

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: P299674

Luminaire Tested: **GLNA-AF-07-LED-E1-5MQ-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299674  
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-07-LED-E1-5MQ-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(7) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35610.4 lumens  
Efficiency: N/A  
Efficacy: 120.7 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G4

Input Watts (W): 295  
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

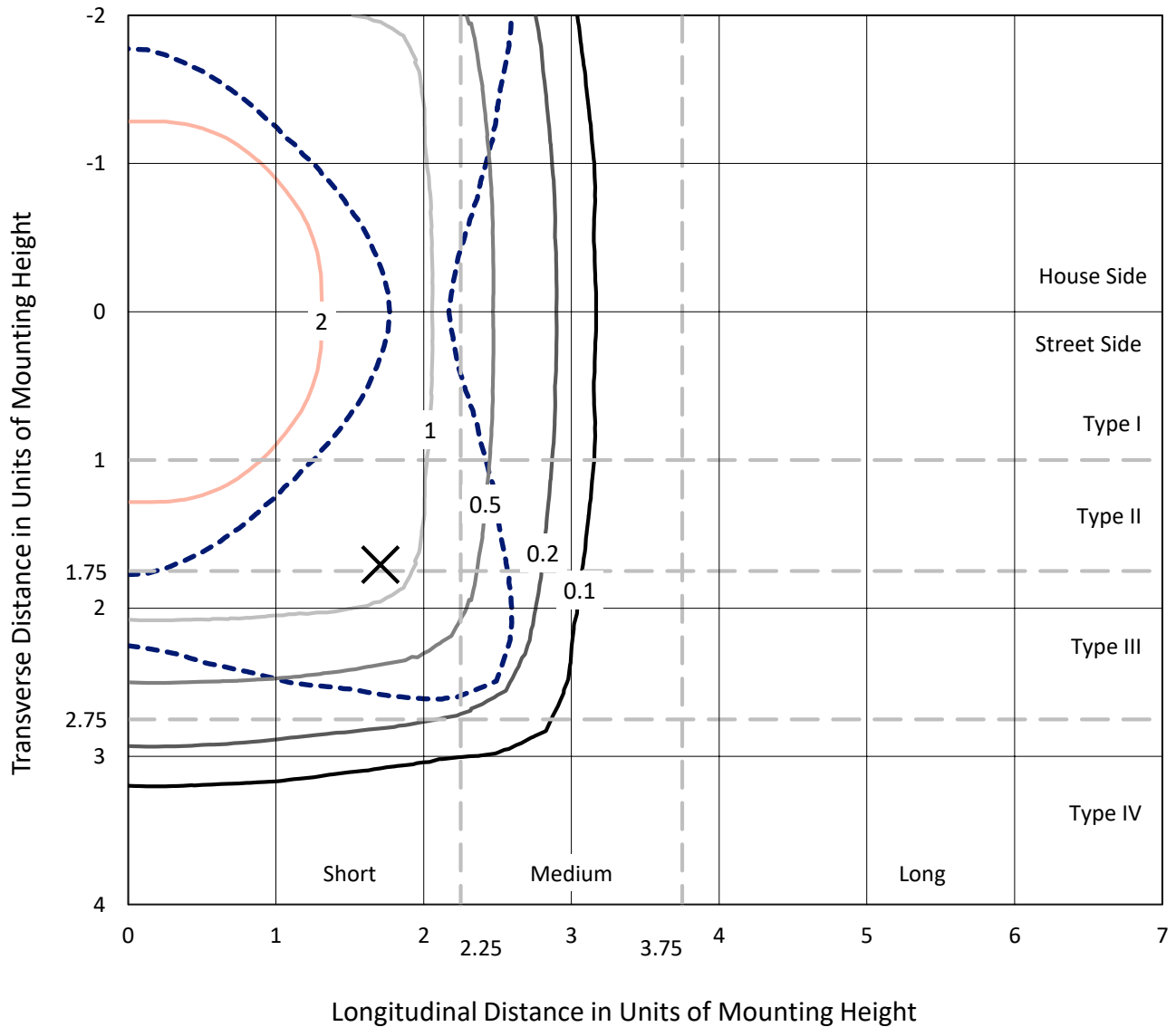


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

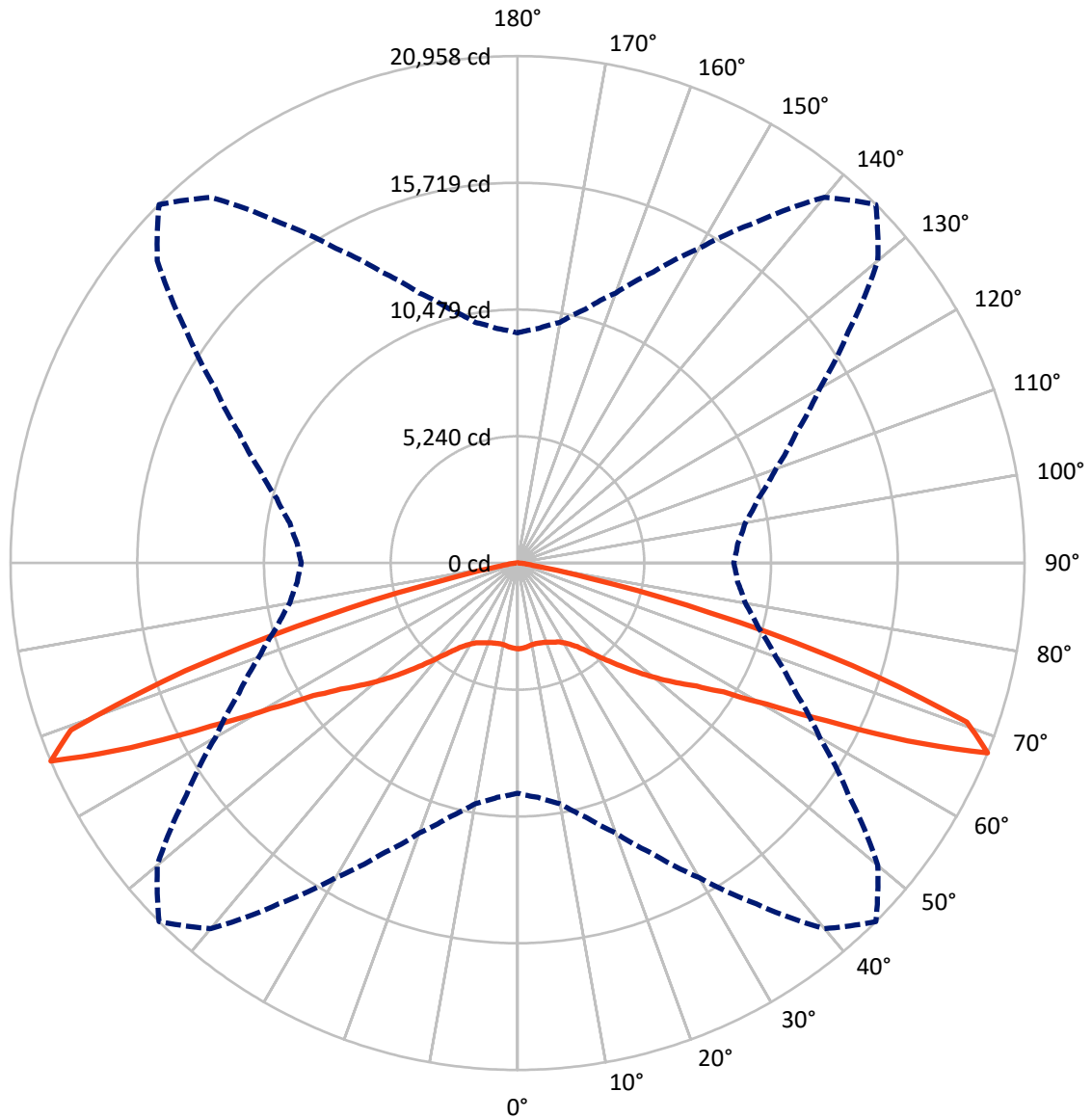


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Full Cutoff

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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	17805.2	0.0	17805.2
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	17805.2	0.0	17805.2
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	35610.4	0.0	35610.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	332.1	0.9
10°-20°	963.8	2.7
20°-30°	1638.5	4.6
30°-40°	2678.4	7.5
40°-50°	4781.4	13.4
50°-60°	8061.6	22.6
60°-70°	12510.4	35.1
70°-80°	4395.6	12.3
80°-90°	248.4	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°	35610.4	100.0
0°-180°	35610.4	100.0



