

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: P270661

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270661
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-7027
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31979.6 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

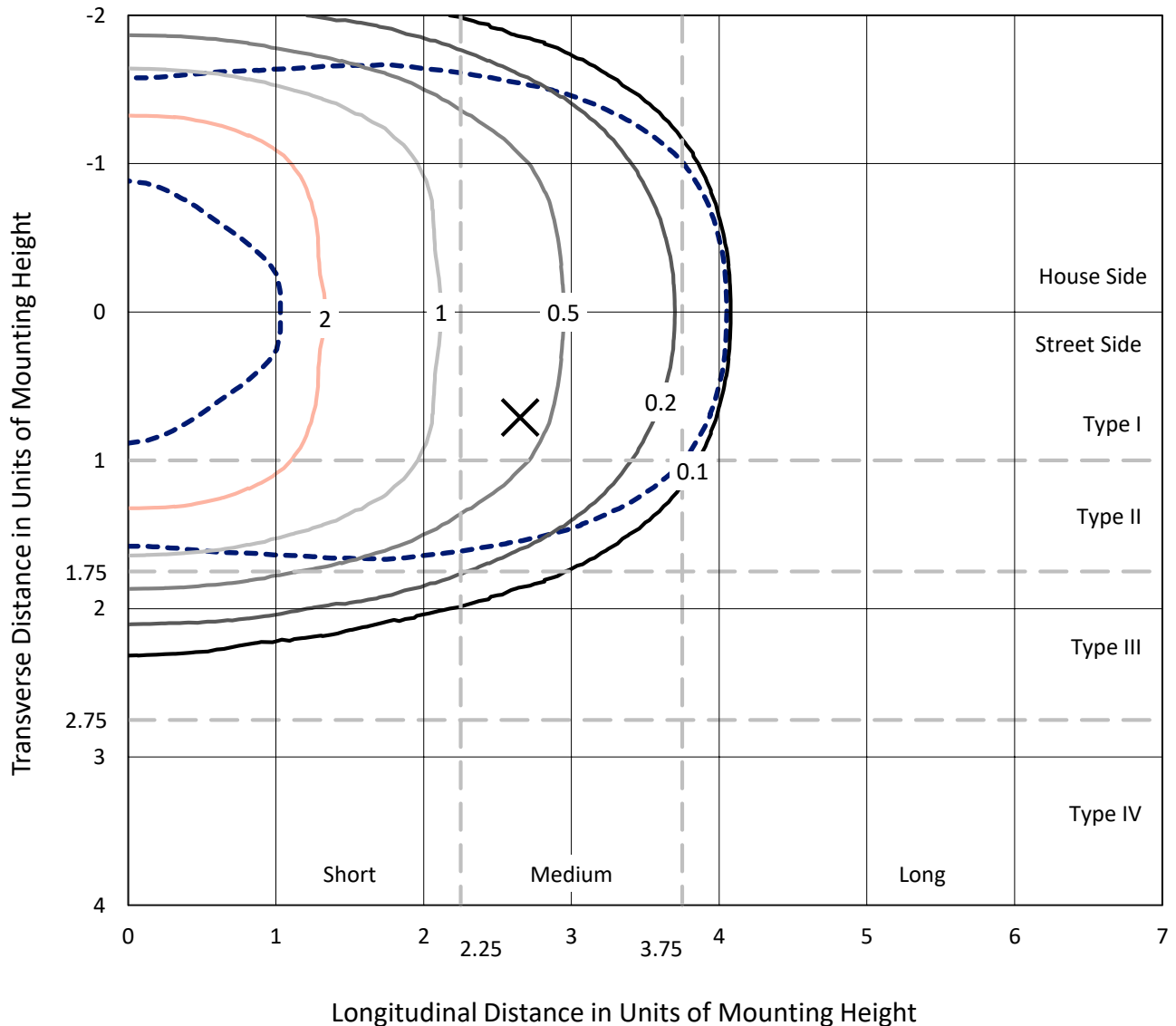
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

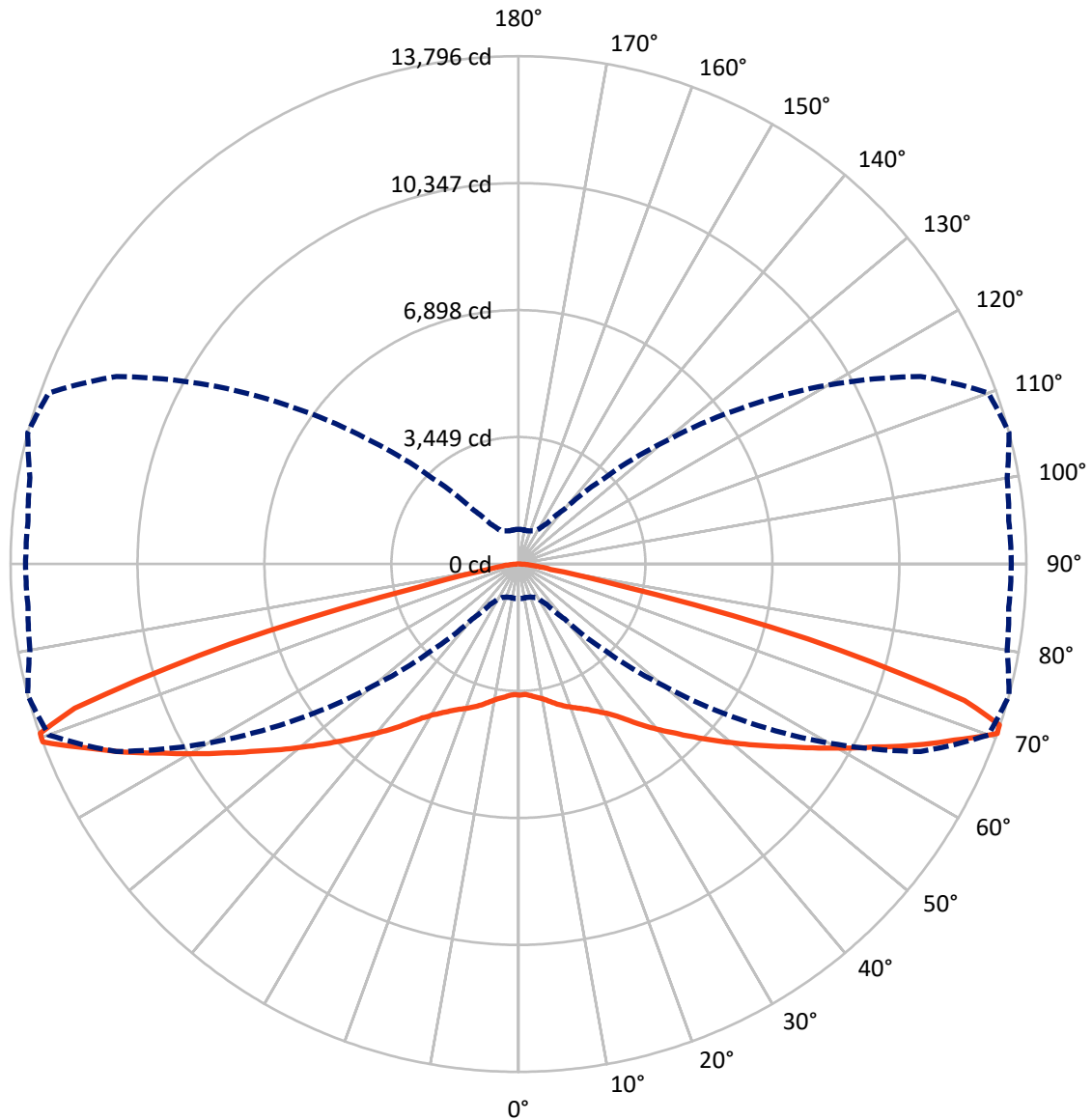
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15989.8	0.0	15989.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15989.8	0.0	15989.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	31979.6	0.0	31979.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.6	1.1
10°-20°	1059.4	3.3
20°-30°	1989.7	6.2
30°-40°	3504.9	11.0
40°-50°	5808.7	18.2
50°-60°	8080.8	25.3
60°-70°	7628.4	23.9
70°-80°	3258.2	10.2
80°-90°	307.9	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°	31979.6	100.0
0°-180°	31979.6	100.0



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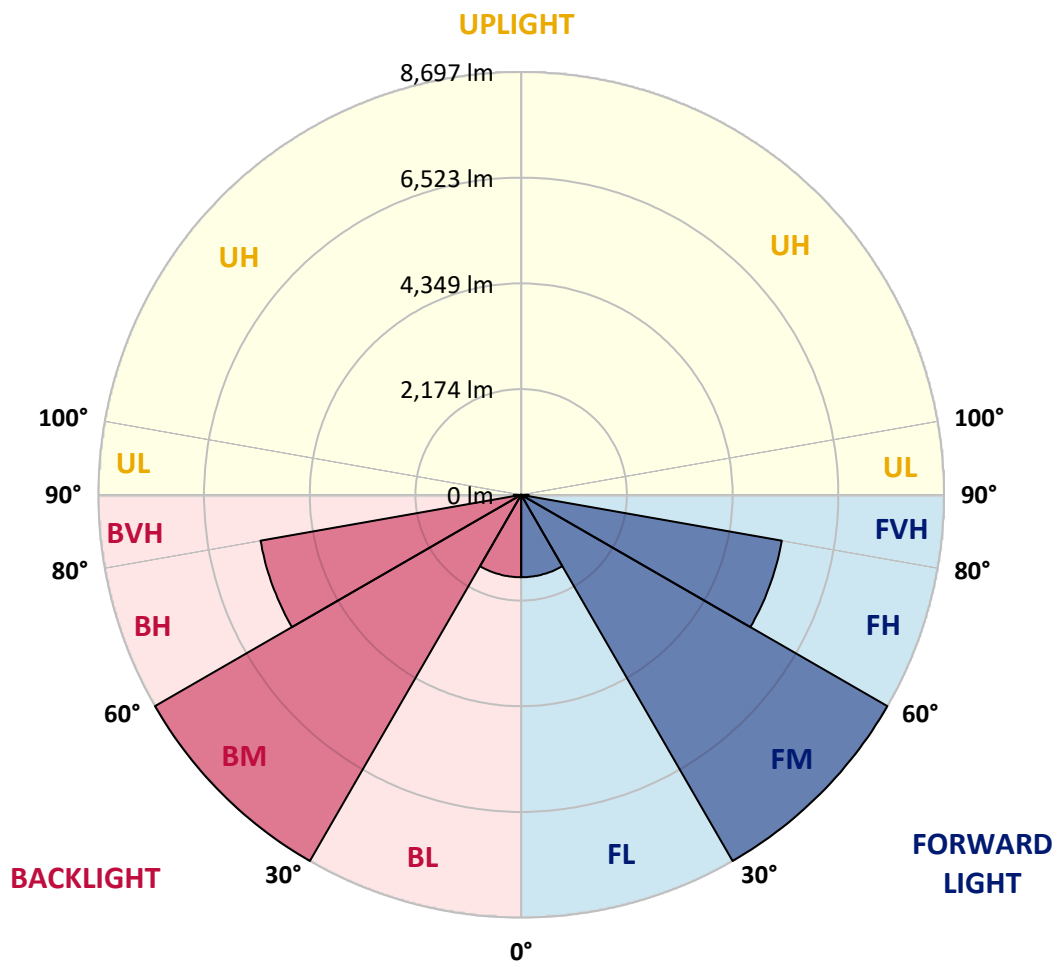
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1695.3	5.3			
FM	(30°-60°)	8697.2	27.2			
FH	(60°-80°)	5443.3	17.0			G3/7500
FVH	(80°-90°)	153.9	0.5			G2/225
BL	(0°-30°)	1695.3	5.3	B3/2500		
BM	(30°-60°)	8697.2	27.2	B5		
BH	(60°-80°)	5443.3	17.0	B5		G5
