

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: P884101

Luminaire Tested: **NAV-SB4D-730-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884101
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-730-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 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: 40124 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

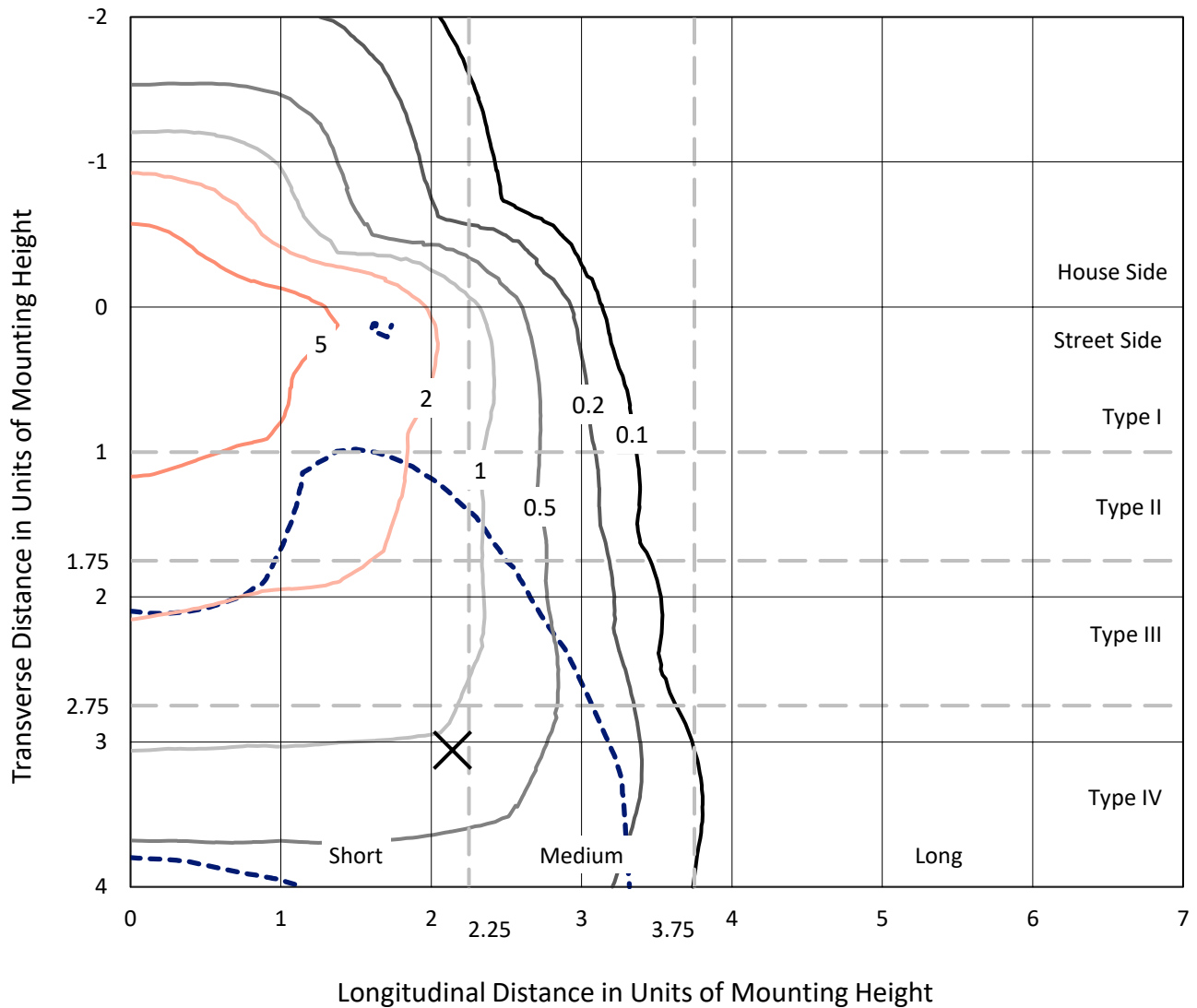
Input Watts (W): 293.6
Input Voltage (V): 120.0
Input Current (Ain): 2.469
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

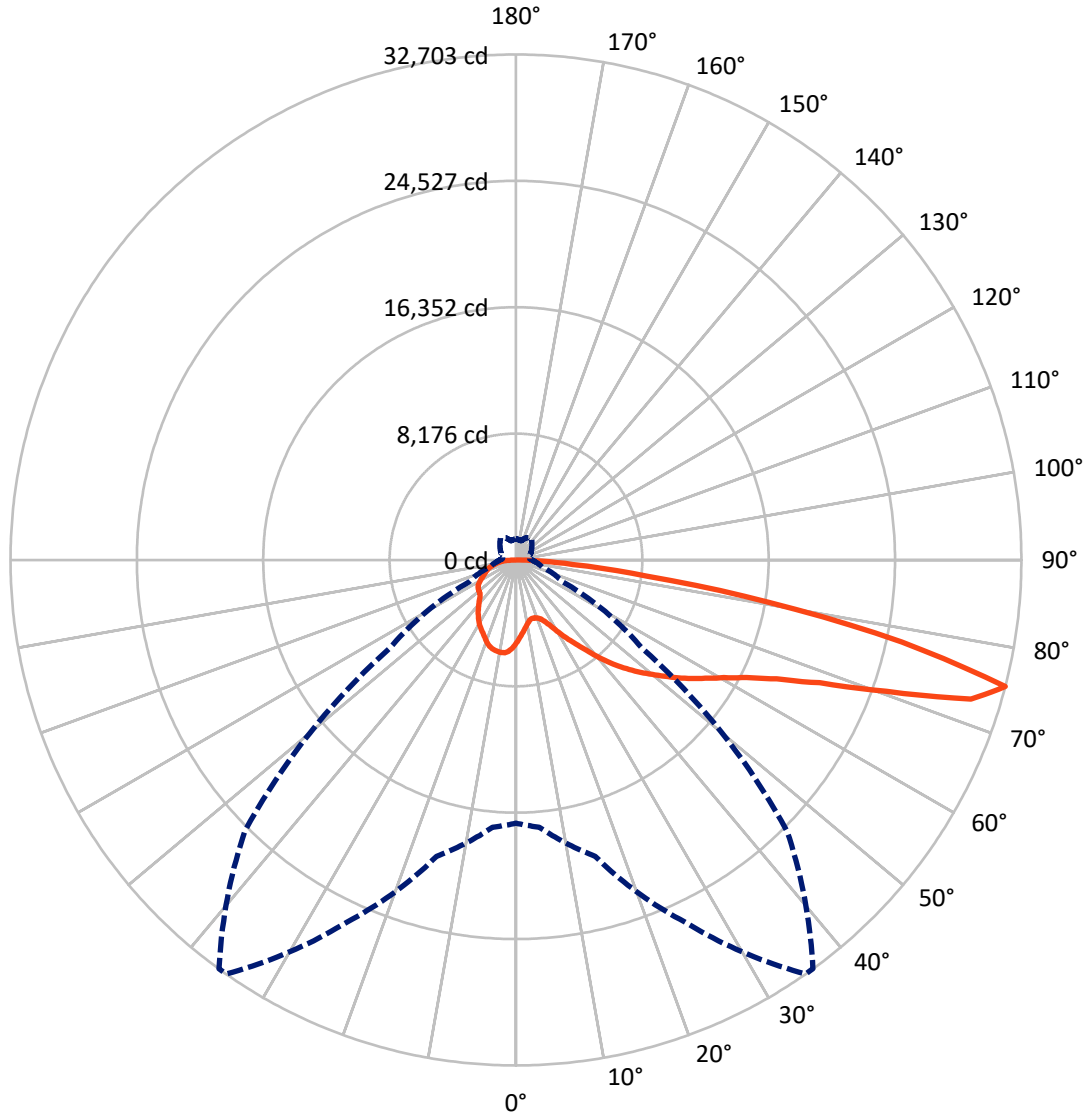
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.5 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	9548.5	0.0	9548.5
	% Fixture	23.8	0.0	23.8
Street Side	Lumens	30575.5	0.0	30575.5
	% Fixture	76.2	0.0	76.2
Total	Lumens	40124.0	0.0	40124.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	506.2	1.3
10°-20°	1460.2	3.6
20°-30°	2452.1	6.1
30°-40°	3810.8	9.5
40°-50°	5656.3	14.1
50°-60°	7808.9	19.5
60°-70°	9473.9	23.6
70°-80°	7829.5	19.5
80°-90°	1126.1	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°	40124.0	100.0
0°-180°	40124.0	100.0



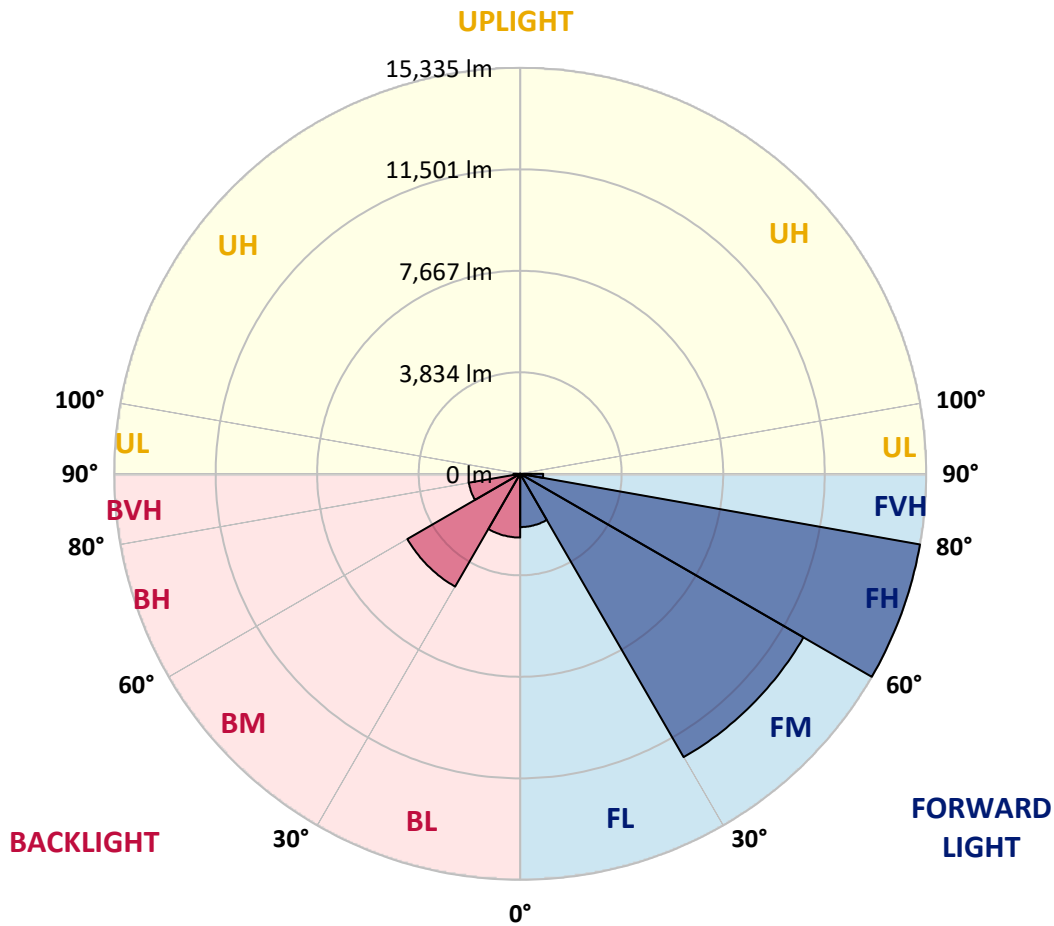
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2012.1	5.0			
FM (30°-60°)	12356.0	30.8			
FH (60°-80°)	15334.8	38.2			G5
FVH (80°-90°)	872.5	2.2			G5
BL (0°-30°)	2406.4	6.0	B3/2500		
BM (30°-60°)	4920.0	12.3	B3/5000		
BH (60°-80°)	1968.6	4.9	B3/2500		G3/2500
