

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: P270488

Luminaire Tested: **NAV-AF-04-D-UNV-5NQ-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270488
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-04-D-UNV-5NQ-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23904 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

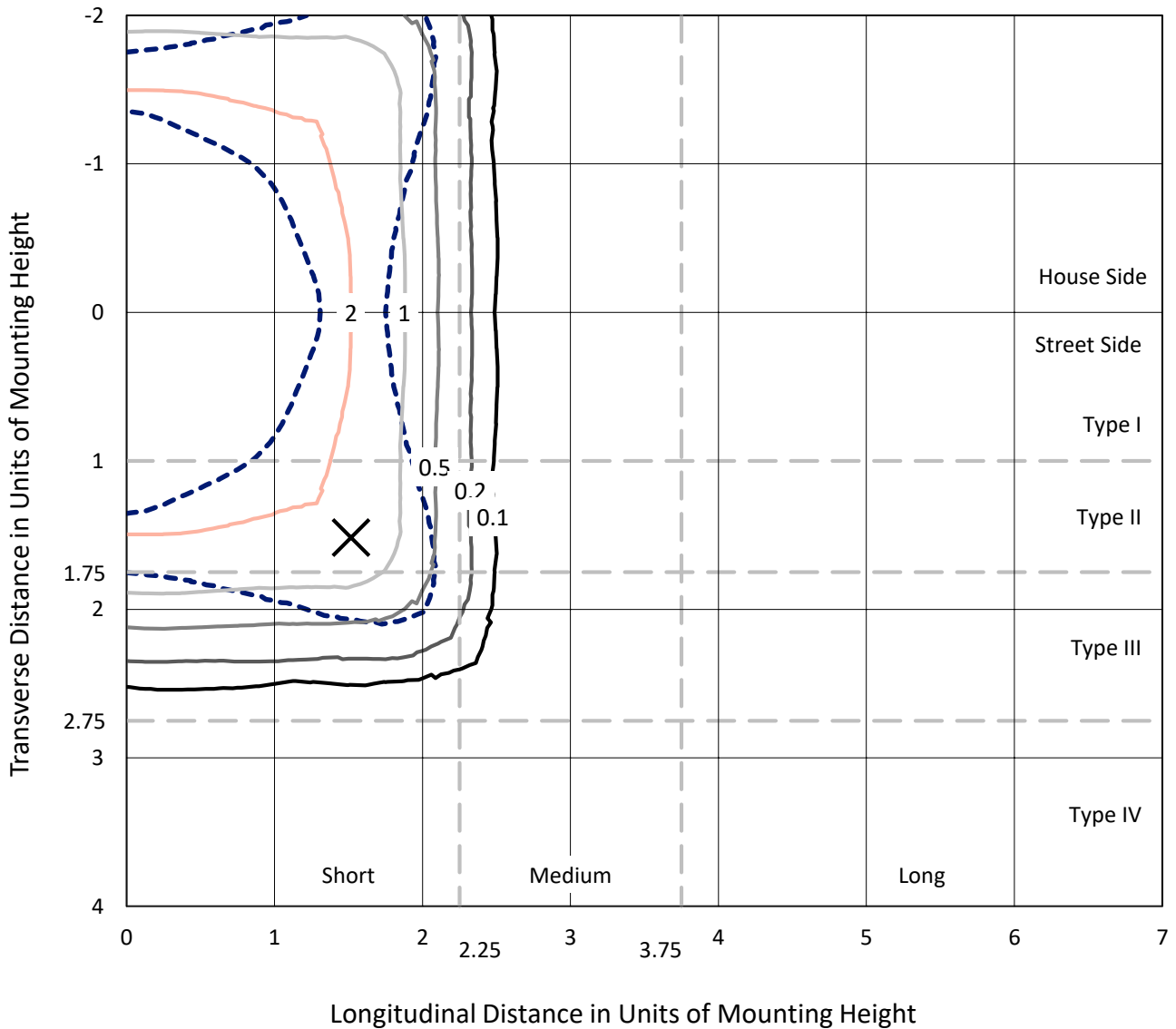
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P270488
 CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

