

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: P197016

Luminaire Tested: **NAV-AF-06-D-UNV-RW-8030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197016
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-8030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32949 lumens
Efficiency: N/A
Efficacy: 86.3 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

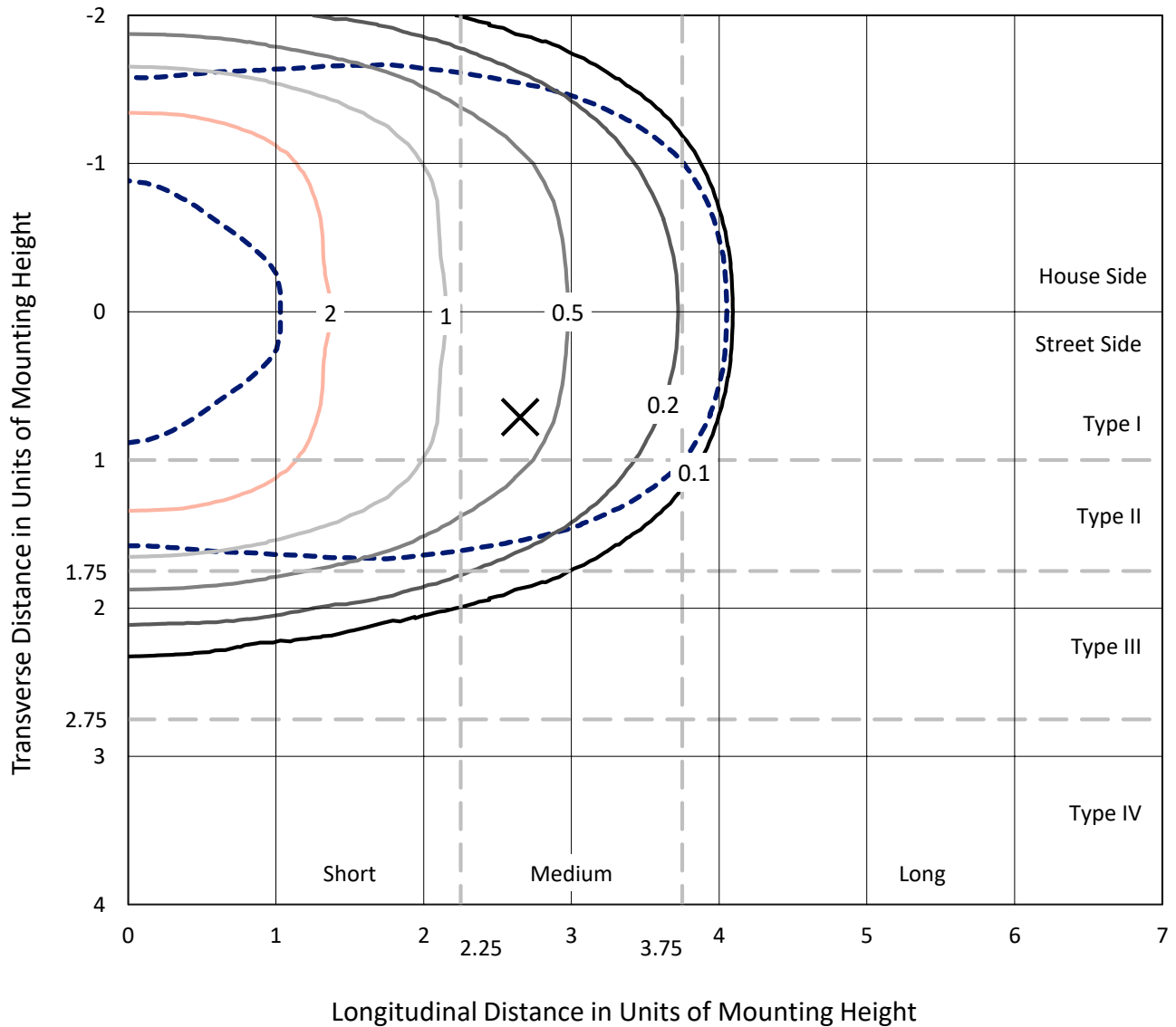
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

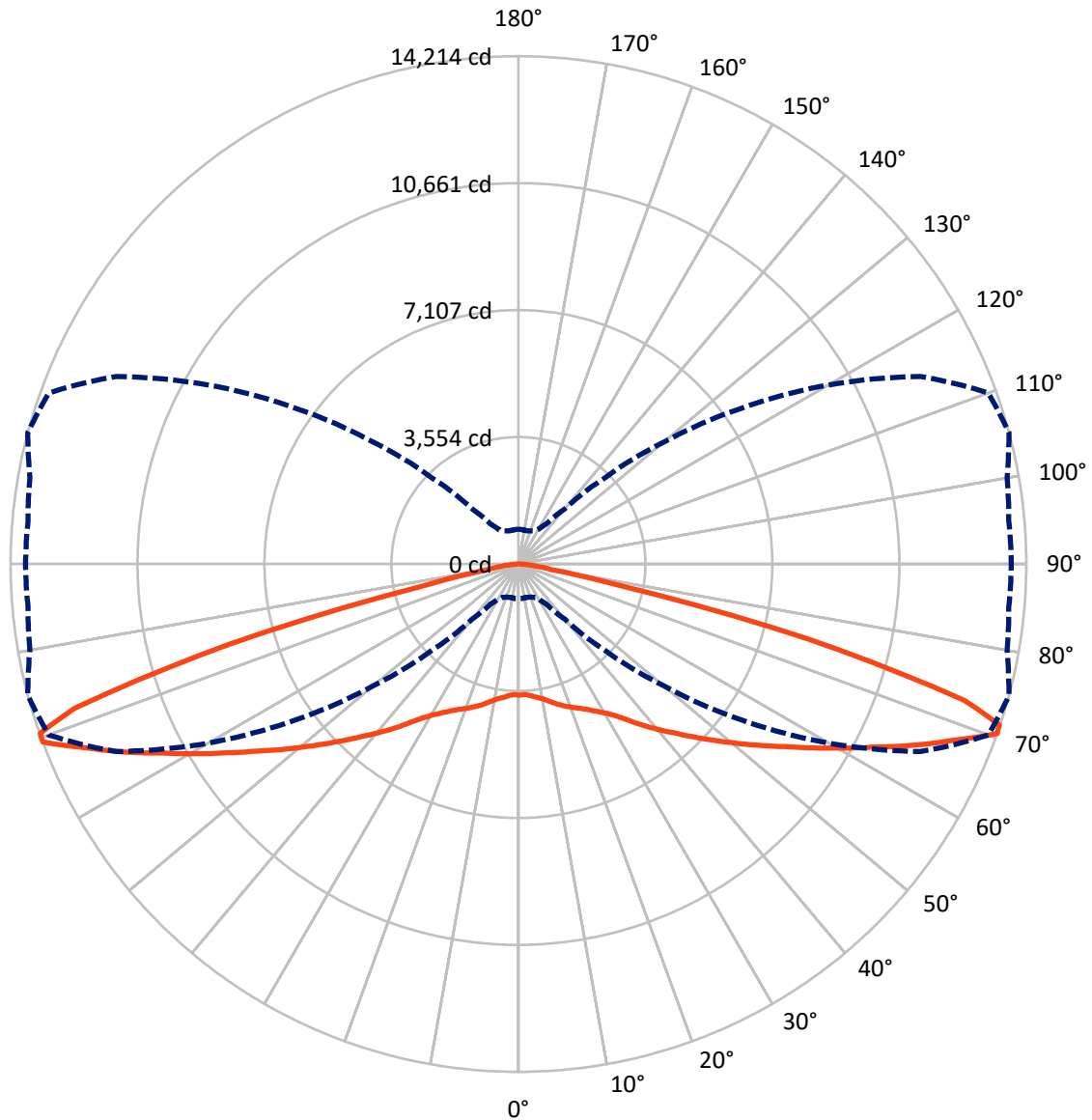
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.1 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	16474.5	0.0	16474.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	16474.5	0.0	16474.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	32949.0	0.0	32949.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	351.9	1.1
10°-20°	1091.5	3.3
20°-30°	2050.0	6.2
30°-40°	3611.1	11.0
40°-50°	5984.8	18.2
50°-60°	8325.8	25.3
60°-70°	7859.7	23.9
70°-80°	3356.9	10.2
80°-90°	317.2	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°	32949.0	100.0
0°-180°	32949.0	100.0

Coefficient of Utilization



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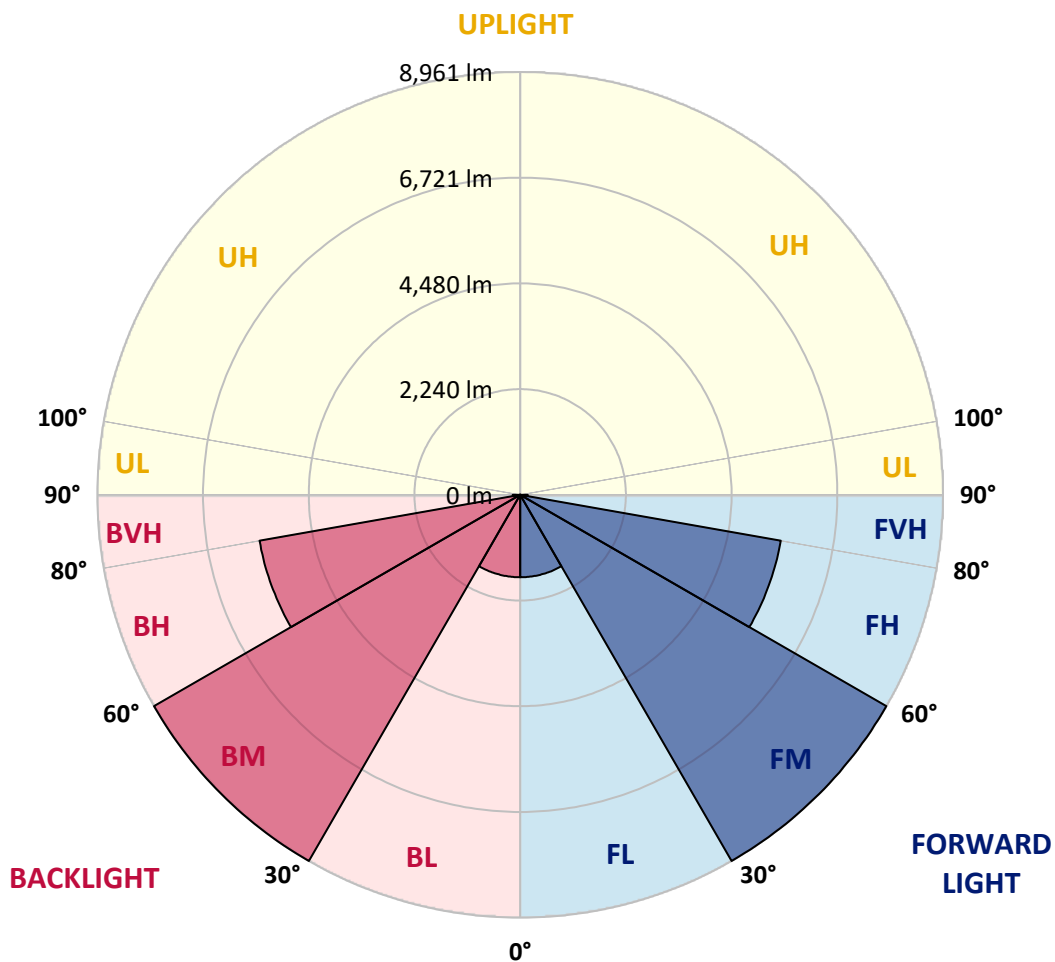
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1746.7	5.3			
FM	(30°-60°)	8960.9	27.2			
FH	(60°-80°)	5608.3	17.0			G3/7500
FVH	(80°-90°)	158.6	0.5			G2/225
