

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: P884091

Luminaire Tested: **NAV-SB4D-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36939 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

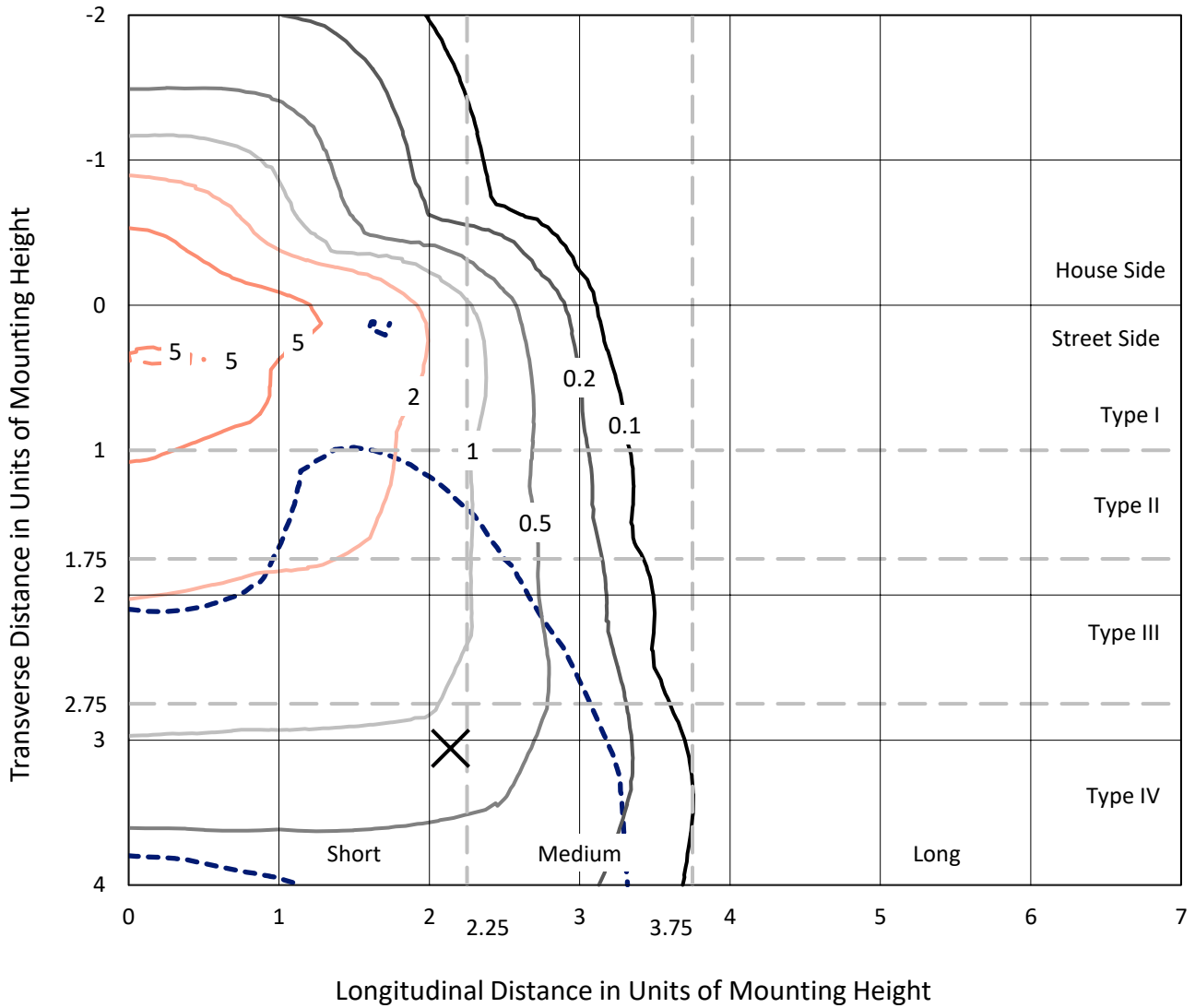
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

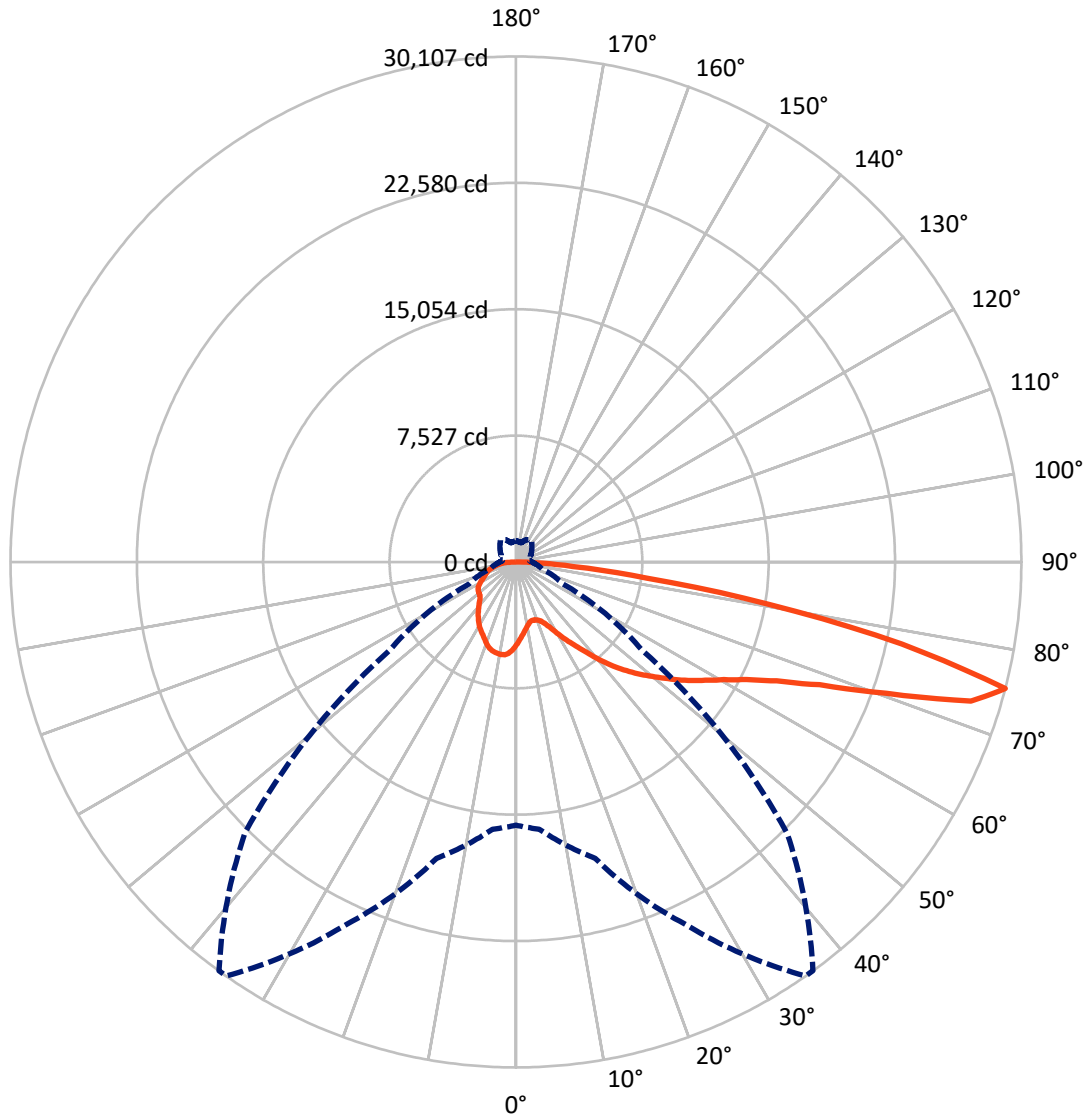
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8790.6	0.0	8790.6
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	28148.4	0.0	28148.4
	% Fixture	76.2	0.0	76.2
Total	Lumens	36939.0	0.0	36939.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	466.0	1.3
10°-20°	1344.3	3.6
20°-30°	2257.4	6.1
30°-40°	3508.3	9.5
40°-50°	5207.3	14.1
50°-60°	7189.0	19.5
60°-70°	8721.9	23.6
70°-80°	7208.0	19.5
80°-90°	1036.7	2.8
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°	36939.0	100.0
0°-180°	36939.0	100.0

Coefficient of Utilization



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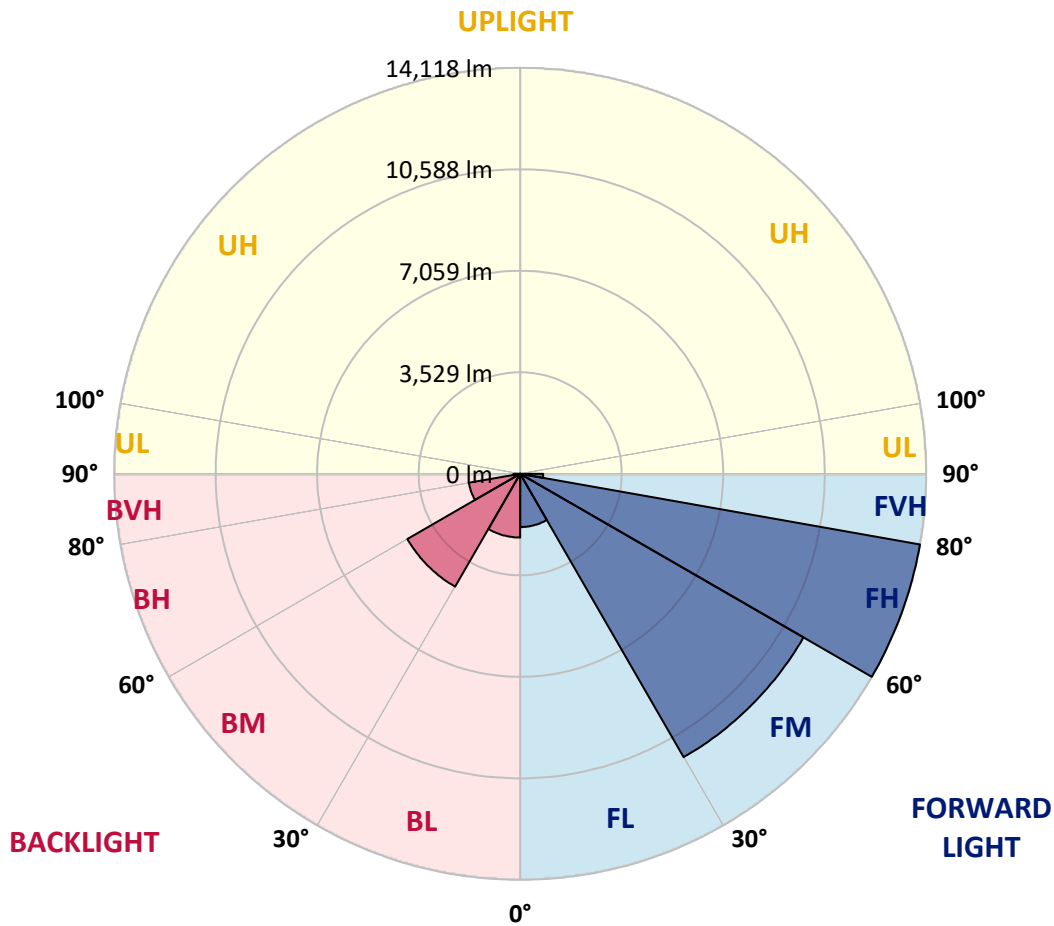
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1852.4	5.0			
FM (30°-60°)	11375.2	30.8			
FH (60°-80°)	14117.5	38.2			G5
FVH (80°-90°)	803.3	2.2			G5
BL (0°-30°)	2215.3	6.0	B3/2500		
BM (30°-60°)	4529.4	12.3	B3/5000		
BH (60°-80°)	1812.3	4.9	B3/2500		G3/2500
BVH (80°-90°)	233.4	0.6			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4
2.5°	4539.0	4566.9	4578.9	4572.9	4602.9	4598.9	4640.8	4692.7	4764.6	4834.5	4936.3
5°	4189.5	4219.5	4245.4	4269.4	4327.3	4345.3	4411.2	4511.0	4642.8	4776.6	4944.3
