

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: P966173

Luminaire Tested: **NAV-SB4B-740-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966173
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-SB4B-740-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24259.7 lumens
Efficiency: N/A
Efficacy: 165.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 147
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

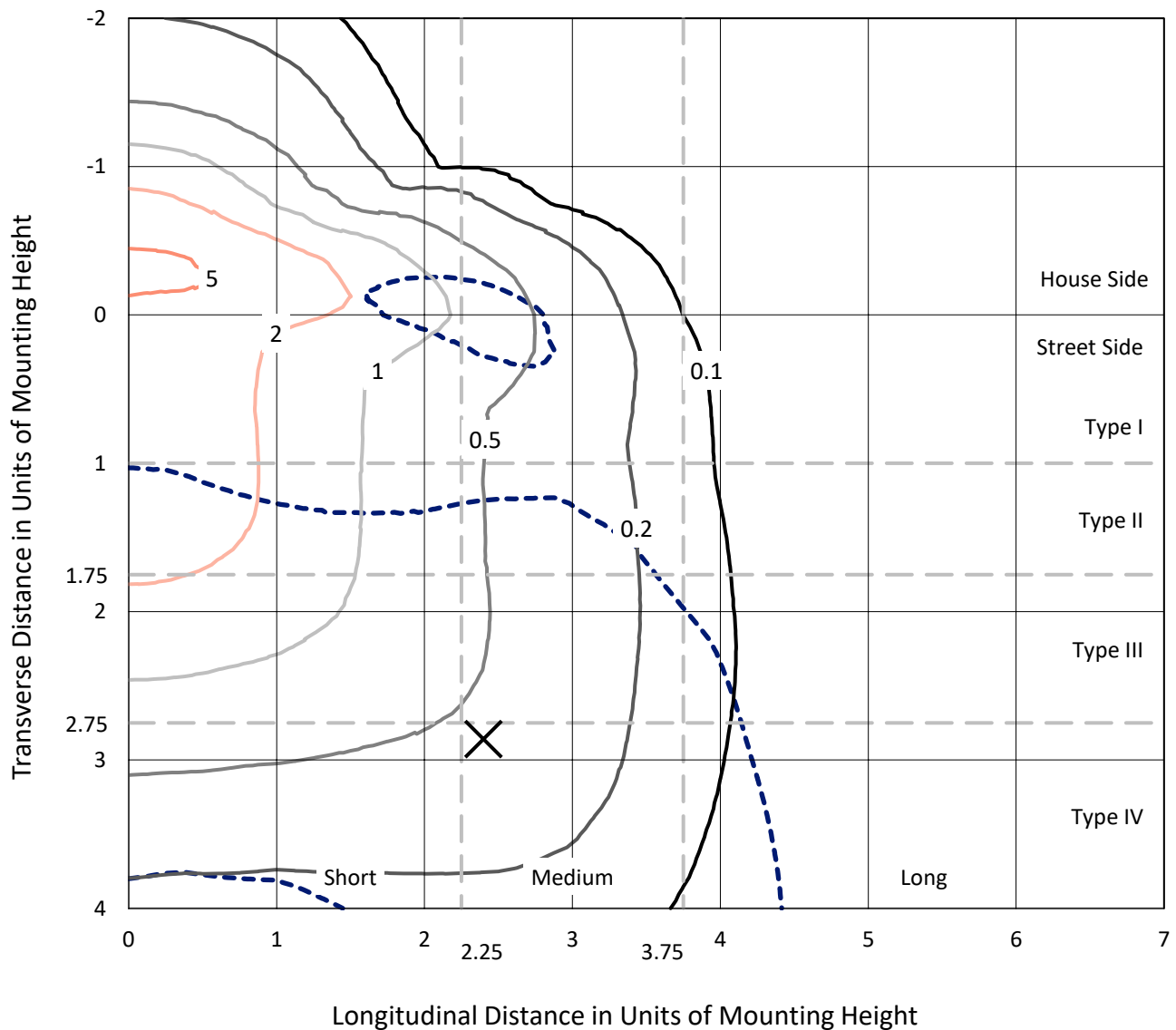


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Iso-Footcandle Lines of Horizontal Illumination

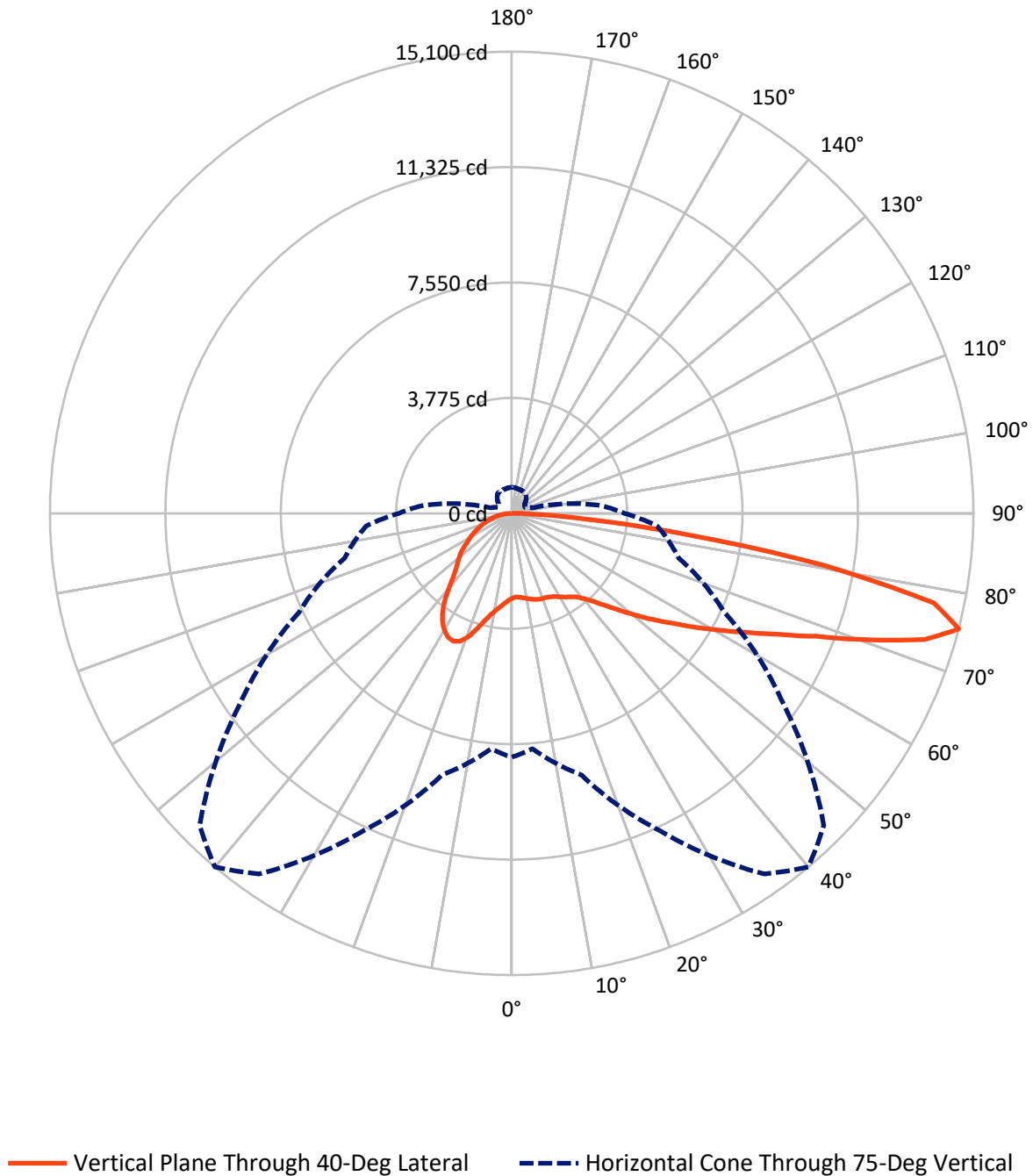
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 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	7516.5	0.0	7516.5
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	16743.2	0.0	16743.2
	% Fixture	69.0	0.0	69.0
Total	Lumens	24259.7	0.0	24259.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.9	1.1
10°-20°	929.7	3.8
20°-30°	1697.6	7.0
30°-40°	2407.6	9.9
40°-50°	3251.1	13.4
50°-60°	4373.5	18.0
60°-70°	5551.0	22.9
70°-80°	5037.9	20.8
80°-90°	734.4	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°	24259.7	100.0
0°-180°	24259.7	100.0

Coefficient of Utilization



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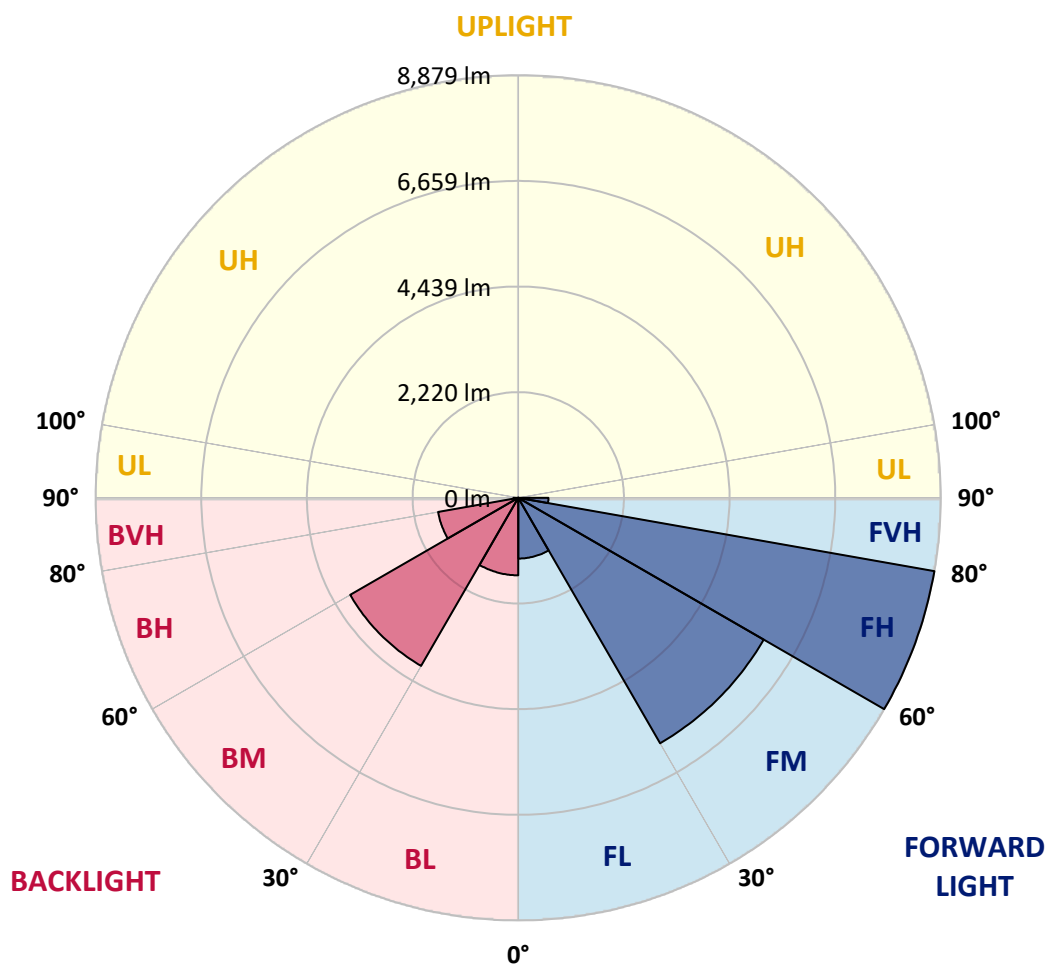
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1276.1	5.3			
FM	(30°-60°)	5955.2	24.5			
FH	(60°-80°)	8878.7	36.6			G4/12000
FVH	(80°-90°)	633.3	2.6			G4/750
BL	(0°-30°)	1628.1	6.7	B3/2500		
