

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: P196440

Luminaire Tested: **NAV-AF-06-D-UNV-5NQ-7030-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196440
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-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 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: 39288.5 lumens
Efficiency: N/A
Efficacy: 102.8 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

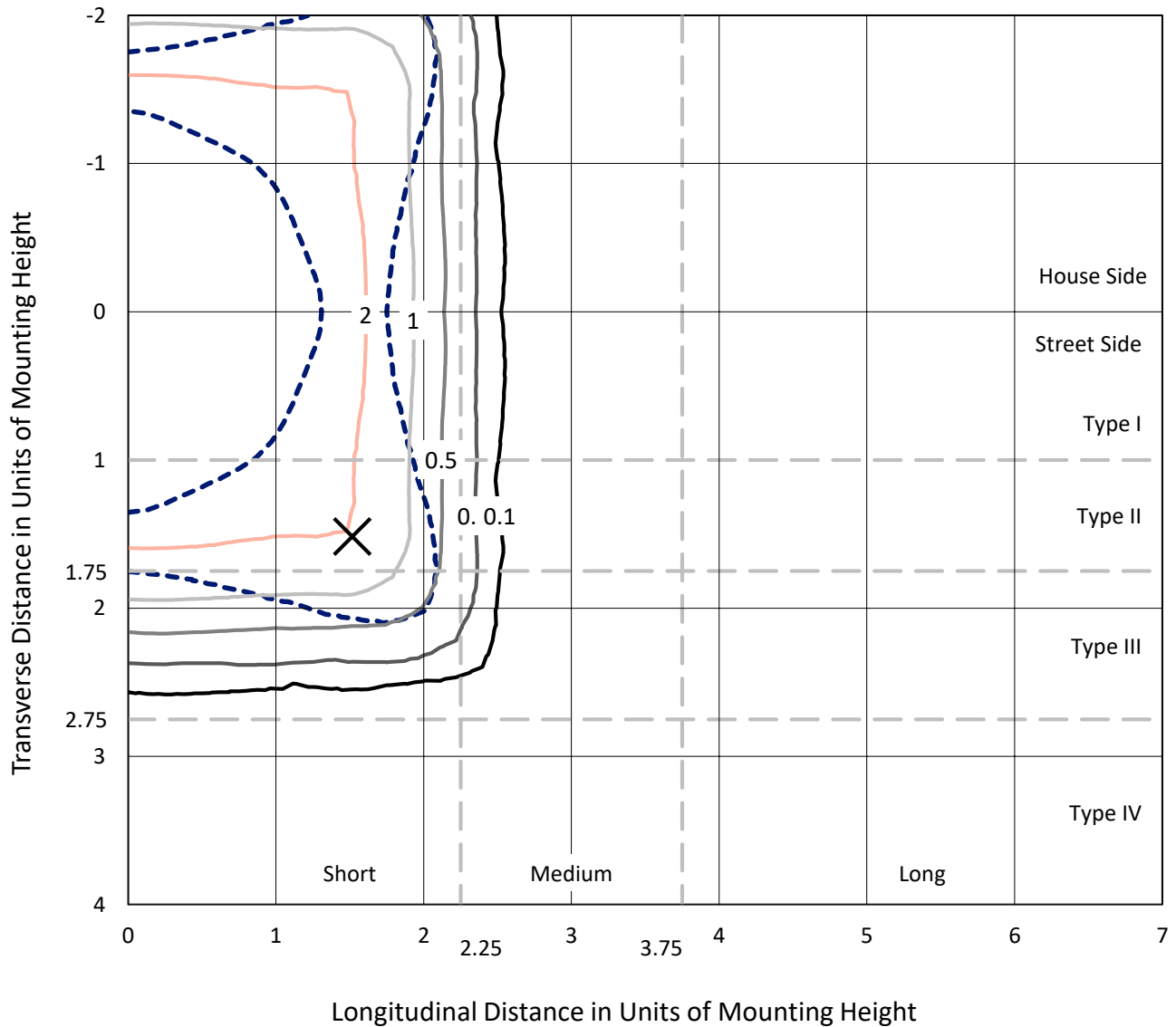
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

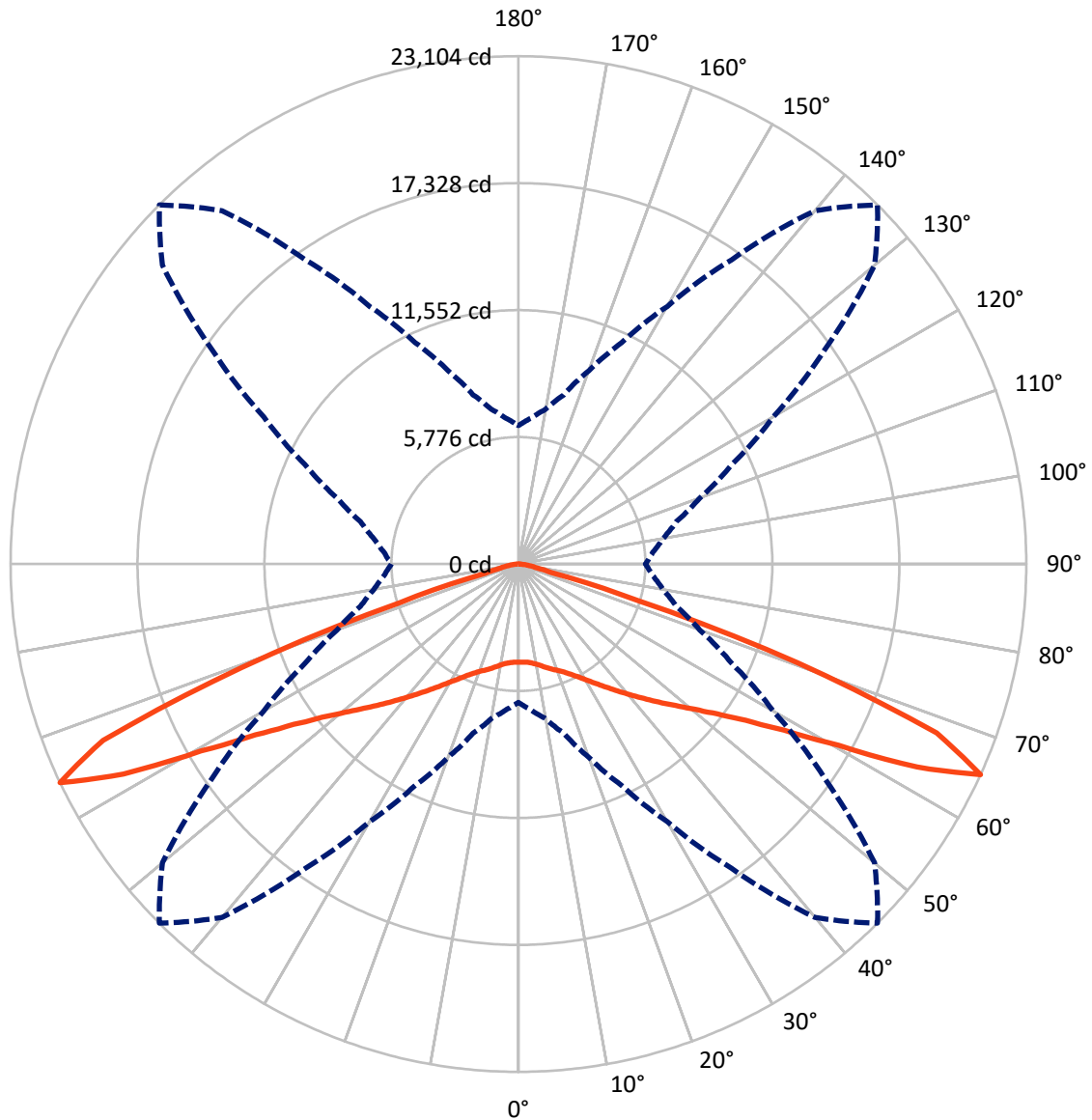
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 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	19644.3	0.0	19644.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19644.3	0.0	19644.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	39288.5	0.0	39288.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	435.2	1.1
10°-20°	1394.8	3.6
20°-30°	2602.0	6.6
30°-40°	4387.4	11.2
40°-50°	7126.4	18.1
50°-60°	11165.8	28.4
60°-70°	10540.0	26.8
70°-80°	1420.5	3.6
80°-90°	216.4	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°	39288.5	100.0
0°-180°	39288.5	100.0



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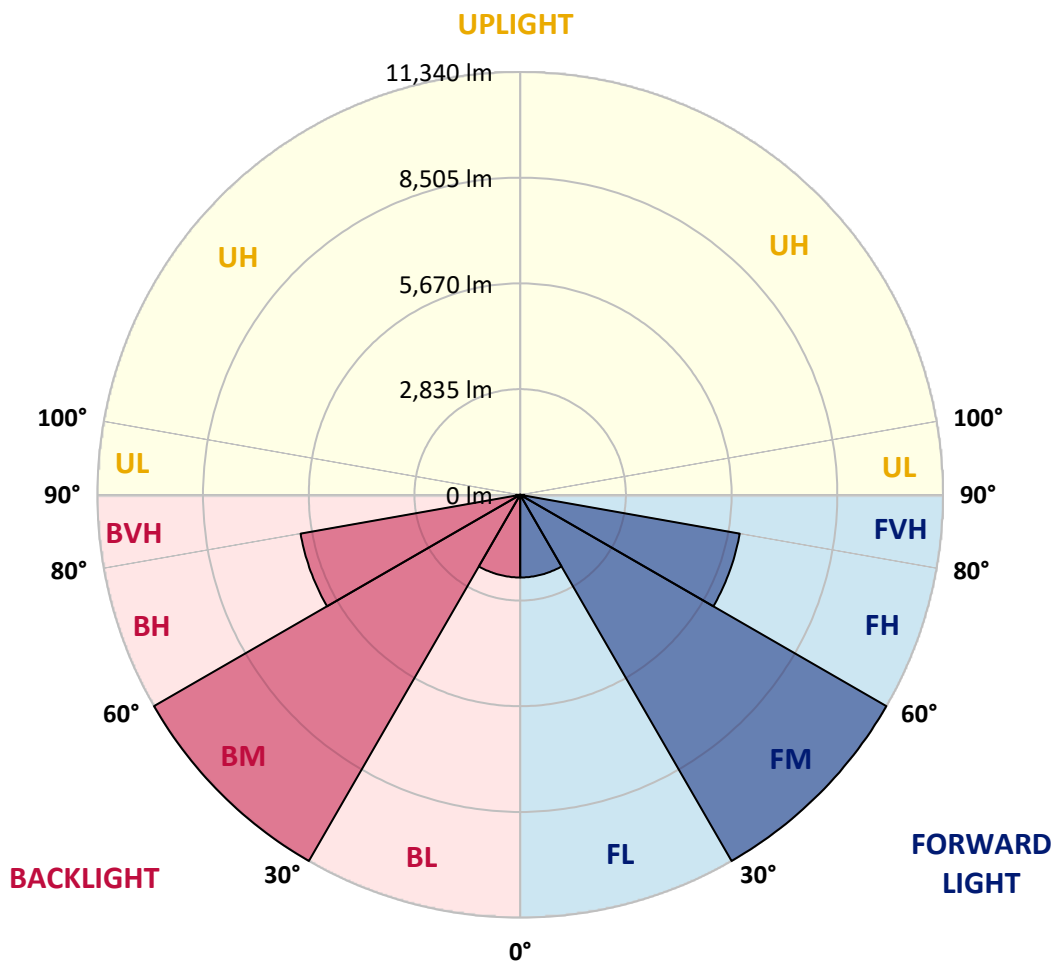
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2216.0	5.6			
FM	(30°-60°)	11339.8	28.9			
FH	(60°-80°)	5980.2	15.2			G3/7500
