

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: P966142

Luminaire Tested: **NAV-SB4B-735-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966142
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-735-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 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: 22930.3 lumens
Efficiency: N/A
Efficacy: 156.0 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

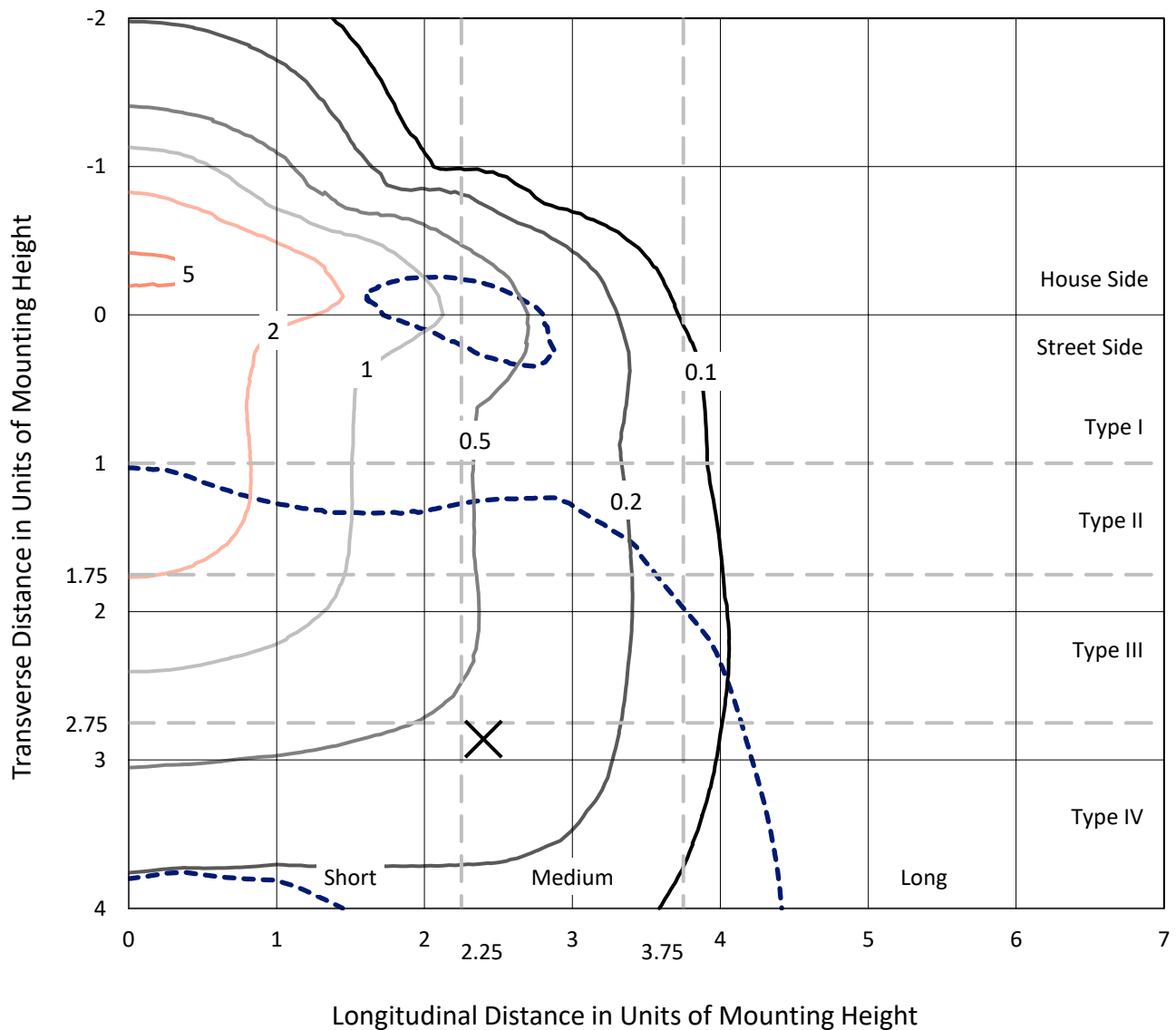


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Iso-Footcandle Lines of Horizontal Illumination

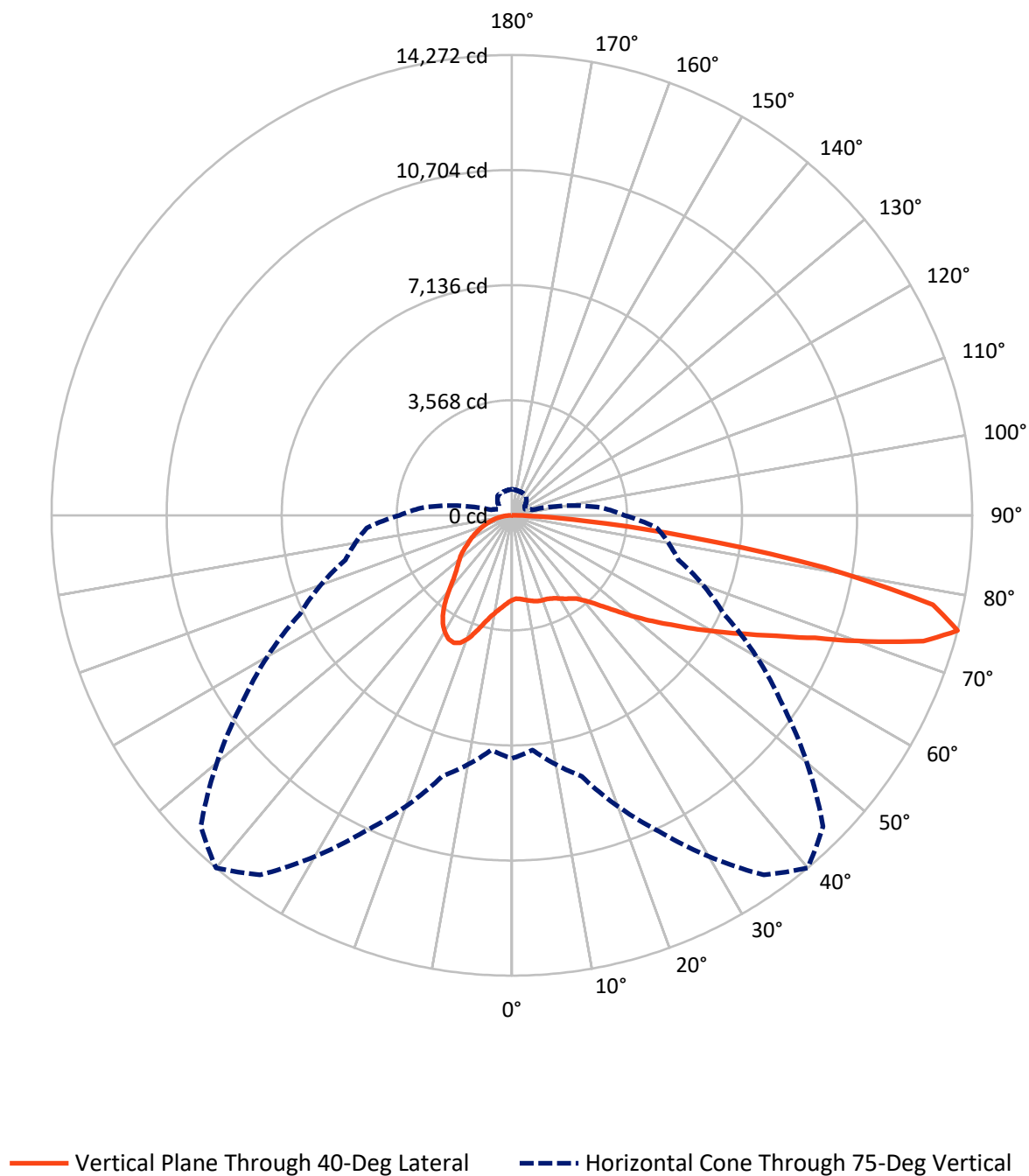
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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	7104.6	0.0	7104.6
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	15825.7	0.0	15825.7
	% Fixture	69.0	0.0	69.0
Total	Lumens	22930.3	0.0	22930.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.7	1.1
10°-20°	878.8	3.8
20°-30°	1604.6	7.0
30°-40°	2275.7	9.9
40°-50°	3072.9	13.4
50°-60°	4133.9	18.0
60°-70°	5246.8	22.9
70°-80°	4761.8	20.8
80°-90°	694.1	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°	22930.3	100.0
0°-180°	22930.3	100.0

Coefficient of Utilization



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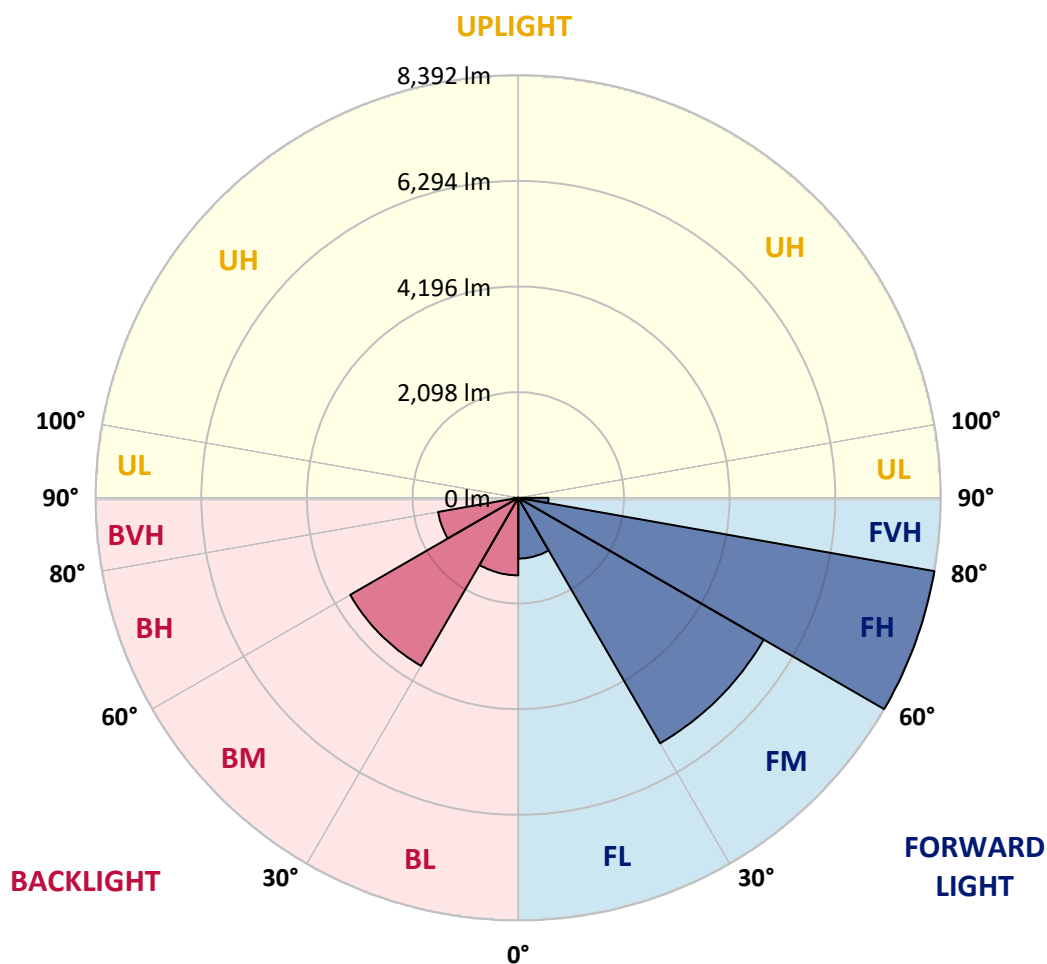
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1206.2	5.3			
FM	(30°-60°)	5628.9	24.5			
FH	(60°-80°)	8392.1	36.6			G4/12000
FVH	(80°-90°)	598.6	2.6			G4/750
BL	(0°-30°)	1538.9	6.7	B3/2500		
