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Winter 2012

PIPELINE

The Official Publication of the Florida Irrigation Society

The APP Rate Irrigation Standards Beyond The Quick Fix

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I am honored to have served on the Board of Directors for the past six years and on the Executive Board for the last three. During this time, I've had the privilege of working with some of the finest professionals in our industry. To this end, I could not be more proud of the strides we've made in the past year under the leadership of our immediate past president, Kevin Cavaoli. We owe Kevin and the 2011 Board of Directors our gratitude for their efforts in continuing to promote the professionalism of our industry through environmental stewardship, education and public awareness. It is because of individuals that give selflessly of their time and resources, that we (as an industry) are able to embrace these unprecedented times.

Never before has the green industry been at such a major crossroads. The overall landscape of the green industry statewide has changed dramatically over the past few years. It must continue to positively evolve in order for our services and businesses to be part of a sustainable solution (as it pertains to resource management) instead of it being view as part of the problem. We are excited to announce several initiatives, enacted by the Board, to increase membership and gain awareness of the challenges we face.

- We have recruited each chapter to assist with a blitz effort to collect any and all contact information for irrigation industry-related personnel. We need your help in acquiring new and active industry members and encouraging their support.
- We are proud to announce that this is the first issue of Pipeline being released in digital format in hopes of increasing readership and recruiting green industry professionals to become active members of our organization.

Did you know that it costs less than a half the price of a McDonald's cup of coffee to become a member? The cost to become a contractor member is \$200 a year. That's only 55 cents a day. And, an associate membership at \$50 a year is less than 14 cents a day! Hard to believe that a member can have a voice in their chosen profession for less than a caffeine rush.

In instances where irrigation contractors are told they cannot perform certain aspects of their trade, such as install low voltage wire, etc., we can expect more regulations and better enforcement of existing landscape and irrigation regulations to improve the management of our valuable water resources. This swiftly changing environment is an opportunity for our organization to play an integral role in determining how these regulations will be implemented statewide. Streamlining regulatory burdens for our industry is one of our primary goals in our continuing efforts for statewide irrigation contractor licensing.

Finally, I invite you to attend the Society's Water Summit, July 26-28, 2012, at the Sanibel Harbour Resort and Spa. Join us to hear what your colleagues are doing in the market, meet industry leaders, get first hand explanations of new regulations from officials that create policy, and check out the new products and services manufacturers and distributors are offering. Register now or visit fisstate.org to register. We look forward to seeing you in July!



Matt Eaton

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New Dual Nozzle Carrier Saves Irrigators Time

Senninger Irrigation recently introduced its new UP3 Dual Nozzle Carrier to save time when two flows are needed from the same mechanical move irrigation system. The carrier, coupled with the innovative UP3 nozzle design, makes flow change and/or nozzle cleaning very convenient. Just pinch and pull to remove the nozzle – flip – then place and click the second nozzle into the sprinkler.

The Dual Nozzle Carrier is clearly marked with HIGH and LOW to readily identify which nozzle flow is being used. The flexible material provides the

ability for in-canopy operation and improves durability from possible impact. The new UP3 Dual Nozzle Carrier is designed for use with UP3 nozzles in the Senninger i-Wob, Xi-Wob, LDN and Super Spray.

“This new Dual Nozzle Carrier will save so

much time in the field when they need to change flows from germination to irrigation or when water availability changes. Changing nozzles is virtually accomplished in seconds with no tools required.” explains Current Products Manager, Tim Bradberry. “The video on YouTube provides a great visual.”



Play The Eagles In Tampa Bay



The Florida Irrigation Society's Tampa Bay Chapter will hold its 17th Annual Golf Tournament on April 14, 2012. This event will be held at the Eagles Golf and Country Club. Visit www.fisstate.org/tampabay.html for registration information.



Rain Bird Releases Catalog App

In today's fast-paced world, professionals from all walks of life rely on their mobile devices to stay connected. With much of their work done out in the field rather than in an office, landscape contractors, architects, specifiers and grounds maintenance professionals are no exception. To help its customers who are on the go, Rain Bird has introduced a new, free Landscape Irrigation Catalog app for iPhone®, iPad® and Android.

