

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: P196889

Luminaire Tested: **NAV-AF-05-D-UNV-5MQ-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196889
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-8030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 80 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26131 lumens
Efficiency: N/A
Efficacy: 93.7 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

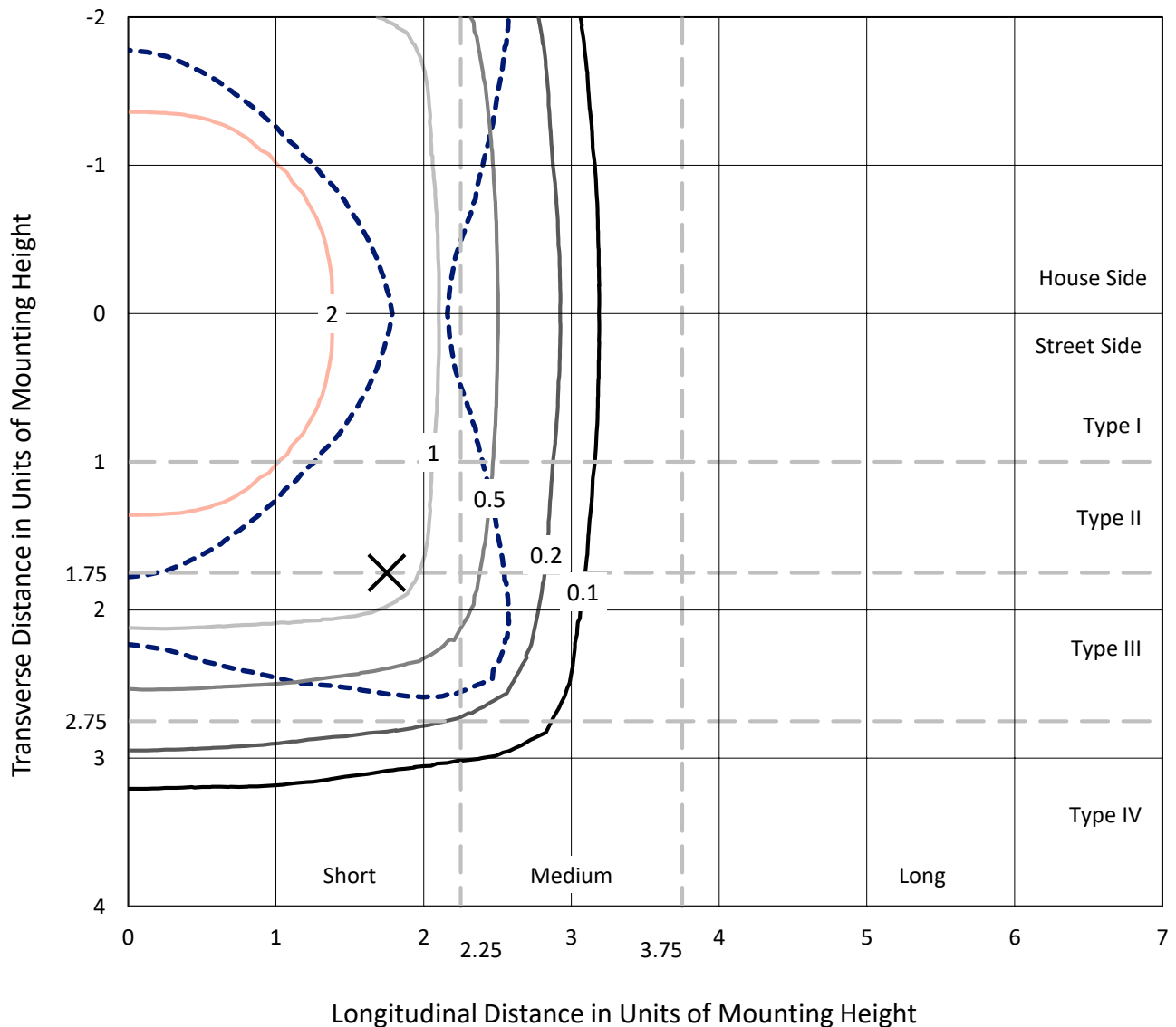
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196889
 CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

