

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: P196536

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196536
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
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-RW-7030-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39052.5 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

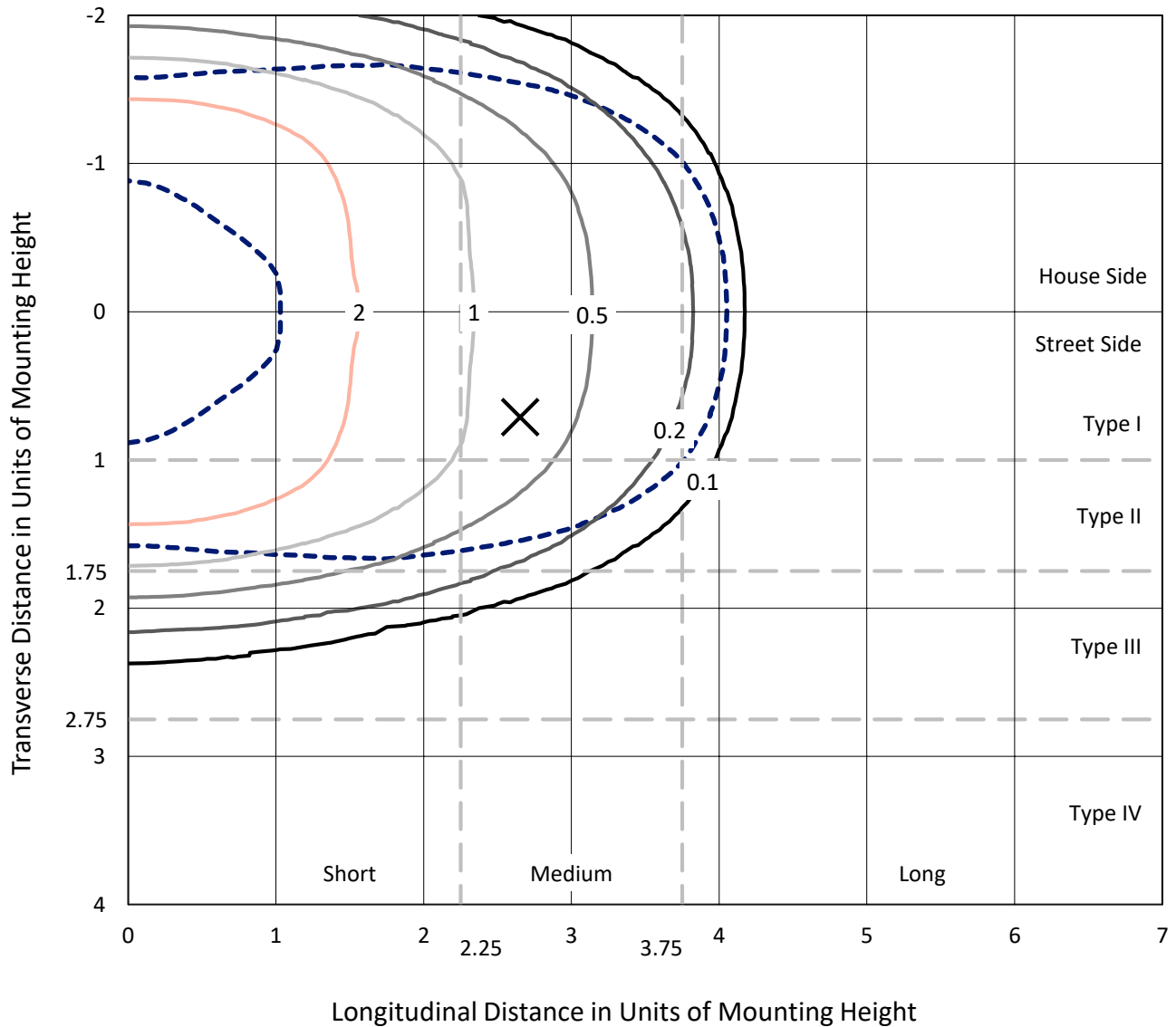
Input Watts (W): 382
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

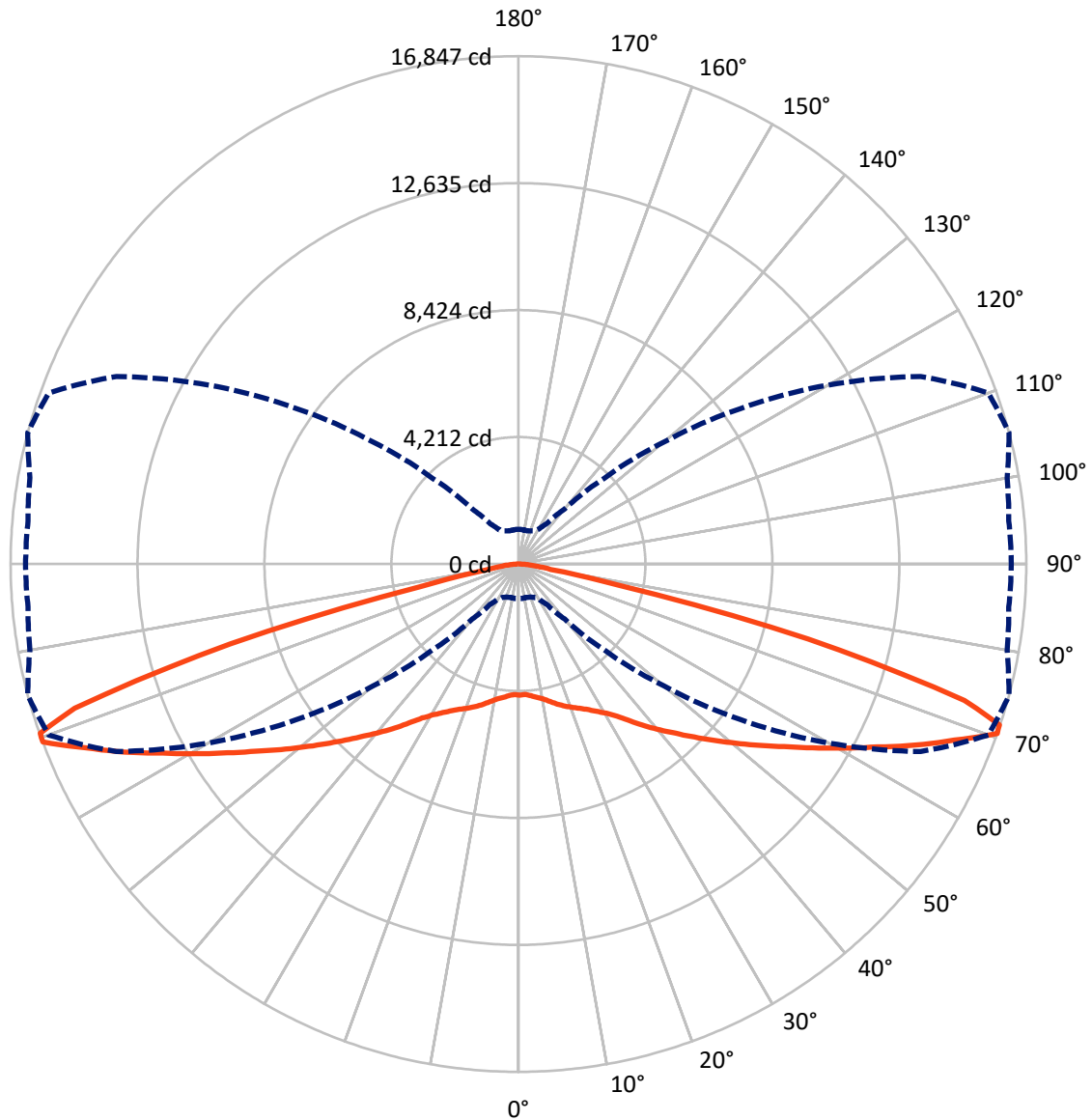
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19526.3	0.0	19526.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19526.3	0.0	19526.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	39052.5	0.0	39052.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.1	1.1
10°-20°	1293.7	3.3
20°-30°	2429.8	6.2
30°-40°	4280.1	11.0
40°-50°	7093.5	18.2
50°-60°	9868.0	25.3
60°-70°	9315.6	23.9
70°-80°	3978.8	10.2
80°-90°	376.0	1.0
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°	39052.5	100.0
0°-180°	39052.5	100.0



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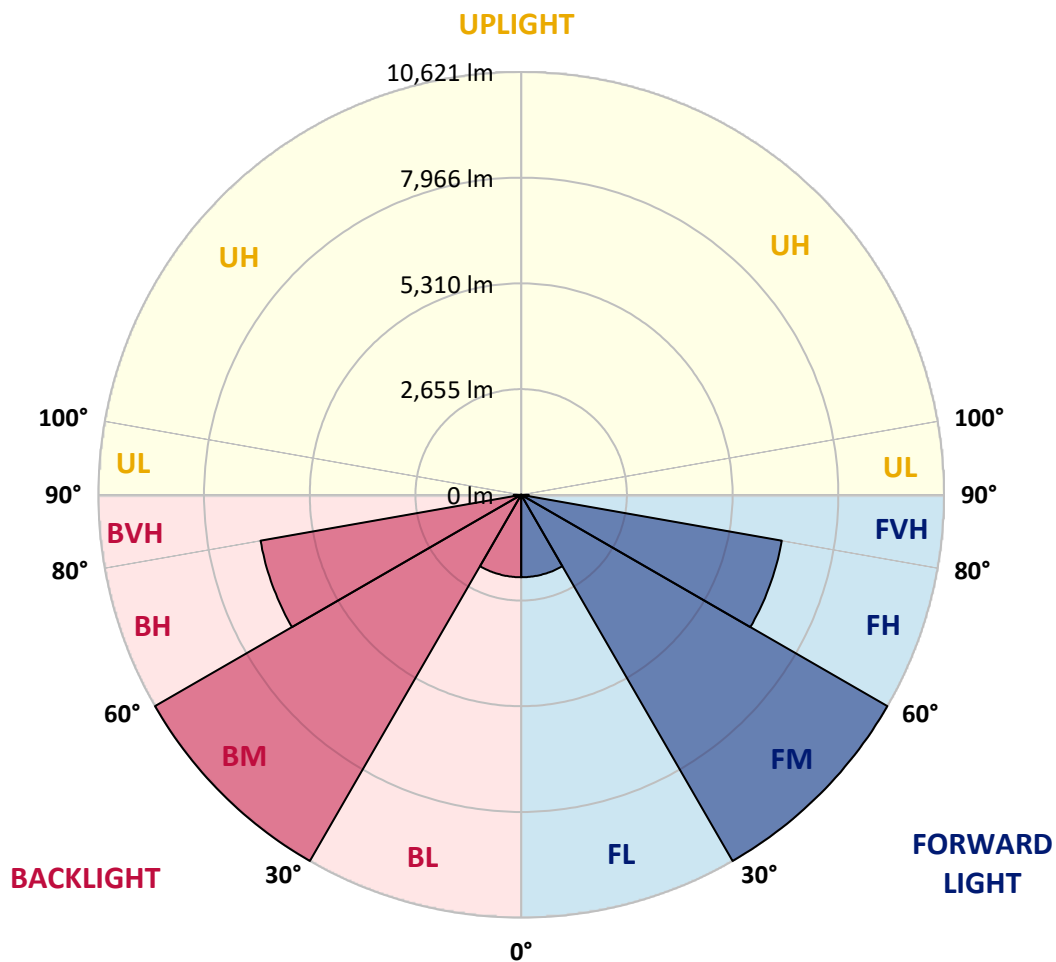
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2070.3	5.3			
FM	(30°-60°)	10620.8	27.2			
FH	(60°-80°)	6647.2	17.0			G3/7500
FVH	(80°-90°)	188.0	0.5			G2/225
BL	(0°-30°)	2070.3	5.3	B3/2500		
BM	(30°-60°)	10620.8	27.2	B5		