7.5°	3864.0	3890.0	3929.9	3973.8	4071.7	4089.7	4199.5	4355.3	4539.0	4734.7	4966.3
10°	3598.4	3624.4	3666.3	3716.2	3838.1	3860.0	3999.8	4207.5	4447.1	4694.7	4990.3
12.5°	3484.6	3492.6	3516.6	3566.5	3672.3	3686.3	3840.0	4077.7	4357.2	4664.8	5026.2
15°	3478.6	3494.6	3496.6	3522.5	3610.4	3616.4	3758.2	3993.8	4301.3	4658.8	5080.1
17.5°	3538.5	3550.5	3532.5	3548.5	3622.4	3632.4	3744.2	3953.9	4283.4	4684.7	5172.0
20°	3698.3	3708.3	3654.3	3632.4	3686.3	3694.3	3804.1	3979.8	4301.3	4738.7	5297.8
22.5°	4037.7	4043.7	3911.9	3822.1	3826.1	3830.1	3925.9	4085.7	4371.2	4836.5	5457.5
25°	4566.9	4562.9	4353.3	4179.5	4079.7	4057.7	4121.6	4257.4	4489.0	4966.3	5663.2
27.5°	5186.0	5156.0	4946.3	4686.7	4469.1	4437.1	4423.1	4481.1	4656.8	5138.0	5914.8
30°	5884.9	5856.9	5631.3	5291.8	4990.3	4938.3	4806.6	4776.6	4906.4	5371.7	6264.3
32.5°	6651.7	6633.7	6364.1	5952.8	5549.4	5489.5	5267.8	5188.0	5289.8	5725.1	6751.5
35°	7294.7	7278.7	7055.1	6631.7	6138.5	6064.6	5839.0	5749.1	5801.0	6178.4	7388.5
37.5°	7875.8	7867.8	7676.1	7342.6	6833.4	6743.5	6489.9	6460.0	6450.0	6775.5	8161.4
40°	8415.0	8395.0	8195.3	8019.6	7642.2	7560.3	7336.6	7310.7	7234.8	7510.4	9036.0
42.5°	9012.0	8960.1	8670.6	8588.7	8486.8	8419.0	8285.2	8289.2	8121.4	8339.1	9962.6
45°	9499.3	9469.3	9171.8	9123.9	9233.7	9205.7	9321.6	9351.5	9026.0	9207.7	10925.1
47.5°	10022.5	9994.5	9742.9	9709.0	10006.5	10014.5	10423.8	10433.8	9908.6	10110.3	11889.6