BVH	(80°-90°)	153.9	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2
2.5°	3583.2	3581.4	3583.2	3577.3	3579.2	3577.3	3577.3	3569.2	3569.2	3565.3	3559.3
5°	3543.3	3547.1	3547.1	3547.1	3553.2	3553.2	3561.2	3563.2	3569.2	3575.3	3579.2
7.5°	3477.1	3479.0	3485.1	3489.0	3501.1	3517.1	3533.2	3551.2	3567.3	3587.3	3609.3
10°	3420.9	3425.0	3434.9	3445.0	3467.1	3487.1	3515.2	3543.3	3571.2	3605.3	3639.5
12.5°	3390.9	3396.9	3412.9	3429.0	3463.1	3489.0	3527.1	3571.2	3609.3	3641.4	3679.5
15°	3395.0	3396.9	3418.9	3441.0	3489.0	3525.2	3579.2	3631.4	3677.5	3713.6	3757.6
17.5°	3453.1	3457.0	3479.0	3511.1	3557.3	3603.3	3661.4	3715.6	3777.7	3819.8	3871.9
20°	3567.3	3573.3	3597.4	3631.4	3681.4	3729.7	3789.7	3845.9	3910.0	3960.1	4012.2
22.5°	3715.6	3725.6	3751.6	3793.7	3843.8	3902.0	3964.1	4022.3	4082.3	4132.5	4176.5
25°	3913.9	3926.0	3954.0	3996.1	4046.2	4108.4	4172.4	4232.6	4294.7	4332.9	4368.8
27.5°	4180.5	4200.6	4230.6	4264.7	4308.8	4374.8	4435.0	4485.1	4545.2	4587.4	4611.4
30°	4539.2	4567.3	4591.3	4627.3	4659.5	4729.7	4777.7	4817.8	4864.0	4887.9	4894.0
32.5°	4978.0	5004.2	5028.3	5054.3	5098.4	5162.5	5208.6	5230.7	5254.6	5250.7	5228.7
35°	5473.2	5493.1	5507.1	5553.3	5625.5	5667.5	5701.6	5709.5	5713.6	5671.4	5629.5
37.5°	5994.2	6018.3	6030.2	6102.4	6170.5	6218.6	6234.6	6252.7	6240.6	6170.5	6094.5
