

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: P195504

Luminaire Tested: **NAV-AF-06-D-UNV-5WQ-7050-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195504  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-06-D-UNV-5WQ-7050-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 5000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 41111 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 382  
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

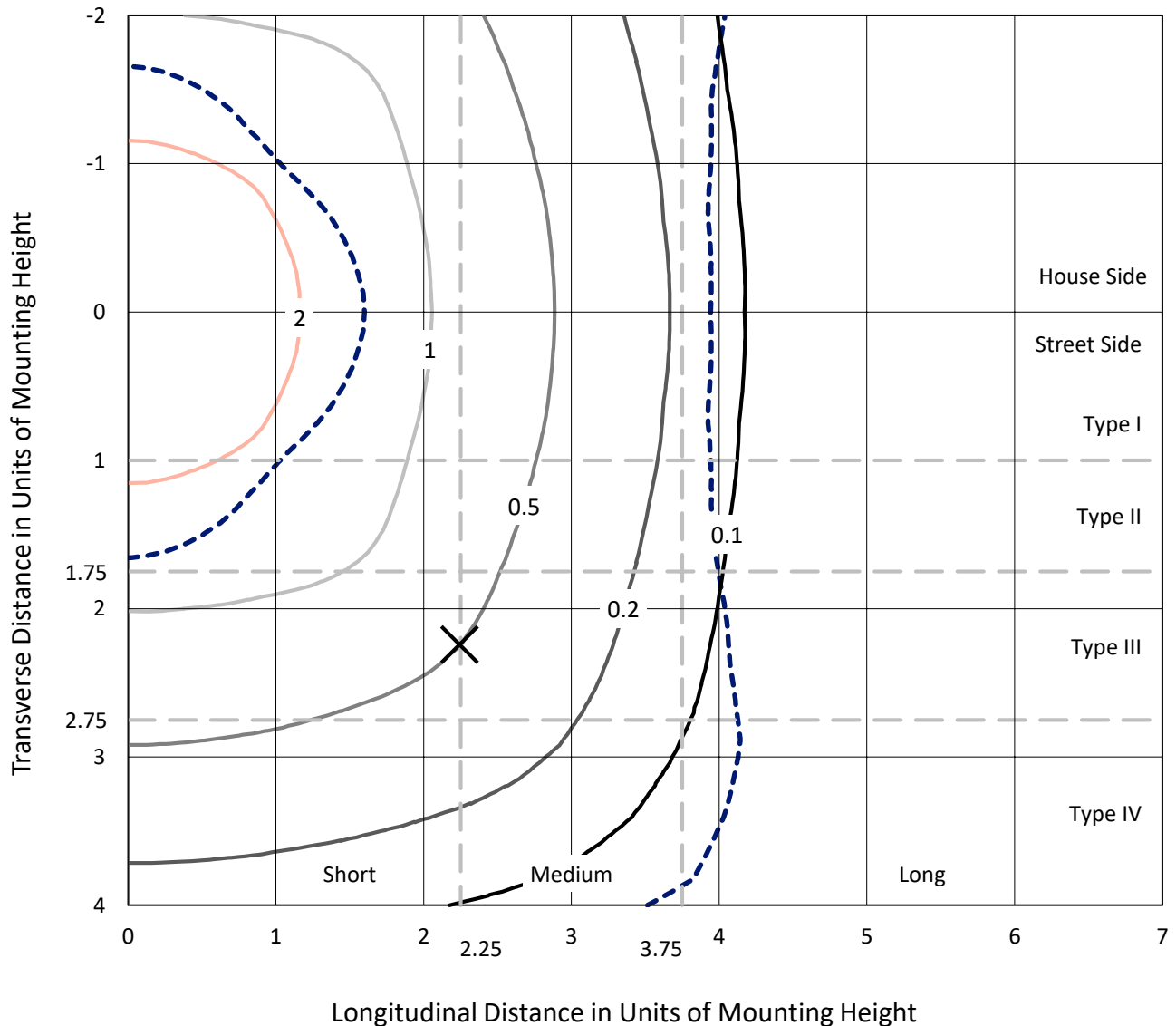


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### Iso-Footcandle Lines of Horizontal Illumination

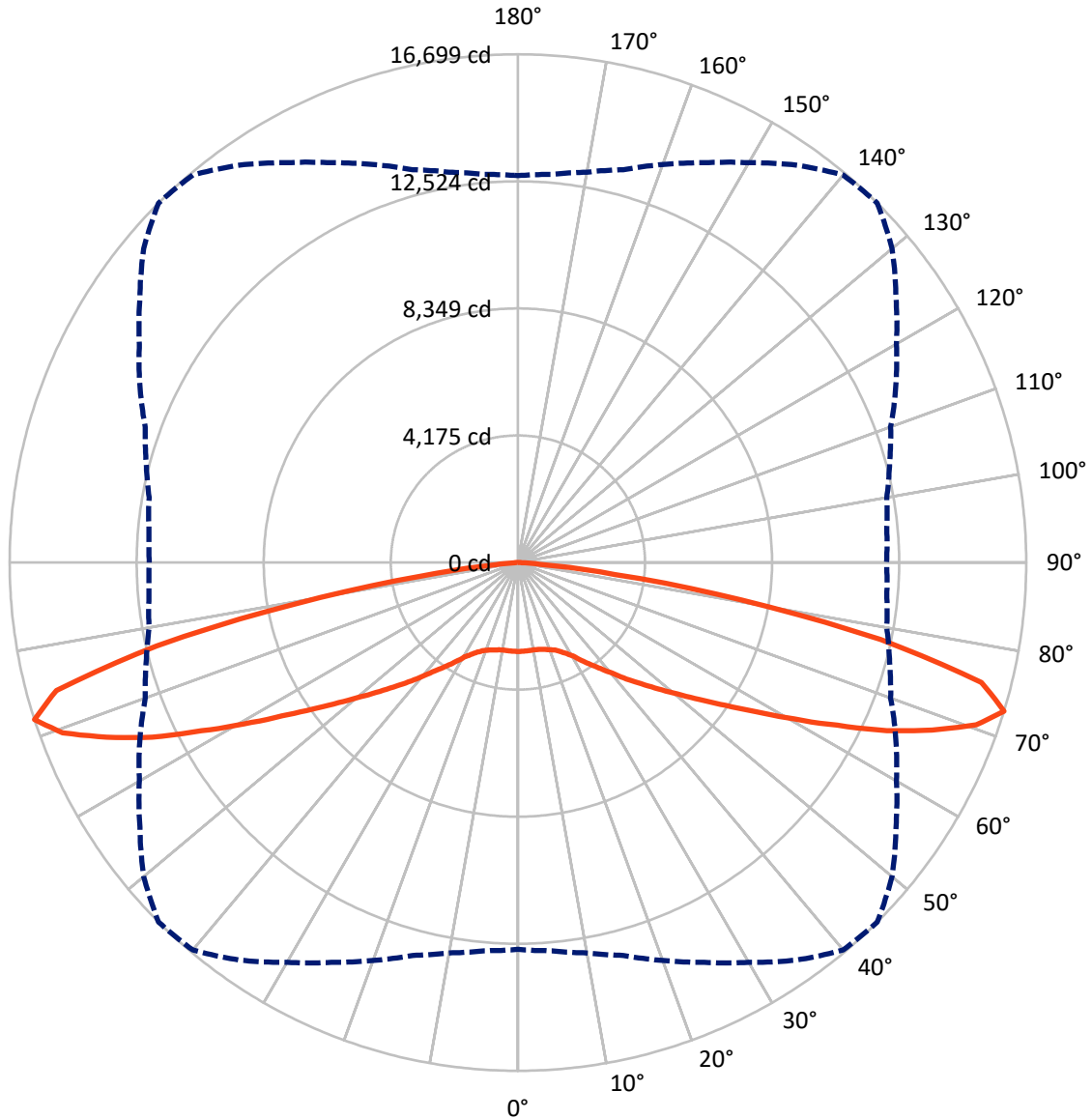
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.2 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20555.5	0.0	20555.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	20555.5	0.0	20555.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	41111.0	0.0	41111.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.0	0.7
10°-20°	844.3	2.1
20°-30°	1524.1	3.7
30°-40°	2599.8	6.3
40°-50°	4426.2	10.8
50°-60°	7123.2	17.3
60°-70°	11846.1	28.8
70°-80°	11459.7	27.9
80°-90°	1008.6	2.5
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°	41111.0	100.0
0°-180°	41111.0	100.0



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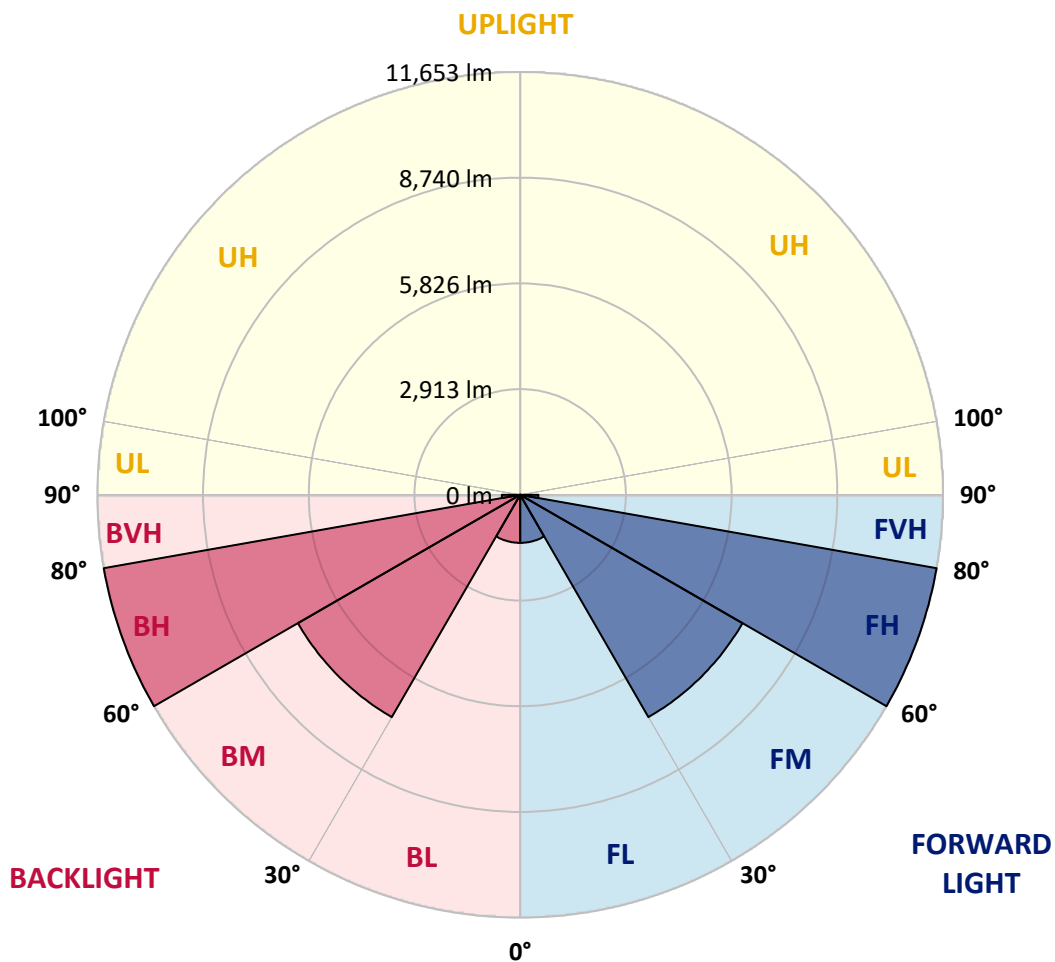
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1323.7	3.2			
