

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: P196920

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-8030-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196920  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)  
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-5NQ-8030-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V  
NARROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33148 lumens  
Efficiency: N/A  
Efficacy: 86.8 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 - G3

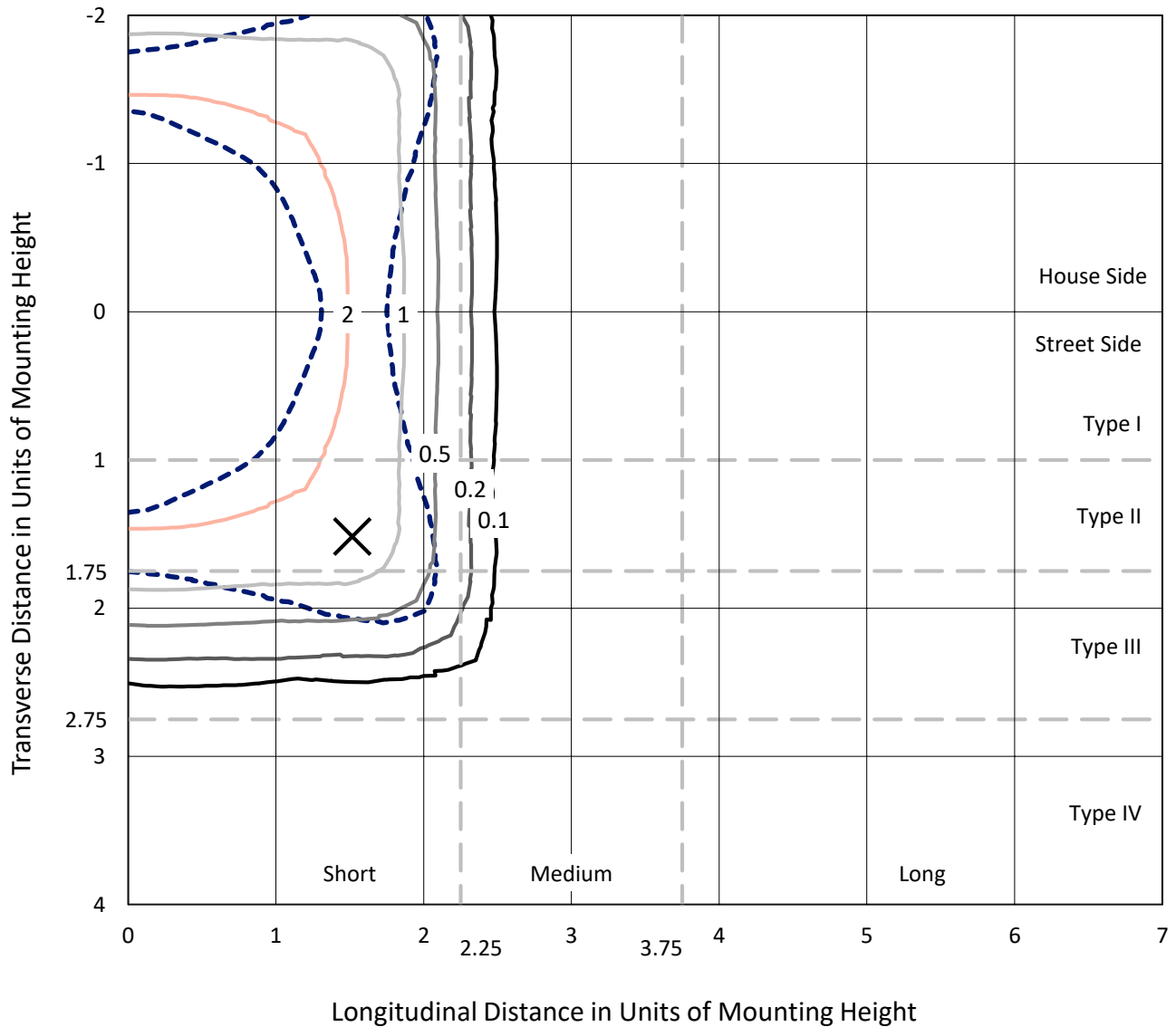
Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

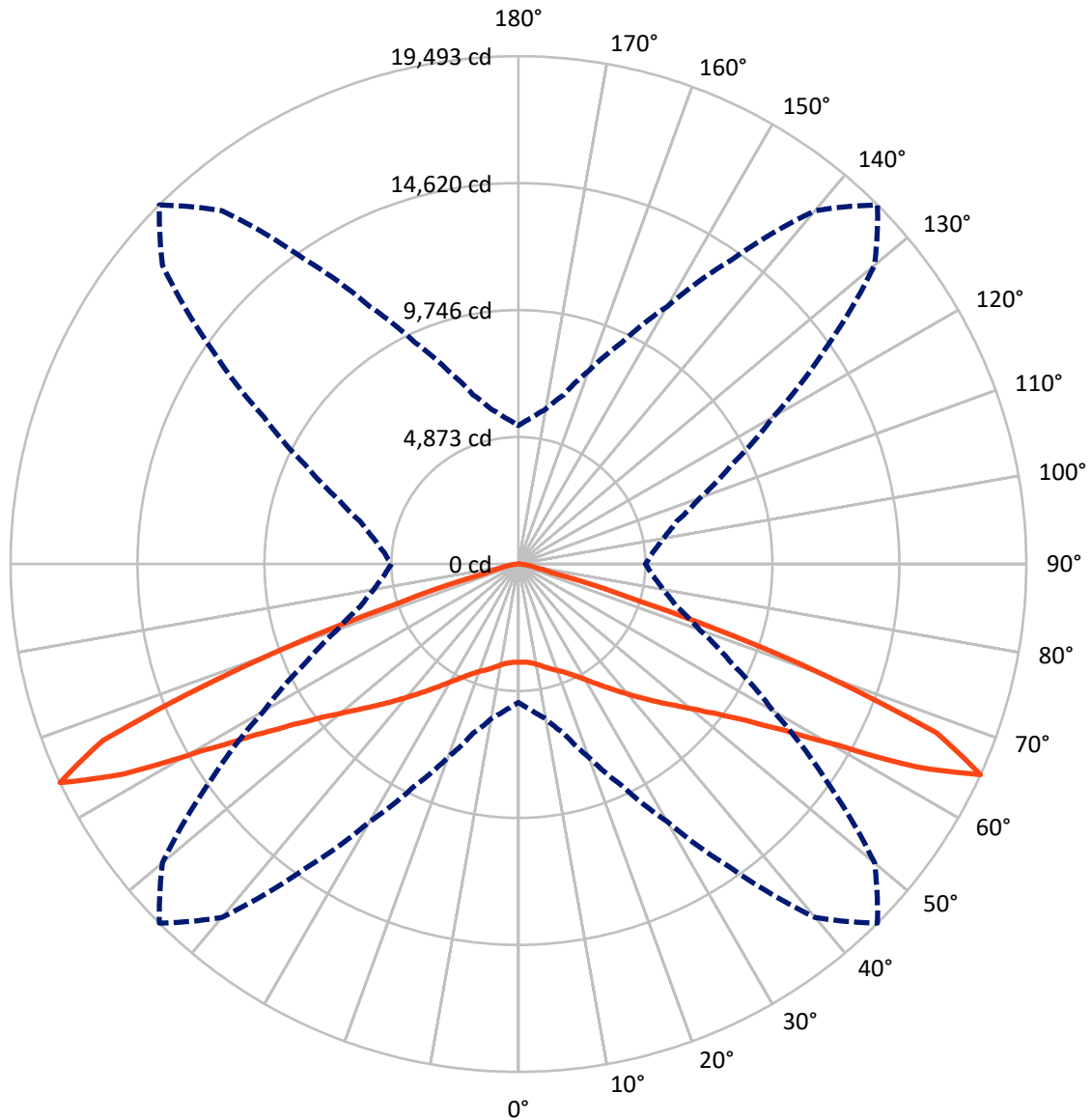
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.2 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	16574.0	0.0	16574.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	16574.0	0.0	16574.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	33148.0	0.0	33148.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	367.2	1.1
10°-20°	1176.8	3.6
20°-30°	2195.3	6.6
30°-40°	3701.7	11.2
40°-50°	6012.6	18.1
50°-60°	9420.7	28.4
60°-70°	8892.7	26.8
70°-80°	1198.5	3.6
80°-90°	182.6	0.6
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°	33148.0	100.0
0°-180°	33148.0	100.0



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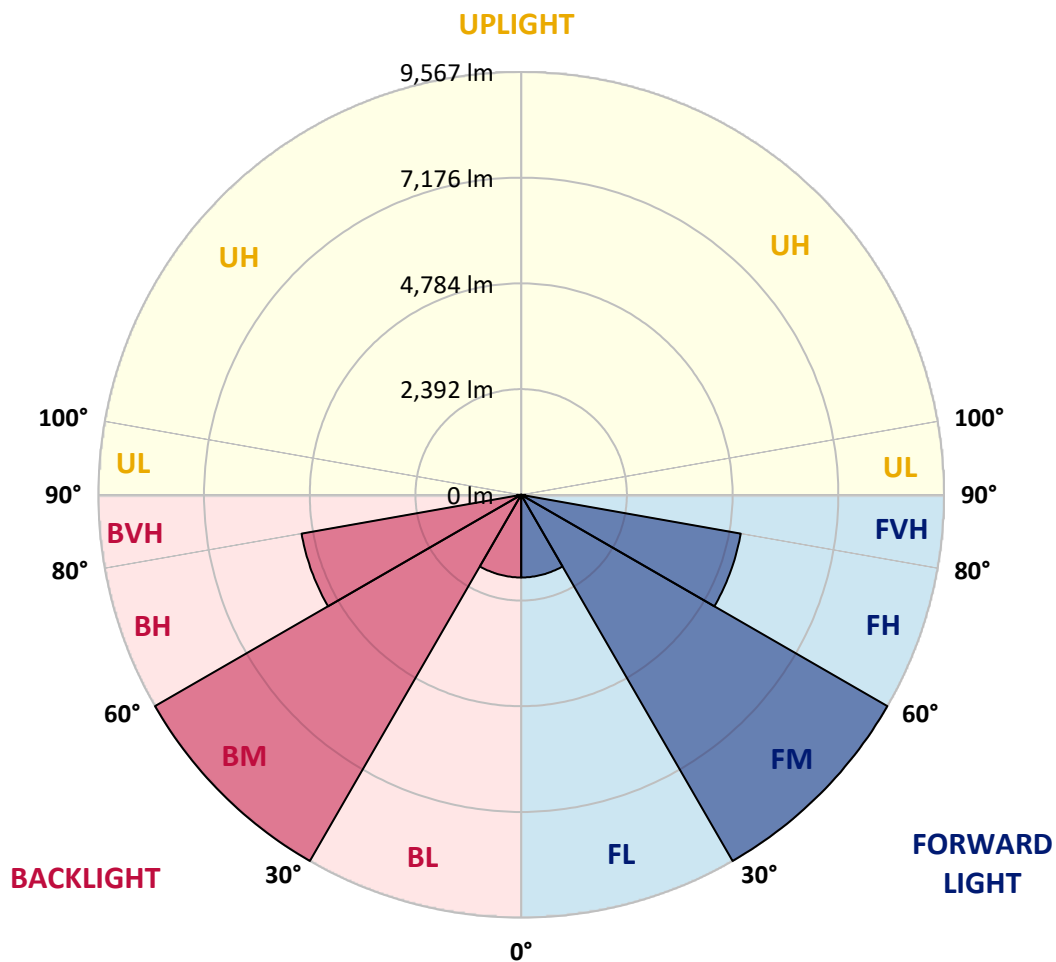
