

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: P194963

Luminaire Tested: **NAV-AF-05-D-UNV-5MQ-7060-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P194963  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
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-5MQ-7060-800  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(5) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 25873 lumens  
Efficiency: N/A  
Efficacy: 123.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

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

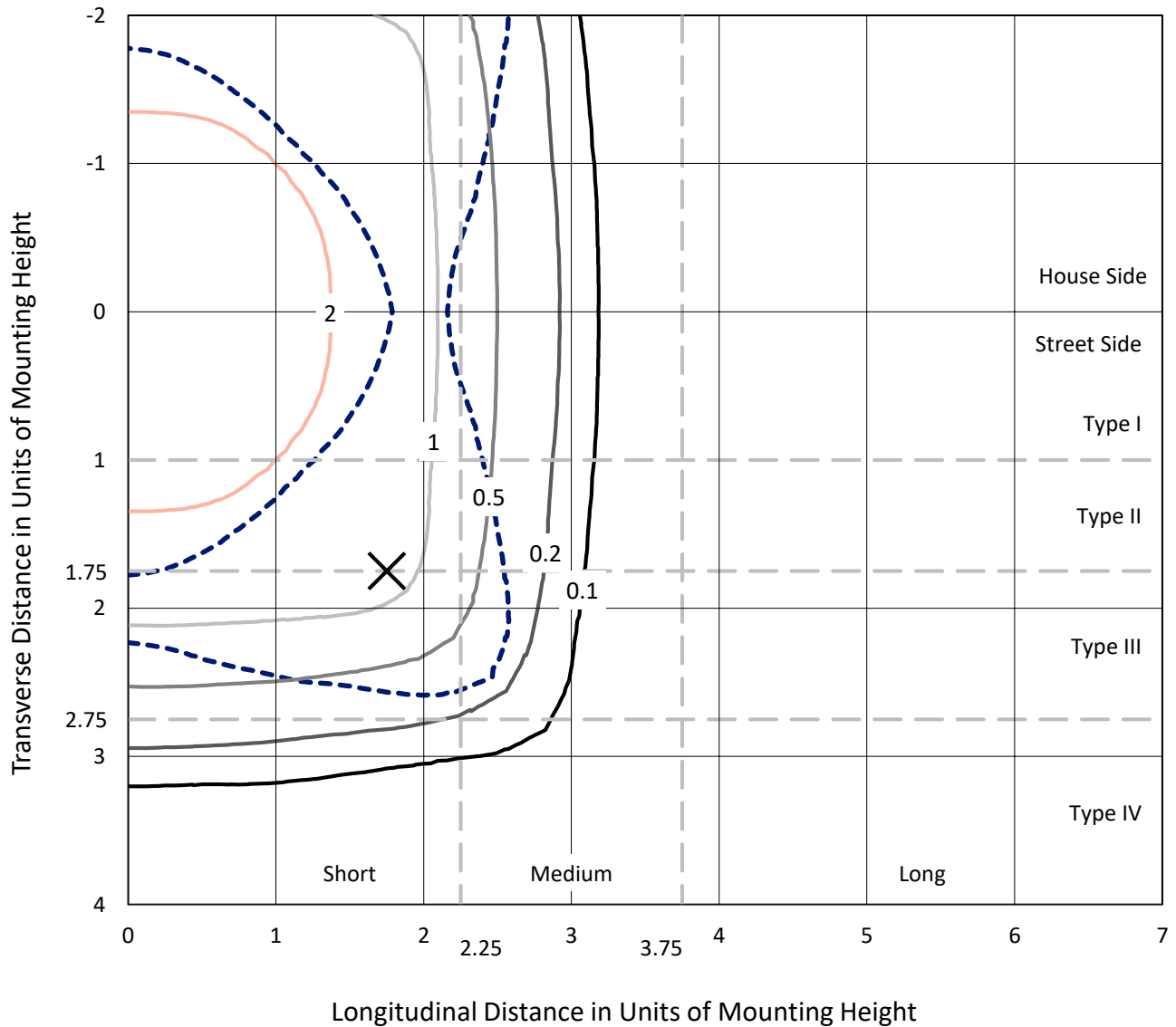


REPORT NUMBER: P194963

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

### Iso-Footcandle Lines of Horizontal Illumination

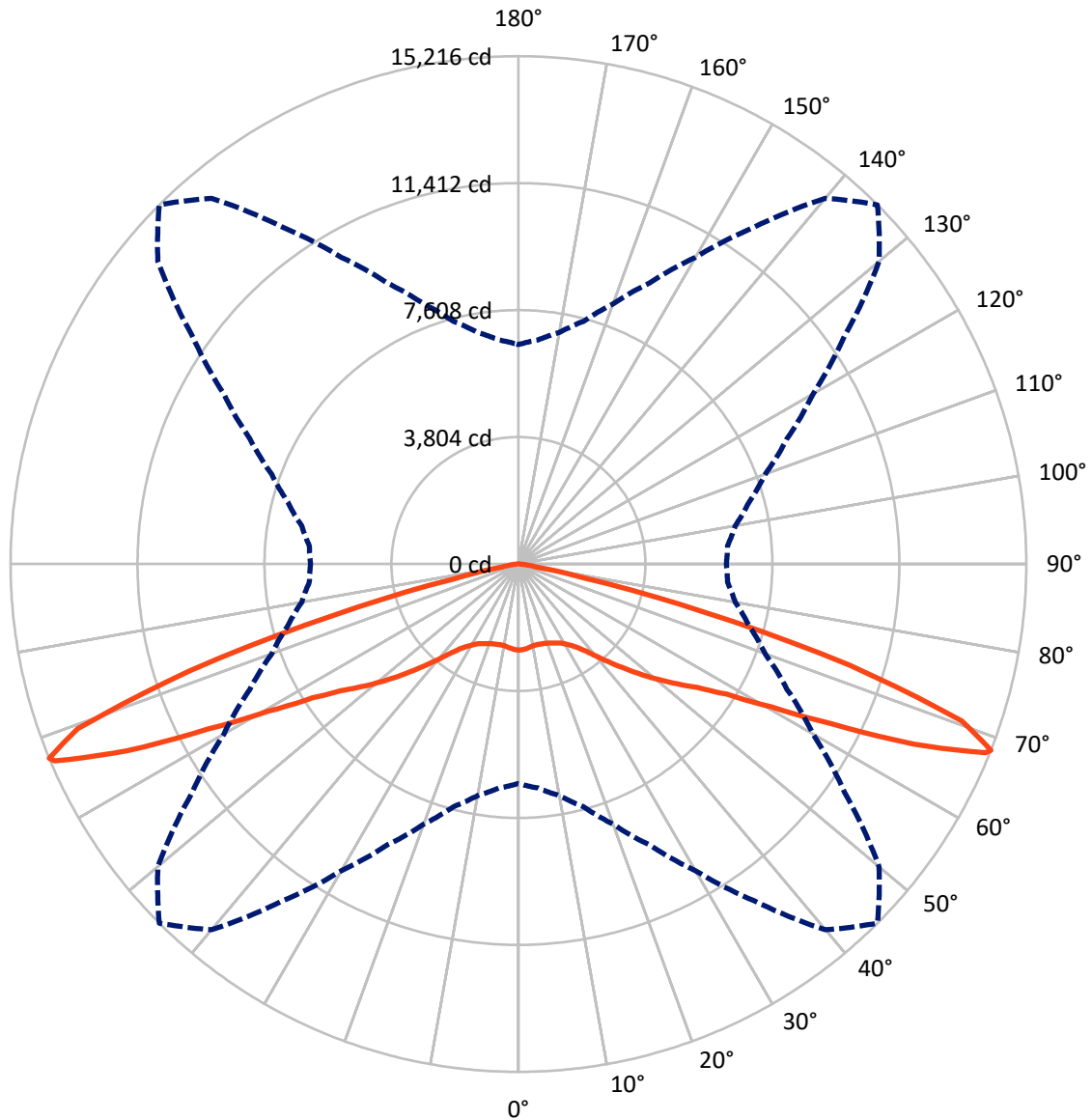
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type V - Short - Full Cutoff

REPORT NUMBER: P194963  
CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

REPORT NUMBER: P194963

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	12936.5	0.0	12936.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	12936.5	0.0	12936.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	25873.0	0.0	25873.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.5	0.9
10°-20°	700.4	2.7
20°-30°	1190.8	4.6
30°-40°	1948.6	7.5
40°-50°	3482.5	13.5
50°-60°	5881.4	22.7
60°-70°	9119.9	35.2
70°-80°	3135.6	12.1
80°-90°	172.3	0.7
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°	25873.0	100.0
0°-180°	25873.0	100.0



