

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: P196908

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-8030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196908  
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-06-D-UNV-5NQ-8030-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 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: 24414 lumens  
Efficiency: N/A  
Efficacy: 98.0 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): 249  
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

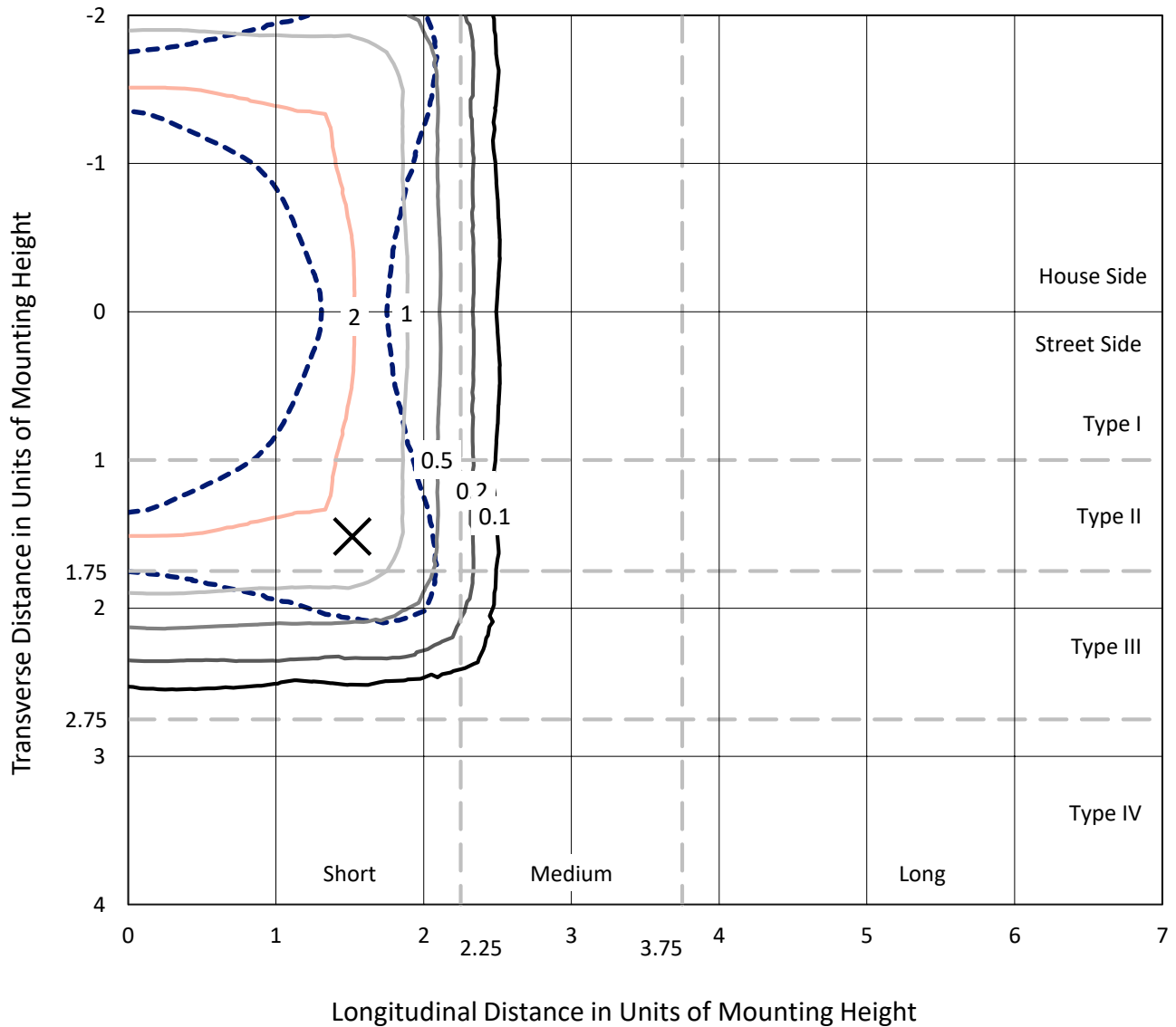


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### Iso-Footcandle Lines of Horizontal Illumination

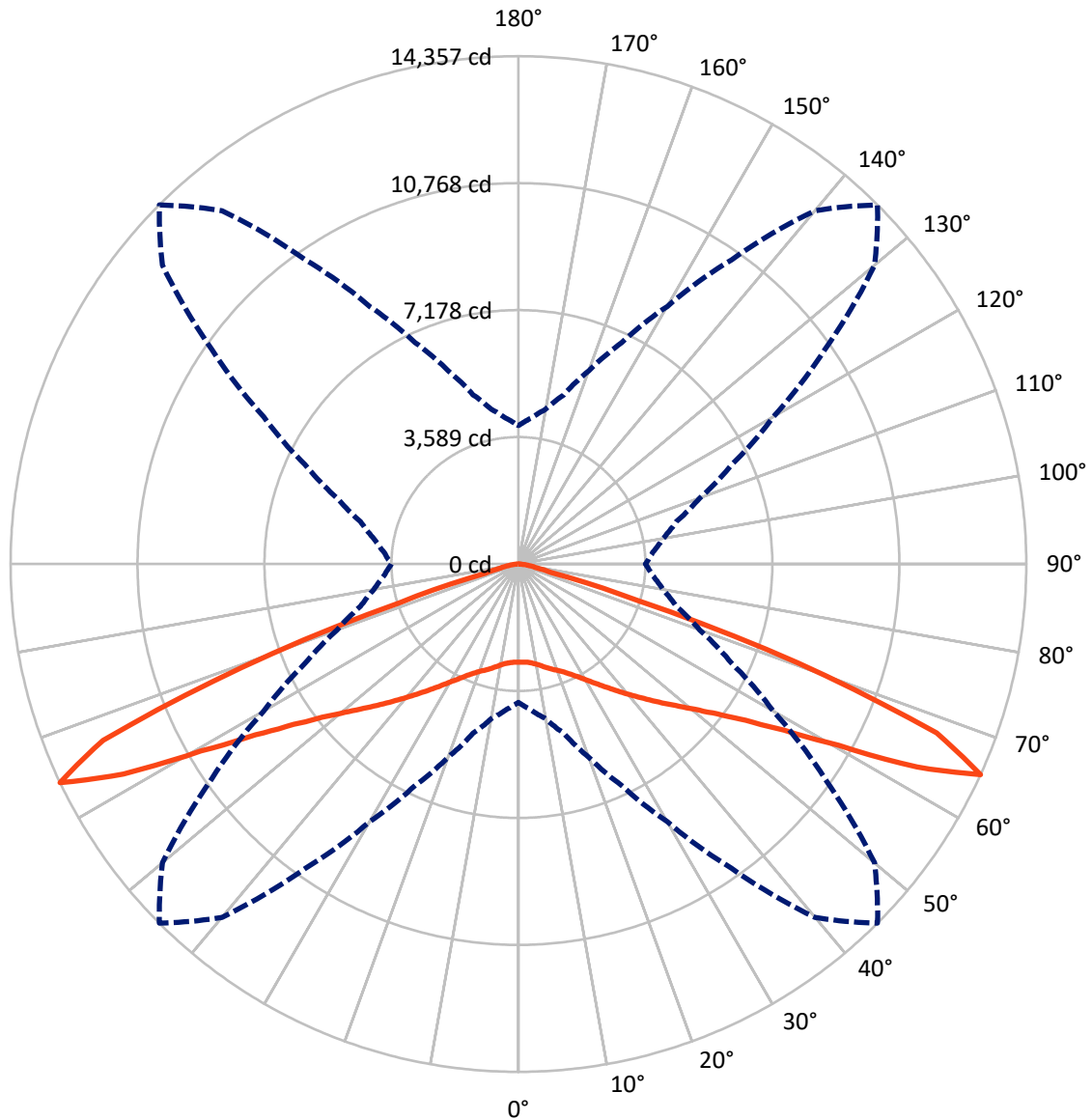
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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	12207.0	0.0	12207.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12207.0	0.0	12207.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	24414.0	0.0	24414.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.4	1.1
10°-20°	866.7	3.6
20°-30°	1616.9	6.6
30°-40°	2726.3	11.2
40°-50°	4428.4	18.1
50°-60°	6938.5	28.4
60°-70°	6549.6	26.8
70°-80°	882.7	3.6
80°-90°	134.5	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°	24414.0	100.0
0°-180°	24414.0	100.0

**Coefficient of Utilization**



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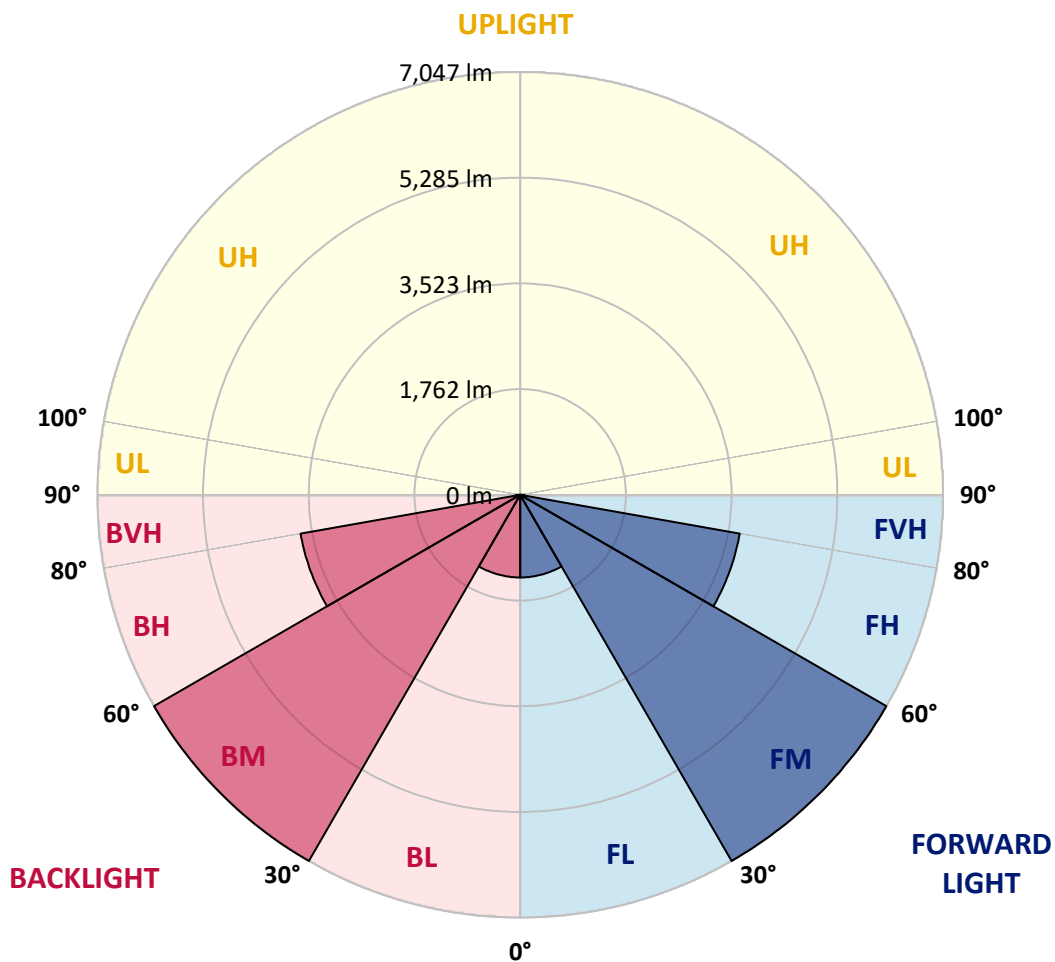
