

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: P967320

Luminaire Tested: **NAV-SB4D-827-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4D-827-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36032.9 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - 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



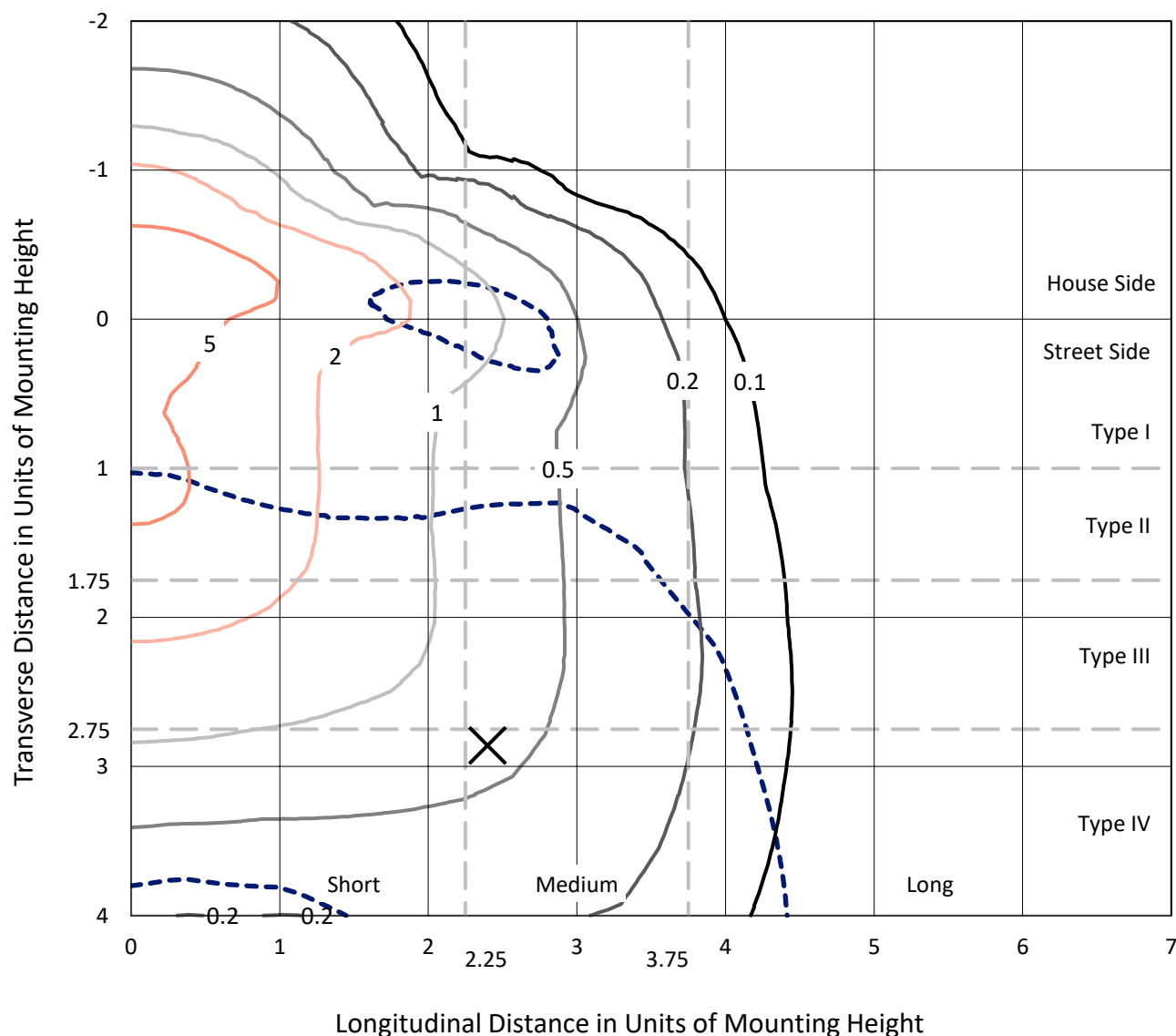
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

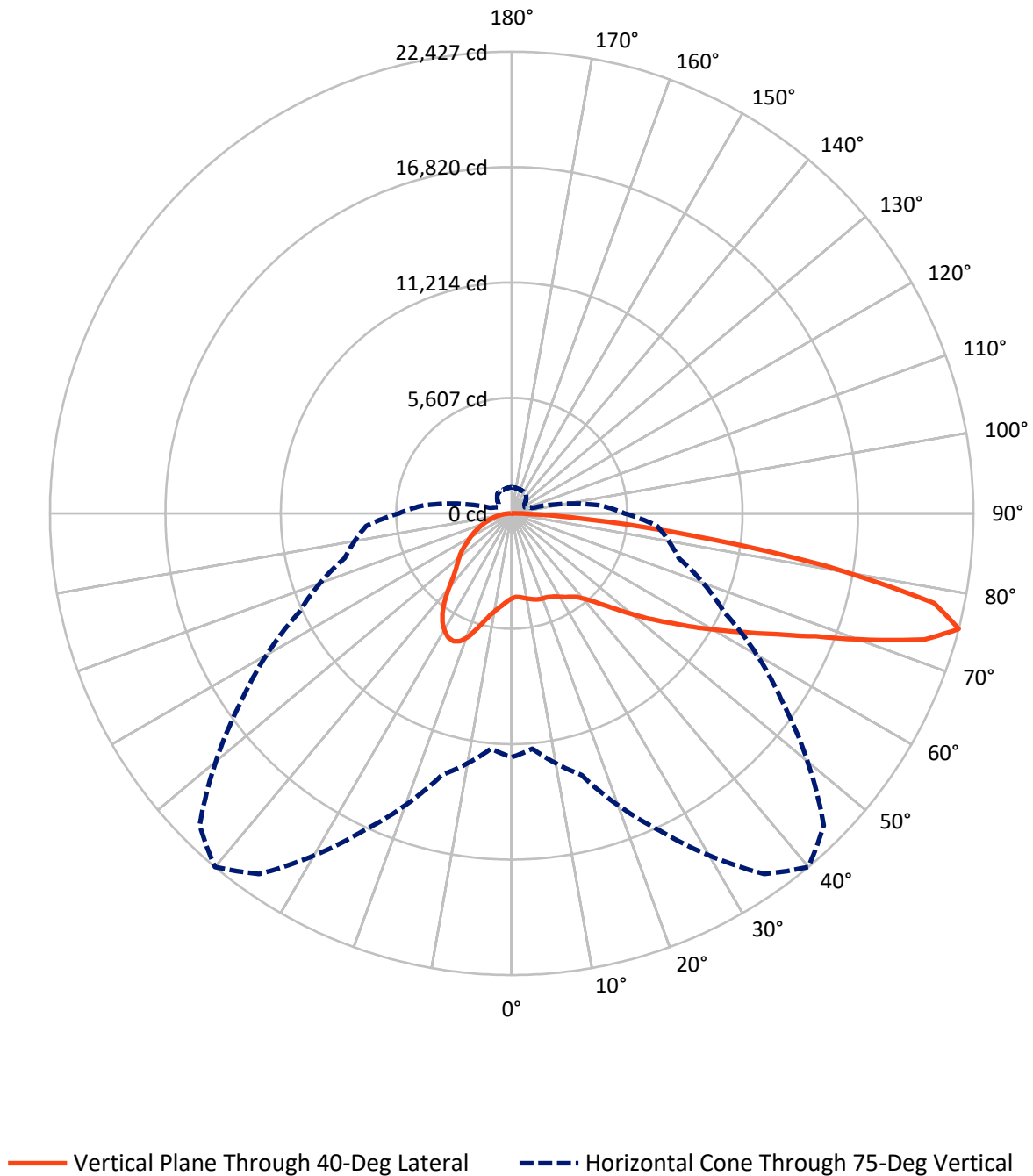
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.5 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11164.2	0.0	11164.2
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	24868.7	0.0	24868.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	36032.9	0.0	36032.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	411.3	1.1
10°-20°	1380.9	3.8
20°-30°	2521.4	7.0
30°-40°	3576.1	9.9
40°-50°	4828.8	13.4
50°-60°	6496.0	18.0
60°-70°	8244.9	22.9
70°-80°	7482.8	20.8
80°-90°	1090.7	3.0
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°	36032.9	100.0
0°-180°	36032.9	100.0

Coefficient of Utilization



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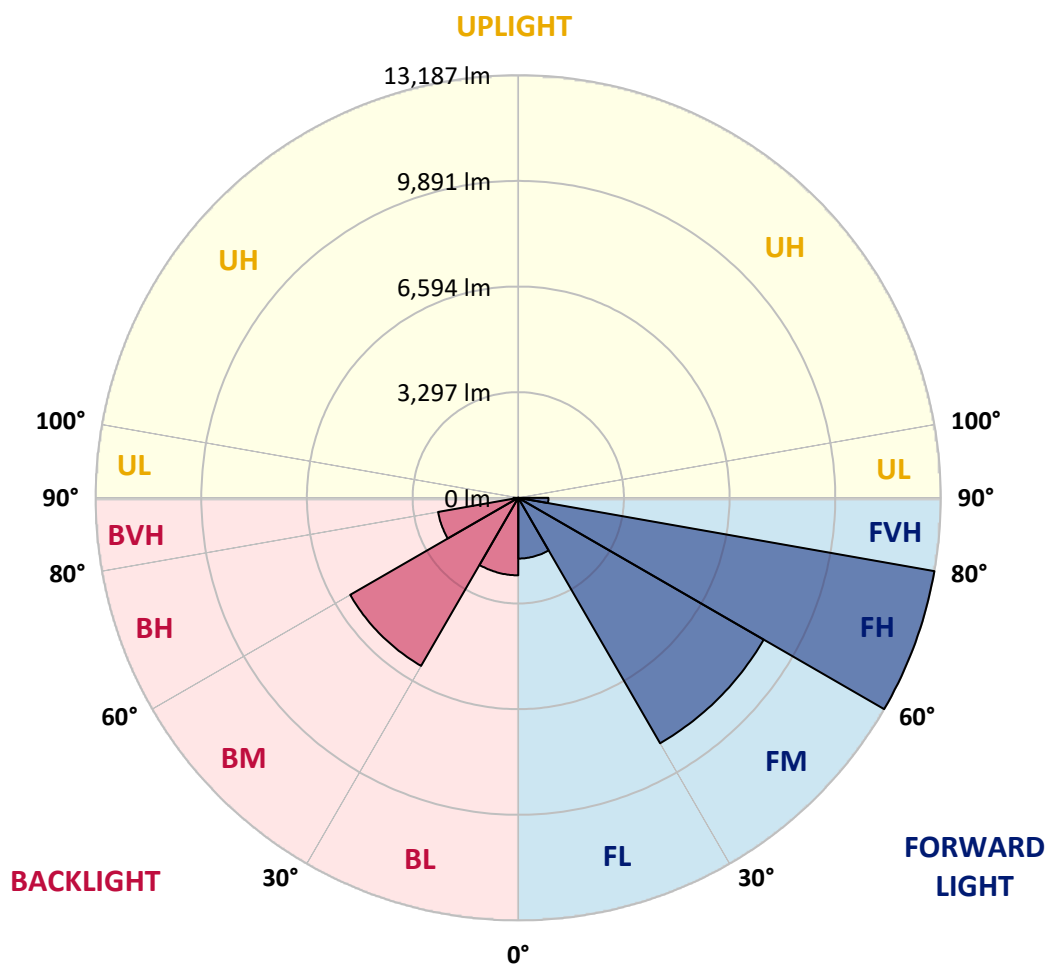
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1895.4	5.3			
FM	(30°-60°)	8845.3	24.5			
FH	(60°-80°)	13187.5	36.6			G5
FVH	(80°-90°)	940.6	2.6			G5
BL	(0°-30°)	2418.3	6.7	B3/2500		
BM	(30°-60°)	6055.6	16.8	B4/8500		
BH	(60°-80°)	2540.2	7.0	B4/5000		G4/5000
