

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: P196528

Luminaire Tested: **NAV-AF-04-D-UNV-RW-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196528  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-04-D-UNV-RW-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24112.4 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G4

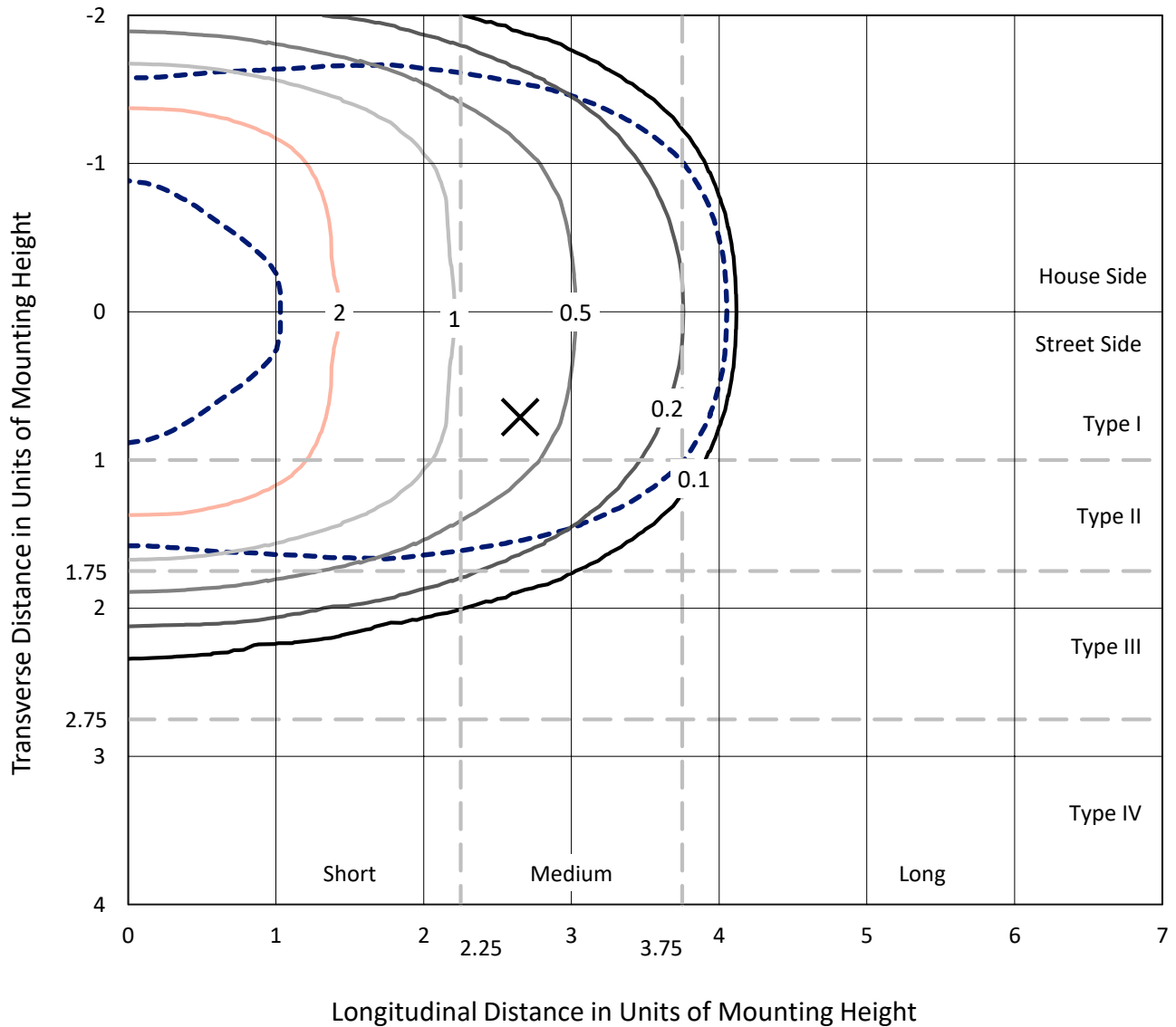
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196528  
 CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

