

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: P195000

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-7060-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195000
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-7060-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 5700K, 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: 40622 lumens
Efficiency: N/A
Efficacy: 106.3 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

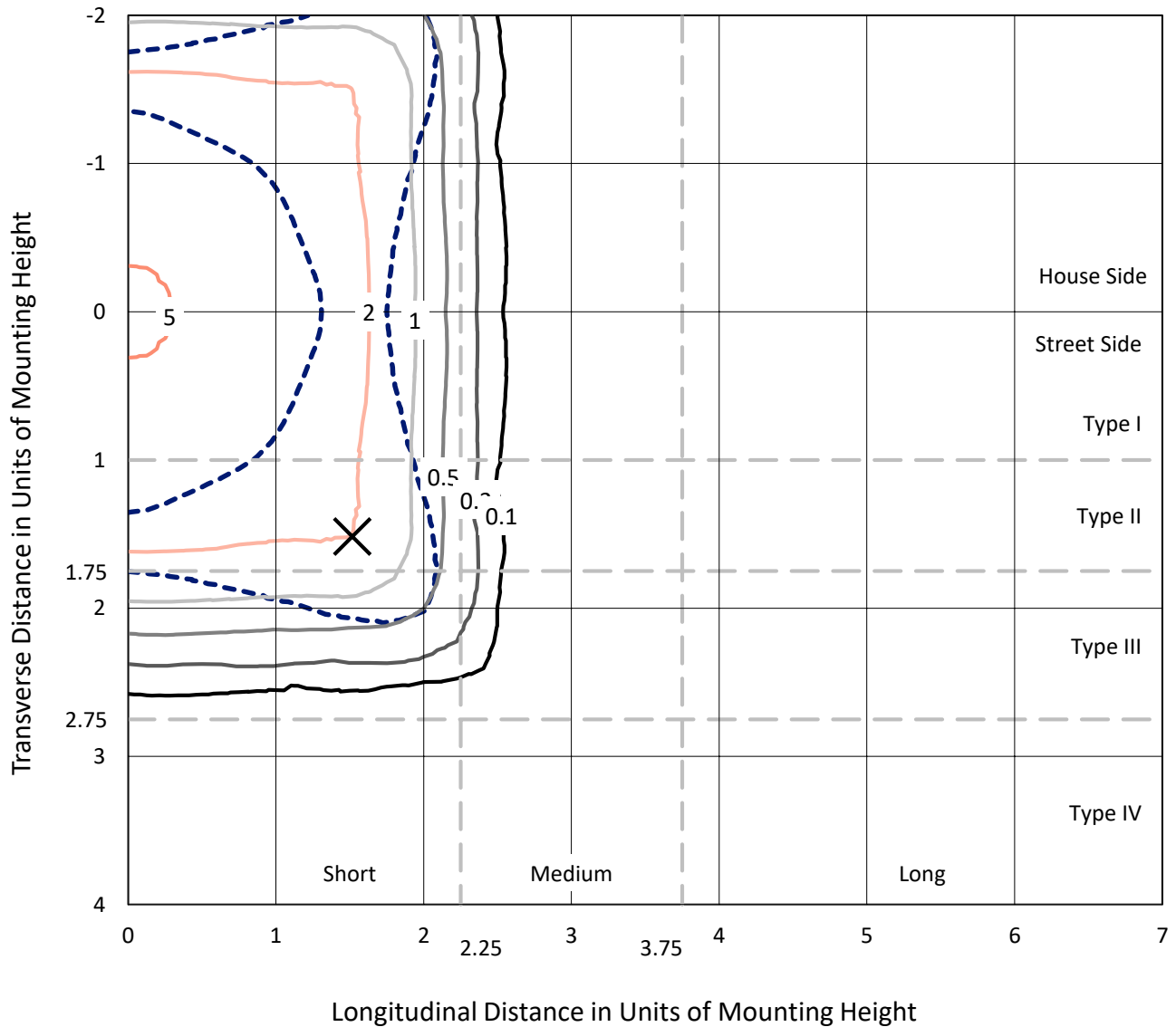
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

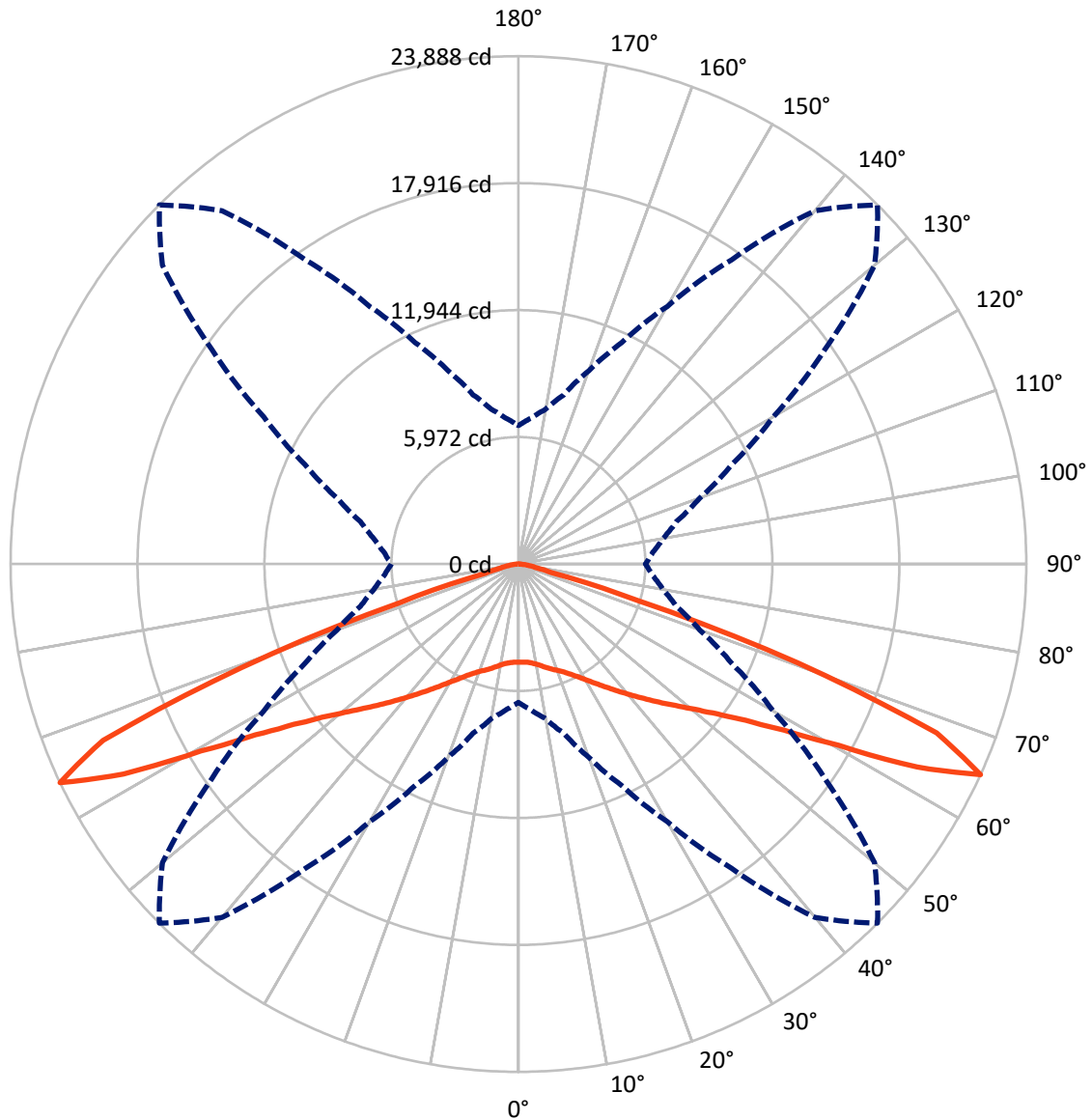
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.1 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
House Side	Lumens	20311.0	0.0	20311.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	20311.0	0.0	20311.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	40622.0	0.0	40622.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	450.0	1.1
10°-20°	1442.2	3.6
20°-30°	2690.3	6.6
30°-40°	4536.3	11.2
40°-50°	7368.3	18.1
50°-60°	11544.8	28.4
60°-70°	10897.8	26.8
70°-80°	1468.7	3.6
80°-90°	223.7	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°	40622.0	100.0
0°-180°	40622.0	100.0



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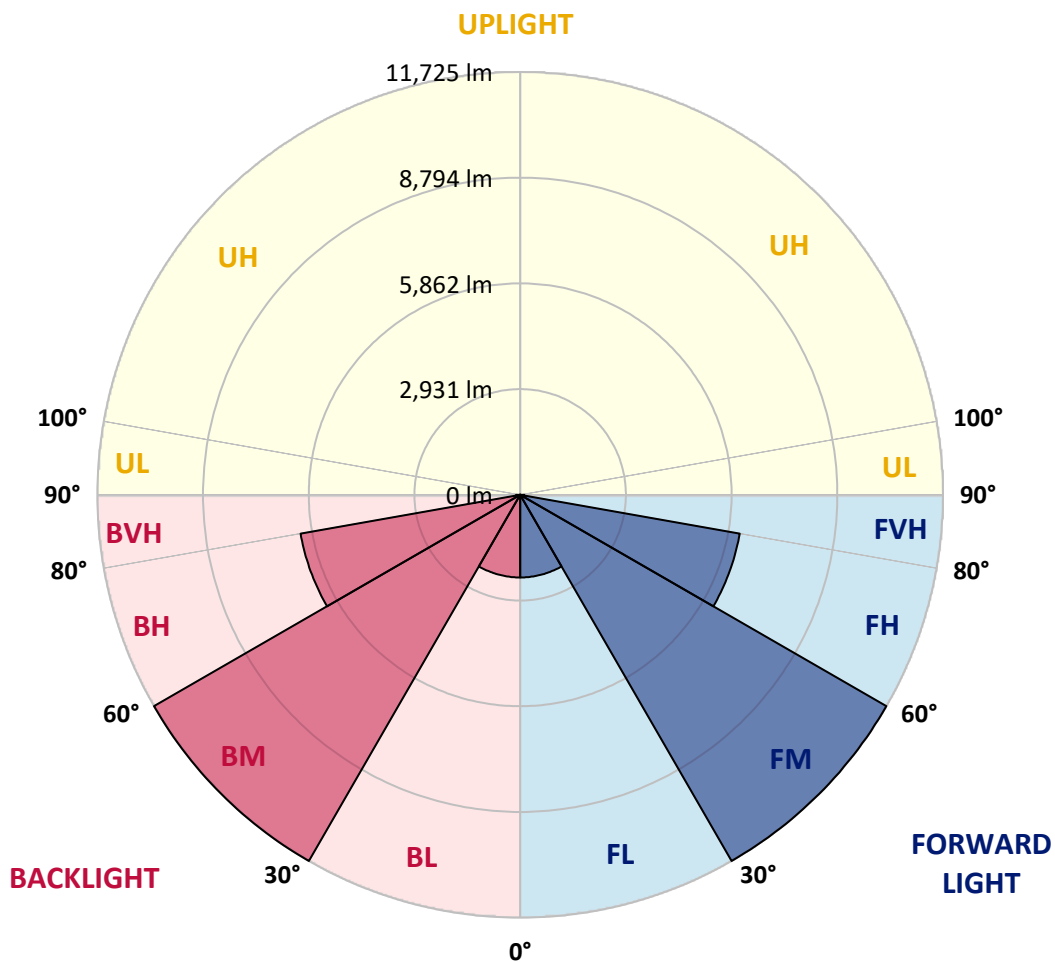
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2291.2	5.6			
