

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: P884141

Luminaire Tested: **NAV-SB4D-760-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884141
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-760-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 5700K, 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: 43945 lumens
Efficiency: N/A
Efficacy: 149.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

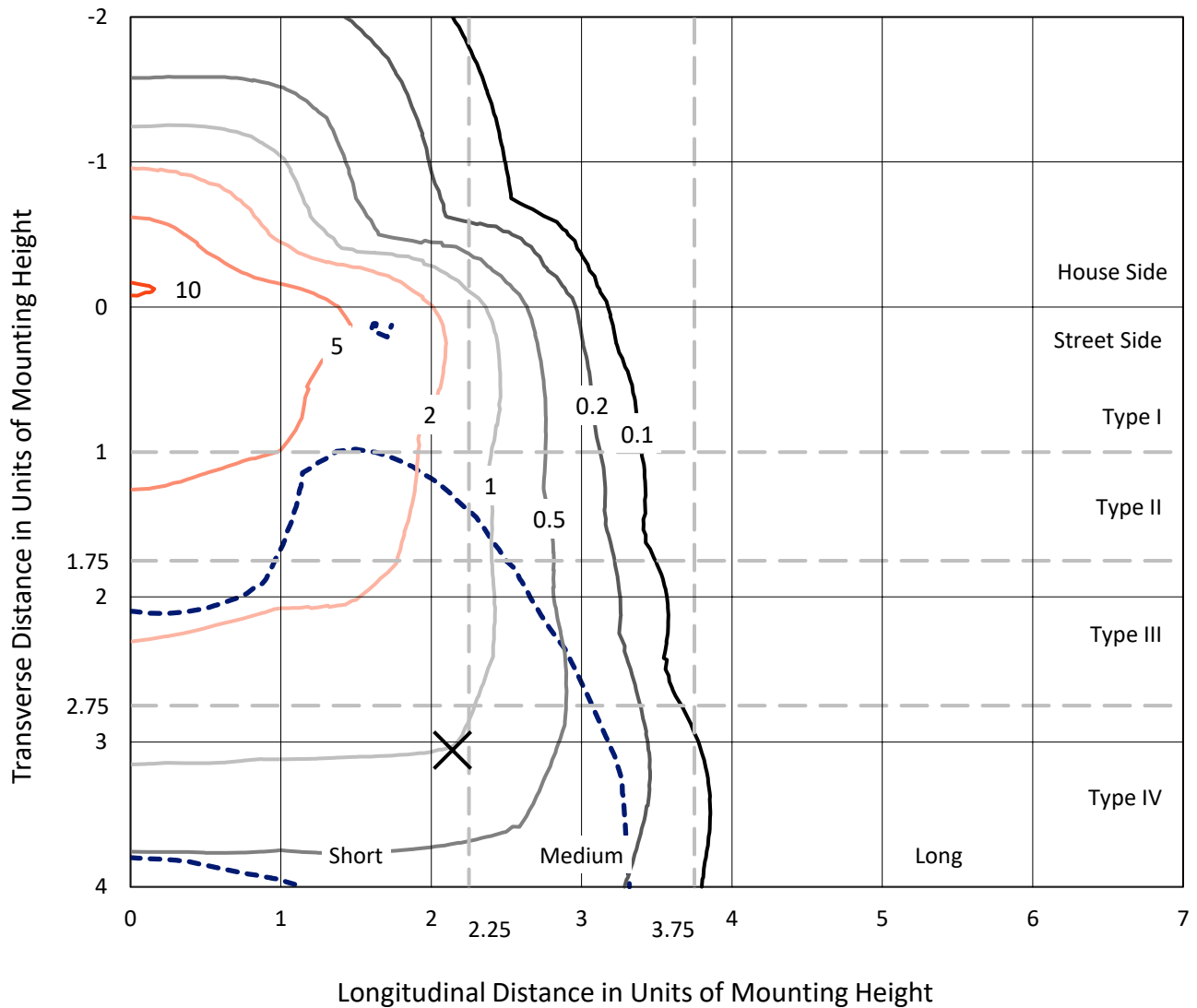
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

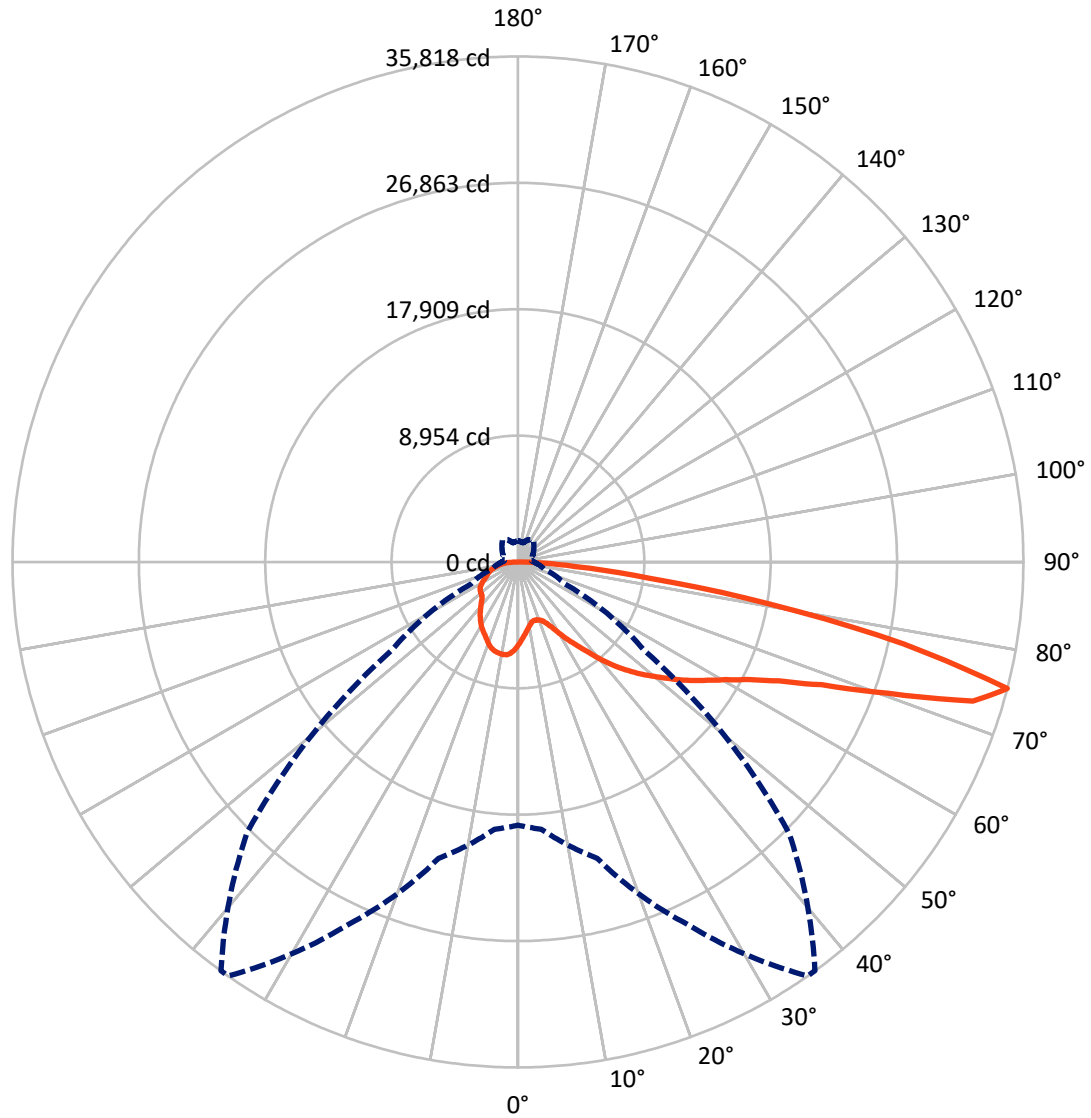
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.4 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	10457.8	0.0	10457.8
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	33487.2	0.0	33487.2
	% Fixture	76.2	0.0	76.2
Total	Lumens	43945.0	0.0	43945.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	554.4	1.3
10°-20°	1599.3	3.6
20°-30°	2685.6	6.1
30°-40°	4173.7	9.5
40°-50°	6195.0	14.1
50°-60°	8552.5	19.5
60°-70°	10376.1	23.6
70°-80°	8575.1	19.5
80°-90°	1233.4	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°	43945.0	100.0
0°-180°	43945.0	100.0



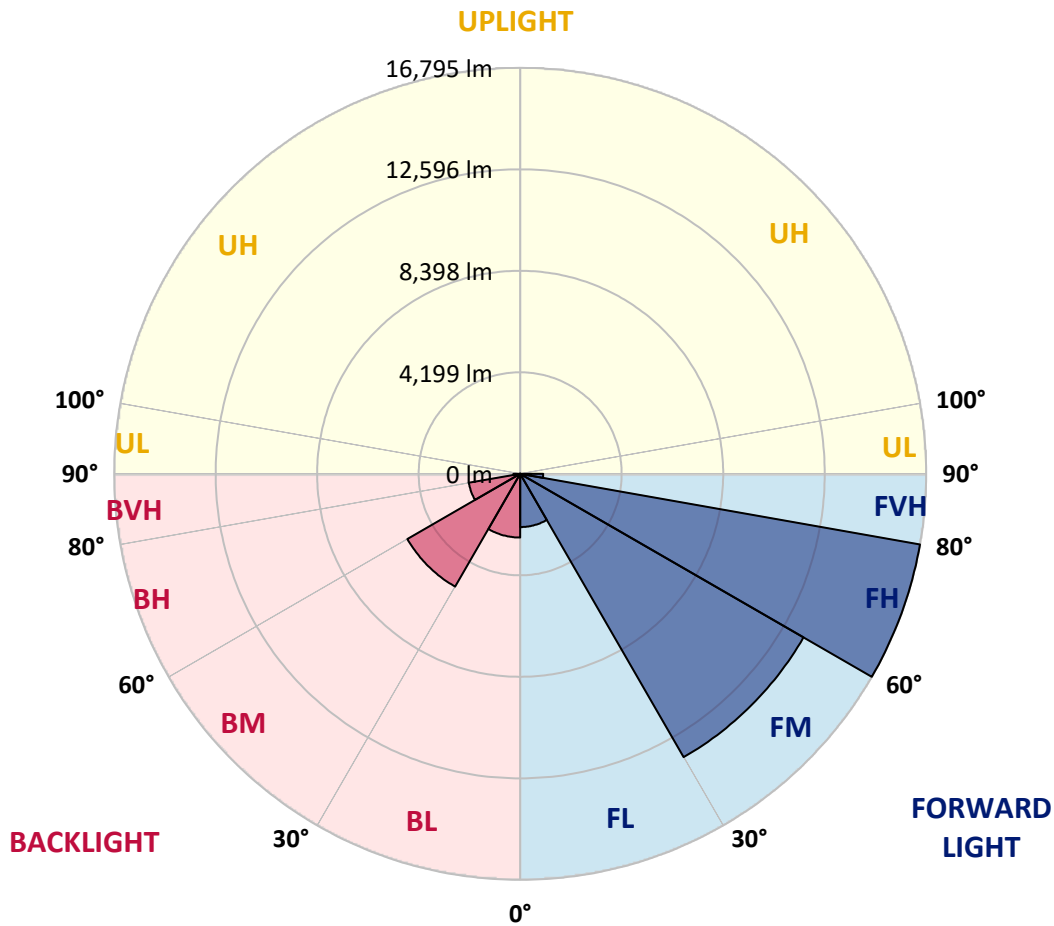
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2203.8	5.0			
FM (30°-60°)	13532.7	30.8			
FH (60°-80°)	16795.1	38.2			G5
FVH (80°-90°)	955.6	2.2			G5
BL (0°-30°)	2635.5	6.0	B4/5000		
BM (30°-60°)	5388.5	12.3	B4/8500		
BH (60°-80°)	2156.1	4.9	B3/2500		G3/2500
BVH (80°-90°)	277.7	0.6			G3/500