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1869.7	5.6			
FM	(30°-60°)	9567.5	28.9			
FH	(60°-80°)	5045.6	15.2			G3/7500
FVH	(80°-90°)	91.3	0.3			G1/100
BL	(0°-30°)	1869.7	5.6	B3/2500		
BM	(30°-60°)	9567.5	28.9	B5		
BH	(60°-80°)	5045.6	15.2	B5		G3/7500
BVH	(80°-90°)	91.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5
2.5°	3801.5	3801.5	3807.7	3805.6	3797.4	3791.2	3785.0	3776.7	3772.6	3768.5	3766.4
5°	3822.2	3822.2	3828.4	3826.3	3820.1	3811.8	3807.7	3801.5	3795.3	3791.2	3793.3
7.5°	3873.8	3875.9	3877.9	3875.9	3869.7	3863.5	3855.2	3853.1	3844.9	3838.7	3842.8
10°	3952.3	3952.3	3954.3	3956.4	3952.3	3937.8	3937.8	3933.7	3925.4	3917.2	3919.2
12.5°	4039.0	4039.0	4041.1	4041.1	4041.1	4032.8	4034.9	4032.8	4022.5	4018.3	4022.5
15°	4123.6	4125.7	4125.7	4129.8	4129.8	4131.9	4140.2	4140.2	4136.0	4134.0	4134.0
17.5°	4222.8	4226.9	4229.0	4235.2	4237.2	4241.3	4249.6	4251.7	4253.7	4247.5	4249.6
20°	4354.9	4357.0	4363.2	4365.2	4373.5	4373.5	4377.6	4375.6	4371.4	4363.2	4363.2
22.5°	4503.6	4507.7	4520.1	4520.1	4530.4	4524.2	4526.3	4520.1	4509.8	4505.7	4501.5
25°	4697.7	4703.9	4714.2	4710.1	4714.2	4703.9	4703.9	4703.9	4697.7	4691.5	4689.4
27.5°	4943.4	4933.1	4943.4	4935.2	4933.1	4924.8	4926.9	4922.8	4916.6	4914.5	4906.3
30°	5199.5	5187.1	5193.3	5195.3	5191.2	5189.1	5180.9	5174.7	5164.4	5166.4	5160.2
32.5°	5492.7	5480.3	5486.5	5488.6	5484.4	5488.6	5486.5	5472.0	5459.7	5467.9	5467.9