FVH	(80°-90°)	108.2	0.3			G2/225
BL	(0°-30°)	2216.0	5.6	B3/2500		
BM	(30°-60°)	11339.8	28.9	B5		
BH	(60°-80°)	5980.2	15.2	B5		G3/7500
BVH	(80°-90°)	108.2	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°	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0
2.5°	4505.8	4505.8	4513.1	4510.7	4500.8	4493.5	4486.1	4476.4	4471.4	4466.6	4464.2
5°	4530.2	4530.2	4537.5	4535.2	4527.8	4518.0	4513.1	4505.8	4498.4	4493.5	4495.9
7.5°	4591.4	4593.8	4596.3	4593.8	4586.4	4579.2	4569.3	4566.9	4557.1	4549.8	4554.7
10°	4684.4	4684.4	4686.9	4689.3	4684.4	4667.2	4667.2	4662.4	4652.6	4642.8	4645.2
12.5°	4787.2	4787.2	4789.6	4789.6	4789.6	4779.9	4782.3	4779.9	4767.6	4762.7	4767.6
15°	4887.5	4890.0	4890.0	4895.0	4895.0	4897.3	4907.2	4907.2	4902.3	4899.7	4899.7
17.5°	5005.0	5009.9	5012.4	5019.7	5022.1	5027.0	5036.9	5039.2	5041.8	5034.3	5036.9
20°	5161.6	5164.1	5171.5	5173.9	5183.7	5183.7	5188.6	5186.1	5181.2	5171.5	5171.5
22.5°	5337.9	5342.8	5357.4	5357.4	5369.6	5362.3	5364.7	5357.4	5345.2	5340.3	5335.4
25°	5568.0	5575.3	5587.5	5582.6	5587.5	5575.3	5575.3	5575.3	5568.0	5560.5	5558.1
27.5°	5859.1	5846.9	5859.1	5849.4	5846.9	5837.1	5839.6	5834.7	5827.4	5824.9	5815.1
30°	6162.7	6148.0	6155.3	6157.8	6152.8	6150.4	6140.6	6133.3	6121.0	6123.6	6116.2
32.5°	6510.2	6495.5	6502.9	6505.3	6500.4	6505.3	6502.9	6485.7	6471.0	6480.8	6480.8