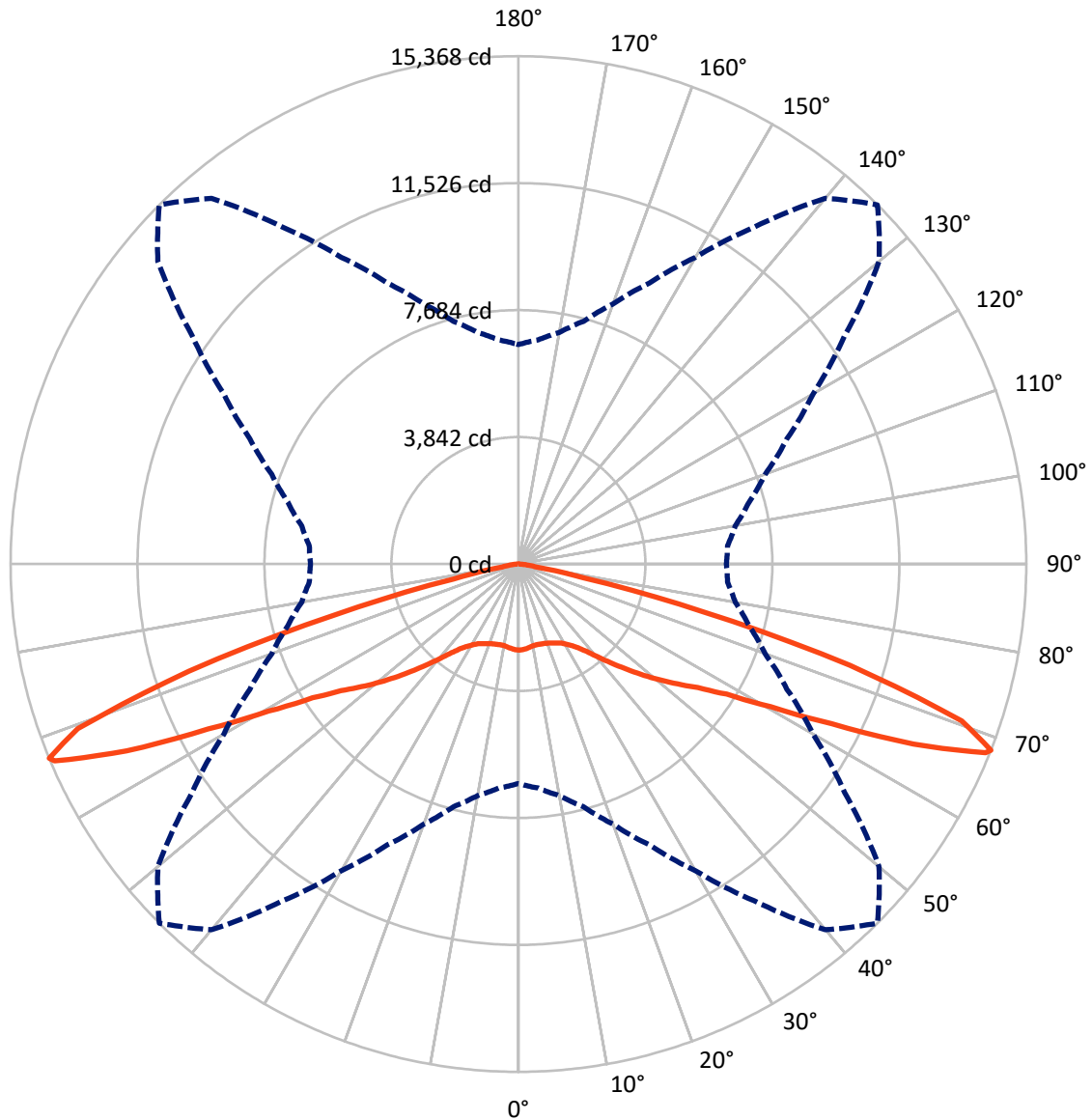


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
 Type V - Short - Full Cutoff

REPORT NUMBER: P196889

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P196889

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13065.5	0.0	13065.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13065.5	0.0	13065.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	26131.0	0.0	26131.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.9	0.9
10°-20°	707.4	2.7
20°-30°	1202.6	4.6
30°-40°	1968.1	7.5
40°-50°	3517.2	13.5
50°-60°	5940.0	22.7
60°-70°	9210.8	35.2
70°-80°	3166.9	12.1
80°-90°	174.0	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°	26131.0	100.0
0°-180°	26131.0	100.0