BVH (80°-90°)	253.6	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°	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8
2.5°	4930.3	4960.7	4973.7	4967.2	4999.7	4995.4	5041.0	5097.3	5175.4	5251.4	5362.0
5°	4550.7	4583.3	4611.5	4637.5	4700.4	4719.9	4791.5	4900.0	5043.1	5188.5	5370.7
7.5°	4197.2	4225.4	4268.8	4316.5	4422.8	4442.3	4561.6	4730.8	4930.3	5142.9	5394.5
10°	3908.7	3936.9	3982.4	4036.7	4169.0	4192.8	4344.7	4570.3	4830.6	5099.5	5420.5
12.5°	3785.1	3793.7	3819.8	3874.0	3988.9	4004.1	4171.2	4429.3	4732.9	5067.0	5459.6
15°	3778.5	3795.9	3798.1	3826.3	3921.7	3928.2	4082.2	4338.2	4672.2	5060.5	5518.2
17.5°	3843.6	3856.6	3837.1	3854.5	3934.7	3945.6	4067.0	4294.8	4652.7	5088.7	5617.9
20°	4017.1	4028.0	3969.4	3945.6	4004.1	4012.8	4132.1	4323.0	4672.2	5147.2	5754.6
22.5°	4385.9	4392.4	4249.2	4151.6	4156.0	4160.3	4264.4	4437.9	4748.1	5253.5	5928.1
25°	4960.7	4956.4	4728.6	4539.9	4431.4	4407.6	4477.0	4624.5	4876.1	5394.5	6151.5
27.5°	5633.1	5600.6	5372.8	5090.8	4854.4	4819.7	4804.5	4867.4	5058.3	5581.1	6424.8
30°	6392.3	6361.9	6116.8	5748.1	5420.5	5364.1	5221.0	5188.5	5329.4	5834.8	6804.4
32.5°	7225.2	7205.7	6912.9	6466.0	6027.9	5962.8	5722.0	5635.3	5745.9	6218.8	7333.7
35°	7923.7	7906.3	7663.4	7203.5	6667.8	6587.5	6342.4	6244.8	6301.2	6711.1	8025.6
37.5°	8554.9	8546.2	8338.0	7975.7	7422.6	7325.0	7049.5	7017.0	7006.1	7359.7	8865.1
40°	9140.5	9118.8	8901.9	8711.0	8301.1	8212.2	7969.2	7941.0	7858.6	8157.9	9815.1
42.5°	9789.1	9732.7	9418.2	9329.2	9218.6	9144.9	8999.5	9003.9	8821.7	9058.1	10821.6
45°	10318.3	10285.8	9962.6	9910.5	10029.8	9999.5	10125.3	10157.8	9804.3	10001.7	11867.1
