

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: P195954

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195954
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
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37880.9 lumens
Efficiency: N/A
Efficacy: 113.8 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): 333
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

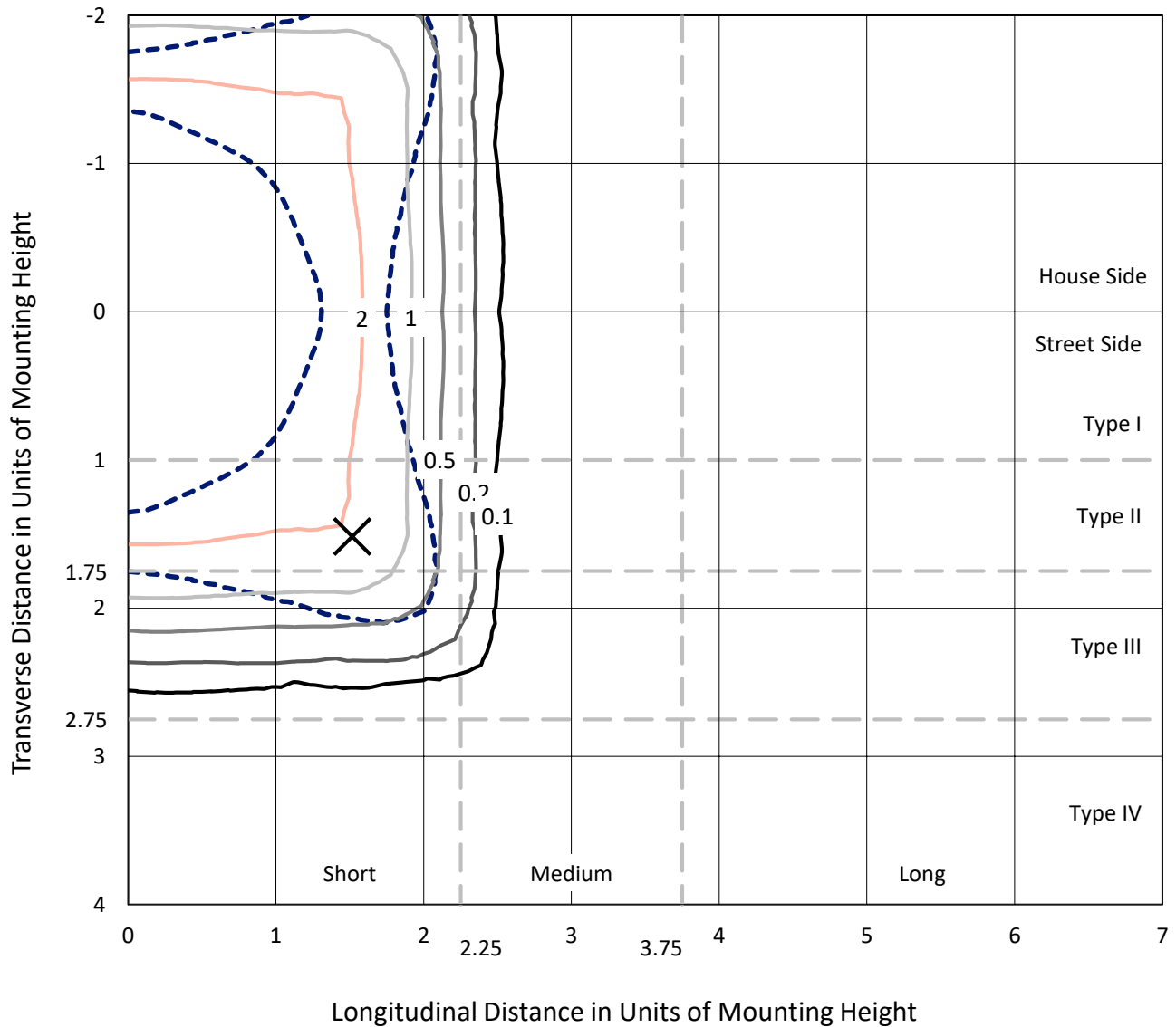


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

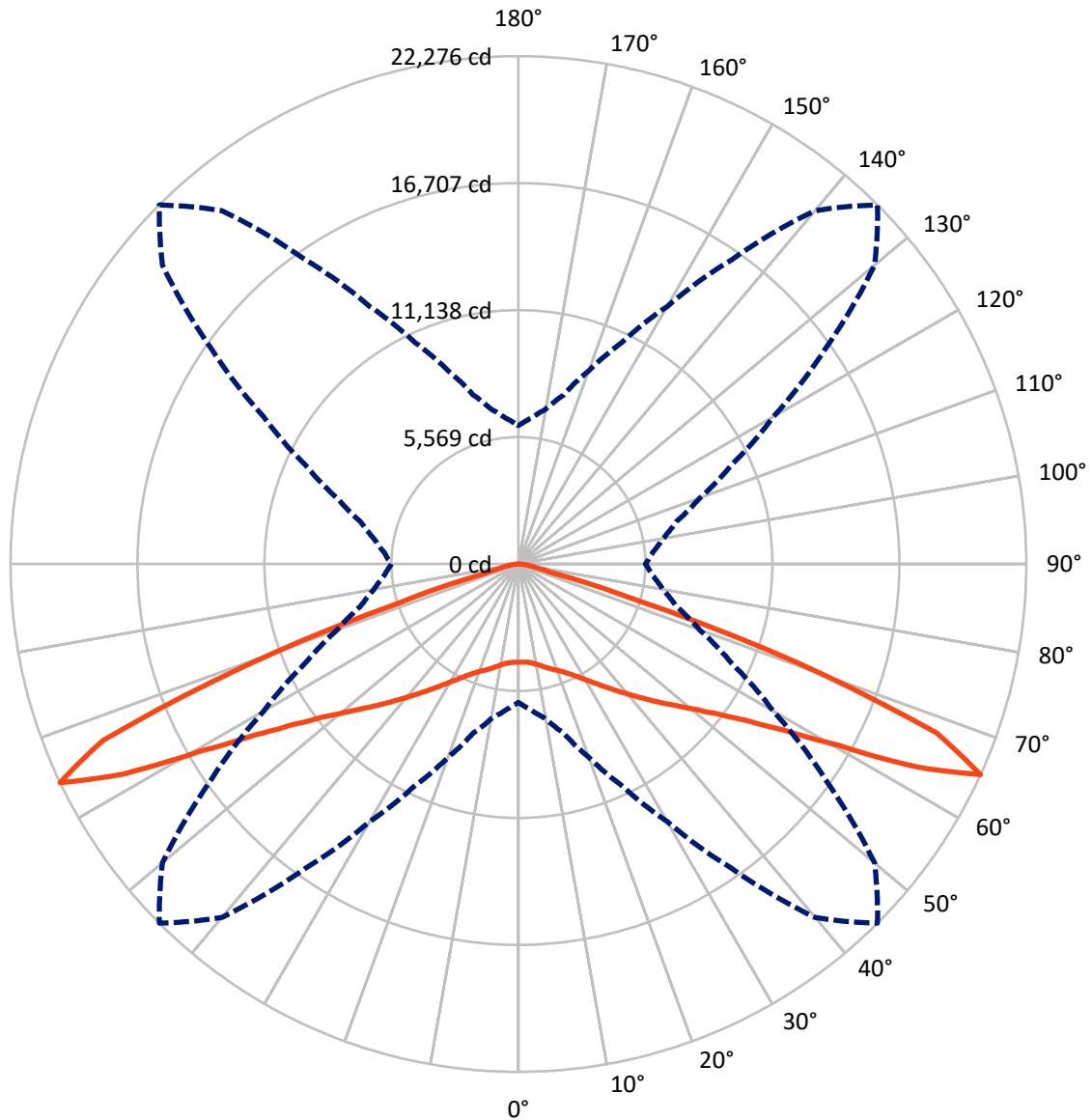


Based on 30 foot mounting height. Maximum calculated value = 4.8 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18940.4	0.0	18940.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	18940.4	0.0	18940.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	37880.9	0.0	37880.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.6	1.1
10°-20°	1344.9	3.6
20°-30°	2508.8	6.6
30°-40°	4230.2	11.2
40°-50°	6871.1	18.1
50°-60°	10765.8	28.4
60°-70°	10162.4	26.8
70°-80°	1369.6	3.6
80°-90°	208.6	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°	37880.9	100.0
0°-180°	37880.9	100.0



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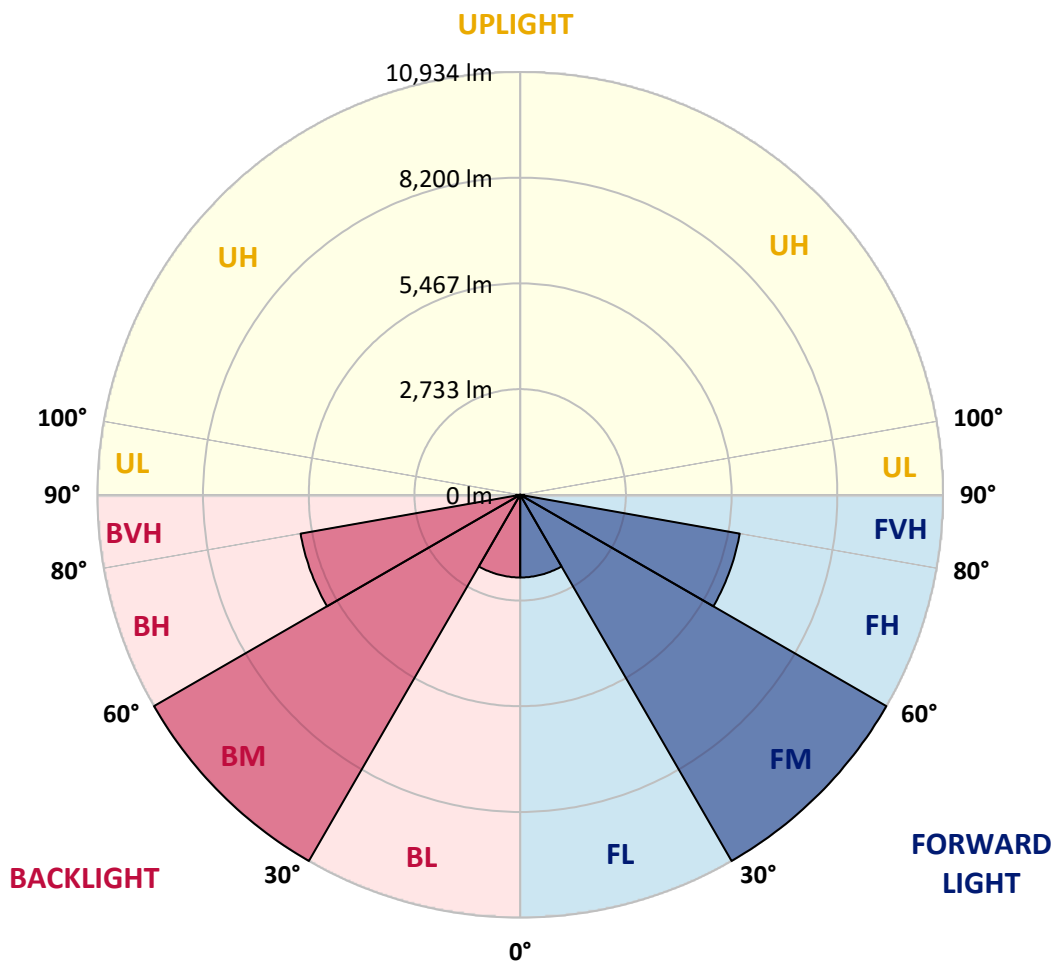
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2136.6	5.6			
FM	(30°-60°)	10933.5	28.9			
FH	(60°-80°)	5766.0	15.2			G3/7500
