

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: P966328

Luminaire Tested: **NAV-SB4B-835-U-SL4**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966328
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-835-U-SL4
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 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: 21268.7 lumens
Efficiency: N/A
Efficacy: 144.7 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



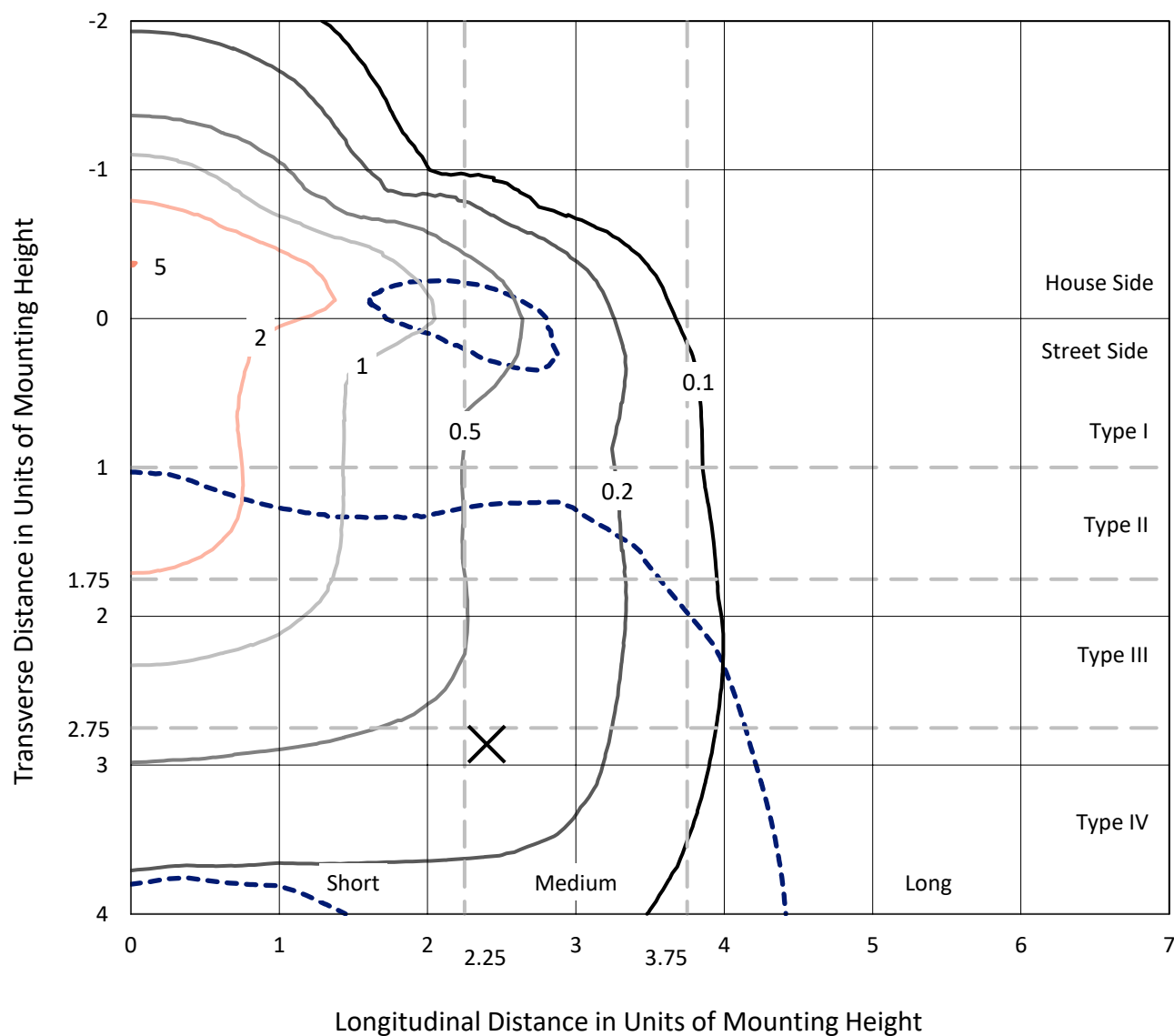
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

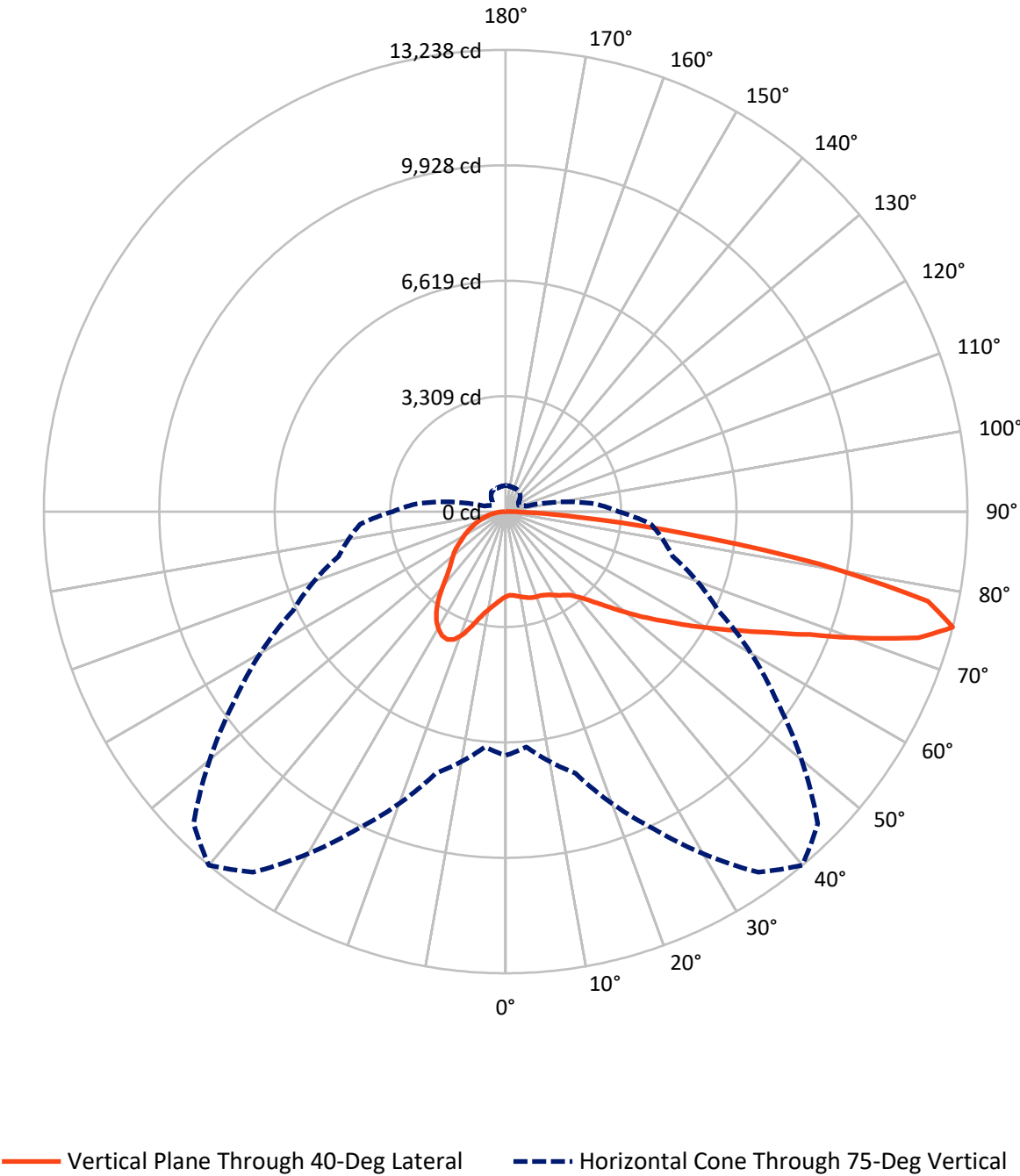
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 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	6589.8	0.0	6589.8
	% Fixture	31.0	0.0	31.0
Street Side	Lumens	14679.0	0.0	14679.0
	% Fixture	69.0	0.0	69.0
Total	Lumens	21268.7	0.0	21268.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.8	1.1
10°-20°	815.1	3.8
20°-30°	1488.3	7.0
30°-40°	2110.8	9.9
40°-50°	2850.2	13.4
50°-60°	3834.3	18.0
60°-70°	4866.6	22.9
70°-80°	4416.8	20.8
80°-90°	643.8	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°	21268.7	100.0
0°-180°	21268.7	100.0

Coefficient of Utilization



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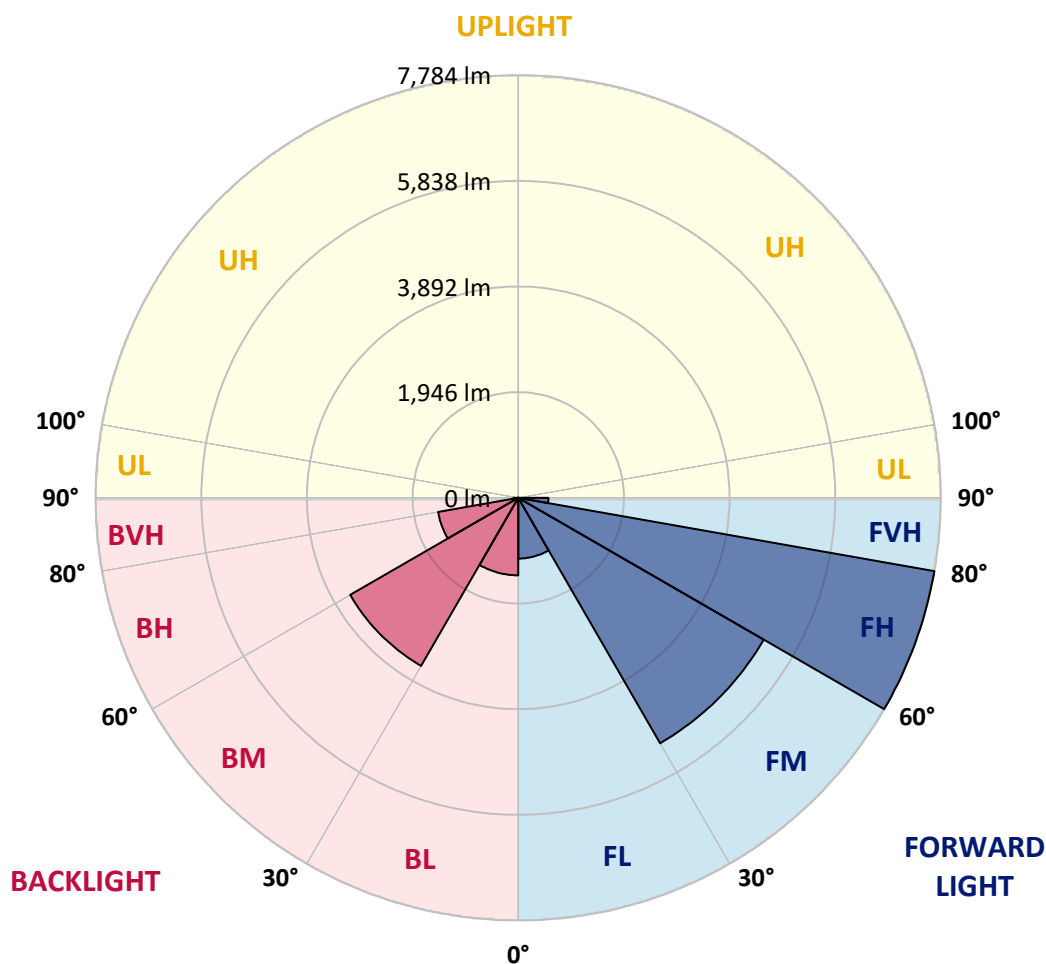
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1118.8	5.3			
FM	(30°-60°)	5221.0	24.5			
FH	(60°-80°)	7784.0	36.6			G4/12000
FVH	(80°-90°)	555.2	2.6			G4/750
BL	(0°-30°)	1427.4	6.7	B3/2500		
BM	(30°-60°)	3574.4	16.8	B3/5000		