35°	5841.7	5833.4	5849.9	5856.1	5843.7	5837.5	5829.3	5812.8	5794.2	5806.6	5808.6
37.5°	6260.8	6250.5	6262.9	6279.4	6256.7	6244.3	6211.3	6186.5	6174.1	6180.3	6188.6
40°	6696.5	6698.6	6733.7	6737.8	6713.1	6698.6	6665.6	6628.4	6593.3	6593.3	6603.6
42.5°	7155.0	7161.1	7202.4	7216.9	7208.6	7181.8	7136.4	7090.9	7045.5	7053.8	7066.2
45°	7673.2	7665.0	7708.3	7743.5	7737.3	7729.0	7685.6	7603.0	7561.7	7559.7	7580.3
47.5°	8218.4	8234.9	8280.3	8340.2	8338.2	8317.5	8261.7	8185.3	8108.9	8115.1	8139.9
50°	8854.4	8877.1	8953.5	9013.4	9021.6	9015.4	8949.4	8860.6	8753.2	8759.4	8792.4
52.5°	9424.3	9457.3	9546.1	9670.0	9746.4	9781.5	9738.2	9655.6	9546.1	9552.3	9587.4
55°	9940.5	9992.2	10124.3	10293.6	10446.4	10588.9	10652.9	10650.9	10570.3	10588.9	10634.3
57.5°	10264.7	10337.0	10537.3	10809.9	11113.4	11400.4	11648.2	11881.6	11933.2	12030.2	12030.2
60°	9829.0	9998.3	10264.7	10731.4	11328.2	11972.4	12670.4	13349.7	13787.5	14132.3	13946.5
62.5°	8208.1	8457.9	8831.7	9447.0	10376.2	11526.4	12928.5	14508.1	16155.9	17163.6	16424.4
65°	5311.0	5624.8	6031.6	6723.4	7894.2	9374.7	11416.9	14256.2	17704.6	19492.9	17840.9
67.5°	2104.2	2316.8	2564.6	3056.1	4072.0	5525.7	7817.8	11319.9	15633.5	17320.6	15468.3
70°	1005.6	1040.7	1088.2	1193.5	1447.5	1953.4	3140.7	5577.4	9587.4	11365.3	9358.2
72.5°	726.9	733.0	755.8	790.9	865.2	968.4	1177.0	1705.6	3305.9	4807.1	3310.1