FVH	(80°-90°)	104.3	0.3			G2/225
BL	(0°-30°)	2136.6	5.6	B3/2500		
BM	(30°-60°)	10933.5	28.9	B5		
BH	(60°-80°)	5766.0	15.2	B5		G3/7500
BVH	(80°-90°)	104.3	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°	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9
2.5°	4344.3	4344.3	4351.4	4349.0	4339.6	4332.5	4325.4	4316.0	4311.2	4306.5	4304.2
5°	4367.9	4367.9	4375.0	4372.6	4365.5	4356.1	4351.4	4344.3	4337.2	4332.5	4334.9
7.5°	4426.9	4429.3	4431.6	4429.3	4422.2	4415.1	4405.6	4403.3	4393.9	4386.8	4391.5
10°	4516.5	4516.5	4518.9	4521.2	4516.5	4500.1	4500.1	4495.4	4485.8	4476.4	4478.8
12.5°	4615.7	4615.7	4618.0	4618.0	4618.0	4608.6	4611.0	4608.6	4596.8	4592.0	4596.8
15°	4712.4	4714.8	4714.8	4719.5	4719.5	4721.8	4731.4	4731.4	4726.5	4724.2	4724.2
17.5°	4825.7	4830.4	4832.7	4839.9	4842.2	4846.9	4856.4	4858.7	4861.1	4854.0	4856.4
20°	4976.8	4979.1	4986.2	4988.5	4997.9	4997.9	5002.6	5000.3	4995.6	4986.2	4986.2
22.5°	5146.6	5151.4	5165.5	5165.5	5177.3	5170.2	5172.6	5165.5	5153.7	5149.0	5144.2
25°	5368.4	5375.5	5387.3	5382.6	5387.3	5375.5	5375.5	5375.5	5368.4	5361.4	5359.0
27.5°	5649.2	5637.5	5649.2	5639.8	5637.5	5628.0	5630.3	5625.6	5618.6	5616.2	5606.8
30°	5941.8	5927.7	5934.8	5937.1	5932.4	5930.0	5920.6	5913.6	5901.7	5904.1	5897.0
32.5°	6276.9	6262.8	6269.9	6272.2	6267.5	6272.2	6269.9	6253.3	6239.2	6248.6	6248.6