BH	(60°-80°)	6647.2	17.0	B5		G5
BVH	(80°-90°)	188.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8
2.5°	4375.9	4373.3	4375.9	4368.5	4370.9	4368.5	4368.5	4358.7	4358.7	4353.8	4346.5
5°	4326.8	4331.8	4331.8	4331.8	4339.1	4339.1	4348.8	4351.4	4358.7	4366.0	4370.9
7.5°	4246.2	4248.5	4255.8	4260.8	4275.5	4295.1	4314.6	4336.6	4356.2	4380.8	4407.6
10°	4177.5	4182.5	4194.7	4206.9	4233.9	4258.4	4292.6	4326.8	4361.1	4402.7	4444.3
12.5°	4140.8	4148.2	4167.8	4187.4	4229.0	4260.8	4307.3	4361.1	4407.6	4446.8	4493.3
15°	4145.8	4148.2	4175.2	4202.0	4260.8	4304.9	4370.9	4434.5	4490.8	4535.0	4588.7
17.5°	4216.8	4221.7	4248.5	4287.7	4344.0	4400.3	4471.2	4537.3	4613.2	4664.6	4728.2
20°	4356.2	4363.6	4393.0	4434.5	4495.7	4554.5	4627.9	4696.4	4774.7	4836.0	4899.5
22.5°	4537.3	4549.5	4581.3	4632.8	4694.0	4764.9	4840.8	4911.8	4985.2	5046.3	5100.2
25°	4779.6	4794.3	4828.6	4879.9	4941.1	5016.9	5095.3	5168.7	5244.6	5291.1	5335.1
27.5°	5105.1	5129.6	5166.4	5207.9	5261.7	5342.4	5415.9	5477.0	5550.5	5601.9	5631.2
30°	5543.2	5577.4	5606.7	5650.9	5690.0	5775.7	5834.5	5883.4	5939.7	5969.1	5976.4
32.5°	6079.1	6111.0	6140.4	6172.2	6225.9	6304.3	6360.5	6387.6	6416.9	6412.0	6385.0
35°	6683.6	6708.1	6725.2	6781.5	6869.5	6921.0	6962.6	6972.4	6977.3	6926.0	6874.5
37.5°	7320.0	7349.4	7364.0	7452.0	7535.3	7594.1	7613.6	7635.6	7621.0	7535.3	7442.3