75°	551.3	559.6	572.0	590.6	629.8	679.4	757.8	908.6	1131.6	1305.0	1129.5
77.5°	419.2	427.4	437.8	456.3	477.0	512.1	541.0	600.9	695.9	733.0	728.9
80°	305.6	320.1	336.6	353.1	367.6	384.1	386.1	415.0	468.7	503.8	493.5
82.5°	194.1	206.5	249.9	268.4	270.5	274.6	272.6	274.6	303.5	328.3	320.1
85°	123.9	132.2	154.9	175.5	171.4	179.6	179.6	175.5	163.1	140.4	167.3
87.5°	61.9	64.0	74.3	92.9	88.8	78.5	76.4	76.4	55.8	47.5	51.6
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°	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5	3770.5
2.5°	3760.2	3764.4	3758.2	3758.2	3756.1	3760.2	3754.0	3754.0
5°	3789.1	3795.3	3793.3	3793.3	3797.4	3801.5	3799.5	3797.4
7.5°	3840.8	3844.9	3849.0	3851.1	3855.2	3853.1	3857.3	3855.2
10°	3919.2	3915.1	3921.3	3915.1	3917.2	3913.0	3915.1	3915.1
12.5°	4018.3	4012.1	4008.0	4003.9	4003.9	3995.6	3995.6	3997.7
15°	4131.9	4121.6	4113.3	4109.2	4105.1	4105.1	4098.9	4103.0
17.5°	4243.4	4233.1	4218.6	4218.6	4212.4	4208.3	4204.2	4214.5
20°	4361.1	4350.8	4342.5	4340.5	4328.1	4323.9	4326.0	4338.4
22.5°	4497.4	4491.2	4491.2	4487.1	4478.8	4472.6	4472.6	4487.1
25°	4681.2	4668.8	4670.9	4672.9	4668.8	4668.8	4664.7	4675.0
27.5°	4906.3	4895.9	4902.1	4906.3	4902.1	4908.3	4902.1	4910.4
30°	5170.6	5164.4	5170.6	5176.8	5166.4	5166.4	5162.3	5168.5
32.5°	5486.5	5478.2	5482.4	5482.4	5467.9	5455.5	5439.0	5451.4