BH	(60°-80°)	1499.4	7.0	B3/2500		G3/2500
BVH	(80°-90°)	88.6	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°	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1
2.5°	2394.9	2408.4	2405.1	2400.5	2400.5	2401.7	2400.5	2408.4	2416.3	2424.2	2436.6
5°	2419.7	2433.2	2426.5	2420.8	2416.3	2415.2	2411.8	2410.7	2415.2	2425.4	2442.3
7.5°	2468.2	2481.7	2471.6	2461.4	2452.4	2447.9	2443.4	2436.6	2433.2	2438.9	2462.6
10°	2522.3	2535.8	2523.4	2505.4	2490.8	2485.1	2480.6	2473.8	2469.3	2472.7	2498.6
12.5°	2576.5	2590.1	2573.2	2548.3	2529.1	2525.7	2520.1	2517.8	2516.7	2515.6	2541.5
15°	2627.3	2638.6	2617.1	2587.8	2567.5	2561.9	2556.2	2559.6	2565.3	2572.0	2601.3
17.5°	2666.7	2678.0	2646.4	2608.1	2588.9	2586.7	2583.3	2594.6	2610.4	2627.3	2663.4
20°	2702.8	2714.1	2673.5	2621.6	2599.1	2599.1	2600.2	2623.9	2646.4	2671.3	2720.9
22.5°	2753.6	2762.7	2713.0	2641.9	2609.2	2611.5	2620.5	2644.2	2672.4	2706.2	2775.1
25°	2829.2	2836.0	2775.1	2680.3	2643.1	2649.8	2657.7	2669.0	2696.1	2735.5	2828.1
27.5°	2951.0	2956.6	2876.6	2747.9	2691.5	2702.8	2714.1	2706.2	2718.6	2752.4	2870.9
30°	3122.5	3125.8	3024.4	2854.0	2774.0	2779.6	2781.8	2749.0	2725.4	2752.4	2901.4
32.5°	3325.5	3324.4	3203.7	2982.6	2867.5	2861.9	2842.7	2778.5	2723.1	2746.8	2928.4
35°	3640.3	3627.9	3472.2	3163.0	2973.6	2938.6	2893.5	2811.2	2734.4	2741.2	2952.1
37.5°	4161.4	4123.1	3907.6	3458.7	3131.5	3042.4	2975.9	2864.2	2759.3	2738.9	2980.4
40°	4749.1	4700.6	4463.8	3863.6	3368.4	3225.2	3117.9	2939.7	2799.9	2749.0	3022.1