BM	(30°-60°)	3853.6	16.8	B3/5000		
BH	(60°-80°)	1616.5	7.0	B3/2500		G3/2500
BVH	(80°-90°)	95.6	0.4			G1/100
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°	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2
2.5°	2582.0	2596.5	2592.9	2588.0	2588.0	2589.3	2588.0	2596.5	2605.0	2613.5	2627.0
5°	2608.7	2623.3	2616.0	2610.0	2605.0	2603.9	2600.2	2599.0	2603.9	2614.8	2633.0
7.5°	2661.0	2675.7	2664.7	2653.7	2644.0	2639.2	2634.2	2627.0	2623.3	2629.4	2655.0
10°	2719.4	2734.0	2720.7	2701.2	2685.4	2679.2	2674.4	2667.2	2662.2	2665.9	2693.9
12.5°	2777.7	2792.4	2774.2	2747.4	2726.7	2723.0	2717.0	2714.5	2713.3	2712.1	2740.0
15°	2832.5	2844.7	2821.5	2789.9	2768.0	2762.0	2755.9	2759.5	2765.7	2772.9	2804.5
17.5°	2875.1	2887.2	2853.2	2811.9	2791.2	2788.7	2785.0	2797.2	2814.2	2832.5	2871.4
20°	2914.0	2926.2	2882.4	2826.4	2802.1	2802.1	2803.3	2828.9	2853.2	2879.9	2933.4
22.5°	2968.7	2978.4	2924.9	2848.3	2813.0	2815.5	2825.2	2850.7	2881.2	2917.7	2991.9
25°	3050.2	3057.5	2991.9	2889.7	2849.5	2856.9	2865.4	2877.5	2906.7	2949.2	3049.0
27.5°	3181.6	3187.6	3101.2	2962.7	2901.9	2914.0	2926.2	2917.7	2931.0	2967.5	3095.2
30°	3366.4	3370.1	3260.6	3076.9	2990.6	2996.7	2999.1	2963.9	2938.4	2967.5	3128.0
32.5°	3585.3	3584.1	3453.9	3215.6	3091.6	3085.5	3064.7	2995.5	2935.9	2961.4	3157.2
35°	3924.6	3911.3	3743.4	3410.2	3205.9	3168.2	3119.5	3030.7	2948.0	2955.4	3182.7
37.5°	4486.5	4445.2	4212.9	3728.8	3376.1	3280.1	3208.4	3087.9	2974.8	2952.9	3213.2
40°	5120.2	5067.9	4812.5	4165.5	3631.6	3477.1	3361.6	3169.4	3018.6	2963.9	3258.2