40°	8007.6	8039.4	8083.4	8159.4	8257.3	8313.5	8338.0	8335.6	8323.4	8223.0	8071.2
42.5°	8683.1	8722.2	8759.0	8891.1	8971.9	9067.3	9079.6	9077.1	9050.2	8935.1	8759.0
45°	9255.8	9302.3	9378.2	9525.0	9654.7	9769.6	9816.2	9833.4	9806.3	9683.9	9483.3
47.5°	9728.1	9759.9	9855.3	10034.1	10200.5	10369.2	10462.2	10528.3	10525.9	10437.7	10224.9
50°	10051.1	10087.8	10205.4	10406.0	10614.0	10812.3	10995.8	11145.1	11216.0	11152.4	10954.3
52.5°	10144.1	10190.6	10344.7	10584.6	10826.9	11093.6	11367.8	11632.1	11791.1	11830.4	11676.1
55°	9752.6	9804.0	10029.1	10361.9	10760.8	11154.9	11570.9	11947.8	12275.8	12427.4	12366.3
57.5°	8612.2	8648.9	8935.1	9365.9	9936.1	10628.7	11328.6	12018.7	12581.6	12975.6	13044.3
60°	6810.9	6857.3	7170.6	7625.9	8274.4	9150.5	10129.4	11260.1	12363.9	13267.0	13714.8
62.5°	4596.1	4627.9	4928.9	5345.0	6054.7	6898.9	7990.4	9422.2	10995.8	12608.5	13871.3
65°	2413.1	2413.1	2616.2	2907.4	3472.7	4229.0	5347.3	6815.8	8688.0	10702.2	12814.2
67.5°	1399.8	1397.4	1444.0	1510.0	1688.6	1994.5	2611.3	3690.6	5462.4	7806.9	10210.2
70°	1155.1	1147.8	1140.4	1140.4	1167.3	1213.9	1331.4	1627.4	2381.2	4025.8	6282.3
71°	1103.7	1098.8	1079.3	1072.0	1084.2	1108.7	1160.0	1297.1	1691.2	2745.9	4691.5
72.5°	1042.6	1030.4	1001.0	988.7	991.2	1001.0	1015.7	1069.4	1189.4	1561.5	2674.8
75°	949.6	920.2	883.5	866.3	859.0	856.6	856.6	871.3	898.1	942.3	1096.4
77.5°	841.9	800.4	761.1	743.9	731.7	724.4	719.5	709.7	704.8	724.4	780.6
