

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: P967366

Luminaire Tested: **NAV-SB4D-830-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967366
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-830-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37587.8 lumens
Efficiency: N/A
Efficacy: 128.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

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



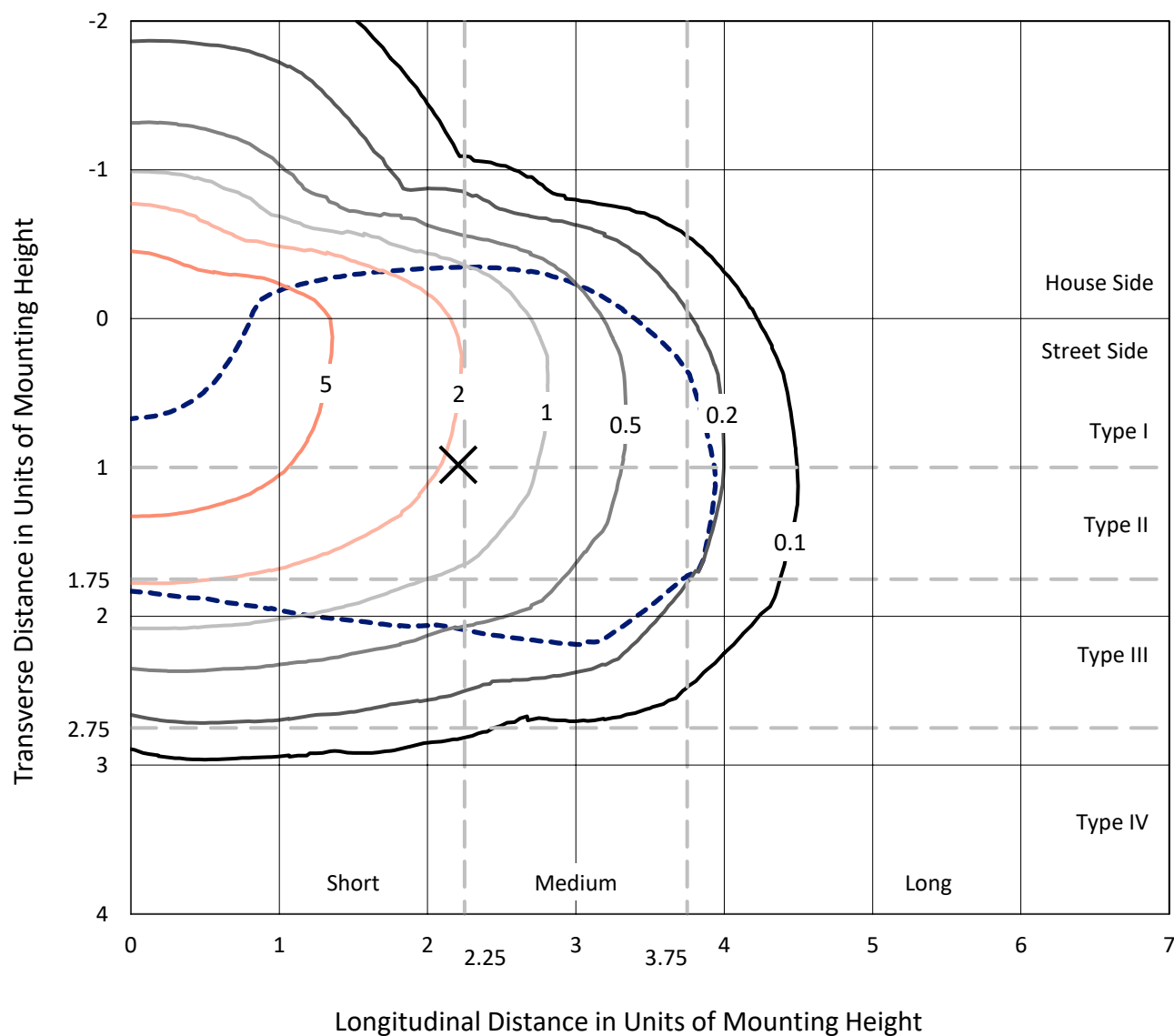
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