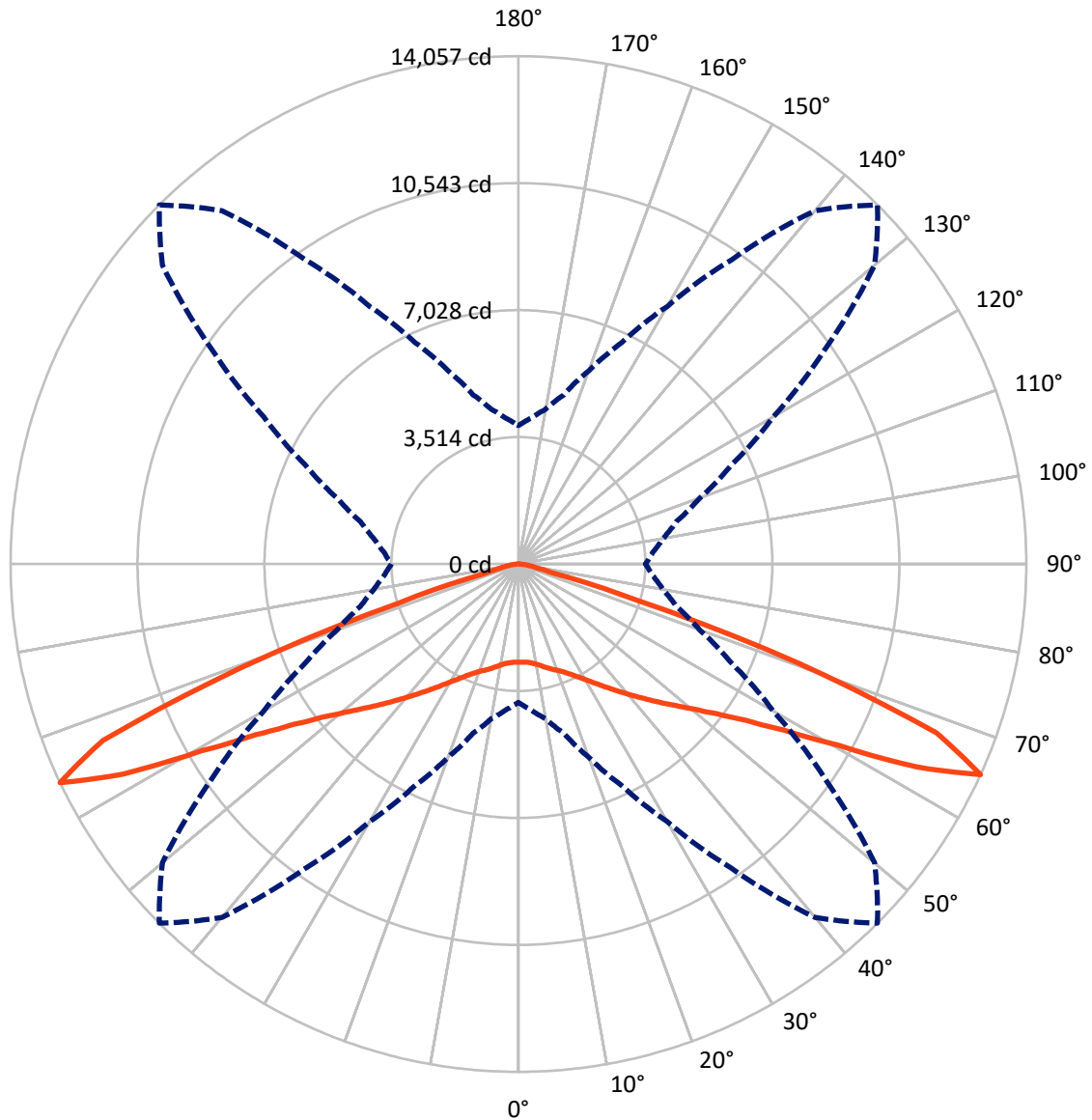
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P270488
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

Luminous Intensity Polar Plot



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

REPORT NUMBER: P270488

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11952.0	0.0	11952.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11952.0	0.0	11952.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	23904.0	0.0	23904.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.8	1.1
10°-20°	848.6	3.6
20°-30°	1583.1	6.6
30°-40°	2669.4	11.2
40°-50°	4335.9	18.1
50°-60°	6793.5	28.4
60°-70°	6412.8	26.8
70°-80°	864.3	3.6
80°-90°	131.6	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°	23904.0	100.0
0°-180°	23904.0	100.0



