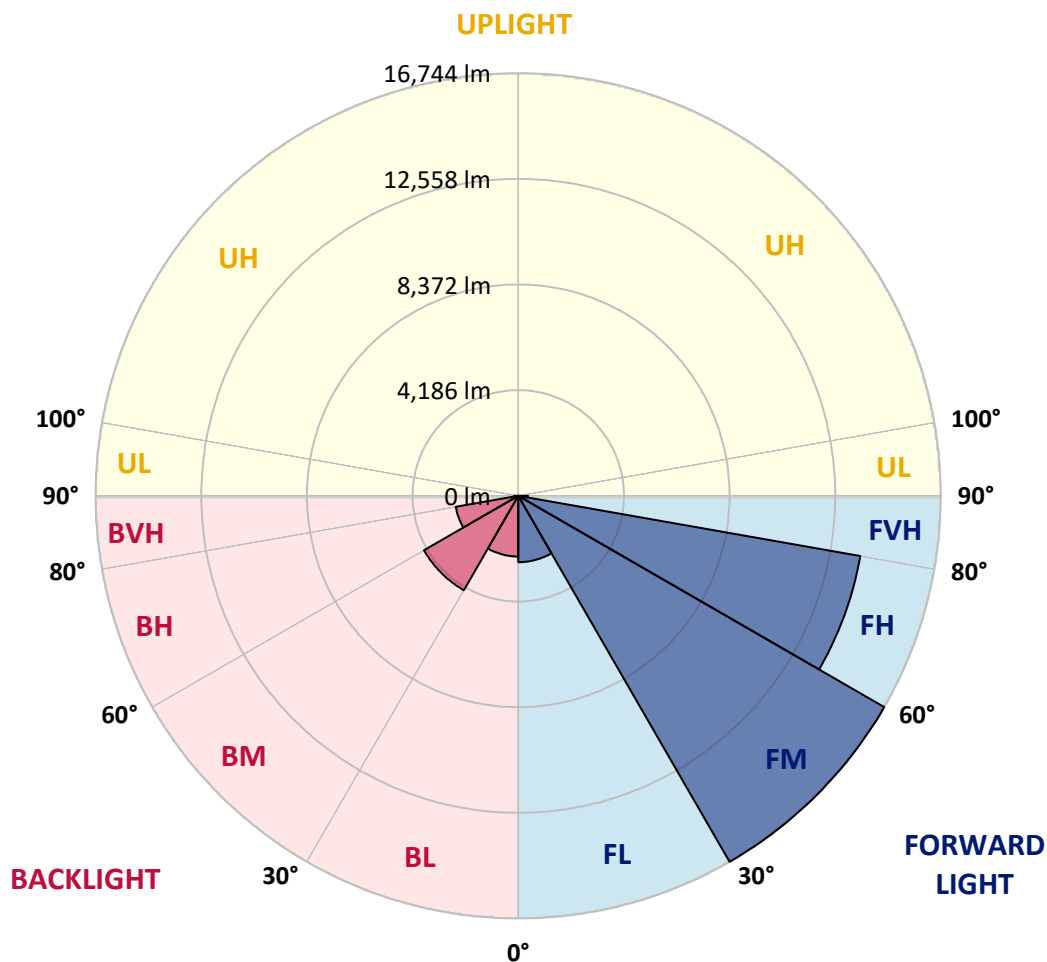


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2629.2	6.1			
FM (30°-60°)	16744.4	39.0			
FH (60°-80°)	13763.5	32.1			G5
FVH (80°-90°)	380.0	0.9			G3/500
BL (0°-30°)	2408.0	5.6	B3/2500		
BM (30°-60°)	4314.7	10.1	B3/5000		
BH (60°-80°)	2511.6	5.9	B4/5000		G4/5000
BVH (80°-90°)	163.4	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 III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0
2.5°	5518.8	5516.7	5545.2	5554.0	5606.7	5644.2	5714.5	5789.2	5885.9	5896.9	5956.2
5°	5200.1	5200.1	5233.1	5268.3	5336.5	5411.2	5518.8	5648.6	5815.5	5841.9	5989.2
7.5°	4929.8	4947.4	4976.0	5044.1	5123.3	5230.9	5395.8	5580.4	5800.2	5841.9	6079.3
10°	4712.2	4732.0	4767.2	4822.1	4940.8	5090.3	5305.6	5543.0	5837.6	5903.5	6211.2
12.5°	4644.1	4663.9	4683.6	4725.5	4835.3	5011.1	5268.3	5560.6	5927.7	5993.6	6391.4
15°	4802.3	4826.5	4811.1	4800.2	4857.3	5017.7	5285.8	5624.4	6039.7	6134.2	6613.4
17.5°	5167.2	5175.9	5140.8	5037.5	5028.8	5114.4	5369.4	5712.2	6180.4	6283.7	6837.6
20°	5756.2	5740.8	5668.4	5463.9	5347.4	5329.8	5512.2	5844.1	6325.5	6435.4	7079.4
22.5°	6556.2	6538.7	6393.6	6070.5	5811.1	5639.8	5718.9	6015.5	6488.1	6611.1	7314.5
25°	7554.0	7529.9	7316.7	6877.1	6474.9	6050.8	6000.1	6241.9	6688.1	6802.4	7560.7
27.5°	8719.0	8699.2	8468.3	7888.2	7307.9	6613.4	6349.7	6507.9	6896.9	7026.6	7837.6
30°	9971.7	10028.9	9620.0	8995.9	8261.8	7347.5	6819.9	6835.4	7167.2	7283.8	8173.9
32.5°	11444.3	11543.2	11050.8	10259.6	9257.4	8145.3	7413.4	7292.6	7560.7	7657.4	8598.1
35°	12903.7	13015.8	12607.0	11732.3	10578.3	9086.0	8033.2	7817.8	8083.8	8189.2	9160.7
37.5°	14165.3	14314.7	14103.7	13343.2	11991.6	10220.1	8842.1	8435.4	8727.8	8859.6	9916.8
40°	15160.9	15389.5	15374.1	14899.3	13657.5	11595.9	9868.4	9198.0	9527.8	9670.6	10833.3
42.5°	15969.7	16167.5	16338.9	16314.8	15396.1	13158.6	11075.0	10189.3	10439.8	10604.8	11864.1
45°	16527.9	16739.0	17108.2	17506.0	17068.6	14831.2	12457.5	11365.2	11593.8	11842.1	13092.7
47.5°	17026.9	17266.4	17745.6	18376.4	18488.4	16510.4	13971.9	12734.5	12943.3	13200.4	14325.7
50°	17070.9	17277.4	18020.3	18914.8	19497.2	18123.6	15598.2	14270.8	14466.3	14741.1	15646.6