FM	(30°-60°)	7074.6	17.2			
FH	(60°-80°)	11652.9	28.3			G4/12000
FVH	(80°-90°)	504.3	1.2			G4/750
BL	(0°-30°)	1323.7	3.2	B3/2500		
BM	(30°-60°)	7074.6	17.2	B4/8500		
BH	(60°-80°)	11652.9	28.3	B5		G4/12000
BVH	(80°-90°)	504.3	1.2			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7
2.5°	2945.5	2945.5	2948.0	2945.5	2940.4	2937.9	2930.3	2925.2	2920.2	2917.6	2912.6
5°	2948.0	2948.0	2950.5	2948.0	2942.9	2937.9	2932.8	2925.2	2920.2	2915.1	2912.6
7.5°	2958.1	2960.6	2963.2	2960.6	2950.5	2945.5	2937.9	2930.3	2920.2	2915.1	2910.0
10°	2978.4	2978.4	2978.4	2975.8	2968.2	2958.1	2948.0	2940.4	2927.7	2915.1	2907.5
12.5°	2993.5	2996.1	2996.1	2991.0	2980.9	2968.2	2958.1	2950.5	2940.4	2930.3	2922.7
15°	3016.3	3016.3	3013.8	3003.7	2988.5	2978.4	2973.3	2970.8	2968.2	2963.2	2955.6
17.5°	3061.9	3059.3	3051.7	3036.6	3018.8	3011.2	3006.2	3006.2	3006.2	3003.7	2998.6
20°	3127.7	3127.7	3117.5	3092.2	3077.0	3069.5	3061.9	3061.9	3061.9	3054.3	3046.7
22.5°	3233.9	3236.5	3221.3	3190.9	3170.7	3155.5	3145.4	3137.8	3130.2	3125.1	3112.5
25°	3378.2	3375.6	3357.9	3320.0	3304.8	3289.6	3269.4	3256.7	3246.6	3239.0	3223.8
27.5°	3530.0	3527.5	3507.2	3474.3	3464.2	3441.4	3426.2	3408.5	3395.9	3383.2	3368.0
30°	3724.8	3712.2	3697.0	3671.7	3666.6	3648.9	3628.7	3603.4	3583.1	3562.9	3545.2
32.5°	3899.4	3899.4	3876.7	3864.0	3874.1	3866.5	3869.1	3853.9	3841.2	3833.6	3815.9
