

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: McGRAW-EDISON

Report Number: P299627

Luminaire Tested: **GLNA-AF-09-LED-E1-5MQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299627  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-5MQ-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55711.6 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G5

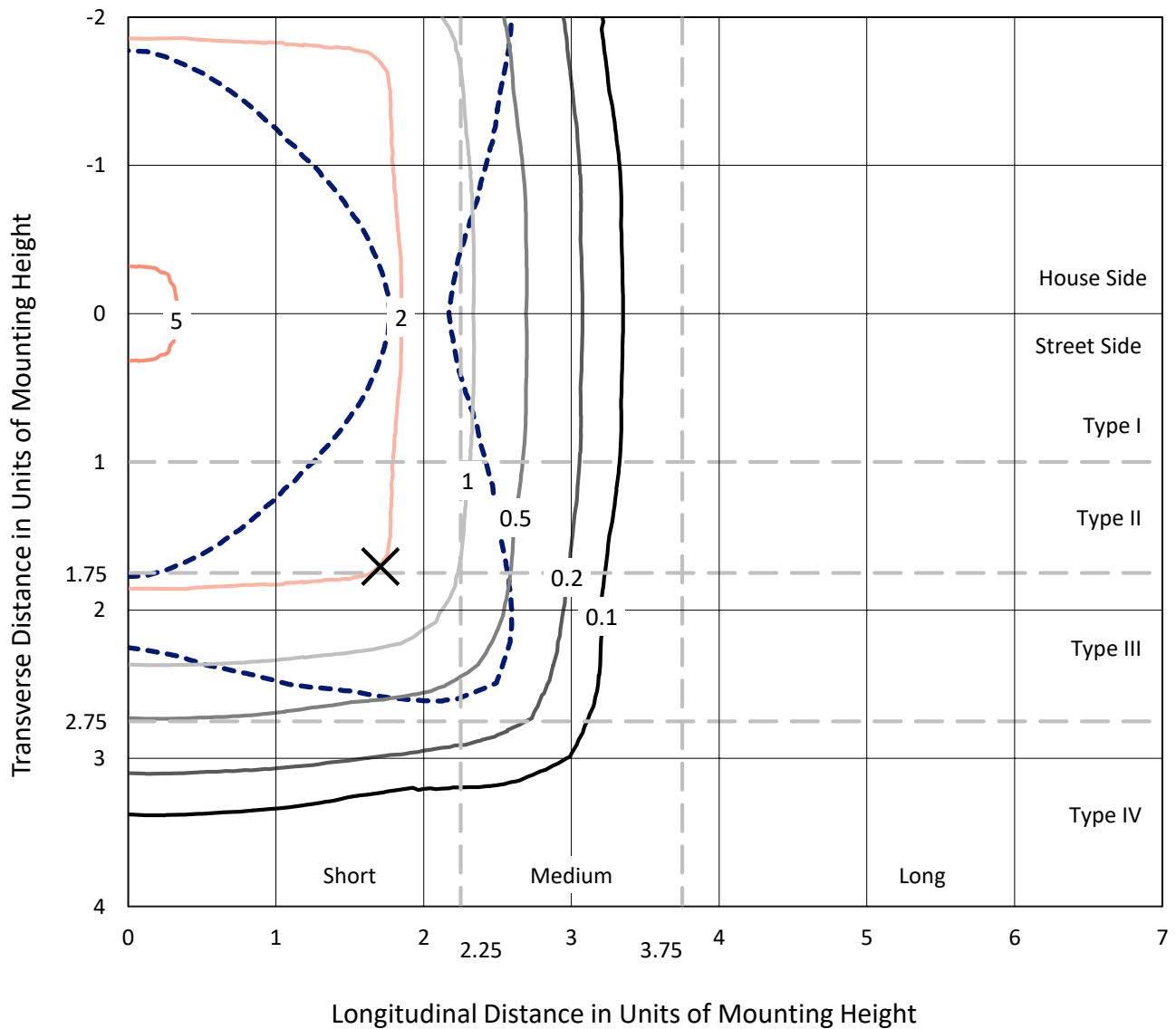
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

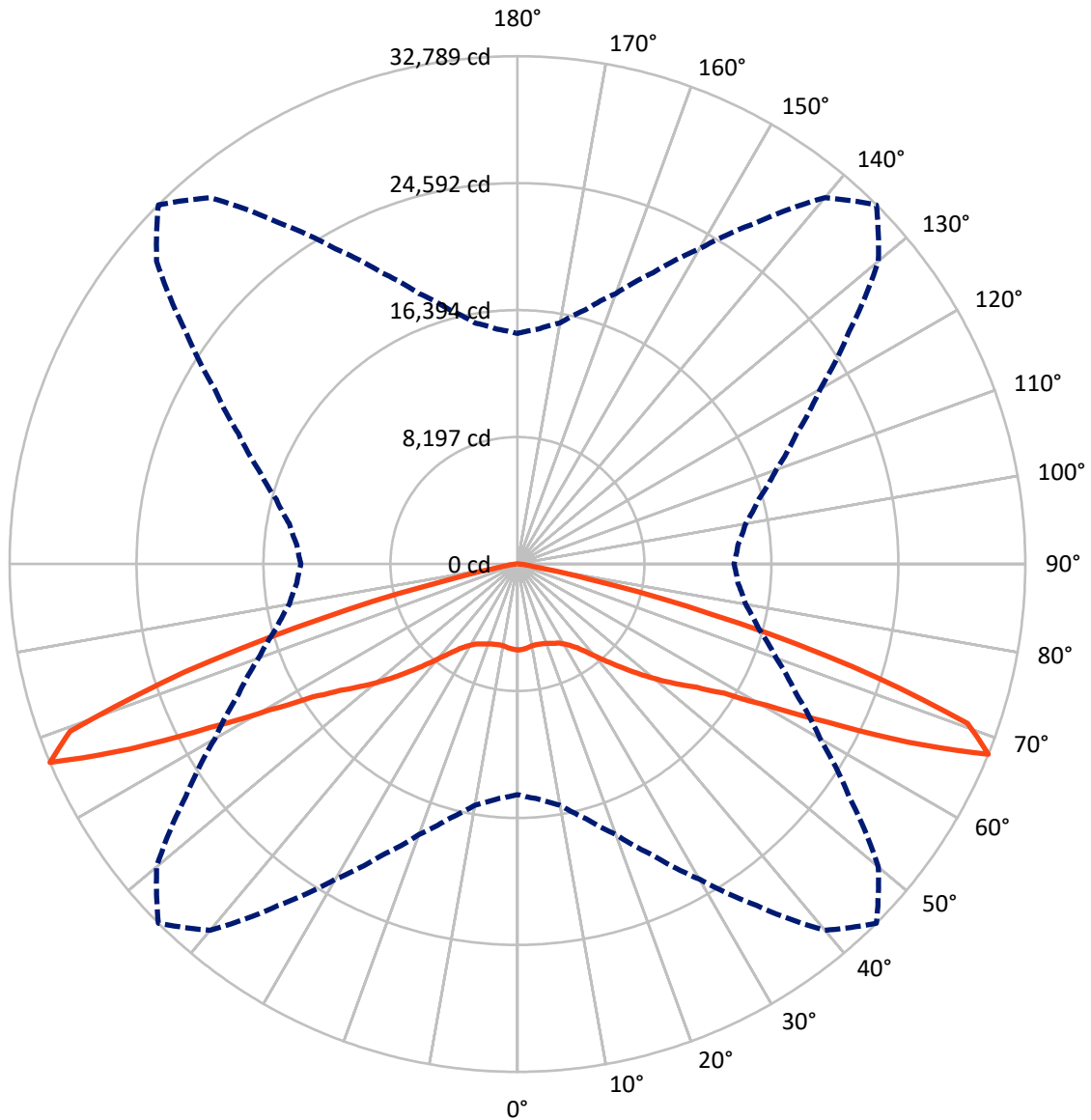
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.2 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	27855.8	0.0	27855.8
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	27855.8	0.0	27855.8
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	55711.6	0.0	55711.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	519.6	0.9
10°-20°	1507.9	2.7
20°-30°	2563.4	4.6
30°-40°	4190.3	7.5
40°-50°	7480.4	13.4
50°-60°	12612.2	22.6
60°-70°	19572.3	35.1
70°-80°	6876.8	12.3
80°-90°	388.6	0.7
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°	55711.6	100.0
0°-180°	55711.6	100.0



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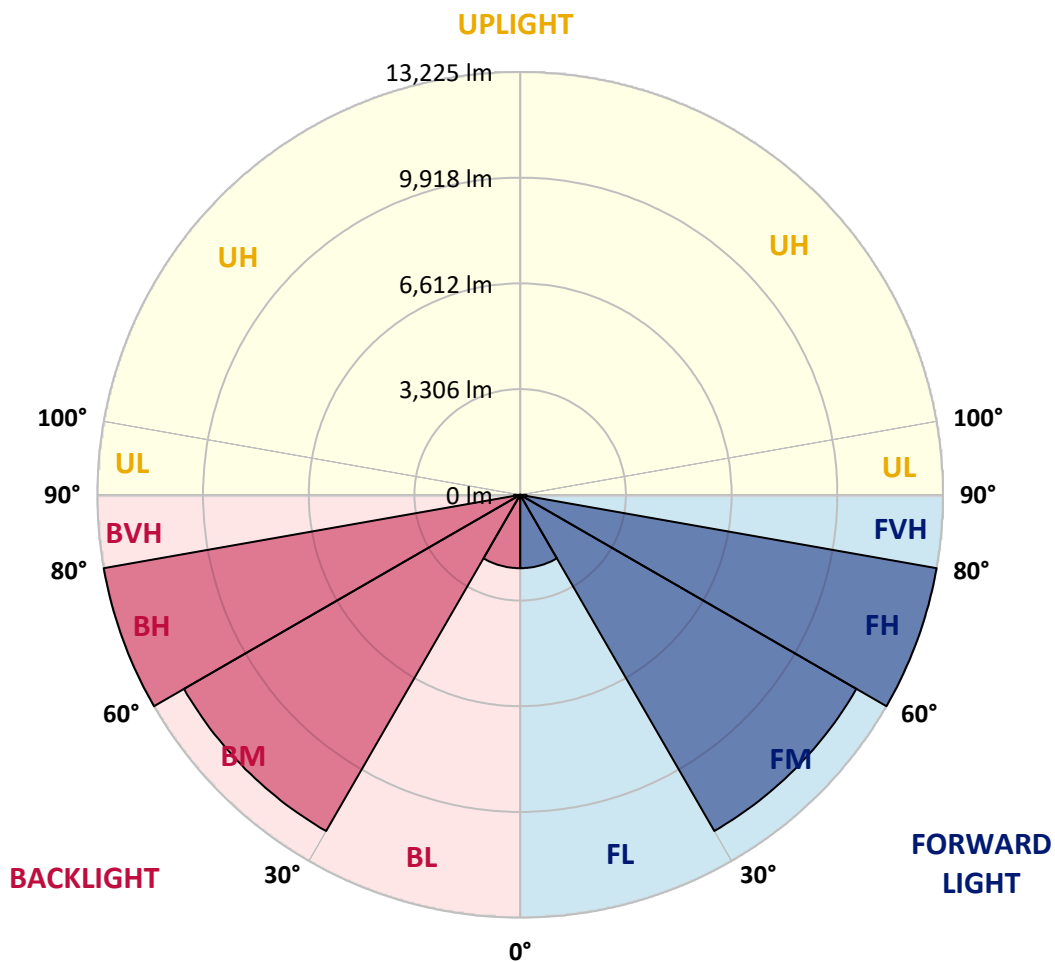
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2295.4	4.1			
FM	(30°-60°)	12141.5	21.8			
FH	(60°-80°)	13224.6	23.7			G5
FVH	(80°-90°)	194.3	0.3			G2/225
BL	(0°-30°)	2295.4	4.1	B3/2500		