The new catalog app makes it possible for irrigation professionals to access Rain Bird's latest product information quickly and conveniently from their Internet-enabled mobile devices. Downloading the app is as simple as searching for "Rain Bird" in the iTunes Store or Android Market and then clicking on the appropriate links. Within seconds, the most up-to-date Rain Bird Landscape Irrigation Catalog is available, providing professionals with a variety of useful information and tools, including system layouts, product details and specifications.



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THE IRRIGATION INNOVATORS

Past FIS Board Members Honored; New Leadership Take Reins



Left to Right: FIS President Kevin Cavaoli presenting plaques to Randy Heimsoth, Dale Nimmo and Harlan Hinline.

The Florida Irrigation Society held their Winter General Membership Meeting at the historic Dubsdread Golf Course on December 2, 2011. At this meeting, the FIS Board of Directors brought the General Membership up-to-date on membership, education, chapter relations and our statewide irrigation contractor initiative.

Dale Nimmo, Mark Payton and Judy Benson were awarded with plaques for their service to the Society and Board of Directors, as they all have retired from board positions. Treasurer Randy Heimsoth was presented with a plaque for his

service to the Society as Treasurer during 2010–2011. President Kevin Cavaoli was presented with a plaque for his service to the Society as its 2011 president.

Nominations for new directors for the term of 2012–2013 were nominated as: Tom Allen, Ewing Irrigation; Randy Heimsoth, Peerless Landscape & Irrigation; Steven Jenkins, Jenkins Landscape; Adam W. Jones, Massey Services; Jeff Snyder, Mainscape; Mary Shedd-McCready, University of Florida, IFAS, Dade County Extension Office; and Andy Voelz, Toro.



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Make Summer Plans to Join FIS; Resort Opens Doors to Irrigation Professionals

Florida Irrigation Society Managing Every Drop

The Florida Irrigation Society will hold its upcoming 2012 Florida Water Summit at the Sanibel Harbour Resort & Spa in



Ft. Myers. The educational and networking event will take place on



Thursday, July 26 and Friday, July 28, 2012. A special FIS guest room rate of \$129 is available (resort fee will also be waived), so make your reservation now! Call 800-767-7777 as this rate is only guaranteed until June 2012 and the number of rooms is limited.

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WATER USE MATTERS:

Help FIS Spread The Word About Water Conservation

The Florida Irrigation Society is proud to announce its campaign to recognize the leaders in the Florida irrigation industry as champions in raising the level of professionalism and promoting resource conservation.

The donations of these industry champions will allow the Florida Irrigation Society to be able to provide legislative activities in Tallahassee to protect and promote our industry through:

- Consumer protection
- Minimizing burden on business
- Establishment of irrigation contracting as a viable industry in the State of Florida

As a special incentive for this first year of the program, special consideration will be given to those companies and individuals who have donated in the past. Any donations made from July, 2007 and after will be added to this year's (2012) donation to determine the level of achievement.

This program is open to all companies, organizations, and individuals wishing to protect the livelihoods of the irrigation industry and encourage the resource stewardship of water use in the landscape. The levels of contribution are as follows: Benefactor Level \$100, Bronze Level \$500, Silver Level \$1,000, Gold Level \$3,500, Platinum Level \$7,500, and Elite Level \$15,000 in total donations. A Chapter Champions Program will also be available for Chapter donations. A complete list of benefits for each donor level is being developed and will be distributed in the coming weeks.



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THE APPLE

How to Determine High Volume & Low

By David L. Wickham, FIS, ASLA, MS

Within the U.S. irrigation industry, why is it that most knowledgeable irrigation professionals, academics, manufacturers, landscapers and/or state licensed engineers seem to dance around irrigation application rates for the different types of irrigation devices? Have you ever wondered why they don't want to show you and/or compare their application rate calculations? For example, how many of these same people give lip service or data to the different application rates between true micro/drip irrigation bubblers and the average manufacturer irrigation bubbler?

Within this article, let's look at and compare the calculated application rates

of landscape rotors, sprays, bubblers, true micro/drip bubblers, and inline/dripper line systems on an apples-to-apples basis. To make this apples-to-apples comparison easier, let's put all of them on a 100-square-foot application basis. (100 sf is roughly the same square footage as a 10 x 10 bedroom or work cubicle, and/or what most people can easily visualize is half the area of a 10 x 20 parking space.)

