

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: P196530

Luminaire Tested: **NAV-AF-06-D-UNV-RW-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196530
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-7030
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35599.9 lumens
Efficiency: N/A
Efficacy: 106.9 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

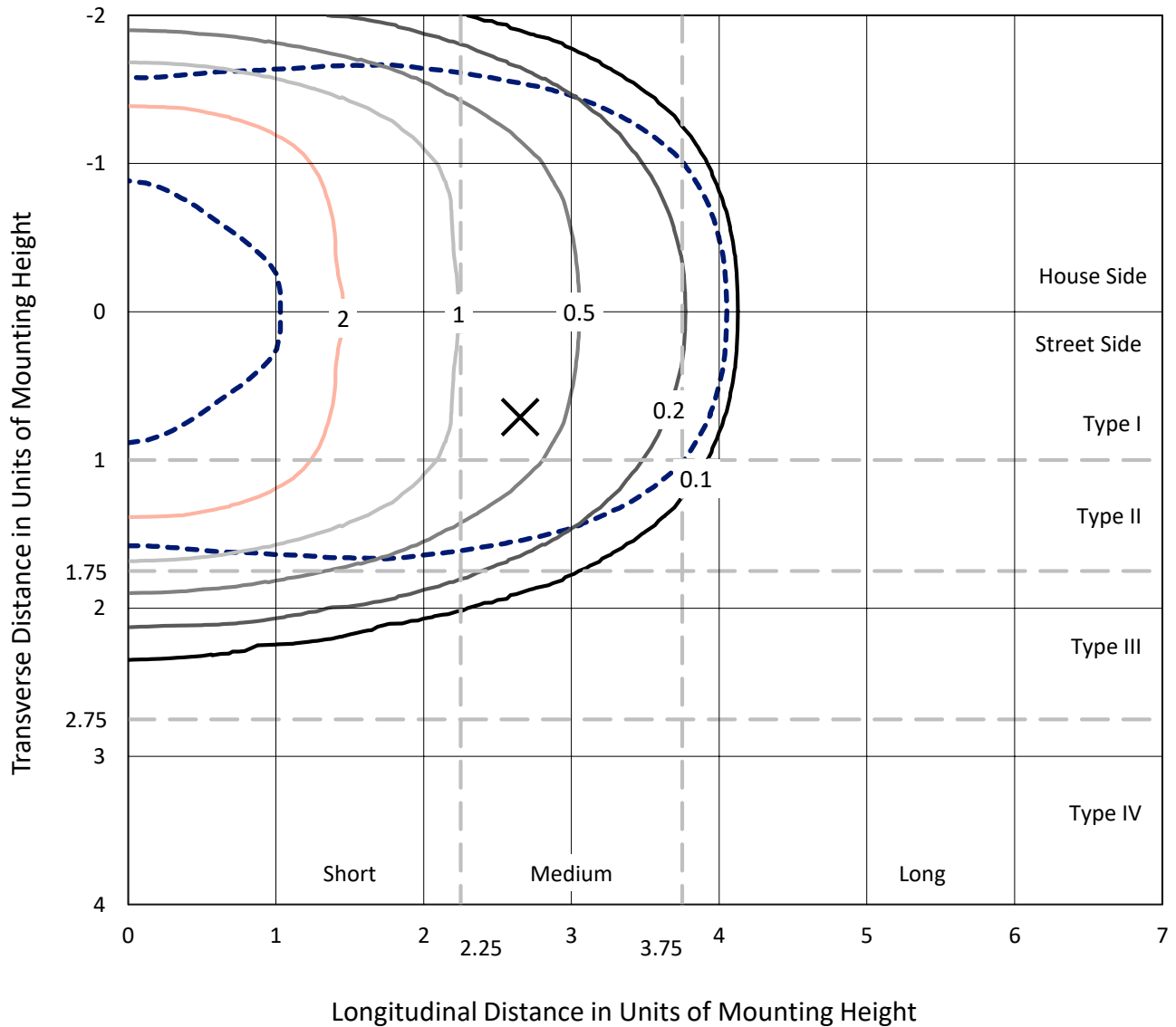
Input Watts (W): 333
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

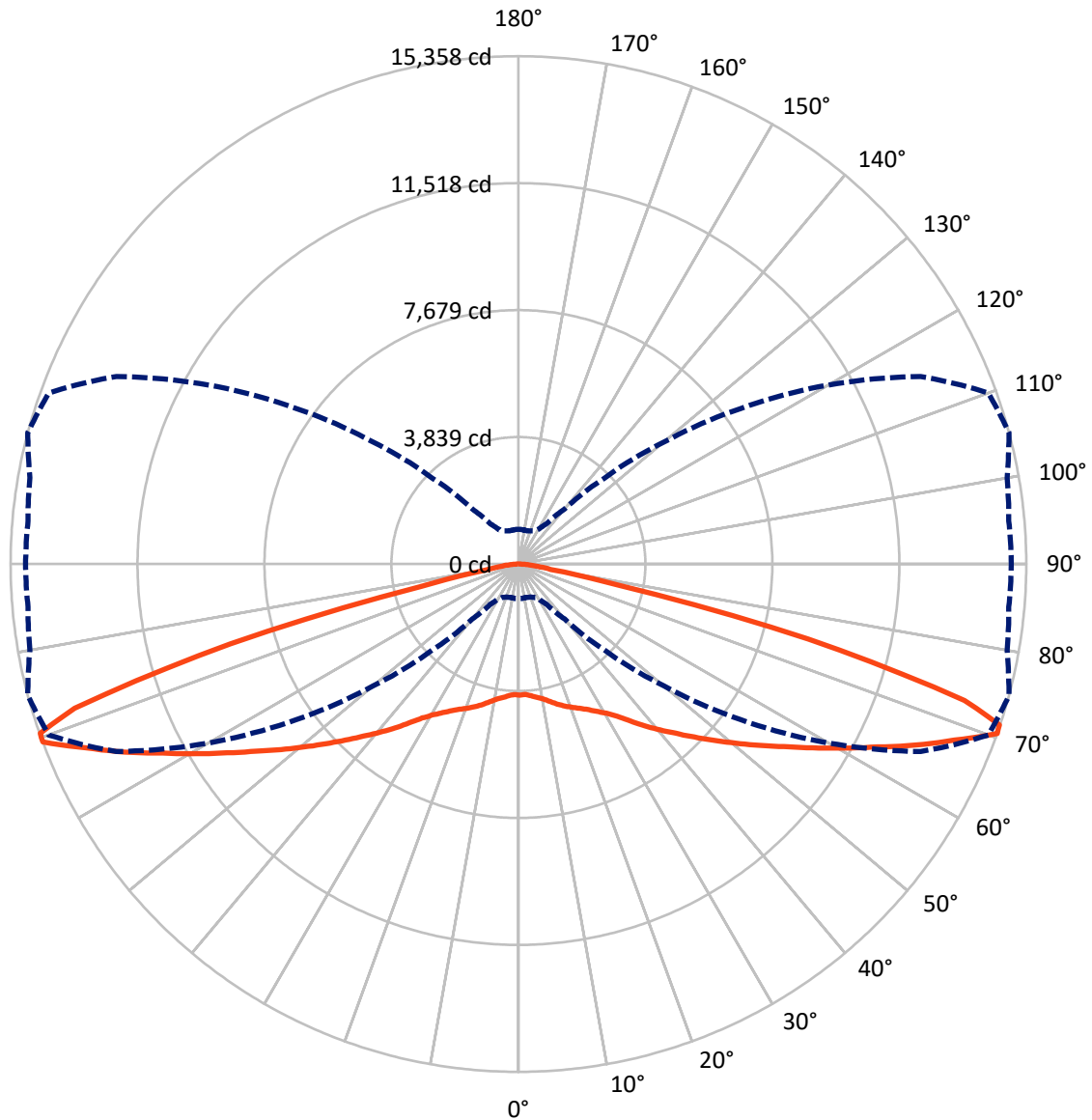
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 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	17800.0	0.0	17800.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17800.0	0.0	17800.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	35599.9	0.0	35599.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	380.3	1.1
10°-20°	1179.3	3.3
20°-30°	2214.9	6.2
30°-40°	3901.7	11.0
40°-50°	6466.3	18.2
50°-60°	8995.6	25.3
60°-70°	8492.0	23.9
70°-80°	3627.0	10.2
80°-90°	342.7	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°	35599.9	100.0
0°-180°	35599.9	100.0



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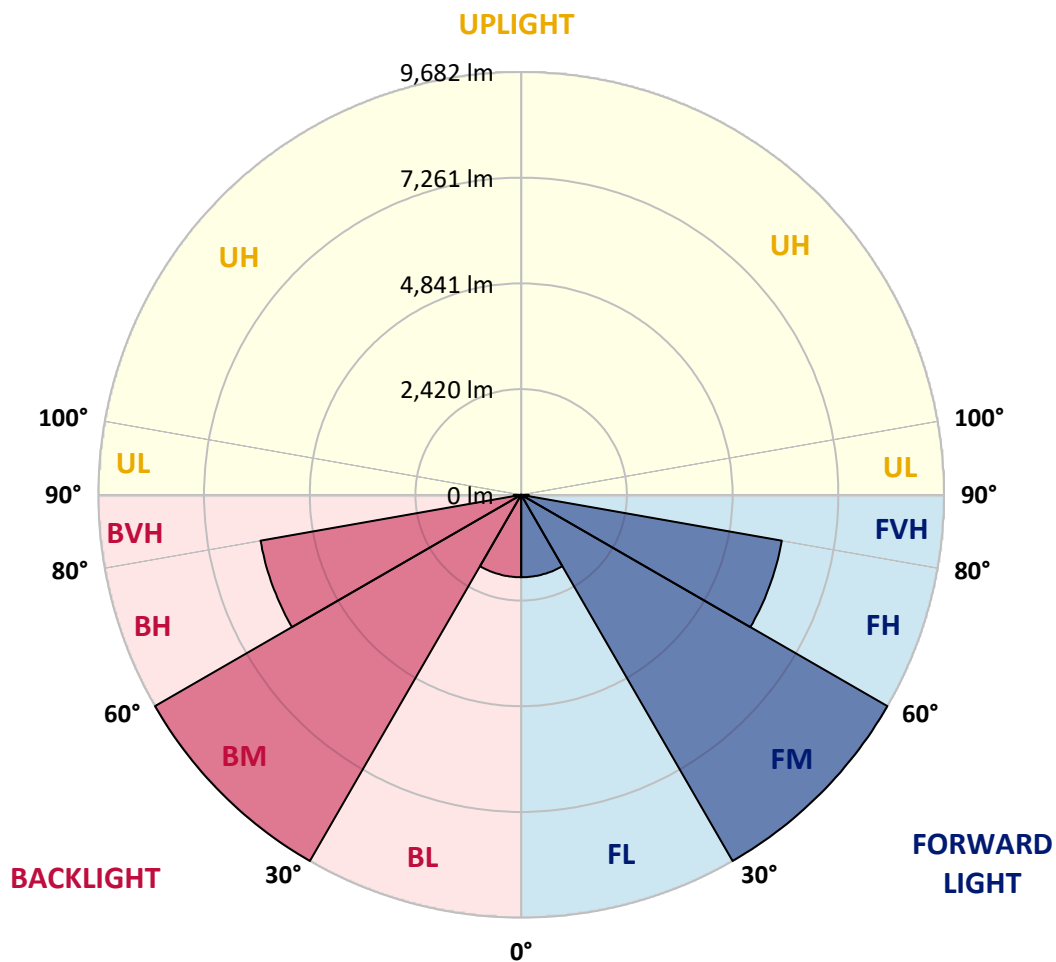
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1887.3	5.3			
FM (30°-60°)	9681.8	27.2			
FH (60°-80°)	6059.5	17.0			G3/7500
FVH (80°-90°)	171.4	0.5			G2/225
