

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: P195078

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7060-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195078
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7060-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24252 lumens
Efficiency: N/A
Efficacy: 125.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 193
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

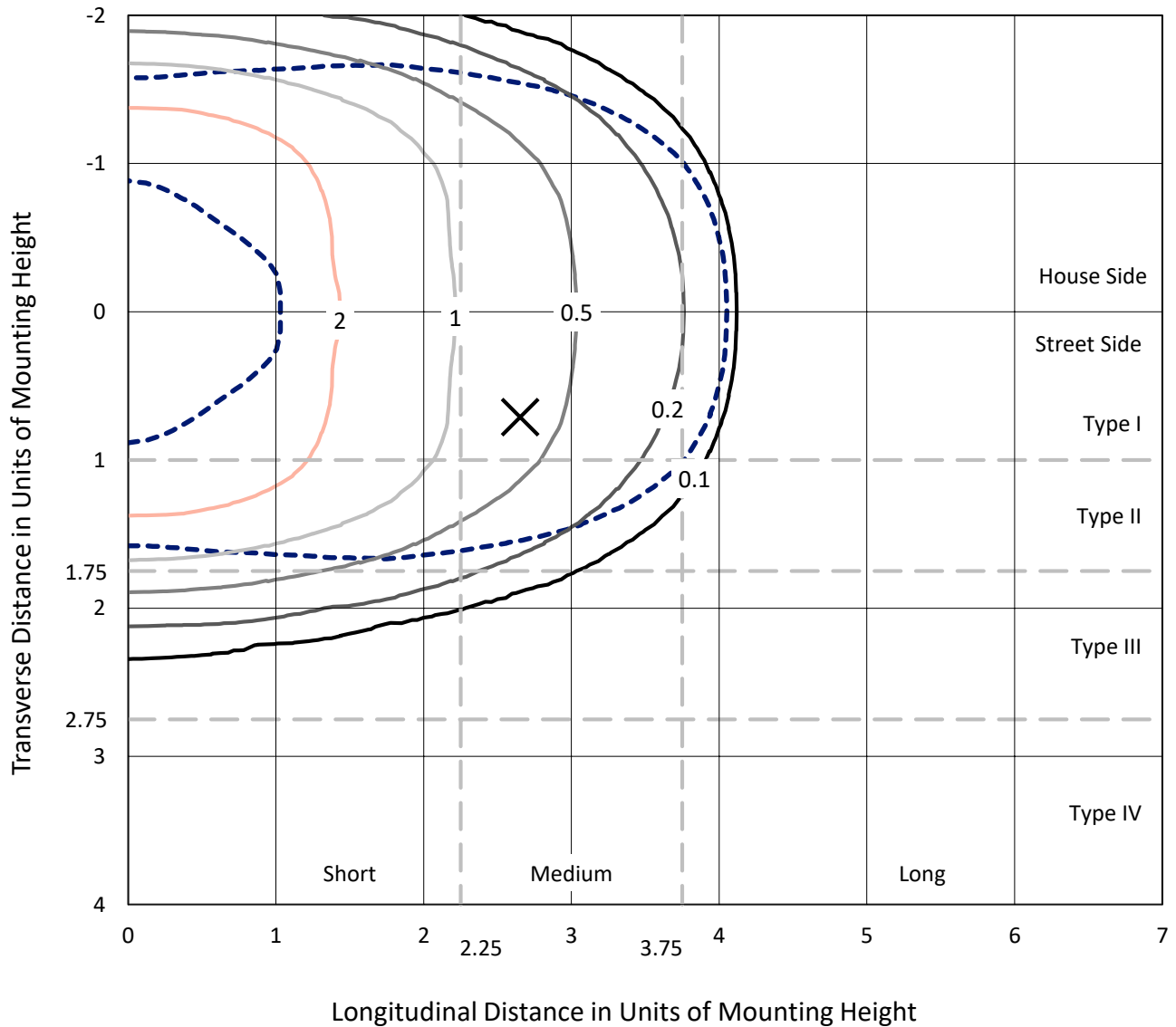


REPORT NUMBER: P195078

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

Iso-Footcandle Lines of Horizontal Illumination

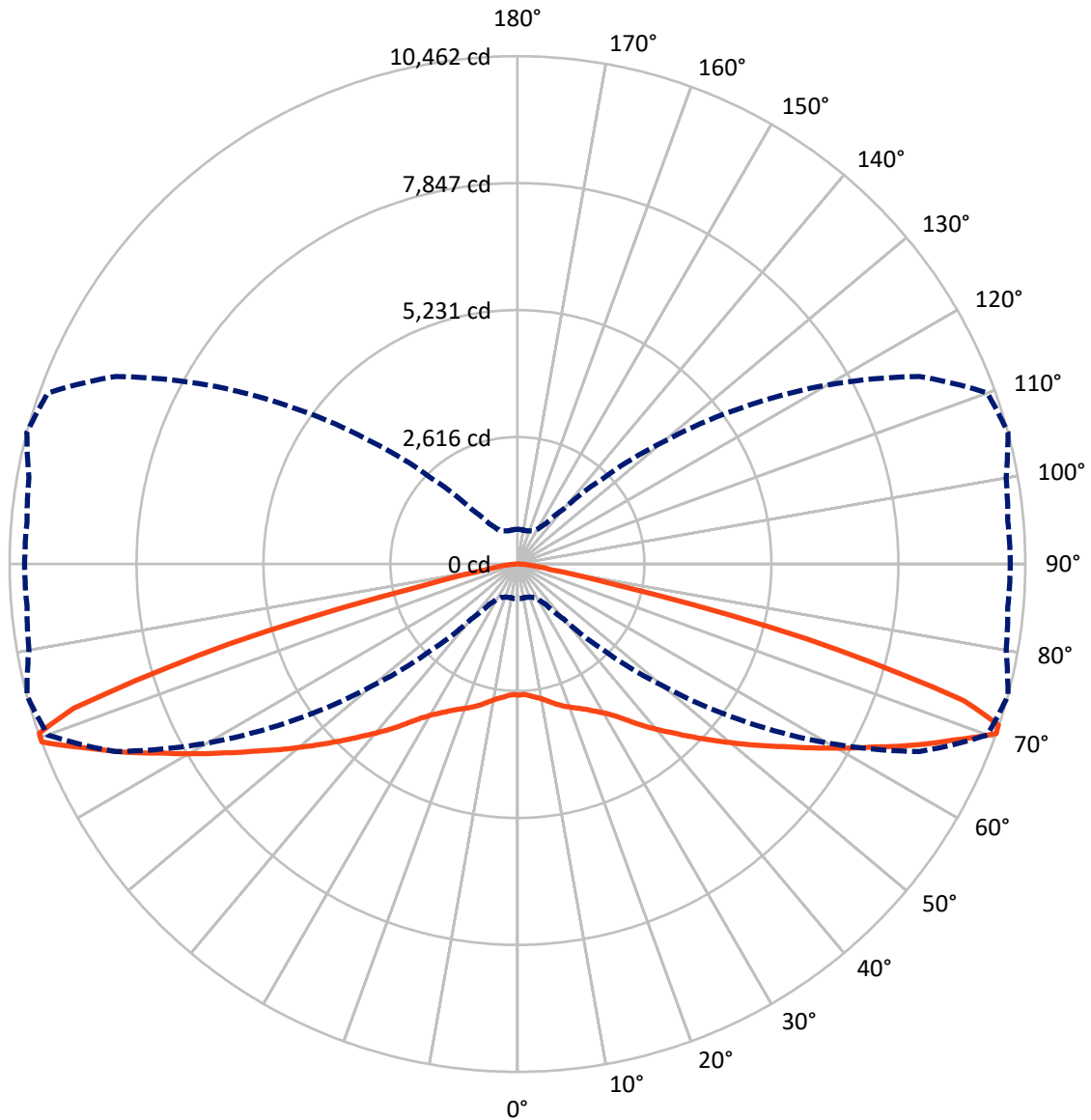
× Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P195078
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

REPORT NUMBER: P195078

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12126.0	0.0	12126.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12126.0	0.0	12126.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	24252.0	0.0	24252.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.0	1.1
10°-20°	803.4	3.3
20°-30°	1508.9	6.2
30°-40°	2658.0	11.0
40°-50°	4405.1	18.2
50°-60°	6128.1	25.3
60°-70°	5785.1	23.9
70°-80°	2470.9	10.2
80°-90°	233.5	1.0
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°	24252.0	100.0
0°-180°	24252.0	100.0



