

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: P270643

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270643
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-06-D-UNV-5MQ-7027-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 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: 26928.9 lumens
Efficiency: N/A
Efficacy: 108.1 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): 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

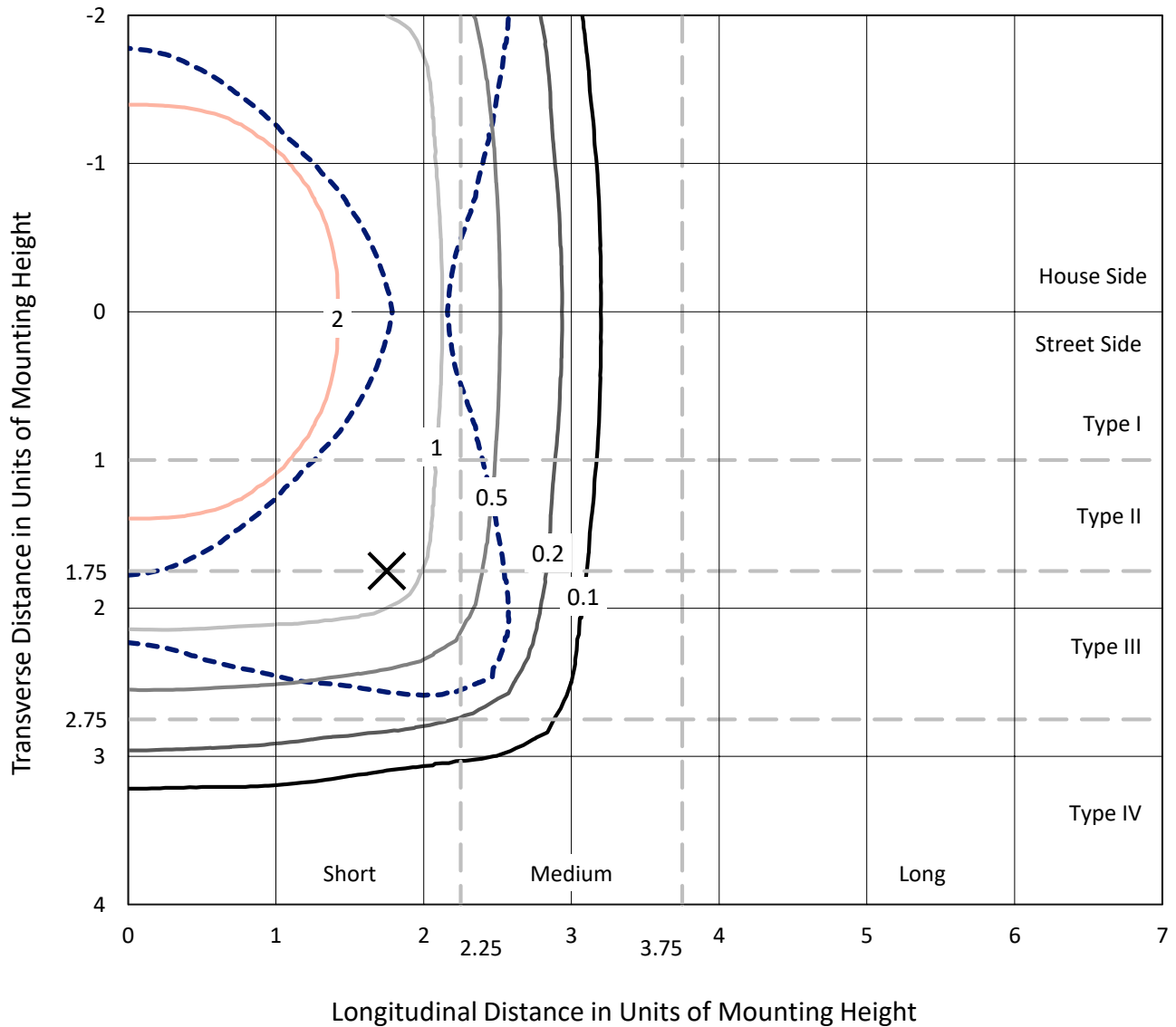


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Iso-Footcandle Lines of Horizontal Illumination

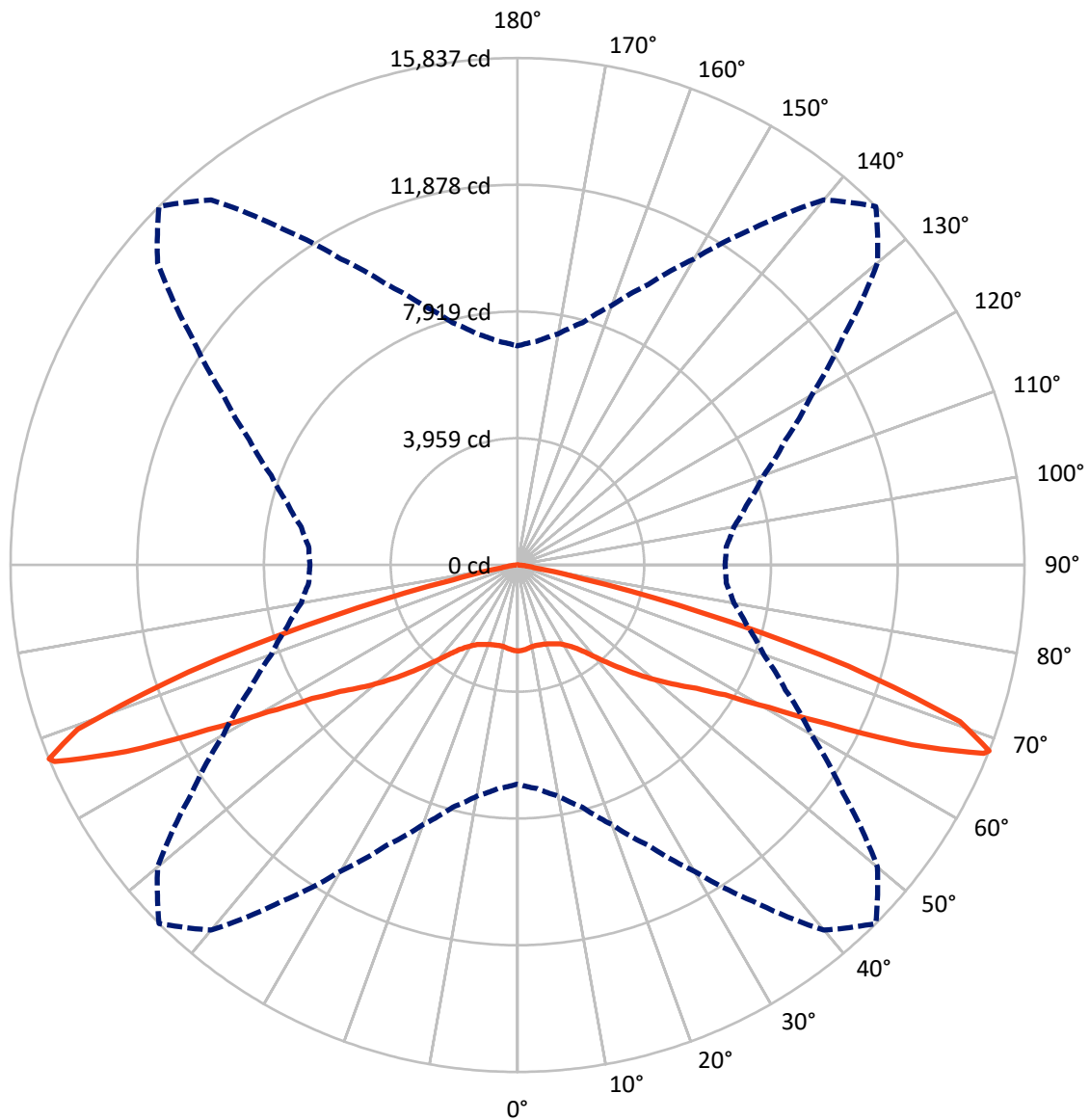
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13464.4	0.0	13464.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13464.4	0.0	13464.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	26928.9	0.0	26928.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.4	0.9
10°-20°	729.0	2.7
20°-30°	1239.4	4.6
30°-40°	2028.2	7.5
40°-50°	3624.6	13.5
50°-60°	6121.4	22.7
60°-70°	9492.0	35.2
70°-80°	3263.6	12.1
80°-90°	179.3	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°	26928.9	100.0
0°-180°	26928.9	100.0



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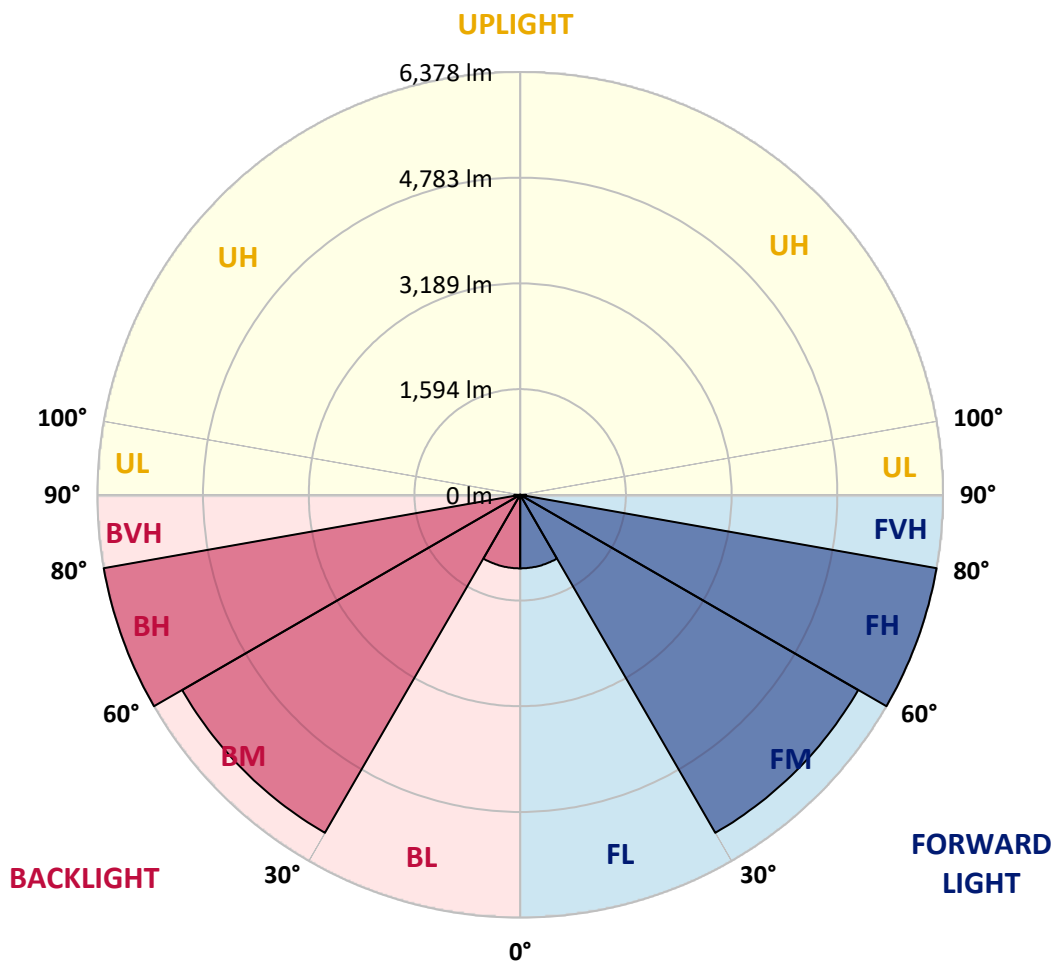
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1109.9	4.1			
FM	(30°-60°)	5887.1	21.9			