ROTORS

It doesn't matter whether a landscape irrigation rotor utilizes an impact, ball, gear, etc. drive, because of supply, design, technical and/or hydrological

GPM RATE:

Low Volume Irrigation Application Rates

“Why is it that most knowledgeable irrigation professionals, academics, manufacturers, landscapers and/or state licensed engineers seem to dance around irrigation application rates for the different types of irrigation devices?”

irrigation considerations, virtually all installed landscape rotor nozzles rarely exceed between 4 to 6 GPM and throw an average of 35 foot radius.

If we figure out the area of this rotor head coverage circle ($35'$ squared $\times 3.14 = 3848.45$ SF) and divide it into the 4 to 6 GPM, then we get an average irrigation rotor nozzle application rate for each square foot of area. When we translate this each square foot application rate onto the comparative 100 SF basis, it works out to applying 0.10 to 0.16 gallons of water per minute. That is roughly the same amount of water as there is in a 13 to 20-ounce bottle of water per minute. That is roughly the same amount of water as there is within

a 12 oz. to 20 oz. bottle of soda being applied to half of a 10 x 20 parking space, within one minute.

SPRAYS

Most irrigation manufacturer's full circle spray heads generally fall within a 3.6 to 4.0 GPM range. Also, virtually every irrigation manufacturer's standard radius throwing distance of their spray nozzles is 15 feet. Again, if we figure out the area of the spray head coverage circle ($15'$ squared $\times 3.14 = 706.86$ SF) and divide it into the 3.6 to 4 GPM, then we get an average spray nozzle application rate for each square foot of area.



When we translate each square foot application rate onto the comparative 100 SF basis, it works out to applying 0.51 to 0.56 gallons of water per minute. That is roughly the same amount of water as there is in a little over a 2 liter bottle of water being applied to half of a 10'x20' parking space — within one minute.

BUBBLERS

Most irrigation manufacturer's bubblers generally fall within a 0.25 to 2.0 GPM range. There are a few manufacturer bubblers that apply a GPM at a higher rate; but they are not in common usage within the landscape irrigation industry. General bubblers usually apply their water within a 1'-3' radius (like a raised or clay planter, or the watering well around a newly planted tree).

If we take an average 2' radius and we figure out the area of bubbler head coverage area ($2' \text{ squared} \times 3.14 = 12.57 \text{ SF}$) and divide it into the 0.25 to 2.0 GPM, then we get an average bub-

“Think about this, most people consider a 0.25 GPM (15 GPH) general bubbler as a micro/drip irrigation bubbler. Yet, a 15 GPH bubbler is roughly applying a comparative of four times the amount of water as spray heads and a comparative of 10 times the amount of water as a rotor heads.”

bler nozzle application rate for each square foot of area. When we translate this, each square foot application rate onto the comparative 100 SF area, it

works out to applying 1.99 to 19.92 gallons of water being applied to half of a 10'x20' parking space — within one minute.

Think about this, most people consider a 0.25 GPM (15 GPH) general bubbler as a micro/drip irrigation bubbler. Yet, a 15 GPH bubbler is roughly applying a comparative of four times the amount of water as spray heads and a comparative of 10 times the amount of water as a rotor heads.

MICRO DRIP BUBBLERS

Most true micro/drip irrigation bubblers used in landscape irrigation systems generally apply water within a 1 to 13 GPH range (or, 0.0167 to 0.2167 GPM respectively), and, within a 1' to 3' radius. Again, if we take a 2' radius average, and we figure out the area of micro/drip bubble head coverage ($2' \text{ squared} \times 3.14 = 12.57 \text{ SF}$) then we get

an average micro/drip bubbler application rate for each square foot of area.

When we translate this square foot of application rate onto the comparative 100 SF, it works out to applying 0.13 to 1.72 gallons of water being applied to half a parking space — within one minute.

INLINE OR DRIPPER LINE MICRO IRRIGATION

Most manufacturer's landscape pressure compensating inline or dripper line micro/drip irrigation systems generally apply water with 0.4, 0.6 and 0.9 GPH emitters (or, 0.0067, 0.01 and 0.015 GPM respectively). Depending on site conditions (slopes, soil types, etc.), the emitters can apply water within a 0.5' to 1.5' radius. If we take an average 1' radius, and figure out the area of inline or dripper line coverage ($1' \text{ squared} \times 3.14 = 3.14 \text{ SF}$).