REPORT NUMBER: P194963

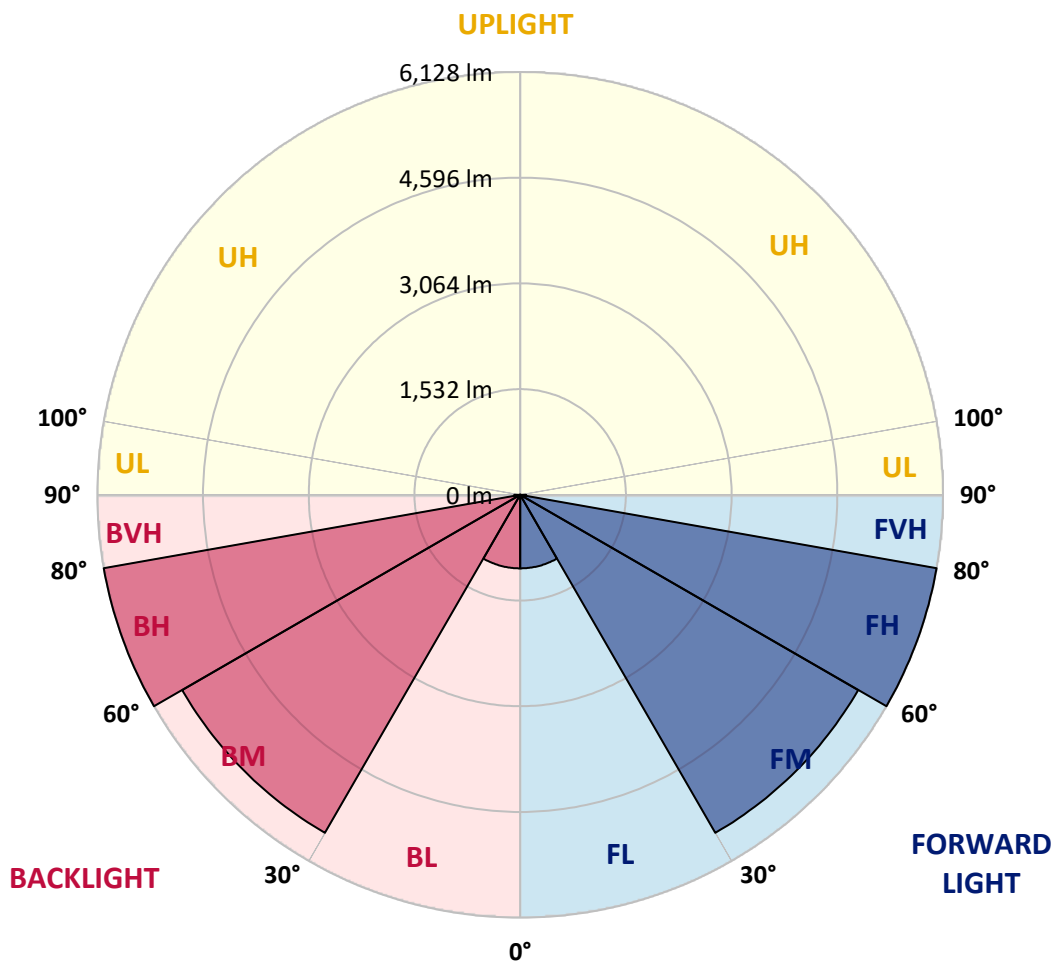
CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1066.3	4.1			
FM	(30°-60°)	5656.3	21.9			
FH	(60°-80°)	6127.7	23.7			G3/7500
FVH	(80°-90°)	86.2	0.3			G1/100
BL	(0°-30°)	1066.3	4.1	B3/2500		
BM	(30°-60°)	5656.3	21.9	B4/8500		
BH	(60°-80°)	6127.7	23.7	B5		G3/7500
BVH	(80°-90°)	86.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