FH	(60°-80°)	6377.8	23.7			G3/7500
FVH	(80°-90°)	89.7	0.3			G1/100
BL	(0°-30°)	1109.9	4.1	B3/2500		
BM	(30°-60°)	5887.1	21.9	B4/8500		
BH	(60°-80°)	6377.8	23.7	B5		G3/7500
BVH	(80°-90°)	89.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2
2.5°	2697.8	2697.8	2701.1	2699.4	2694.5	2689.5	2684.6	2679.6	2676.3	2673.0	2669.8
5°	2669.8	2669.8	2674.8	2671.4	2668.1	2663.1	2659.8	2654.9	2651.5	2648.4	2650.0
7.5°	2633.6	2636.7	2640.1	2638.4	2631.9	2630.1	2625.2	2623.6	2620.3	2615.3	2617.0
10°	2602.1	2603.7	2607.2	2605.4	2603.7	2598.8	2597.2	2595.6	2593.9	2587.3	2585.6
12.5°	2570.8	2574.2	2577.3	2579.0	2577.3	2579.0	2580.7	2582.4	2580.7	2577.3	2577.3
15°	2546.1	2549.4	2554.3	2559.4	2560.9	2570.8	2577.3	2584.1	2588.9	2590.6	2585.6
17.5°	2533.0	2537.8	2544.4	2554.3	2562.5	2574.2	2585.6	2595.6	2603.7	2605.4	2600.6
20°	2531.2	2536.2	2546.1	2557.7	2572.4	2587.3	2605.4	2620.3	2628.5	2633.6	2628.5
22.5°	2542.8	2549.4	2562.5	2577.3	2595.6	2615.3	2638.4	2654.9	2671.4	2677.9	2673.0
25°	2575.8	2582.4	2597.2	2615.3	2635.1	2659.8	2683.0	2704.3	2720.8	2729.1	2722.6
27.5°	2645.0	2646.6	2663.1	2683.0	2706.1	2727.4	2757.2	2767.0	2780.3	2788.5	2780.3
30°	2742.3	2745.6	2760.4	2791.8	2813.2	2841.2	2857.8	2867.6	2882.5	2890.7	2880.9
32.5°	2890.7	2894.0	2907.3	2936.9	2956.7	2978.2	2998.0	3004.6	3019.4	3029.3	3017.6
35°	3100.1	3106.8	3118.2	3138.0	3154.6	3171.0	3185.8	3181.0	3190.8	3204.1	3192.4