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1377.0	5.6			
FM	(30°-60°)	7046.6	28.9			
FH	(60°-80°)	3716.1	15.2			G2/5000
FVH	(80°-90°)	67.2	0.3			G1/100
BL	(0°-30°)	1377.0	5.6	B3/2500		
BM	(30°-60°)	7046.6	28.9	B4/8500		
BH	(60°-80°)	3716.1	15.2	B4/5000		G2/5000
BVH	(80°-90°)	67.2	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°	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1
2.5°	2799.9	2799.9	2804.4	2802.9	2796.8	2792.3	2787.7	2781.6	2778.6	2775.5	2774.0
5°	2815.1	2815.1	2819.6	2818.1	2813.6	2807.5	2804.4	2799.9	2795.3	2792.3	2793.8
7.5°	2853.1	2854.6	2856.1	2854.6	2850.1	2845.5	2839.4	2837.9	2831.8	2827.3	2830.3
10°	2910.9	2910.9	2912.4	2913.9	2910.9	2900.3	2900.3	2897.2	2891.1	2885.0	2886.6
12.5°	2974.8	2974.8	2976.3	2976.3	2976.3	2970.2	2971.7	2970.2	2962.6	2959.6	2962.6
15°	3037.1	3038.6	3038.6	3041.7	3041.7	3043.2	3049.3	3049.3	3046.3	3044.7	3044.7
17.5°	3110.1	3113.2	3114.7	3119.3	3120.8	3123.8	3129.9	3131.4	3132.9	3128.4	3129.9
20°	3207.5	3209.0	3213.5	3215.1	3221.2	3221.2	3224.2	3222.7	3219.6	3213.5	3213.5
22.5°	3317.0	3320.0	3329.1	3329.1	3336.7	3332.2	3333.7	3329.1	3321.5	3318.5	3315.4
25°	3459.9	3464.5	3472.1	3469.0	3472.1	3464.5	3464.5	3464.5	3459.9	3455.4	3453.8
27.5°	3640.9	3633.3	3640.9	3634.8	3633.3	3627.2	3628.7	3625.7	3621.1	3619.6	3613.5