REPORT NUMBER: P196889

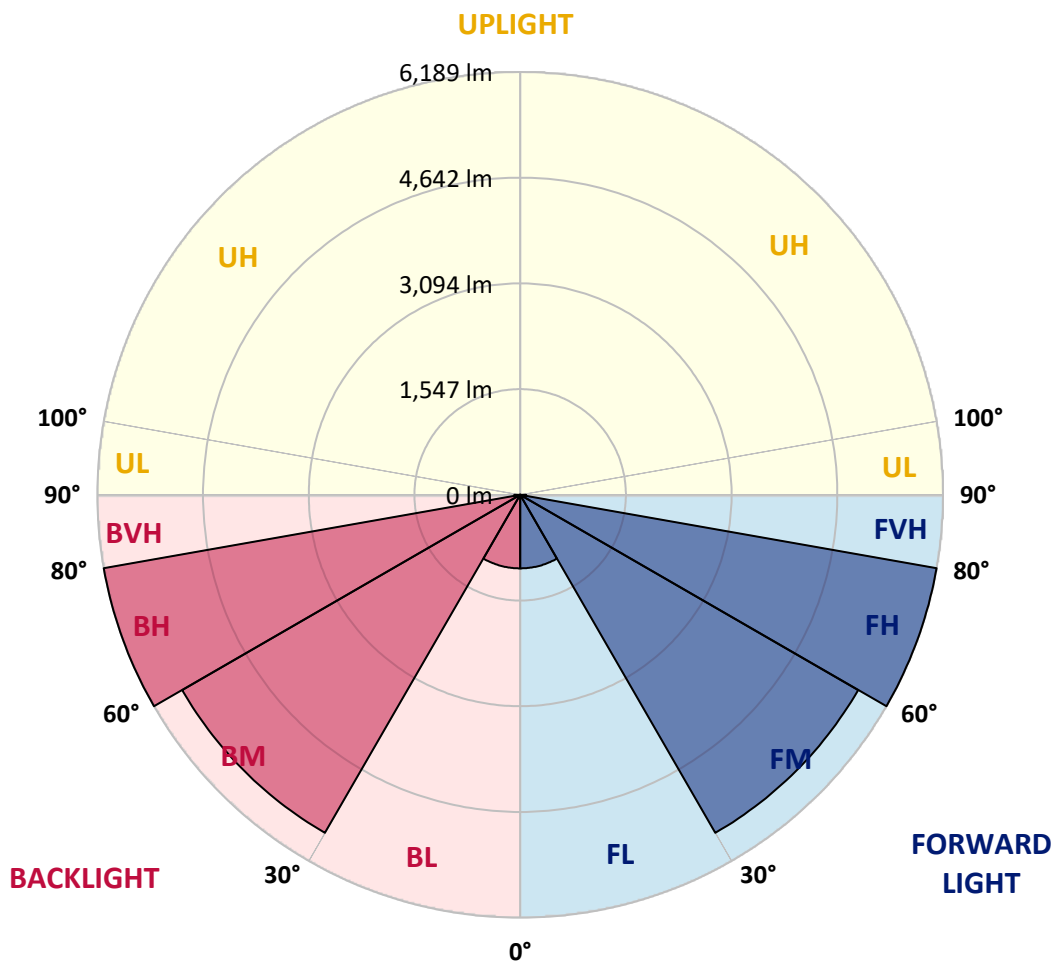
CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1077.0	4.1			
FM	(30°-60°)	5712.7	21.9			
FH	(60°-80°)	6188.8	23.7			G3/7500
FVH	(80°-90°)	87.0	0.3			G1/100
BL	(0°-30°)	1077.0	4.1	B3/2500		
BM	(30°-60°)	5712.7	21.9	B4/8500		
BH	(60°-80°)	6188.8	23.7	B5		G3/7500
BVH	(80°-90°)	87.0	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: P196889