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IRRIGATION APPLICATION RATES

ROTORS

0.10 to 0.16 gallons of water for 100 SF

SPRAYS

0.51 to 0.56 gallons of water for 100 SF

BUBBLERS

1.99 to 19.92 gallons of water for 100 SF

MICRO/DRIP BUBBLERS

0.13 to 1.72 gallons of water for 100 SF


INLINE OR DRIPPER LINE EMITTERS

0.21, 0.32 to 0.48 gallons of water for 100 SF

Then we get an average inline or dripper line application rate for each square foot of area. When we translate this square foot of application rate onto the comparative 100 SF, it works out to applying 0.21, 0.32 and 0.48 gallons of water being applied to half a parking space — within one minute.

What are the two obvious conclusions that irrigation professionals should draw from the above chart? The first and foremost conclusion — the same thing that every licensed engineer and landscape irrigation professional has said for over the last 100+ years of U.S. landscape irrigation history — unless you have absolute total control over the life of any combined type irrigation system, then never-ever-ever combine different types of irrigation on the same zone or within a system.

Second is scheduling of irrigation zone running times. Each and every type of irrigation device or zone (rotors, sprays, bubblers, micro-bubblers and emitters) needs to have seasonal, monthly or weekly adjusted running times to apply the necessary supplemental irrigation amount of water to the

plant material. To aid in adjusting monthly zone scheduling of running times for St. Augustine and Bermuda grasses for 10 different regional areas of Florida, check out the Florida Cooperative Extension Service fact sheet OH-61, or Bulletin 200. 



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BEYOND THE QUICK FIX:

Opportunities in Maintenance, Repair & Overhaul

By Jeff Carowitz, Strategic Force Marketing



A prolonged recession in our industry is changing the way companies view certain business opportunities. Things that seemed “boring” or “slow growth” are once again being appreciated for being steady contributors to business stability.

One area that has caught the attention of my clients is commonly known in other industries as MRO (Maintenance, Repair and Overhaul). It’s where big names like Grainger, WESCO and NAPA make their money; selling products and services necessary to keep the things we depend on working at their best.

For years, our industry has neglected the service end of the business, preferring to develop products, education and marketing that focused on new installations. The formula worked great during the go-go times of rapid construction. Now it’s time to address the next big opportunity: maintaining and improving all of the installations that were done over the last decade.

Are you leveraging the concept of “useful life”? Housing inspectors often will tell the buyer of a new property that an appliance or fixture is nearing the end of its “useful life”, meaning that it’s time to think about replacement. A savvy HVAC technician will advise a homeowner to replace rather than repair an evaporative condenser because it’s inefficient and long in the tooth. There are accepted standards and data tables that guide the replacement schedules and preventative maintenance requirements of many things around a house.

Most green industry contractors do a terrible job of educating their clients on the expected life of an irrigation system or landscape lighting components. We fix things only when they fail instead of being proactive about



“There is a clear correlation between training in human skills and sales skills (rather than just technical skills) and the potential to sell needed upgrades.”

addressing them when it is clear their days are numbered.

Some service technicians will try to squeeze another year of life out of a 15-

“Owners and technicians often incorrectly assume that all clients are frugal rather than presenting all available options.

Many clients are eager to upgrade to the latest technology.”

year-old \$3 plastic sprinkler head even when the homeowner would willingly upgrade the entire zone to greater efficiency. Technicians forget that home-

owners are inconvenienced by service visits because they have to miss work or other activities. For many clients, spending a little more to reduce future hassles is well worth it.

My research shows a strong relationship between the amount of training technicians receive and the ability to achieve revenue growth in MRO. There is a clear correlation between training in human skills and sales skills (rather than just technical skills) and the potential to sell needed upgrades. Yet few contractors train their technicians on how to build rapport and trust with clients. Even fewer contractors offer their technicians tools we have found to be invaluable in selling replacements and upgrades; things like service tip sheets, informative graphics and water savings calculators. Has your company equipped your technicians properly?

Owners and technicians often incorrectly assume that all clients are frugal





rather than presenting all available options. Many clients are eager to upgrade to the latest technology. They

want to have a good, hassle-free service experience. They want to prevent future issues. Give them what they want. 💧

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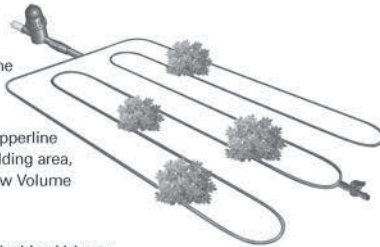
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By **Michael D. Dukes**, Ph.D., P.E., C.I.D.