52.5°	16009.3	16334.6	17631.3	18899.5	19961.1	19473.2	17213.7	15868.6	16088.4	16418.0	17013.7
55°	12426.8	12903.7	16490.6	18310.4	19796.2	20345.6	18750.0	17567.6	17848.8	18194.0	18389.5
57.5°	10703.7	10912.5	13090.5	17237.8	19044.5	20572.1	20046.7	19284.0	19736.9	20114.9	19844.5
60°	9620.0	9793.7	11081.7	15569.6	18055.5	20213.8	21049.0	20884.2	21666.6	22117.1	21332.5
62.5°	8459.6	8624.5	9795.9	13000.4	16789.5	19618.2	21681.9	22361.1	23644.7	24137.0	22734.7
65°	7307.9	7448.6	8571.7	10923.4	15180.7	19022.6	22009.4	23638.0	25475.5	25985.4	23899.6
67.5°	6024.3	6140.9	7202.4	9215.7	13224.6	18207.2	22172.1	24642.5	27068.9	27506.3	24475.5
70°	4347.3	4437.5	5534.3	7288.2	10769.6	16804.9	22106.2	25354.6	27895.4	28244.8	24040.2
72.5°	2055.0	2136.3	3424.3	4732.0	7606.8	14075.1	20772.0	24789.7	27055.8	26882.2	21376.5
75°	1096.8	1167.1	1967.1	2595.7	4017.7	9648.6	16998.3	21354.4	22719.3	21875.3	15798.3
77.5°	742.9	797.9	1217.6	1558.3	1835.3	4580.3	10925.6	14785.0	14224.6	12831.2	7912.3
80°	589.1	646.2	997.8	1054.9	888.0	1655.0	4514.4	6844.1	4916.6	3932.0	2250.6
82.5°	452.7	516.5	839.6	764.9	483.5	679.2	1314.4	2164.9	1259.4	958.3	545.1
85°	277.0	345.0	659.4	487.9	272.5	309.9	446.2	602.2	384.6	320.9	195.6
87.5°	140.6	197.8	334.0	178.0	123.1	72.6	118.7	118.7	101.1	87.9	50.5
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°	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0	5987.0
2.5°	6009.0	6052.9	6127.7	6198.0	6252.9	6305.7	6358.4	6387.0	6395.8	6431.0	6450.7
5°	6079.3	6160.7	6305.7	6441.9	6527.7	6580.4	6617.8	6639.7	6644.2	6655.1	6672.7
7.5°	6208.9	6338.6	6540.8	6677.2	6740.8	6736.5	6721.1	6666.1	6644.2	6624.4	6628.8
10°	6391.4	6562.9	6811.2	6905.7	6866.2	6760.6	6624.4	6464.0	6389.2	6316.7	6294.7
12.5°	6617.8	6835.4	7079.4	7075.0	6879.3	6609.0	6292.5	6046.4	5890.3	5778.2	5751.8
15°	6892.5	7143.0	7329.9	7180.4	6751.9	6266.1	5802.3	5481.5	5340.9	5217.8	5204.5
17.5°	7176.0	7444.2	7529.9	7147.4	6431.0	5758.4	5233.1	4980.4	4841.9	4776.0	4795.8
20°	7453.0	7718.9	7648.6	6958.4	5943.1	5182.6	4714.4	4576.0	4547.4	4562.8	4556.2
22.5°	7745.3	7982.7	7672.7	6593.6	5321.1	4593.5	4336.4	4340.8	4404.5	4450.7	4461.7