80°	712.2	668.1	636.3	626.5	619.2	604.5	584.9	565.3	553.1	562.9	597.1
82.5°	550.6	506.6	511.5	513.9	501.7	477.3	457.7	435.6	413.5	408.7	425.8
85°	438.0	416.1	401.3	433.2	406.2	376.8	349.9	313.2	261.9	215.3	234.9
87.5°	188.5	190.8	274.1	413.5	362.2	291.2	242.3	195.8	124.8	93.0	95.5
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°	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8	4348.8
2.5°	4344.0	4344.0	4336.6	4331.8	4331.8	4331.8	4326.8	4329.3
5°	4373.3	4378.2	4383.2	4380.8	4388.1	4395.4	4393.0	4390.5
7.5°	4422.3	4437.0	4451.7	4459.0	4468.8	4478.5	4481.0	4473.7
10°	4471.2	4500.6	4522.7	4542.2	4554.5	4564.2	4571.6	4569.1
12.5°	4532.4	4574.0	4613.2	4652.4	4679.2	4694.0	4708.6	4703.7
15°	4632.8	4679.2	4728.2	4779.6	4821.2	4843.3	4865.4	4860.4
17.5°	4769.8	4811.4	4850.6	4902.0	4953.4	4977.9	5002.3	4999.8
20°	4941.1	4972.9	4995.0	5024.3	5073.2	5100.2	5122.2	5114.9
22.5°	5137.0	5146.6	5149.2	5158.9	5198.1	5229.9	5259.3	5266.7
25°	5349.9	5342.4	5327.8	5320.5	5347.3	5381.7	5418.3	5428.1
27.5°	5614.2	5589.7	5553.0	5523.6	5530.9	5575.0	5616.6	5626.5
30°	5947.0	5890.7	5812.4	5756.1	5746.3	5792.8	5836.8	5851.5
32.5°	6326.3	6250.4	6142.8	6057.2	6020.4	6062.0	6101.1	6123.2
35°	6776.6	6693.4	6563.7	6453.6	6394.8	6421.7	6490.3	6514.8
37.5°	7310.1	7195.2	7050.7	6911.2	6813.3	6818.3	6891.6	6921.0
