

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: P195960

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P195960  
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-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(6) 70 CRI, 4000K, 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: 41554.3 lumens  
Efficiency: N/A  
Efficacy: 108.8 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

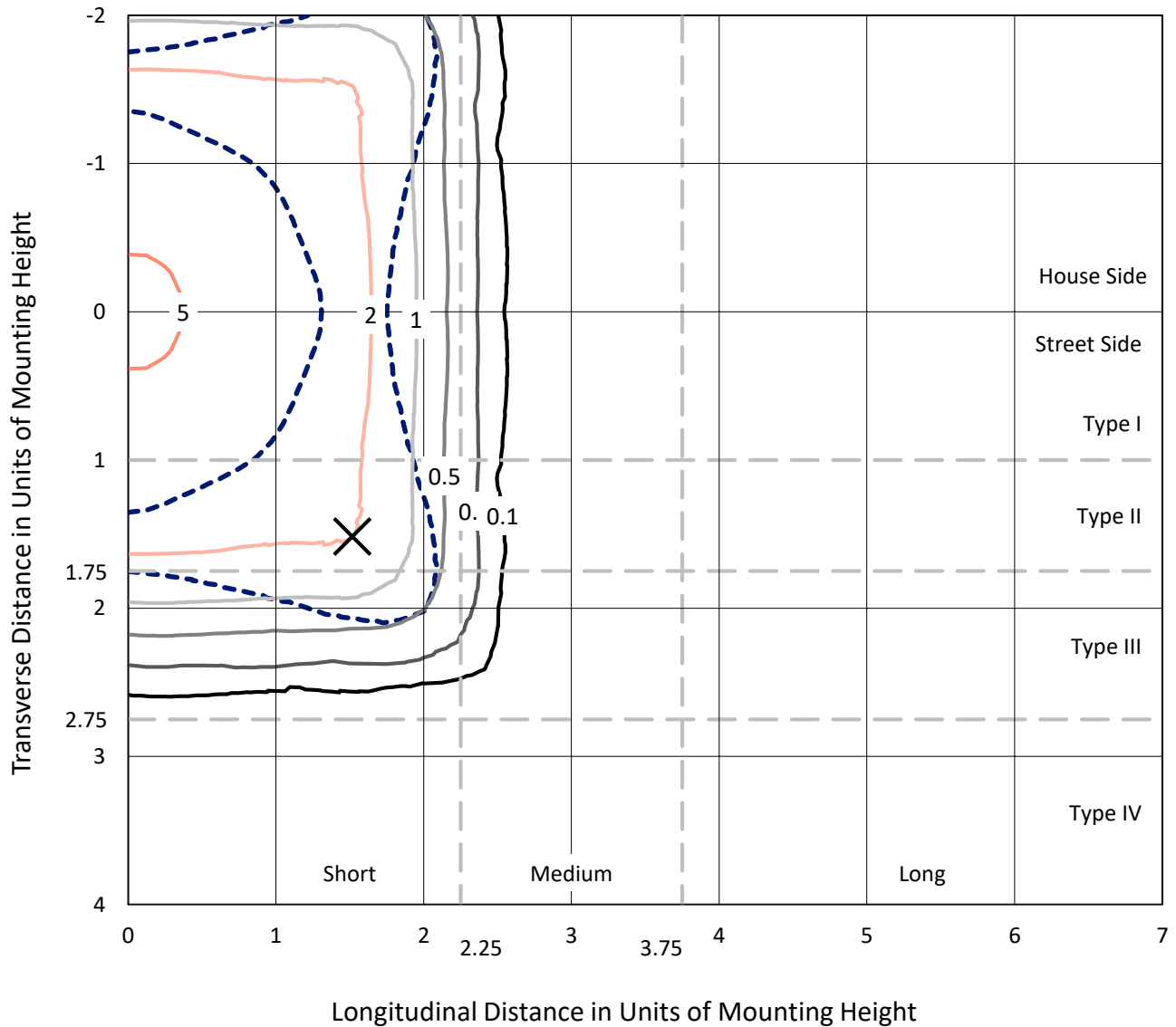
Input Watts (W): 382  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

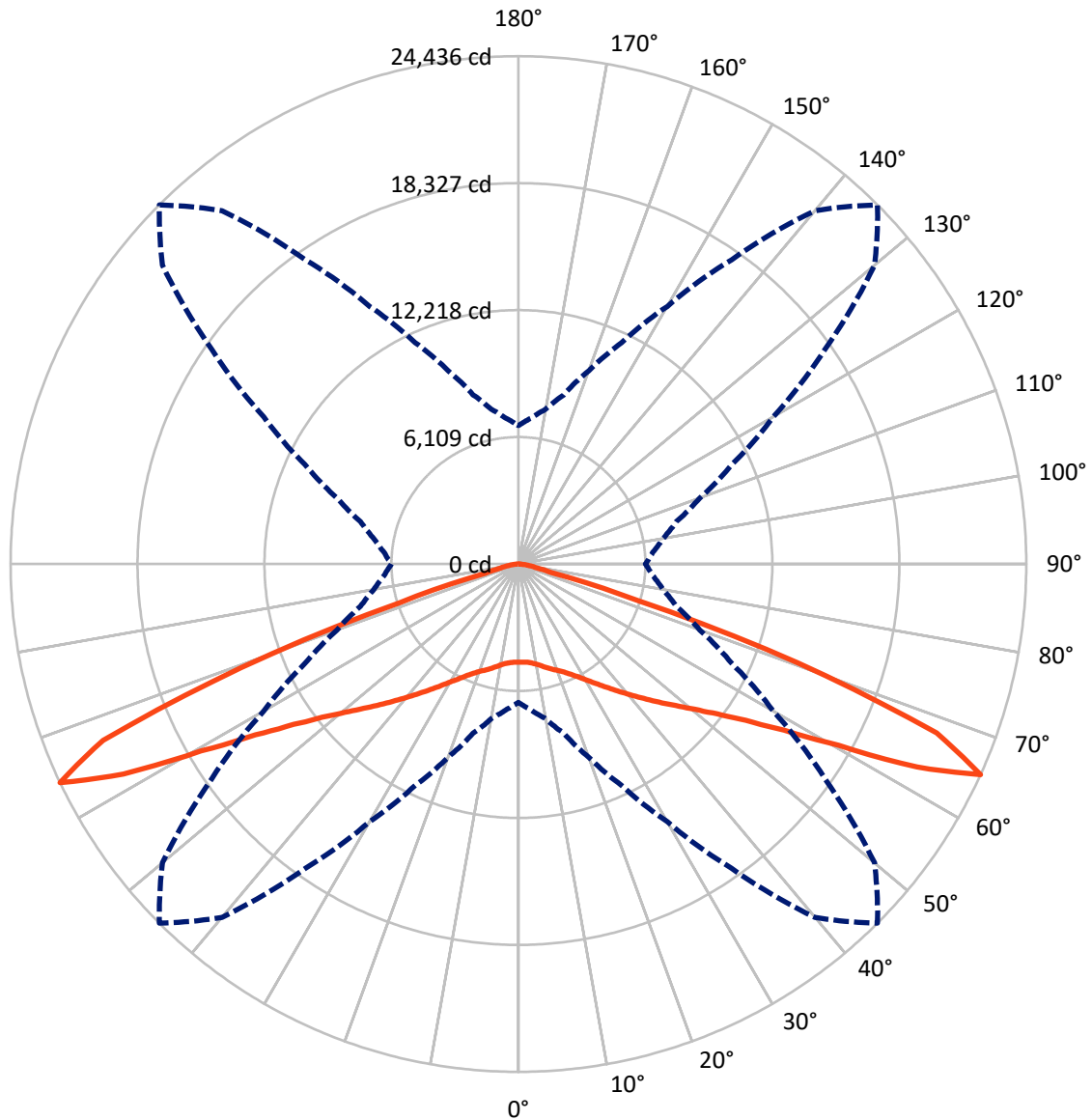
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.3 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	20777.2	0.0	20777.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	20777.2	0.0	20777.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	41554.3	0.0	41554.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	460.3	1.1
10°-20°	1475.3	3.6
20°-30°	2752.1	6.6
30°-40°	4640.4	11.2
40°-50°	7537.4	18.1
50°-60°	11809.8	28.4
60°-70°	11147.9	26.8
70°-80°	1502.4	3.6
80°-90°	228.9	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°	41554.3	100.0
0°-180°	41554.3	100.0



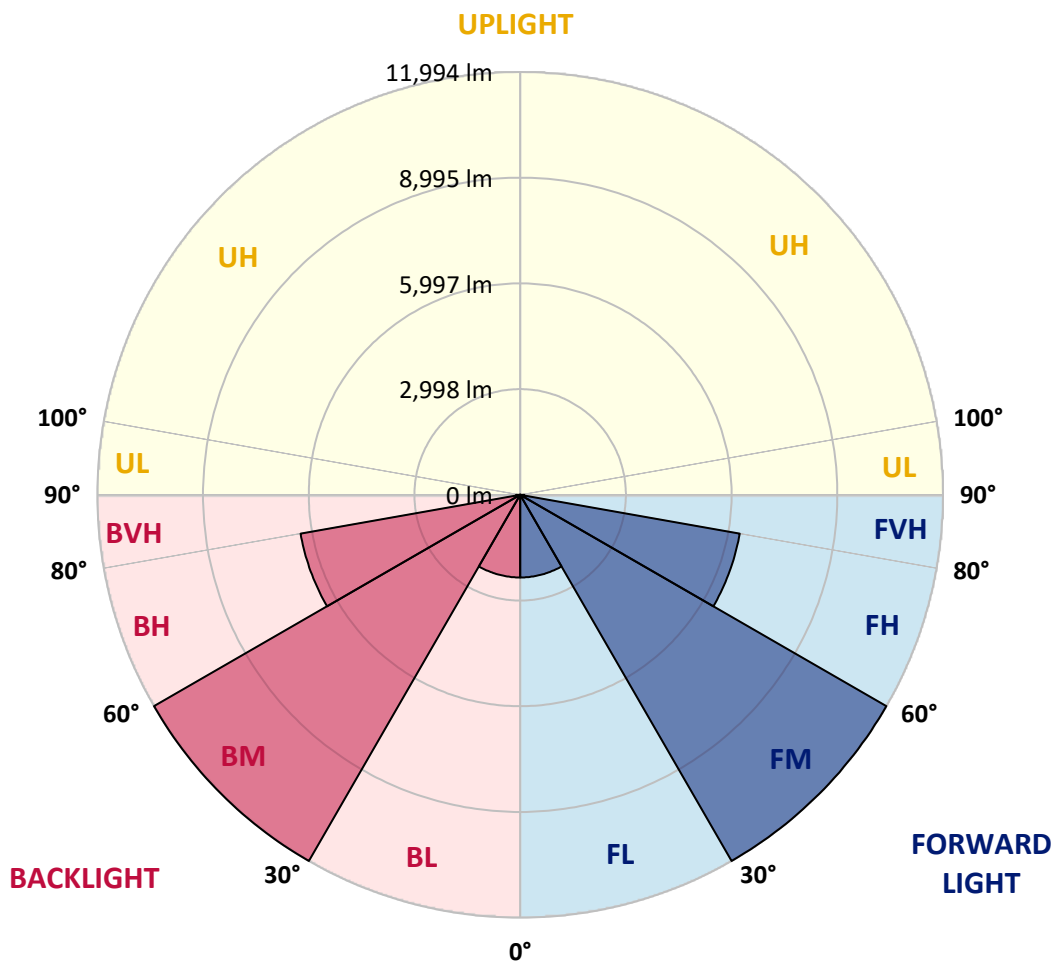
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2343.8	5.6			
FM (30°-60°)	11993.8	28.9			
FH (60°-80°)	6325.1	15.2			G3/7500
FVH (80°-90°)	114.4	0.3			G2/225