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 Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	36°	45°	55°	65°	75°	85°
0°	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0
2.5°	5399.8	5433.1	5447.4	5440.2	5475.9	5471.1	5521.0	5582.8	5668.3	5751.4	5872.6
5°	4984.1	5019.7	5050.6	5079.1	5148.0	5169.4	5247.8	5366.6	5523.4	5682.5	5882.1
7.5°	4596.9	4627.8	4675.3	4727.5	4843.9	4865.3	4996.0	5181.3	5399.8	5632.7	5908.2
10°	4280.9	4311.8	4361.7	4421.1	4566.0	4592.1	4758.4	5005.5	5290.6	5585.1	5936.7
12.5°	4145.5	4155.0	4183.5	4242.9	4368.8	4385.4	4568.4	4851.1	5183.7	5549.5	5979.5
15°	4138.4	4157.4	4159.8	4190.6	4295.2	4302.3	4471.0	4751.3	5117.1	5542.4	6043.6
17.5°	4209.6	4223.9	4202.5	4221.5	4309.4	4321.3	4454.3	4703.8	5095.8	5573.3	6152.9
20°	4399.7	4411.6	4347.4	4321.3	4385.4	4394.9	4525.6	4734.7	5117.1	5637.4	6302.6
22.5°	4803.6	4810.7	4653.9	4547.0	4551.7	4556.5	4670.5	4860.6	5200.3	5753.8	6492.6
25°	5433.1	5428.4	5178.9	4972.2	4853.4	4827.3	4903.3	5064.9	5340.5	5908.2	6737.3
27.5°	6169.6	6133.9	5884.5	5575.6	5316.7	5278.7	5262.1	5331.0	5540.0	6112.5	7036.7
30°	7001.0	6967.8	6699.3	6295.5	5936.7	5875.0	5718.2	5682.5	5837.0	6390.5	7452.4
32.5°	7913.3	7891.9	7571.2	7081.8	6601.9	6530.7	6267.0	6171.9	6293.1	6811.0	8032.1
35°	8678.2	8659.2	8393.2	7889.5	7302.7	7214.8	6946.4	6839.5	6901.3	7350.3	8789.9
37.5°	9369.5	9360.0	9132.0	8735.3	8129.5	8022.6	7720.9	7685.2	7673.3	8060.6	9709.3
40°	10011.0	9987.2	9749.7	9540.6	9091.6	8994.2	8728.1	8697.2	8607.0	8934.8	10749.8
42.5°	10721.3	10659.5	10315.1	10217.7	10096.5	10015.7	9856.6	9861.3	9661.8	9920.7	11852.1
