

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: P195936

Luminaire Tested: **NAV-AF-06-D-UNV-5MQ-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195936  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24129)  
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-5MQ-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
MEDIUM OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 43048.8 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

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

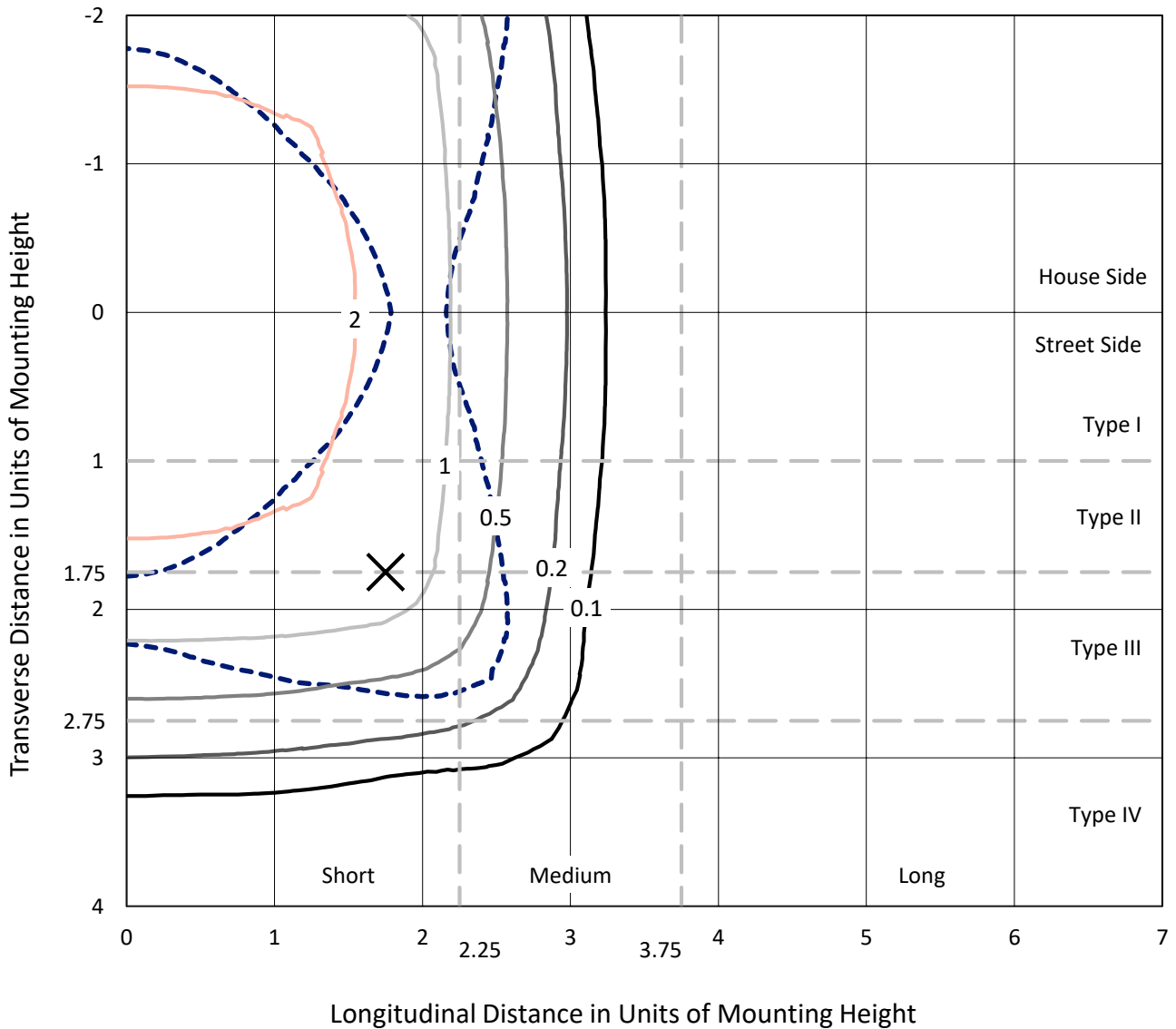


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### Iso-Footcandle Lines of Horizontal Illumination

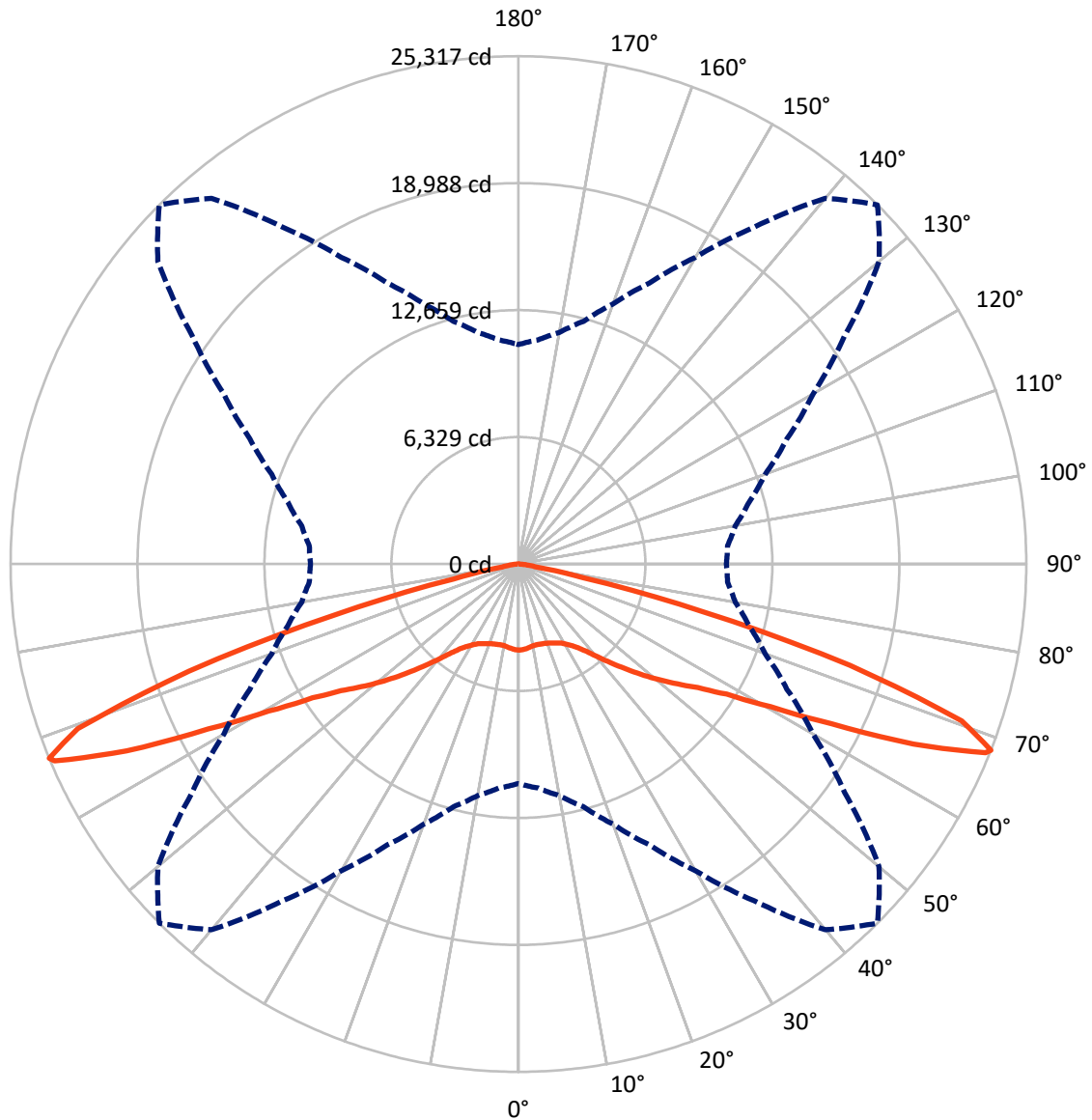
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 68-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	21524.4	0.0	21524.4
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	21524.4	0.0	21524.4
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	43048.8	0.0	43048.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	401.8	0.9
10°-20°	1165.4	2.7
20°-30°	1981.2	4.6
30°-40°	3242.3	7.5
40°-50°	5794.4	13.5
50°-60°	9785.8	22.7
60°-70°	15174.1	35.2
70°-80°	5217.2	12.1
80°-90°	286.7	0.7
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°	43048.8	100.0
0°-180°	43048.8	100.0



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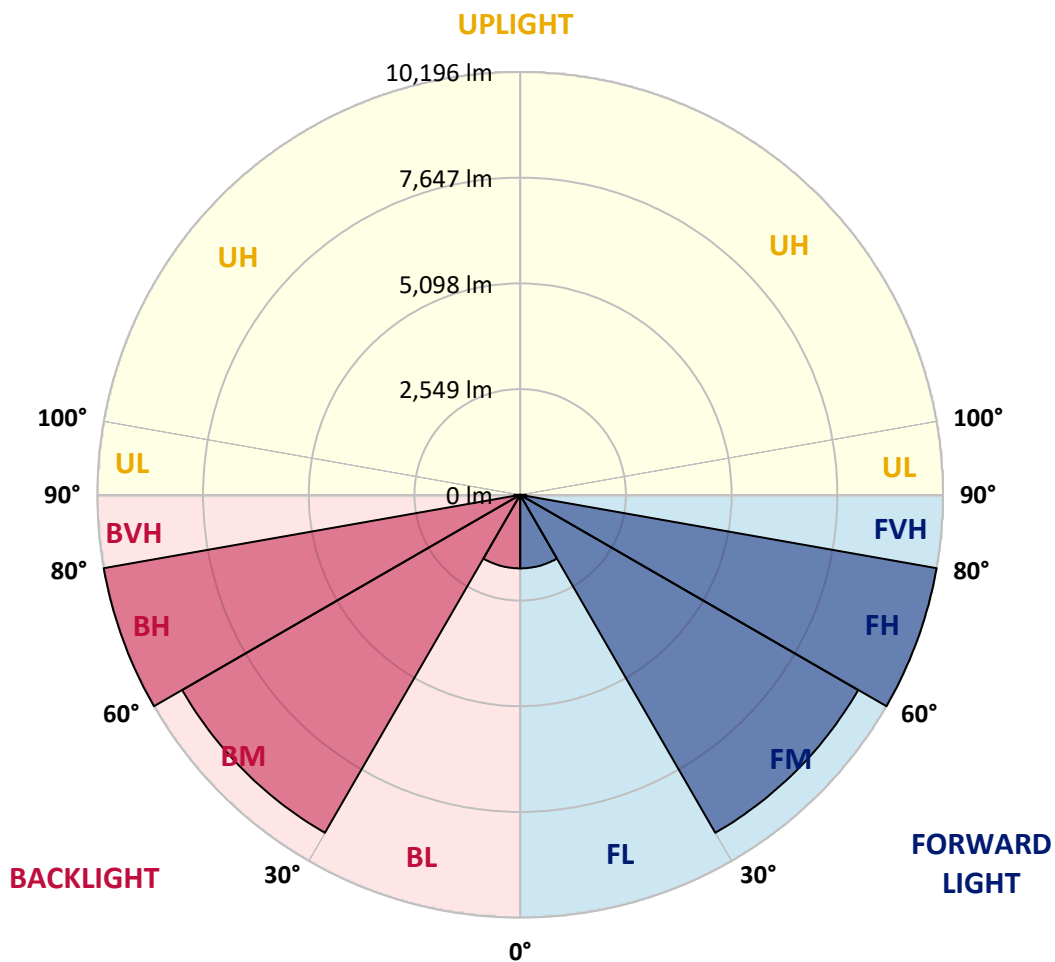
