# (  <br> Man Mulvaney <br> Mechanical Contractors MERRY CHRISTMAS \& HÄPPY NEW YEAR 2020? 

DO YOU HAVE SEASONAL AFFECTIVE DISORDER? (Yes, it's a real thing)
Seasonal affective disorder (SAD) is a strong tendency to become depressed at a specific time of the year most often in late fall, continuing into winter. There can be other years when the dip is milder than a full depression, or even absent. Summers are most often symptom-free. Winter SAD is linked to less daylight, which is exacerbated by spending more time indoors. The sensitivity to these changes varies by individual. moods don't plunge until Docember The most common period for the onset of a SAD episode is late Octo ber through November. January and February are the worst months overall, and the symptoms don't fully subside until early May. The severe form of seasonal affective disorder, with major winter depression, affects around 3 percent of the U.S. population - about 10 million of us - while up to 10 percent experience milder forms. But there are significant geographic differences, especially in latitude, since winter nights are hours longer in the north than in the south. Most studies have zeroed in on women of childbear ing age, but SAD is definitely not age- or sex-specific. Lower estimates for men may be biased by some men's reluctance to admit to mood shifts. In a study conducted many years ago, published in the Journal of Biological Rhythms, a random sample of New Yorkers rated key symptoms of seasonal change - for exam-
ple, weight gain longer sleep, and reduced motivation, productivity, and social interest. The survey specifiple, weight gain, linger sleep, and reduced motivation, productivity, and social
cally avoided calling attention to the psychiatric connection. There was no difference in SAD-like symptoms between men and women. Physical symptoms that precede the mood shift include difficulty waking up on schedule, daytime fatigue, a craving for carbohydrates, and weight gain. Once the depression hits, the symptoms mimic those of non-seasonal depression, including loss of motivation for work or other activitie reduced social contact, and anxiety. The difference is that the onset of the SAD episode is predictable, usu ally weeks after the physical symptoms appear, and countermeasures can begin before the mood swing is patients are luckier than their cohorts with non-seasonal depression.
USING BRIGHT LIGHT AS MEDICINE
Mental health professionals have used light-box therapy for decades to treat seasonal affective disorder (SAD), which leads to a low mood in winter but eases its depressing grip when the days get longer. New research indicates that the same therapy may be effective for other types of depression, including treatment resistant depression and even bipolar depression. Researchers believe that the therapy, which involves sitting near a light box when you get up,
resets a disordered circadian rhythm, resulting in an improved mood.
MERRY CHRISTMAS


How is Lighting Quality Measured?
Both color temperature and the color rendering index have been around for many years and describe different aspects of light quality. Color temperature: Measured in degrees of Kelvin (K), color temperature quantifies the color of white light. Lower color temperatures appear visually "warm" and have more of a red-yellow tint - think of a classic incandescent light bulb, which typically has a color temperature around 3000 K . Mid-range color temperatures between 3500 to 4100 K have a more neutral and true white appearance because the color wavelengths of the light are more balanced. At the other end of the scale are high color temperatures above 4100K, which have a cool, blue-tinged color. Color Rendering Index: CRI measures a light source's ability to display the color of objects relative to the color rendering abilities of a specific light source, such as a phase of daylight or a black body radiator (an object that absorbs all electromagnetic radiation regardless of its frequency. A CRI rating above 80 is considered generally accurate at rendering, though some LED lighting manufactures have products with CRIs in the 90s. www.lightingnews.com