BL (0°-30°)	1887.3	5.3	B3/2500		
BM (30°-60°)	9681.8	27.2	B5		
BH (60°-80°)	6059.5	17.0	B5		G5
BVH (80°-90°)	171.4	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°	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4
2.5°	3988.9	3986.8	3988.9	3982.3	3984.4	3982.3	3982.3	3973.3	3973.3	3968.9	3962.2
5°	3944.4	3948.7	3948.7	3948.7	3955.5	3955.5	3964.4	3966.6	3973.3	3980.0	3984.4
7.5°	3870.7	3872.9	3879.6	3884.0	3897.5	3915.3	3933.2	3953.2	3971.1	3993.4	4017.9
10°	3808.2	3812.7	3823.8	3835.0	3859.6	3881.9	3913.1	3944.4	3975.5	4013.5	4051.5
12.5°	3774.8	3781.5	3799.3	3817.2	3855.1	3884.0	3926.4	3975.5	4017.9	4053.6	4096.0
15°	3779.3	3781.5	3806.0	3830.5	3884.0	3924.3	3984.4	4042.5	4093.8	4134.0	4183.0
17.5°	3844.0	3848.4	3872.9	3908.6	3960.0	4011.2	4075.9	4136.2	4205.4	4252.2	4310.2
20°	3971.1	3977.8	4004.6	4042.5	4098.2	4151.9	4218.7	4281.3	4352.6	4408.4	4466.4
22.5°	4136.2	4147.4	4176.3	4223.2	4278.9	4343.7	4412.9	4477.6	4544.4	4600.3	4649.3
25°	4357.0	4370.5	4401.6	4448.5	4504.3	4573.5	4644.8	4711.8	4780.9	4823.4	4863.4
27.5°	4653.8	4676.1	4709.5	4747.5	4796.6	4870.1	4937.1	4992.8	5059.8	5106.7	5133.4
30°	5053.1	5084.4	5111.1	5151.2	5187.0	5265.1	5318.6	5363.2	5414.6	5441.3	5448.0
32.5°	5541.6	5570.7	5597.5	5626.5	5675.6	5746.9	5798.3	5822.8	5849.5	5845.1	5820.6
35°	6092.8	6115.0	6130.6	6182.0	6262.3	6309.1	6347.1	6355.9	6360.4	6313.5	6266.8