### Iso-Footcandle Lines of Horizontal Illumination

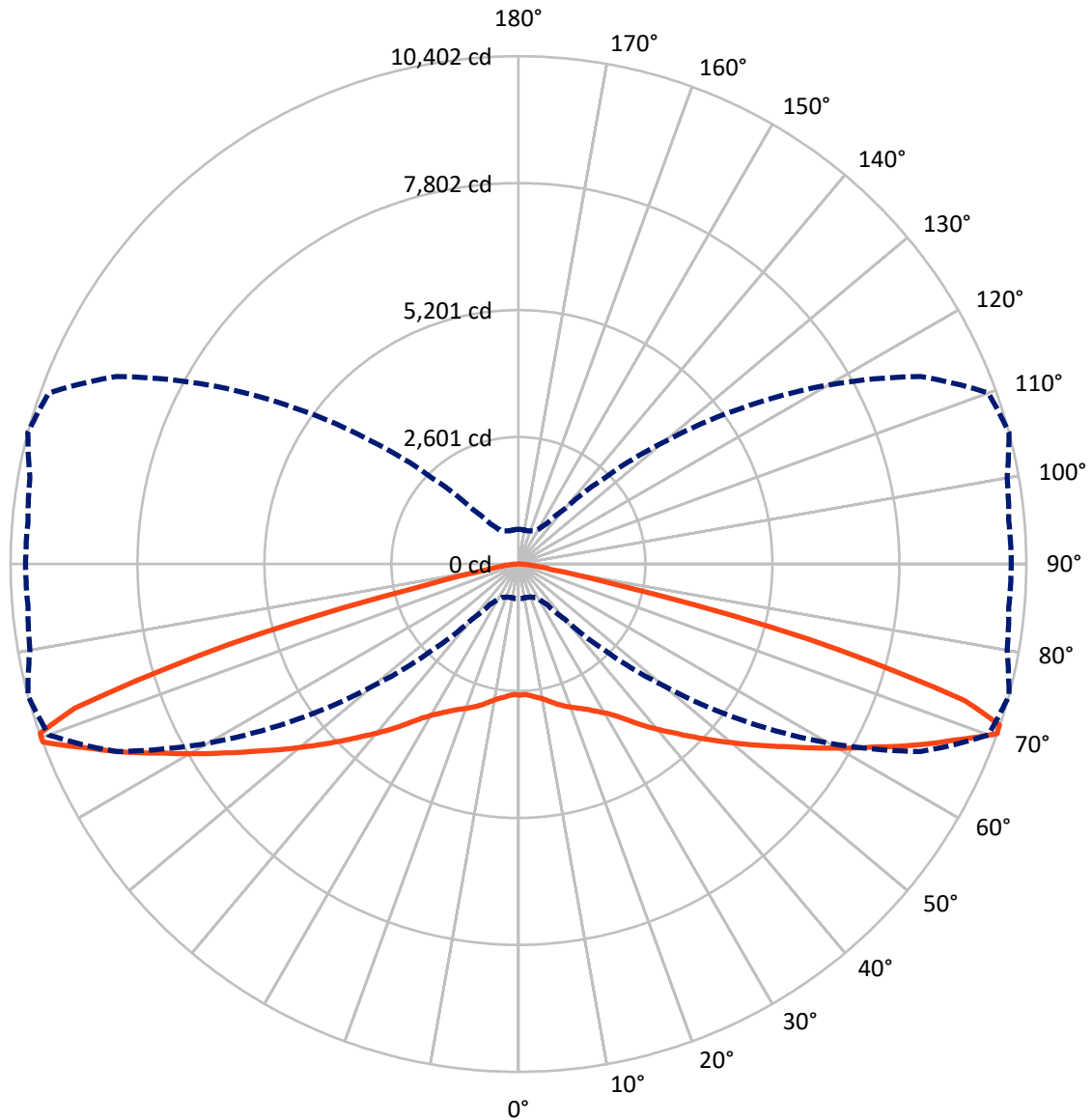
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P196528  
CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P196528

CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12056.2	0.0	12056.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12056.2	0.0	12056.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24112.4	0.0	24112.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.6	1.1
10°-20°	798.8	3.3
20°-30°	1500.2	6.2
30°-40°	2642.7	11.0
40°-50°	4379.8	18.2
50°-60°	6092.9	25.3
60°-70°	5751.8	23.9
70°-80°	2456.6	10.2
80°-90°	232.1	1.0
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°	24112.4	100.0
0°-180°	24112.4	100.0