REPORT NUMBER: P195078

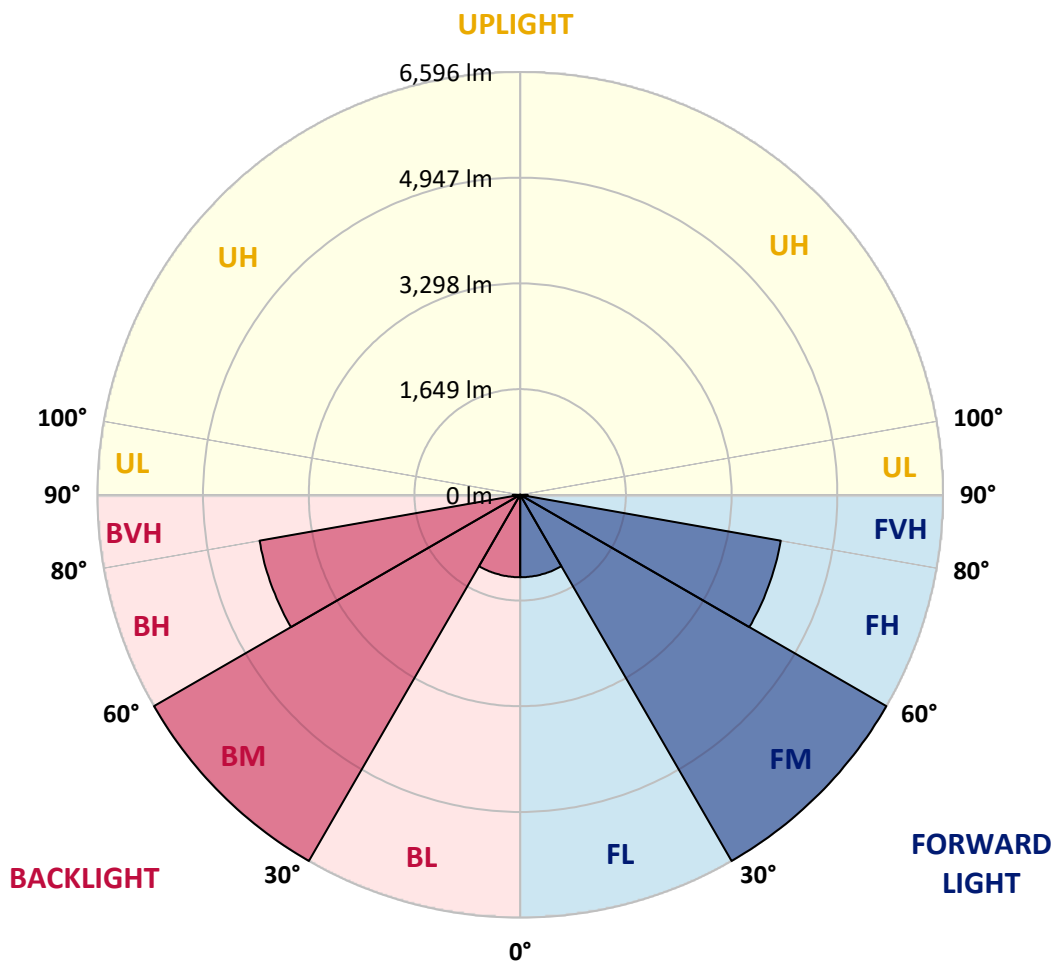
CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1285.7	5.3			
FM	(30°-60°)	6595.6	27.2			
FH	(60°-80°)	4128.0	17.0			G2/5000
FVH	(80°-90°)	116.7	0.5			G2/225
BL	(0°-30°)	1285.7	5.3	B3/2500		
BM	(30°-60°)	6595.6	27.2	B4/8500		
BH	(60°-80°)	4128.0	17.0	B4/5000		G4/5000
BVH	(80°-90°)	116.7	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