42.5°	5871.8	5797.6	5522.7	4679.9	3955.1	3731.3	3557.4	3272.7	3083.0	2999.1	3319.0
45°	6794.8	6696.3	6307.1	5260.0	4362.5	4064.5	3832.2	3429.6	3181.6	3067.2	3410.2
47.5°	7727.7	7752.0	7198.7	5924.1	4851.4	4475.6	4176.4	3665.6	3325.1	3176.7	3557.4
50°	8718.9	8735.9	8085.2	6659.8	5406.0	4940.2	4563.2	3929.5	3524.6	3332.4	3777.5
52.5°	9492.3	9494.8	8890.3	7429.7	5983.6	5451.0	4980.3	4231.1	3755.6	3539.1	4070.6
55°	9976.4	9970.4	9454.7	8158.2	6647.7	5987.3	5442.4	4574.1	4037.8	3782.4	4439.1
57.5°	10327.9	10309.7	9843.9	8784.6	7355.5	6621.0	5965.4	4963.3	4371.0	4071.8	4924.4
60°	10461.7	10450.7	10107.7	9325.8	8099.9	7321.5	6568.6	5398.7	4749.2	4413.5	5548.2
62.5°	10512.7	10533.4	10366.8	9849.9	8896.4	8097.4	7231.5	5919.2	5174.9	4800.3	6206.3
65°	10692.8	10730.4	10696.4	10535.9	9796.4	9005.9	8110.8	6538.3	5639.4	5215.0	6893.3
67.5°	11049.1	11086.8	11101.4	11356.8	10895.9	10138.2	9207.8	7309.3	6183.1	5645.6	7410.2
70°	11040.6	11029.6	11287.5	12009.9	12272.6	11705.8	10686.6	8257.9	6831.3	6003.1	7475.9
72.5°	10049.4	9961.8	10571.1	12002.5	13418.3	13342.8	12492.7	9481.5	7390.8	6046.9	6487.1
75°	7539.2	7305.7	8381.9	10816.8	13609.1	14272.0	13640.8	10240.4	7258.2	5342.7	4514.5
77.5°	3224.1	2989.4	4257.8	8007.4	12180.2	13341.6	12587.6	8934.1	5793.9	3533.1	2217.1
80°	844.1	842.9	1286.7	3630.3	8283.4	9852.4	8643.5	5769.6	3310.4	1262.4	611.7
82.5°	349.0	340.5	473.1	1412.0	4047.5	5528.8	4512.0	2573.5	1195.6	341.7	203.2
85°	130.2	128.9	229.9	487.7	1427.8	2280.3	1650.4	657.9	298.0	166.7	91.2