In the last issue of Pipeline, I talked about the development of a “Standard for Landscape Irrigation Emission Devices”

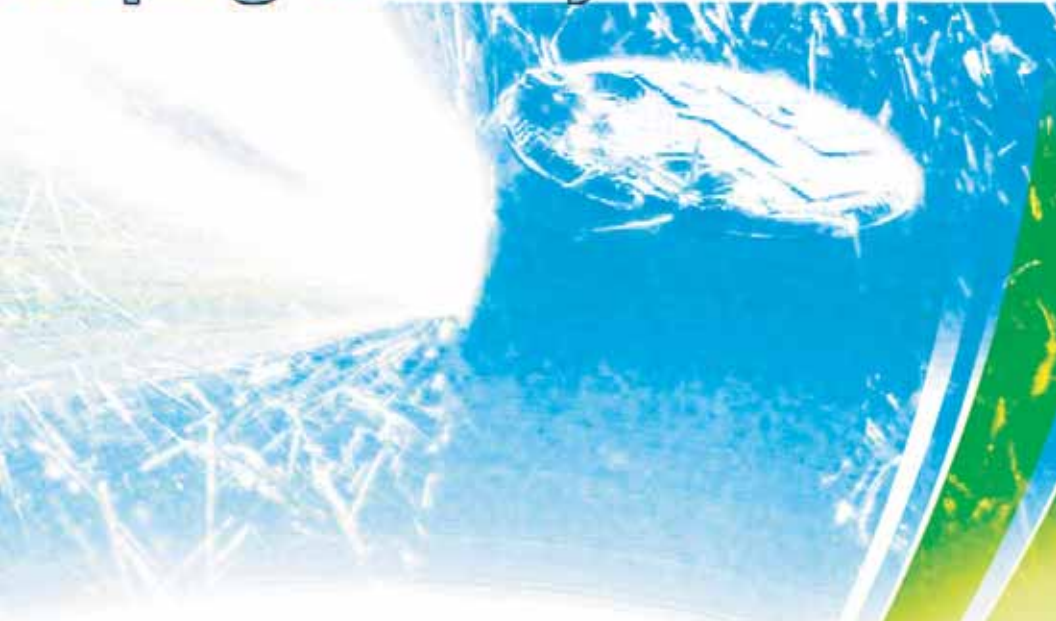
(www.iccsafe.org/cs/standards/IS-IEDC/Pages/default.aspx) initiated by the International Code Council (ICC). Work on this standard continues via the four task groups: 1) Sprinkler Test Methods and Design (of which I am the chairman); 2) Microirrigation Test Methods and Design (chaired by Brent Mecham, Irrigation Association); 3)

Health, Safety & Product Durability (chaired by Lynn Niblock, Iredell County, NC); 4) Admin, Definitions, Packaging & Labeling (chaired by Travis Tsunemori, American Society of Agricultural and Biological Engineers).

Two of the task groups, Sprinkler & Microirrigation, along with the full committee met after the Irrigation Show in San Diego, CA in November 2011. Several conference calls were planned over the next several months as well as tentative plans for face-to-



THE IRRIGATION MARKET: Developing Industry Standards



Future irrigation industry standards will be much broader than equipment testing and will impact what type of irrigation equipment may be installed, how it will be installed or perhaps whether it will be installed at all.



participate. The nature of standards development is to have as transparent a process and as open as possible so that any particular interested party can participate.

The irrigation industry has recognized the need to start standards development in areas that may impact the business. For example, standards may be used in various "green" codes that are currently in the process of being developed.

face meetings. See the ICC website above for details. Anyone is invited to

One example of this is the recently completed ICC Green Code (www.icc-

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safe.org/cs/igcc/pages/default.aspx). These codes can reference existing standards and one would expect that these codes will reference irrigation standards as they are developed. This means that any municipality or other entity that adopts the Green code could essentially mandate these standards. As a result, these standards could substantially influence how irrigation manufacturers, designers and contractors do business.

The development of irrigation standards appear to be just beginning. The American Society of Agricultural and Biological Engineers (ASABE) recently announced that they would initiate development of four irrigation related standards on behalf of the Irrigation Association (IA news announcement, www.irrigation.org/uploadedFiles/News/ETimes_December.pdf). These proposed standards to be developed are as follows: 1) landscape water budget-



ing; 2) landscape irrigation installation practices; 3) testing protocols for weather-based or soil moisture-based controllers; 4) landscape irrigation auditing procedures.

