

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: P299497

Luminaire Tested: **GLNA-AF-08-LED-E1-5NQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299497  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-5NQ-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28068 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B4 - U0 - G2

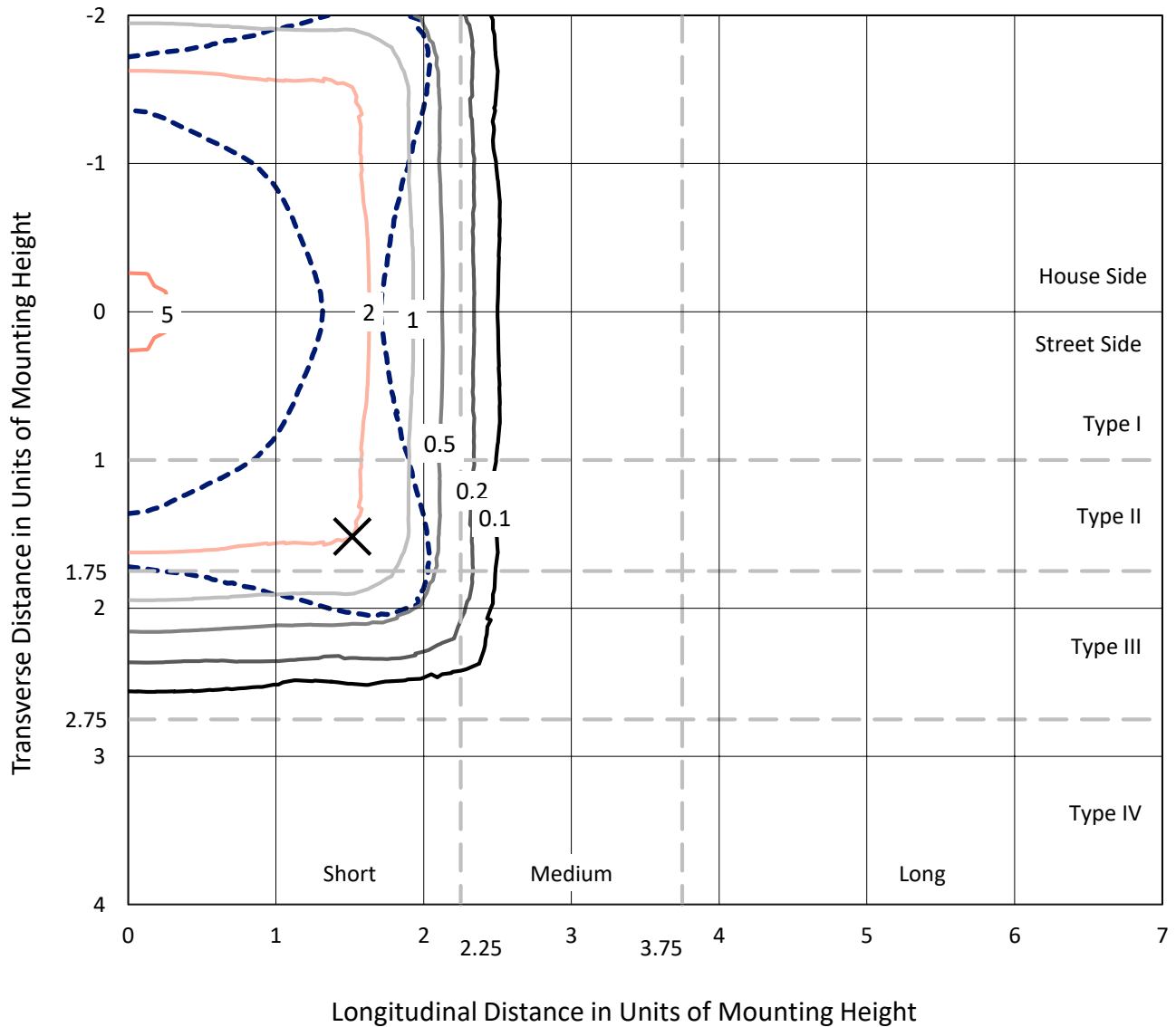
Input Watts (W): 257  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

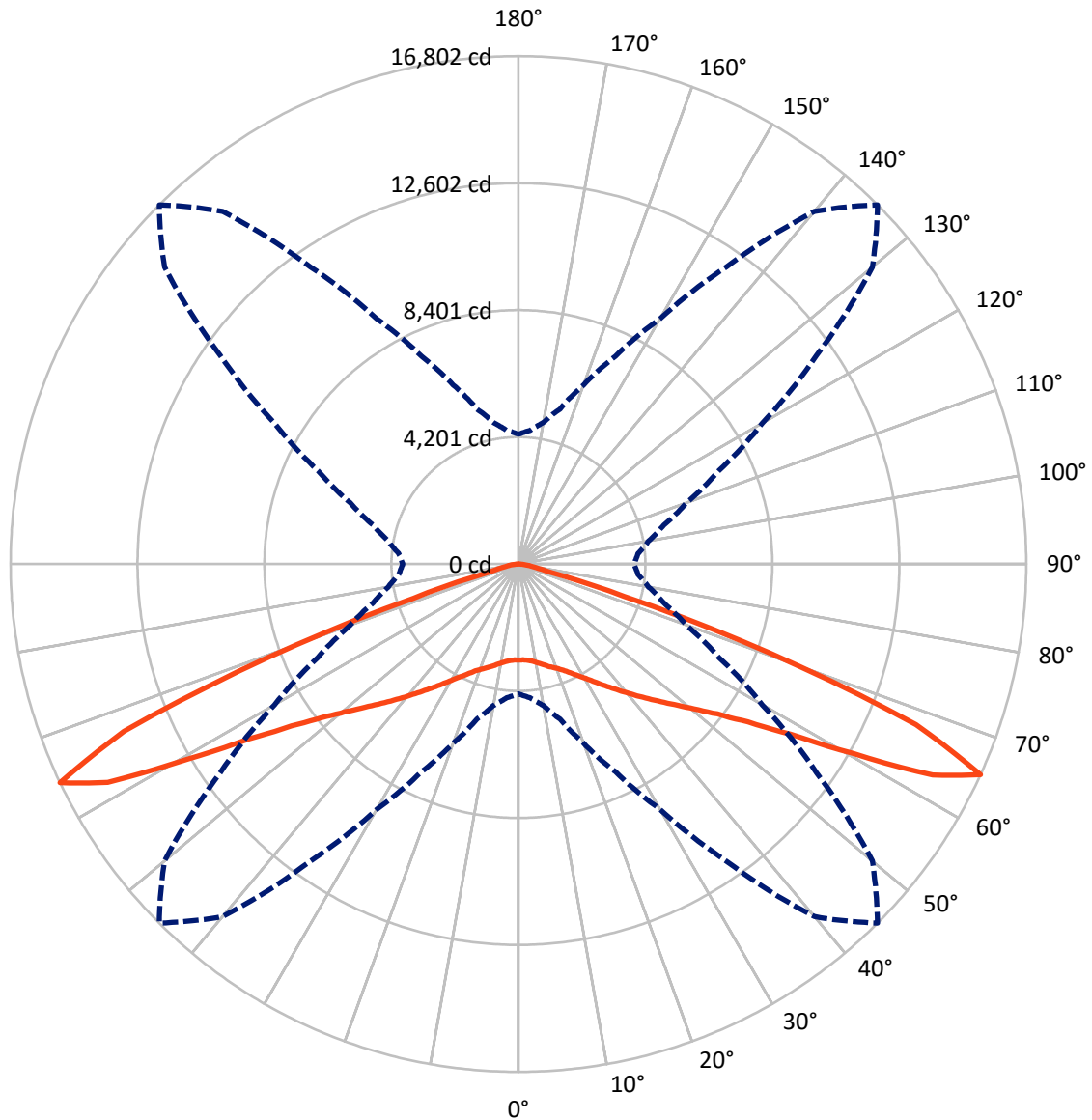
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.1 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	14034.0	0.0	14034.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	14034.0	0.0	14034.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	28068.0	0.0	28068.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	309.5	1.1
10°-20°	992.8	3.5
20°-30°	1856.3	6.6
30°-40°	3139.5	11.2
40°-50°	5133.5	18.3
50°-60°	8163.0	29.1
60°-70°	7378.8	26.3
70°-80°	933.8	3.3
80°-90°	160.6	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°	28068.0	100.0
0°-180°	28068.0	100.0



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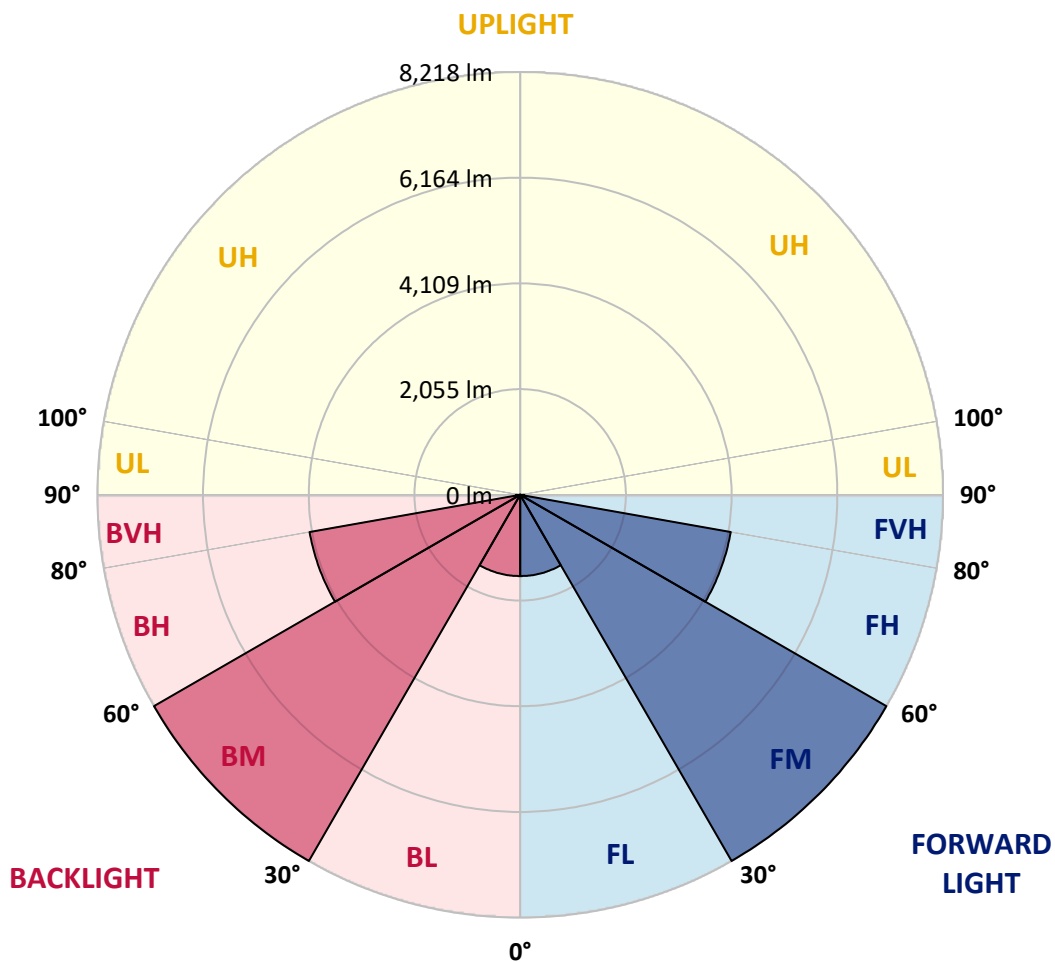
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1579.3	5.6			
FM	(30°-60°)	8218.0	29.3			
FH	(60°-80°)	4156.3	14.8			G2/5000
