

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: P299749

Luminaire Tested: **GLNA-AF-10-LED-E1-5MQ-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299749  
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-10-LED-E1-5MQ-7027-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 35304.1 lumens  
Efficiency: N/A  
Efficacy: 109.3 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 - G4

Input Watts (W): 323  
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

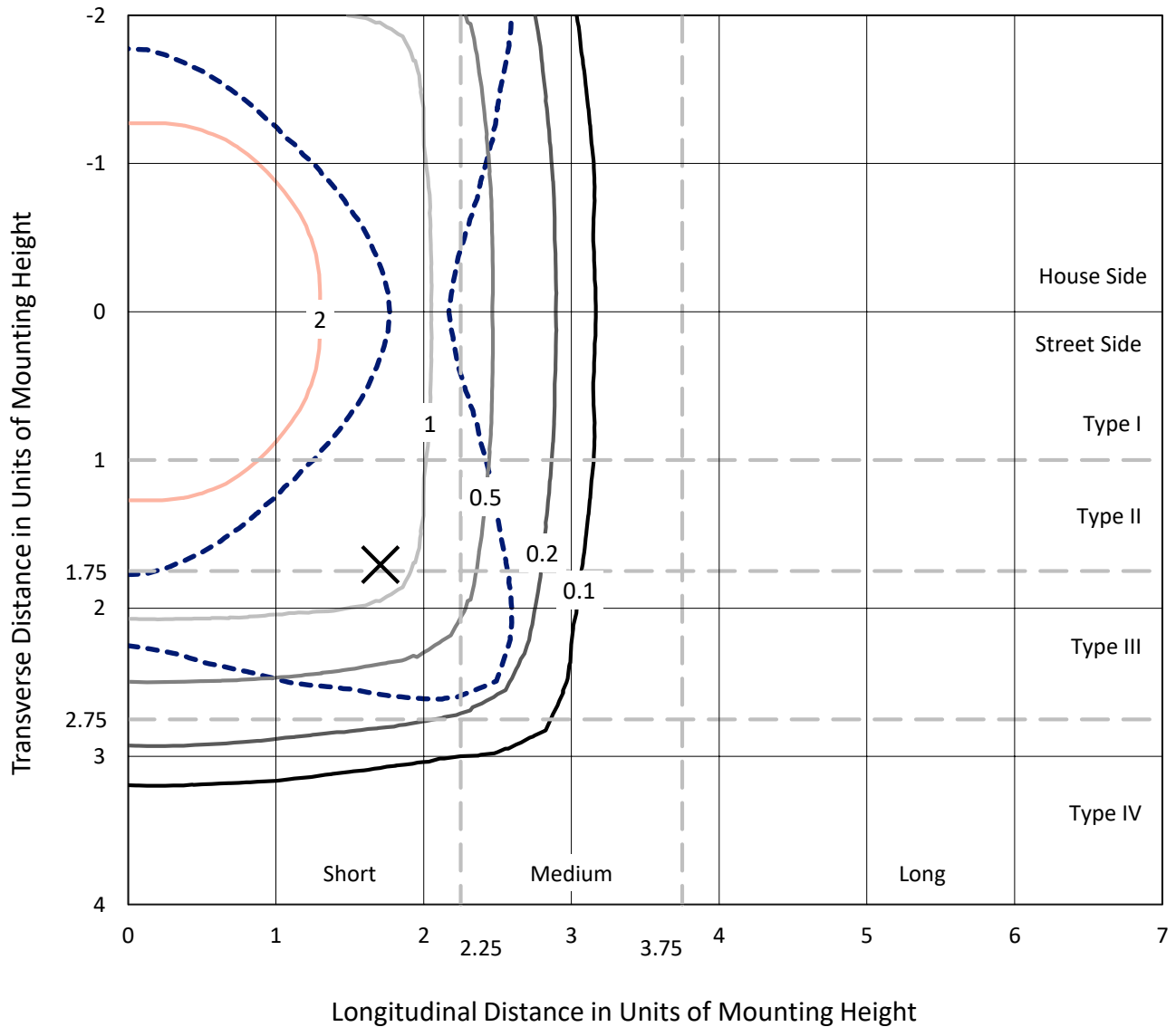


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

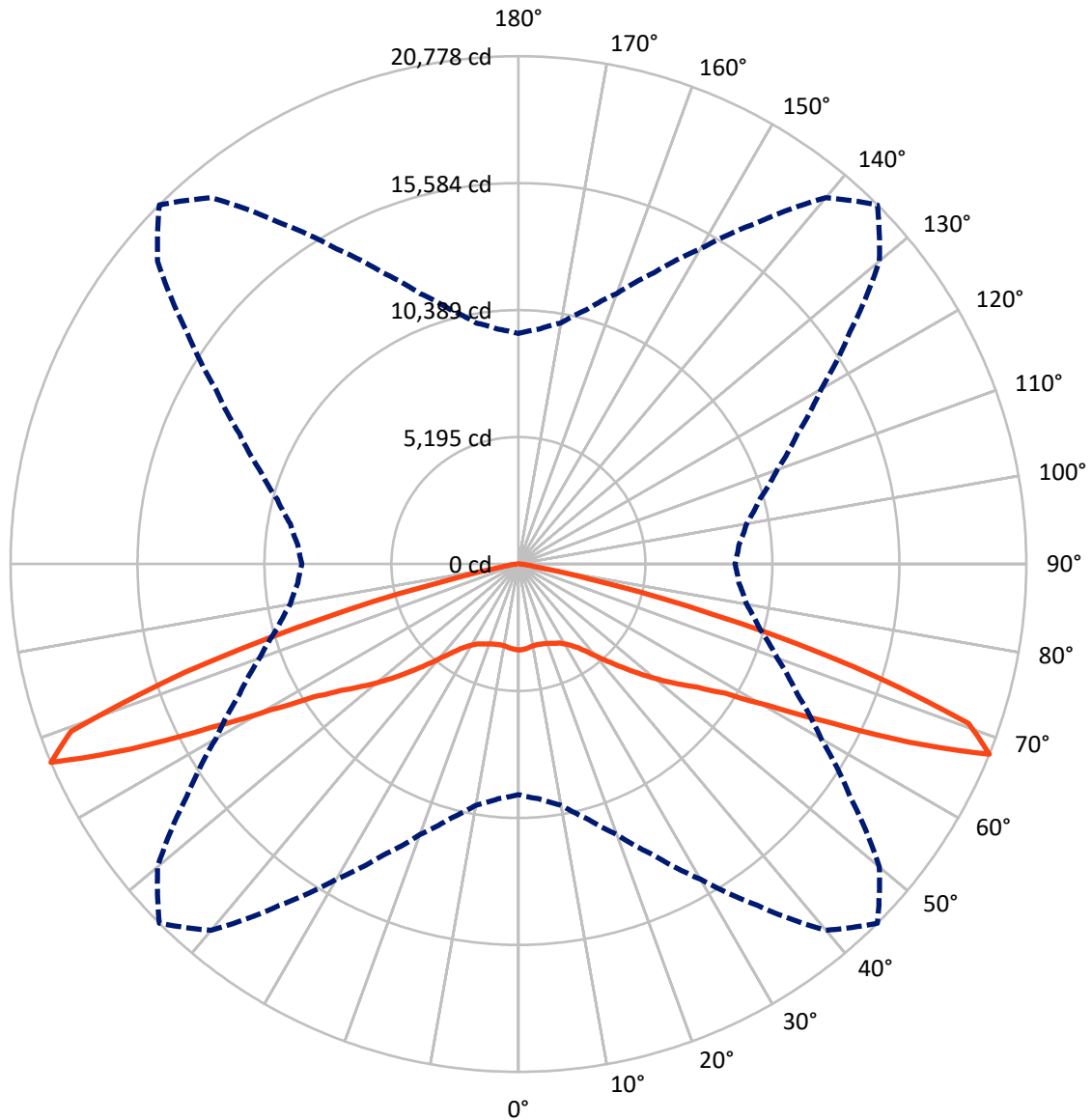


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Full Cutoff

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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	17652.0	0.0	17652.0
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	17652.0	0.0	17652.0
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	35304.1	0.0	35304.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	329.3	0.9
10°-20°	955.5	2.7
20°-30°	1624.4	4.6
30°-40°	2655.4	7.5
40°-50°	4740.3	13.4
50°-60°	7992.3	22.6
60°-70°	12402.8	35.1
70°-80°	4357.8	12.3
80°-90°	246.3	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°	35304.1	100.0
0°-180°	35304.1	100.0