BM	(30°-60°)	12141.5	21.8	B5		
BH	(60°-80°)	13224.6	23.7	B5		G5
BVH	(80°-90°)	194.3	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-G5**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9
2.5°	5531.4	5536.5	5536.5	5536.5	5534.0	5534.0	5528.8	5534.0	5531.4	5523.7	5526.3
5°	5485.3	5490.4	5490.4	5487.8	5495.5	5493.0	5485.3	5490.4	5487.8	5482.7	5485.3
7.5°	5418.7	5426.4	5426.4	5423.8	5431.5	5428.9	5423.8	5426.4	5426.4	5418.7	5418.7
10°	5344.4	5349.5	5349.5	5346.9	5359.7	5359.7	5357.2	5364.9	5367.4	5359.7	5354.6
12.5°	5275.2	5282.9	5282.9	5293.1	5305.9	5311.1	5323.9	5334.1	5344.4	5341.8	5331.6
15°	5234.2	5239.3	5249.6	5262.4	5282.9	5300.8	5321.3	5344.4	5364.9	5370.0	5354.6
17.5°	5208.6	5216.3	5231.6	5249.6	5277.8	5308.5	5339.2	5370.0	5398.2	5408.4	5390.5
20°	5200.9	5206.0	5221.4	5252.1	5290.6	5336.7	5380.2	5416.1	5454.5	5467.3	5454.5
22.5°	5216.3	5226.5	5244.5	5280.3	5331.6	5390.5	5441.7	5490.4	5539.1	5562.1	5544.2
25°	5285.4	5295.7	5318.8	5364.9	5421.2	5482.7	5541.6	5598.0	5641.6	5664.6	5651.8
27.5°	5413.5	5426.4	5454.5	5500.7	5562.1	5628.8	5692.8	5738.9	5774.8	5782.5	5767.1
30°	5605.7	5633.9	5667.2	5718.4	5790.2	5846.5	5910.6	5951.6	5995.1	5995.1	5982.3
32.5°	5905.5	5933.6	5969.5	6018.2	6074.5	6136.0	6192.4	6228.3	6274.4	6276.9	6246.2
35°	6353.8	6366.6	6397.4	6428.1	6479.3	6533.1	6581.8	6604.9	6643.3	6645.9	6617.7