37.5°	3387.1	3385.4	3388.8	3403.6	3420.0	3430.0	3453.1	3441.4	3451.4	3463.0	3456.3
40°	3721.8	3721.8	3720.2	3746.6	3753.2	3763.0	3787.8	3772.9	3786.1	3799.3	3787.8
42.5°	4102.6	4109.3	4117.7	4139.0	4157.1	4160.5	4172.0	4165.4	4181.9	4193.5	4181.9
45°	4541.4	4551.3	4561.1	4610.6	4618.8	4625.5	4633.6	4612.3	4630.5	4640.4	4637.1
47.5°	4996.6	5014.7	5036.1	5087.2	5120.2	5135.0	5141.5	5116.8	5118.5	5133.4	5135.0
50°	5511.0	5530.8	5552.2	5609.9	5641.3	5667.6	5675.9	5647.9	5651.1	5662.6	5666.0
52.5°	5985.9	6009.0	6055.1	6132.6	6177.1	6223.4	6226.6	6192.0	6206.8	6215.2	6208.5
55°	6432.9	6462.4	6523.5	6627.3	6708.2	6798.9	6840.1	6802.1	6802.1	6795.6	6792.3
57.5°	6953.9	6986.8	7049.4	7169.9	7282.0	7412.4	7524.5	7562.3	7631.6	7654.6	7618.4
60°	7738.8	7773.5	7837.7	7996.1	8137.8	8327.5	8512.2	8662.3	8906.3	9038.2	8919.5
62.5°	8456.1	8508.8	8660.6	8937.6	9244.4	9595.5	10002.8	10293.0	10736.7	10957.6	10659.2
65°	8292.9	8400.1	8696.9	9132.2	9765.5	10527.2	11356.7	12153.2	13070.1	13540.1	12933.2
67.5°	7244.1	7334.8	7654.6	8160.9	8950.8	10001.3	11290.7	12939.7	14831.1	15711.7	14638.3
68°	6843.4	7013.2	7331.4	7834.5	8630.9	9663.2	11040.1	12821.1	14885.6	15837.1	14677.9
70°	5247.2	5308.2	5613.1	6065.0	6924.1	7936.6	9326.8	11356.7	13690.1	14669.6	13477.5
72.5°	2493.2	2529.5	2727.4	3172.8	3718.5	4543.0	5770.0	7684.5	9786.9	10806.0	9617.1