35°	4142.4	4142.4	4132.2	4117.1	4119.6	4101.9	4099.3	4101.9	4112.0	4112.0	4091.8
37.5°	4466.3	4471.3	4438.4	4433.4	4420.7	4395.4	4382.8	4387.8	4410.6	4423.2	4395.4
40°	4868.6	4878.7	4868.6	4835.7	4820.5	4777.5	4752.2	4752.2	4769.9	4782.6	4772.5
42.5°	5265.9	5283.6	5265.9	5240.6	5227.9	5195.0	5182.4	5192.5	5215.3	5230.5	5215.3
45°	5708.7	5721.4	5698.6	5668.2	5653.1	5635.3	5627.7	5635.3	5660.6	5675.8	5670.8
47.5°	6144.0	6161.7	6133.8	6121.2	6121.2	6103.5	6123.7	6144.0	6166.7	6202.2	6187.0
50°	6569.1	6591.9	6574.1	6576.7	6596.9	6629.8	6667.8	6708.3	6748.7	6786.7	6791.8
52.5°	6948.6	6984.1	6986.6	7032.2	7095.4	7146.0	7252.3	7340.9	7437.0	7469.9	7454.7
55°	7348.5	7396.5	7459.8	7530.7	7631.9	7735.6	7915.3	8074.7	8201.2	8279.7	8267.0
57.5°	7920.3	7968.4	8034.2	8150.6	8302.4	8444.2	8689.6	8937.6	9129.9	9248.8	9190.6
60°	8661.8	8712.4	8798.4	8922.4	9119.8	9312.1	9648.7	10005.4	10304.0	10440.7	10334.4
62.5°	9643.6	9691.7	9747.3	9911.8	10132.0	10380.0	10802.5	11260.6	11640.1	11771.7	11622.4
65°	11042.9	11101.1	11118.8	11253.0	11468.1	11698.3	12153.8	12670.0	13102.7	13317.8	13019.2
67.5°	12619.4	12642.2	12713.0	12869.9	13090.1	13297.6	13656.9	14145.3	14560.3	14679.2	14360.4
70°	13543.0	13588.6	13712.6	13930.2	14193.4	14519.8	14912.0	15438.3	15909.0	15964.7	15559.8
72.5°	12708.0	12801.6	13021.8	13360.8	13912.5	14492.0	15167.6	15944.4	16620.1	16698.5	16048.2
