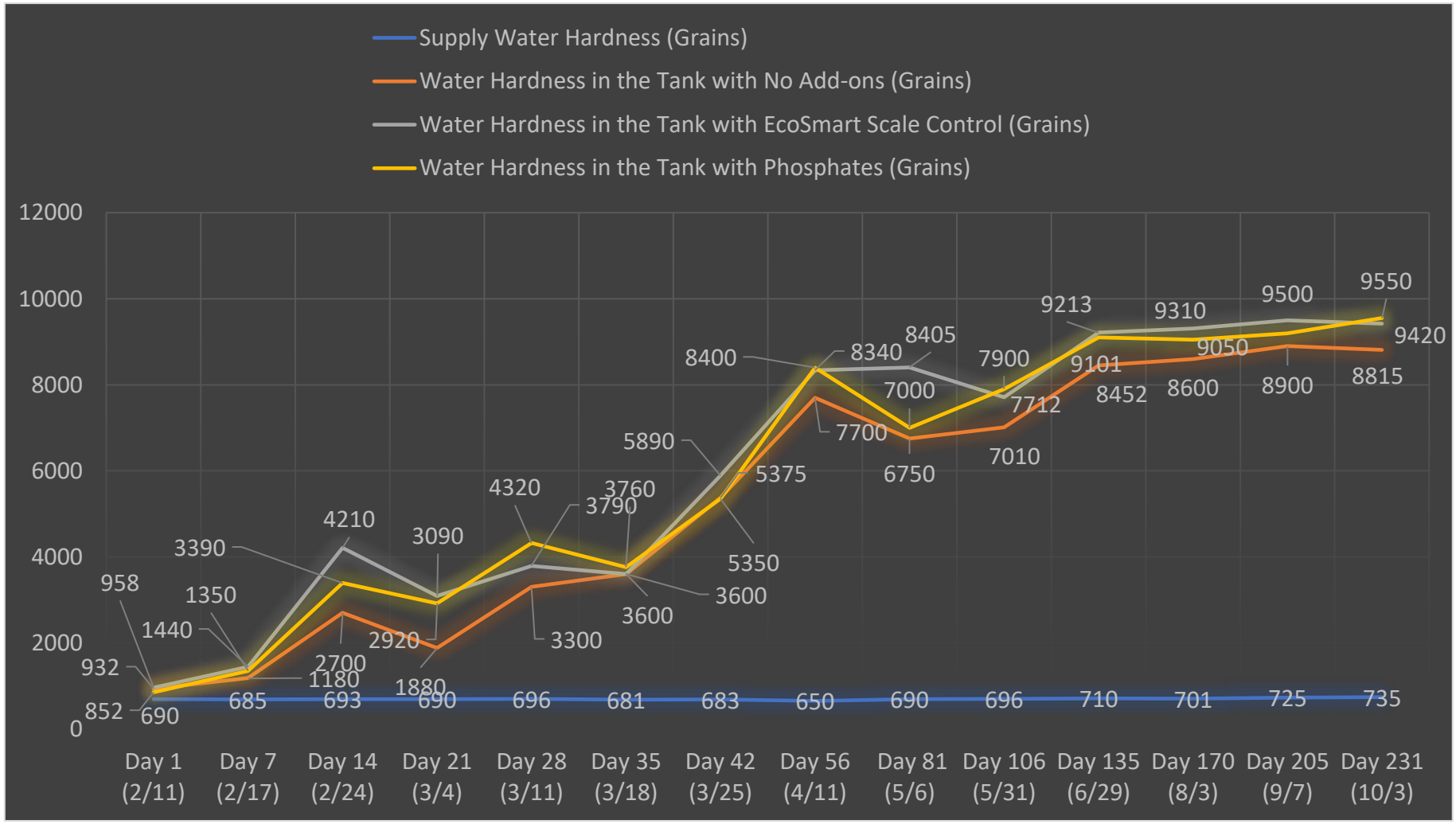
Evaporative Unit Testing Results

EcoSmart Scale Control vs Phosphates vs No Add-Ons

This data has been used to show that the EcoSmart Scale Control Unit, designed and sold by Celtic Plastic, LLC is able to provide, a better performing cooler, and for longer, based on results gathered in this document.