40°	6557.4	6583.4	6619.5	6681.7	6761.7	6807.9	6827.8	6826.0	6815.9	6733.6	6609.4
42.5°	7110.4	7142.6	7172.5	7280.9	7347.0	7425.1	7435.1	7433.1	7411.0	7316.9	7172.5
45°	7579.4	7617.4	7679.6	7799.9	7906.1	8000.2	8038.4	8052.3	8030.3	7930.1	7765.8
47.5°	7966.2	7992.2	8070.5	8216.6	8353.0	8491.3	8567.5	8621.6	8619.5	8547.5	8373.0
50°	8230.7	8260.9	8357.0	8521.3	8691.7	8854.1	9004.3	9126.6	9184.7	9132.6	8970.3
52.5°	8306.8	8345.0	8471.2	8667.7	8866.0	9084.5	9309.0	9525.4	9655.6	9687.7	9561.4
55°	7986.2	8028.3	8212.8	8485.3	8812.0	9134.5	9475.2	9783.9	10052.5	10176.7	10126.7
57.5°	7052.4	7082.3	7316.9	7669.5	8136.6	8703.7	9276.8	9842.0	10302.9	10625.6	10681.7
60°	5577.3	5615.5	5872.0	6244.7	6775.7	7493.2	8294.9	9220.7	10124.5	10864.1	11230.8
62.5°	3763.7	3789.7	4036.3	4376.9	4958.0	5649.5	6543.3	7715.7	9004.3	10324.9	11359.1
65°	1976.0	1976.0	2142.4	2380.9	2843.8	3463.1	4378.9	5581.3	7114.4	8763.9	10493.3
67.5°	1146.3	1144.4	1182.3	1236.4	1382.9	1633.3	2138.3	3022.2	4473.1	6393.0	8361.1
70°	945.9	939.8	933.9	933.9	955.9	994.1	1090.3	1332.7	1950.0	3296.7	5144.5
71°	903.9	899.8	883.8	877.7	887.9	907.8	950.0	1062.2	1384.7	2248.5	3841.8
72.5°	853.7	843.7	819.7	809.6	811.7	819.7	831.7	875.8	974.0	1278.6	2190.4
75°	777.7	753.5	723.5	709.4	703.5	701.4	701.4	713.4	735.5	771.6	897.9
77.5°	689.4	655.4	623.2	609.2	599.2	593.2	589.2	581.2	577.3	593.2	639.4
