

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: P270567

Luminaire Tested: **NAV-AF-05-D-UNV-5NQ-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270567  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-05-D-UNV-5NQ-7027-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21698.6 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

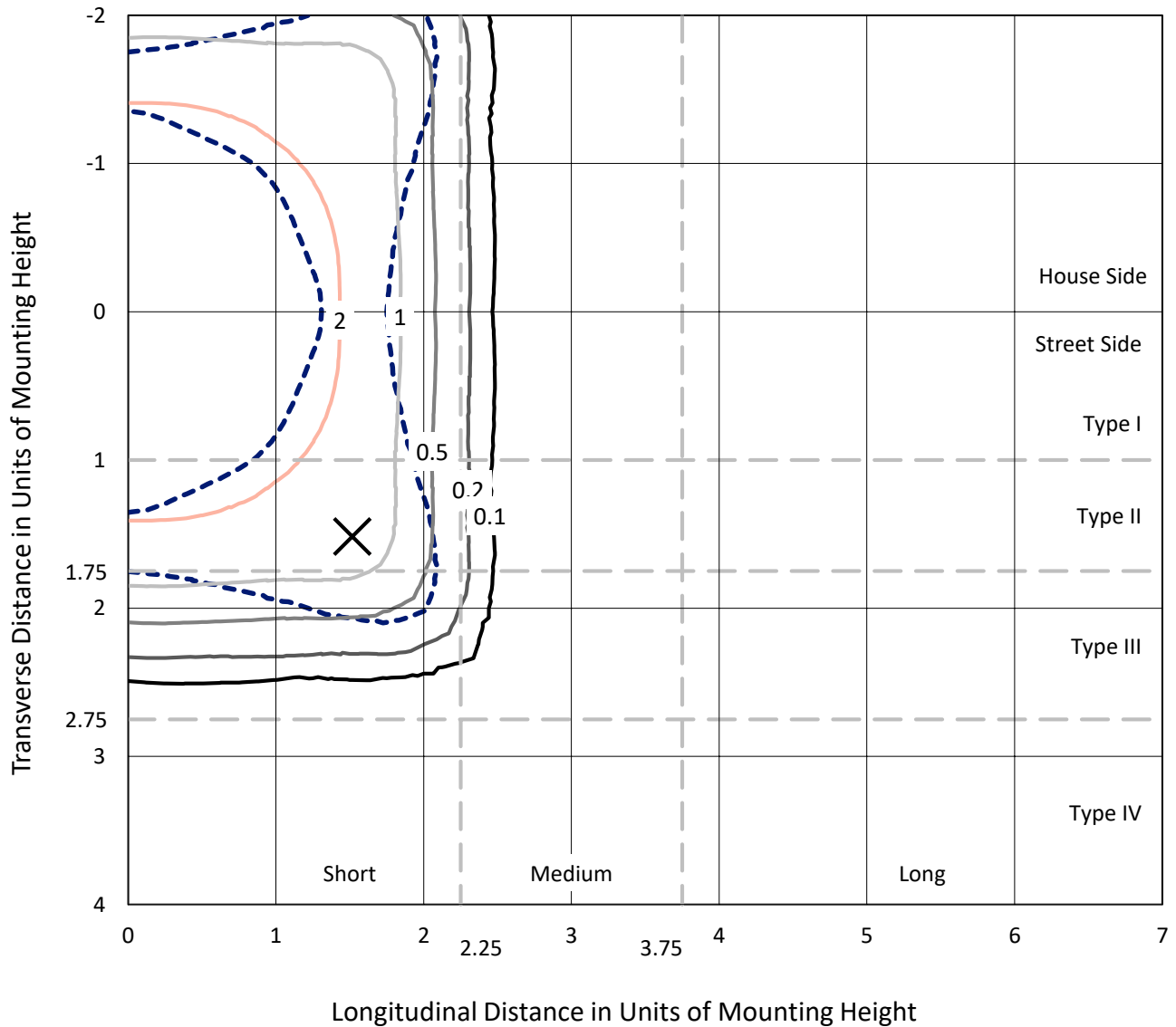
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

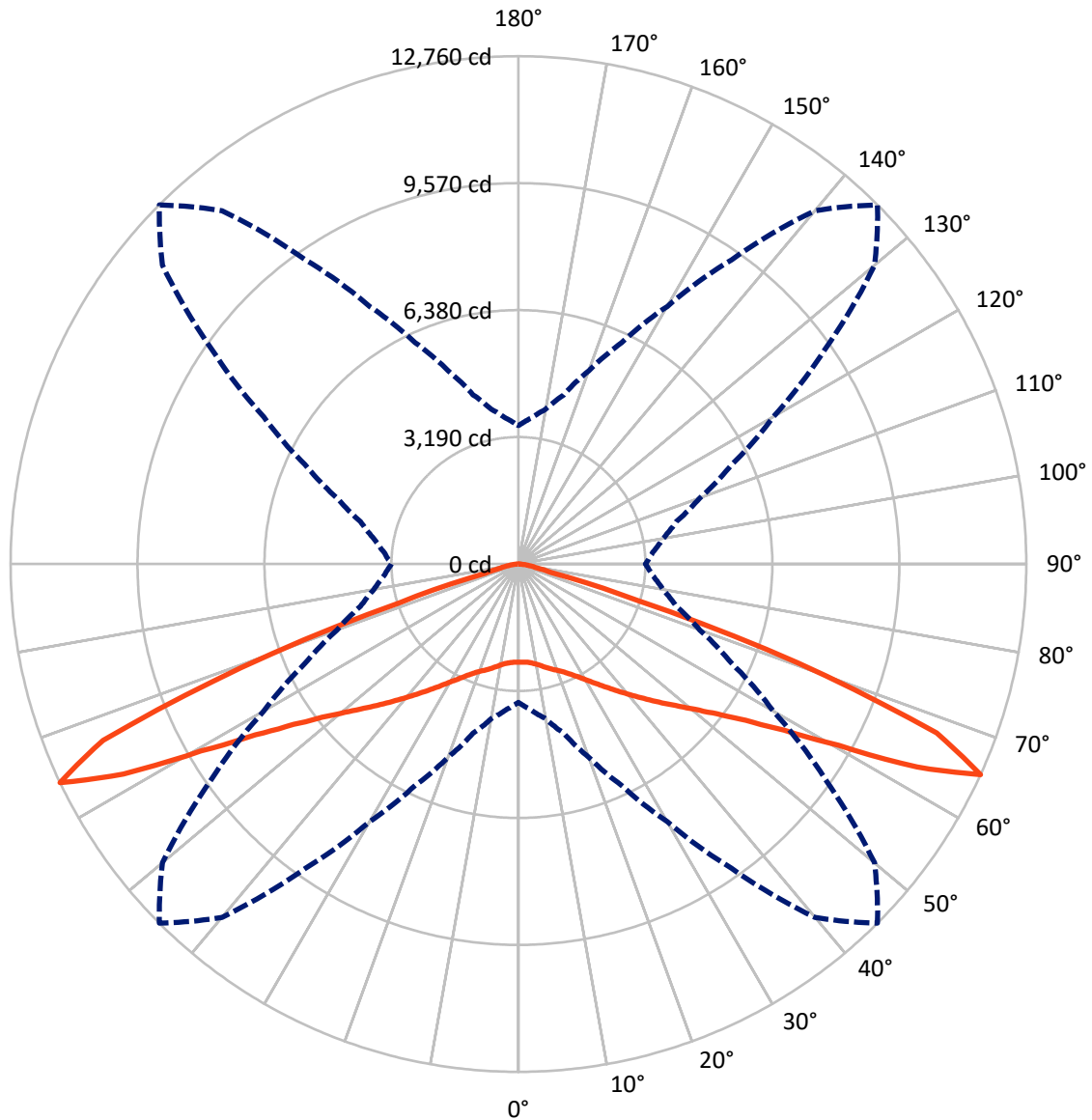
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10849.3	0.0	10849.3
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	10849.3	0.0	10849.3
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	21698.6	0.0	21698.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.4	1.1
10°-20°	770.3	3.6
20°-30°	1437.1	6.6
30°-40°	2423.1	11.2
40°-50°	3935.8	18.1
50°-60°	6166.8	28.4
60°-70°	5821.1	26.8
70°-80°	784.5	3.6
80°-90°	119.5	0.6
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°	21698.6	100.0
0°-180°	21698.6	100.0



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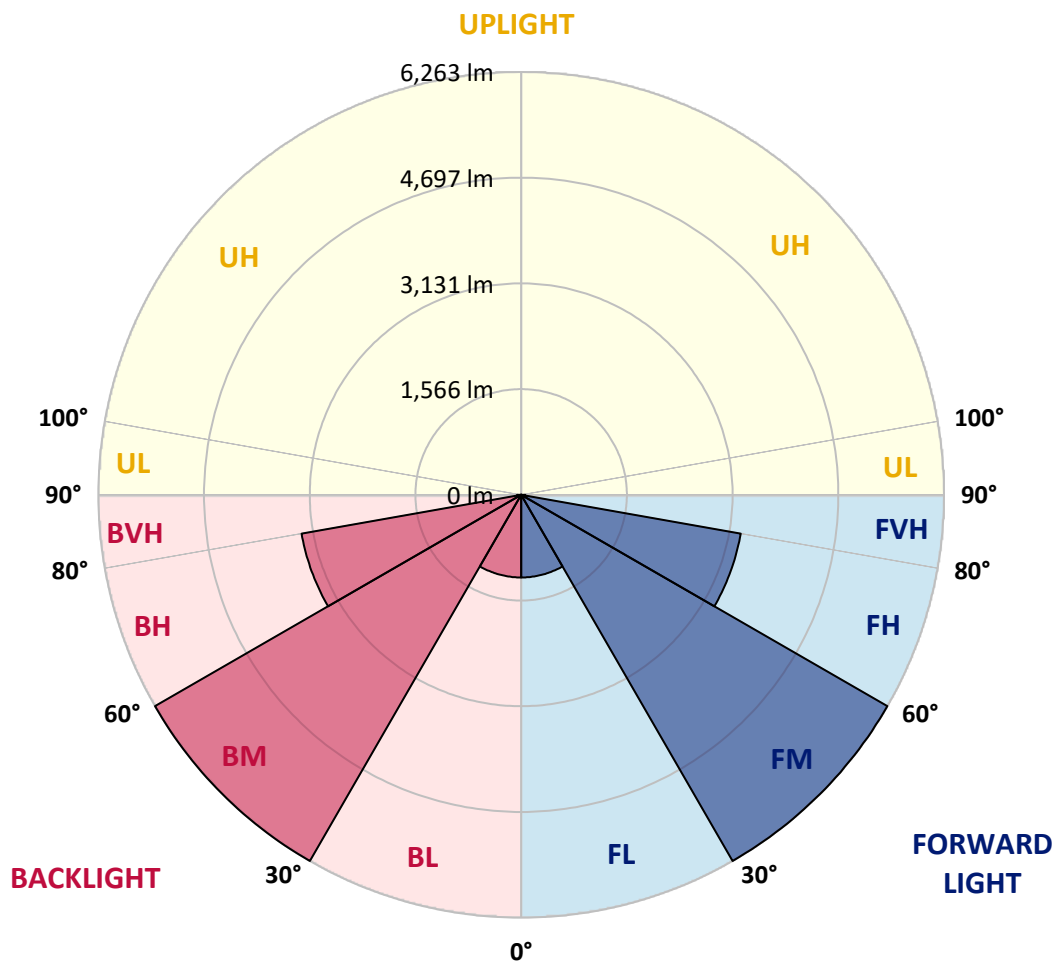
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1223.9	5.6			
FM	(30°-60°)	6262.8	28.9			
FH	(60°-80°)	3302.8	15.2			G2/5000
FVH	(80°-90°)	59.8	0.3			G1/100
BL	(0°-30°)	1223.9	5.6	B3/2500		