35°	6675.8	6666.3	6685.2	6692.2	6678.1	6671.0	6661.6	6642.7	6621.5	6635.6	6638.0
37.5°	7154.7	7143.0	7157.1	7176.0	7150.0	7135.9	7098.2	7069.8	7055.7	7062.8	7072.2
40°	7652.7	7655.0	7695.1	7699.9	7671.5	7655.0	7617.3	7574.8	7534.6	7534.6	7546.5
42.5°	8176.5	8183.6	8230.8	8247.3	8237.9	8207.2	8155.3	8103.4	8051.4	8061.0	8075.1
45°	8768.8	8759.4	8808.9	8849.0	8842.0	8832.6	8783.0	8688.6	8641.4	8639.0	8662.7
47.5°	9391.8	9410.7	9462.6	9531.0	9528.7	9505.1	9441.3	9354.1	9266.7	9273.9	9302.1
50°	10118.6	10144.6	10231.9	10300.3	10309.7	10302.6	10227.2	10125.7	10003.0	10010.1	10047.8
52.5°	10769.9	10807.7	10909.2	11050.7	11138.0	11178.2	11128.6	11034.2	10909.2	10916.2	10956.3
55°	11359.9	11418.8	11569.9	11763.3	11937.9	12100.8	12173.9	12171.6	12079.6	12100.8	12152.8
57.5°	11730.3	11812.9	12041.8	12353.3	12700.1	13028.2	13311.4	13578.0	13637.0	13747.9	13747.9
60°	11232.4	11426.0	11730.3	12263.6	12945.6	13681.9	14479.5	15255.8	15756.1	16150.1	15937.8
62.5°	9380.0	9665.6	10092.6	10795.8	11857.7	13172.1	14774.4	16579.6	18462.7	19614.3	18769.5
65°	6069.3	6427.9	6892.8	7683.4	9021.3	10713.3	13047.0	16291.7	20232.5	22276.1	20388.2
67.5°	2404.5	2647.6	2930.9	3492.5	4653.4	6314.7	8934.0	12936.1	17865.6	19793.6	17676.9
70°	1149.2	1189.3	1243.6	1363.9	1654.2	2232.3	3589.2	6373.7	10956.3	12988.1	10694.4
72.5°	830.6	837.7	863.7	903.8	988.8	1106.7	1345.1	1949.1	3778.0	5493.5	3782.7