BM	(30°-60°)	4077.0	16.8	B3/5000		
BH	(60°-80°)	1710.2	7.0	B3/2500		G3/2500
BVH	(80°-90°)	101.1	0.4			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 IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2
2.5°	2731.6	2747.1	2743.2	2738.1	2738.1	2739.4	2738.1	2747.1	2756.1	2765.1	2779.3
5°	2760.0	2775.4	2767.7	2761.2	2756.1	2754.8	2751.0	2749.7	2754.8	2766.4	2785.7
7.5°	2815.3	2830.7	2819.2	2807.6	2797.3	2792.1	2787.0	2779.3	2775.4	2781.8	2808.9
10°	2877.1	2892.5	2878.3	2857.8	2841.0	2834.6	2829.4	2821.7	2816.6	2820.5	2850.0
12.5°	2938.8	2954.3	2935.0	2906.7	2884.8	2881.0	2874.5	2871.9	2870.6	2869.4	2898.9
15°	2996.7	3009.6	2985.1	2951.7	2928.5	2922.1	2915.7	2919.5	2926.0	2933.7	2967.2
17.5°	3041.8	3054.6	3018.6	2974.9	2953.0	2950.4	2946.6	2959.4	2977.4	2996.7	3037.9
20°	3082.9	3095.8	3049.5	2990.3	2964.6	2964.6	2965.8	2992.9	3018.6	3046.9	3103.5
22.5°	3140.8	3151.2	3094.5	3013.5	2976.2	2978.8	2989.0	3016.1	3048.2	3086.8	3165.3
25°	3227.0	3234.8	3165.3	3057.2	3014.7	3022.4	3031.4	3044.4	3075.2	3120.2	3225.8
27.5°	3366.0	3372.5	3281.1	3134.4	3070.1	3082.9	3095.8	3086.8	3100.9	3139.6	3274.7
30°	3561.6	3565.5	3449.6	3255.4	3164.0	3170.4	3173.0	3135.7	3108.7	3139.6	3309.4
32.5°	3793.2	3791.9	3654.2	3402.1	3270.8	3264.3	3242.5	3169.2	3106.1	3133.1	3340.3
35°	4152.2	4138.0	3960.5	3607.9	3391.7	3351.9	3300.4	3206.5	3119.0	3126.7	3367.3
37.5°	4746.7	4702.9	4457.1	3945.0	3571.9	3470.2	3394.3	3267.0	3147.3	3124.1	3399.5
40°	5417.0	5361.7	5091.5	4407.0	3842.1	3678.7	3556.4	3353.2	3193.6	3135.7	3447.1