FVH	(80°-90°)	80.3	0.3			G1/100
BL	(0°-30°)	1579.3	5.6	B3/2500		
BM	(30°-60°)	8218.0	29.3	B4/8500		
BH	(60°-80°)	4156.3	14.8	B4/5000		G2/5000
BVH	(80°-90°)	80.3	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9
2.5°	3178.5	3181.2	3183.8	3181.2	3183.8	3179.9	3177.2	3181.2	3177.2	3173.3	3175.9
5°	3206.1	3207.5	3207.5	3203.5	3207.5	3204.8	3200.9	3206.1	3202.2	3198.3	3200.9
7.5°	3252.2	3257.4	3253.5	3249.5	3252.2	3249.5	3246.9	3248.2	3246.9	3242.9	3244.3
10°	3313.9	3317.9	3315.2	3313.9	3316.6	3315.2	3312.6	3311.3	3312.6	3308.7	3308.7
12.5°	3388.9	3387.5	3386.2	3387.5	3391.5	3391.5	3390.2	3391.5	3394.1	3395.4	3392.8
15°	3462.5	3465.1	3465.1	3465.1	3473.0	3479.6	3483.5	3486.1	3491.4	3492.7	3487.5
17.5°	3554.5	3554.5	3553.2	3554.5	3562.4	3572.9	3576.8	3582.1	3587.4	3591.3	3584.7
20°	3657.0	3659.7	3659.7	3662.3	3672.8	3684.6	3684.6	3687.3	3684.6	3687.3	3683.3
22.5°	3781.9	3789.8	3789.8	3791.1	3801.6	3816.1	3812.1	3816.1	3809.5	3814.8	3809.5
25°	3944.9	3956.7	3954.1	3954.1	3962.0	3971.2	3972.5	3980.4	3979.1	3985.7	3981.7
27.5°	4128.9	4147.3	4152.6	4151.3	4156.5	4165.7	4168.4	4177.6	4172.3	4177.6	4175.0
30°	4349.8	4357.7	4368.2	4372.1	4378.7	4387.9	4387.9	4389.2	4382.6	4390.5	4394.5
32.5°	4578.5	4593.0	4603.5	4627.1	4639.0	4645.6	4644.2	4646.9	4640.3	4650.8	4658.7