REPORT NUMBER: P194963

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9
2.5°	2592.0	2592.0	2595.2	2593.6	2588.8	2584.1	2579.3	2574.6	2571.4	2568.2	2565.1
5°	2565.1	2565.1	2569.8	2566.6	2563.5	2558.7	2555.6	2550.8	2547.6	2544.5	2546.1
7.5°	2530.2	2533.4	2536.5	2535.0	2528.6	2527.0	2522.3	2520.7	2517.5	2512.8	2514.4
10°	2500.1	2501.7	2504.9	2503.3	2501.7	2496.9	2495.4	2493.8	2492.2	2485.8	2484.3
12.5°	2470.0	2473.2	2476.3	2477.9	2476.3	2477.9	2479.5	2481.1	2479.5	2476.3	2476.3
15°	2446.2	2449.4	2454.2	2458.9	2460.5	2470.0	2476.3	2482.7	2487.4	2489.0	2484.3
17.5°	2433.6	2438.3	2444.7	2454.2	2462.1	2473.2	2484.3	2493.8	2501.7	2503.3	2498.5
20°	2432.0	2436.7	2446.2	2457.3	2471.6	2485.8	2503.3	2517.5	2525.5	2530.2	2525.5
22.5°	2443.1	2449.4	2462.1	2476.3	2493.8	2512.8	2535.0	2550.8	2566.6	2573.0	2568.2
25°	2474.8	2481.1	2495.4	2512.8	2531.8	2555.6	2577.7	2598.3	2614.2	2622.1	2615.8
27.5°	2541.3	2542.9	2558.7	2577.7	2599.9	2620.5	2649.0	2658.5	2671.2	2679.1	2671.2
30°	2634.8	2637.9	2652.2	2682.3	2702.9	2729.8	2745.7	2755.2	2769.4	2777.4	2767.9
32.5°	2777.4	2780.5	2793.2	2821.7	2840.7	2861.3	2880.4	2886.7	2900.9	2910.5	2899.4
35°	2978.6	2984.9	2996.0	3015.0	3030.9	3046.7	3061.0	3056.2	3065.7	3078.4	3067.3
37.5°	3254.3	3252.7	3255.8	3270.1	3285.9	3295.5	3317.6	3306.5	3316.0	3327.1	3320.8
40°	3575.9	3575.9	3574.3	3599.6	3606.0	3615.5	3639.3	3625.0	3637.7	3650.3	3639.3
42.5°	3941.9	3948.2	3956.1	3976.7	3994.2	3997.3	4008.4	4002.1	4017.9	4029.0	4017.9
45°	4363.3	4372.8	4382.3	4429.8	4437.8	4444.1	4452.0	4431.4	4448.9	4458.4	4455.2
47.5°	4800.6	4818.0	4838.6	4887.7	4919.4	4933.7	4940.0	4916.2	4917.8	4932.1	4933.7
50°	5294.9	5313.9	5334.5	5390.0	5420.1	5445.4	5453.3	5426.4	5429.6	5440.7	5443.8
52.5°	5751.2	5773.4	5817.7	5892.2	5935.0	5979.3	5982.5	5949.2	5963.5	5971.4	5965.1
55°	6180.6	6209.1	6267.7	6367.5	6445.1	6532.3	6571.9	6535.5	6535.5	6529.1	6525.9
57.5°	6681.2	6712.9	6773.1	6888.8	6996.5	7121.7	7229.4	7265.8	7332.4	7354.6	7319.7
60°	7435.4	7468.6	7530.4	7682.5	7818.8	8001.0	8178.4	8322.6	8557.1	8683.8	8569.8
62.5°	8124.6	8175.3	8321.0	8587.2	8881.9	9219.3	9610.7	9889.5	10315.7	10528.0	10241.2
65°	7967.7	8070.7	8355.9	8774.1	9382.5	10114.5	10911.4	11676.7	12557.6	13009.1	12426.1
67.5°	6960.1	7047.2	7354.6	7841.0	8599.9	9609.1	10848.1	12432.4	14249.7	15095.7	14064.3
68°	6575.1	6738.2	7044.0	7527.3	8292.5	9284.3	10607.2	12318.3	14301.9	15216.1	14102.3
70°	5041.4	5100.0	5393.1	5827.2	6652.7	7625.5	8961.1	10911.4	13153.3	14094.4	12948.9
72.5°	2395.5	2430.4	2620.5	3048.3	3572.7	4364.9	5543.6	7383.1	9403.1	10382.3	9239.9
75°	877.7	885.7	930.0	1031.4	1227.9	1525.7	2091.3	3235.2	4789.5	5711.6	4808.5
77.5°	473.7	475.3	492.7	518.1	552.9	592.5	678.1	909.4	1467.1	1996.3	1549.5
80°	297.9	296.3	313.7	334.3	358.1	377.1	385.0	411.9	464.2	543.4	499.1
82.5°	152.1	166.4	206.0	228.1	263.0	269.3	261.4	259.8	275.7	297.9	307.4
85°	84.0	74.5	109.3	145.8	158.4	163.2	164.8	155.3	152.1	148.9	156.9
87.5°	42.8	39.6	47.5	72.9	77.6	63.4	65.0	55.5	38.0	38.0	39.6
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: P194963