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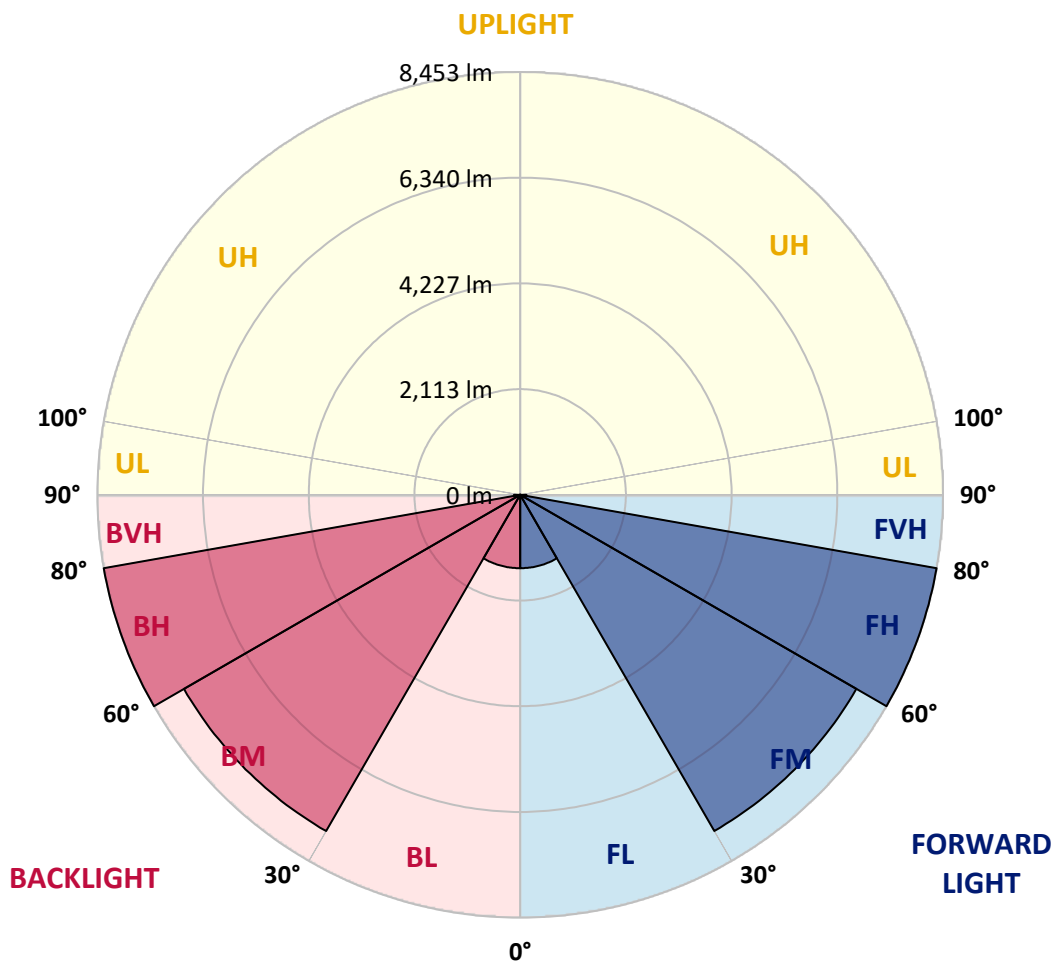
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1467.2	4.1			
FM	(30°-60°)	7760.7	21.8			
FH	(60°-80°)	8453.0	23.7			G4/12000
FVH	(80°-90°)	124.2	0.3			G2/225
BL	(0°-30°)	1467.2	4.1	B3/2500		
BM	(30°-60°)	7760.7	21.8	B4/8500		
BH	(60°-80°)	8453.0	23.7	B5		G4/12000
BVH	(80°-90°)	124.2	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-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7
2.5°	3535.6	3538.9	3538.9	3538.9	3537.3	3537.3	3534.0	3537.3	3535.6	3530.7	3532.3
5°	3506.1	3509.4	3509.4	3507.8	3512.7	3511.1	3506.1	3509.4	3507.8	3504.5	3506.1
7.5°	3463.6	3468.5	3468.5	3466.8	3471.8	3470.1	3466.8	3468.5	3468.5	3463.6	3463.6
10°	3416.1	3419.4	3419.4	3417.7	3425.9	3425.9	3424.3	3429.2	3430.8	3425.9	3422.6
12.5°	3371.9	3376.8	3376.8	3383.3	3391.5	3394.8	3403.0	3409.5	3416.1	3414.4	3407.9
15°	3345.7	3348.9	3355.5	3363.7	3376.8	3388.2	3401.3	3416.1	3429.2	3432.5	3422.6
17.5°	3329.3	3334.2	3344.0	3355.5	3373.5	3393.1	3412.8	3432.5	3450.5	3457.0	3445.6
20°	3324.4	3327.6	3337.5	3357.1	3381.7	3411.2	3439.0	3461.9	3486.5	3494.7	3486.5
22.5°	3334.2	3340.7	3352.2	3375.1	3407.9	3445.6	3478.3	3509.4	3540.5	3555.3	3543.8
25°	3378.4	3385.0	3399.7	3429.2	3465.2	3504.5	3542.2	3578.2	3606.0	3620.8	3612.6
27.5°	3460.3	3468.5	3486.5	3516.0	3555.3	3597.9	3638.8	3668.3	3691.2	3696.1	3686.3
30°	3583.1	3601.1	3622.4	3655.2	3701.0	3737.1	3778.0	3804.2	3832.0	3832.0	3823.8
32.5°	3774.7	3792.7	3815.7	3846.8	3882.8	3922.1	3958.1	3981.1	4010.5	4012.2	3992.5
35°	4061.3	4069.5	4089.1	4108.8	4141.5	4175.9	4207.0	4221.8	4246.4	4248.0	4230.0
37.5°	4439.6	4441.2	4454.3	4460.9	4490.4	4528.0	4557.5	4567.3	4590.3	4587.0	4569.0
40°	4880.1	4888.3	4893.2	4903.0	4934.2	4970.2	5001.3	5006.2	5030.8	5025.9	5002.9
42.5°	5389.4	5392.7	5420.5	5435.3	5464.7	5482.8	5522.1	5527.0	5556.4	5543.3	5517.1