75°	10192.7	10299.0	10562.1	10934.1	11587.0	12447.3	13424.1	14590.6	15602.8	15731.9	14871.5
77.5°	5432.9	5564.5	5946.6	6447.6	7378.8	8517.5	9694.2	11025.2	11885.6	12176.6	11556.6
80°	1369.0	1439.8	1624.6	1918.1	2548.2	3466.7	4481.4	5913.7	6981.5	7434.5	6981.5
82.5°	531.4	584.5	635.1	670.6	731.3	857.8	1184.3	1930.7	2601.3	3203.6	2773.4
85°	205.0	217.6	313.8	356.8	356.8	392.2	450.4	531.4	657.9	718.7	602.2
87.5°	81.0	88.6	108.8	167.0	172.1	151.8	161.9	182.2	139.2	116.4	131.6
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°	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7	2922.7
2.5°	2910.0	2907.5	2902.4	2905.0	2902.4	2902.4	2902.4	2902.4
5°	2907.5	2907.5	2902.4	2902.4	2902.4	2905.0	2902.4	2902.4
7.5°	2905.0	2902.4	2897.4	2894.8	2894.8	2892.3	2892.3	2892.3
10°	2899.9	2894.8	2889.8	2887.3	2887.3	2882.2	2882.2	2882.2
12.5°	2912.6	2905.0	2899.9	2897.4	2897.4	2897.4	2899.9	2899.9
15°	2948.0	2932.8	2925.2	2922.7	2925.2	2930.3	2932.8	2935.3
17.5°	2985.9	2970.8	2958.1	2953.0	2955.6	2963.2	2970.8	2975.8
20°	3034.0	3021.4	3006.2	3001.1	3001.1	3011.2	3016.3	3023.9
22.5°	3102.3	3092.2	3079.6	3072.0	3066.9	3079.6	3087.2	3092.2
25°	3211.2	3201.0	3190.9	3183.3	3180.8	3193.4	3198.5	3201.0
27.5°	3355.4	3345.3	3340.2	3337.7	3330.1	3335.1	3342.7	3340.2
30°	3542.6	3550.2	3542.6	3542.6	3530.0	3535.1	3530.0	3524.9
32.5°	3793.2	3785.6	3762.8	3747.6	3729.9	3729.9	3722.3	3714.7