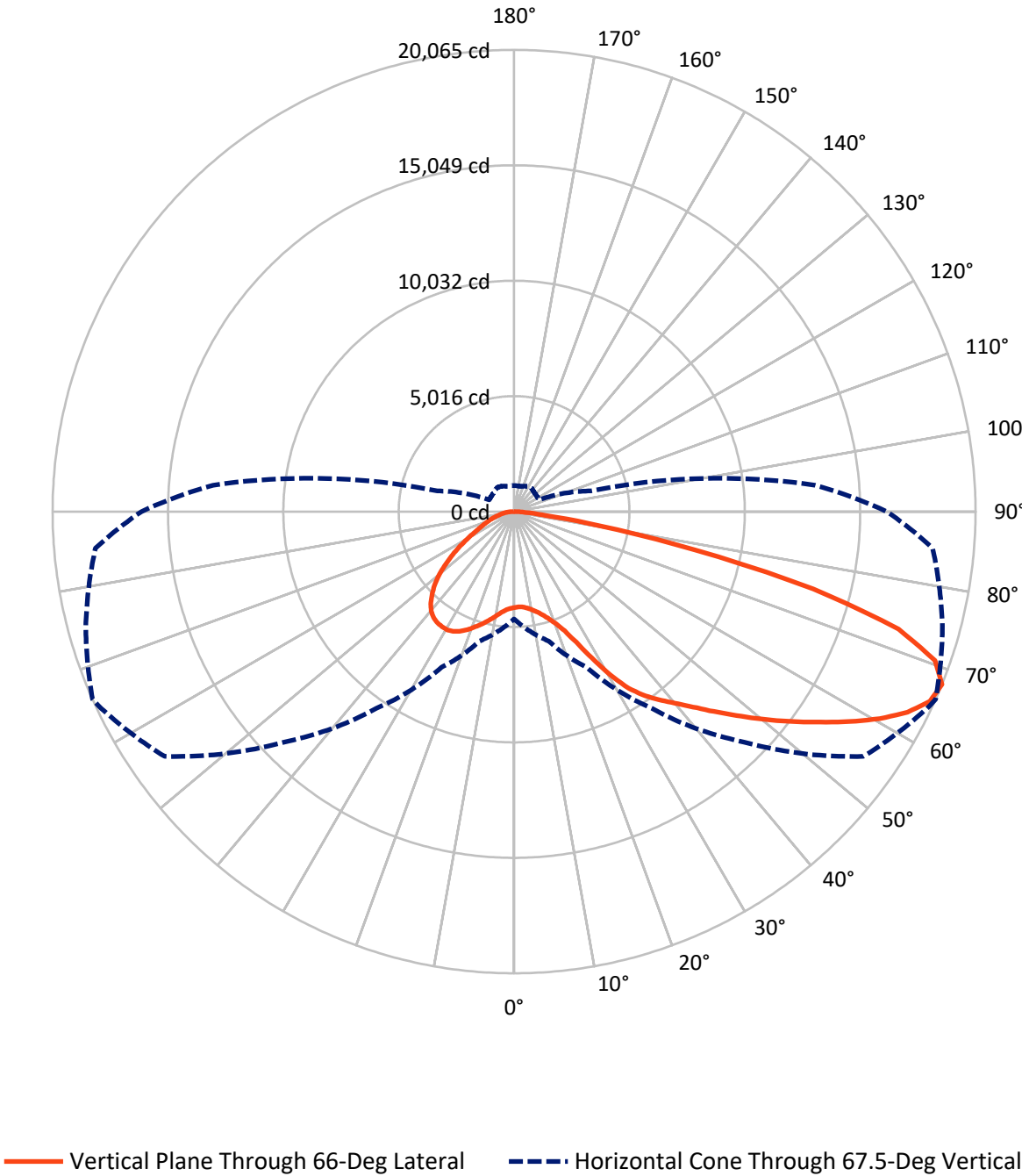


Based on 25 foot mounting height. Maximum calculated value = 9.5 fc

Type III - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9346.1	0.0	9346.1
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	28241.7	0.0	28241.7
	% Fixture	75.1	0.0	75.1
Total	Lumens	37587.8	0.0	37587.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.3	1.1
10°-20°	1365.6	3.6
20°-30°	2632.1	7.0
30°-40°	4615.1	12.3
40°-50°	6861.2	18.3
50°-60°	8697.2	23.1
60°-70°	8510.0	22.6
70°-80°	4059.4	10.8
80°-90°	433.8	1.2
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°	37587.8	100.0
0°-180°	37587.8	100.0