BL (0°-30°)	2343.8	5.6	B3/2500		
BM (30°-60°)	11993.8	28.9	B5		
BH (60°-80°)	6325.1	15.2	B5		G3/7500
BVH (80°-90°)	114.4	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-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7
2.5°	4765.6	4765.6	4773.4	4770.7	4760.4	4752.6	4744.9	4734.5	4729.3	4724.2	4721.5
5°	4791.5	4791.5	4799.3	4796.6	4788.8	4778.5	4773.4	4765.6	4757.8	4752.6	4755.2
7.5°	4856.2	4858.8	4861.4	4858.8	4851.0	4843.3	4832.9	4830.3	4819.9	4812.2	4817.4
10°	4954.6	4954.6	4957.1	4959.7	4954.6	4936.5	4936.5	4931.2	4920.9	4910.6	4913.1
12.5°	5063.3	5063.3	5065.9	5065.9	5065.9	5055.5	5058.1	5055.5	5042.5	5037.4	5042.5
15°	5169.4	5172.0	5172.0	5177.2	5177.2	5179.7	5190.1	5190.1	5184.9	5182.4	5182.4
17.5°	5293.7	5298.8	5301.4	5309.2	5311.8	5317.0	5327.3	5329.9	5332.4	5324.8	5327.3
20°	5459.3	5461.9	5469.7	5472.3	5482.6	5482.6	5487.8	5485.2	5480.0	5469.7	5469.7
22.5°	5645.7	5650.9	5666.4	5666.4	5679.3	5671.5	5674.2	5666.4	5653.4	5648.3	5643.1
25°	5889.0	5896.8	5909.7	5904.6	5909.7	5896.8	5896.8	5896.8	5889.0	5881.3	5878.7
27.5°	6197.0	6184.1	6197.0	6186.7	6184.1	6173.8	6176.4	6171.2	6163.4	6160.8	6150.5
30°	6518.0	6502.5	6510.3	6512.9	6507.7	6505.1	6494.7	6486.9	6474.1	6476.6	6468.8
32.5°	6885.6	6870.1	6877.9	6880.5	6875.3	6880.5	6877.9	6859.7	6844.3	6854.6	6854.6
35°	7323.1	7312.8	7333.4	7341.2	7325.7	7317.9	7307.6	7286.9	7263.6	7279.1	7281.7