30°	3829.5	3820.4	3824.9	3826.4	3823.4	3821.9	3815.8	3811.2	3803.6	3805.2	3800.6
32.5°	4045.4	4036.3	4040.9	4042.4	4039.4	4042.4	4040.9	4030.2	4021.1	4027.2	4027.2
35°	4302.5	4296.4	4308.6	4313.1	4304.0	4299.4	4293.3	4281.2	4267.5	4276.6	4278.1
37.5°	4611.2	4603.6	4612.7	4624.9	4608.2	4599.0	4574.7	4556.5	4547.3	4551.9	4558.0
40°	4932.1	4933.6	4959.5	4962.5	4944.3	4933.6	4909.3	4881.9	4856.1	4856.1	4863.7
42.5°	5269.7	5274.3	5304.7	5315.4	5309.3	5289.5	5256.0	5222.6	5189.1	5195.2	5204.3
45°	5651.5	5645.4	5677.3	5703.2	5698.6	5692.5	5660.6	5599.8	5569.3	5567.8	5583.0
47.5°	6053.0	6065.1	6098.6	6142.7	6141.2	6126.0	6084.9	6028.6	5972.4	5976.9	5995.2
50°	6521.4	6538.1	6594.4	6638.5	6644.6	6640.0	6591.3	6525.9	6446.9	6451.4	6475.8
52.5°	6941.1	6965.5	7030.9	7122.1	7178.4	7204.2	7172.3	7111.5	7030.9	7035.4	7061.3
55°	7321.3	7359.4	7456.7	7581.4	7694.0	7798.9	7846.0	7844.5	7785.2	7798.9	7832.4
57.5°	7560.1	7613.4	7760.9	7961.6	8185.2	8396.6	8579.1	8750.9	8789.0	8860.4	8860.4
60°	7239.2	7363.9	7560.1	7903.8	8343.4	8817.9	9331.9	9832.3	10154.7	10408.7	10271.8
62.5°	6045.4	6229.4	6504.7	6957.9	7642.2	8489.4	9522.0	10685.5	11899.1	12641.3	12096.8
65°	3911.6	4142.8	4442.4	4951.9	5814.2	6904.6	8408.8	10499.9	13039.7	14356.8	13140.1
67.5°	1549.7	1706.4	1888.9	2250.9	2999.1	4069.8	5757.9	8337.3	11514.3	12756.8	11392.7
70°	740.7	766.5	801.5	879.0	1066.1	1438.7	2313.2	4107.8	7061.3	8370.7	6892.5
