

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: P195083

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195083
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-05-D-UNV-RW-7060-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 5700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24826 lumens
Efficiency: N/A
Efficacy: 118.2 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): 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

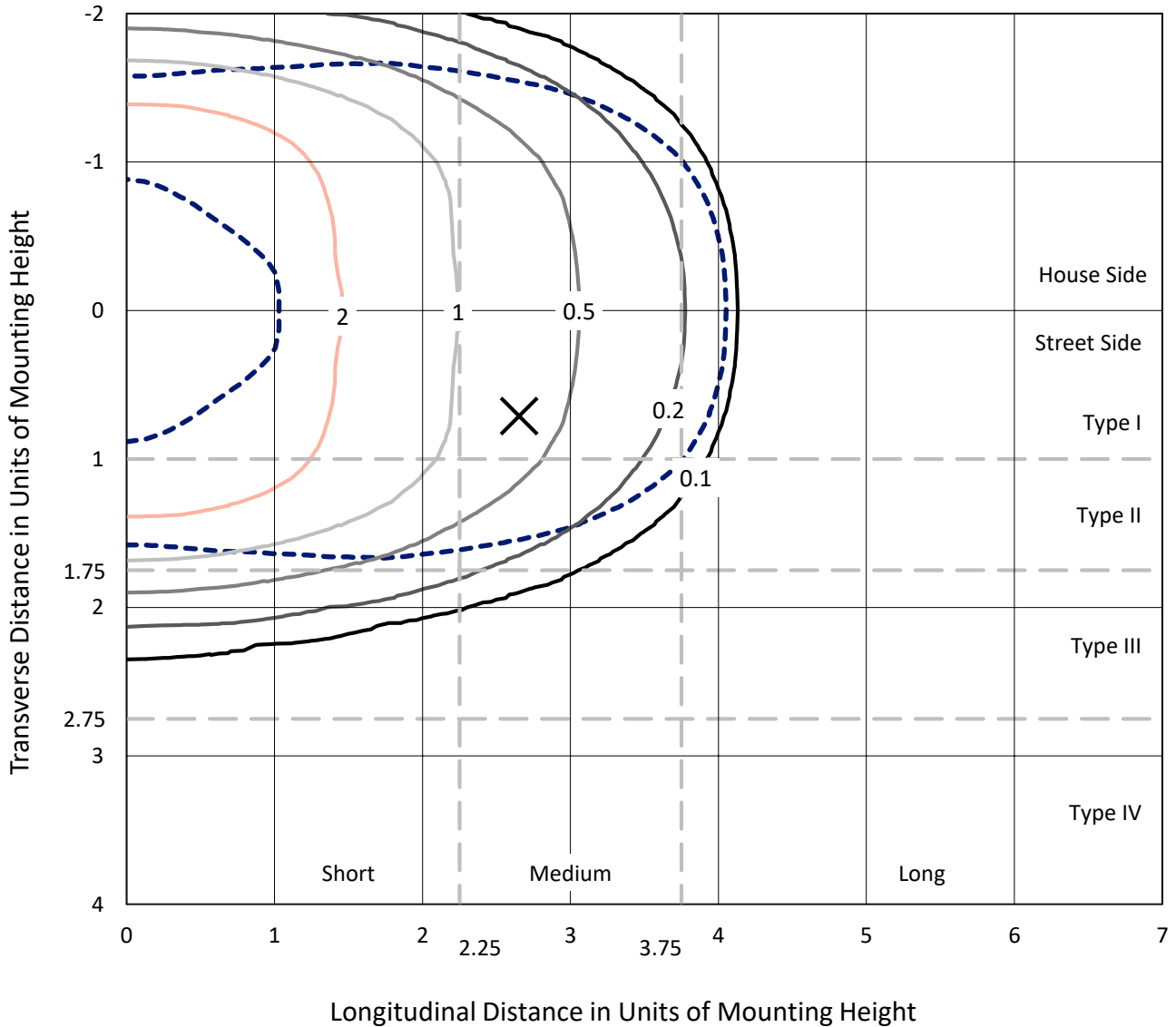


REPORT NUMBER: P195083

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

Iso-Footcandle Lines of Horizontal Illumination

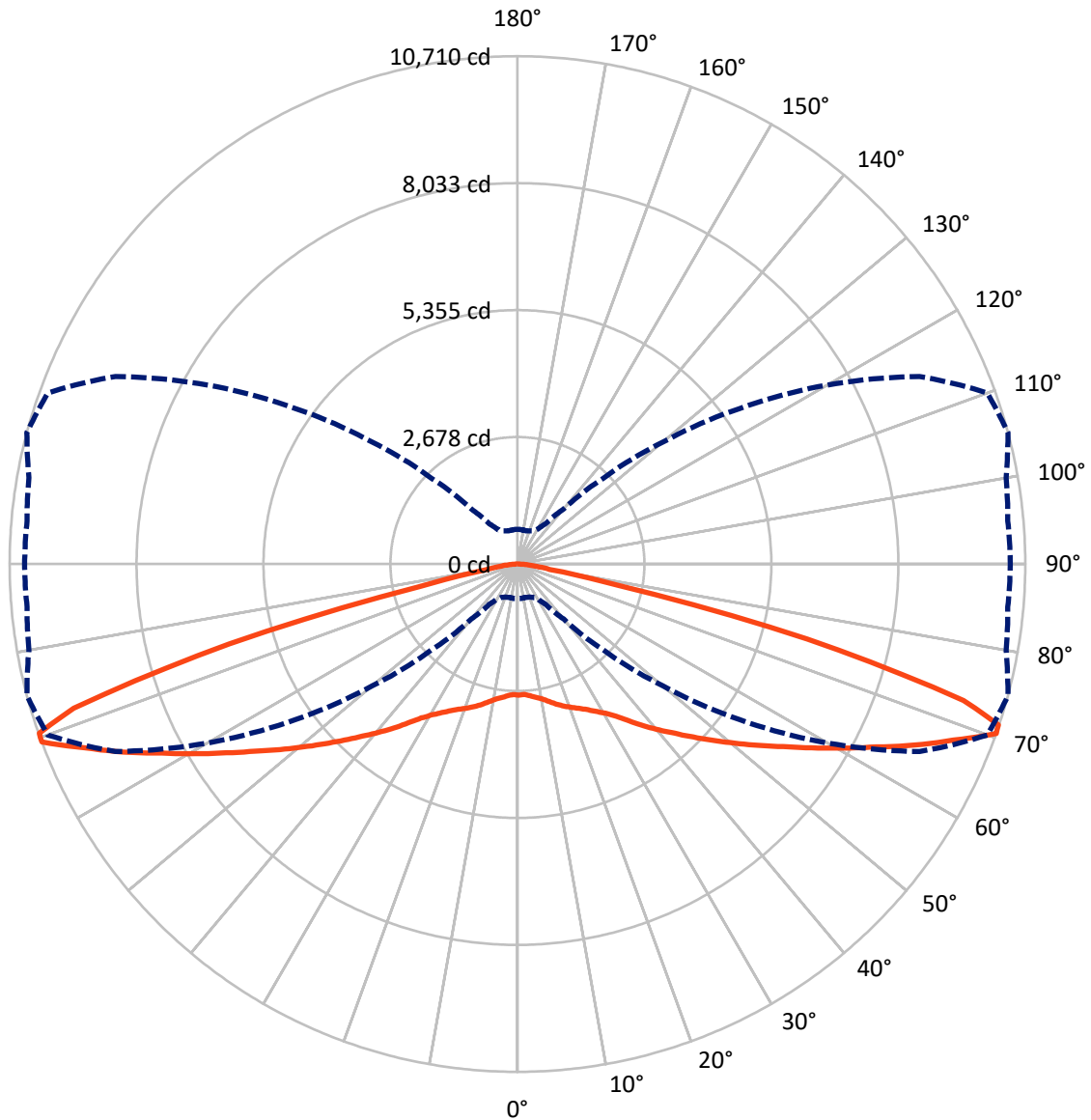
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P195083
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

Luminous Intensity Polar Plot



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

REPORT NUMBER: P195083

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12413.0	0.0	12413.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12413.0	0.0	12413.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	24826.0	0.0	24826.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.2	1.1
10°-20°	822.4	3.3
20°-30°	1544.6	6.2
30°-40°	2720.9	11.0
40°-50°	4509.4	18.2
50°-60°	6273.2	25.3
60°-70°	5922.0	23.9
70°-80°	2529.3	10.2
80°-90°	239.0	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°	24826.0	100.0
0°-180°	24826.0	100.0