## AIRBUS DEVELOPS AIRCRAFT WINGS

 THAT FLAP IN FLIGHTAirbus engineers in England have developed a model airplane
equipped with wing tips that flap in flight like a bird. The goal of the semi-aeroelastic hinge is to reduce drag and overall wing weight, while combating the effects of turbulence and wind
gusts. The remote-controlled AlbatrossOne aircraft was ingusts. The remote-controlled AlbatrossOne aircraft was inspired by its namesake marine bird that locks its wings at the
shoulder for long-distance soaring but unlocks them when wind -gusts occur or maneuvering is required. Airbus says this technology will explore the benefits of unlockable, freely-flapping wing-tips, accounting for a up to a third of the length of the wing, to react autonomously during in-flight turbulence. This will lessen the load on the wing at its base, reducing the need for heavily reinforced wing boxes. When there is wind or turbuto the fuselage, so the base of the wing must be heavily strengthened, adding weight to the aircraft. Allowing the wing tips to react and flex to gusts will reduce the load and allow us to make lighter and longer wings. The longer the wing, the less drag it creates up to an optimum, so there are potentially more fuel efficiencies to explore. Initial tests examined the stability of the plane with its carbon fiber wings locked and unlocked.
"Hundred" Doesn't Mean 100
The word "hundred" is actually derived from the Old Norse word "hundrath," which actually means 120, not 100. More specifically, "hundrath," in Old Norse, means "long hundred," which equals 120 , due to the duodecimal system. Www.bestlife.com

## Wrinut loby oms <br> Feb. 1-5 <br> Mar. 16-18 <br> Apr. 14-16 <br> Jun. 15-18 <br> ASHRAE Winter Conference ACAA Annual Conference IFMA Facility Fusion Expo NFPA Conference \& Expo <br> Orlando, FL St. Louis, MO San Francisco, CA Orlando, FL

Four times more people speak English as a second or foreign language than as a native one. It's the most widely spoken tongue in the world, with nearly two billion people learning it as a second language and only 350 million people speaking it natively.
You can major in wine at Cornell University. Technically it's a degree in "Viticulture and Enology" (a.k.a. the cultivation of grapes and the science of winemaking), sounds good we're sending in our applications.
Frank Lloyd Wright's son invented Lincoln Logs. The famous architect's design for the Imperial Hotel in Tokyo inspired John Lloyd Wright to produce the interlocking log beams on a much smaller scale for kids.
A $\$ 1$ bill costs 5 cents to make and a $\$ 100$ bill costs 14 cents. According to the Federal Reserve, each buck lasts about six years, and there's about $\$ 1.69$ trillion of U.S. currency in circula tion right now.
There's a world record for the most world record titles. It belongs to Brooklyn, New York resident Ashrita Furman, who's held more than 600 Guinness World Records in his lifetime, ranging from heaviest shoes walked in ( 323 pounds) to most baseballs held in a baseball glove (26)
If you start counting at one and spell out the numbers as you go you won't use the letter "A" until you reach 1,000.
How many licks does it take to get to the center of a Tootsie Pop? According to Tootsie Pop, the world may never know. But on average, a licking machine made at Purdue needed 364. Oranges were originally green. The first oranges ever imported from the West were from Southeast Asia and were tangerine-pomelo hybrids that were green in color. Oranges grown
parts of the world such as Vietnam and Thailand stay green throughout their lifetime. Antarctica is the world's largest desert. The Antarctic Polar Desert covers Antarctica continent and covers roughly 5.5 million square miles and only gets 2 inches of precipitation per year. The Sahara Desert covers roughly 3.6 million square miles and gets 3 inches per year. On statues, a horse's legs tell you how the statue figure died. In the United States and the United Kingdom, an urban legend states that if the horse is rearing (both front legs in the air), the rider died from battle; one front leg up means the rider was wounded in battle; and if all four hooves are on the ground, the rider died outside battle.
In the early 1900's, Lobster was considered the "cockroach of the ocean" and was synonymous with the poor - often eaten regularly by the homeless, slaves and prisoners. It wasn't until after World War II that lobster became considered a delicacy and a food associated with the aristocratic classes.

## THIT HIECIITSS ITT?

## WIN A MULVANEY MECHANICAL LBATIIR JACXIT

When e-mailing your entry, please write "Newsletter Contest" in the subject line to avoid our SPAM filter.
Send to: MMI@mulvaneyinc.com
If multiple correct answers are received, one winner will be selected at random.

Last Quarter's Puzzle: Vintage Corn Husker WE HAD ONE WINNER THIS TIME!

Timothy Emerson, Industrial Facilities Design GOOD LUCK ON THIS QUARTER'S MYSTERY ITEM


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