BL	(0°-30°)	1746.7	5.3	B3/2500		
BM	(30°-60°)	8960.9	27.2	B5		
BH	(60°-80°)	5608.3	17.0	B5		G5
BVH	(80°-90°)	158.6	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°	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2
2.5°	3691.9	3689.8	3691.9	3685.7	3687.8	3685.7	3685.7	3677.5	3677.5	3673.3	3667.1
5°	3650.6	3654.7	3654.7	3654.7	3660.9	3660.9	3669.2	3671.3	3677.5	3683.6	3687.8
7.5°	3582.5	3584.5	3590.7	3594.9	3607.2	3623.8	3640.3	3658.9	3675.4	3696.0	3718.7
10°	3524.7	3528.8	3539.1	3549.4	3572.1	3592.8	3621.7	3650.6	3679.5	3714.6	3749.7
12.5°	3493.7	3499.9	3516.4	3532.9	3568.0	3594.9	3634.1	3679.5	3718.7	3751.8	3791.0
15°	3497.8	3499.9	3522.6	3545.3	3594.9	3632.0	3687.8	3741.5	3789.0	3826.1	3871.5
17.5°	3557.7	3561.8	3584.5	3617.6	3665.1	3712.6	3772.4	3828.2	3892.2	3935.6	3989.2
20°	3675.4	3681.6	3706.4	3741.5	3793.1	3842.6	3904.6	3962.4	4028.5	4080.1	4133.8
22.5°	3828.2	3838.5	3865.4	3908.7	3960.3	4020.2	4084.2	4144.1	4206.0	4257.7	4303.1
25°	4032.6	4045.0	4073.9	4117.3	4168.9	4232.9	4299.0	4360.9	4424.9	4464.1	4501.3
27.5°	4307.2	4327.9	4358.8	4393.9	4439.4	4507.5	4569.5	4621.1	4683.0	4726.4	4751.2
30°	4676.8	4705.7	4730.5	4767.7	4800.7	4873.0	4922.5	4963.8	5011.3	5036.1	5042.3
32.5°	5129.0	5155.9	5180.6	5207.5	5252.9	5319.0	5366.5	5389.2	5414.0	5409.8	5387.1
35°	5639.0	5659.7	5674.1	5721.6	5796.0	5839.3	5874.4	5882.7	5886.8	5843.5	5800.1