*Test is ongoing, and results will be updated monthly to show the continuation of our product against the data points collected in this presentation



In the Figure above, we can see the supplied water hardness ranged from 650 to 735 over the course of 231 days.

We can also see a relationship of water hardness in the tanks. All 3 tanks had relatively similar paths, with the EcoSmart and Phosphate tanks having the most by the end of the testing. We think this occurred because the tanks were not being cleaned out, thus allowing a build-up of scale/hardness over time to accumulate in the tank.

Fan Motor Current and Water Pump Current Results

- These results are not worth graphing as the Wattage on the Fan Motor fluctuated by 10 Watts max. Additionally, the Water Pump Current fluctuated less than 2 watts. The Units stayed in good current ranges from where they started to when testing ended.
- The Supply Voltage for this test maintained 120 volts of constant non-fluctuating current.

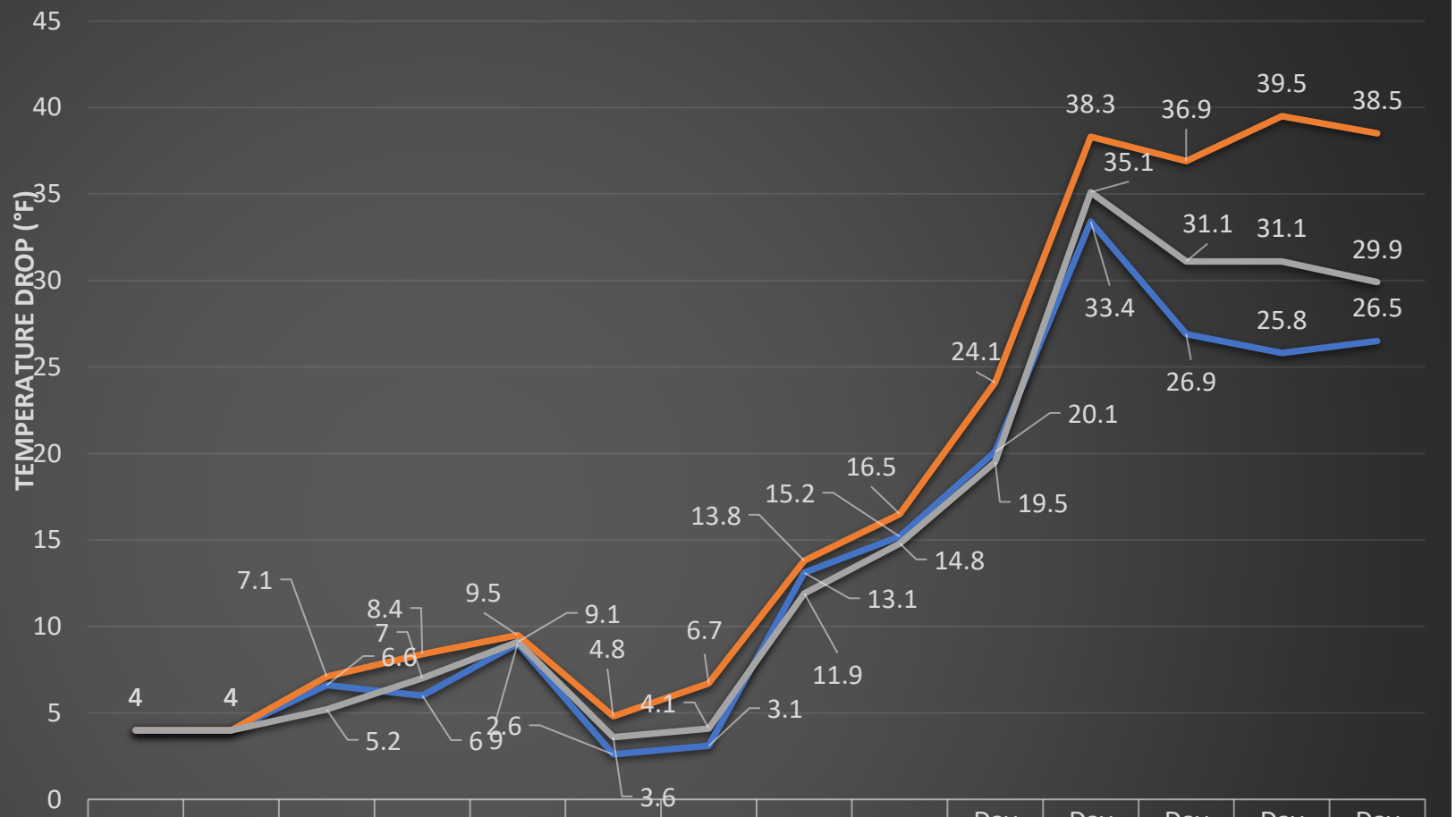
Water Pump Current (Watts)	Day 1	Day 7	Day 14	Day 21	Day 28	Day 35	Day 42	Day 56	Day 81	Day 106	Day 135	Day 170	Day 205	Day 231
No Add-Ons	N/A	N/A	N/A	30.1	30.3	30.4	30.5	30.7	30.4	31.1	30.9	30.9	31.5	31.3
Phosphate	N/A	N/A	N/A	30	31	30.9	30.5	30.9	31.1	31.5	31.2	30.9	31.2	31.3
EcoSmart	N/A	N/A	N/A	30	30	31	31.2	31.1	30.9	31.1	31.6	31.1	31.9	32.0