45°	11301.0	11265.3	10911.3	10854.3	10985.0	10951.7	11089.5	11125.2	10737.9	10954.1	12997.2
47.5°	11923.4	11890.1	11590.8	11550.4	11904.4	11913.9	12400.9	12412.8	11788.0	12027.9	14144.6
50°	12690.7	12643.2	12346.2	12396.1	12792.9	12828.5	13719.4	13638.6	12754.8	13118.3	15282.5
52.5°	13196.7	13225.2	13161.1	13241.9	13783.5	13816.8	15016.5	14809.8	13712.2	14194.5	16399.1
55°	13569.7	13626.7	13826.3	14011.6	14828.8	14862.0	16239.9	15924.0	14505.7	15192.3	17449.1
57.5°	14049.6	13968.8	14341.8	14702.9	15821.8	15909.7	17430.1	16997.8	15208.9	16052.2	18168.9
60°	14738.5	14681.5	14971.3	15505.8	16933.6	17073.8	18689.2	17964.6	15724.4	16734.1	18309.1
62.5°	16135.4	15992.9	16038.0	16510.7	18335.2	18520.5	20109.8	18808.0	15981.0	17000.1	17558.4
65°	18223.6	17978.9	17750.8	18078.7	20309.4	20492.3	21713.4	19470.8	15885.9	16484.6	15565.2
67.5°	20853.4	20611.1	20330.8	20639.6	23217.2	23362.1	23692.3	19843.8	15137.6	14498.6	12042.2
70°	23022.4	22932.1	23267.1	24538.1	27861.6	27866.3	26229.5	19534.9	13087.4	10279.4	6967.8
72.5°	22734.9	22680.3	24445.4	28374.7	33715.2	33589.3	28631.3	17197.3	8816.0	4637.3	2610.8
75°	18651.2	19005.2	21739.5	28305.8	35817.6	35801.0	27160.8	10932.7	3646.6	1921.9	1349.4
77.5°	10001.5	10562.1	14113.7	20898.6	27961.4	28381.8	19095.4	3824.8	1565.6	1230.6	933.6
80°	3261.8	3751.1	5625.5	10640.5	18168.9	18090.5	8184.1	1501.4	1071.4	871.9	646.2
82.5°	1385.0	1442.0	2513.4	5024.5	9324.4	9179.5	2606.1	862.4	753.1	596.3	399.1
85°	541.6	605.8	1109.4	2323.4	4038.6	3950.7	940.8	427.6	482.3	389.6	237.6