35°	5833.4	5823.1	5831.3	5837.5	5821.0	5808.6	5783.8	5794.2
37.5°	6215.4	6219.5	6229.9	6256.7	6252.6	6231.9	6213.3	6221.6
40°	6642.9	6663.5	6708.9	6727.5	6723.4	6702.7	6678.0	6682.1
42.5°	7126.0	7152.9	7200.4	7231.4	7216.9	7188.0	7157.0	7169.4
45°	7652.6	7693.9	7755.8	7786.8	7768.2	7737.3	7693.9	7716.6
47.5°	8210.1	8292.7	8375.3	8416.6	8410.4	8367.1	8311.3	8317.5
50°	8877.1	8986.5	9091.8	9133.1	9102.2	9036.1	8957.6	8955.6
52.5°	9707.2	9824.9	9911.6	9901.3	9824.9	9721.6	9632.9	9628.7
55°	10743.8	10783.0	10770.6	10681.8	10547.6	10386.6	10273.0	10254.4
57.5°	11997.2	11865.0	11670.9	11402.5	11101.0	10795.4	10588.9	10512.5
60°	13529.4	12932.6	12238.8	11507.8	10840.8	10341.1	10025.2	9833.2
62.5°	14795.2	13066.8	11516.1	10246.1	9207.5	8590.1	8158.5	7892.1
65°	14361.5	11288.9	9042.3	7404.8	6271.2	5633.1	5176.8	4873.2
67.5°	11094.8	7543.2	5249.0	3638.4	2758.7	2335.4	2040.1	1848.1
70°	5593.9	2893.0	1753.1	1236.9	1057.2	982.9	933.3	904.4
72.5°	1641.6	1096.5	910.6	805.3	741.3	695.9	667.0	652.5
75°	908.6	741.3	654.6	594.7	553.4	522.4	503.8	491.5
77.5°	625.7	538.9	495.6	456.3	423.3	400.6	386.1	373.8
80°	437.8	394.4	375.8	355.2	330.4	311.8	291.2	282.9
82.5°	291.2	272.6	268.4	251.9	237.5	216.8	179.6	167.3
85°	171.4	169.3	169.3	163.1	152.8	134.2	107.4	107.4
87.5°	59.9	61.9	64.0	68.1	66.1	55.8	45.4	43.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)