Coefficient of Utilization



REPORT NUMBER: P195083

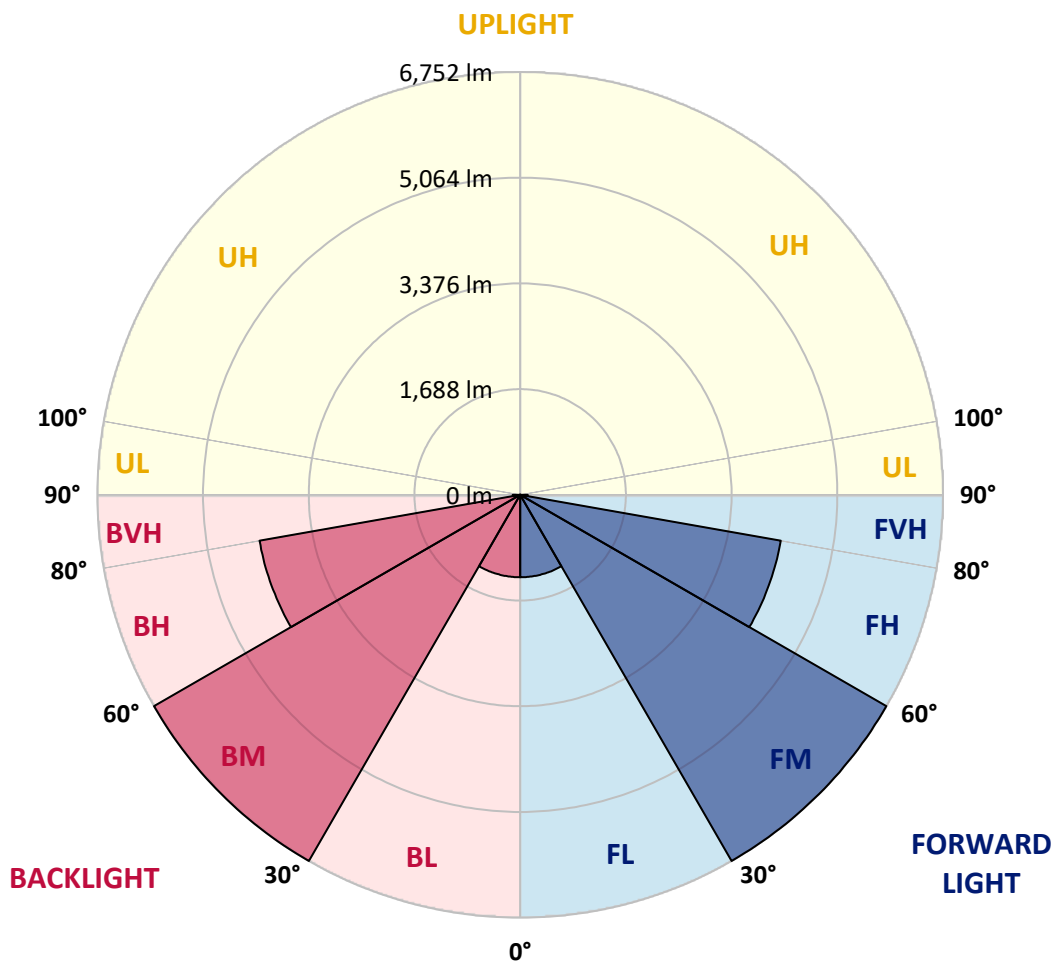
CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1316.1	5.3			
FM	(30°-60°)	6751.7	27.2			
FH	(60°-80°)	4225.7	17.0			G2/5000
FVH	(80°-90°)	119.5	0.5			G2/225
BL	(0°-30°)	1316.1	5.3	B3/2500		
BM	(30°-60°)	6751.7	27.2	B4/8500		
BH	(60°-80°)	4225.7	17.0	B4/5000		G4/5000
BVH	(80°-90°)	119.5	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: P195083