80°	583.2	547.1	521.0	513.0	507.1	495.0	478.9	462.9	452.9	460.9	488.9
82.5°	450.9	414.8	418.9	420.9	410.9	390.9	374.8	356.7	338.8	334.7	348.7
85°	358.8	340.6	328.7	354.7	332.7	308.7	286.6	256.6	214.4	176.3	192.3
87.5°	154.2	156.3	224.4	338.8	296.6	238.5	198.3	160.3	102.1	76.1	78.2
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°	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2	3561.2
2.5°	3557.3	3557.3	3551.2	3547.1	3547.1	3547.1	3543.3	3545.3
5°	3581.4	3585.2	3589.3	3587.3	3593.3	3599.2	3597.4	3595.2
7.5°	3621.3	3633.4	3645.4	3651.4	3659.4	3667.5	3669.4	3663.5
10°	3661.4	3685.4	3703.5	3719.5	3729.7	3737.6	3743.5	3741.6
12.5°	3711.5	3745.7	3777.7	3809.7	3831.8	3843.8	3855.9	3851.8
15°	3793.7	3831.8	3871.9	3913.9	3948.1	3966.0	3984.2	3980.1
17.5°	3905.9	3940.1	3972.0	4014.2	4056.2	4076.2	4096.4	4094.4
20°	4046.2	4072.2	4090.3	4114.3	4154.4	4176.5	4194.5	4188.4
22.5°	4206.6	4214.6	4216.6	4224.5	4256.7	4282.7	4306.7	4312.8
25°	4380.9	4374.8	4362.9	4356.9	4378.9	4406.9	4437.0	4445.1
27.5°	4597.3	4577.4	4547.2	4523.1	4529.3	4565.2	4599.3	4607.3
30°	4869.9	4823.8	4759.7	4713.5	4705.6	4743.6	4779.7	4791.7
32.5°	5180.5	5118.5	5030.1	4960.1	4930.0	4964.2	4996.2	5014.2
35°	5549.3	5481.2	5374.9	5284.8	5236.7	5258.7	5314.8	5334.9
37.5°	5986.1	5892.1	5773.8	5659.5	5579.4	5583.3	5643.5	5667.5