35°	6923.8	6914.0	6933.6	6940.9	6926.3	6919.0	6909.1	6889.6	6867.5	6882.2	6884.7
37.5°	7420.7	7408.5	7423.1	7442.6	7415.8	7401.0	7361.9	7332.5	7317.8	7325.2	7335.0
40°	7937.0	7939.6	7981.1	7986.0	7956.6	7939.6	7900.3	7856.3	7814.7	7814.7	7826.9
42.5°	8480.3	8487.7	8536.7	8553.8	8544.0	8512.2	8458.3	8404.6	8350.6	8360.4	8375.2
45°	9094.6	9084.9	9136.3	9177.9	9170.5	9160.8	9109.4	9011.4	8962.5	8960.1	8984.5
47.5°	9740.8	9760.3	9814.2	9885.2	9882.7	9858.3	9792.3	9701.6	9611.1	9618.4	9647.8
50°	10494.6	10521.5	10612.2	10683.1	10692.8	10685.5	10607.2	10502.0	10374.7	10382.1	10421.1
52.5°	11170.1	11209.2	11314.6	11461.4	11551.9	11593.5	11542.1	11444.3	11314.6	11321.9	11363.5
55°	11782.0	11843.1	11999.8	12200.4	12381.6	12550.5	12626.3	12624.0	12528.4	12550.5	12604.3
57.5°	12166.2	12251.9	12489.3	12812.4	13172.1	13512.3	13806.0	14082.5	14143.7	14258.8	14258.8
60°	11649.8	11850.5	12166.2	12719.3	13426.7	14190.3	15017.4	15822.7	16341.6	16750.3	16530.1
62.5°	9728.6	10024.7	10467.7	11197.0	12298.3	13661.6	15323.4	17195.7	19148.8	20343.1	19466.9
65°	6294.9	6666.8	7149.0	7968.9	9356.5	11111.3	13531.9	16897.2	20984.4	23103.9	21145.9
67.5°	2494.0	2746.0	3039.7	3622.2	4826.3	6549.3	9266.1	13416.8	18529.6	20529.2	18333.8
70°	1191.9	1233.5	1289.8	1414.6	1715.7	2315.3	3722.6	6610.5	11363.5	13470.7	11091.8
72.5°	861.5	868.8	895.8	937.3	1025.5	1147.9	1395.0	2021.7	3918.4	5697.7	3923.3