BM	(30°-60°)	6262.8	28.9	B4/8500		
BH	(60°-80°)	3302.8	15.2	B4/5000		G2/5000
BVH	(80°-90°)	59.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3
2.5°	2488.5	2488.5	2492.4	2491.2	2485.8	2481.7	2477.6	2472.2	2469.5	2466.8	2465.5
5°	2502.0	2502.0	2506.0	2504.7	2500.6	2495.2	2492.4	2488.5	2484.4	2481.7	2483.1
7.5°	2535.7	2537.2	2538.5	2537.2	2533.1	2529.0	2523.6	2522.3	2516.8	2512.7	2515.6
10°	2587.2	2587.2	2588.5	2589.9	2587.2	2577.6	2577.6	2575.0	2569.5	2564.1	2565.5
12.5°	2643.9	2643.9	2645.2	2645.2	2645.2	2639.8	2641.1	2639.8	2633.1	2630.3	2633.1
15°	2699.3	2700.7	2700.7	2703.4	2703.4	2704.7	2710.1	2710.1	2707.4	2706.1	2706.1
17.5°	2764.3	2766.9	2768.2	2772.3	2773.6	2776.4	2781.8	2783.0	2784.4	2780.4	2781.8
20°	2850.7	2852.1	2856.2	2857.5	2862.9	2862.9	2865.7	2864.2	2861.6	2856.2	2856.2
22.5°	2948.1	2950.8	2958.8	2958.8	2965.7	2961.5	2962.9	2958.8	2952.1	2949.3	2946.7
25°	3075.1	3079.2	3085.9	3083.3	3085.9	3079.2	3079.2	3079.2	3075.1	3071.0	3069.7
27.5°	3236.0	3229.1	3236.0	3230.6	3229.1	3223.7	3225.2	3222.4	3218.4	3217.0	3211.6
30°	3403.6	3395.5	3399.5	3400.9	3398.2	3396.9	3391.5	3387.4	3380.6	3381.8	3377.8
32.5°	3595.5	3587.4	3591.5	3592.9	3590.0	3592.9	3591.5	3582.0	3573.8	3579.2	3579.2
35°	3823.9	3818.5	3829.4	3833.3	3825.3	3821.2	3815.8	3805.0	3792.9	3801.0	3802.3