87.5°	36.5	35.3	49.8	169.0	347.8	527.9	282.2	108.2	83.9	65.7	26.8
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°	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2	2622.2
2.5°	2630.7	2636.7	2647.7	2656.2	2667.2	2679.2	2696.3	2707.2	2718.2	2725.5	2720.7
5°	2641.5	2655.0	2682.9	2710.9	2743.7	2774.2	2809.4	2834.9	2855.6	2861.7	2864.2
7.5°	2665.9	2687.8	2735.2	2782.7	2834.9	2884.8	2935.9	2979.7	3014.9	3028.4	3029.5
10°	2708.5	2737.7	2804.5	2871.4	2940.7	3017.4	3083.0	3146.2	3196.2	3216.9	3218.1
12.5°	2762.0	2798.5	2886.0	2978.4	3074.5	3180.4	3265.4	3343.3	3405.4	3433.3	3433.3
15°	2831.3	2878.7	2990.6	3114.7	3255.7	3402.9	3511.1	3597.4	3666.8	3700.9	3698.4
17.5°	2906.7	2969.9	3111.0	3298.3	3500.2	3693.6	3820.1	3883.3	3955.1	3987.9	3986.6
20°	2979.7	3057.5	3259.4	3531.8	3800.6	4006.1	4108.3	4125.3	4130.1	4133.8	4143.6
22.5°	3055.1	3159.7	3445.4	3826.1	4114.3	4256.6	4271.3	4198.3	4096.1	4048.7	4062.1
25°	3137.7	3276.4	3688.7	4150.8	4384.3	4401.3	4289.5	4112.0	3918.6	3829.8	3843.1
27.5°	3218.1	3411.4	3980.6	4461.0	4579.0	4429.3	4188.6	3936.8	3703.3	3609.6	3620.6
30°	3298.3	3565.9	4302.8	4732.2	4667.7	4360.0	4029.3	3748.3	3513.6	3415.1	3426.0
32.5°	3379.8	3745.9	4673.8	4928.0	4652.0	4212.9	3831.0	3536.7	3329.9	3226.6	3239.9
35°	3472.2	3967.3	5025.3	5035.0	4546.1	3996.4	3569.6	3283.7	3103.7	3021.0	3039.2
37.5°	3592.6	4248.1	5335.4	5061.8	4361.3	3678.9	3244.8	2984.5	2836.2	2798.5	2825.2
40°	3742.2	4586.3	5572.6	5019.2	4087.6	3293.4	2889.7	2681.7	2597.8	2606.3	2635.5