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1774.2	4.1			
FM	(30°-60°)	9411.2	21.9			
FH	(60°-80°)	10195.7	23.7			G4/12000
FVH	(80°-90°)	143.4	0.3			G2/225
BL	(0°-30°)	1774.2	4.1	B3/2500		
BM	(30°-60°)	9411.2	21.9	B5		
BH	(60°-80°)	10195.7	23.7	B5		G4/12000
BVH	(80°-90°)	143.4	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2
2.5°	4312.7	4312.7	4318.0	4315.3	4307.4	4299.6	4291.6	4283.7	4278.4	4273.2	4267.9
5°	4267.9	4267.9	4275.8	4270.5	4265.3	4257.3	4252.1	4244.1	4238.9	4233.6	4236.2
7.5°	4209.9	4215.2	4220.4	4217.8	4207.3	4204.6	4196.8	4194.1	4188.8	4180.9	4183.6
10°	4159.8	4162.5	4167.7	4165.0	4162.5	4154.5	4151.9	4149.3	4146.6	4136.1	4133.4
12.5°	4109.7	4115.0	4120.2	4122.9	4120.2	4122.9	4125.6	4128.2	4125.6	4120.2	4120.2
15°	4070.2	4075.4	4083.3	4091.3	4094.0	4109.7	4120.2	4130.8	4138.8	4141.3	4133.4
17.5°	4049.0	4057.0	4067.6	4083.3	4096.5	4115.0	4133.4	4149.3	4162.5	4165.0	4157.2
20°	4046.5	4054.4	4070.2	4088.6	4112.4	4136.1	4165.0	4188.8	4202.0	4209.9	4202.0
22.5°	4064.9	4075.4	4096.5	4120.2	4149.3	4180.9	4217.8	4244.1	4270.5	4281.0	4273.2
25°	4117.6	4128.2	4151.9	4180.9	4212.5	4252.1	4289.0	4323.3	4349.6	4362.8	4352.2
27.5°	4228.4	4231.0	4257.3	4289.0	4325.9	4360.1	4407.6	4423.4	4444.5	4457.7	4444.5
30°	4383.9	4389.2	4412.9	4462.9	4497.2	4542.0	4568.4	4584.3	4608.0	4621.2	4605.3
32.5°	4621.2	4626.4	4647.5	4694.9	4726.5	4760.8	4792.5	4803.1	4826.8	4842.5	4824.1