REPORT NUMBER: P270488

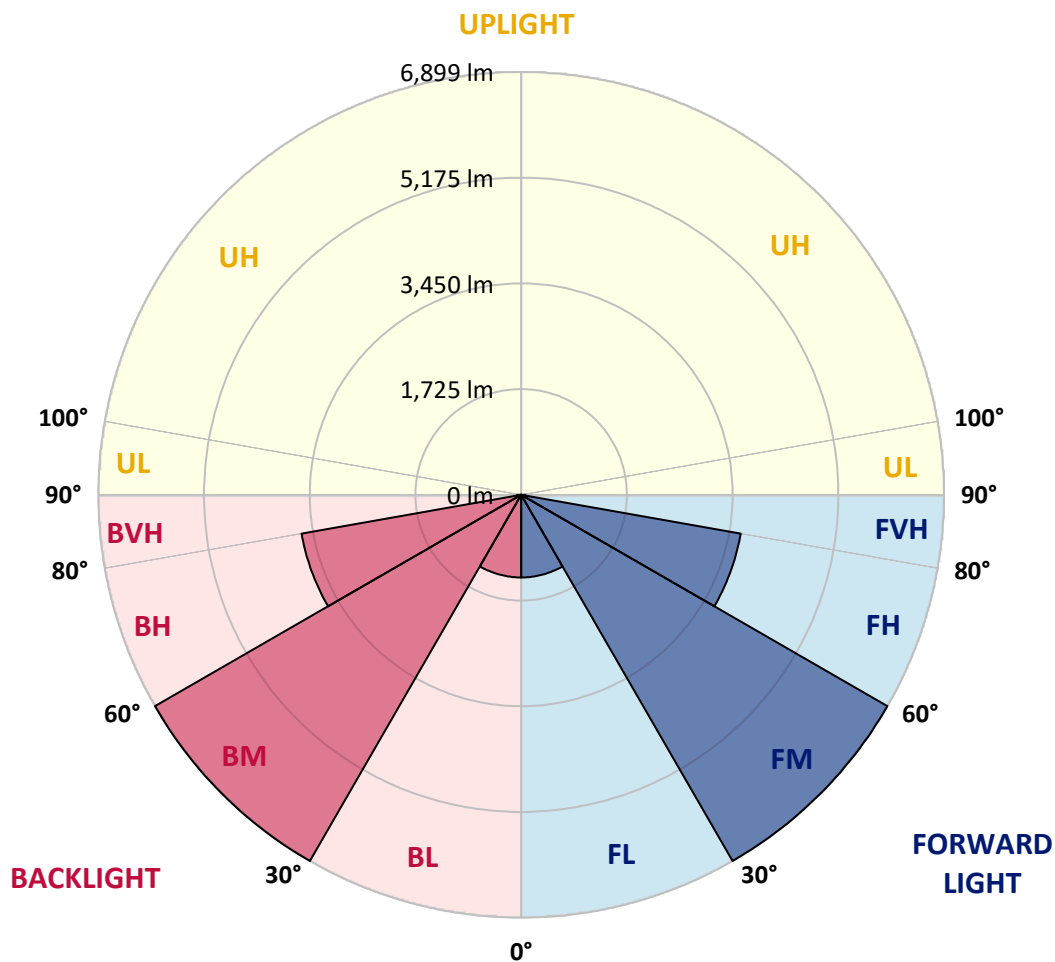
CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1348.3	5.6			
FM (30°-60°)	6899.4	28.9			
FH (60°-80°)	3638.5	15.2			G2/5000
FVH (80°-90°)	65.8	0.3			G1/100
BL (0°-30°)	1348.3	5.6	B3/2500		
BM (30°-60°)	6899.4	28.9	B4/8500		
BH (60°-80°)	3638.5	15.2	B4/5000		G2/5000
BVH (80°-90°)	65.8	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