40°	6469.1	6333.0	6182.6	6040.4	5924.1	5916.1	5970.1	5988.2
42.5°	6972.1	6797.8	6621.4	6435.1	6290.8	6264.7	6334.8	6336.9
45°	7513.2	7288.8	7070.4	6854.0	6703.6	6657.6	6725.7	6733.6
47.5°	8090.5	7809.9	7551.3	7316.9	7154.6	7082.3	7148.5	7160.6
50°	8691.7	8401.0	8100.5	7840.0	7649.5	7561.4	7639.5	7647.5
52.5°	9286.9	9012.3	8713.6	8415.1	8184.6	8084.4	8176.6	8204.7
55°	9886.0	9621.6	9340.9	9042.3	8751.7	8663.7	8763.9	8793.9
57.5°	10509.5	10254.8	10000.3	9699.7	9417.1	9282.8	9391.2	9433.2
60°	11196.7	10972.3	10731.8	10429.2	10150.7	9994.4	10086.4	10134.6
62.5°	11872.1	11826.0	11607.5	11293.0	10940.3	10784.0	10862.0	10896.1
65°	11928.2	12675.8	12665.7	12353.1	11860.1	11597.6	11619.7	11635.7
67.5°	10411.1	12126.7	13223.0	13321.1	12772.0	12361.1	12313.1	12323.0
70°	7371.0	9725.8	12052.5	13579.6	13796.1	13477.5	13373.2	13389.2
71°	5905.9	8345.0	10906.2	12960.3	13780.0	13687.8	13629.8	13671.8
72.5°	3769.6	6148.4	8641.5	11098.6	12671.9	13122.7	13188.8	13214.8
75°	1368.7	2645.4	4477.2	6415.1	8130.5	9310.9	9960.2	10012.4
77.5°	735.5	947.9	1465.0	2188.5	2749.6	3050.3	3086.2	3100.3
80°	541.0	627.2	717.4	819.7	883.8	895.8	873.8	827.7
82.5°	382.8	432.9	468.9	505.0	531.1	509.0	422.8	322.6
85°	222.4	244.5	264.6	282.5	286.6	270.6	178.4	146.3
87.5°	88.2	96.2	94.2	106.2	102.1	94.2	70.2	60.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)