37.5°	6175.9	6200.7	6213.1	6287.4	6357.6	6407.1	6423.7	6442.3	6429.9	6357.6	6279.1
40°	6756.1	6782.9	6820.1	6884.1	6966.7	7014.2	7034.9	7032.8	7022.5	6937.8	6809.8
42.5°	7326.0	7359.0	7390.0	7501.5	7569.6	7650.2	7660.5	7658.4	7635.7	7538.7	7390.0
45°	7809.2	7848.4	7912.4	8036.3	8145.7	8242.8	8282.0	8296.5	8273.8	8170.5	8001.2
47.5°	8207.7	8234.5	8315.0	8465.8	8606.2	8748.7	8827.1	8882.9	8880.8	8806.5	8626.8
50°	8480.2	8511.2	8610.3	8779.6	8955.1	9122.4	9277.3	9403.2	9463.1	9409.4	9242.2
52.5°	8558.7	8597.9	8728.0	8930.4	9134.8	9359.8	9591.1	9814.1	9948.3	9981.4	9851.3
55°	8228.3	8271.7	8461.6	8742.5	9079.0	9411.5	9762.5	10080.5	10357.2	10485.2	10433.6
57.5°	7266.1	7297.1	7538.7	7902.1	8383.2	8967.5	9558.1	10140.4	10615.3	10947.7	11005.5
60°	5746.4	5785.6	6049.9	6434.0	6981.2	7720.4	8546.3	9500.3	10431.5	11193.4	11571.3
62.5°	3877.7	3904.6	4158.6	4509.6	5108.4	5820.7	6741.7	7949.6	9277.3	10638.0	11703.4
65°	2035.9	2035.9	2207.3	2453.0	2930.0	3568.0	4511.6	5750.5	7330.1	9029.5	10811.4
67.5°	1181.1	1179.0	1218.2	1274.0	1424.7	1682.8	2203.2	3113.8	4608.7	6586.8	8614.4
70°	974.6	968.4	962.2	962.2	984.9	1024.2	1123.3	1373.1	2009.1	3396.6	5300.4
71°	931.2	927.1	910.6	904.4	914.7	935.4	978.7	1094.4	1426.8	2316.7	3958.3
72.5°	879.6	869.3	844.5	834.2	836.3	844.5	856.9	902.3	1003.5	1317.4	2256.9
75°	801.2	776.4	745.4	730.9	724.8	722.7	722.7	735.1	757.8	795.0	925.0