37.5°	6945.6	6948.2	6968.7	6978.9	7025.1	7084.0	7130.1	7145.5	7181.3	7176.2	7148.0
40°	7634.8	7647.6	7655.3	7670.7	7719.4	7775.7	7824.4	7832.1	7870.5	7862.8	7827.0
42.5°	8431.6	8436.7	8480.3	8503.3	8549.5	8577.6	8639.1	8646.8	8692.9	8672.4	8631.4
45°	9325.7	9371.9	9412.9	9459.0	9507.7	9541.0	9589.6	9579.4	9610.1	9579.4	9556.3
47.5°	10266.0	10299.3	10391.5	10463.3	10542.7	10570.9	10640.1	10609.3	10640.1	10596.5	10588.8
50°	11301.1	11360.0	11439.4	11521.4	11605.9	11652.1	11741.7	11703.3	11744.3	11703.3	11680.2
52.5°	12320.7	12336.1	12510.3	12630.8	12748.6	12802.4	12856.2	12838.3	12840.8	12838.3	12815.2
55°	13289.2	13325.1	13499.3	13663.2	13868.2	14019.4	14111.6	14101.4	14078.3	14055.2	14016.8
57.5°	14380.6	14416.5	14616.3	14818.7	15051.9	15267.1	15454.1	15646.2	15720.5	15741.0	15656.5
60°	15856.3	15853.8	16120.2	16366.2	16699.2	17019.5	17429.4	17847.0	18326.1	18549.0	18254.4
62.5°	17357.7	17419.2	17803.5	18239.0	18925.6	19594.3	20350.1	21093.1	21851.5	22468.9	21813.0
65°	17178.3	17414.0	17985.4	18971.8	20239.9	21746.4	23375.9	25100.1	26657.8	27728.7	26527.1
67.5°	14887.9	15223.5	15805.1	17004.1	18590.0	20762.6	23498.8	26908.9	30872.3	32788.7	30413.7
70°	10791.2	11170.4	11780.2	12951.0	14521.5	16586.5	19558.5	23652.6	28899.6	30831.3	28215.5
72.5°	5370.0	5575.0	5951.6	6697.1	7885.9	9561.5	12256.7	16192.0	20834.3	22607.3	20216.9
75°	1824.2	1919.0	1983.0	2226.4	2603.0	3261.5	4601.4	7078.9	10798.9	12945.9	10645.2