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-7060-800

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9	2580.9
2.5°	2561.9	2563.5	2560.3	2560.3	2560.3	2561.9	2560.3	2558.7
5°	2541.3	2544.5	2544.5	2546.1	2547.6	2547.6	2547.6	2547.6
7.5°	2511.2	2512.8	2516.0	2516.0	2516.0	2516.0	2516.0	2516.0
10°	2482.7	2479.5	2477.9	2474.8	2474.8	2470.0	2471.6	2473.2
12.5°	2468.4	2462.1	2458.9	2454.2	2451.0	2446.2	2446.2	2447.8
15°	2474.8	2465.3	2455.7	2452.6	2449.4	2446.2	2443.1	2444.7
17.5°	2487.4	2476.3	2465.3	2458.9	2452.6	2447.8	2446.2	2447.8
20°	2514.4	2498.5	2481.1	2470.0	2457.3	2454.2	2449.4	2454.2
22.5°	2550.8	2531.8	2509.6	2489.0	2474.8	2468.4	2462.1	2466.8
25°	2595.2	2574.6	2552.4	2528.6	2512.8	2508.0	2500.1	2500.1
27.5°	2657.0	2639.5	2620.5	2598.3	2582.5	2577.7	2565.1	2565.1
30°	2755.2	2737.8	2720.3	2701.3	2685.5	2680.7	2664.9	2664.9
32.5°	2885.1	2866.1	2855.0	2839.2	2826.5	2818.6	2799.5	2798.0
35°	3059.4	3042.0	3040.4	3029.3	3016.6	3018.2	2999.2	2996.0
37.5°	3309.7	3295.5	3300.2	3290.7	3279.6	3289.1	3278.0	3278.0
40°	3629.7	3625.0	3629.7	3623.4	3625.0	3626.6	3617.1	3620.2
42.5°	4016.3	4003.7	4032.2	4029.0	4024.3	4036.9	4014.7	3998.9
45°	4461.5	4456.8	4485.3	4490.1	4480.5	4488.5	4448.9	4447.3
47.5°	4944.8	4944.8	4970.1	4966.9	4957.4	4959.0	4911.5	4881.4
50°	5448.6	5445.4	5470.8	5464.4	5451.8	5450.2	5401.1	5371.0
52.5°	5973.0	5973.0	6009.4	5992.0	5961.9	5947.7	5887.5	5847.8
55°	6552.9	6545.0	6556.0	6499.0	6440.4	6397.6	6323.1	6293.0
57.5°	7286.4	7194.5	7115.3	7042.4	6960.1	6909.4	6822.2	6790.5
60°	8327.4	8081.8	7975.6	7829.9	7693.6	7625.5	7509.8	7448.0
62.5°	9769.1	9361.9	9073.6	8752.0	8441.4	8222.8	8046.9	7969.3
65°	11435.8	10548.6	9815.1	9125.9	8541.2	8077.0	7818.8	7738.0
67.5°	12069.6	10440.9	9175.0	8186.3	7476.6	6923.6	6614.7	6549.7
68°	11934.9	10193.7	8878.7	7866.3	7153.3	6595.7	6288.3	6229.7
70°	10528.0	8599.9	7212.0	6204.3	5538.9	5008.1	4791.1	4697.6
72.5°	7177.1	5523.0	4236.6	3388.9	2891.4	2555.6	2355.9	2287.8
75°	3303.4	2232.4	1490.9	1113.8	945.9	865.1	803.3	787.4
77.5°	963.3	700.3	602.1	557.7	524.4	495.9	475.3	473.7
80°	457.9	429.4	416.7	388.2	358.1	331.1	312.1	315.3
82.5°	307.4	299.4	299.4	270.9	223.4	191.7	158.4	142.6
85°	163.2	169.5	179.0	169.5	147.3	109.3	71.3	77.6
87.5°	55.5	63.4	66.5	65.0	58.6	44.4	33.3	33.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)