35°	4043.7	4018.4	4005.7	4013.3	4005.7	4010.8	3998.1	3985.5
37.5°	4339.7	4324.6	4322.0	4344.8	4339.7	4344.8	4344.8	4327.1
40°	4732.0	4721.8	4739.6	4777.5	4792.7	4790.2	4795.2	4772.5
42.5°	5182.4	5164.7	5172.3	5205.2	5222.9	5227.9	5225.4	5205.2
45°	5632.8	5637.9	5637.9	5673.3	5691.0	5701.1	5683.4	5675.8
47.5°	6141.4	6149.0	6131.3	6154.1	6159.1	6176.9	6161.7	6149.0
50°	6728.5	6700.7	6660.2	6667.8	6667.8	6662.7	6645.0	6629.8
52.5°	7383.9	7320.6	7244.7	7219.4	7191.6	7163.7	7128.3	7100.5
55°	8130.4	8021.6	7884.9	7821.7	7768.5	7705.3	7624.3	7596.4
57.5°	8995.8	8808.5	8626.3	8512.5	8375.8	8292.3	8188.6	8183.5
60°	10023.2	9770.1	9448.7	9279.2	9142.6	9043.9	8965.4	8935.1
62.5°	11209.9	10774.7	10428.0	10245.8	10086.4	10025.7	9927.0	9939.7
65°	12427.1	11984.3	11647.7	11500.9	11351.7	11311.2	11220.1	11253.0
67.5°	13745.5	13381.1	13011.6	12875.0	12738.3	12697.9	12604.2	12632.1
70°	14927.2	14464.1	14044.1	13775.8	13543.0	13355.8	13236.8	13188.8
72.5°	15162.5	14360.4	13699.9	13029.3	12642.2	12303.1	12163.9	12110.8
75°	13624.0	12379.0	11437.7	10650.7	10215.5	9722.0	9668.9	9595.5
77.5°	10597.6	9180.5	8041.8	7029.6	6445.1	5842.8	5635.3	5478.5
80°	6321.1	4858.5	3765.3	2639.3	2153.4	1733.4	1629.6	1520.8
82.5°	2262.2	1450.0	976.8	761.7	680.7	627.6	587.1	533.9
85°	546.6	460.5	435.2	394.8	389.7	331.5	235.3	210.0
87.5°	174.6	159.4	161.9	154.4	161.9	121.5	98.7	88.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)