Coefficient of Utilization



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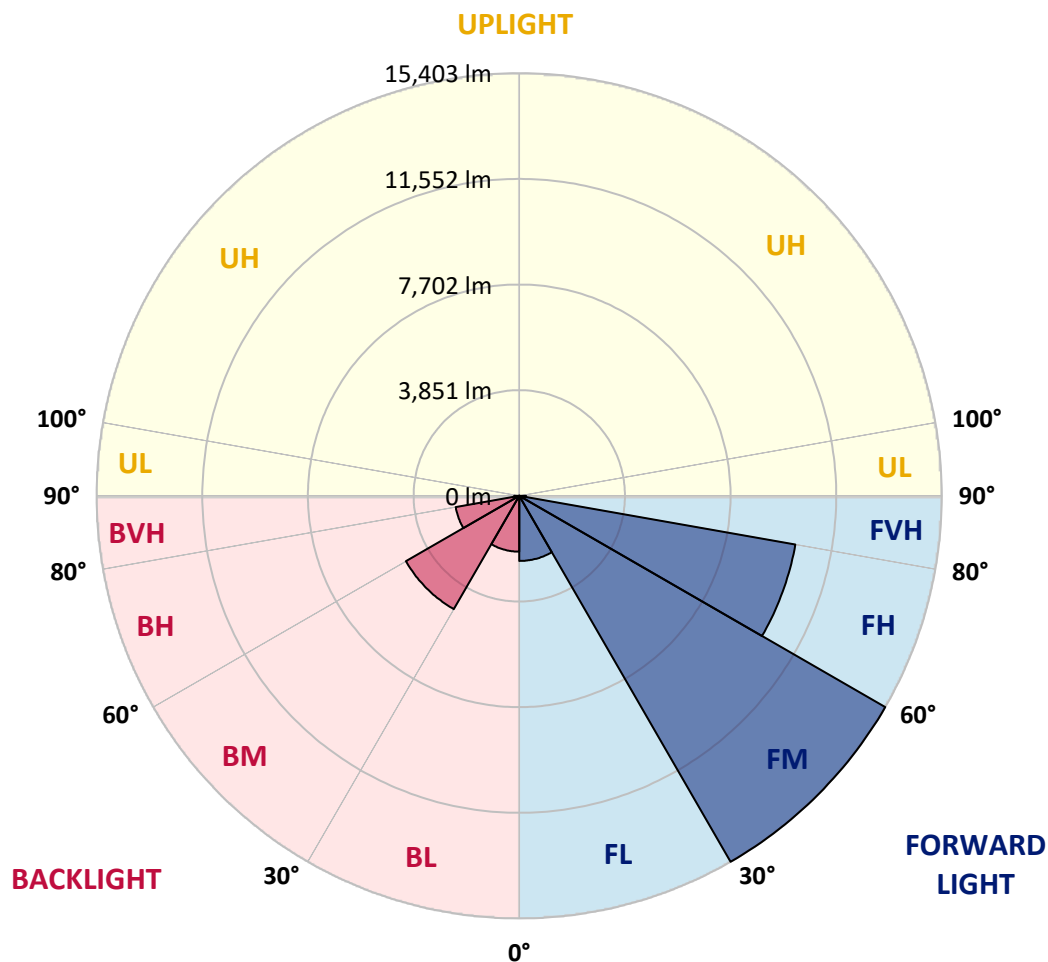
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2375.2	6.3			
FM	(30°-60°)	15403.2	41.0			
FH	(60°-80°)	10217.4	27.2			G4/12000
FVH	(80°-90°)	246.0	0.7			G3/500
BL	(0°-30°)	2035.9	5.4	B3/2500		
BM	(30°-60°)	4770.3	12.7	B3/5000		
BH	(60°-80°)	2352.0	6.3	B3/2500		G3/2500
BVH	(80°-90°)	187.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0
2.5°	4125.5	4149.2	4143.4	4133.4	4131.5	4135.4	4141.3	4147.3	4145.3	4155.1	4170.9
5°	4113.7	4137.4	4135.4	4135.4	4143.4	4159.1	4169.0	4178.8	4169.0	4180.9	4202.6
7.5°	4121.6	4139.4	4147.3	4155.1	4174.9	4204.5	4228.2	4250.0	4238.1	4251.9	4279.6
10°	4222.3	4236.1	4244.0	4244.0	4257.8	4291.5	4315.1	4354.6	4344.8	4366.5	4402.1
12.5°	4406.0	4419.8	4419.8	4411.9	4421.7	4443.5	4451.4	4494.8	4477.1	4512.6	4548.1
15°	4631.2	4658.7	4637.0	4623.2	4627.2	4648.9	4646.9	4680.5	4662.7	4692.3	4723.9
17.5°	4879.9	4915.5	4879.9	4878.0	4870.1	4893.8	4895.7	4925.3	4893.8	4915.5	4937.2
20°	5174.2	5223.6	5194.0	5203.8	5186.1	5195.9	5205.8	5249.2	5199.8	5215.7	5209.8
22.5°	5588.9	5648.2	5616.6	5654.1	5642.2	5634.3	5632.4	5709.4	5632.4	5638.3	5581.0
25°	6193.3	6264.3	6209.0	6260.4	6260.4	6286.0	6315.6	6414.4	6286.0	6248.5	6100.4
27.5°	7085.9	7157.0	7048.4	7080.0	7070.0	7133.3	7101.7	7346.6	7208.3	7147.1	6848.9
30°	8160.2	8286.6	8081.2	8073.3	8063.5	8164.1	8209.6	8371.6	8231.4	8170.1	7810.7
32.5°	9321.5	9453.8	9208.9	9137.8	9100.3	9161.4	9123.9	9254.3	9157.6	9062.7	8618.4
35°	10549.8	10680.2	10447.1	10308.9	10158.8	10030.4	9896.2	9929.7	9838.9	9694.8	9234.5
37.5°	11711.0	11950.1	11703.1	11555.0	11278.6	11027.8	10652.5	10496.5	10411.5	10279.3	9815.2
40°	12894.0	13030.3	12842.6	12716.3	12416.1	12023.1	11422.7	11093.0	10978.4	10850.0	10457.0
42.5°	13764.9	13895.3	13794.6	13707.6	13472.7	13016.5	12240.3	11827.6	11661.7	11517.5	11183.8
45°	14456.2	14553.0	14489.7	14521.3	14420.6	13978.2	13087.6	12615.6	12443.7	12268.0	12005.3
47.5°	14734.6	14837.3	14938.0	15125.6	15297.4	14971.6	13998.0	13468.7	13287.0	13107.3	12848.6
50°	14703.0	14807.7	15100.0	15498.9	16032.1	15923.5	14957.8	14377.2	14209.3	14003.9	13764.9