37.5°	7848.6	7835.6	7851.1	7871.9	7843.4	7827.9	7786.5	7755.4	7739.9	7747.6	7758.0
40°	8394.7	8397.4	8441.4	8446.5	8415.5	8397.4	8356.0	8309.3	8265.3	8265.3	8278.3
42.5°	8969.4	8977.2	9029.0	9047.1	9036.7	9003.1	8946.1	8889.2	8832.3	8842.6	8858.1
45°	9619.2	9608.8	9663.2	9707.2	9699.4	9689.1	9634.7	9531.1	9479.4	9476.8	9502.7
47.5°	10302.5	10323.3	10380.2	10455.3	10452.7	10426.8	10357.0	10261.1	10165.4	10173.1	10204.2
50°	11099.8	11128.3	11224.1	11299.2	11309.5	11301.8	11218.9	11107.6	10973.0	10980.8	11022.2
52.5°	11814.3	11855.7	11967.0	12122.4	12218.1	12262.1	12207.8	12104.2	11967.0	11974.8	12018.8
55°	12461.5	12526.1	12691.9	12904.1	13095.6	13274.2	13354.5	13352.0	13251.0	13274.2	13331.2
57.5°	12867.8	12958.4	13209.6	13551.2	13931.8	14291.5	14602.2	14894.7	14959.4	15081.1	15081.1
60°	12321.6	12533.9	12867.8	13452.8	14201.0	15008.6	15883.6	16735.2	17284.0	17716.3	17483.3
62.5°	10289.7	10602.9	11071.4	11842.8	13007.6	14449.5	16207.1	18187.3	20253.1	21516.3	20589.5
65°	6657.9	7051.3	7561.2	8428.4	9896.1	11752.2	14312.3	17871.6	22194.6	24436.2	22365.4
67.5°	2637.8	2904.4	3215.0	3831.1	5104.7	6927.0	9800.4	14190.6	19598.2	21713.1	19391.1
70°	1260.7	1304.7	1364.2	1496.2	1814.6	2448.8	3937.2	6991.8	12018.8	14247.6	11731.5
72.5°	911.1	918.9	947.5	991.4	1084.6	1214.0	1475.5	2138.2	4144.3	6026.2	4149.5