37.5°	4098.3	4091.6	4099.7	4110.6	4095.6	4087.5	4065.9	4049.6	4041.6	4045.5	4051.0
40°	4383.5	4384.8	4407.9	4410.6	4394.4	4384.8	4363.2	4339.0	4315.9	4315.9	4322.7
42.5°	4683.7	4687.6	4714.8	4724.1	4718.7	4701.2	4671.5	4641.7	4612.0	4617.4	4625.6
45°	5023.0	5017.5	5045.9	5068.9	5064.9	5059.3	5031.0	4976.9	4949.9	4948.6	4962.1
47.5°	5379.7	5390.5	5420.4	5459.4	5458.1	5444.5	5408.2	5358.1	5308.1	5312.1	5328.3
50°	5796.0	5811.0	5860.9	5900.2	5905.5	5901.4	5858.2	5800.0	5729.7	5733.9	5755.5
52.5°	6169.1	6190.8	6248.9	6329.9	6380.0	6402.9	6374.6	6320.6	6248.9	6252.9	6275.9
55°	6507.1	6540.7	6627.3	6738.1	6838.2	6931.5	6973.5	6972.0	6919.4	6931.5	6961.2
57.5°	6719.2	6766.6	6897.6	7076.0	7274.8	7462.7	7625.0	7777.6	7811.4	7874.9	7874.9
60°	6434.0	6545.0	6719.2	7024.7	7415.4	7837.2	8294.1	8738.7	9025.2	9250.9	9129.4
62.5°	5373.0	5536.6	5781.2	6184.0	6792.3	7545.1	8462.9	9497.1	10575.7	11235.2	10751.4
65°	3476.5	3682.1	3948.3	4401.1	5167.5	6136.7	7473.4	9332.1	11589.5	12760.0	11678.7
67.5°	1377.5	1516.6	1678.8	2000.4	2665.5	3617.1	5117.6	7409.9	10233.6	11338.0	10125.5
70°	658.3	681.3	712.4	781.3	947.5	1278.6	2056.0	3650.9	6275.9	7439.8	6125.8
72.5°	475.8	479.9	494.7	517.8	566.3	633.9	770.4	1116.6	2164.0	3146.8	2166.7
75°	360.8	366.2	374.5	386.6	412.2	444.8	496.0	594.8	740.7	854.3	739.3