35°	4880.9	4891.4	4908.5	4926.9	4942.6	4941.3	4937.4	4938.7	4938.7	4947.9	4955.8
37.5°	5245.0	5247.6	5270.0	5296.2	5304.1	5296.2	5272.6	5267.3	5255.5	5267.3	5280.5
40°	5630.1	5639.3	5684.0	5701.1	5705.1	5690.6	5656.4	5636.7	5610.4	5624.9	5643.3
42.5°	6033.7	6052.1	6092.9	6123.1	6136.2	6127.0	6079.7	6049.5	6015.3	6023.2	6041.6
45°	6480.6	6503.0	6560.8	6589.7	6614.7	6600.3	6554.3	6508.2	6454.3	6458.3	6487.2
47.5°	6980.2	7002.5	7077.4	7126.1	7139.2	7136.6	7085.3	7022.2	6948.6	6946.0	6971.0
50°	7540.2	7562.5	7655.8	7730.8	7768.9	7764.9	7704.5	7615.1	7525.7	7527.0	7558.6
52.5°	8087.0	8114.6	8211.9	8340.7	8415.6	8469.5	8432.7	8348.6	8239.5	8242.1	8271.0
55°	8599.7	8645.7	8757.4	8932.2	9071.6	9222.8	9266.1	9263.5	9197.8	9216.2	9245.1
57.5°	8848.1	8916.5	9088.7	9364.7	9648.7	9956.3	10216.5	10411.1	10493.9	10618.8	10589.9
60°	8377.5	8486.6	8740.3	9146.5	9707.8	10349.3	11036.8	11708.5	12281.7	12714.1	12465.7
62.5°	6859.2	7001.2	7308.8	7829.3	8678.5	9705.2	11021.0	12609.0	14338.9	15382.6	14637.3
65°	4291.9	4439.2	4752.0	5309.4	6303.2	7579.6	9364.7	11996.4	15228.8	16802.3	15285.4
67.5°	1673.4	1753.6	1923.2	2279.4	3026.1	4161.8	5953.5	8940.1	12806.2	14185.1	12568.2
70°	838.7	846.6	878.1	943.8	1104.2	1434.2	2182.1	4144.7	7344.3	8870.5	7080.1
72.5°	606.0	607.3	623.1	652.0	703.3	776.9	918.9	1268.5	2388.5	3650.5	2238.6