REPORT NUMBER: P196528

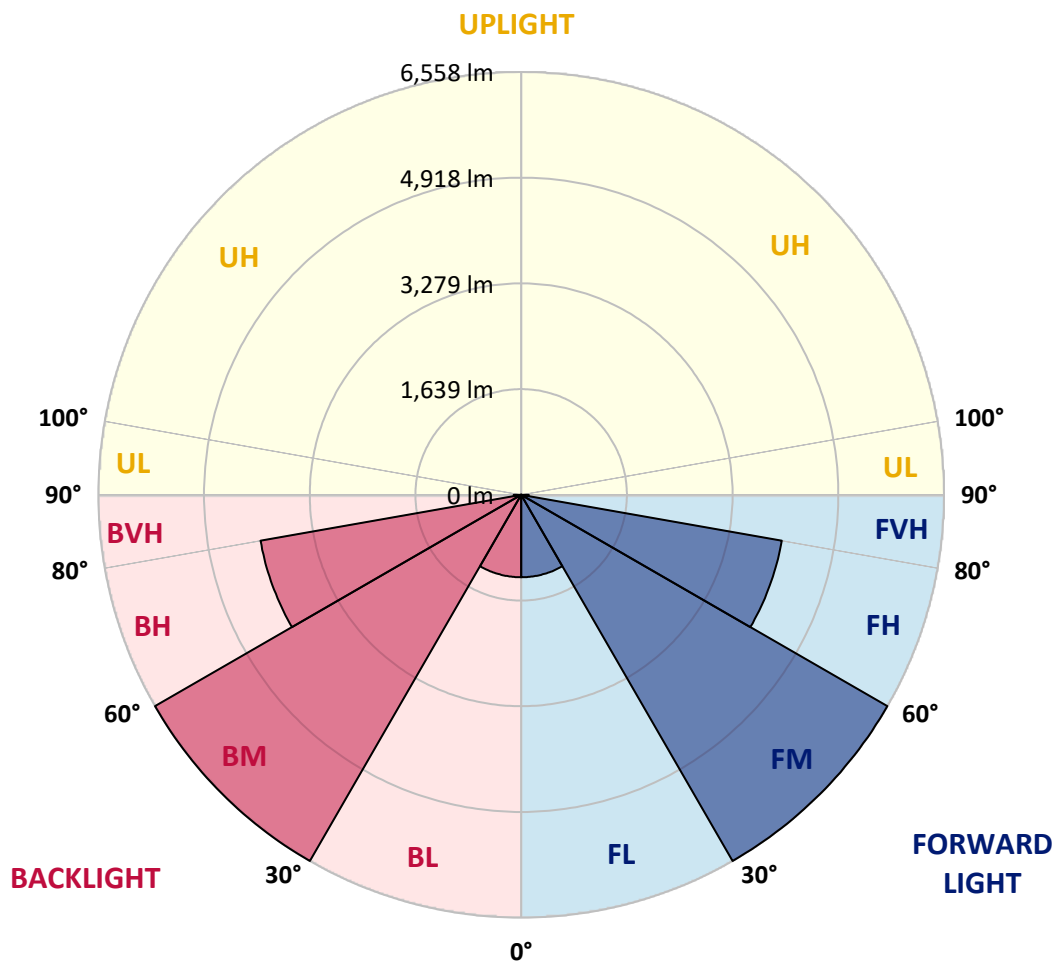
CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1278.3	5.3			
FM	(30°-60°)	6557.6	27.2			
FH	(60°-80°)	4104.2	17.0			G2/5000
FVH	(80°-90°)	116.1	0.5			G2/225
BL	(0°-30°)	1278.3	5.3	B3/2500		
BM	(30°-60°)	6557.6	27.2	B4/8500		
BH	(60°-80°)	4104.2	17.0	B4/5000		G4/5000
BVH	(80°-90°)	116.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Medium