45°	5960.9	5990.4	6016.6	6046.1	6077.2	6098.5	6129.6	6123.1	6142.7	6123.1	6108.3
47.5°	6561.9	6583.2	6642.2	6688.0	6738.8	6756.8	6801.0	6781.4	6801.0	6773.2	6768.3
50°	7223.5	7261.2	7312.0	7364.4	7418.4	7447.9	7505.2	7480.7	7506.9	7480.7	7465.9
52.5°	7875.3	7885.1	7996.5	8073.5	8148.8	8183.2	8217.6	8206.1	8207.8	8206.1	8191.4
55°	8494.3	8517.3	8628.6	8733.4	8864.4	8961.1	9020.0	9013.5	8998.7	8984.0	8959.4
57.5°	9192.0	9214.9	9342.6	9472.0	9621.0	9758.6	9878.1	10000.9	10048.4	10061.5	10007.5
60°	10135.2	10133.6	10303.9	10461.1	10674.0	10878.7	11140.7	11407.7	11713.9	11856.4	11668.0
62.5°	11094.9	11134.2	11379.8	11658.2	12097.1	12524.5	13007.6	13482.5	13967.3	14361.9	13942.7
65°	10980.2	11130.9	11496.1	12126.6	12937.2	13900.1	14941.7	16043.8	17039.4	17724.0	16955.9
67.5°	9516.2	9730.7	10102.5	10868.9	11882.6	13271.3	15020.3	17199.9	19733.3	20958.3	19440.2
70°	6897.7	7140.0	7529.8	8278.2	9282.0	10602.0	12501.6	15118.5	18472.4	19707.1	18035.1
72.5°	3432.5	3563.5	3804.2	4280.7	5040.6	6111.6	7834.4	10349.8	13317.1	14450.4	12922.5
75°	1166.0	1226.6	1267.5	1423.1	1663.8	2084.7	2941.2	4524.7	6902.6	8274.9	6804.3
77.5°	673.1	674.7	702.5	730.4	771.3	817.2	931.8	1223.3	2115.8	3005.0	2189.5
80°	435.6	434.0	456.9	478.2	506.0	529.0	535.5	566.6	653.4	774.6	692.7
82.5°	226.0	253.8	304.6	332.4	384.8	394.7	381.6	370.1	391.4	406.1	416.0
85°	124.5	108.1	162.1	209.6	232.5	235.8	235.8	222.7	230.9	226.0	245.6
87.5°	57.3	52.4	63.9	103.2	109.7	93.3	98.3	86.8	62.2	60.6	68.8
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°	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7	3548.7
2.5°	3532.3	3534.0	3534.0	3538.9	3540.5	3543.8	3547.1	3548.7
5°	3504.5	3509.4	3506.1	3511.1	3511.1	3514.3	3514.3	3516.0
7.5°	3463.6	3468.5	3468.5	3468.5	3466.8	3471.8	3471.8	3471.8
10°	3421.0	3424.3	3422.6	3419.4	3416.1	3421.0	3419.4	3417.7
12.5°	3407.9	3399.7	3393.1	3389.9	3383.3	3385.0	3380.0	3380.0