47.5°	10886.6	10856.3	10583.0	10546.1	10869.3	10878.0	11322.6	11333.5	10763.0	10982.1	12914.7
50°	11587.3	11543.9	11272.7	11318.3	11680.5	11713.1	12526.5	12452.7	11645.8	11977.7	13953.7
52.5°	12049.3	12075.3	12016.7	12090.5	12585.0	12615.4	13710.8	13522.1	12520.0	12960.3	14973.2
55°	12389.8	12441.9	12624.1	12793.3	13539.4	13569.8	14827.9	14539.4	13244.4	13871.3	15931.9
57.5°	12828.0	12754.2	13094.8	13424.5	14446.1	14526.4	15914.6	15519.8	13886.5	14656.5	16589.2
60°	13457.0	13404.9	13669.6	14157.6	15461.2	15589.2	17064.2	16402.6	14357.2	15279.0	16717.1
62.5°	14732.4	14602.3	14643.5	15075.1	16741.0	16910.2	18361.3	17172.6	14591.4	15522.0	16031.7
65°	16639.1	16415.6	16207.4	16506.7	18543.5	18710.5	19825.4	17777.8	14504.7	15051.3	14211.8
67.5°	19040.2	18819.0	18563.0	18845.0	21198.5	21330.8	21632.3	18118.4	13821.4	13237.9	10995.1
70°	21020.6	20938.2	21244.0	22404.5	25439.0	25443.4	23948.9	17836.4	11949.5	9385.6	6361.9
72.5°	20758.1	20708.3	22319.9	25907.6	30783.7	30668.7	26141.8	15702.0	8049.5	4234.1	2383.8
75°	17029.5	17352.7	19849.3	25844.6	32703.3	32688.1	24799.1	9982.1	3329.5	1754.8	1232.0
77.5°	9131.8	9643.8	12886.5	19081.4	25530.1	25914.1	17435.1	3492.2	1429.4	1123.6	852.5
80°	2978.2	3425.0	5136.4	9715.3	16589.2	16517.6	7472.5	1370.9	978.3	796.1	590.0
82.5°	1264.6	1316.6	2294.9	4587.6	8513.7	8381.3	2379.5	787.4	687.6	544.4	364.4
85°	494.6	553.1	1013.0	2121.4	3687.4	3607.2	859.0	390.4	440.3	355.7	216.9
87.5°	162.7	197.4	362.2	726.6	1147.4	1106.2	210.4	134.5	190.9	162.7	78.1