42.5°	6212.2	6133.7	5842.9	4951.3	4184.4	3947.6	3763.6	3462.6	3261.8	3173.0	3511.4
45°	7188.8	7084.6	6672.9	5565.0	4615.4	4300.2	4054.4	3628.5	3366.0	3245.0	3607.9
47.5°	8175.7	8201.4	7616.0	6267.6	5132.7	4735.1	4418.6	3878.1	3517.8	3360.9	3763.6
50°	9224.4	9242.4	8554.0	7046.0	5719.4	5226.6	4827.8	4157.3	3728.8	3525.6	3996.5
52.5°	10042.7	10045.3	9405.8	7860.4	6330.6	5767.0	5269.0	4476.5	3973.3	3744.3	4306.6
55°	10554.8	10548.4	10002.8	8631.2	7033.1	6334.4	5758.0	4839.3	4271.9	4001.6	4696.4
57.5°	10926.7	10907.3	10414.6	9293.9	7782.0	7004.8	6311.2	5251.1	4624.4	4307.9	5209.9
60°	11068.3	11056.7	10693.8	9866.4	8569.4	7745.9	6949.5	5711.7	5024.5	4669.5	5870.0
62.5°	11122.3	11144.1	10967.8	10421.0	9412.3	8566.8	7650.7	6262.3	5474.9	5078.6	6566.0
65°	11312.7	11352.6	11316.5	11146.7	10364.4	9528.0	8581.0	6917.3	5966.4	5517.4	7293.0
67.5°	11689.7	11729.6	11745.1	12015.3	11527.6	10725.9	9741.6	7733.1	6541.5	5972.9	7839.9
70°	11680.7	11669.1	11941.9	12706.2	12984.1	12384.5	11306.3	8736.7	7227.4	6351.2	7909.3
72.5°	10632.0	10539.4	11184.0	12698.4	14196.1	14116.4	13217.0	10031.2	7819.3	6397.4	6863.3
75°	7976.2	7729.2	8868.0	11443.9	14398.2	15099.5	14431.7	10834.0	7679.0	5652.5	4776.2
77.5°	3411.1	3162.7	4504.8	8471.6	12886.3	14115.1	13317.3	9452.1	6129.8	3737.9	2345.6
80°	893.0	891.6	1361.3	3840.8	8763.8	10423.5	9144.6	6104.1	3502.4	1335.6	647.2
82.5°	369.3	360.3	500.5	1493.8	4282.1	5849.4	4773.6	2722.7	1264.8	361.5	214.8
85°	137.7	136.4	243.2	516.0	1510.5	2412.5	1746.1	696.1	315.3	176.3	96.5