As you can see, these standards will be much broader than equipment testing and will impact what type of irrigation equipment may be installed, how it will be installed or perhaps whether it will be installed at all. I encourage everyone in the industry to get involved in the development process. 💧



COMMON OUTDOOR LIGHTING TERMS

By **Steve Parrott**, Media and Marketing Director of CAST Lighting, LLC

Lighting a landscape can extend the use of outdoor space while providing safety, atmosphere and space definition. Lighting can also accent areas of a landscape or create patterns and contrast. Outdoor lighting is an art and is largely determined by the lighting designer. Using the correct outdoor lighting terminology, especially when searching online, plays a big role in finding the right source.

Adaptation: The process by which the eye accommodates to a change in light level. There is both 'dark adaptation' where the eye adjusts to a darker scene and 'light adaptation' where the eye adjusts to a brighter scene. For example, we try to fill in black holes in a lighting design so the eye is not subject to an adaptation period as it tries to adapt to changes in light level as it scans a scene.

Area Lighting: The practice of lighting a scene by lighting different areas of the scene. Technically, all landscape lighting is 'area lighting'.

Brightness: A subjective term referring to a 'perceived' luminance rather than the 'measured' luminance. For example, the light from a path light at dusk is perceived to have a low brightness, while the same path light at midnight is perceived to be very bright - the contrast between the illuminated area and adjacent area is high so the perceptual sensation is one of increased brightness of the light source.

Diffused Light: Light that scatters in many directions to produce a beam with soft edges. Light can be diffused through refraction, such as with a frosted lens; or reflected, such as with our China Hats where light reflects off the slightly irregular underside of the hat to produce a diffuse beam.



Glare: The visual sensation produced when a light source is significantly brighter than its surroundings causing annoyance or discomfort. Direct glare refers to glare resulting from viewing a bare lamp. Reflected glare refers to glare from a reflective surface.

Illuminance: The density of luminance on a surface area - measured as footcandles (candelas/sq.ft.) or Lux (candelas per meter).

Light Pollution: Excessive or obtrusive illumination that intrudes upon unintended or unwanted regions. This term includes Light Trespass but is more usually used to describe light intrusion into the sky.

Light Trespass:

Illumination that enters other properties or areas outside the intended regions of illumination.

Luminance: Light projected from a lamp source or reflected off a surface, measured at a point in space. Brightness is a term that includes luminance and the intensity of

perceptual sensation; it is highly subjective and variable - luminance is a better term for lighting professionals because it can be measured and predicted - as candelas.

Reflectance: The ratio of luminance level that strikes a surface to the luminance level that is reflected off the surface. For example, a brick wall has a low reflectance value since much of the light is absorbed by the surface, while the reflectance of a white wall is very high since nearly all the light is reflected. Note: 'Reflectivity' is an incorrect term.

Reflectance Value: This is a value ranging from zero (for a flat black surface) to one (for a mirror).

Reflected Light: Light that reflects off a surface. For example, our path lights project only reflected light. Light that bounces off walls, eaves and plants is reflected light.

Refracted Light: Light that changes direction as it passes through a medium, such as glass. For example, the linear spread lens refracts light to produce an elongated beam.

Specularity vs. Diffusion: Specularity is a surface property that quantifies how perfectly light reflects off a surface. A mirror is perfectly specular. If the surface is rough or irregular than light bounces off the surface in many directions – this is referred to as diffusion. Glossy paint is highly specular while matte paint is diffuse. This is important when we talk about lighting surfaces. Rough building surfaces (and even

matte paint) are diffuse to the extent that an upright will reflect off the surface in every direction (including down into the garden bed).

Visual Angle:

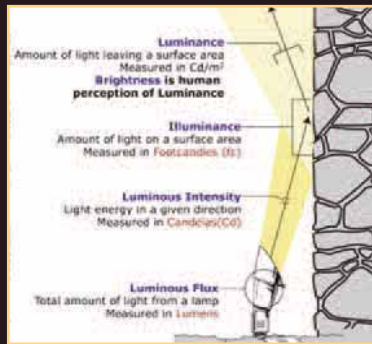
The angle, measured in degrees, of a light source from the observers point of view. For example, a tree light should be

mounted at a minimum visual angle of 53 degrees since lower angles present direct glare into the eye.