52.5°	14450.2	14568.7	14944.0	15607.5	16456.7	16636.5	15935.4	15315.2	15157.2	14912.3	14673.4
55°	13786.7	13857.8	14420.6	15360.6	16557.4	17134.1	16893.1	16314.5	16156.6	15814.8	15554.2
57.5°	12556.4	12659.1	13478.5	14695.1	16304.7	17471.8	17734.4	17365.1	17213.1	16721.3	16448.8
60°	10950.7	11114.7	12052.8	13577.4	15660.9	17469.8	18498.8	18398.0	18271.6	17614.0	17329.6
62.5°	9133.9	9323.4	10225.9	11997.4	14535.1	16974.1	18976.6	19263.0	19197.8	18437.5	18074.1
65°	7014.8	7145.2	8043.7	9953.5	12783.4	15909.6	19032.0	19853.5	19865.3	19063.6	18463.2
67.5°	4670.6	5045.9	5825.9	7469.0	10437.3	14169.8	18546.1	19950.3	20064.8	19278.8	18267.7
70°	2279.0	2772.7	3537.0	4854.3	7469.0	11501.7	17276.3	19156.4	19411.1	18650.8	17102.5
72.5°	946.0	1106.0	1522.6	2395.5	4287.5	7761.3	14724.7	17003.7	17475.7	16525.9	14379.1
75°	637.9	691.3	870.9	1228.4	1953.1	3827.3	10619.0	12678.7	13439.1	12481.2	10202.2
77.5°	491.8	525.3	634.0	859.1	1161.2	1447.6	5683.7	7640.9	8033.8	7437.4	5308.5
80°	387.0	412.8	474.0	626.1	823.5	774.2	1937.4	3461.9	3689.1	3094.7	1706.3
82.5°	335.7	345.6	339.7	424.6	547.0	452.2	635.9	1277.8	1410.1	1023.0	556.9
85°	242.9	270.6	282.4	262.7	290.3	229.1	260.7	452.2	497.6	444.3	314.0
87.5°	98.7	146.2	179.7	169.8	106.6	65.2	81.0	132.3	152.1	165.8	102.7
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°	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0	4169.0
2.5°	4173.0	4186.7	4196.7	4208.4	4216.3	4228.2	4251.9	4265.7	4267.7	4277.6	4275.6
5°	4210.5	4230.2	4251.9	4283.5	4319.0	4348.7	4394.1	4425.7	4437.5	4447.5	4445.4
7.5°	4291.5	4319.0	4358.6	4413.9	4465.2	4504.7	4560.0	4597.5	4635.0	4648.9	4650.8
10°	4411.9	4451.4	4508.7	4583.7	4639.0	4690.4	4747.6	4779.3	4816.8	4832.6	4840.5
12.5°	4562.0	4603.5	4678.5	4783.2	4834.5	4870.1	4889.9	4881.9	4889.9	4903.6	4907.6
15°	4733.8	4779.3	4864.1	4976.7	5012.2	4980.7	4937.2	4897.8	4891.8	4895.7	4909.5
17.5°	4937.2	4970.7	5069.5	5164.4	5138.6	5008.4	4913.5	4850.3	4818.7	4808.9	4822.6
20°	5221.6	5221.6	5302.5	5361.8	5190.0	4968.8	4820.7	4718.0	4652.8	4625.2	4619.3
22.5°	5567.2	5535.6	5587.0	5545.5	5180.1	4858.2	4652.8	4475.0	4376.3	4336.9	4330.9