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6
2.5°	2617.8	2617.8	2621.0	2619.4	2614.6	2609.8	2605.0	2600.2	2597.0	2593.8	2590.6
5°	2590.6	2590.6	2595.4	2592.2	2589.0	2584.2	2581.0	2576.2	2573.0	2569.8	2571.4
7.5°	2555.4	2558.6	2561.8	2560.2	2553.8	2552.2	2547.4	2545.8	2542.6	2537.8	2539.4
10°	2525.0	2526.6	2529.8	2528.2	2526.6	2521.8	2520.2	2518.6	2517.0	2510.6	2509.0
12.5°	2494.6	2497.8	2501.0	2502.6	2501.0	2502.6	2504.2	2505.8	2504.2	2501.0	2501.0
15°	2470.6	2473.8	2478.6	2483.4	2485.0	2494.6	2501.0	2507.4	2512.2	2513.8	2509.0
17.5°	2457.8	2462.6	2469.0	2478.6	2486.6	2497.8	2509.0	2518.6	2526.6	2528.2	2523.4
20°	2456.2	2461.0	2470.6	2481.8	2496.2	2510.6	2528.2	2542.6	2550.6	2555.4	2550.6
22.5°	2467.4	2473.8	2486.6	2501.0	2518.6	2537.8	2560.2	2576.2	2592.2	2598.6	2593.8
25°	2499.4	2505.8	2520.2	2537.8	2557.0	2581.0	2603.4	2624.2	2640.2	2648.2	2641.8
27.5°	2566.6	2568.2	2584.2	2603.4	2625.8	2646.6	2675.5	2685.1	2697.9	2705.9	2697.9
30°	2661.1	2664.3	2678.7	2709.1	2729.9	2757.1	2773.1	2782.7	2797.1	2805.1	2795.5
32.5°	2805.1	2808.3	2821.1	2849.9	2869.1	2889.9	2909.1	2915.5	2929.9	2939.5	2928.3
35°	3008.3	3014.7	3025.9	3045.1	3061.1	3077.1	3091.5	3086.7	3096.3	3109.1	3097.9
37.5°	3286.7	3285.1	3288.3	3302.7	3318.7	3328.3	3350.7	3339.5	3349.1	3360.3	3353.9
40°	3611.5	3611.5	3609.9	3635.5	3641.9	3651.5	3675.5	3661.1	3673.9	3686.7	3675.5
42.5°	3981.2	3987.6	3995.6	4016.4	4034.0	4037.2	4048.4	4042.0	4058.0	4069.2	4058.0
45°	4406.8	4416.4	4426.0	4474.0	4482.0	4488.4	4496.4	4475.6	4493.2	4502.8	4499.6
47.5°	4848.5	4866.1	4886.9	4936.5	4968.5	4982.9	4989.3	4965.3	4966.9	4981.3	4982.9
50°	5347.7	5366.9	5387.7	5443.7	5474.1	5499.7	5507.7	5480.5	5483.7	5494.9	5498.1
52.5°	5808.5	5830.9	5875.8	5951.0	5994.2	6039.0	6042.2	6008.6	6023.0	6031.0	6024.6
55°	6242.2	6271.0	6330.2	6431.0	6509.4	6597.4	6637.4	6600.6	6600.6	6594.2	6591.0
57.5°	6747.8	6779.8	6840.6	6957.5	7066.3	7192.7	7301.5	7338.3	7405.5	7427.9	7392.7
60°	7509.5	7543.1	7605.5	7759.1	7896.7	8080.8	8260.0	8405.6	8642.4	8770.4	8655.2
62.5°	8205.6	8256.8	8404.0	8672.8	8970.4	9311.3	9706.5	9988.1	10418.6	10633.0	10343.4
65°	8047.2	8151.2	8439.2	8861.6	9476.1	10215.4	11020.2	11793.1	12682.8	13138.8	12550.0
67.5°	7029.5	7117.5	7427.9	7919.1	8685.6	9704.9	10956.2	12556.4	14391.8	15246.2	14204.5
68°	6640.6	6805.4	7114.3	7602.3	8375.2	9376.9	10713.0	12441.2	14444.6	15367.8	14242.9
70°	5091.7	5150.9	5446.9	5885.4	6719.0	7701.5	9050.5	11020.2	13284.4	14234.9	13078.0
72.5°	2419.4	2454.6	2646.6	3078.7	3608.3	4408.4	5598.9	7456.7	9496.9	10485.8	9332.1
75°	886.5	894.5	939.3	1041.7	1240.1	1540.9	2112.2	3267.5	4837.3	5768.5	4856.5
77.5°	478.4	480.0	497.6	523.2	558.5	598.5	684.9	918.5	1481.7	2016.2	1564.9
80°	300.8	299.2	316.8	337.6	361.6	380.8	388.8	416.0	468.8	548.9	504.0
82.5°	153.6	168.0	208.0	230.4	265.6	272.0	264.0	262.4	278.4	300.8	310.4
85°	84.8	75.2	110.4	147.2	160.0	164.8	166.4	156.8	153.6	150.4	158.4
87.5°	43.2	40.0	48.0	73.6	78.4	64.0	65.6	56.0	38.4	38.4	40.0
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: P196889