REPORT NUMBER: P195078

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2717.4	2715.9	2717.4	2712.9	2714.4	2712.9	2712.9	2706.8	2706.8	2703.7	2699.2
5°	2687.0	2690.1	2690.1	2690.1	2694.6	2694.6	2700.7	2702.2	2706.8	2711.3	2714.4
7.5°	2636.9	2638.4	2642.9	2646.0	2655.1	2667.3	2679.4	2693.1	2705.3	2720.5	2737.2
10°	2594.3	2597.3	2604.9	2612.5	2629.3	2644.5	2665.7	2687.0	2708.3	2734.1	2760.0
12.5°	2571.5	2576.1	2588.2	2600.4	2626.2	2646.0	2674.9	2708.3	2737.2	2761.5	2790.4
15°	2574.6	2576.1	2592.8	2609.5	2646.0	2673.3	2714.4	2753.9	2788.8	2816.2	2849.6
17.5°	2618.6	2621.7	2638.4	2662.7	2697.7	2732.6	2776.7	2817.7	2864.8	2896.8	2936.3
20°	2705.3	2709.8	2728.1	2753.9	2791.9	2828.4	2874.0	2916.5	2965.1	3003.1	3042.7
22.5°	2817.7	2825.3	2845.1	2877.0	2915.0	2959.1	3006.2	3050.3	3095.8	3133.8	3167.3
25°	2968.2	2977.3	2998.6	3030.5	3068.5	3115.6	3164.2	3209.8	3256.9	3285.8	3313.2
27.5°	3170.3	3185.5	3208.3	3234.1	3267.6	3317.7	3363.3	3401.3	3446.9	3478.8	3497.1
30°	3442.4	3463.6	3481.9	3509.2	3533.6	3586.7	3623.2	3653.6	3688.6	3706.8	3711.4
32.5°	3775.2	3795.0	3813.2	3833.0	3866.4	3915.0	3950.0	3966.7	3984.9	3981.9	3965.2
35°	4150.6	4165.8	4176.4	4211.4	4266.1	4298.0	4323.9	4329.9	4333.0	4301.1	4269.1
37.5°	4545.7	4564.0	4573.1	4627.8	4679.5	4716.0	4728.1	4741.8	4732.7	4679.5	4621.7
40°	4972.8	4992.6	5019.9	5067.0	5127.8	5162.8	5178.0	5176.5	5168.9	5106.6	5012.3
42.5°	5392.3	5416.6	5439.4	5521.5	5571.6	5630.9	5638.5	5637.0	5620.2	5548.8	5439.4
45°	5747.9	5776.8	5823.9	5915.1	5995.6	6067.1	6095.9	6106.6	6089.9	6013.9	5889.3
47.5°	6041.2	6061.0	6120.3	6231.2	6334.6	6439.4	6497.2	6538.2	6536.7	6482.0	6349.8
50°	6241.8	6264.6	6337.6	6462.2	6591.4	6714.5	6828.5	6921.2	6965.3	6925.8	6802.7
52.5°	6299.6	6328.5	6424.2	6573.2	6723.6	6889.3	7059.5	7223.6	7322.4	7346.7	7251.0
55°	6056.4	6088.3	6228.2	6434.9	6682.6	6927.3	7185.6	7419.7	7623.4	7717.6	7679.6
57.5°	5348.2	5371.0	5548.8	5816.3	6170.4	6600.5	7035.2	7463.8	7813.3	8058.0	8100.6
60°	4229.6	4258.5	4453.0	4735.7	5138.5	5682.6	6290.5	6992.6	7678.1	8238.9	8517.0
62.5°	2854.2	2874.0	3060.9	3319.3	3760.0	4284.3	4962.2	5851.3	6828.5	7830.0	8614.3
65°	1498.5	1498.5	1624.7	1805.5	2156.6	2626.2	3320.8	4232.7	5395.3	6646.1	7957.7
67.5°	869.3	867.8	896.7	937.7	1048.7	1238.6	1621.6	2291.9	3392.2	4848.2	6340.6
70°	717.3	712.8	708.2	708.2	724.9	753.8	826.8	1010.7	1478.8	2500.1	3901.3
71°	685.4	682.4	670.2	665.7	673.3	688.5	720.4	805.5	1050.2	1705.2	2913.5
72.5°	647.4	639.8	621.6	614.0	615.5	621.6	630.7	664.2	738.6	969.6	1661.1
75°	589.7	571.4	548.7	538.0	533.5	531.9	531.9	541.1	557.8	585.1	680.9
77.5°	522.8	497.0	472.7	462.0	454.4	449.9	446.8	440.7	437.7	449.9	484.8
80°	442.3	414.9	395.1	389.1	384.5	375.4	363.2	351.1	343.5	349.6	370.8
82.5°	342.0	314.6	317.6	319.2	311.6	296.4	284.2	270.5	256.8	253.8	264.4
85°	272.0	258.4	249.2	269.0	252.3	234.1	217.3	194.5	162.6	133.7	145.9
87.5°	117.0	118.5	170.2	256.8	224.9	180.9	150.5	121.6	77.5	57.8	59.3
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: P195078