75°	913.5	921.8	968.0	1073.6	1278.0	1588.1	2176.8	3367.2	4985.0	5944.7	5004.7
77.5°	493.1	494.6	512.8	539.3	575.5	616.7	705.8	946.5	1526.9	2077.8	1612.7
80°	310.1	308.4	326.5	348.0	372.6	392.5	400.7	428.8	483.2	565.7	519.4
82.5°	158.3	173.2	214.3	237.4	273.8	280.4	272.0	270.4	286.9	310.1	319.8
85°	87.3	77.6	113.7	151.8	164.8	169.9	171.4	161.7	158.3	155.0	163.2
87.5°	44.6	41.2	49.4	75.8	80.8	65.9	67.6	57.8	39.5	39.5	41.2
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°	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2	2686.2
2.5°	2666.4	2668.1	2664.8	2664.8	2664.8	2666.4	2664.8	2663.1
5°	2645.0	2648.4	2648.4	2650.0	2651.5	2651.5	2651.5	2651.5
7.5°	2613.7	2615.3	2618.6	2618.6	2618.6	2618.6	2618.6	2618.6
10°	2584.1	2580.7	2579.0	2575.8	2575.8	2570.8	2572.4	2574.2
12.5°	2569.2	2562.5	2559.4	2554.3	2551.0	2546.1	2546.1	2547.8
15°	2575.8	2565.9	2555.9	2552.7	2549.4	2546.1	2542.8	2544.4
17.5°	2588.9	2577.3	2565.9	2559.4	2552.7	2547.8	2546.1	2547.8
20°	2617.0	2600.6	2582.4	2570.8	2557.7	2554.3	2549.4	2554.3
22.5°	2654.9	2635.1	2612.0	2590.6	2575.8	2569.2	2562.5	2567.5
25°	2701.1	2679.6	2656.6	2631.9	2615.3	2610.4	2602.1	2602.1
27.5°	2765.4	2747.2	2727.4	2704.3	2687.9	2683.0	2669.8	2669.8
30°	2867.6	2849.6	2831.4	2811.5	2795.0	2790.1	2773.6	2773.6
32.5°	3002.9	2983.0	2971.6	2955.1	2941.8	2933.5	2913.8	2912.1
35°	3184.2	3166.0	3164.5	3153.0	3139.8	3141.4	3121.6	3118.2