87.5°	38.6	37.3	52.8	178.9	368.0	558.4	298.5	114.5	88.8	69.5	28.3
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°	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2	2774.2
2.5°	2783.2	2789.5	2801.1	2810.1	2821.7	2834.6	2852.6	2864.2	2875.7	2883.5	2878.3
5°	2794.8	2808.9	2838.4	2868.1	2902.8	2935.0	2972.3	2999.3	3021.2	3027.6	3030.2
7.5°	2820.5	2843.7	2893.8	2944.0	2999.3	3052.0	3106.1	3152.4	3189.7	3203.8	3205.2
10°	2865.5	2896.3	2967.2	3037.9	3111.3	3192.3	3261.8	3328.7	3381.5	3403.3	3404.6
12.5°	2922.1	2960.7	3053.4	3151.2	3252.7	3364.8	3454.8	3537.2	3602.8	3632.4	3632.4
15°	2995.5	3045.6	3164.0	3295.3	3444.5	3600.2	3714.7	3806.0	3879.4	3915.4	3912.8
17.5°	3075.2	3142.1	3291.4	3489.5	3703.1	3907.7	4041.6	4108.4	4184.4	4219.1	4217.8
20°	3152.4	3234.8	3448.4	3736.5	4021.0	4238.4	4346.5	4364.4	4369.7	4373.5	4383.8
22.5°	3232.2	3342.8	3645.2	4047.9	4352.9	4503.4	4518.9	4441.7	4333.6	4283.5	4297.6
25°	3319.7	3466.3	3902.6	4391.5	4638.5	4656.6	4538.2	4350.3	4145.7	4051.8	4066.0
27.5°	3404.6	3609.2	4211.4	4719.6	4844.5	4686.2	4431.4	4165.1	3918.0	3818.9	3830.5
30°	3489.5	3772.6	4552.3	5006.5	4938.3	4612.8	4262.9	3965.6	3717.3	3613.0	3624.6
32.5°	3575.7	3963.1	4944.8	5213.8	4921.6	4457.1	4053.2	3741.8	3523.0	3413.7	3427.8
35°	3673.5	4197.2	5316.7	5326.9	4809.7	4228.1	3776.5	3474.1	3283.7	3196.2	3215.4
37.5°	3800.9	4494.4	5644.8	5355.2	4614.1	3892.2	3432.9	3157.6	3000.6	2960.7	2989.0
40°	3959.2	4852.1	5895.7	5310.2	4324.6	3484.4	3057.2	2837.2	2748.4	2757.4	2788.3