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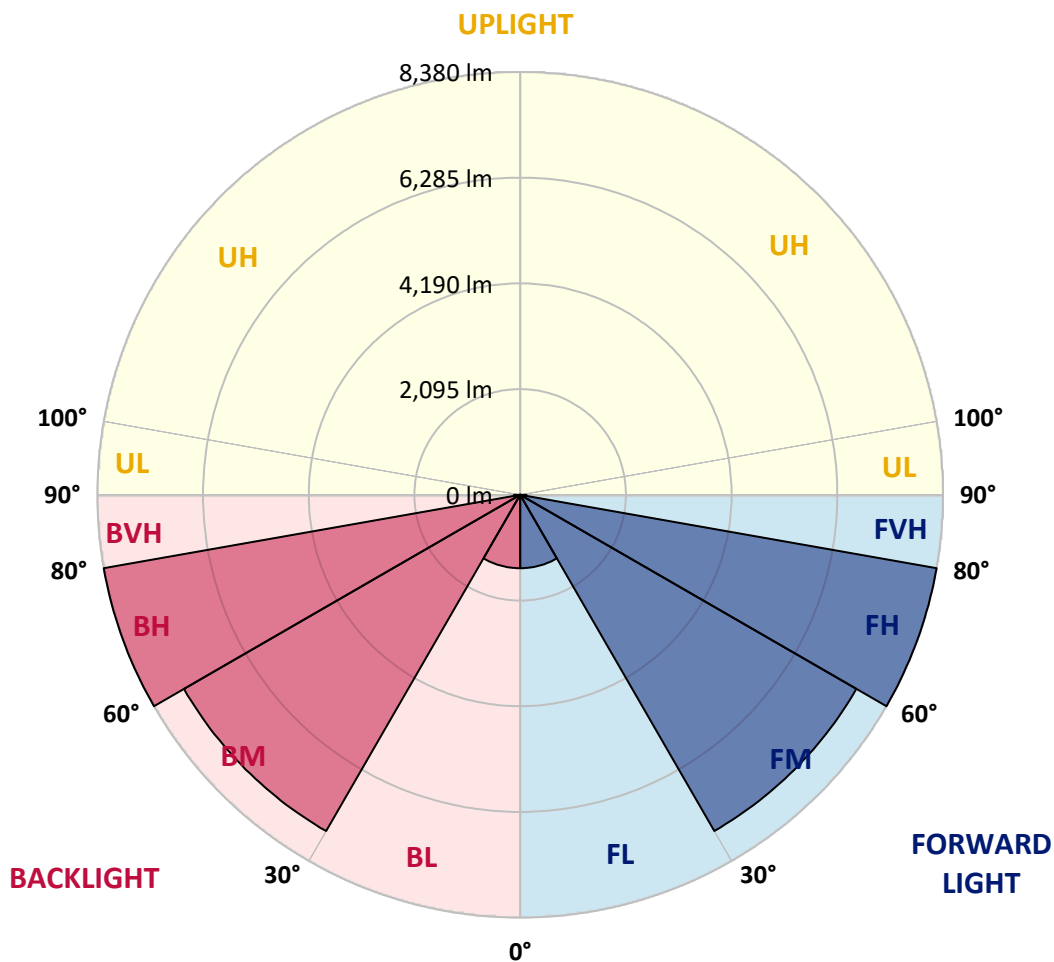
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1454.6	4.1			
FM	(30°-60°)	7694.0	21.8			
FH	(60°-80°)	8380.3	23.7			G4/12000
FVH	(80°-90°)	123.1	0.3			G2/225
BL	(0°-30°)	1454.6	4.1	B3/2500		
BM	(30°-60°)	7694.0	21.8	B4/8500		
BH	(60°-80°)	8380.3	23.7	B5		G4/12000
BVH	(80°-90°)	123.1	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°	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2
2.5°	3505.2	3508.5	3508.5	3508.5	3506.8	3506.8	3503.6	3506.8	3505.2	3500.3	3502.0
5°	3476.0	3479.2	3479.2	3477.6	3482.5	3480.9	3476.0	3479.2	3477.6	3474.4	3476.0
7.5°	3433.8	3438.6	3438.6	3437.0	3441.9	3440.3	3437.0	3438.6	3438.6	3433.8	3433.8
10°	3386.7	3389.9	3389.9	3388.3	3396.4	3396.4	3394.8	3399.7	3401.3	3396.4	3393.2
12.5°	3342.9	3347.7	3347.7	3354.2	3362.3	3365.6	3373.7	3380.2	3386.7	3385.1	3378.6
15°	3316.9	3320.1	3326.6	3334.7	3347.7	3359.1	3372.1	3386.7	3399.7	3402.9	3393.2
17.5°	3300.6	3305.5	3315.3	3326.6	3344.5	3364.0	3383.4	3402.9	3420.8	3427.3	3415.9
20°	3295.8	3299.0	3308.8	3328.2	3352.6	3381.8	3409.4	3432.2	3456.5	3464.6	3456.5
22.5°	3305.5	3312.0	3323.4	3346.1	3378.6	3415.9	3448.4	3479.2	3510.1	3524.7	3513.3
25°	3349.4	3355.8	3370.5	3399.7	3435.4	3474.4	3511.7	3547.4	3575.0	3589.6	3581.5
27.5°	3430.5	3438.6	3456.5	3485.7	3524.7	3566.9	3607.5	3636.7	3659.4	3664.3	3654.6
30°	3552.3	3570.2	3591.3	3623.7	3669.2	3704.9	3745.5	3771.5	3799.1	3799.1	3791.0
32.5°	3742.2	3760.1	3782.8	3813.7	3849.4	3888.4	3924.1	3946.8	3976.0	3977.7	3958.2
35°	4026.4	4034.5	4054.0	4073.4	4105.9	4140.0	4170.9	4185.5	4209.8	4211.5	4193.6
37.5°	4401.4	4403.0	4416.0	4422.5	4451.7	4489.1	4518.3	4528.0	4550.8	4547.5	4529.7
40°	4838.1	4846.3	4851.1	4860.9	4891.7	4927.4	4958.3	4963.1	4987.5	4982.6	4959.9
42.5°	5343.1	5346.3	5373.9	5388.5	5417.7	5435.6	5474.6	5479.4	5508.7	5495.7	5469.7