72.5°	535.3	539.9	556.6	582.5	637.2	713.3	866.9	1256.2	2434.9	3540.5	2437.9
75°	406.1	412.1	421.3	435.0	463.9	500.4	558.2	669.2	833.4	961.2	831.9
77.5°	308.7	314.8	322.4	336.1	351.3	377.2	398.5	442.6	512.5	539.9	536.9
80°	225.1	235.7	247.9	260.1	270.7	282.9	284.4	305.7	345.2	371.1	363.5
82.5°	143.0	152.1	184.0	197.7	199.2	202.3	200.8	202.3	223.6	241.8	235.7
85°	91.3	97.3	114.1	129.3	126.2	132.3	132.3	129.3	120.1	103.4	123.2
87.5°	45.6	47.1	54.8	68.4	65.4	57.8	56.3	56.3	41.1	35.0	38.0
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°	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1	2777.1
2.5°	2769.5	2772.5	2767.9	2767.9	2766.4	2769.5	2764.9	2764.9
5°	2790.8	2795.3	2793.8	2793.8	2796.8	2799.9	2798.4	2796.8
7.5°	2828.8	2831.8	2834.9	2836.4	2839.4	2837.9	2840.9	2839.4
10°	2886.6	2883.5	2888.1	2883.5	2885.0	2882.0	2883.5	2883.5
12.5°	2959.6	2955.0	2952.0	2948.9	2948.9	2942.8	2942.8	2944.4
15°	3043.2	3035.6	3029.5	3026.5	3023.4	3023.4	3018.9	3021.9
17.5°	3125.3	3117.7	3107.1	3107.1	3102.5	3099.5	3096.4	3104.0
20°	3212.0	3204.4	3198.3	3196.8	3187.7	3184.6	3186.2	3195.3
22.5°	3312.4	3307.8	3307.8	3304.8	3298.7	3294.2	3294.2	3304.8
25°	3447.8	3438.6	3440.2	3441.7	3438.6	3438.6	3435.6	3443.2
27.5°	3613.5	3605.9	3610.5	3613.5	3610.5	3615.0	3610.5	3616.6
30°	3808.2	3803.6	3808.2	3812.8	3805.2	3805.2	3802.1	3806.7
