FACILITY EXECUTIVE

Creating Intelligent Buildings

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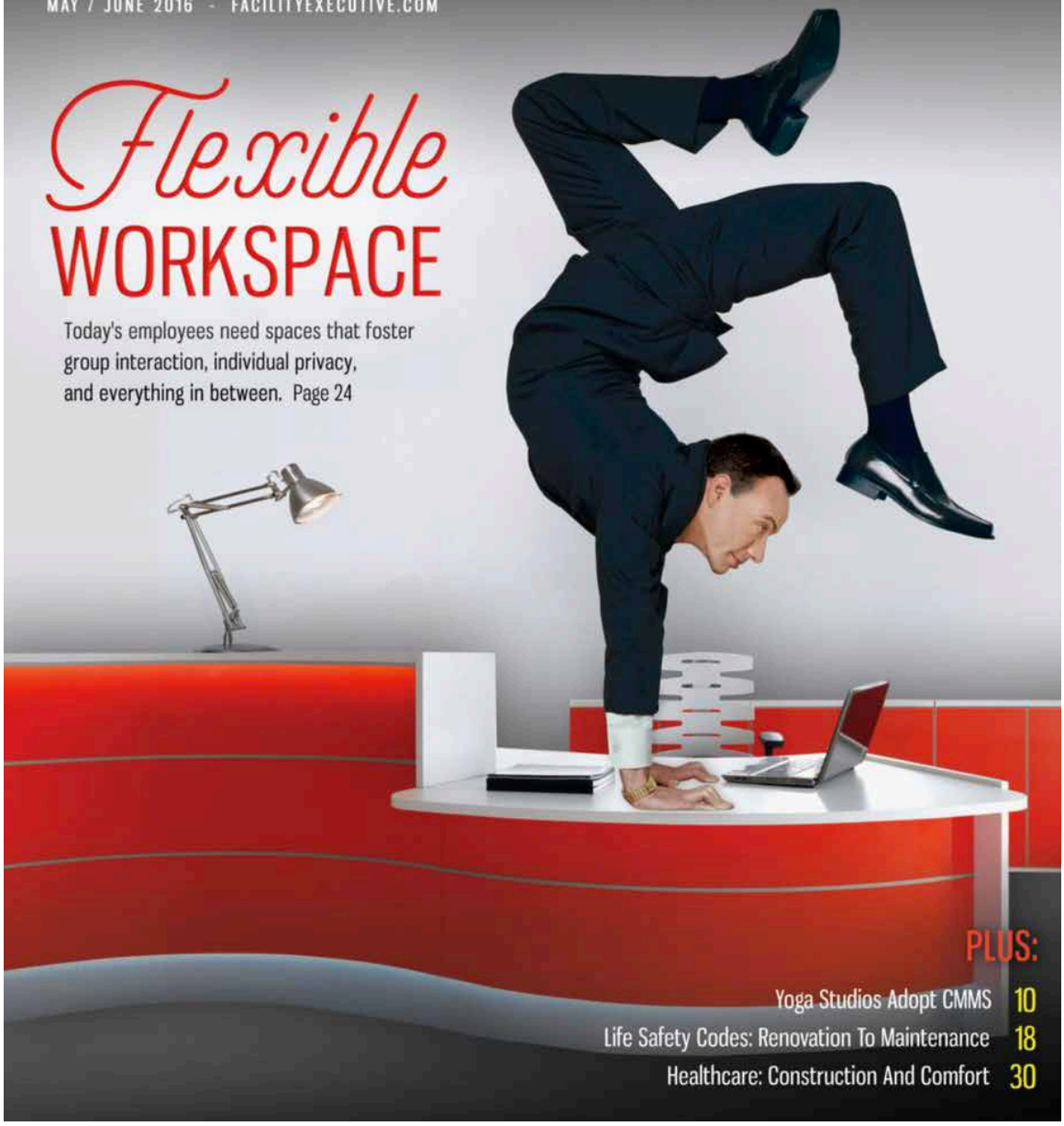
Flexible WORKSPACE

Today's employees need spaces that foster group interaction, individual privacy, and everything in between. Page 24



PLUS:

FOCUS ON: LIGHTING FIXTURES

High Bay LED Fixtures by Forest Lighting

High Bay LED Fixtures are replacements for HID systems. They use 50% less energy and help to reduce maintenance costs in manufacturing, warehouse, storage, retail, grocery, gyms, atriums, and other high ceiling applications.

High Bay LED Fixtures are instant on without the need for restrike systems or lamp warm-up. Four/three independent modules ensure continued illumination and optimal control flexibility.