REPORT NUMBER: P270488

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1
2.5°	2741.4	2741.4	2745.8	2744.3	2738.5	2733.9	2729.5	2723.5	2720.5	2717.6	2716.0
5°	2756.3	2756.3	2760.8	2759.2	2754.8	2748.9	2745.8	2741.4	2737.0	2733.9	2735.3
7.5°	2793.5	2794.9	2796.5	2794.9	2790.6	2786.1	2780.2	2778.5	2772.7	2768.1	2771.2
10°	2850.1	2850.1	2851.6	2853.0	2850.1	2839.6	2839.6	2836.7	2830.6	2824.8	2826.2
12.5°	2912.7	2912.7	2914.1	2914.1	2914.1	2908.2	2909.6	2908.2	2900.6	2897.8	2900.6
15°	2973.7	2975.1	2975.1	2978.2	2978.2	2979.7	2985.5	2985.5	2982.6	2981.1	2981.1
17.5°	3045.2	3048.0	3049.7	3054.1	3055.6	3058.5	3064.5	3066.1	3067.5	3063.0	3064.5
20°	3140.5	3141.9	3146.5	3147.9	3153.9	3153.9	3156.9	3155.3	3152.3	3146.5	3146.5
22.5°	3247.6	3250.6	3259.6	3259.6	3267.0	3262.6	3264.0	3259.6	3252.1	3249.2	3246.1
25°	3387.7	3392.1	3399.5	3396.6	3399.5	3392.1	3392.1	3392.1	3387.7	3383.1	3381.7
27.5°	3564.8	3557.4	3564.8	3558.8	3557.4	3551.4	3552.9	3549.9	3545.5	3544.1	3538.1
30°	3749.4	3740.5	3745.0	3746.6	3743.5	3742.0	3736.1	3731.6	3724.2	3725.7	3721.1
32.5°	3960.9	3952.1	3956.4	3957.9	3955.0	3957.9	3956.4	3946.1	3937.1	3943.1	3943.1
35°	4212.6	4206.7	4218.5	4223.0	4214.0	4209.5	4203.7	4191.8	4178.3	4187.3	4188.7
37.5°	4514.9	4507.4	4516.4	4528.3	4511.8	4502.9	4479.0	4461.3	4452.3	4456.9	4462.8
40°	4829.1	4830.5	4855.9	4858.8	4841.0	4830.5	4806.7	4779.9	4754.5	4754.5	4762.1
42.5°	5159.7	5164.0	5193.9	5204.3	5198.3	5179.0	5146.2	5113.5	5080.8	5086.7	5095.6
45°	5533.4	5527.5	5558.7	5584.0	5579.6	5573.7	5542.4	5482.7	5453.0	5451.5	5466.4
47.5°	5926.5	5938.4	5971.3	6014.3	6012.9	5998.1	5957.7	5902.8	5847.5	5852.1	5870.0
50°	6385.2	6401.5	6456.6	6499.7	6505.7	6501.4	6453.7	6389.6	6312.2	6316.6	6340.4
52.5°	6796.1	6819.9	6884.0	6973.4	7028.3	7053.8	7022.5	6962.9	6884.0	6888.5	6913.7
55°	7168.5	7205.7	7301.0	7423.1	7533.2	7636.0	7682.1	7680.7	7622.6	7636.0	7668.7
57.5°	7402.3	7454.3	7598.8	7795.3	8014.1	8221.2	8400.0	8568.2	8605.4	8675.3	8675.3
60°	7087.9	7210.1	7402.3	7738.7	8169.0	8633.7	9137.0	9626.9	9942.5	10191.2	10057.2
62.5°	5919.1	6099.2	6368.8	6812.6	7482.6	8311.9	9323.1	10462.2	11650.5	12377.1	11844.2
65°	3830.0	4056.2	4349.7	4848.4	5692.6	6760.5	8233.1	10280.6	12767.3	14056.9	12865.5
67.5°	1517.3	1670.8	1849.4	2203.8	2936.5	3984.7	5637.7	8163.1	11273.8	12490.4	11154.7
70°	725.2	750.5	784.7	860.7	1043.8	1408.6	2264.8	4022.0	6913.7	8195.9	6748.4
72.5°	524.2	528.7	545.0	570.3	624.0	698.4	848.8	1230.0	2384.0	3466.6	2386.9
75°	397.6	403.6	412.5	425.8	454.2	489.8	546.4	655.3	816.0	941.2	814.6
77.5°	302.3	308.3	315.7	329.0	344.1	369.4	390.1	433.3	501.9	528.7	525.7
80°	220.4	230.9	242.7	254.6	265.1	276.9	278.5	299.3	338.0	363.4	355.9
82.5°	140.0	148.8	180.2	193.6	195.0	198.0	196.5	198.0	218.8	236.8	230.9
85°	89.3	95.3	111.7	126.7	123.5	129.5	129.5	126.7	117.7	101.2	120.6
87.5°	44.6	46.2	53.5	67.1	64.0	56.7	55.1	55.1	40.2	34.2	37.2
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: P270488