REPORT NUMBER: P196528

CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1
2.5°	2701.8	2700.3	2701.8	2697.3	2698.7	2697.3	2697.3	2691.2	2691.2	2688.3	2683.6
5°	2671.6	2674.5	2674.5	2674.5	2679.1	2679.1	2685.1	2686.6	2691.2	2695.8	2698.7
7.5°	2621.6	2623.2	2627.6	2630.8	2639.8	2651.9	2664.0	2677.6	2689.6	2704.8	2721.4
10°	2579.4	2582.5	2590.0	2597.5	2614.1	2629.3	2650.4	2671.6	2692.7	2718.4	2744.0
12.5°	2556.6	2561.2	2573.4	2585.4	2611.1	2630.8	2659.5	2692.7	2721.4	2745.5	2774.3
15°	2559.7	2561.2	2577.9	2594.5	2630.8	2658.0	2698.7	2738.0	2772.8	2800.0	2833.2
17.5°	2603.5	2606.6	2623.2	2647.4	2682.1	2716.8	2760.7	2801.5	2848.4	2880.1	2919.4
20°	2689.6	2694.3	2712.4	2738.0	2775.8	2812.2	2857.4	2899.7	2948.1	2985.8	3025.2
22.5°	2801.5	2809.0	2828.7	2860.4	2898.2	2942.1	2988.9	3032.7	3078.1	3115.8	3149.1
25°	2951.1	2960.2	2981.3	3013.1	3050.8	3097.7	3146.0	3191.4	3238.2	3267.0	3294.0
27.5°	3152.0	3167.2	3189.9	3215.5	3248.9	3298.6	3344.0	3381.8	3427.1	3458.8	3476.9
30°	3422.5	3443.8	3461.9	3489.0	3513.2	3566.1	3602.4	3632.6	3667.4	3685.5	3690.0
32.5°	3753.5	3773.2	3791.3	3810.9	3844.2	3892.5	3927.3	3943.8	3962.0	3959.0	3942.4
35°	4126.7	4141.8	4152.4	4187.2	4241.6	4273.2	4299.0	4305.1	4308.0	4276.3	4244.6
37.5°	4519.6	4537.7	4546.9	4601.1	4652.6	4688.9	4700.9	4714.5	4705.5	4652.6	4595.1
40°	4944.2	4963.8	4991.1	5037.8	5098.4	5133.1	5148.2	5146.6	5139.1	5077.2	4983.5
42.5°	5361.3	5385.4	5408.2	5489.7	5539.6	5598.5	5606.0	5604.6	5587.8	5516.8	5408.2
45°	5714.8	5743.5	5790.4	5881.1	5961.1	6032.2	6060.8	6071.4	6054.8	5979.2	5855.3
47.5°	6006.4	6026.0	6085.0	6195.3	6298.1	6402.4	6459.7	6500.6	6499.1	6444.6	6313.2
50°	6205.9	6228.6	6301.1	6425.0	6553.5	6675.8	6789.2	6881.3	6925.2	6885.8	6763.4
52.5°	6263.4	6292.0	6387.3	6535.4	6684.9	6849.7	7019.0	7182.0	7280.3	7304.4	7209.3
55°	6021.6	6053.3	6192.4	6397.7	6644.2	6887.3	7144.3	7376.9	7579.5	7673.2	7635.4
57.5°	5317.4	5340.0	5516.8	5782.9	6134.9	6562.5	6994.7	7420.8	7768.4	8011.7	8053.9
60°	4205.3	4234.1	4427.4	4708.4	5108.9	5649.9	6254.3	6952.3	7633.8	8191.5	8468.0
62.5°	2837.8	2857.4	3043.3	3300.1	3738.5	4259.7	4933.6	5817.6	6789.2	7784.9	8564.8
65°	1489.9	1489.9	1615.3	1795.1	2144.2	2611.1	3301.7	4208.3	5364.3	6607.9	7911.9
67.5°	864.4	862.8	891.5	932.3	1042.7	1231.5	1612.3	2278.7	3372.8	4820.3	6304.2
70°	713.3	708.6	704.1	704.1	720.8	749.5	822.0	1004.8	1470.3	2485.6	3878.9
71°	681.4	678.5	666.4	661.9	669.4	684.5	716.2	800.9	1044.2	1695.3	2896.7
72.5°	643.7	636.1	618.0	610.4	612.0	618.0	627.0	660.4	734.3	964.1	1651.6
75°	586.2	568.1	545.5	535.0	530.4	529.0	529.0	537.9	554.6	581.8	677.0
77.5°	519.8	494.1	470.0	459.3	451.8	447.3	444.2	438.2	435.2	447.3	482.1
80°	439.8	412.6	392.9	386.8	382.3	373.2	361.1	349.1	341.6	347.6	368.8
82.5°	340.1	312.8	315.8	317.3	309.8	294.7	282.6	269.0	255.3	252.4	262.9
85°	270.5	256.9	247.8	267.4	250.9	232.7	216.2	193.4	161.7	133.0	145.1
87.5°	116.4	117.9	169.3	255.3	223.7	179.8	149.5	120.8	77.0	57.5	58.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P196528