15°	3416.1	3401.3	3389.9	3385.0	3378.4	3375.1	3371.9	3373.5
17.5°	3437.4	3419.4	3404.6	3396.4	3388.2	3383.3	3376.8	3378.4
20°	3475.0	3453.7	3432.5	3416.1	3401.3	3393.1	3388.2	3386.6
22.5°	3530.7	3499.6	3468.5	3443.9	3424.3	3412.8	3407.9	3404.6
25°	3594.6	3560.2	3524.2	3496.3	3476.7	3461.9	3452.1	3452.1
27.5°	3674.8	3647.0	3614.2	3581.5	3563.5	3548.7	3542.2	3538.9
30°	3809.1	3782.9	3756.7	3725.6	3702.7	3687.9	3676.5	3666.6
32.5°	3981.1	3959.8	3938.5	3915.6	3894.3	3874.6	3856.6	3848.4
35°	4223.4	4207.0	4192.3	4166.1	4157.9	4146.5	4136.6	4128.4
37.5°	4557.5	4550.9	4550.9	4523.1	4516.6	4511.6	4501.8	4503.5
40°	4996.4	5002.9	4994.7	4984.9	4980.0	4966.9	4966.9	4978.4
42.5°	5515.5	5520.4	5538.4	5522.1	5540.1	5523.7	5513.9	5522.1
45°	6118.2	6136.2	6172.2	6155.8	6167.3	6139.4	6105.0	6106.7
47.5°	6794.5	6810.9	6825.6	6814.1	6815.8	6769.9	6724.1	6712.6
50°	7497.0	7503.6	7511.8	7495.4	7498.7	7447.9	7395.5	7397.1
52.5°	8191.4	8222.5	8255.2	8211.0	8201.2	8143.9	8070.2	8040.7
55°	8985.6	9029.8	8992.2	8915.2	8838.2	8761.3	8664.7	8648.3
57.5°	9964.9	9889.6	9771.7	9625.9	9519.5	9411.4	9313.1	9272.2
60°	11327.4	11044.1	10831.2	10615.1	10479.1	10346.5	10217.1	10197.5
62.5°	13253.3	12763.6	12339.5	11892.4	11527.2	11242.3	11014.6	10950.8
65°	15667.1	14509.3	13505.5	12568.7	11754.8	11140.7	10754.3	10583.9
67.5°	16705.4	14419.2	12698.1	11368.4	10303.9	9560.4	9142.8	8934.9
70°	14679.6	11957.9	10086.1	8754.7	7785.2	6992.6	6614.3	6391.6
72.5°	10099.2	7606.7	6015.0	4909.6	4135.0	3471.8	3209.7	3190.1
75°	4534.6	3003.4	2070.0	1595.0	1342.8	1167.6	1113.6	1072.6
77.5°	1269.2	938.4	836.8	782.8	730.4	669.8	646.9	651.8
80°	617.4	583.0	560.1	525.7	478.2	427.4	404.5	414.3
82.5°	409.4	404.5	419.2	394.7	325.9	276.8	232.5	212.9
85°	248.9	252.2	257.1	258.7	219.4	153.9	104.8	117.9
87.5°	98.3	113.0	122.8	127.7	119.5	73.7	59.0	60.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)