42.5°	3936.8	4964.5	5739.2	4909.8	3706.9	2895.7	2578.3	2485.9	2526.0	2560.0	2591.7
45°	4189.8	5357.4	5842.6	4723.7	3276.4	2558.9	2394.7	2416.5	2447.0	2450.7	2475.0
47.5°	4513.3	5755.0	5910.7	4442.8	2837.4	2321.7	2278.0	2282.8	2276.7	2251.2	2270.6
50°	4917.0	6141.8	5971.5	4070.6	2464.0	2173.3	2115.0	2098.0	2014.0	1931.3	1942.3
52.5°	5376.7	6496.9	5997.1	3608.4	2173.3	2049.3	1954.4	1847.4	1690.5	1665.0	1673.5
55°	5887.6	6825.3	5931.4	3040.5	1928.8	1890.0	1746.5	1617.6	1600.5	1578.6	1582.3
57.5°	6498.1	7179.2	5797.6	2406.8	1678.3	1703.9	1564.0	1578.6	1548.2	1514.1	1508.1
60°	7165.8	7545.2	5562.9	1829.1	1419.3	1471.6	1516.6	1515.4	1506.9	1478.9	1469.1
62.5°	7766.6	7786.1	5100.7	1401.1	1191.9	1291.6	1414.4	1413.2	1405.9	1390.1	1384.1
65°	8124.2	7749.6	4329.6	1103.1	1004.6	1143.2	1275.8	1285.6	1286.7	1285.6	1285.6
67.5°	8060.9	7322.7	3271.6	878.1	850.1	992.4	1138.4	1151.7	1161.4	1163.9	1166.3
70°	7345.8	6385.0	2133.2	700.5	712.7	859.9	1008.2	1021.6	1030.1	1039.9	1044.7
72.5°	5725.9	4694.5	1221.1	566.7	592.2	745.5	879.3	895.1	900.0	918.2	925.5
75°	3489.2	2760.7	659.2	446.4	486.5	637.2	751.6	769.9	778.4	800.2	802.7
77.5°	1658.9	1195.6	375.8	347.8	391.7	520.5	634.9	655.5	632.4	644.6	634.9
80°	560.7	443.9	237.2	265.2	299.2	406.2	508.4	529.0	480.4	478.0	473.1
82.5°	195.8	180.0	150.8	176.3	193.4	290.7	384.3	411.0	357.5	356.4	339.3
85°	76.7	73.0	83.9	96.0	115.5	178.8	253.0	266.3	220.2	177.5	175.2
87.5°	15.8	17.0	20.7	21.9	35.3	62.0	91.2	111.9	88.8	75.4	69.3
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)