CATALOG NUMBER: NAV-AF-04-D-UNV-RW-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1	2685.1
2.5°	2682.1	2682.1	2677.6	2674.5	2674.5	2674.5	2671.6	2673.0
5°	2700.3	2703.3	2706.4	2704.8	2709.3	2713.9	2712.4	2710.8
7.5°	2730.5	2739.5	2748.6	2753.2	2759.3	2765.3	2766.8	2762.2
10°	2760.7	2778.8	2792.4	2804.5	2812.2	2818.2	2822.7	2821.2
12.5°	2798.4	2824.2	2848.4	2872.5	2889.2	2898.2	2907.3	2904.2
15°	2860.4	2889.2	2919.4	2951.1	2976.8	2990.4	3004.0	3001.0
17.5°	2945.1	2970.8	2994.9	3026.7	3058.3	3073.5	3088.6	3087.1
20°	3050.8	3070.5	3084.1	3102.2	3132.5	3149.1	3162.6	3158.1
22.5°	3171.7	3177.8	3179.2	3185.4	3209.5	3229.1	3247.3	3251.8
25°	3303.1	3298.6	3289.6	3285.1	3301.7	3322.8	3345.5	3351.5
27.5°	3466.4	3451.3	3428.5	3410.4	3415.0	3442.2	3467.9	3473.9
30°	3671.8	3637.1	3588.7	3553.9	3547.9	3576.7	3603.9	3612.9
32.5°	3906.1	3859.2	3792.7	3739.8	3717.2	3742.9	3767.0	3780.7
35°	4184.1	4132.7	4052.7	3984.6	3948.4	3965.0	4007.3	4022.5
37.5°	4513.5	4442.5	4353.3	4267.2	4206.8	4209.8	4255.1	4273.2
40°	4877.7	4774.9	4661.6	4554.4	4466.7	4460.6	4501.5	4515.0
42.5°	5257.0	5125.6	4992.5	4851.9	4743.3	4723.6	4776.5	4778.0
45°	5665.0	5495.7	5331.0	5167.9	5054.5	5019.7	5071.2	5077.2
47.5°	6100.2	5888.6	5693.7	5516.8	5394.4	5340.0	5390.0	5399.0
50°	6553.5	6334.5	6107.7	5911.3	5767.7	5701.2	5760.1	5766.1
52.5°	7002.2	6795.3	6570.1	6344.9	6171.2	6095.6	6165.2	6186.3
55°	7454.1	7254.6	7043.1	6817.9	6598.8	6532.3	6607.9	6630.5
57.5°	7924.0	7732.1	7540.2	7313.5	7100.4	6999.2	7080.9	7112.6
60°	8442.3	8273.0	8091.7	7863.6	7653.5	7535.6	7605.2	7641.5
62.5°	8951.5	8916.7	8752.1	8514.8	8248.8	8131.0	8190.0	8215.6
65°	8993.7	9557.5	9550.0	9314.2	8942.5	8744.4	8761.2	8773.2
67.5°	7849.9	9143.5	9970.0	10043.9	9630.0	9320.3	9284.0	9291.5
70°	5557.7	7333.2	9087.5	10238.9	10402.1	10161.8	10083.3	10095.4
71°	4453.1	6292.0	8223.2	9772.0	10390.0	10320.5	10276.7	10308.5
72.5°	2842.3	4636.0	6515.6	8368.2	9554.4	9894.4	9944.3	9963.9
75°	1032.1	1994.6	3375.7	4836.9	6130.3	7020.4	7509.9	7549.3
77.5°	554.6	714.8	1104.6	1650.1	2073.2	2299.8	2327.0	2337.6
80°	408.0	473.0	541.0	618.0	666.4	675.4	658.9	624.1
82.5°	288.7	326.3	353.6	380.8	400.4	383.8	318.8	243.3
85°	167.7	184.3	199.5	213.0	216.2	204.0	134.5	110.4
87.5°	66.5	72.5	71.0	80.1	77.0	71.0	52.9	45.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)