35°	4955.9	4966.4	4984.9	5016.6	5042.9	5069.2	5093.0	5085.1	5100.9	5122.0	5103.5
37.5°	5414.6	5411.9	5417.2	5441.0	5467.4	5483.1	5520.0	5501.6	5517.4	5535.9	5525.4
40°	5949.7	5949.7	5947.1	5989.3	5999.8	6015.7	6055.2	6031.4	6052.6	6073.7	6055.2
42.5°	6558.6	6569.2	6582.4	6616.7	6645.7	6650.9	6669.4	6658.9	6685.2	6703.7	6685.2
45°	7259.9	7275.7	7291.5	7370.6	7383.8	7394.3	7407.5	7373.2	7402.3	7418.0	7412.8
47.5°	7987.5	8016.5	8050.7	8132.5	8185.1	8208.9	8219.4	8179.9	8182.6	8206.2	8208.9
50°	8810.0	8841.6	8875.8	8968.1	9018.2	9060.4	9073.6	9028.8	9034.0	9052.5	9057.7
52.5°	9569.1	9606.0	9679.9	9803.8	9875.0	9948.7	9954.0	9898.7	9922.4	9935.5	9925.0
55°	10283.5	10331.0	10428.5	10594.6	10723.8	10868.8	10934.6	10874.1	10874.1	10863.4	10858.2
57.5°	11116.5	11169.3	11269.4	11461.9	11641.2	11849.4	12028.7	12089.2	12200.0	12236.9	12178.9
60°	12371.4	12426.7	12529.5	12782.6	13009.3	13312.5	13607.7	13847.6	14237.7	14448.6	14258.8
62.5°	13518.1	13602.4	13844.9	14287.8	14778.2	15339.7	15990.8	16454.7	17163.8	17517.0	17039.9
65°	13257.0	13428.4	13902.9	14598.8	15611.2	16829.1	18155.0	19428.3	20894.0	21645.2	20675.2
67.5°	11580.5	11725.5	12236.9	13046.2	14308.9	15988.1	18049.6	20685.7	23709.3	25117.0	23400.9
68°	10939.9	11211.4	11720.3	12524.2	13797.5	15447.7	17648.9	20495.8	23796.3	25317.3	23464.1
70°	8388.2	8485.7	8973.3	9695.6	11069.0	12687.7	14909.9	18155.0	21885.1	23450.9	21545.1
72.5°	3985.8	4043.8	4360.1	5071.9	5944.5	7262.5	9223.8	12284.3	15645.4	17274.6	15373.9