42.5°	5446.3	5377.5	5122.5	4340.8	3668.5	3460.9	3299.6	3035.6	2859.6	2781.8	3078.5
45°	6302.5	6211.1	5850.2	4878.9	4046.4	3770.0	3554.5	3181.2	2951.0	2845.0	3163.0
47.5°	7167.7	7190.3	6677.1	5494.8	4499.9	4151.2	3873.8	3400.0	3084.1	2946.5	3299.6
50°	8087.1	8102.9	7499.4	6177.3	5014.3	4582.2	4232.5	3644.8	3269.1	3090.9	3503.8
52.5°	8804.5	8806.8	8246.1	6891.4	5550.1	5056.0	4619.5	3924.5	3483.5	3282.7	3775.6
55°	9253.5	9247.9	8769.6	7567.1	6166.0	5553.4	5048.1	4242.7	3745.1	3508.3	4117.4
57.5°	9579.5	9562.6	9130.6	8148.0	6822.5	6141.2	5533.2	4603.7	4054.3	3776.7	4567.5
60°	9703.6	9693.4	9375.4	8650.0	7512.9	6790.9	6092.7	5007.5	4405.1	4093.7	5146.2
62.5°	9751.0	9770.2	9615.6	9136.2	8251.8	7510.7	6707.5	5490.3	4799.9	4452.5	5756.5
65°	9918.0	9953.0	9921.4	9772.5	9086.5	8353.3	7523.1	6064.5	5230.9	4837.2	6393.8
67.5°	10248.5	10283.4	10296.9	10533.9	10106.3	9403.6	8540.6	6779.7	5735.1	5236.5	6873.3
70°	10240.6	10230.4	10469.6	11139.7	11383.3	10857.6	9912.4	7659.5	6336.3	5568.1	6934.2
72.5°	9321.2	9240.0	9805.2	11132.8	12446.0	12376.1	11587.5	8794.4	6855.3	5608.7	6017.1
75°	6992.9	6776.3	7774.6	10033.0	12623.1	13237.9	12652.4	9498.3	6732.3	4955.6	4187.3
77.5°	2990.5	2772.8	3949.3	7427.2	11297.6	12374.9	11675.5	8286.8	5374.1	3277.0	2056.5
80°	782.9	781.8	1193.5	3367.2	7683.3	9138.5	8017.1	5351.5	3070.6	1171.0	567.4
82.5°	323.8	315.9	438.8	1309.6	3754.2	5128.2	4185.1	2387.0	1108.8	317.0	188.4
85°	120.7	119.6	213.2	452.3	1324.3	2115.1	1530.7	610.3	276.3	154.6	84.6