25°	8044.2	8204.6	7609.0	6066.2	4652.9	4160.6	4096.8	4167.1	4292.4	4382.6	4406.7
27.5°	8332.1	8402.4	7470.5	5413.3	4079.2	3850.6	3861.7	4006.7	4195.7	4321.0	4351.7
30°	8657.4	8578.3	7204.6	4679.2	3681.4	3584.7	3677.0	3846.3	4035.3	4147.4	4173.8
32.5°	9024.4	8729.9	6782.6	4000.2	3400.1	3371.5	3523.2	3633.1	3716.5	3749.6	3767.2
35°	9481.6	8943.1	6241.9	3523.2	3147.4	3215.5	3360.6	3305.6	3272.6	3255.1	3272.6
37.5°	10075.0	9231.0	5609.0	3213.3	2943.0	3103.4	3162.7	2991.3	2861.6	2797.8	2813.3
40°	10789.4	9653.0	5000.2	2973.7	2813.3	3006.6	2903.4	2696.8	2532.0	2441.9	2448.4
42.5°	11582.8	10094.8	4488.1	2793.5	2740.7	2927.6	2712.1	2466.0	2200.1	2171.5	2200.1
45°	12415.7	10549.8	4138.5	2655.1	2705.6	2859.4	2602.3	2204.5	2015.5	2131.9	2193.5
47.5°	13248.7	10967.4	3927.6	2551.7	2688.0	2782.5	2505.6	2059.4	1925.4	2094.6	2173.7
50°	14176.3	11341.0	3833.1	2477.0	2668.2	2751.7	2360.5	2022.0	1830.9	1942.9	2026.4
52.5°	15097.1	11631.1	3762.8	2402.3	2639.7	2727.5	2290.2	1978.0	1716.6	1723.1	1769.3
55°	16015.8	11820.1	3685.8	2303.4	2575.9	2674.8	2283.6	1929.8	1630.8	1600.0	1622.1
57.5°	16996.1	11927.8	3591.3	2193.5	2466.0	2540.8	2277.0	1892.4	1604.4	1553.9	1560.5
60°	17994.0	12086.1	3468.2	2059.4	2318.8	2380.3	2261.6	1879.1	1589.1	1503.4	1509.9
62.5°	18888.5	12141.0	3321.0	1931.9	2129.7	2222.0	2228.7	1868.2	1547.3	1400.0	1400.0
65°	19475.3	11903.6	3063.8	1786.9	1925.4	2059.4	2164.9	1830.9	1472.6	1325.3	1325.3
67.5°	19451.1	11226.7	2661.6	1600.0	1727.5	1879.1	2072.5	1767.1	1382.4	1233.0	1239.6
70°	18545.6	9890.4	2151.7	1382.4	1509.9	1685.7	1953.9	1672.6	1274.8	1131.9	1145.1
72.5°	15906.0	7740.9	1562.7	1127.5	1257.2	1485.7	1800.1	1558.3	1164.9	1041.8	1035.1
75°	11362.9	4899.1	1059.3	865.9	978.1	1259.4	1608.8	1424.2	1063.7	1046.2	986.9
77.5°	5804.6	2340.7	701.1	632.9	681.3	993.4	1351.7	1272.5	1079.1	863.8	769.3
80°	1887.9	863.8	441.8	430.8	452.7	661.5	1046.2	1044.0	817.6	586.8	518.6
82.5°	602.2	371.5	287.9	277.0	266.0	415.4	729.7	826.4	551.7	371.5	369.2
85°	239.5	222.0	169.2	156.0	112.1	195.6	382.4	549.5	411.0	268.1	274.7
87.5°	87.9	87.9	46.1	33.0	24.2	65.9	103.3	164.8	235.1	138.5	136.2
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)