75°	1460.4	1473.6	1547.4	1716.1	2043.0	2538.6	3479.7	5383.0	7969.0	9503.2	8000.6
77.5°	788.2	790.8	819.8	862.0	920.0	985.9	1128.2	1513.1	2441.1	3321.5	2578.1
80°	495.6	493.0	521.9	556.2	595.8	627.4	640.6	685.4	772.4	904.2	830.3
82.5°	253.1	276.8	342.7	379.6	437.6	448.2	435.0	432.3	458.7	495.6	511.4
85°	139.7	123.9	181.9	242.5	263.6	271.5	274.2	258.3	253.1	247.8	261.0
87.5°	71.2	65.9	79.1	121.2	129.2	105.5	108.1	92.3	63.2	63.2	65.9
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°	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2	4294.2
2.5°	4262.6	4265.3	4260.0	4260.0	4260.0	4262.6	4260.0	4257.3
5°	4228.4	4233.6	4233.6	4236.2	4238.9	4238.9	4238.9	4238.9
7.5°	4178.2	4180.9	4186.1	4186.1	4186.1	4186.1	4186.1	4186.1
10°	4130.8	4125.6	4122.9	4117.6	4117.6	4109.7	4112.4	4115.0
12.5°	4107.0	4096.5	4091.3	4083.3	4078.1	4070.2	4070.2	4072.8
15°	4117.6	4101.8	4086.0	4080.8	4075.4	4070.2	4064.9	4067.6
17.5°	4138.8	4120.2	4101.8	4091.3	4080.8	4072.8	4070.2	4072.8
20°	4183.6	4157.2	4128.2	4109.7	4088.6	4083.3	4075.4	4083.3
22.5°	4244.1	4212.5	4175.6	4141.3	4117.6	4107.0	4096.5	4104.5
25°	4318.0	4283.7	4246.8	4207.3	4180.9	4173.0	4159.8	4159.8
27.5°	4420.8	4391.8	4360.1	4323.3	4296.9	4289.0	4267.9	4267.9
30°	4584.3	4555.2	4526.3	4494.6	4468.2	4460.4	4434.0	4434.0
32.5°	4800.4	4768.8	4750.3	4724.0	4702.8	4689.7	4658.0	4655.4
35°	5090.4	5061.4	5058.7	5040.3	5019.2	5021.9	4990.2	4984.9