50°	10667.5	10627.5	10377.9	10419.9	10753.3	10783.3	11532.1	11464.2	10721.4	11026.9	12846.1
52.5°	11092.8	11116.8	11062.9	11130.8	11586.0	11614.0	12622.4	12448.7	11526.1	11931.5	13784.6
55°	11406.3	11454.2	11622.0	11777.7	12464.7	12492.6	13650.8	13385.3	12193.1	12770.2	14667.3
57.5°	11809.7	11741.8	12055.3	12358.8	13299.4	13373.3	14651.3	14287.9	12784.2	13493.1	15272.3
60°	12388.8	12340.9	12584.5	13033.8	14233.9	14351.8	15709.7	15100.6	13217.5	14066.2	15390.1
62.5°	13563.0	13443.2	13481.1	13878.5	15412.1	15567.9	16903.8	15809.5	13433.2	14289.9	14759.1
65°	15318.3	15112.6	14920.9	15196.4	17071.5	17225.3	18251.7	16366.6	13353.3	13856.5	13083.7
67.5°	17528.8	17325.2	17089.5	17349.1	19515.8	19637.6	19915.1	16680.2	12724.3	12187.1	10122.3
70°	19352.0	19276.1	19557.7	20626.0	23419.7	23423.7	22047.8	16420.6	11001.0	8640.6	5856.9
72.5°	19110.4	19064.5	20548.2	23851.0	28340.1	28234.2	24066.7	14455.6	7410.5	3898.0	2194.6
75°	15677.7	15975.2	18273.7	23793.1	30107.3	30093.4	22830.6	9189.8	3065.2	1615.5	1134.2
77.5°	8407.0	8878.2	11863.6	17566.8	23503.6	23857.0	16051.1	3215.0	1316.0	1034.4	784.8
80°	2741.8	3153.1	4728.7	8944.1	15272.3	15206.4	6879.3	1262.0	900.6	732.9	543.2
82.5°	1164.2	1212.1	2112.7	4223.5	7837.9	7716.0	2190.6	724.9	633.0	501.2	335.5
85°	455.3	509.2	932.6	1953.0	3394.7	3320.9	790.8	359.4	405.4	327.5	199.7
87.5°	149.8	181.7	333.5	669.0	1056.4	1018.4	193.7	123.8	175.7	149.8	71.9
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°	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4	4922.4