77.5°	1053.0	1055.6	1099.1	1142.7	1206.7	1278.4	1457.8	1913.8	3310.1	4701.3	3425.4
80°	681.5	678.9	714.8	748.1	791.7	827.5	837.8	886.5	1022.2	1211.8	1083.7
82.5°	353.6	397.1	476.5	520.1	602.1	617.4	597.0	579.0	612.3	635.4	650.8
85°	194.7	169.1	253.6	327.9	363.8	368.9	368.9	348.4	361.2	353.6	384.3
87.5°	89.7	82.0	99.9	161.4	171.7	146.0	153.7	135.8	97.4	94.8	107.6
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°	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9	5551.9
2.5°	5526.3	5528.8	5528.8	5536.5	5539.1	5544.2	5549.3	5551.9
5°	5482.7	5490.4	5485.3	5493.0	5493.0	5498.1	5498.1	5500.7
7.5°	5418.7	5426.4	5426.4	5426.4	5423.8	5431.5	5431.5	5431.5
10°	5352.1	5357.2	5354.6	5349.5	5344.4	5352.1	5349.5	5346.9
12.5°	5331.6	5318.8	5308.5	5303.4	5293.1	5295.7	5288.0	5288.0
15°	5344.4	5321.3	5303.4	5295.7	5285.4	5280.3	5275.2	5277.8
17.5°	5377.7	5349.5	5326.4	5313.6	5300.8	5293.1	5282.9	5285.4
20°	5436.6	5403.3	5370.0	5344.4	5321.3	5308.5	5300.8	5298.3
22.5°	5523.7	5475.0	5426.4	5387.9	5357.2	5339.2	5331.6	5326.4
25°	5623.6	5569.8	5513.5	5469.9	5439.2	5416.1	5400.7	5400.7
27.5°	5749.2	5705.6	5654.4	5603.1	5575.0	5551.9	5541.6	5536.5
30°	5959.3	5918.3	5877.3	5828.6	5792.7	5769.7	5751.7	5736.4
32.5°	6228.3	6195.0	6161.7	6125.8	6092.5	6061.7	6033.6	6020.7
35°	6607.4	6581.8	6558.8	6517.8	6505.0	6487.0	6471.7	6458.8