High Bay LED Fixtures provide 0V to 10V dimming, a 5000K CCT, and a CRI of 75. Their input voltage is 100V to 277V with a power factor greater than 0.99 and an operating temperature of -4°F to 104°F.

DLC listed for utility rebates, High Bay LED Fixtures feature an aluminum housing, measure 19"D x 20"H, and weigh 17 pounds. They have average life of 70,000 hours and come with a five year warranty.

Fahrenheit™ Recessed LED Downlight by dmf Lighting®

The Fahrenheit Recessed LED Downlight is a recessed ceiling light fixture with a 4", 5", or 6" aperture. Composed of a frame-in kit, light engine, and trim, it suitable for new construction projects with strict safety codes in commercial, hospitality, and senior living applications.

The Fahrenheit Recessed LED Downlight light engine is composed of tightly binned (color variation within 2-step MacAdam ellipse), high performing white Cree® LEDs that enable fixture to fixture color consistency and a rated life of 50,000 hours at 70% lumen maintenance. It provides a 93+ CRI; 750 lumens (at 11.8 watts) or 1,000 lumens (at 14.7 watts); a 2700K, 3000K, 3500K, or 4000K CCT; flicker-free TRIAC/ELV, 0V to 10V, or EcoSystem® dimming; and an integral electronic driver for 120V to 277V 50/60Hz operation. Optional emergency battery backup units are available for emergency lighting up to two hours.

The Frame-in Kit for the Fahrenheit Recessed LED Downlight features a fire and sound rated housing fire-rated up to two hours for the L500 (floor-ceiling) and P500 (roof-ceiling) designs. Constructed of die formed #24 gauge galvanized steel, the housing has a snap on galvanized cover and non-combustible insulation.

The pre-wired #18 gauge galvanized steel junction box is supplied with quick connectors and has seven ½" knockouts, four Romex® knockouts, and removable plates. Mounting is accomplished using pre-installed adjustable bar hangers engineered to accommodate lumber, laminated beams, and T-bar in ceilings from ½" to 1".

The Fahrenheit Recessed LED Downlight trim is die-cast aluminum with twist and lock mounting for field installation and a tight ceiling fit.

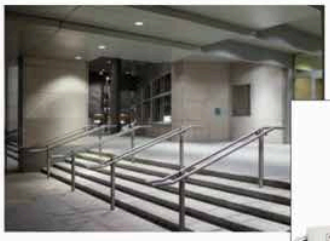
The Fahrenheit Recessed LED Downlight is UL fire listed, UL listed for wet locations, IC rated, cULus listed, CEC listed, ENERGY STAR qualified, and Title 24 compliant. It is also ASTM E283 certified Air Tight and comes with a five year limited warranty.

5", 6", and 8" Round LED Panel Lights by Super Bright LEDs

The 5", 6", and 8" Round LED Panel Lights are dimmable LED fixtures. They use EvenGlow™ technology and diffused optical lenses to deliver smooth illumination without visible bulbs or hot spots.

With a beam angle of 160° and a 4000K color temperature, the 5", 6", and 8" Round LED Panel Lights deliver CRIs (color rendering indexes) up to 84 with light that shows the true color of objects and surroundings. The LEDs are designed to last 36,000 hours for natural white illumination in a variety of areas.

The 5", 6", and 8" Round LED Panel Lights have a low profile white housing with integral heat sink and attached spring retaining clips for flush mounting around ductwork or where space is limited. The 5" panel light consumes 9 watts with 60 enhanced 2835 SMD LEDs and delivers 800 lumens; the 6" consumes 15 watts with 75 LEDs and 1,000 lumens; and the 8" consumes 24 watts with 120 LEDs and provides 1,900 lumens. They each operate within a 100V to 120V AC range and include a UL recognized constant current driver and pigtail connection.



SR12 by Terralux

The SR12 is a fully integrated, self-contained, plug-and-play LED solution for lighting fixture manufacturers and retrofit installations. It allows users to upgrade any flush, semi-flush, or pendant mount ceiling fixture using less than half the power of CFL for the same light. Suitable applications include ceiling domes and round wall sconces 12" in diameter or larger.

Four lumen packages (2500 lm, 3000 lm, 3500 lm, or 4000 lm) deliver up to 135 lm/W for more than 60,000 hours of maintenance-free light at L70. The SR12 features a 2700K, 3000K, 3500K, 4000K, or 5000K CCT; a CRI of 80+; 120VAC (phase dimming) or 120VAC to 277VAC (0V to 10V dimming); and a power factor greater than 0.9 at

all operating voltages. Integrated surge protection provides commercial grade reliability.

