

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: P195947

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195947  
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-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 4000K, 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: 25548.2 lumens  
Efficiency: N/A  
Efficacy: 121.7 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

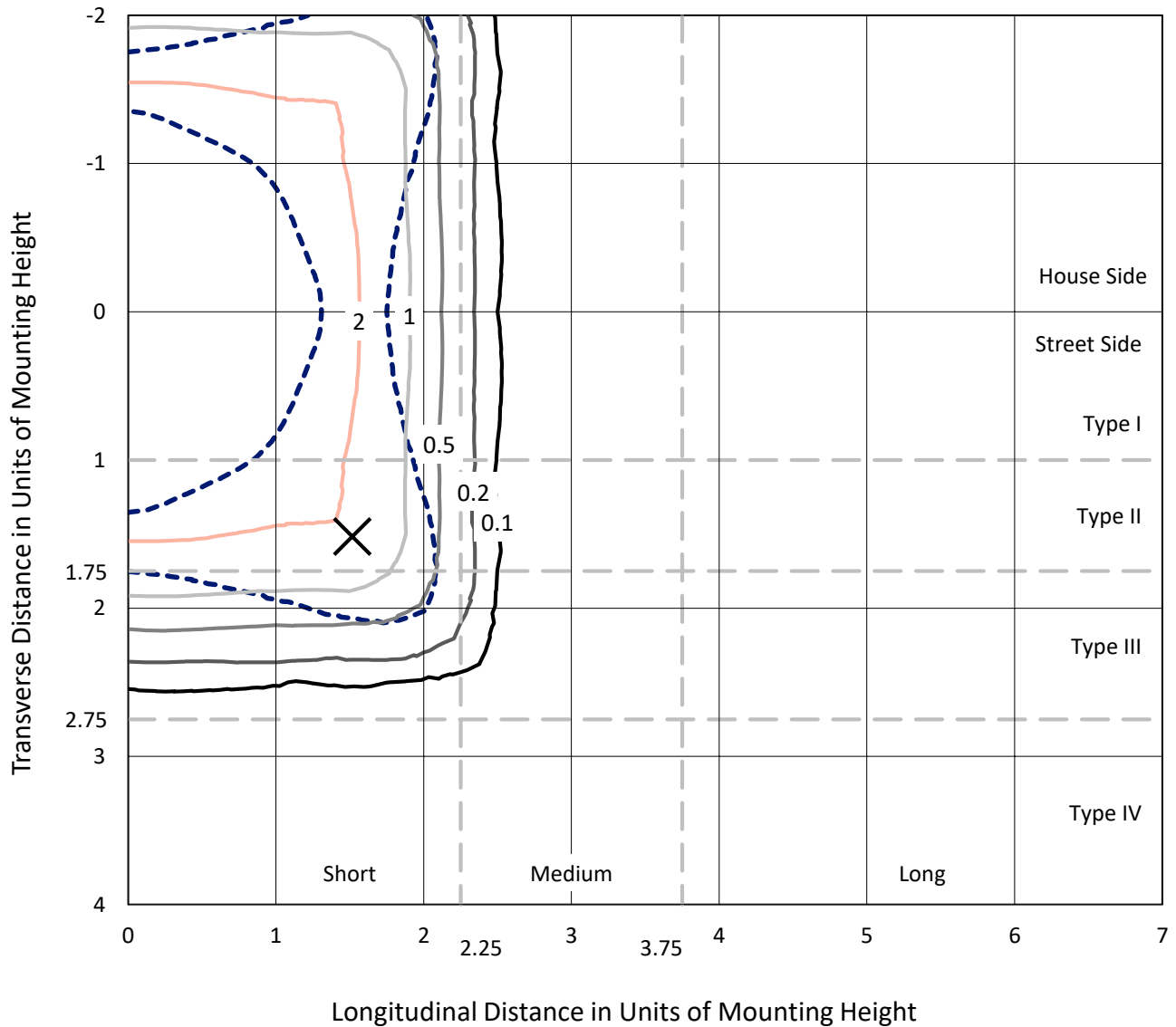
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P195947  
 CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