CATALOG NUMBER: NAV-AF-04-D-UNV-5NQ-7027-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1	2719.1
2.5°	2711.7	2714.6	2710.0	2710.0	2708.6	2711.7	2707.1	2707.1
5°	2732.5	2737.0	2735.3	2735.3	2738.5	2741.4	2739.9	2738.5
7.5°	2769.7	2772.7	2775.7	2777.1	2780.2	2778.5	2781.6	2780.2
10°	2826.2	2823.4	2827.8	2823.4	2824.8	2821.8	2823.4	2823.4
12.5°	2897.8	2893.4	2890.2	2887.3	2887.3	2881.4	2881.4	2882.8
15°	2979.7	2972.2	2966.3	2963.2	2960.3	2960.3	2955.9	2958.7
17.5°	3060.0	3052.6	3042.2	3042.2	3037.7	3034.7	3031.8	3039.1
20°	3145.0	3137.5	3131.5	3130.1	3121.2	3118.1	3119.6	3128.5
22.5°	3243.2	3238.7	3238.7	3235.8	3229.8	3225.4	3225.4	3235.8
25°	3375.7	3366.8	3368.3	3369.8	3366.8	3366.8	3363.9	3371.2
27.5°	3538.1	3530.6	3535.1	3538.1	3535.1	3539.5	3535.1	3540.9
30°	3728.7	3724.2	3728.7	3733.0	3725.7	3725.7	3722.7	3727.2
32.5°	3956.4	3950.6	3953.5	3953.5	3943.1	3934.1	3922.2	3931.2
35°	4206.7	4199.1	4205.1	4209.5	4197.7	4188.7	4170.9	4178.3
37.5°	4482.2	4485.1	4492.6	4511.8	4509.0	4494.0	4480.7	4486.6
40°	4790.3	4805.3	4838.0	4851.3	4848.4	4833.5	4815.6	4818.7
42.5°	5138.8	5158.2	5192.5	5214.8	5204.3	5183.5	5161.1	5170.0
45°	5518.5	5548.3	5592.9	5615.2	5601.9	5579.6	5548.3	5564.7
47.5°	5920.5	5980.1	6039.7	6069.5	6064.9	6033.7	5993.5	5998.1
50°	6401.5	6480.5	6556.4	6586.2	6563.8	6516.1	6459.6	6458.2
52.5°	7000.1	7085.0	7147.5	7140.1	7085.0	7010.6	6946.6	6943.5
55°	7747.6	7776.0	7767.0	7703.0	7606.2	7490.1	7408.1	7394.8
57.5°	8651.5	8556.3	8416.2	8222.6	8005.2	7784.9	7636.0	7580.8
60°	9756.4	9326.1	8825.8	8298.6	7817.6	7457.3	7229.5	7091.0
62.5°	10669.2	9423.0	8304.7	7388.7	6639.8	6194.5	5883.3	5691.2
65°	10356.5	8140.8	6520.6	5339.9	4522.2	4062.1	3733.0	3514.2
67.5°	8000.8	5439.5	3785.2	2623.8	1989.3	1684.1	1471.2	1332.7
70°	4033.8	2086.3	1264.3	891.9	762.4	708.9	673.1	652.2
72.5°	1183.8	790.7	656.8	580.8	534.6	501.9	481.0	470.5
75°	655.3	534.6	472.0	428.9	399.0	376.7	363.4	354.4
77.5°	451.2	388.6	357.3	329.0	305.2	288.9	278.5	269.5
80°	315.7	284.5	271.0	256.1	238.2	224.8	209.9	204.1
82.5°	209.9	196.5	193.6	181.6	171.2	156.3	129.5	120.6
85°	123.5	122.1	122.1	117.7	110.2	96.7	77.4	77.4
87.5°	43.2	44.6	46.2	49.1	47.6	40.2	32.8	31.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)