37.5°	5506.9	5483.1	5491.1	5475.2	5456.8	5472.6	5454.2	5454.2
40°	6039.4	6031.4	6039.4	6028.9	6031.4	6034.1	6018.3	6023.5
42.5°	6682.6	6661.5	6708.9	6703.7	6695.7	6716.9	6680.0	6653.6
45°	7423.3	7415.5	7462.8	7470.8	7455.0	7468.2	7402.3	7399.6
47.5°	8227.4	8227.4	8269.5	8264.2	8248.5	8251.1	8171.9	8121.9
50°	9065.6	9060.4	9102.5	9092.0	9070.9	9068.3	8986.5	8936.5
52.5°	9938.2	9938.2	9998.8	9969.8	9919.8	9896.0	9795.9	9729.9
55°	10903.0	10889.8	10908.3	10813.4	10715.8	10644.7	10520.7	10470.7
57.5°	12123.5	11970.7	11838.8	11717.6	11580.5	11496.1	11351.2	11298.4
60°	13855.5	13446.9	13270.2	13027.7	12801.0	12687.7	12495.2	12392.4
62.5°	16254.4	15576.9	15097.1	14562.0	14045.3	13681.5	13388.9	13259.7
65°	19027.6	17551.3	16330.8	15184.1	14211.3	13439.0	13009.3	12874.9
67.5°	20082.1	17372.1	15265.8	13620.9	12439.9	11519.9	11005.8	10897.7
68°	19857.9	16960.8	14772.8	13088.3	11902.1	10974.2	10462.7	10365.3
70°	17517.0	14308.9	11999.6	10323.1	9215.9	8332.8	7971.7	7816.2
72.5°	11941.6	9189.6	7049.1	5638.7	4810.9	4252.1	3919.9	3806.6
75°	5496.3	3714.3	2480.6	1853.2	1573.8	1439.3	1336.5	1310.2
77.5°	1602.8	1165.1	1001.8	927.9	872.6	825.1	790.8	788.2
80°	761.8	714.4	693.3	645.9	595.8	551.0	519.4	524.6
82.5°	511.4	498.2	498.2	450.8	371.7	319.0	263.6	237.2
85°	271.5	282.0	297.9	282.0	245.2	181.9	118.7	129.2
87.5°	92.3	105.5	110.7	108.1	97.5	73.9	55.3	55.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)