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6
2.5°	2781.7	2780.2	2781.7	2777.1	2778.6	2777.1	2777.1	2770.8	2770.8	2767.7	2763.1
5°	2750.6	2753.7	2753.7	2753.7	2758.4	2758.4	2764.6	2766.2	2770.8	2775.5	2778.6
7.5°	2699.3	2700.8	2705.5	2708.6	2717.9	2730.4	2742.8	2756.8	2769.3	2784.8	2802.0
10°	2655.7	2658.8	2666.6	2674.4	2691.5	2707.1	2728.8	2750.6	2772.4	2798.8	2825.3
12.5°	2632.4	2637.0	2649.5	2661.9	2688.4	2708.6	2738.2	2772.4	2802.0	2826.8	2856.4
15°	2635.5	2637.0	2654.2	2671.3	2708.6	2736.6	2778.6	2819.1	2854.9	2882.9	2917.1
17.5°	2680.6	2683.7	2700.8	2725.7	2761.5	2797.3	2842.4	2884.4	2932.6	2965.3	3005.8
20°	2769.3	2774.0	2792.6	2819.1	2858.0	2895.3	2942.0	2985.5	3035.3	3074.2	3114.7
22.5°	2884.4	2892.2	2912.4	2945.1	2984.0	3029.1	3077.3	3122.4	3169.1	3208.0	3242.2
25°	3038.4	3047.8	3069.5	3102.2	3141.1	3189.3	3239.1	3285.8	3334.0	3363.6	3391.6
27.5°	3245.4	3260.9	3284.2	3310.7	3344.9	3396.3	3442.9	3481.8	3528.5	3561.2	3579.8
30°	3523.8	3545.6	3564.3	3592.3	3617.2	3671.6	3709.0	3740.1	3775.9	3794.5	3799.2
32.5°	3864.6	3884.8	3903.4	3923.7	3957.9	4007.7	4043.5	4060.6	4079.2	4076.1	4059.0
35°	4248.8	4264.4	4275.3	4311.1	4367.1	4399.7	4426.2	4432.4	4435.5	4402.9	4370.2
37.5°	4653.3	4672.0	4681.3	4737.3	4790.2	4827.6	4840.0	4854.0	4844.7	4790.2	4731.1
40°	5090.5	5110.7	5138.7	5187.0	5249.2	5285.0	5300.5	5299.0	5291.2	5227.4	5131.0
42.5°	5519.9	5544.8	5568.1	5652.1	5703.5	5764.2	5771.9	5770.4	5753.3	5680.1	5568.1
45°	5884.0	5913.5	5961.7	6055.1	6137.5	6210.7	6240.2	6251.1	6234.0	6156.2	6028.6
47.5°	6184.2	6204.4	6265.1	6378.7	6484.5	6591.8	6651.0	6693.0	6691.4	6635.4	6500.0
50°	6389.6	6412.9	6487.6	6615.2	6747.4	6873.4	6990.1	7085.0	7130.1	7089.7	6963.7
52.5°	6448.7	6478.3	6576.3	6728.7	6882.8	7052.3	7226.6	7394.6	7495.7	7520.6	7422.6
55°	6199.8	6232.4	6375.6	6587.2	6840.8	7091.2	7355.7	7595.3	7803.8	7900.2	7861.3
57.5°	5474.8	5498.1	5680.1	5954.0	6316.5	6756.7	7201.7	7640.4	7998.3	8248.7	8292.3
60°	4329.7	4359.3	4558.4	4847.8	5260.1	5817.1	6439.4	7158.1	7859.8	8433.9	8718.6
62.5°	2921.8	2942.0	3133.3	3397.8	3849.0	4385.7	5079.6	5989.7	6990.1	8015.4	8818.1
65°	1534.0	1534.0	1663.1	1848.3	2207.6	2688.4	3399.4	4332.8	5523.0	6803.4	8146.1
67.5°	889.9	888.3	917.9	959.9	1073.5	1268.0	1660.0	2346.1	3472.5	4962.9	6490.7
70°	734.3	729.7	725.0	725.0	742.1	771.7	846.3	1034.6	1513.8	2559.3	3993.7
71°	701.7	698.5	686.1	681.4	689.2	704.8	737.4	824.6	1075.0	1745.6	2982.4
72.5°	662.8	655.0	636.3	628.5	630.1	636.3	645.6	679.9	756.1	992.6	1700.5
75°	603.6	585.0	561.6	550.7	546.1	544.5	544.5	553.9	571.0	599.0	697.0
77.5°	535.2	508.7	483.8	473.0	465.2	460.5	457.4	451.2	448.1	460.5	496.3
80°	452.7	424.7	404.5	398.3	393.6	384.3	371.8	359.4	351.6	357.8	379.6
82.5°	350.1	322.0	325.2	326.7	318.9	303.4	290.9	276.9	262.9	259.8	270.7
85°	278.5	264.5	255.1	275.4	258.3	239.6	222.5	199.1	166.5	136.9	149.4
87.5°	119.8	121.4	174.2	262.9	230.3	185.1	154.0	124.5	79.3	59.1	60.7
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: P195083