37.5°	6672.8	6699.6	6712.9	6793.2	6869.1	6922.6	6940.4	6960.6	6947.1	6869.1	6784.4
40°	7299.7	7328.7	7368.9	7438.1	7527.2	7578.6	7600.8	7598.7	7587.5	7495.9	7357.6
42.5°	7915.4	7951.2	7984.5	8105.1	8178.7	8265.7	8276.8	8274.6	8250.0	8145.2	7984.5
45°	8437.4	8479.8	8549.0	8682.9	8801.1	8905.9	8948.4	8963.9	8939.4	8827.9	8644.9
47.5°	8868.0	8897.0	8984.1	9146.8	9298.6	9452.6	9537.4	9597.6	9595.3	9515.1	9320.9
50°	9162.5	9196.1	9303.1	9486.0	9675.7	9856.4	10023.7	10159.8	10224.5	10166.5	9985.8
52.5°	9247.2	9289.7	9430.2	9648.9	9869.7	10112.9	10362.8	10603.7	10748.7	10784.4	10643.8
55°	8890.3	8937.2	9142.5	9445.9	9809.6	10168.6	10547.9	10891.5	11190.5	11328.8	11273.1
57.5°	7850.8	7884.1	8145.2	8537.8	9057.7	9689.0	10327.0	10956.2	11469.3	11828.5	11891.0
60°	6208.7	6251.2	6536.7	6951.6	7542.8	8341.5	9233.9	10264.6	11270.7	12094.0	12502.2
62.5°	4189.8	4218.7	4493.2	4872.4	5519.3	6289.1	7284.1	8589.2	10023.7	11493.8	12645.0
65°	2199.7	2199.7	2384.9	2650.4	3165.7	3855.1	4874.6	6213.2	7919.8	9756.0	11681.2
67.5°	1276.1	1273.9	1316.2	1376.4	1539.4	1818.2	2380.4	3364.3	4979.5	7116.7	9307.6
70°	1053.0	1046.2	1039.6	1039.6	1064.1	1106.6	1213.7	1483.6	2170.8	3669.9	5726.9
71°	1006.2	1001.7	983.9	977.1	988.4	1010.6	1057.5	1182.4	1541.5	2503.1	4276.7
72.5°	950.3	939.2	912.5	901.3	903.6	912.5	925.9	974.9	1084.3	1423.3	2438.4
75°	865.7	838.8	805.4	789.7	783.1	780.8	780.8	794.2	818.8	858.9	999.5