77.5°	274.4	279.8	286.6	298.7	312.3	335.2	354.1	393.4	455.5	479.9	477.1
80°	200.1	209.6	220.4	231.1	240.6	251.4	252.8	271.6	306.9	329.8	323.0
82.5°	127.1	135.1	163.5	175.7	177.1	179.8	178.5	179.8	198.6	215.0	209.6
85°	81.0	86.4	101.4	115.0	112.2	117.6	117.6	115.0	106.8	91.8	109.6
87.5°	40.6	42.0	48.7	60.8	58.1	51.4	50.0	50.0	36.6	31.1	33.7
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):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3	2468.3
2.5°	2461.4	2464.1	2460.1	2460.1	2458.8	2461.4	2457.4	2457.4
5°	2480.4	2484.4	2483.1	2483.1	2485.8	2488.5	2487.0	2485.8
7.5°	2514.1	2516.8	2519.6	2521.0	2523.6	2522.3	2525.0	2523.6
10°	2565.5	2562.9	2566.8	2562.9	2564.1	2561.4	2562.9	2562.9
12.5°	2630.3	2626.4	2623.6	2621.0	2621.0	2615.5	2615.5	2616.9
15°	2704.7	2698.0	2692.6	2689.9	2687.2	2687.2	2683.1	2685.8
17.5°	2777.6	2771.0	2761.5	2761.5	2757.4	2754.7	2752.0	2758.9
20°	2854.8	2848.0	2842.5	2841.2	2833.2	2830.4	2831.7	2839.9
22.5°	2943.9	2940.0	2940.0	2937.2	2931.8	2927.8	2927.8	2937.2
25°	3064.3	3056.2	3057.6	3058.9	3056.2	3056.2	3053.5	3060.3
27.5°	3211.6	3204.9	3208.9	3211.6	3208.9	3213.0	3208.9	3214.3
30°	3384.6	3380.6	3384.6	3388.6	3381.8	3381.8	3379.2	3383.2
32.5°	3591.5	3586.0	3588.8	3588.8	3579.2	3571.1	3560.3	3568.4