The SR12 LED light engine is AC-mains compatible and requires no additional drivers or special sockets (uses a detachable driver with quick connectors). The engine employs patented LEDSense® thermal management technology to provide maximum light output in various fixtures and operating conditions while assuring long-term lumen maintenance. LEDSense measures the operating temperature regularly and ensures compliance with a pre-programmed temperature and drive-current profile. This profile is based on the LED manufacturer's LM-80 data report and minimum L70/60,000 hour lumen maintenance curves. LEDSense is always active, and will compensate for variation in thermal conditions due to heat sinking, ambient air, engine positioning, or any other variable that affects the operating temperature.

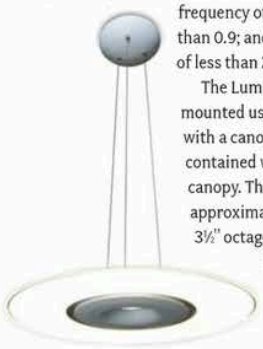
The SR12 is Energy Star 2.0 certified, UL1598C certified (LED retrofit kit), and FCC Class A compliant. It replaces 3x26 watt, 3x32 watt, and 3x42 watt CFLs as well as 70 watt, 100 watt, and 175 watt HIDs and comes with a seven year warranty.

Lumination™ EP Circular Series by GE Lighting

The Lumination EP Circular Series is a line of commercial pendant lighting fixtures utilizing Intrinsx™ technology. They provide uplight and downlight distribution with a rated life of 50,000 hours at L82 for lower maintenance costs over time.

Intrinsx technology is an advanced LED optical system. It allows for a nearly transparent luminaire when off and uniformity and efficiency when on. The design incorporates a clear transition zone between the frame and light emitting portion of the fixture, providing the illusion of the light floating in air.

Suitable for general indoor lighting, the Lumination EP Circular Series features 90 lm/W; 3000K, 3500K, and 4000K CCTS; a typical CRI of 80; and 4-Step MacAdam Ellipse color consistency. It delivers 3,600 lumens to 4,000 lumens with a 28 watt system input power; an input voltage of 120V to 277V; 0V to 10V standard dimming; an input frequency of 50/60Hz; a power factor greater than 0.9; and a total harmonic distortion (THD) of less than 20%.



The Lumination EP Circular Series can be mounted using powered suspension cables with a canopy mounting driver. The driver is contained within the surface mount ceiling canopy. The canopy (almost 8" diameter, approximately 2½"H) secures to a standard 3½" octagonal junction box. The light engine has a 24" diameter and the aircraft suspension cables measure 72". Mounting height is adjustable in the field during installation.

Operating conditions of the Lumination EP Circular Series range from 14°F to 104°F. Thermal overload protection shuts down the luminaire when system temperatures exceed designed operating conditions.

The Lumination EP Circular Series comes with a five year warranty. It is constructed with a fully recyclable heat sink, an IP20 rating, and an impact resistance of IK=2. A protective lens helps prevent scratches and allows for ease of cleaning.

SEFAR® LightFrame® by SEFAR® Architecture

The LightFrame is an illuminated and translucent modular fabric ceiling and wall system. It provides light transmission rates up to 83% and NRC values up to 0.9 with complete access to lighting, HVAC, and other ceiling penetrates.

LightFrame panels can be installed in either butt joint or reveal layouts. They feature stretched fabric construction that is secured in the aluminum frame with a spline. A second layer is attached to the reverse side of the frame to prevent dirt and dust accumulation and to optimize the light transmission and acoustic properties. This layer is either a clear or white ETFE-foil, or a second layer of fabric. Panels are manufactured to the dimensions specified. The optimal maximum panel width is 4'11" and optimal length is 10'.

Panels are assembled and pre-stressed utilizing a lightweight aluminum profile with minimal gaps (⅛") between them. They are available in square or rectangular shapes and hinged to allow direct access to the plenum for light source maintenance.

LightFrame's precision monofilament fabric optimizes artificial and natural light transfusion without color shift, for even illumination. Extremely narrow seams and a half-elliptical profile ensure illuminated surfaces are practically shadow-free. The wrinkle-free, prestressed, smooth membrane fabric resists moisture and dirt, passes ASTM E84 Class A fire testing, and is low VOC and free of plasticizers. Finishing and coating techniques ensure UV durability without fading.

A structural aluminum perimeter frame that is custom engineered for use with the LightFrame system can be supplied. The perimeter must be positively attached to the main structure of the building with a structure that meets local codes and engineering requirements.

The LightFrame system accommodates the installation of sprinkler heads, lighting, and air diffusers by incorporating these elements into utility channels (part of the ceiling). These channels are custom engineered to work with LightFrame panels. Custom machining ensures all connections between the panels and the utility channel align. Standard utility channels have a white finished face (optional faceplate available).