45°	5909.7	5938.9	5964.9	5994.1	6024.9	6046.0	6076.9	6070.4	6089.9	6070.4	6055.8
47.5°	6505.5	6526.6	6585.1	6630.5	6680.8	6698.7	6742.5	6723.1	6742.5	6714.9	6710.1
50°	7161.4	7198.8	7249.1	7301.0	7354.6	7383.8	7440.7	7416.3	7442.3	7416.3	7401.7
52.5°	7807.6	7817.3	7927.7	8004.0	8078.7	8112.8	8146.9	8135.5	8137.2	8135.5	8120.9
55°	8421.3	8444.0	8554.4	8658.3	8788.2	8884.0	8942.4	8935.9	8921.3	8906.7	8882.4
57.5°	9112.9	9135.6	9262.3	9390.5	9538.3	9674.6	9793.2	9914.9	9962.0	9975.0	9921.4
60°	10048.1	10046.4	10215.3	10371.1	10582.2	10785.1	11044.9	11309.5	11613.1	11754.4	11567.7
62.5°	10999.5	11038.4	11281.9	11557.9	11993.1	12416.8	12895.7	13366.6	13847.1	14238.4	13822.8
65°	10885.8	11035.2	11397.2	12022.3	12825.9	13780.6	14813.1	15905.8	16892.9	17571.5	16810.1
67.5°	9434.4	9647.0	10015.6	10775.4	11780.4	13157.1	14891.1	17052.0	19563.6	20778.0	19273.0
70°	6838.3	7078.6	7465.0	8207.0	9202.2	10510.8	12394.1	14988.5	18313.5	19537.6	17880.0
72.5°	3402.9	3532.8	3771.5	4243.9	4997.2	6059.0	7767.0	10260.7	13202.6	14326.1	12811.3
75°	1156.0	1216.0	1256.6	1410.9	1649.5	2066.8	2915.9	4485.8	6843.2	8203.7	6745.8
77.5°	667.3	668.9	696.5	724.1	764.7	810.1	923.8	1212.8	2097.6	2979.2	2170.7
80°	431.9	430.2	453.0	474.1	501.7	524.4	530.9	561.7	647.8	767.9	686.8
82.5°	224.0	251.6	302.0	329.6	381.5	391.3	378.3	366.9	388.0	402.6	412.4
85°	123.4	107.2	160.7	207.8	230.5	233.8	233.8	220.8	228.9	224.0	243.5
87.5°	56.8	52.0	63.3	102.3	108.8	92.5	97.4	86.0	61.7	60.1	68.2
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°	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2	3518.2
2.5°	3502.0	3503.6	3503.6	3508.5	3510.1	3513.3	3516.6	3518.2
5°	3474.4	3479.2	3476.0	3480.9	3480.9	3484.1	3484.1	3485.7
7.5°	3433.8	3438.6	3438.6	3438.6	3437.0	3441.9	3441.9	3441.9
10°	3391.6	3394.8	3393.2	3389.9	3386.7	3391.6	3389.9	3388.3
12.5°	3378.6	3370.5	3364.0	3360.7	3354.2	3355.8	3351.0	3351.0