75°	691.1	701.5	717.1	740.3	789.5	851.6	950.0	1139.0	1418.5	1636.0	1416.0
77.5°	525.5	535.8	548.8	572.0	597.9	642.0	678.2	753.3	872.4	918.9	913.8
80°	383.1	401.2	422.0	442.6	460.7	481.5	484.1	520.3	587.6	631.6	618.7
82.5°	243.4	258.9	313.2	336.6	339.1	344.3	341.7	344.3	380.5	411.6	401.2
85°	155.3	165.7	194.2	220.0	214.8	225.3	225.3	220.0	204.5	176.0	209.7
87.5°	77.6	80.2	93.2	116.5	111.3	98.4	95.7	95.7	69.9	59.5	64.8
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°	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7	4726.7
2.5°	4713.9	4719.0	4711.2	4711.2	4708.6	4713.9	4706.1	4706.1
5°	4750.1	4757.8	4755.2	4755.2	4760.4	4765.6	4763.0	4760.4
7.5°	4814.7	4819.9	4825.2	4827.7	4832.9	4830.3	4835.5	4832.9
10°	4913.1	4907.9	4915.7	4907.9	4910.6	4905.4	4907.9	4907.9
12.5°	5037.4	5029.6	5024.4	5019.3	5019.3	5008.9	5008.9	5011.5
15°	5179.7	5166.8	5156.5	5151.3	5146.1	5146.1	5138.4	5143.5
17.5°	5319.5	5306.6	5288.5	5288.5	5280.7	5275.6	5270.3	5283.3
20°	5467.1	5454.2	5443.8	5441.2	5425.6	5420.5	5423.1	5438.6
22.5°	5637.9	5630.2	5630.2	5625.0	5614.7	5606.9	5606.9	5625.0
25°	5868.4	5852.8	5855.4	5857.9	5852.8	5852.8	5847.6	5860.6
27.5°	6150.5	6137.5	6145.3	6150.5	6145.3	6153.0	6145.3	6155.6
30°	6481.8	6474.1	6481.8	6489.6	6476.6	6476.6	6471.5	6479.3
32.5°	6877.9	6867.5	6872.7	6872.7	6854.6	6839.0	6818.4	6833.8
35°	7312.8	7299.8	7310.1	7317.9	7297.2	7281.7	7250.6	7263.6