2.5°	4964.3	4996.3	5034.2	5090.1	5138.0	5178.0	5219.9	5245.9	5255.9	5285.8	5283.8
5°	5000.3	5070.1	5164.0	5255.9	5345.7	5399.6	5447.6	5471.5	5493.5	5509.5	5513.5
7.5°	5060.2	5150.0	5297.8	5417.6	5493.5	5537.4	5569.4	5561.4	5569.4	5573.4	5579.4
10°	5112.1	5237.9	5413.6	5527.4	5585.3	5587.3	5579.4	5551.4	5537.4	5539.4	5543.4
12.5°	5174.0	5313.8	5503.5	5599.3	5615.3	5571.4	5537.4	5489.5	5471.5	5463.5	5459.5
15°	5257.9	5417.6	5601.3	5637.3	5597.3	5541.4	5483.5	5405.6	5365.7	5333.7	5343.7
17.5°	5359.7	5535.4	5677.2	5651.2	5565.4	5473.5	5379.7	5261.8	5180.0	5146.0	5148.0
20°	5501.5	5659.2	5735.1	5621.3	5491.5	5351.7	5192.0	5048.2	4972.3	4938.3	4934.4
22.5°	5673.2	5825.0	5791.0	5569.4	5385.7	5162.0	4962.3	4856.5	4818.5	4794.6	4798.6
25°	5878.9	6008.7	5831.0	5493.5	5211.9	4910.4	4756.6	4722.7	4704.7	4686.7	4686.7
27.5°	6146.5	6216.4	5860.9	5381.7	4940.3	4642.8	4586.9	4592.9	4586.9	4556.9	4562.9
30°	6499.9	6485.9	5888.9	5199.9	4628.8	4401.2	4405.2	4431.1	4435.1	4415.2	4425.1
32.5°	6965.2	6823.4	5902.9	4964.3	4331.3	4189.5	4193.5	4221.5	4241.4	4207.5	4223.5
35°	7528.3	7216.8	5880.9	4668.8	4101.6	3987.8	3957.9	3965.9	3971.8	3939.9	3961.9
37.5°	8185.3	7658.1	5783.0	4341.3	3911.9	3790.1	3726.2	3672.3	3640.4	3610.4	3630.4
40°	8906.2	8139.4	5603.3	4021.8	3700.3	3580.5	3484.6	3382.8	3274.9	3235.0	3253.0
42.5°	9661.0	8634.6	5385.7	3716.2	3456.6	3358.8	3257.0	3109.2	2947.4	2865.6	2875.5