Fan Motor Current (Watts)	Day 1	Day 7	Day 14	Day 21	Day 28	Day 35	Day 42	Day 56	Day 81	Day 106	Day 135	Day 170	Day 205	Day 231
No Add-Ons	N/A	N/A	N/A	355	340	349	344	351	344	349	360	362	370	372
Phosphate	N/A	N/A	N/A	540	540	535	520	524	529	519	530	522	530	531
EcoSmart	N/A	N/A	N/A	353	351	345	352	349	350	350	355	347	350	

Temperature Drop Test

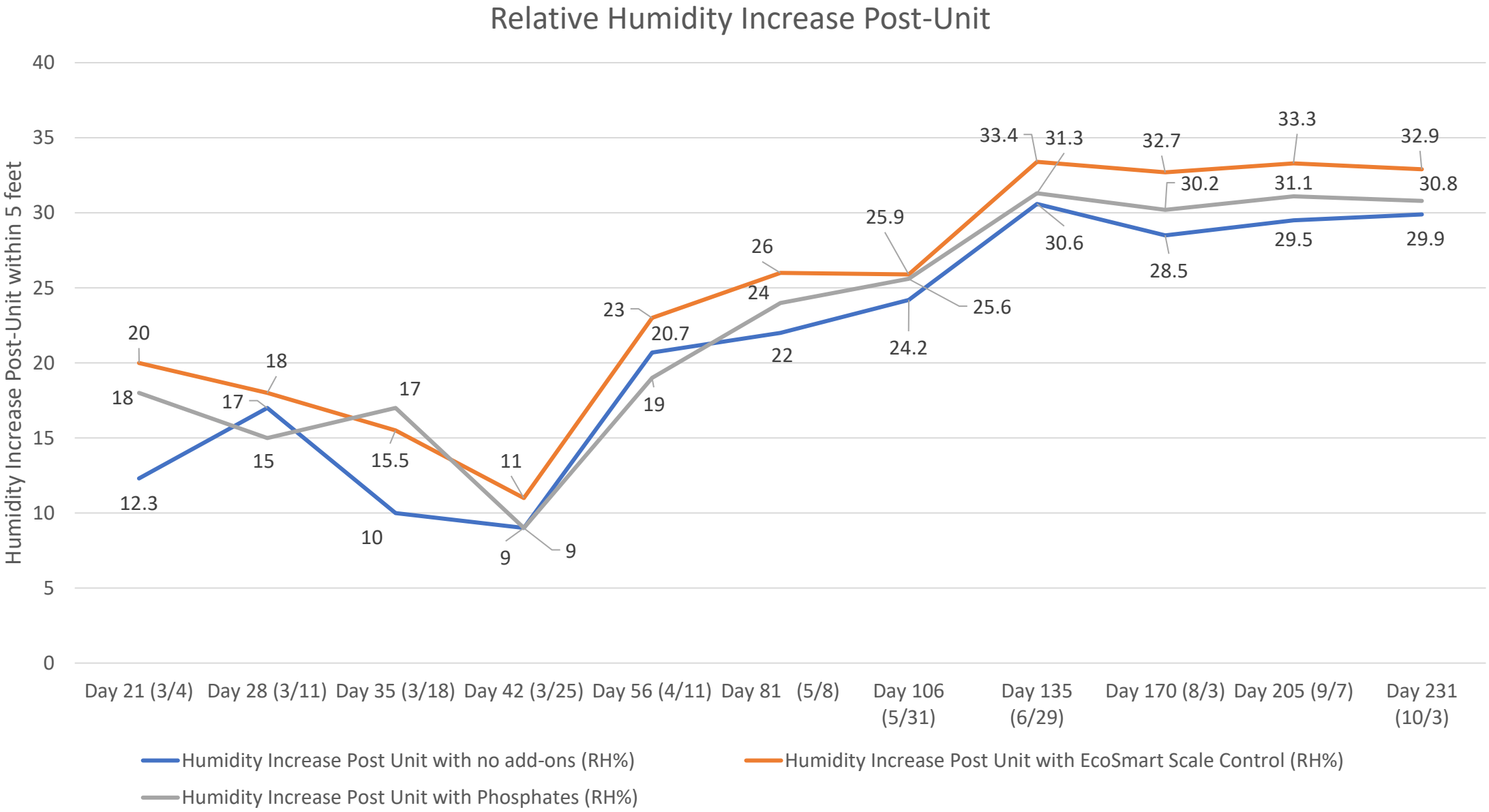
Based on the statistical data provided, we can make the conclusion that the EcoSmart Scale Control setup provided the greatest temperature drop during each recording session.

Each recording took place 5 feet in front and behind the unit and was measured using a humidity and temperature tracker.



	Day 1 (2/11)	Day 7 (2/17)	Day 14 (2/24)	Day 21 (3/4)	Day 28 (3/11)	Day 35 (3/18)	Day 42 (3/25)	Day 56 (4/11)	Day 81 (5/8)	Day 106 (5/31)	Day 135 (6/29)	Day 170 (8/3)	Day 205 (9/7)	Day 231 (10/3)
No Add-ons Temperature Drop (°F)	4	4	6.6	6	9	2.6	3.1	13.1	15.2	20.1	33.4	26.9	25.8	26.5
EcoSmart Scale Control Temperature Drop (°F)	4	4	7.1	8.4	9.5	4.8	6.7	13.8	16.5	24.1	38.3	36.9	39.5	38.5
Phosphate Temperature Drop (°F)	4	4	5.2	7	9.1	3.6	4.1	11.9	14.8	19.5	35.1	31.1	31.1	29.9

No Add-ons Temperature Drop (°F) EcoSmart Scale Control Temperature Drop (°F) Phosphate Temperature Drop (°F)



Based on the information provided, the EcoSmart Unit provided the most humidity increases per testing data. Negligible effects were felt between the 3 units.

Average Weight Gained each day per pad:

No Add-Ons: 0.242 Oz/day

EcoSmart: 0.108 Oz/day

Phosphates: 0.221 Oz/day

Based on the calculations above, EcoSmart Scale Control over a 231 day period, provided a 210% more efficient unit for a day-by-day hard scale increase on this pad location, when compared to Phosphate Sticks.