77.5°	710.3	675.2	642.2	627.7	617.4	611.2	607.1	598.8	594.7	611.2	658.7
80°	600.9	563.7	536.9	528.6	522.4	510.0	493.5	477.0	466.7	474.9	503.8
82.5°	464.6	427.4	431.5	433.6	423.3	402.6	386.1	367.5	349.0	344.8	359.3
85°	369.6	351.0	338.6	365.5	342.8	318.0	295.3	264.3	220.9	181.7	198.2
87.5°	159.0	161.1	231.3	349.0	305.6	245.7	204.4	165.2	105.3	78.5	80.5
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°	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2	3669.2
2.5°	3665.1	3665.1	3658.9	3654.7	3654.7	3654.7	3650.6	3652.7
5°	3689.8	3694.0	3698.1	3696.0	3702.2	3708.4	3706.4	3704.3
7.5°	3731.1	3743.5	3755.9	3762.1	3770.4	3778.6	3780.7	3774.5
10°	3772.4	3797.2	3815.8	3832.3	3842.6	3850.9	3857.1	3855.0
12.5°	3824.1	3859.2	3892.2	3925.2	3947.9	3960.3	3972.7	3968.6
15°	3908.7	3947.9	3989.2	4032.6	4067.7	4086.3	4104.9	4100.7
17.5°	4024.3	4059.4	4092.5	4135.8	4179.2	4199.9	4220.5	4218.4
20°	4168.9	4195.7	4214.3	4239.1	4280.4	4303.1	4321.7	4315.5
22.5°	4334.1	4342.3	4344.4	4352.6	4385.7	4412.5	4437.3	4443.5
25°	4513.7	4507.5	4495.1	4488.9	4511.6	4540.5	4571.5	4579.8
27.5°	4736.7	4716.1	4685.1	4660.3	4666.5	4703.7	4738.8	4747.0
30°	5017.5	4970.0	4904.0	4856.5	4848.2	4887.4	4924.6	4937.0
32.5°	5337.6	5273.6	5182.7	5110.4	5079.5	5114.6	5147.6	5166.2
35°	5717.5	5647.3	5537.9	5444.9	5395.4	5418.1	5475.9	5496.6
37.5°	6167.6	6070.6	5948.8	5831.1	5748.5	5752.6	5814.5	5839.3