CATALOG NUMBER: NAV-AF-05-D-UNV-5MQ-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6	2606.6
2.5°	2587.4	2589.0	2585.8	2585.8	2585.8	2587.4	2585.8	2584.2
5°	2566.6	2569.8	2569.8	2571.4	2573.0	2573.0	2573.0	2573.0
7.5°	2536.2	2537.8	2541.0	2541.0	2541.0	2541.0	2541.0	2541.0
10°	2507.4	2504.2	2502.6	2499.4	2499.4	2494.6	2496.2	2497.8
12.5°	2493.0	2486.6	2483.4	2478.6	2475.4	2470.6	2470.6	2472.2
15°	2499.4	2489.8	2480.2	2477.0	2473.8	2470.6	2467.4	2469.0
17.5°	2512.2	2501.0	2489.8	2483.4	2477.0	2472.2	2470.6	2472.2
20°	2539.4	2523.4	2505.8	2494.6	2481.8	2478.6	2473.8	2478.6
22.5°	2576.2	2557.0	2534.6	2513.8	2499.4	2493.0	2486.6	2491.4
25°	2621.0	2600.2	2577.8	2553.8	2537.8	2533.0	2525.0	2525.0
27.5°	2683.5	2665.9	2646.6	2624.2	2608.2	2603.4	2590.6	2590.6
30°	2782.7	2765.1	2747.5	2728.3	2712.3	2707.5	2691.5	2691.5
32.5°	2913.9	2894.7	2883.5	2867.5	2854.7	2846.7	2827.5	2825.9
35°	3089.9	3072.3	3070.7	3059.5	3046.7	3048.3	3029.1	3025.9
37.5°	3342.7	3328.3	3333.1	3323.5	3312.3	3321.9	3310.7	3310.7
40°	3665.9	3661.1	3665.9	3659.5	3661.1	3662.7	3653.1	3656.3
42.5°	4056.4	4043.6	4072.4	4069.2	4064.4	4077.2	4054.8	4038.8
45°	4506.0	4501.2	4530.0	4534.8	4525.2	4533.2	4493.2	4491.6
47.5°	4994.1	4994.1	5019.7	5016.5	5006.9	5008.5	4960.5	4930.1
50°	5502.9	5499.7	5525.3	5518.9	5506.1	5504.5	5454.9	5424.5
52.5°	6032.6	6032.6	6069.4	6051.8	6021.4	6007.0	5946.2	5906.2
55°	6618.2	6610.2	6621.4	6563.8	6504.6	6461.4	6386.2	6355.8
57.5°	7359.1	7266.3	7186.3	7112.7	7029.5	6978.3	6890.2	6858.2
60°	8410.4	8162.4	8055.2	7907.9	7770.3	7701.5	7584.7	7522.3
62.5°	9866.5	9455.3	9164.1	8839.2	8525.6	8304.8	8127.2	8048.8
65°	11549.9	10653.8	9912.9	9216.9	8626.4	8157.6	7896.7	7815.1
67.5°	12189.9	10545.0	9266.5	8268.0	7551.1	6992.7	6680.6	6615.0
68°	12053.9	10295.4	8967.2	7944.7	7224.7	6661.4	6351.0	6291.8
70°	10633.0	8685.6	7283.9	6266.2	5594.1	5058.1	4838.9	4744.4
72.5°	7248.7	5578.1	4278.8	3422.7	2920.3	2581.0	2379.4	2310.6
75°	3336.3	2254.6	1505.7	1124.9	955.3	873.7	811.3	795.3
77.5°	972.9	707.3	608.1	563.3	529.6	500.8	480.0	478.4
80°	462.4	433.6	420.8	392.0	361.6	334.4	315.2	318.4
82.5°	310.4	302.4	302.4	273.6	225.6	193.6	160.0	144.0
85°	164.8	171.2	180.8	171.2	148.8	110.4	72.0	78.4
87.5°	56.0	64.0	67.2	65.6	59.2	44.8	33.6	33.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)