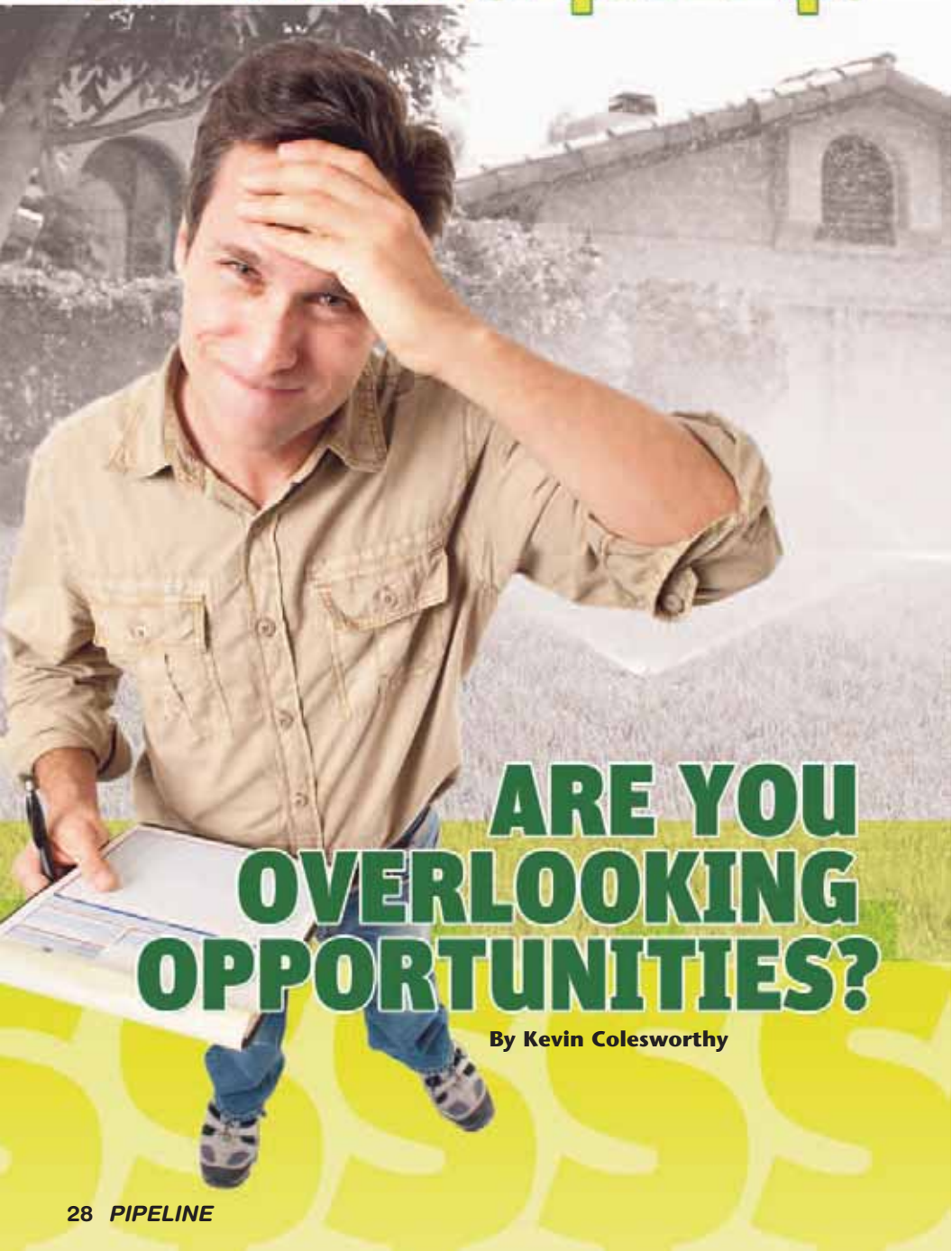
Visual Comfort: A subjective term that quantifies the presence or absence of visual discomfort caused by glare and highly contrasting and/or bright light levels. We can use this term in a general way, but keep in mind that the IESNA has developed an interior lighting standard for visual comfort (Visual Comfort Probability – VCP). This standard has not yet been defined for exterior lighting.