42.5°	4165.1	5252.3	6071.9	5194.4	3921.9	3063.6	2727.8	2630.0	2672.5	2708.5	2742.0
45°	4432.7	5667.9	6181.4	4997.6	3466.3	2707.2	2533.5	2556.7	2588.8	2592.7	2618.5
47.5°	4775.0	6088.7	6253.3	4700.3	3001.9	2456.3	2410.0	2415.1	2408.8	2381.7	2402.3
50°	5202.2	6497.9	6317.7	4306.6	2606.9	2299.4	2237.6	2219.5	2130.8	2043.2	2054.8
52.5°	5688.5	6873.5	6344.7	3817.6	2299.4	2168.1	2067.7	1954.5	1788.5	1761.5	1770.5
55°	6228.9	7220.9	6275.3	3216.8	2040.7	1999.6	1847.7	1711.3	1693.3	1670.1	1674.0
57.5°	6874.9	7595.4	6133.7	2546.4	1775.6	1802.7	1654.7	1670.1	1637.9	1602.0	1595.5
60°	7581.2	7982.7	5885.3	1935.2	1501.6	1556.9	1604.5	1603.2	1594.2	1564.7	1554.3
62.5°	8216.9	8237.5	5396.4	1482.3	1261.0	1366.4	1496.4	1495.2	1487.4	1470.7	1464.3
65°	8595.1	8198.9	4580.6	1167.1	1062.8	1209.5	1349.7	1360.1	1361.3	1360.1	1360.1
67.5°	8528.3	7747.3	3461.2	929.0	899.4	1049.9	1204.4	1218.5	1228.8	1231.3	1234.0
70°	7771.7	6755.2	2256.8	741.2	754.0	909.7	1066.7	1080.9	1089.9	1100.1	1105.3
72.5°	6057.7	4966.6	1291.8	599.6	626.6	788.7	930.3	947.0	952.1	971.5	979.2
75°	3691.5	2920.8	697.4	472.2	514.7	674.2	795.2	814.5	823.5	846.6	849.2
77.5°	1755.1	1264.8	397.6	368.0	414.3	550.7	671.7	693.5	669.1	681.9	671.7
80°	593.2	469.7	250.9	280.5	316.5	429.8	537.8	559.8	508.3	505.6	500.5
82.5°	207.2	190.4	159.6	186.5	204.6	307.5	406.6	434.9	378.3	377.0	359.0
85°	81.1	77.2	88.8	101.7	122.3	189.1	267.6	281.8	232.9	187.9	185.3
87.5°	16.7	18.0	21.8	23.2	37.3	65.6	96.5	118.4	93.9	79.7	73.4
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)