75°	464.0	469.3	478.5	494.3	521.9	558.7	609.9	730.9	905.7	1050.3	883.4
77.5°	357.6	368.1	374.6	389.1	406.2	431.2	445.6	491.6	571.8	602.1	592.9
80°	272.1	281.3	295.8	307.6	319.4	331.3	326.0	347.0	389.1	414.1	400.9
82.5°	173.5	184.0	226.1	236.6	241.9	249.8	240.6	241.9	260.3	276.1	260.3
85°	111.7	118.3	143.3	156.4	157.7	163.0	159.1	149.9	149.9	136.7	153.8
87.5°	51.3	52.6	64.4	76.2	78.9	71.0	69.7	67.0	53.9	51.3	55.2
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°	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9	3175.9
2.5°	3174.6	3177.2	3178.5	3182.5	3183.8	3183.8	3185.1	3187.7
5°	3199.6	3203.5	3204.8	3210.1	3211.4	3210.1	3212.7	3214.0
7.5°	3244.3	3250.8	3253.5	3258.7	3254.8	3260.0	3261.4	3261.4
10°	3310.0	3316.6	3317.9	3323.1	3320.5	3323.1	3323.1	3320.5
12.5°	3396.7	3398.1	3394.1	3398.1	3392.8	3395.4	3391.5	3388.9
15°	3492.7	3488.8	3479.6	3479.6	3471.7	3473.0	3471.7	3470.4
17.5°	3586.0	3578.2	3571.6	3569.0	3562.4	3561.1	3557.1	3557.1
20°	3688.6	3684.6	3680.7	3675.4	3668.9	3662.3	3661.0	3663.6
22.5°	3812.1	3810.8	3810.8	3808.2	3799.0	3792.4	3788.5	3788.5
25°	3977.8	3965.9	3965.9	3964.6	3960.7	3956.7	3948.9	3952.8
27.5°	4164.4	4157.9	4163.1	4161.8	4157.9	4157.9	4152.6	4152.6
30°	4394.5	4391.8	4399.7	4393.2	4380.0	4378.7	4373.4	4366.9
32.5°	4660.0	4657.4	4669.2	4661.3	4640.3	4628.5	4617.9	4612.7