77.5°	767.4	729.6	693.8	678.2	667.0	660.4	655.9	647.0	642.6	660.4	711.8
80°	649.2	609.0	580.0	571.1	564.5	551.0	533.1	515.3	504.2	513.1	544.3
82.5°	501.9	461.8	466.3	468.5	457.4	435.1	417.2	397.1	377.1	372.6	388.2
85°	399.4	379.2	365.9	394.9	370.4	343.6	319.0	285.6	238.7	196.3	214.1
87.5°	171.7	174.0	249.8	377.1	330.2	265.5	220.8	178.5	113.7	84.7	87.0
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°	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4	3964.4
2.5°	3960.0	3960.0	3953.2	3948.7	3948.7	3948.7	3944.4	3946.6
5°	3986.8	3991.1	3995.6	3993.4	4000.1	4006.7	4004.6	4002.2
7.5°	4031.3	4044.7	4058.1	4064.8	4073.7	4082.7	4084.8	4078.2
10°	4075.9	4102.6	4122.8	4140.6	4151.9	4160.7	4167.3	4165.2
12.5°	4131.7	4169.7	4205.4	4241.0	4265.6	4278.9	4292.4	4287.9
15°	4223.2	4265.6	4310.2	4357.0	4395.0	4415.0	4435.2	4430.7
17.5°	4348.1	4386.1	4421.7	4468.6	4515.4	4537.7	4560.1	4557.9
20°	4504.3	4533.2	4553.4	4580.1	4624.7	4649.3	4669.4	4662.6
22.5°	4682.8	4691.7	4693.9	4702.8	4738.6	4767.5	4794.3	4801.0
25°	4876.9	4870.1	4856.8	4850.1	4874.6	4905.8	4939.3	4948.3
27.5°	5117.8	5095.6	5062.0	5035.2	5042.0	5082.0	5120.0	5128.9
30°	5421.2	5369.9	5298.5	5247.1	5238.3	5280.6	5320.8	5334.2
32.5°	5767.0	5697.9	5599.6	5521.6	5488.1	5526.2	5561.8	5581.8
35°	6177.5	6101.7	5983.4	5883.1	5829.5	5854.0	5916.5	5938.8
37.5°	6663.8	6559.1	6427.4	6300.2	6211.0	6215.4	6282.4	6309.1