75°	630.0	639.4	653.7	674.8	719.7	776.3	866.0	1038.3	1293.1	1491.4	1290.8
77.5°	479.0	488.5	500.2	521.5	545.1	585.2	618.3	686.7	795.2	837.7	833.0
80°	349.2	365.8	384.6	403.6	420.0	438.9	441.3	474.3	535.6	575.8	564.0
82.5°	221.8	236.0	285.5	306.8	309.1	313.8	311.5	313.8	346.9	375.2	365.8
85°	141.6	151.0	177.0	200.6	195.9	205.3	205.3	200.6	186.4	160.5	191.2
87.5°	70.8	73.1	84.9	106.2	101.5	89.7	87.4	87.4	63.7	54.3	59.0
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°	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9	4308.9
2.5°	4297.1	4301.8	4294.8	4294.8	4292.4	4297.1	4290.1	4290.1
5°	4330.2	4337.2	4334.9	4334.9	4339.6	4344.3	4341.9	4339.6
7.5°	4389.2	4393.9	4398.6	4400.9	4405.6	4403.3	4408.0	4405.6
10°	4478.8	4474.1	4481.1	4474.1	4476.4	4471.7	4474.1	4474.1
12.5°	4592.0	4585.0	4580.3	4575.6	4575.6	4566.1	4566.1	4568.5
15°	4721.8	4710.1	4700.7	4695.9	4691.2	4691.2	4684.1	4688.8
17.5°	4849.3	4837.5	4821.0	4821.0	4813.9	4809.2	4804.5	4816.3
20°	4983.8	4972.0	4962.5	4960.2	4946.1	4941.4	4943.7	4957.8
22.5°	5139.5	5132.5	5132.5	5127.7	5118.3	5111.2	5111.2	5127.7
25°	5349.5	5335.4	5337.8	5340.1	5335.4	5335.4	5330.7	5342.5
27.5°	5606.8	5594.9	5602.1	5606.8	5602.1	5609.1	5602.1	5611.5
30°	5908.8	5901.7	5908.8	5915.9	5904.1	5904.1	5899.4	5906.4
32.5°	6269.9	6260.5	6265.2	6265.2	6248.6	6234.5	6215.6	6229.8