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°	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8	5346.8
2.5°	5392.3	5427.1	5468.3	5529.0	5581.1	5624.4	5670.0	5698.2	5709.0	5741.6	5739.4
5°	5431.4	5507.3	5609.3	5709.0	5806.6	5865.2	5917.3	5943.3	5967.2	5984.5	5988.8
7.5°	5496.5	5594.1	5754.6	5884.7	5967.2	6014.9	6049.6	6040.9	6049.6	6053.9	6060.4
10°	5552.9	5689.5	5880.4	6004.0	6066.9	6069.1	6060.4	6030.1	6014.9	6017.0	6021.4
12.5°	5620.1	5771.9	5978.0	6082.1	6099.5	6051.7	6014.9	5962.8	5943.3	5934.6	5930.3
15°	5711.2	5884.7	6084.3	6123.3	6079.9	6019.2	5956.3	5871.7	5828.3	5793.6	5804.5
17.5°	5821.8	6012.7	6166.7	6138.5	6045.2	5945.5	5843.5	5715.5	5626.6	5589.7	5591.9
20°	5975.8	6147.2	6229.6	6106.0	5965.0	5813.1	5639.6	5483.4	5401.0	5364.1	5359.8
22.5°	6162.4	6327.2	6290.3	6049.6	5850.0	5607.1	5390.2	5275.2	5234.0	5208.0	5212.3
25°	6385.8	6526.8	6333.7	5967.2	5661.3	5333.8	5166.8	5129.9	5110.4	5090.8	5090.8
27.5°	6676.4	6752.4	6366.3	5845.7	5366.3	5043.1	4982.4	4988.9	4982.4	4949.9	4956.4
30°	7060.4	7045.2	6396.6	5648.3	5027.9	4780.7	4785.0	4813.2	4817.5	4795.8	4806.7
32.5°	7565.8	7411.8	6411.8	5392.3	4704.7	4550.7	4555.1	4585.4	4607.1	4570.3	4587.6
35°	8177.5	7839.1	6388.0	5071.3	4455.3	4331.7	4299.1	4307.8	4314.3	4279.6	4303.5
37.5°	8891.1	8318.4	6281.7	4715.6	4249.2	4116.9	4047.5	3988.9	3954.2	3921.7	3943.4
40°	9674.1	8841.2	6086.5	4368.5	4019.3	3889.2	3785.1	3674.4	3557.3	3513.9	3533.4
42.5°	10494.0	9379.1	5850.0	4036.7	3754.7	3648.4	3537.8	3377.3	3201.6	3112.6	3123.5