BVH	(80°-90°)	150.2	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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4
2.5°	4057.4	4080.3	4074.6	4066.9	4066.9	4068.8	4066.9	4080.3	4093.6	4107.1	4128.1
5°	4099.4	4122.3	4110.9	4101.3	4093.6	4091.7	4086.0	4084.1	4091.7	4108.9	4137.6
7.5°	4181.6	4204.4	4187.3	4170.1	4154.8	4147.2	4139.6	4128.1	4122.3	4131.9	4172.0
10°	4273.3	4296.2	4275.2	4244.6	4219.8	4210.2	4202.6	4191.1	4183.4	4189.2	4233.1
12.5°	4365.1	4387.9	4359.3	4317.3	4284.8	4279.1	4269.4	4265.6	4263.7	4261.8	4305.8
15°	4451.1	4470.1	4433.8	4384.1	4349.7	4340.2	4330.6	4336.4	4345.9	4357.4	4407.1
17.5°	4517.9	4537.1	4483.6	4418.6	4386.1	4382.2	4376.5	4395.6	4422.4	4451.1	4512.2
20°	4579.1	4598.2	4529.4	4441.4	4403.3	4403.3	4405.1	4445.3	4483.6	4525.6	4609.6
22.5°	4665.1	4680.4	4596.3	4475.9	4420.4	4424.3	4439.6	4479.7	4527.4	4584.8	4701.4
25°	4793.1	4804.6	4701.4	4540.9	4477.8	4489.3	4502.6	4521.8	4567.6	4634.5	4791.3
27.5°	4999.5	5009.1	4873.4	4655.5	4559.9	4579.1	4598.2	4584.8	4605.8	4663.1	4863.8
30°	5290.0	5295.8	5123.8	4835.1	4699.5	4709.1	4712.8	4657.4	4617.3	4663.1	4915.4
32.5°	5634.0	5632.1	5427.6	5053.0	4858.1	4848.6	4816.1	4707.1	4613.5	4653.6	4961.3
35°	6167.2	6146.2	5882.5	5358.8	5037.8	4978.5	4902.1	4762.6	4632.6	4644.1	5001.5
37.5°	7050.2	6985.2	6620.2	5859.5	5305.3	5154.3	5041.6	4852.3	4674.6	4640.3	5049.3
40°	8045.8	7963.7	7562.3	6545.6	5706.7	5464.0	5282.3	4980.4	4743.4	4657.4	5120.0
42.5°	9226.9	9110.4	8678.5	7354.1	6215.0	5863.3	5590.0	5142.8	4844.8	4712.8	5215.5