35°	3818.5	3811.8	3817.2	3821.2	3810.4	3802.3	3786.0	3792.9
37.5°	4068.7	4071.3	4078.0	4095.6	4092.9	4079.5	4067.3	4072.6
40°	4348.3	4361.9	4391.6	4403.9	4401.1	4387.6	4371.3	4374.0
42.5°	4664.7	4682.2	4713.3	4733.6	4724.1	4705.2	4685.0	4693.0
45°	5009.4	5036.3	5077.0	5097.3	5085.0	5064.9	5036.3	5051.3
47.5°	5374.3	5428.4	5482.4	5509.5	5505.4	5477.1	5440.6	5444.5
50°	5811.0	5882.6	5951.5	5978.5	5958.3	5915.0	5863.6	5862.2
52.5°	6354.3	6431.3	6488.1	6481.5	6431.3	6363.8	6305.7	6303.0
55°	7032.8	7058.5	7050.4	6992.2	6904.5	6799.0	6724.6	6712.6
57.5°	7853.3	7766.8	7639.7	7464.0	7266.7	7066.6	6931.5	6881.5
60°	8856.3	8465.6	8011.4	7532.9	7096.4	6769.3	6562.5	6436.7
62.5°	9684.8	8553.5	7538.3	6707.0	6027.2	5623.0	5340.6	5166.2
65°	9401.0	7389.6	5919.0	4847.2	4105.1	3687.5	3388.6	3190.1
67.5°	7262.6	4937.8	3435.9	2381.6	1805.9	1528.7	1335.5	1209.7
70°	3661.8	1893.7	1147.6	809.6	692.1	643.4	610.9	592.1
72.5°	1074.6	717.7	596.0	527.1	485.3	455.5	436.5	427.1
75°	594.8	485.3	428.5	389.2	362.2	342.0	329.8	321.8
77.5°	409.5	352.8	324.4	298.7	277.0	262.2	252.8	244.7
80°	286.6	258.2	246.0	232.5	216.3	204.2	190.6	185.2
82.5°	190.6	178.5	175.7	164.8	155.4	141.9	117.6	109.6
85°	112.2	110.9	110.9	106.8	100.0	87.9	70.2	70.2
87.5°	39.2	40.6	42.0	44.6	43.3	36.6	29.7	28.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)