FM (30°-60°)	11724.7	28.9			
FH (60°-80°)	6183.2	15.2			G3/7500
FVH (80°-90°)	111.9	0.3			G2/225
BL (0°-30°)	2291.2	5.6	B3/2500		
BM (30°-60°)	11724.7	28.9	B5		
BH (60°-80°)	6183.2	15.2	B5		G3/7500
BVH (80°-90°)	111.9	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-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7
2.5°	4658.7	4658.7	4666.3	4663.7	4653.6	4646.0	4638.4	4628.3	4623.2	4618.2	4615.6
5°	4684.0	4684.0	4691.6	4689.0	4681.4	4671.3	4666.3	4658.7	4651.1	4646.0	4648.5
7.5°	4747.2	4749.8	4752.3	4749.8	4742.2	4734.6	4724.5	4721.9	4711.8	4704.2	4709.3
10°	4843.4	4843.4	4845.9	4848.4	4843.4	4825.7	4825.7	4820.6	4810.5	4800.4	4802.9
12.5°	4949.7	4949.7	4952.2	4952.2	4952.2	4942.1	4944.6	4942.1	4929.4	4924.4	4929.4
15°	5053.4	5056.0	5056.0	5061.0	5061.0	5063.5	5073.7	5073.7	5068.6	5066.1	5066.1
17.5°	5174.9	5179.9	5182.5	5190.1	5192.6	5197.7	5207.8	5210.3	5212.8	5205.3	5207.8
20°	5336.8	5339.4	5347.0	5349.5	5359.6	5359.6	5364.7	5362.1	5357.1	5347.0	5347.0
22.5°	5519.0	5524.1	5539.3	5539.3	5551.9	5544.3	5546.9	5539.3	5526.6	5521.6	5516.5
25°	5756.9	5764.5	5777.1	5772.1	5777.1	5764.5	5764.5	5764.5	5756.9	5749.3	5746.8
27.5°	6058.0	6045.4	6058.0	6047.9	6045.4	6035.3	6037.8	6032.7	6025.1	6022.6	6012.5
30°	6371.8	6356.6	6364.2	6366.8	6361.7	6359.2	6349.0	6341.4	6328.8	6331.3	6323.7
32.5°	6731.1	6716.0	6723.6	6726.1	6721.0	6726.1	6723.6	6705.8	6690.7	6700.8	6700.8