87.5°	33.8	32.7	46.2	156.8	322.7	489.5	261.7	100.3	77.8	60.9	24.8
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°	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1	2432.1
2.5°	2440.0	2445.6	2455.8	2463.7	2473.8	2485.1	2500.9	2511.0	2521.2	2528.0	2523.4
5°	2450.2	2462.6	2488.5	2514.4	2544.9	2573.2	2605.9	2629.5	2648.7	2654.3	2656.6
7.5°	2472.7	2493.0	2537.0	2581.1	2629.5	2675.8	2723.1	2763.8	2796.5	2808.9	2810.0
10°	2512.2	2539.2	2601.3	2663.4	2727.6	2798.8	2859.6	2918.3	2964.6	2983.8	2984.9
12.5°	2561.9	2595.7	2676.9	2762.7	2851.8	2949.8	3028.9	3101.0	3158.5	3184.6	3184.6
15°	2626.2	2670.1	2774.0	2889.0	3019.9	3156.3	3256.7	3336.8	3401.2	3432.7	3430.5
17.5°	2696.1	2754.7	2885.6	3059.3	3246.6	3426.0	3543.2	3602.0	3668.5	3698.9	3697.8
20°	2763.8	2836.0	3023.2	3275.9	3525.2	3715.8	3810.6	3826.4	3830.9	3834.3	3843.3
22.5°	2833.7	2930.7	3195.8	3548.9	3816.3	3948.2	3961.7	3894.1	3799.4	3755.3	3767.7
25°	2910.4	3039.0	3421.4	3850.1	4066.7	4082.5	3978.6	3814.0	3634.6	3552.2	3564.6
27.5°	2984.9	3164.2	3692.2	4137.7	4247.2	4108.4	3885.1	3651.6	3435.0	3348.1	3358.2
30°	3059.3	3307.5	3991.1	4389.3	4329.5	4044.1	3737.3	3476.7	3259.0	3167.7	3177.8
32.5°	3134.9	3474.4	4335.1	4570.9	4314.8	3907.6	3553.4	3280.4	3088.6	2992.8	3005.2
35°	3220.7	3679.7	4661.2	4670.2	4216.7	3706.8	3310.9	3045.8	2878.8	2802.1	2819.1
37.5°	3332.3	3940.3	4948.8	4695.0	4045.3	3412.4	3009.7	2768.3	2630.7	2595.7	2620.5
40°	3471.1	4254.0	5168.8	4655.5	3791.5	3054.8	2680.3	2487.4	2409.6	2417.5	2444.5