	Day 1 (2/11)	Day 7 (2/17)	Day 14 (2/24)	Day 21 (3/4)	Day 28 (3/11)	Day 35 (3/18)	Day 42 (3/25)	Day 56 (4/11)	Day 81 (5/8)	Day 106 (5/31)	Day 135 (6/29)	Day 170 (8/3)	Day 205 (9/7)	Day 231 (10/3)
Weight of Dried Left Pad - No Add-ons (Oz)	32	35	39	40	40	41	42	46	51	56	62	70	82	88
Weight of Dried Left Pad - EcoSmart Scale Control (Oz)	27	27	29	30	30	31	32	33	35	38	43	46	49	52
Weight of Dried Left Pad - Phosphates (Oz)	24	25	30	31	32	33	33	38	44	48	56	63	69	75

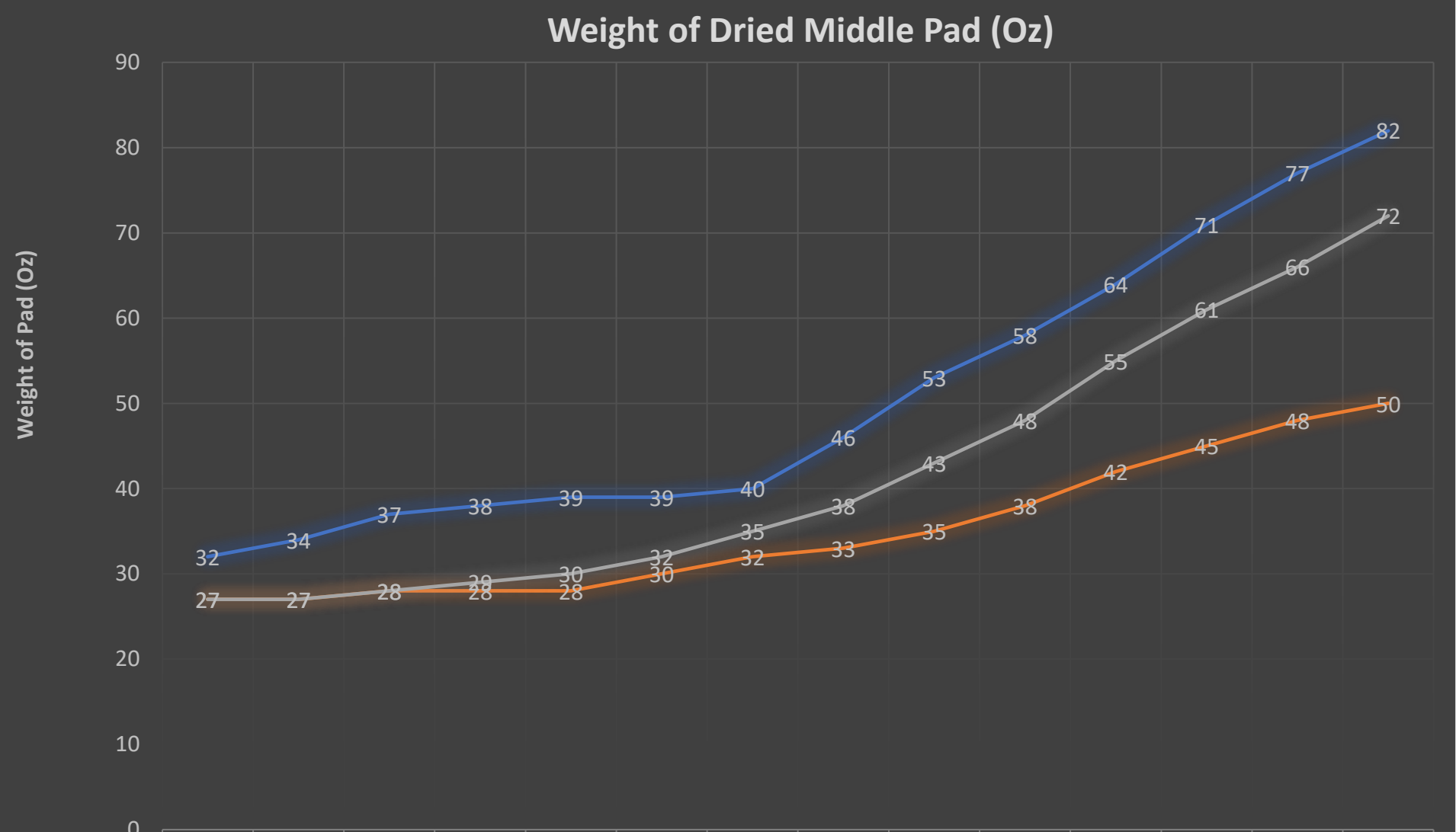
Average Weight Gained each day per pad:

No Add-Ons: 0.216 Oz/day

EcoSmart: 0.099 Oz/day

Phosphates: 0.195 Oz/day

Based on the calculations above, EcoSmart Scale Control over a 231 day period, provided a 197% more efficient unit for a day-by-day hard scale increase on this pad location, when compared to Phosphate Sticks.



	Day 1 (2/11)	Day 7 (2/17)	Day 14 (2/24)	Day 21 (3/4)	Day 28 (3/11)	Day 35 (3/18)	Day 42 (3/25)	Day 56 (4/11)	Day 81 (5/6)	Day 106 (5/31)	Day 135 (6/29)	Day 170 (8/3)	Day 205 (9/7)	Day 231 (10/3)
Weight of Dried Middle Pad - No Add-ons (Oz)	32	34	37	38	39	39	40	46	53	58	64	71	77	82
Weight of Dried Middle Pad - EcoSmart Scale Control (Oz)	27	27	28	28	28	30	32	33	35	38	42	45	48	50
Weight of Dried Middle Pad - Phosphates (Oz)	27	27	28	29	30	32	35	38	43	48	55	61	66	72

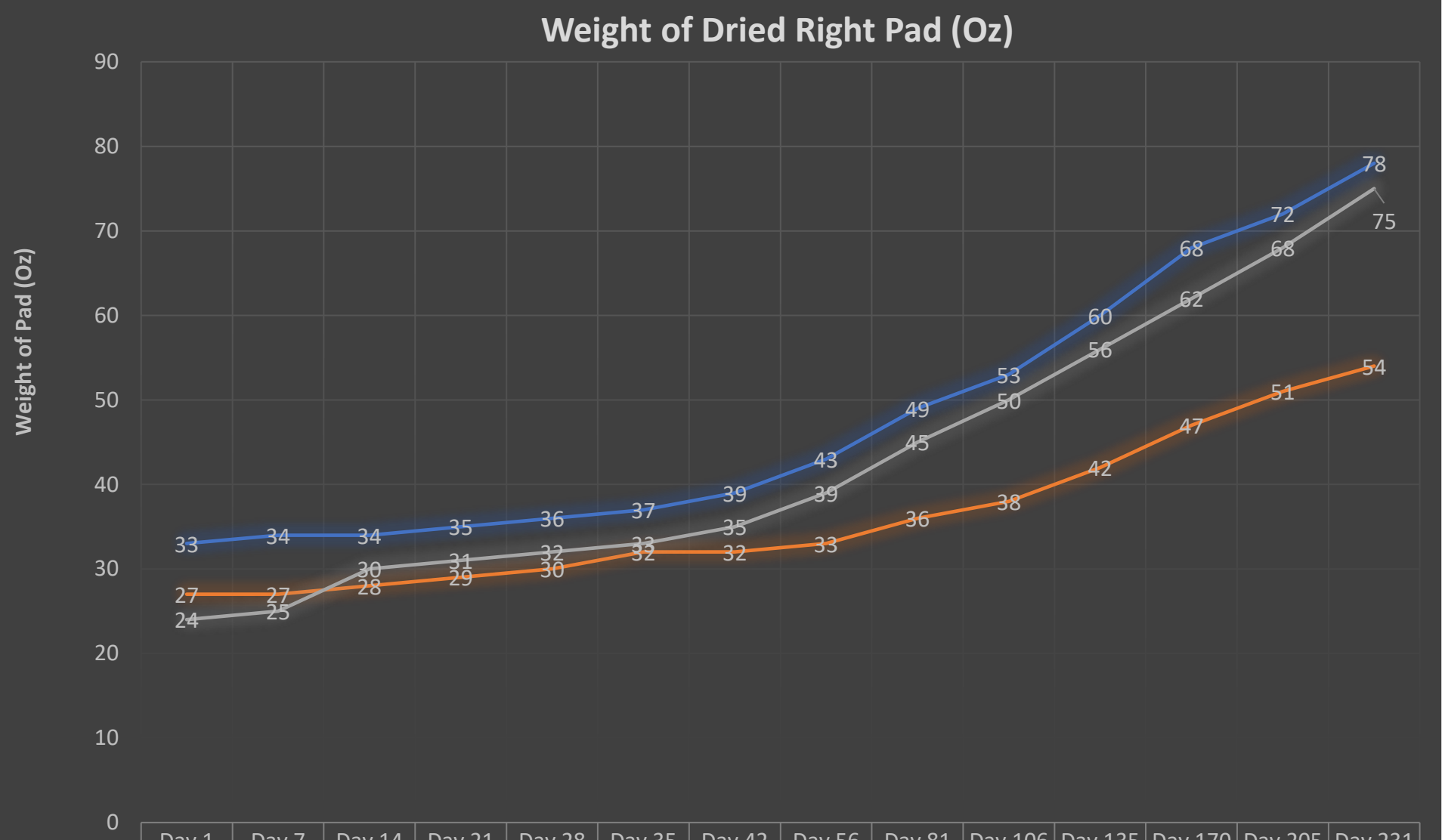
Average Weight Gained each day per pad:

No Add-Ons: 0.195 Oz/day

EcoSmart: 0.117 Oz/day

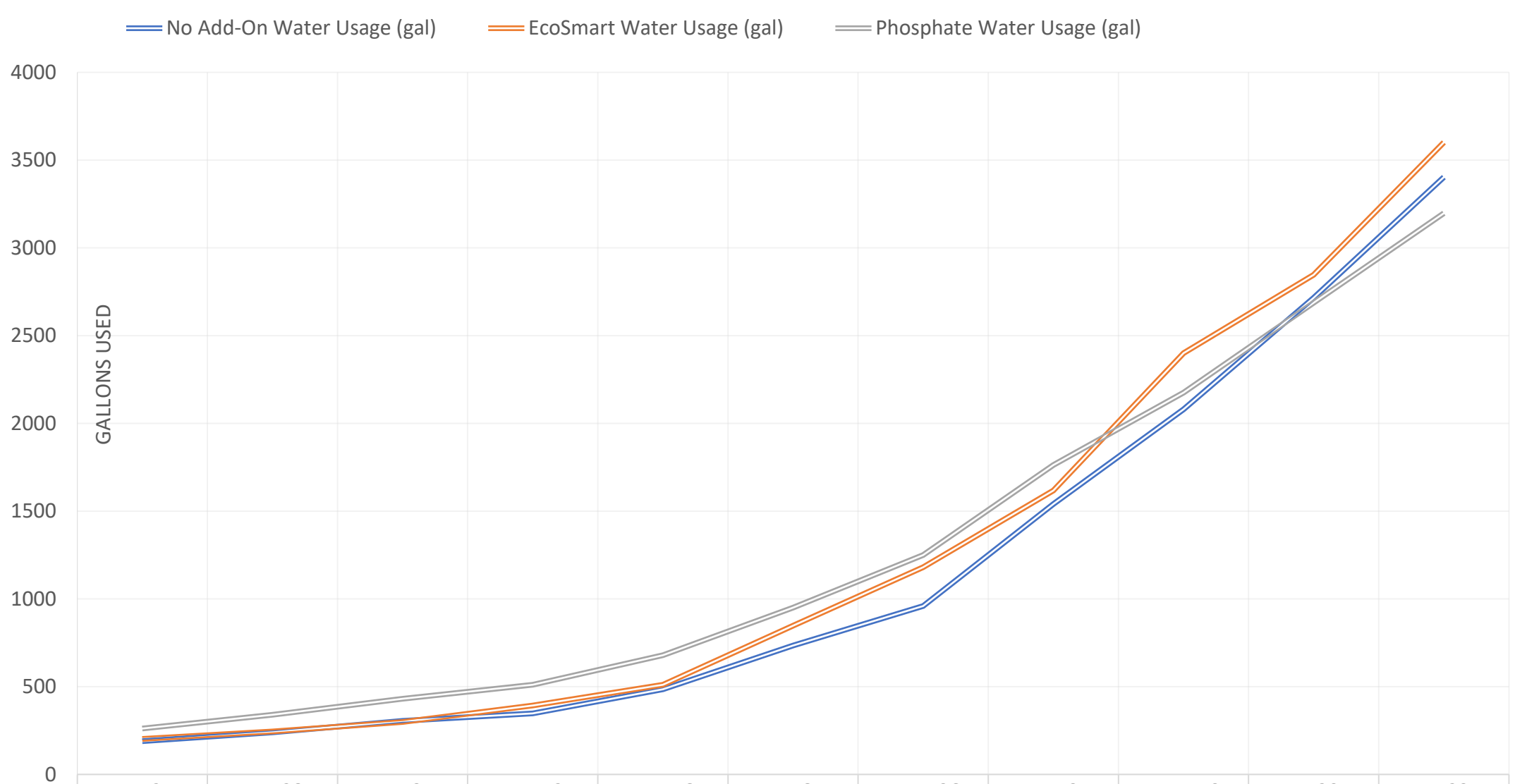
Phosphates: 0.221 Oz/day

Based on the calculations above, EcoSmart Scale Control over a 231 day period, provided a 189% more efficient unit for a day-by-day hard scale increase on this pad location, when compared to Phosphate Sticks.



	Day 1 (2/11)	Day 7 (2/17)	Day 14 (2/24)	Day 21 (3/4)	Day 28 (3/11)	Day 35 (3/18)	Day 42 (3/25)	Day 56 (4/11)	Day 81 (5/6)	Day 106 (5/31)	Day 135 (6/29)	Day 170 (8/3)	Day 205 (9/7)	Day 231 (10/3)
Weight of Dried Right Pad - No Add-ons (Oz)	33	34	34	35	36	37	39	43	49	53	60	68	72	78
Weight of Dried Right Pad - EcoSmart Scale Control (Oz)	27	27	28	29	30	32	32	33	36	38	42	47	51	54
Weight of Dried Right Pad - Phosphates (Oz)	24	25	30	31	32	33	35	39	45	50	56	62	68	75

- When comparing the data provided against the amount of hard measurable scale, averaged out over the three pads, produced per unit; the below data indicates how much scale per gallon each unit is holding onto:
- No Add-Ons: 0.024 grams/gallon
- EcoSmart: 0.014 grams/gallon
- Phosphate: 0.024 grams/gallon



	Day 21 (3/4)	Day 28 (3/11)	Day 35 (3/18)	Day 42 (3/25)	Day 56 (4/11)	Day 81 (5/6)	Day 106 (5/31)	Day 135 (6/29)	Day 170 (8/3)	Day 205 (9/7)	Day 231 (103)
No Add-On Water Usage (gal)	190	240	305	347	485	735	960	1541	2080	2715	3403
EcoSmart Water Usage (gal)	202	245	299	393	511	848	1180	1618	2400	2846	3601
Phosphate Water Usage (gal)	261	340	431	511	679	950	1250	1763	2175	2687	3198

Results and Conclusion

- **Based on our analysis of the results provided in this document, EcoSmart Scale Control has shown itself to provide a more efficient Evaporative Cooler in many areas. Ranging from water usage efficiency, larger temperature drops, and less dry scale weight.**
- **EcoSmart Scale Control is a product that can be used repeatedly and provides a seasonal solution to help maintain your Cooler both physically and mechanically.**
- **We are also confident that the EcoSmart Scale Control will provide fewer pump failures from harsh contaminated water and significantly fewer pad replacements due to lessened hard scale build-up over the life span of it's in-line usage**