75°	653.5	663.2	678.0	700.0	746.5	805.2	898.2	1076.9	1341.1	1546.8	1338.8
77.5°	496.8	506.6	518.9	540.9	565.3	606.9	641.3	712.2	824.8	868.8	863.9
80°	362.2	379.3	398.9	418.5	435.6	455.2	457.7	491.8	555.6	597.2	585.0
82.5°	230.1	244.7	296.1	318.2	320.5	325.5	323.1	325.5	359.8	389.2	379.3
85°	146.9	156.7	183.5	208.0	203.1	212.9	212.9	208.0	193.4	166.4	198.2
87.5°	73.4	75.8	88.1	110.2	105.2	93.0	90.5	90.5	66.1	56.3	61.1
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°	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0	4469.0
2.5°	4456.8	4461.7	4454.4	4454.4	4451.9	4456.8	4449.5	4449.5
5°	4491.1	4498.4	4495.9	4495.9	4500.8	4505.8	4503.3	4500.8
7.5°	4552.3	4557.1	4562.0	4564.6	4569.3	4566.9	4571.9	4569.3
10°	4645.2	4640.3	4647.7	4640.3	4642.8	4637.9	4640.3	4640.3
12.5°	4762.7	4755.4	4750.5	4745.5	4745.5	4735.9	4735.9	4738.2
15°	4897.3	4885.1	4875.2	4870.4	4865.6	4865.6	4858.2	4863.0
17.5°	5029.5	5017.3	5000.1	5000.1	4992.8	4987.9	4983.0	4995.3
20°	5168.9	5156.7	5146.9	5144.5	5129.8	5125.0	5127.4	5142.1
22.5°	5330.5	5323.2	5323.2	5318.3	5308.5	5301.2	5301.2	5318.3
25°	5548.3	5533.7	5536.0	5538.6	5533.7	5533.7	5528.7	5541.0
27.5°	5815.1	5802.9	5810.2	5815.1	5810.2	5817.5	5810.2	5820.0
30°	6128.4	6121.0	6128.4	6135.8	6123.6	6123.6	6118.6	6125.9
32.5°	6502.9	6493.1	6497.9	6497.9	6480.8	6466.2	6446.6	6461.3