25°	6005.6	5968.1	5954.3	5697.6	5109.0	4682.4	4348.7	4133.4	4046.5	4024.8	4028.8
27.5°	6667.2	6572.4	6392.7	5780.5	4978.7	4406.0	3993.2	3793.7	3744.4	3746.4	3752.3
30°	7548.0	7358.4	6918.0	5794.3	4765.4	4014.9	3629.8	3487.7	3464.0	3473.8	3507.3
32.5°	8363.6	8183.9	7455.2	5731.1	4437.5	3631.8	3304.0	3209.2	3173.6	3185.5	3201.3
35°	9003.5	8954.1	7952.9	5642.2	4034.7	3272.4	3011.7	2930.7	2861.6	2845.8	2857.7
37.5°	9607.8	9588.1	8326.1	5517.8	3635.8	3017.6	2776.7	2670.0	2569.4	2514.0	2516.0
40°	10271.4	10251.6	8570.9	5326.3	3282.3	2796.4	2565.4	2425.1	2300.7	2200.1	2209.9
42.5°	11017.9	10901.4	8687.5	5051.7	2982.0	2608.8	2393.6	2204.0	2040.1	1947.2	1953.1
45°	11833.5	11570.8	8685.5	4702.2	2729.3	2437.0	2209.9	1941.4	1789.2	1702.3	1698.4
47.5°	12698.5	12210.7	8578.9	4315.1	2484.4	2247.4	1925.5	1720.2	1619.4	1566.1	1554.2
50°	13591.2	12809.1	8397.2	3870.8	2233.6	2032.2	1747.7	1607.5	1530.5	1481.1	1463.4
52.5°	14430.5	13352.2	8178.0	3367.2	1978.9	1822.9	1668.8	1560.2	1479.2	1423.9	1400.1
55°	15210.6	13820.3	7867.9	2851.8	1771.5	1682.6	1631.3	1540.4	1447.6	1382.4	1356.8
57.5°	15903.7	14124.4	7332.7	2367.9	1623.4	1585.9	1591.7	1506.9	1400.1	1344.9	1309.3
60°	16480.4	14347.5	6540.8	1919.6	1502.9	1491.1	1530.5	1443.6	1319.2	1256.0	1228.4
62.5°	16826.0	14343.5	5569.1	1572.0	1400.1	1404.1	1449.6	1364.7	1238.3	1179.0	1161.2
65°	16796.4	13992.1	4502.7	1344.9	1301.4	1305.4	1364.7	1277.8	1171.1	1135.6	1133.5
67.5°	16202.0	13135.0	3454.0	1196.8	1192.8	1210.6	1279.7	1218.5	1129.7	1125.7	1131.6
70°	14592.4	11355.6	2488.4	1078.3	1080.2	1106.0	1196.8	1181.0	1107.9	1115.8	1113.9
72.5°	11701.2	8657.9	1670.7	953.9	955.8	997.3	1117.8	1151.4	1086.2	1190.8	1206.6
75°	7792.9	5399.3	1074.3	821.5	823.5	876.9	1048.7	1094.1	1026.9	1186.9	1196.8
77.5°	3744.4	2427.1	778.1	691.3	691.3	740.6	906.5	979.6	874.8	922.3	845.2
80°	1293.6	912.4	612.2	556.9	545.1	578.6	764.2	849.2	754.4	695.2	651.7
82.5°	509.5	474.0	491.8	432.6	393.0	414.7	594.4	701.1	554.9	501.6	499.7
85°	292.3	308.1	347.6	286.4	227.1	254.7	436.4	503.6	418.7	369.3	377.2
87.5°	79.0	108.6	160.0	148.1	102.7	108.6	207.4	278.5	241.0	185.6	191.6
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)