CATALOG NUMBER: NAV-AF-05-D-UNV-RW-7060-800

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6	2764.6
2.5°	2761.5	2761.5	2756.8	2753.7	2753.7	2753.7	2750.6	2752.2
5°	2780.2	2783.3	2786.4	2784.8	2789.5	2794.2	2792.6	2791.1
7.5°	2811.3	2820.6	2830.0	2834.6	2840.9	2847.1	2848.6	2844.0
10°	2842.4	2861.1	2875.1	2887.5	2895.3	2901.5	2906.2	2904.6
12.5°	2881.3	2907.7	2932.6	2957.5	2974.6	2984.0	2993.3	2990.2
15°	2945.1	2974.6	3005.8	3038.4	3064.9	3078.9	3092.9	3089.8
17.5°	3032.2	3058.7	3083.6	3116.2	3148.9	3164.5	3180.0	3178.5
20°	3141.1	3161.3	3175.3	3194.0	3225.1	3242.2	3256.2	3251.6
22.5°	3265.6	3271.8	3273.4	3279.6	3304.5	3324.7	3343.4	3348.0
25°	3400.9	3396.3	3386.9	3382.3	3399.4	3421.2	3444.5	3450.7
27.5°	3569.0	3553.4	3530.1	3511.4	3516.1	3544.1	3570.5	3576.7
30°	3780.5	3744.8	3695.0	3659.2	3653.0	3682.5	3710.5	3719.9
32.5°	4021.7	3973.5	3905.0	3850.6	3827.2	3853.7	3878.6	3892.6
35°	4307.9	4255.1	4172.6	4102.6	4065.2	4082.4	4125.9	4141.5
37.5°	4647.1	4574.0	4482.2	4393.5	4331.3	4334.4	4381.1	4399.7
40°	5022.1	4916.3	4799.6	4689.1	4598.9	4592.7	4634.7	4648.7
42.5°	5412.6	5277.2	5140.3	4995.6	4883.6	4863.4	4917.8	4919.4
45°	5832.6	5658.4	5488.8	5320.8	5204.1	5168.3	5221.2	5227.4
47.5°	6280.7	6062.9	5862.2	5680.1	5554.1	5498.1	5549.5	5558.8
50°	6747.4	6521.8	6288.5	6086.2	5938.4	5869.9	5930.6	5936.8
52.5°	7209.5	6996.3	6764.5	6532.7	6353.8	6276.0	6347.6	6369.4
55°	7674.7	7469.3	7251.5	7019.7	6794.1	6725.6	6803.4	6826.8
57.5°	8158.5	7960.9	7763.3	7530.0	7310.6	7206.4	7290.4	7323.0
60°	8692.1	8517.9	8331.2	8096.3	7880.0	7758.7	7830.2	7867.6
62.5°	9216.4	9180.6	9011.1	8766.8	8493.0	8371.6	8432.3	8458.8
65°	9260.0	9840.3	9832.5	9589.8	9207.1	9003.3	9020.4	9032.8
67.5°	8082.3	9414.0	10265.0	10341.3	9915.0	9596.0	9558.7	9566.5
70°	5722.2	7550.2	9356.4	10542.0	10710.0	10462.6	10381.7	10394.2
71°	4584.9	6478.3	8466.5	10061.2	10697.5	10626.0	10580.8	10613.5
72.5°	2926.4	4773.1	6708.5	8615.9	9837.2	10187.2	10238.6	10258.8
75°	1062.6	2053.6	3475.6	4980.0	6311.8	7228.1	7732.2	7772.7
77.5°	571.0	735.9	1137.3	1698.9	2134.5	2367.9	2395.9	2406.8
80°	420.1	487.0	557.0	636.3	686.1	695.4	678.3	642.5
82.5°	297.2	336.0	364.1	392.1	412.3	395.2	328.3	250.5
85°	172.7	189.8	205.4	219.4	222.5	210.0	138.5	113.6
87.5°	68.5	74.7	73.1	82.5	79.3	73.1	54.5	46.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)