42.5°	3651.6	4604.8	5323.3	4554.0	3438.4	2685.9	2391.5	2305.7	2342.9	2374.6	2403.9
45°	3886.2	4969.1	5419.3	4381.4	3039.0	2373.5	2221.2	2241.5	2269.7	2273.0	2295.6
47.5°	4186.2	5338.0	5482.4	4120.8	2631.8	2153.5	2112.8	2117.3	2111.7	2088.0	2106.1
50°	4560.7	5696.7	5538.8	3775.6	2285.4	2015.9	1961.7	1946.0	1868.1	1791.4	1801.5
52.5°	4987.1	6026.1	5562.5	3346.9	2015.9	1900.8	1812.8	1713.5	1568.0	1544.4	1552.3
55°	5461.0	6330.7	5501.6	2820.2	1789.1	1753.1	1619.9	1500.3	1484.5	1464.2	1467.6
57.5°	6027.2	6659.0	5377.5	2232.4	1556.8	1580.4	1450.7	1464.2	1436.0	1404.5	1398.8
60°	6646.6	6998.5	5159.7	1696.6	1316.4	1365.0	1406.7	1405.6	1397.7	1371.8	1362.7
62.5°	7203.8	7221.8	4731.1	1299.5	1105.5	1198.0	1311.9	1310.8	1304.0	1289.3	1283.7
65°	7535.5	7188.0	4016.0	1023.2	931.8	1060.4	1183.4	1192.4	1193.5	1192.4	1192.4
67.5°	7476.9	6792.1	3034.5	814.5	788.5	920.6	1055.9	1068.3	1077.3	1079.5	1081.8
70°	6813.5	5922.3	1978.7	649.7	661.0	797.6	935.2	947.6	955.5	964.5	969.0
72.5°	5310.9	4354.3	1132.6	525.7	549.4	691.5	815.6	830.2	834.8	851.7	858.4
75°	3236.4	2560.8	611.4	414.0	451.2	591.1	697.1	714.0	722.0	742.3	744.6
77.5°	1538.7	1108.8	348.6	322.7	363.3	482.8	588.9	608.0	586.6	597.9	588.9
80°	520.1	411.7	220.0	245.9	277.5	376.8	471.5	490.7	445.6	443.3	438.8
82.5°	181.6	167.0	139.9	163.6	179.4	269.6	356.5	381.3	331.7	330.6	314.8
85°	71.0	67.6	77.8	89.1	107.2	165.8	234.6	247.0	204.2	164.7	162.5
87.5°	14.7	15.8	19.2	20.3	32.7	57.5	84.6	103.8	82.3	69.9	64.3
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)