35°	7158.8	7148.7	7168.9	7176.5	7161.3	7153.7	7143.6	7123.4	7100.6	7115.8	7118.3
37.5°	7672.5	7659.8	7675.0	7695.3	7667.4	7652.3	7611.8	7581.4	7566.2	7573.8	7583.9
40°	8206.4	8209.0	8252.0	8257.0	8226.7	8209.0	8168.5	8122.9	8079.9	8079.9	8092.6
42.5°	8768.2	8775.8	8826.4	8844.1	8834.0	8801.1	8745.4	8689.8	8634.1	8644.2	8659.4
45°	9403.4	9393.2	9446.4	9489.4	9481.8	9471.7	9418.5	9317.3	9266.7	9264.2	9289.5
47.5°	10071.4	10091.7	10147.3	10220.7	10218.2	10192.9	10124.6	10030.9	9937.3	9944.9	9975.3
50°	10850.8	10878.6	10972.3	11045.7	11055.8	11048.2	10967.2	10858.4	10726.8	10734.4	10774.9
52.5°	11549.2	11589.7	11698.5	11850.4	11944.0	11987.0	11933.9	11832.6	11698.5	11706.1	11749.1
55°	12181.9	12245.1	12407.1	12614.6	12801.8	12976.4	13054.9	13052.4	12953.7	12976.4	13032.1
57.5°	12579.1	12667.7	12913.2	13247.2	13619.2	13970.9	14274.6	14560.5	14623.8	14742.7	14742.7
60°	12045.2	12252.7	12579.1	13151.0	13882.4	14671.9	15527.2	16359.7	16896.2	17318.8	17091.0
62.5°	10058.8	10365.0	10823.0	11577.1	12715.8	14125.3	15843.5	17779.3	19798.7	21033.6	20127.6
65°	6508.5	6893.1	7391.6	8239.3	9674.1	11488.5	13991.2	17470.6	21696.6	23888.0	21863.6
67.5°	2578.6	2839.2	3142.9	3745.1	4990.2	6771.6	9580.5	13872.2	19158.5	21225.9	18956.0
70°	1232.4	1275.4	1333.6	1462.6	1773.9	2393.9	3848.9	6834.9	11749.1	13927.9	11468.3
72.5°	890.7	898.3	926.2	969.2	1060.3	1186.8	1442.4	2090.2	4051.3	5891.0	4056.4