45°	10677.5	10522.8	9911.1	8265.7	6855.2	6387.0	6022.0	5389.3	4999.5	4819.9	5358.8
47.5°	12143.4	12181.6	11312.0	9309.2	7623.5	7032.9	6562.9	5760.2	5225.0	4991.9	5590.0
50°	13700.9	13727.7	12705.2	10465.4	8495.0	7763.0	7170.6	6174.9	5538.5	5236.5	5936.0
52.5°	14916.4	14920.2	13970.3	11675.2	9402.7	8565.7	7826.1	6648.9	5901.5	5561.4	6396.6
55°	15677.1	15667.4	14857.2	12819.9	10446.3	9408.5	8552.3	7187.8	6345.0	5943.7	6975.6
57.5°	16229.3	16200.6	15468.7	13804.1	11558.5	10404.3	9374.1	7799.3	6868.6	6398.5	7738.1
60°	16439.6	16422.3	15883.4	14654.5	12728.1	11505.0	10322.1	8483.5	7463.0	6935.5	8718.5
62.5°	16519.8	16552.3	16290.5	15478.3	13980.0	12724.3	11363.6	9301.5	8131.8	7543.3	9752.5
65°	16802.7	16862.0	16808.5	16556.1	15394.2	14152.0	12745.4	10274.3	8861.9	8195.0	10832.3
67.5°	17362.7	17421.9	17444.8	17846.2	17121.8	15931.2	14469.2	11485.9	9716.2	8871.5	11644.5
70°	17349.3	17332.0	17737.2	18872.4	19285.3	18394.6	16793.1	12976.6	10734.8	9433.4	11747.7
72.5°	15791.7	15654.1	16611.6	18861.0	21085.6	20967.1	19631.2	14899.2	11614.0	9502.2	10194.0
75°	11847.2	11480.2	13171.6	16997.6	21385.6	22427.2	21435.3	16091.8	11405.7	8395.6	7094.1
77.5°	5066.4	4697.6	6690.9	12582.9	19140.0	20965.1	19780.2	14039.2	9104.7	5551.8	3484.0
80°	1326.4	1324.4	2022.0	5704.7	13016.8	15482.1	13582.4	9066.4	5202.1	1983.8	961.3
82.5°	548.5	535.2	743.4	2218.8	6360.2	8688.0	7090.3	4043.9	1878.6	537.0	319.2
85°	204.5	202.5	361.2	766.4	2243.6	3583.4	2593.5	1033.9	468.2	261.8	143.3
87.5°	57.3	55.5	78.3	265.7	546.6	829.4	443.4	170.0	131.9	103.2	42.0