35°	4955.8	4957.1	4971.6	4966.3	4942.6	4934.8	4916.3	4913.7
37.5°	5279.2	5300.2	5325.2	5330.4	5310.7	5305.4	5285.7	5275.2
40°	5659.1	5686.7	5724.8	5734.0	5713.0	5709.0	5681.4	5666.9
42.5°	6063.9	6111.3	6158.6	6166.5	6145.4	6124.4	6098.1	6087.6
45°	6516.1	6572.7	6634.4	6650.2	6618.7	6593.7	6559.5	6559.5
47.5°	7023.5	7094.5	7164.2	7207.6	7178.7	7152.4	7111.6	7085.3
50°	7623.0	7720.2	7810.9	7855.6	7809.6	7759.7	7688.7	7665.0
52.5°	8374.9	8480.0	8558.9	8535.3	8464.3	8394.6	8317.0	8285.5
55°	9334.5	9370.0	9370.0	9280.6	9138.6	9021.6	8899.4	8858.6
57.5°	10534.7	10397.9	10187.6	9920.8	9585.6	9293.7	9096.6	9003.2
60°	11945.1	11287.9	10545.2	9815.6	9216.2	8721.9	8428.8	8294.7
62.5°	12885.0	11165.6	9677.6	8506.3	7644.0	7048.5	6643.6	6485.9
65°	12042.4	9312.1	7319.3	5918.0	4978.1	4372.1	3971.2	3824.0
67.5°	8820.5	5835.2	3897.6	2793.4	2046.7	1632.6	1468.3	1400.0
70°	3959.4	2054.6	1259.3	983.3	847.9	778.2	748.0	737.5
72.5°	1193.6	863.6	728.3	657.3	603.4	569.2	544.2	541.6
75°	720.4	599.4	532.4	490.3	456.1	428.5	415.4	411.4
77.5°	503.5	440.4	408.8	378.6	352.3	331.3	319.4	310.2
80°	353.6	323.4	308.9	291.8	274.7	255.0	237.9	230.0
82.5°	236.6	230.0	230.0	219.5	205.1	186.7	152.5	144.6
85°	152.5	151.2	153.8	149.9	139.3	119.6	98.6	93.3
87.5°	71.0	72.3	80.2	78.9	76.2	63.1	50.0	47.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)