### Iso-Footcandle Lines of Horizontal Illumination

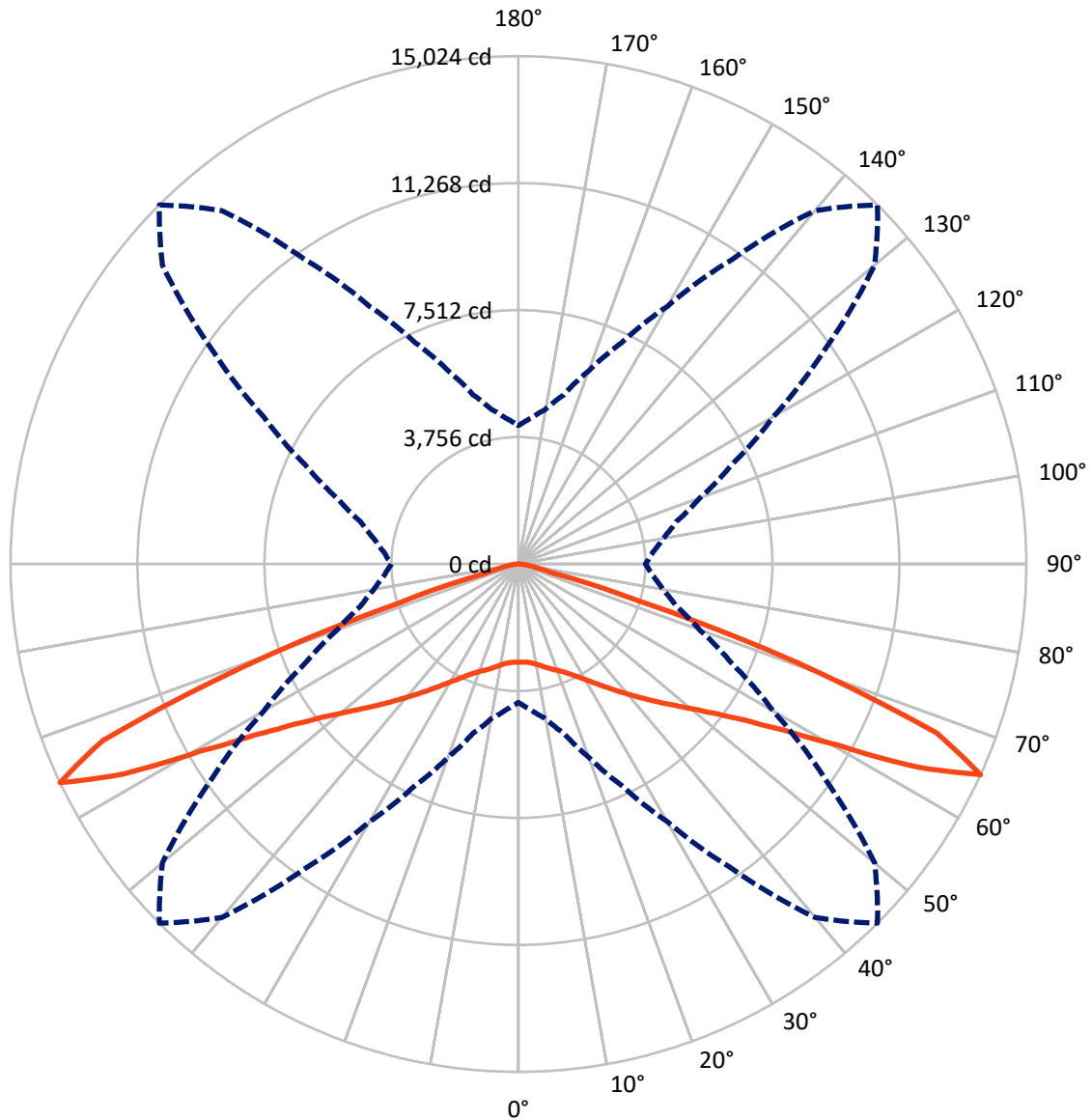
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P195947  
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P195947

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12774.1	0.0	12774.1
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12774.1	0.0	12774.1
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25548.2	0.0	25548.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.0	1.1
10°-20°	907.0	3.6
20°-30°	1692.0	6.6
30°-40°	2853.0	11.2
40°-50°	4634.1	18.1
50°-60°	7260.8	28.4
60°-70°	6853.9	26.8
70°-80°	923.7	3.6
80°-90°	140.7	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°	25548.2	100.0
0°-180°	25548.2	100.0