40°	7201.5	7049.9	6882.5	6724.2	6594.7	6585.8	6646.0	6666.1
42.5°	7761.4	7567.4	7371.0	7163.6	7003.0	6973.9	7052.0	7054.3
45°	8363.8	8113.9	7870.8	7629.9	7462.5	7411.3	7487.1	7495.9
47.5°	9006.4	8694.0	8406.2	8145.2	7964.5	7884.1	7957.8	7971.2
50°	9675.7	9352.1	9017.5	8727.5	8515.5	8417.4	8504.4	8513.3
52.5°	10338.2	10032.6	9700.1	9367.8	9111.2	8999.6	9102.3	9133.5
55°	11005.2	10710.8	10398.4	10066.0	9742.5	9644.5	9756.0	9789.4
57.5°	11699.2	11415.7	11132.4	10797.8	10483.2	10333.7	10454.3	10501.1
60°	12464.3	12214.4	11946.7	11609.9	11299.8	11125.8	11228.3	11281.9
62.5°	13216.1	13164.8	12921.6	12571.4	12178.8	12004.8	12091.7	12129.6
65°	13278.6	14110.8	14099.6	13751.6	13202.8	12910.5	12935.1	12952.9
67.5°	11589.7	13499.5	14719.9	14829.1	14217.9	13760.5	13707.0	13718.1
70°	8205.5	10826.8	13416.9	15116.9	15357.9	15003.2	14887.1	14905.0
71°	6574.5	9289.7	12140.9	14427.5	15340.0	15237.4	15172.8	15219.6
72.5°	4196.4	6844.5	9619.8	12355.0	14106.4	14608.3	14681.9	14710.8
75°	1523.7	2944.9	4984.0	7141.3	9050.9	10365.0	11087.8	11145.9
77.5°	818.8	1055.2	1630.8	2436.2	3060.9	3395.6	3435.6	3451.3
80°	602.3	698.2	798.6	912.5	983.9	997.2	972.7	921.4
82.5°	426.1	481.9	522.0	562.2	591.2	566.6	470.7	359.1
85°	247.6	272.2	294.5	314.5	319.0	301.2	198.6	162.9
87.5°	98.2	107.1	104.9	118.2	113.7	104.9	78.1	66.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)