35°	6914.0	6901.8	6911.5	6919.0	6899.2	6884.7	6855.3	6867.5
37.5°	7366.8	7371.7	7384.0	7415.8	7410.8	7386.4	7364.3	7374.1
40°	7873.4	7898.0	7951.8	7973.7	7968.9	7944.4	7915.1	7919.8
42.5°	8446.1	8478.0	8534.2	8571.0	8553.8	8519.5	8482.8	8497.5
45°	9070.1	9119.1	9192.5	9229.3	9207.3	9170.5	9119.1	9146.1
47.5°	9731.0	9829.0	9926.9	9975.8	9968.4	9917.0	9851.0	9858.3
50°	10521.5	10651.2	10776.0	10825.0	10788.3	10710.0	10616.9	10614.5
52.5°	11505.4	11645.0	11747.7	11735.4	11645.0	11522.6	11417.3	11412.4
55°	12734.0	12780.5	12765.9	12660.6	12501.6	12310.6	12176.0	12154.0
57.5°	14219.6	14063.0	13832.9	13514.8	13157.4	12795.3	12550.5	12459.9
60°	16035.7	15328.3	14506.1	13639.6	12849.1	12256.8	11882.3	11654.6
62.5°	17535.9	15487.4	13649.3	12144.1	10913.2	10181.4	9669.9	9354.1
65°	17021.9	13380.1	10717.4	8776.5	7432.9	6676.7	6135.8	5776.0
67.5°	13150.1	8940.4	6221.4	4312.4	3269.8	2768.1	2418.0	2190.4
70°	6630.1	3428.9	2077.9	1466.0	1253.1	1165.0	1106.2	1072.0
72.5°	1945.7	1299.6	1079.4	954.5	878.7	824.8	790.5	773.3
75°	1076.9	878.7	775.8	704.8	655.9	619.2	597.2	582.5
77.5°	741.6	638.7	587.4	540.9	501.7	474.8	457.7	442.9
80°	518.9	467.4	445.4	420.9	391.5	369.6	345.0	335.3
82.5°	345.0	323.1	318.2	298.6	281.5	257.0	212.9	198.2
85°	203.1	200.7	200.7	193.4	181.2	159.1	127.3	127.3
87.5°	71.0	73.4	75.8	80.8	78.3	66.1	53.9	51.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)