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°	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4	4120.4
2.5°	4133.8	4143.4	4160.6	4173.9	4191.1	4210.2	4236.9	4254.2	4271.4	4282.9	4275.2
5°	4150.9	4172.0	4215.9	4259.9	4311.6	4359.3	4414.7	4454.9	4487.3	4496.9	4500.7
7.5°	4189.2	4223.6	4298.1	4372.6	4454.9	4533.2	4613.5	4682.3	4737.7	4758.8	4760.6
10°	4256.1	4301.9	4407.1	4512.2	4621.1	4741.5	4844.8	4944.1	5022.5	5055.0	5056.8
12.5°	4340.2	4397.6	4535.1	4680.4	4831.3	4997.6	5131.4	5253.7	5351.2	5395.1	5395.1
15°	4449.1	4523.6	4699.5	4894.4	5116.1	5347.3	5517.5	5653.2	5762.0	5815.5	5811.7
17.5°	4567.6	4667.0	4888.6	5183.0	5500.3	5804.1	6002.9	6102.2	6215.0	6266.6	6264.7
20°	4682.3	4804.6	5121.8	5550.0	5972.3	6295.2	6455.9	6482.6	6490.2	6495.9	6511.2
22.5°	4800.8	4965.1	5414.3	6012.4	6465.4	6688.9	6711.9	6597.2	6436.7	6362.2	6383.2
25°	4930.8	5148.6	5796.5	6522.7	6889.6	6916.4	6740.6	6461.5	6157.7	6018.2	6039.2
27.5°	5056.8	5360.7	6255.2	7010.1	7195.4	6960.4	6581.9	6186.4	5819.4	5672.2	5689.5
30°	5183.0	5603.5	6761.6	7436.3	7334.9	6851.4	6331.6	5890.2	5521.3	5366.5	5383.7
32.5°	5311.0	5886.3	7344.5	7743.9	7310.1	6620.2	6020.0	5557.5	5232.7	5070.3	5091.3
35°	5456.3	6234.2	7896.8	7912.1	7143.8	6280.0	5609.2	5160.1	4877.3	4747.3	4775.9
37.5°	5645.5	6675.6	8384.2	7954.1	6853.4	5781.2	5098.9	4689.9	4456.8	4397.6	4439.6
40°	5880.5	7206.9	8756.8	7887.3	6423.4	5175.3	4540.9	4214.1	4082.2	4095.6	4141.4
42.5°	6186.4	7801.3	9018.7	7715.3	5825.2	4550.4	4051.6	3906.4	3969.4	4022.9	4072.6