37.5°	7130.1	7119.9	7119.9	7076.3	7066.0	7058.4	7043.0	7045.6
40°	7816.7	7827.0	7814.2	7798.8	7791.1	7770.6	7770.6	7788.5
42.5°	8628.9	8636.6	8664.7	8639.1	8667.3	8641.7	8626.3	8639.1
45°	9571.7	9599.9	9656.2	9630.6	9648.6	9605.0	9551.2	9553.8
47.5°	10629.8	10655.4	10678.5	10660.6	10663.1	10591.4	10519.6	10501.7
50°	11728.9	11739.2	11752.0	11726.4	11731.5	11652.1	11570.1	11572.6
52.5°	12815.2	12863.9	12915.1	12846.0	12830.6	12740.9	12625.6	12579.5
55°	14057.8	14127.0	14068.0	13947.6	13827.2	13706.8	13555.6	13530.0
57.5°	15589.9	15472.0	15287.6	15059.5	14893.0	14723.9	14570.2	14506.2
60°	17721.5	17278.3	16945.2	16607.0	16394.4	16186.8	15984.4	15953.7
62.5°	20734.4	19968.4	19304.8	18605.4	18034.1	17588.3	17232.1	17132.2
65°	24510.8	22699.5	21129.0	19663.5	18390.2	17429.4	16824.8	16558.3
67.5°	26135.2	22558.6	19865.9	17785.5	16120.2	14957.1	14303.8	13978.4
70°	22965.9	18707.9	15779.5	13696.6	12179.8	10939.8	10348.0	9999.6
72.5°	15800.0	11900.6	9410.3	7680.9	6469.1	5431.5	5021.6	4990.8
75°	7094.2	4698.7	3238.4	2495.4	2100.9	1826.7	1742.2	1678.1
77.5°	1985.6	1468.0	1309.2	1224.6	1142.7	1047.9	1012.0	1019.7
80°	965.9	912.1	876.2	822.4	748.1	668.7	632.8	648.2
82.5°	640.5	632.8	655.9	617.4	509.8	433.0	363.8	333.1
85°	389.4	394.6	402.2	404.8	343.3	240.8	164.0	184.5
87.5°	153.7	176.8	192.2	199.8	187.0	115.3	92.2	94.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)