32.5°	4040.9	4034.8	4037.8	4037.8	4027.2	4018.1	4005.9	4015.0
35°	4296.4	4288.8	4294.9	4299.4	4287.3	4278.1	4259.9	4267.5
37.5°	4577.7	4580.8	4588.4	4608.2	4605.1	4589.9	4576.2	4582.3
40°	4892.6	4907.8	4941.2	4954.9	4951.9	4936.7	4918.4	4921.5
42.5°	5248.4	5268.2	5303.2	5326.0	5315.4	5294.1	5271.2	5280.4
45°	5636.3	5666.7	5712.3	5735.1	5721.4	5698.6	5666.7	5683.4
47.5°	6046.9	6107.7	6168.5	6199.0	6194.4	6162.5	6121.4	6126.0
50°	6538.1	6618.7	6696.3	6726.7	6703.9	6655.2	6597.4	6595.9
52.5°	7149.5	7236.2	7300.1	7292.5	7236.2	7160.1	7094.7	7091.7
55°	7913.0	7941.9	7932.7	7867.3	7768.5	7649.9	7566.2	7552.5
57.5°	8836.1	8738.8	8595.8	8398.1	8176.1	7951.0	7798.9	7742.6
60°	9964.6	9525.1	9014.0	8475.7	7984.4	7616.4	7383.7	7242.3
62.5°	10896.9	9623.9	8481.8	7546.4	6781.4	6326.7	6008.9	5812.7
65°	10577.5	8314.5	6659.8	5453.8	4618.8	4148.9	3812.8	3589.2
67.5°	8171.5	5555.6	3866.0	2679.7	2031.8	1720.1	1502.6	1361.2
70°	4120.0	2130.7	1291.2	911.0	778.7	723.9	687.4	666.1
72.5°	1209.1	807.6	670.7	593.1	546.0	512.5	491.2	480.6
75°	669.2	546.0	482.1	438.0	407.6	384.8	371.1	362.0
77.5°	460.8	396.9	365.0	336.1	311.8	295.0	284.4	275.3
80°	322.4	290.5	276.8	261.6	243.3	229.6	214.4	208.4
82.5°	214.4	200.8	197.7	185.5	174.9	159.7	132.3	123.2
85°	126.2	124.7	124.7	120.1	112.5	98.9	79.1	79.1
87.5°	44.1	45.6	47.1	50.2	48.7	41.1	33.5	31.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)