75°	675.6	685.8	701.0	723.7	771.8	832.5	928.7	1113.4	1386.7	1599.3	1384.2
77.5°	513.7	523.8	536.5	559.2	584.5	627.6	663.0	736.4	852.8	898.3	893.3
80°	374.5	392.2	412.5	432.7	450.4	470.7	473.2	508.6	574.4	617.4	604.8
82.5°	237.9	253.1	306.2	329.0	331.5	336.6	334.0	336.6	372.0	402.4	392.2
85°	151.8	162.0	189.8	215.1	210.0	220.2	220.2	215.1	199.9	172.1	205.0
87.5°	75.9	78.4	91.1	113.9	108.8	96.2	93.6	93.6	68.3	58.2	63.3
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°	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7	4620.7
2.5°	4608.1	4613.1	4605.5	4605.5	4603.0	4608.1	4600.5	4600.5
5°	4643.5	4651.1	4648.5	4648.5	4653.6	4658.7	4656.1	4653.6
7.5°	4706.7	4711.8	4716.9	4719.4	4724.5	4721.9	4727.0	4724.5
10°	4802.9	4797.8	4805.4	4797.8	4800.4	4795.3	4797.8	4797.8
12.5°	4924.4	4916.8	4911.7	4906.7	4906.7	4896.5	4896.5	4899.1
15°	5063.5	5050.9	5040.8	5035.7	5030.6	5030.6	5023.1	5028.1
17.5°	5200.2	5187.5	5169.8	5169.8	5162.2	5157.2	5152.1	5164.8
20°	5344.4	5331.8	5321.7	5319.1	5303.9	5298.9	5301.4	5316.6
22.5°	5511.4	5503.9	5503.9	5498.8	5488.7	5481.1	5481.1	5498.8
25°	5736.7	5721.5	5724.0	5726.5	5721.5	5721.5	5716.4	5729.1
27.5°	6012.5	5999.8	6007.4	6012.5	6007.4	6015.0	6007.4	6017.5
30°	6336.4	6328.8	6336.4	6344.0	6331.3	6331.3	6326.3	6333.9
32.5°	6723.6	6713.4	6718.5	6718.5	6700.8	6685.6	6665.4	6680.5