**Coefficient of Utilization**



REPORT NUMBER: P195947

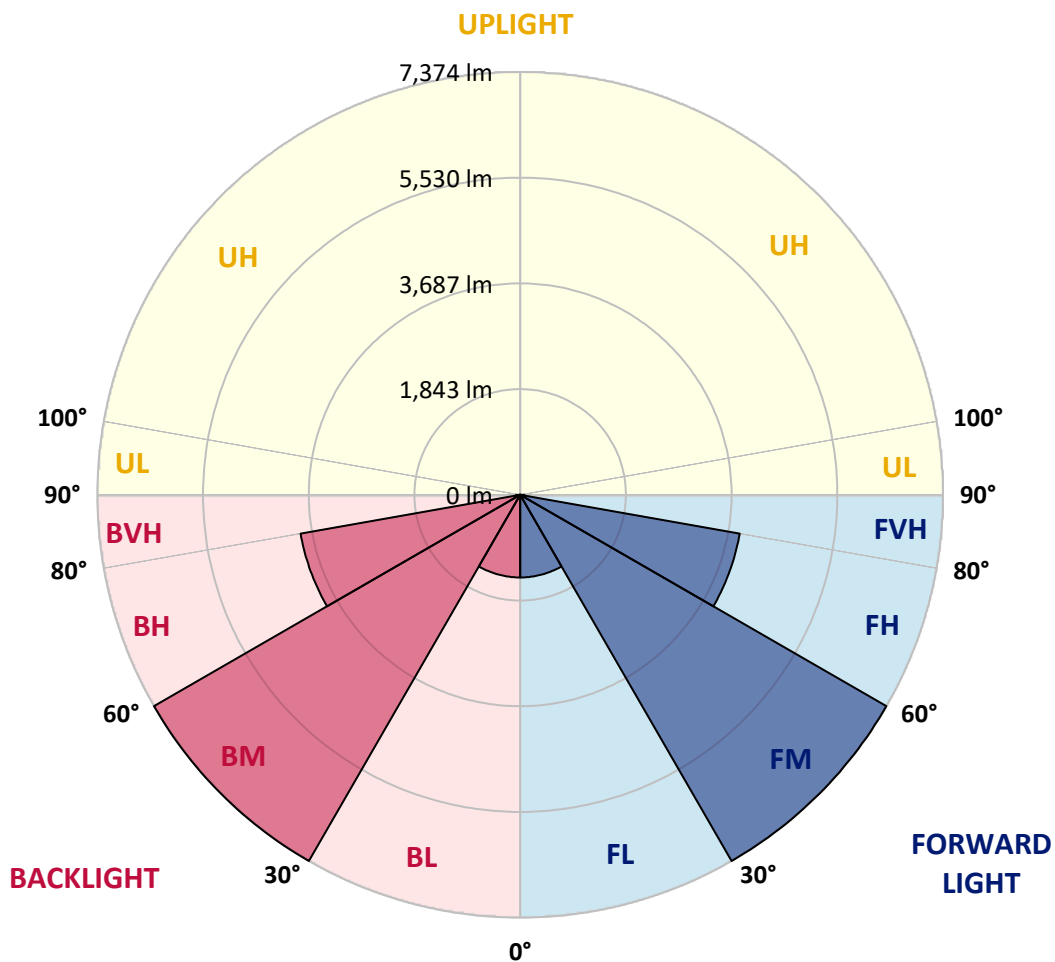
CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1441.0	5.6			
FM	(30°-60°)	7374.0	28.9			
FH	(60°-80°)	3888.8	15.2			G2/5000
FVH	(80°-90°)	70.3	0.3			G1/100
BL	(0°-30°)	1441.0	5.6	B3/2500		
BM	(30°-60°)	7374.0	28.9	B4/8500		
BH	(60°-80°)	3888.8	15.2	B4/5000		G2/5000
BVH	(80°-90°)	70.3	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: P195947