40°	7900.0	7733.5	7550.0	7376.2	7234.3	7224.4	7290.6	7312.6
42.5°	8514.2	8301.3	8085.9	7858.4	7682.1	7650.4	7736.0	7738.4
45°	9174.9	8901.0	8634.1	8369.8	8186.2	8130.0	8213.2	8223.0
47.5°	9879.8	9537.2	9221.5	8935.1	8736.9	8648.9	8729.6	8744.2
50°	10614.0	10259.1	9892.0	9574.0	9341.4	9233.7	9329.2	9338.9
52.5°	11340.9	11005.5	10641.0	10276.3	9994.8	9872.4	9985.1	10019.3
55°	12072.6	11749.5	11407.0	11042.3	10687.4	10579.8	10702.2	10738.9
57.5°	12833.7	12523.0	12212.1	11845.1	11500.0	11335.9	11468.1	11519.5
60°	13673.1	13399.0	13105.4	12735.8	12395.7	12204.8	12317.4	12376.2
62.5°	14497.9	14441.6	14174.9	13790.6	13359.9	13169.0	13264.4	13306.0
65°	14566.5	15479.3	15467.1	15085.2	14483.2	14162.6	14189.5	14209.1
67.5°	12713.9	14808.7	16147.4	16267.3	15596.8	15095.0	15036.3	15048.5
70°	9001.3	11876.8	14718.2	16583.1	16847.3	16458.2	16331.0	16350.5
71°	7212.2	10190.6	13318.2	15826.7	16827.8	16715.1	16644.2	16695.6
72.5°	4603.4	7508.4	10552.8	13553.3	15474.4	16025.0	16105.8	16137.6
75°	1671.5	3230.5	5467.4	7833.9	9928.7	11370.3	12163.2	12226.7
77.5°	898.1	1157.6	1789.0	2672.5	3357.7	3724.8	3768.9	3786.1
80°	660.8	766.0	876.1	1001.0	1079.3	1093.9	1067.0	1010.7
82.5°	467.4	528.6	572.6	616.8	648.6	621.5	516.4	394.0
85°	271.6	298.6	323.1	345.0	349.9	330.4	217.9	178.6
87.5°	107.7	117.5	115.0	129.7	124.8	115.0	85.7	73.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)