87.5°	178.2	216.2	396.7	795.8	1256.7	1211.6	230.4	147.3	209.1	178.2	85.5
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°	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0	5856.0
2.5°	5905.9	5943.9	5989.0	6055.5	6112.5	6160.1	6209.9	6240.8	6252.7	6288.3	6286.0
5°	5948.6	6031.8	6143.4	6252.7	6359.6	6423.7	6480.8	6509.3	6535.4	6554.4	6559.2
7.5°	6019.9	6126.8	6302.6	6445.1	6535.4	6587.7	6625.7	6616.2	6625.7	6630.4	6637.6
10°	6081.7	6231.3	6440.4	6575.8	6644.7	6647.1	6637.6	6604.3	6587.7	6590.0	6594.8
12.5°	6155.3	6321.6	6547.3	6661.3	6680.3	6628.1	6587.7	6530.7	6509.3	6499.8	6495.0
15°	6255.1	6445.1	6663.7	6706.4	6658.9	6592.4	6523.5	6430.9	6383.4	6345.4	6357.2
17.5°	6376.2	6585.3	6754.0	6723.1	6620.9	6511.6	6400.0	6259.8	6162.4	6122.0	6124.4
20°	6544.9	6732.6	6822.9	6687.4	6533.0	6366.7	6176.7	6005.6	5915.4	5875.0	5870.2
22.5°	6749.2	6929.8	6889.4	6625.7	6407.1	6141.0	5903.5	5777.6	5732.4	5703.9	5708.7
25°	6993.9	7148.3	6936.9	6535.4	6200.4	5841.7	5658.8	5618.4	5597.0	5575.6	5575.6
27.5°	7312.2	7395.4	6972.5	6402.4	5877.3	5523.4	5456.9	5464.0	5456.9	5421.2	5428.4
30°	7732.7	7716.1	7005.8	6186.2	5506.7	5235.9	5240.7	5271.6	5276.3	5252.6	5264.4
32.5°	8286.3	8117.6	7022.4	5905.9	5152.8	4984.1	4988.9	5022.1	5045.9	5005.5	5024.5
35°	8956.2	8585.6	6996.3	5554.3	4879.6	4744.2	4708.5	4718.0	4725.2	4687.2	4713.3
37.5°	9737.8	9110.6	6879.9	5164.7	4653.9	4509.0	4433.0	4368.8	4330.8	4295.2	4318.9
40°	10595.4	9683.1	6666.1	4784.6	4402.1	4259.5	4145.5	4024.3	3896.1	3848.5	3869.9
42.5°	11493.4	10272.3	6407.1	4421.1	4112.2	3995.8	3874.7	3698.9	3506.5	3409.1	3420.9