45°	10443.8	9141.8	5172.0	3414.7	3207.0	3165.1	3047.3	2869.6	2693.8	2590.0	2582.0
47.5°	11210.6	9621.1	4858.5	3111.2	2973.4	3019.3	2927.5	2763.7	2568.0	2404.3	2386.3
50°	11943.5	10070.4	4345.3	2803.7	2783.7	2975.4	2887.5	2651.9	2428.2	2218.6	2200.6
52.5°	12670.4	10433.8	3688.3	2524.1	2681.8	2963.4	2835.6	2576.0	2302.4	2082.8	2058.8
55°	13287.4	10621.5	3055.3	2284.5	2534.1	2861.6	2773.7	2486.1	2124.7	1891.1	1871.1
57.5°	13638.9	10469.8	2528.1	2048.8	2330.4	2693.8	2667.9	2294.4	1913.0	1733.3	1709.4
60°	13487.1	9854.7	2096.8	1843.1	2136.7	2512.1	2484.2	2104.7	1751.3	1581.5	1557.6
62.5°	12650.4	8682.5	1755.3	1663.4	1961.0	2326.4	2300.4	1959.0	1627.5	1463.7	1437.8
65°	10965.0	7063.1	1489.7	1513.7	1783.2	2102.7	2140.7	1837.2	1529.6	1369.9	1343.9
67.5°	8363.0	5116.1	1282.0	1383.9	1609.5	1883.1	1992.9	1749.3	1447.8	1296.0	1272.0
70°	4766.6	2905.5	1106.3	1258.1	1455.7	1679.4	1879.1	1679.4	1359.9	1234.1	1218.1
72.5°	1807.2	1333.9	956.5	1132.2	1308.0	1507.7	1753.3	1569.6	1258.1	1164.2	1148.2
75°	964.5	812.7	804.8	984.5	1138.2	1339.9	1595.5	1461.7	1182.2	1230.1	1270.0
77.5°	657.0	575.1	673.0	842.7	952.5	1154.2	1427.8	1298.0	1024.4	1020.4	940.5
80°	455.3	407.4	547.2	678.9	736.9	970.5	1246.1	1114.3	834.7	778.8	744.8
82.5°	273.6	265.6	409.4	507.2	521.2	748.8	1032.4	934.6	682.9	595.1	599.1
85°	149.8	157.8	261.6	297.5	303.5	523.2	808.7	722.9	525.2	441.3	445.3
87.5°	41.9	53.9	95.9	117.8	145.8	271.6	481.3	429.3	263.6	183.7	183.7
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)