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1
2.5°	2929.9	2929.9	2934.7	2933.1	2926.8	2922.0	2917.3	2910.8	2907.6	2904.5	2902.9
5°	2945.9	2945.9	2950.6	2949.1	2944.3	2937.9	2934.7	2929.9	2925.1	2922.0	2923.6
7.5°	2985.7	2987.2	2988.9	2987.2	2982.5	2977.7	2971.4	2969.7	2963.4	2958.6	2961.7
10°	3046.1	3046.1	3047.7	3049.3	3046.1	3035.0	3035.0	3031.8	3025.5	3019.0	3020.7
12.5°	3112.9	3112.9	3114.6	3114.6	3114.6	3108.2	3109.8	3108.2	3100.3	3097.1	3100.3
15°	3178.2	3179.8	3179.8	3183.0	3183.0	3184.5	3191.0	3191.0	3187.8	3186.2	3186.2
17.5°	3254.6	3257.8	3259.4	3264.1	3265.8	3268.9	3275.3	3276.9	3278.5	3273.7	3275.3
20°	3356.5	3358.0	3362.8	3364.4	3370.8	3370.8	3374.0	3372.4	3369.2	3362.8	3362.8
22.5°	3471.1	3474.2	3483.8	3483.8	3491.7	3486.9	3488.6	3483.8	3475.9	3472.6	3469.4
25°	3620.6	3625.4	3633.4	3630.2	3633.4	3625.4	3625.4	3625.4	3620.6	3615.9	3614.3
27.5°	3810.1	3802.1	3810.1	3803.6	3802.1	3795.8	3797.3	3794.1	3789.3	3787.8	3781.4
30°	4007.4	3997.8	4002.6	4004.2	4001.1	3999.4	3993.1	3988.3	3980.3	3981.9	3977.1
32.5°	4233.4	4223.9	4228.6	4230.2	4227.0	4230.2	4228.6	4217.4	4207.9	4214.3	4214.3
35°	4502.3	4496.0	4508.8	4513.5	4504.0	4499.1	4492.8	4480.1	4465.8	4475.3	4476.8
37.5°	4825.5	4817.5	4827.0	4839.8	4822.3	4812.7	4787.2	4768.2	4758.6	4763.4	4769.7
40°	5161.2	5162.8	5189.8	5193.0	5174.0	5162.8	5137.4	5108.7	5081.6	5081.6	5089.6
42.5°	5514.5	5519.3	5551.1	5562.3	5556.0	5535.2	5500.2	5465.2	5430.2	5436.6	5446.1
45°	5914.0	5907.6	5941.1	5968.1	5963.4	5956.9	5923.6	5859.9	5828.1	5826.5	5842.4
47.5°	6334.2	6346.9	6381.9	6428.0	6426.5	6410.5	6367.6	6308.7	6249.8	6254.6	6273.7
50°	6824.3	6841.9	6900.7	6946.9	6953.3	6948.5	6897.6	6829.1	6746.4	6751.2	6776.6
52.5°	7263.6	7289.0	7357.5	7453.0	7511.8	7538.9	7505.5	7441.9	7357.5	7362.3	7389.3
55°	7661.5	7701.3	7803.1	7933.6	8051.4	8161.2	8210.5	8209.0	8146.9	8161.2	8196.2
57.5°	7911.3	7967.0	8121.4	8331.5	8565.5	8786.6	8977.6	9157.5	9197.2	9272.0	9272.0
60°	7575.6	7706.0	7911.3	8271.1	8731.0	9227.5	9765.4	10289.0	10626.4	10892.2	10749.0
62.5°	6326.2	6518.8	6806.8	7281.1	7997.3	8883.7	9964.4	11181.9	12451.9	13228.5	12658.8
65°	4093.3	4335.3	4648.8	5182.0	6084.3	7225.4	8799.4	10987.7	13645.6	15023.8	13750.5
67.5°	1621.8	1785.7	1976.6	2355.4	3138.4	4258.9	6025.4	8724.6	12049.2	13349.5	11921.9
70°	775.1	802.1	838.7	919.8	1115.6	1505.6	2420.7	4298.6	7389.3	8759.6	7212.6
72.5°	560.2	565.0	582.5	609.6	666.9	746.4	907.2	1314.6	2548.0	3705.0	2551.1
75°	424.9	431.3	440.9	455.2	485.4	523.6	584.1	700.2	872.2	1005.9	870.5
77.5°	323.0	329.4	337.4	351.7	367.6	394.7	417.0	463.1	536.3	565.0	561.8
80°	235.6	246.6	259.4	272.1	283.3	296.0	297.6	319.9	361.3	388.3	380.3
82.5°	149.6	159.2	192.6	206.9	208.5	211.6	210.1	211.6	233.9	253.1	246.6
85°	95.4	101.9	119.4	135.2	132.1	138.5	138.5	135.2	125.7	108.2	128.9
87.5°	47.8	49.3	57.3	71.6	68.4	60.5	58.9	58.9	43.0	36.6	39.8
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: P195947