Visual Path: The path that our vision takes as it glances from one place to another. Visual paths often start and end at focal points.

Note on 'Lens' and 'Filter'. We sometimes refer to our various lenses (optical spread, linear spread, etc.) as filters. This is OK, both terms are correct.



CREATING \$ALE\$:



**ARE YOU
OVERLOOKING
OPPORTUNITIES?**

By Kevin Colesworthy

After having a short discussion with a contractor about smart controllers, he remarked, "They're too expensive. I don't push products on customers that they don't need." I tried to explain that, in today's marketplace, you have to create sales. This technology is coming and the winners are getting on board. "I'll just stay small", he said. Wow! I thought the purpose of being in business was to make money.

As technology moves forward, there are more tools than ever to incorporate the innovative and environmentally responsible products through retrofits to the public and private sector. Never before have the airwaves and newspapers regularly commented on the rising cost of water, the restrictions of outdoor water use and the wasteful use of water. Billboards and water bill notices have given us additional free advertising that supports our business.

I believe that the ears of the consumer are perked up to this situation. The hesitation of most contractors' willing to capitalize on this 900-pound gorilla is a missed opportunity to make some serious money. Are you afraid to actually "sell" something? Let me tell you, we have a handful of clients that are embracing the rewards of making a presentation to homeowner's associations and property managers on ways they can save water. Though they won't stroke a \$500,000 check tomorrow, it will come and they will get the order. Often, you can cite the cost to pump and distribute water.

One property group tells us they spend \$30,000 per month in electricity

to irrigate 140 acres in a residential community! So tell me, when you have two possible hot buttons to push - the high cost of water AND rising energy costs to move it - do you need a lot of persuasive ability to get the ball rolling? What you need is the desire to learn about the products from those with the tools to support your salesmanship. It's a lot easier to sell smart controller retrofits than you might imagine.

Then, there are the daily homeowner opportunities that most contractors overlook. If you are on a service call, you are supposed to be looking at the rain shutoff device to see if it works or even exists! How many of you do this? After all, it is the law! If you don't, there is another missed layup for a sale.

Take a minute to think about what happens when you take your car in for an oil change. While your car is on the

rack, the service manager comes to tell you that your tires are worn, the wiper blades are cracked and it's time to consider a transmission flush. You never get out of there with just a basic oil change. You may not do the repairs that day, but you'll probably accept at least one of the recommendations right now. You'll come back eventually for the rest. Consumers will buy more if you ask for the order.

People complain that the installation business is dead and some of the same folks don't like to do service. What's the problem? Is making money taboo? I think it's time to evaluate your future if you don't put a high degree of energy into being a retrofit specialist. Advice, training and sales assistance is waiting on you. 💧



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Person to be designated as Voting Representative: _____

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B. Distributor, Dealer, Mfg. Rep.	\$275	_____
C. Contractor	\$200	_____
D. Consultant, P.E., L.A.	\$200	_____
E. Irrigation System Operator	\$200	_____
TOTAL AMOUNT ENCLOSED		\$ _____

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| 2. Dealer in irrigation equipment | 10. Certified IA Designer |
| 3. Distributor in irrigation equipment | 11. Operator of irrigation systems |
| 4. Irrigation system design only | 12. Certified Water Evaluator |
| 5. Manufacturer | 13. List Other Certifications: |
| 6. Manufacturer's Rep | _____ |
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| 8. Registered Professional Engineer | |

As a membership benefit, FIS will publish licensed contractor members (from counties that require testing) in the Membership Directory and on our Web Site (www.fisstate.org). If your business is located in a county that requires an irrigation contractor license through testing and you wish to be included in this listing, please provide us with your license number and county.

LICENSE # _____ COUNTY _____

Have you or your company ever been a member of the FIS before? _____

If so, when and how was the membership listed? _____

Are you a member of an FIS Chapter? If so, please name chapter. _____

If application for membership is accepted, the undersigned agrees to comply with the bylaws and minimum standards and specifications of the Florida Irrigation Society.

Signature of Applicant/Date

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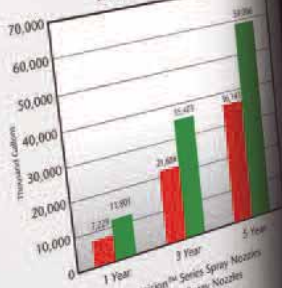
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