37.5°	7791.6	7796.8	7809.7	7843.4	7838.3	7812.4	7789.1	7799.4
40°	8327.4	8353.3	8410.3	8433.6	8428.4	8402.5	8371.5	8376.6
42.5°	8933.2	8966.9	9026.4	9065.2	9047.1	9010.9	8972.0	8987.5
45°	9593.3	9645.1	9722.7	9761.5	9738.3	9699.4	9645.1	9673.5
47.5°	10292.2	10395.7	10499.3	10551.0	10543.3	10488.9	10419.1	10426.8
50°	11128.3	11265.6	11397.5	11449.3	11410.5	11327.6	11229.2	11226.7
52.5°	12168.9	12316.4	12425.2	12412.3	12316.4	12187.0	12075.7	12070.5
55°	13468.4	13517.6	13502.0	13390.7	13222.5	13020.5	12878.2	12854.9
57.5°	15039.6	14874.0	14630.7	14294.2	13916.2	13533.1	13274.2	13178.5
60°	16960.4	16212.3	15342.5	14426.2	13590.1	12963.7	12567.6	12326.9
62.5°	18547.2	16380.5	14436.5	12844.6	11542.5	10768.5	10227.5	9893.6
65°	18003.6	14151.8	11335.4	9282.7	7861.5	7061.6	6489.6	6109.1
67.5°	13908.4	9456.1	6580.1	4561.1	3458.4	2927.7	2557.5	2316.8
70°	7012.4	3626.6	2197.7	1550.6	1325.3	1232.1	1170.1	1133.8
72.5°	2058.0	1374.5	1141.6	1009.6	929.4	872.4	836.2	818.0
75°	1139.0	929.4	820.6	745.5	693.8	654.9	631.6	616.1
77.5°	784.3	675.7	621.2	572.0	530.7	502.2	484.1	468.5
80°	548.8	494.4	471.2	445.2	414.2	390.9	365.0	354.7
82.5°	365.0	341.7	336.6	315.8	297.7	271.8	225.3	209.7
85°	214.8	212.3	212.3	204.5	191.6	168.3	134.6	134.6
87.5°	75.1	77.6	80.2	85.4	82.9	69.9	57.0	54.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)