CATALOG NUMBER: NAV-AF-06-D-UNV-RW-7060-600

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7	2700.7
2.5°	2697.7	2697.7	2693.1	2690.1	2690.1	2690.1	2687.0	2688.5
5°	2715.9	2718.9	2722.0	2720.5	2725.0	2729.6	2728.1	2726.5
7.5°	2746.3	2755.4	2764.5	2769.1	2775.2	2781.2	2782.8	2778.2
10°	2776.7	2794.9	2808.6	2820.8	2828.4	2834.4	2839.0	2837.5
12.5°	2814.7	2840.5	2864.8	2889.2	2905.9	2915.0	2924.1	2921.1
15°	2877.0	2905.9	2936.3	2968.2	2994.0	3007.7	3021.4	3018.3
17.5°	2962.1	2987.9	3012.3	3044.2	3076.1	3091.3	3106.5	3105.0
20°	3068.5	3088.2	3101.9	3120.2	3150.6	3167.3	3181.0	3176.4
22.5°	3190.1	3196.2	3197.7	3203.8	3228.1	3247.8	3266.1	3270.6
25°	3322.3	3317.7	3308.6	3304.1	3320.8	3342.1	3364.9	3370.9
27.5°	3486.4	3471.2	3448.4	3430.2	3434.8	3462.1	3488.0	3494.0
30°	3693.1	3658.2	3609.5	3574.6	3568.5	3597.4	3624.7	3633.9
32.5°	3928.7	3881.6	3814.7	3761.5	3738.7	3764.6	3788.9	3802.6
35°	4208.3	4156.7	4076.1	4007.7	3971.3	3988.0	4030.5	4045.7
37.5°	4539.7	4468.2	4378.6	4291.9	4231.1	4234.2	4279.8	4298.0
40°	4905.9	4802.6	4688.6	4580.7	4492.5	4486.5	4527.5	4541.2
42.5°	5287.4	5155.2	5021.4	4880.1	4770.7	4750.9	4804.1	4805.6
45°	5697.8	5527.5	5361.9	5197.7	5083.8	5048.8	5100.5	5106.6
47.5°	6135.5	5922.7	5726.6	5548.8	5425.7	5371.0	5421.2	5430.3
50°	6591.4	6371.0	6143.1	5945.5	5801.1	5734.2	5793.5	5799.6
52.5°	7042.8	6834.6	6608.1	6381.7	6206.9	6130.9	6200.8	6222.1
55°	7497.2	7296.6	7083.8	6857.4	6637.0	6570.1	6646.1	6668.9
57.5°	7969.9	7776.9	7583.8	7355.9	7141.6	7039.7	7121.8	7153.7
60°	8491.2	8320.9	8138.6	7909.1	7697.8	7579.3	7649.2	7685.7
62.5°	9003.3	8968.4	8802.7	8564.1	8296.6	8178.1	8237.4	8263.2
65°	9045.9	9612.8	9605.2	9368.1	8994.2	8795.1	8811.8	8824.0
67.5°	7895.4	9196.4	10027.7	10102.2	9685.7	9374.2	9337.7	9345.3
70°	5589.8	7375.6	9140.1	10298.2	10462.4	10220.7	10141.7	10153.8
71°	4478.9	6328.5	8270.8	9828.6	10450.2	10380.3	10336.2	10368.1
72.5°	2858.8	4662.8	6553.4	8416.7	9609.7	9951.7	10001.8	10021.6
75°	1038.0	2006.1	3395.2	4864.9	6165.9	7061.0	7553.4	7593.0
77.5°	557.8	718.9	1111.0	1659.6	2085.2	2313.1	2340.5	2351.1
80°	410.3	475.7	544.1	621.6	670.2	679.4	662.6	627.7
82.5°	290.3	328.3	355.6	383.0	402.7	386.0	320.7	244.7
85°	168.7	185.4	200.6	214.3	217.3	205.2	135.3	110.9
87.5°	66.9	73.0	71.4	80.5	77.5	71.4	53.2	45.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)