37.5°	3444.8	3430.0	3434.8	3425.0	3413.5	3423.4	3411.9	3411.9
40°	3777.9	3772.9	3777.9	3771.3	3772.9	3774.6	3764.6	3768.0
42.5°	4180.3	4167.1	4196.7	4193.5	4188.4	4201.7	4178.6	4162.0
45°	4643.6	4638.7	4668.3	4673.3	4663.5	4671.6	4630.5	4628.7
47.5°	5146.6	5146.6	5172.9	5169.7	5159.8	5161.4	5112.0	5080.6
50°	5670.9	5667.6	5694.0	5687.3	5674.2	5672.5	5621.5	5590.2
52.5°	6216.8	6216.8	6254.7	6236.6	6205.2	6190.4	6127.7	6086.5
55°	6820.3	6812.0	6823.6	6764.2	6703.2	6658.6	6581.3	6549.9
57.5°	7583.9	7488.1	7405.6	7329.9	7244.1	7191.3	7100.7	7067.7
60°	8667.1	8411.5	8301.1	8149.5	8007.6	7936.6	7816.3	7752.1
62.5°	10167.7	9744.0	9443.9	9109.2	8786.0	8558.3	8375.3	8294.5
65°	11902.5	10979.2	10215.6	9498.3	8889.7	8406.7	8137.8	8053.8
67.5°	12562.2	10866.9	9549.4	8520.5	7781.7	7206.2	6884.6	6817.0
68°	12422.0	10609.7	9241.0	8187.3	7445.3	6864.8	6545.0	6483.8
70°	10957.6	8950.8	7506.2	6457.6	5765.0	5212.5	4986.6	4889.4
72.5°	7470.0	5748.4	4409.5	3527.3	3009.4	2659.8	2452.1	2381.1
75°	3438.3	2323.5	1551.7	1159.3	984.5	900.3	836.1	819.6
77.5°	1002.6	728.9	626.6	580.5	545.8	516.2	494.6	493.1
80°	476.6	446.8	433.7	404.0	372.6	344.6	324.8	328.2
82.5°	319.8	311.6	311.6	282.0	232.5	199.6	164.8	148.4
85°	169.9	176.4	186.4	176.4	153.4	113.7	74.2	80.8
87.5°	57.8	65.9	69.3	67.6	61.1	46.2	34.7	34.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)