35°	7148.7	7136.0	7146.1	7153.7	7133.5	7118.3	7087.9	7100.6
37.5°	7616.8	7621.9	7634.5	7667.4	7662.4	7637.1	7614.3	7624.4
40°	8140.6	8165.9	8221.6	8244.4	8239.3	8214.0	8183.7	8188.7
42.5°	8732.8	8765.7	8823.9	8861.8	8844.1	8808.7	8770.7	8785.9
45°	9378.1	9428.7	9504.6	9542.5	9519.8	9481.8	9428.7	9456.5
47.5°	10061.3	10162.5	10263.7	10314.3	10306.8	10253.6	10185.3	10192.9
50°	10878.6	11012.8	11141.8	11192.4	11154.5	11073.5	10977.3	10974.8
52.5°	11895.9	12040.1	12146.4	12133.8	12040.1	11913.6	11804.8	11799.7
55°	13166.2	13214.3	13199.1	13090.3	12925.8	12728.4	12589.3	12566.5
57.5°	14702.2	14540.3	14302.4	13973.5	13604.0	13229.5	12976.4	12882.8
60°	16579.9	15848.6	14998.3	14102.5	13285.2	12672.8	12285.6	12050.3
62.5°	18131.1	16013.0	14112.6	12556.4	11283.5	10526.9	9998.0	9671.6
65°	17599.7	13834.3	11081.1	9074.4	7685.1	6903.2	6344.0	5972.0
67.5°	13596.4	9243.9	6432.5	4458.8	3380.8	2862.0	2500.1	2264.8
70°	6855.1	3545.2	2148.4	1515.8	1295.6	1204.5	1143.8	1108.4
72.5°	2011.8	1343.7	1116.0	986.9	908.5	852.8	817.4	799.6
75°	1113.4	908.5	802.2	728.8	678.2	640.2	617.4	602.3
77.5°	766.7	660.5	607.3	559.2	518.8	490.9	473.2	458.0
80°	536.5	483.3	460.6	435.2	404.9	382.1	356.8	346.7
82.5°	356.8	334.0	329.0	308.7	291.0	265.7	220.2	205.0
85°	210.0	207.5	207.5	199.9	187.3	164.5	131.6	131.6
87.5°	73.4	75.9	78.4	83.5	81.0	68.3	55.7	53.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)