45°	6583.9	8418.5	9181.1	7422.8	5148.6	4021.1	3763.0	3797.4	3845.2	3850.9	3889.2
47.5°	7092.2	9043.5	9288.1	6981.4	4458.6	3648.4	3579.5	3587.2	3577.7	3537.5	3568.1
50°	7726.8	9651.2	9383.7	6396.6	3871.9	3415.2	3323.5	3296.7	3164.8	3034.9	3052.0
52.5°	8449.1	10209.3	9423.8	5670.3	3415.2	3220.2	3071.2	2903.0	2656.5	2616.3	2629.7
55°	9251.8	10725.3	9320.6	4777.8	3031.0	2969.9	2744.4	2541.8	2515.0	2480.6	2486.3
57.5°	10211.2	11281.5	9110.4	3782.1	2637.3	2677.5	2457.7	2480.6	2432.8	2379.3	2369.8
60°	11260.4	11856.7	8741.5	2874.3	2230.3	2312.5	2383.2	2381.3	2367.9	2324.0	2308.6
62.5°	12204.5	12235.1	8015.3	2201.6	1872.9	2029.6	2222.6	2220.8	2209.3	2184.4	2174.8
65°	12766.4	12177.7	6803.6	1733.4	1578.6	1796.4	2004.8	2020.1	2022.0	2020.1	2020.1
67.5°	12666.9	11507.0	5141.0	1379.9	1335.9	1559.4	1788.8	1809.8	1825.1	1828.9	1832.8
70°	11543.2	10033.4	3352.2	1100.8	1119.9	1351.2	1584.3	1605.4	1618.7	1634.1	1641.6
72.5°	8997.7	7377.0	1918.8	890.6	930.7	1171.6	1381.7	1406.6	1414.2	1442.9	1454.4
75°	5483.0	4338.3	1035.9	701.4	764.4	1001.4	1181.1	1209.7	1223.1	1257.6	1261.4
77.5°	2606.8	1878.6	590.5	546.6	615.4	817.9	997.6	1030.1	993.8	1012.9	997.6
80°	881.0	697.6	372.7	416.7	470.2	638.3	798.9	831.4	754.9	751.1	743.4
82.5°	307.7	282.8	237.0	277.2	303.9	456.7	603.9	646.0	561.9	560.0	533.2
85°	120.4	114.7	131.9	151.0	181.5	281.0	397.5	418.5	345.9	279.0	275.2
87.5°	24.8	26.8	32.5	34.4	55.5	97.5	143.3	175.8	139.5	118.5	109.0
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)