40°	6665.3	6524.8	6370.0	6223.4	6103.6	6095.4	6151.1	6169.7
42.5°	7183.5	7003.9	6822.2	6630.2	6481.5	6454.6	6526.9	6529.0
45°	7741.0	7509.8	7284.7	7061.7	6906.8	6859.3	6929.5	6937.8
47.5°	8335.7	8046.6	7780.3	7538.7	7371.4	7297.1	7365.2	7377.6
50°	8955.1	8655.7	8346.0	8077.6	7881.4	7790.6	7871.1	7879.4
52.5°	9568.4	9285.5	8977.9	8670.2	8432.7	8329.5	8424.5	8453.4
55°	10185.8	9913.2	9624.1	9316.5	9017.1	8926.2	9029.5	9060.4
57.5°	10827.9	10565.7	10303.5	9993.7	9702.6	9564.3	9675.8	9719.1
60°	11536.2	11304.9	11057.1	10745.3	10458.3	10297.3	10392.3	10441.8
62.5°	12232.0	12184.5	11959.5	11635.3	11271.9	11110.8	11191.3	11226.4
65°	12289.8	13060.0	13049.7	12727.6	12219.6	11949.1	11971.9	11988.4
67.5°	10726.8	12494.3	13623.7	13724.9	13159.1	12735.8	12686.3	12696.6
70°	7594.4	10020.6	12417.9	13991.2	14214.2	13885.9	13778.6	13795.1
71°	6085.0	8597.9	11236.8	13353.2	14197.7	14102.7	14042.9	14086.2
72.5°	3883.9	6334.9	8903.5	11435.0	13055.9	13520.5	13588.6	13615.5
75°	1410.3	2725.6	4612.8	6609.5	8377.0	9593.2	10262.2	10315.9
77.5°	757.8	976.7	1509.4	2254.8	2832.9	3142.7	3179.8	3194.3
80°	557.5	646.3	739.2	844.5	910.6	923.0	900.3	852.8
82.5°	394.4	446.0	483.2	520.3	547.2	524.5	435.7	332.4
85°	229.2	251.9	272.6	291.1	295.3	278.8	183.8	150.7
87.5°	90.9	99.1	97.0	109.4	105.3	97.0	72.3	61.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)