45°	11344.3	9930.1	5617.9	3709.1	3483.6	3438.0	3310.0	3117.0	2926.1	2813.3	2804.6
47.5°	12177.2	10450.7	5277.4	3379.4	3229.8	3279.7	3179.9	3002.0	2789.4	2611.6	2592.1
50°	12973.3	10938.7	4719.9	3045.4	3023.7	3231.9	3136.5	2880.5	2637.6	2409.9	2390.3
52.5°	13762.8	11333.5	4006.3	2741.7	2913.1	3218.9	3080.1	2798.1	2501.0	2262.4	2236.3
55°	14433.1	11537.4	3318.7	2481.4	2752.6	3108.3	3012.9	2700.5	2307.9	2054.1	2032.4
57.5°	14814.9	11372.5	2746.1	2225.5	2531.3	2926.1	2897.9	2492.3	2078.0	1882.8	1856.7
60°	14650.0	10704.4	2277.5	2002.1	2320.9	2728.7	2698.3	2286.2	1902.3	1717.9	1691.9
62.5°	13741.2	9431.2	1906.6	1806.8	2130.0	2527.0	2498.8	2127.9	1767.8	1589.9	1561.7
65°	11910.4	7672.1	1618.1	1644.2	1937.0	2284.0	2325.3	1995.6	1661.5	1488.0	1459.8
67.5°	9084.1	5557.2	1392.6	1503.2	1748.3	2045.4	2164.7	1900.1	1572.6	1407.7	1381.7
70°	5177.6	3156.0	1201.7	1366.5	1581.3	1824.2	2041.1	1824.2	1477.1	1340.5	1323.1
72.5°	1963.0	1448.9	1039.0	1229.9	1420.8	1637.7	1904.5	1704.9	1366.5	1264.6	1247.2
75°	1047.7	882.8	874.1	1069.4	1236.4	1455.5	1733.1	1587.8	1284.1	1336.2	1379.5
77.5°	713.6	624.7	731.0	915.4	1034.7	1253.7	1550.9	1409.9	1112.7	1108.4	1021.6
80°	494.6	442.5	594.3	737.5	800.4	1054.2	1353.5	1210.3	906.7	845.9	809.1
82.5°	297.2	288.5	444.7	550.9	566.1	813.4	1121.4	1015.1	741.8	646.4	650.7
85°	162.7	171.4	284.2	323.2	329.7	568.3	878.5	785.2	570.5	479.4	483.7
87.5°	45.6	58.6	104.1	128.0	158.3	295.0	522.7	466.4	286.3	199.6	199.6
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)