45°	12424.6	10875.7	6152.9	4062.4	3815.3	3765.4	3625.2	3413.8	3204.7	3081.2	3071.7
47.5°	13336.9	11445.9	5779.9	3701.3	3537.3	3592.0	3482.7	3287.9	3055.1	2860.3	2838.9
50°	14208.7	11980.4	5169.4	3335.4	3311.7	3539.7	3435.2	3154.9	2888.8	2639.3	2618.0
52.5°	15073.5	12412.8	4387.8	3002.8	3190.5	3525.5	3373.4	3064.6	2739.1	2477.8	2449.3
55°	15807.6	12636.1	3634.7	2717.7	3014.7	3404.3	3299.8	2957.7	2527.7	2249.7	2226.0
57.5°	16225.7	12455.5	3007.6	2437.4	2772.4	3204.7	3173.9	2729.6	2275.9	2062.1	2033.6
60°	16045.1	11723.8	2494.4	2192.7	2541.9	2988.6	2955.3	2503.9	2083.4	1881.5	1853.0
62.5°	15049.7	10329.3	2088.2	1978.9	2332.9	2767.6	2736.7	2330.5	1936.2	1741.3	1710.5
65°	13044.7	8402.7	1772.2	1800.7	2121.5	2501.6	2546.7	2185.6	1819.7	1629.7	1598.8
67.5°	9949.2	6086.4	1525.2	1646.3	1914.8	2240.2	2370.9	2081.1	1722.3	1541.8	1513.3
70°	5670.7	3456.6	1316.1	1496.7	1731.8	1997.9	2235.5	1997.9	1617.8	1468.1	1449.1
72.5°	2150.0	1586.9	1137.9	1347.0	1556.0	1793.6	2085.8	1867.3	1496.7	1385.0	1366.0
75°	1147.4	966.9	957.4	1171.2	1354.1	1594.1	1898.1	1739.0	1406.4	1463.4	1510.9
77.5°	781.6	684.2	800.6	1002.5	1133.2	1373.1	1698.6	1544.2	1218.7	1214.0	1118.9
80°	541.6	484.6	650.9	807.7	876.6	1154.6	1482.4	1325.6	993.0	926.5	886.1
82.5°	325.5	316.0	487.0	603.4	620.0	890.9	1228.2	1111.8	812.5	707.9	712.7
85°	178.2	187.7	311.2	354.0	361.1	622.4	962.1	860.0	624.8	525.0	529.8
87.5°	49.9	64.1	114.0	140.2	173.4	323.1	572.5	510.8	313.6	218.6	218.6
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)