35°	6666.3	6654.5	6663.9	6671.0	6652.1	6638.0	6609.7	6621.5
37.5°	7102.9	7107.6	7119.3	7150.0	7145.3	7121.7	7100.5	7109.9
40°	7591.3	7614.9	7666.8	7688.1	7683.4	7659.8	7631.4	7636.1
42.5°	8143.5	8174.2	8228.4	8263.8	8247.3	8214.3	8178.9	8193.0
45°	8745.2	8792.5	8863.3	8898.6	8877.4	8842.0	8792.5	8818.3
47.5°	9382.4	9476.7	9571.1	9618.4	9611.2	9561.7	9498.0	9505.1
50°	10144.6	10269.6	10390.0	10437.2	10401.8	10326.3	10236.6	10234.2
52.5°	11093.2	11227.7	11326.8	11315.0	11227.7	11109.8	11008.3	11003.5
55°	12277.8	12322.7	12308.5	12207.0	12053.6	11869.5	11739.8	11718.5
57.5°	13710.2	13559.1	13337.3	13030.6	12686.0	12336.8	12100.8	12013.5
60°	15461.1	14779.1	13986.3	13150.9	12388.7	11817.6	11456.6	11237.1
62.5°	16907.6	14932.5	13160.4	11709.1	10522.2	9816.5	9323.4	9018.9
65°	16412.1	12900.7	10333.3	8462.1	7166.6	6437.4	5915.9	5569.0
67.5°	12679.0	8620.2	5998.5	4157.9	3152.6	2668.9	2331.4	2112.0
70°	6392.5	3306.0	2003.4	1413.5	1208.2	1123.2	1066.6	1033.6
72.5°	1876.0	1253.0	1040.6	920.3	847.1	795.2	762.2	745.7
75°	1038.3	847.1	748.1	679.6	632.4	597.0	575.8	561.6
77.5°	715.0	615.9	566.3	521.5	483.8	457.8	441.3	427.1
80°	500.2	450.7	429.4	405.9	377.6	356.3	332.8	323.3
82.5°	332.8	311.5	306.8	287.9	271.4	247.8	205.3	191.2
85°	195.9	193.5	193.5	186.4	174.6	153.3	122.8	122.8
87.5°	68.4	70.8	73.1	77.8	75.5	63.7	51.9	49.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)