15°	3386.7	3372.1	3360.7	3355.8	3349.4	3346.1	3342.9	3344.5
17.5°	3407.8	3389.9	3375.3	3367.2	3359.1	3354.2	3347.7	3349.4
20°	3445.1	3424.0	3402.9	3386.7	3372.1	3364.0	3359.1	3357.5
22.5°	3500.3	3469.5	3438.6	3414.3	3394.8	3383.4	3378.6	3375.3
25°	3563.7	3529.6	3493.8	3466.2	3446.8	3432.2	3422.4	3422.4
27.5°	3643.2	3615.6	3583.1	3550.7	3532.8	3518.2	3511.7	3508.5
30°	3776.3	3750.4	3724.4	3693.5	3670.8	3656.2	3644.8	3635.1
32.5°	3946.8	3925.7	3904.6	3881.9	3860.8	3841.3	3823.4	3815.3
35°	4187.1	4170.9	4156.2	4130.3	4122.2	4110.8	4101.0	4092.9
37.5°	4518.3	4511.8	4511.8	4484.2	4477.7	4472.8	4463.1	4464.7
40°	4953.4	4959.9	4951.8	4942.0	4937.2	4924.2	4924.2	4935.5
42.5°	5468.1	5472.9	5490.8	5474.6	5492.4	5476.2	5466.4	5474.6
45°	6065.5	6083.4	6119.1	6102.9	6114.2	6086.6	6052.5	6054.2
47.5°	6736.0	6752.3	6766.9	6755.5	6757.2	6711.7	6666.2	6654.9
50°	7432.5	7439.0	7447.2	7430.9	7434.2	7383.8	7331.9	7333.5
52.5°	8120.9	8151.8	8184.2	8140.4	8130.7	8073.8	8000.8	7971.6
55°	8908.3	8952.2	8914.8	8838.5	8762.2	8685.9	8590.1	8573.9
57.5°	9879.2	9804.5	9687.6	9543.1	9437.6	9330.5	9233.0	9192.5
60°	11230.0	10949.1	10738.1	10523.8	10389.0	10257.5	10129.2	10109.8
62.5°	13139.3	12653.8	12233.3	11790.1	11428.1	11145.6	10919.9	10856.6
65°	15532.4	14384.5	13389.3	12460.6	11653.7	11044.9	10661.8	10492.9
67.5°	16561.7	14295.2	12588.9	11270.6	10215.3	9478.2	9064.2	8858.0
70°	14553.4	11855.1	9999.4	8679.4	7718.3	6932.5	6557.5	6336.7
72.5°	10012.3	7541.3	5963.2	4867.4	4099.4	3441.9	3182.1	3162.6
75°	4495.6	2977.6	2052.1	1581.3	1331.3	1157.6	1104.0	1063.4
77.5°	1258.2	930.3	829.6	776.0	724.1	664.0	641.3	646.2
80°	612.1	578.0	555.2	521.2	474.1	423.7	401.0	410.8
82.5°	405.9	401.0	415.6	391.3	323.1	274.4	230.5	211.1
85°	246.8	250.0	254.9	256.5	217.6	152.6	103.9	116.9
87.5°	97.4	112.0	121.8	126.6	118.5	73.1	58.4	60.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)