CATALOG NUMBER: NAV-AF-05-D-UNV-5NQ-800

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1	2906.1
2.5°	2898.1	2901.3	2896.5	2896.5	2895.0	2898.1	2893.3	2893.3
5°	2920.4	2925.1	2923.6	2923.6	2926.8	2929.9	2928.4	2926.8
7.5°	2960.2	2963.4	2966.6	2968.2	2971.4	2969.7	2972.9	2971.4
10°	3020.7	3017.5	3022.2	3017.5	3019.0	3015.9	3017.5	3017.5
12.5°	3097.1	3092.3	3089.1	3085.9	3085.9	3079.6	3079.6	3081.1
15°	3184.5	3176.7	3170.2	3167.1	3163.9	3163.9	3159.1	3162.4
17.5°	3270.6	3262.6	3251.4	3251.4	3246.6	3243.5	3240.3	3248.3
20°	3361.2	3353.3	3346.9	3345.4	3335.7	3332.6	3334.2	3343.7
22.5°	3466.3	3461.5	3461.5	3458.3	3451.9	3447.1	3447.1	3458.3
25°	3607.9	3598.3	3600.0	3601.6	3598.3	3598.3	3595.2	3603.1
27.5°	3781.4	3773.5	3778.3	3781.4	3778.3	3783.0	3778.3	3784.6
30°	3985.1	3980.3	3985.1	3989.9	3981.9	3981.9	3978.8	3983.5
32.5°	4228.6	4222.2	4225.4	4225.4	4214.3	4204.7	4192.1	4201.6
35°	4496.0	4488.0	4494.4	4499.1	4486.5	4476.8	4457.8	4465.8
37.5°	4790.4	4793.5	4801.5	4822.3	4819.0	4803.2	4788.8	4795.2
40°	5119.9	5135.7	5170.8	5185.1	5182.0	5166.0	5146.9	5150.0
42.5°	5492.2	5513.0	5549.5	5573.4	5562.3	5540.0	5516.2	5525.7
45°	5898.1	5929.9	5977.7	6001.6	5987.2	5963.4	5929.9	5947.4
47.5°	6327.8	6391.5	6455.1	6486.9	6482.1	6448.8	6405.8	6410.5
50°	6841.9	6926.2	7007.4	7039.2	7015.3	6964.4	6903.9	6902.4
52.5°	7481.7	7572.4	7639.2	7631.2	7572.4	7492.8	7424.4	7421.2
55°	8280.6	8310.8	8301.2	8232.8	8129.4	8005.2	7917.7	7903.4
57.5°	9246.7	9144.8	8995.1	8788.3	8555.9	8320.4	8161.2	8102.3
60°	10427.6	9967.5	9432.8	8869.4	8355.4	7970.2	7726.8	7578.7
62.5°	11403.1	10071.1	8875.8	7897.0	7096.5	6620.6	6288.0	6082.7
65°	11068.8	8700.7	6969.2	5707.1	4833.3	4341.6	3989.9	3756.0
67.5°	8551.2	5813.7	4045.6	2804.2	2126.2	1800.0	1572.4	1424.4
70°	4311.3	2229.7	1351.2	953.3	814.9	757.6	719.3	697.0
72.5°	1265.3	845.1	701.8	620.7	571.3	536.3	514.0	502.9
75°	700.2	571.3	504.5	458.4	426.6	402.6	388.3	378.8
77.5°	482.2	415.4	382.0	351.7	326.2	308.7	297.6	288.1
80°	337.4	304.0	289.7	273.7	254.6	240.3	224.4	218.0
82.5°	224.4	210.1	206.9	194.2	183.0	167.2	138.5	128.9
85°	132.1	130.5	130.5	125.7	117.7	103.4	82.8	82.8
87.5°	46.1	47.8	49.3	52.5	50.9	43.0	35.0	33.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)