High Quality Tubular Daylighting Devices from Sun-Dome® by Daylighting Technologies, Inc.

Green Building Product
Cost Effective and Fast R.O.I.

Daylighting Solutions Made Easy
Made in the USA
Sun-Dome® Product Profile
PROVIDING SOLUTIONS FOR ENERGY CONSERVATION SINCE 1996

Incorporated in February of 1996, Sun-Dome® manufactures high-quality tubular daylighting devices for all types of commercial and residential applications.

The Sun-Dome® tubular daylighting device is manufactured with the following basic components:

- Polycarbonate clear dome, Aluminum roof flashing, reflective transfer tube, and diffuser assembly.

- Flashings for roof slopes ranging from flat to 8/12 to provide maximum light collection all day. Upon request, custom flashings are available for steep slopes as well as metal roof applications.

- Highly-reflective light-transfer tube with an adjustable option.

- Domed diffuser or troffer with flat or pyramidal lens.

- Other parts are available, such as curb and cap options, troffers, and dimmers.

- All Sun-Dome® units are tested and approved for small & large missile impact under Dade County protocol TAS-201/TAS-202/TAS-203/ ASTM F588-85 (Level 10), Miami-Dade County FL Approval number: NOA-11-1212.04. All units are HVHZ (High Velocity Hurricane Zone) approved. All units meet or exceed the Florida Building Code and comply with the Florida Product Approval System 9B-72 that came into effect (10/1/03 FBC-#1628.1). The Certification Agency and Quality Assurance Entity for Sun-Dome is Miami-Dade County whose approval is accepted throughout the entire state of Florida as well as in most other states. Sun-Dome® units easily withstand exposure to ice, snow and hail.

- Sun-Dome® is a Minority/Woman-owned certified business.

- All units manufactured by Sun-Dome® are Green Building products.
Tubular Skylights by Sun-Dome®

Sun-Dome® tubular skylights at Palm Beach State College, Belle Glade Campus.

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Advantages of Sun-Dome® Tubular Skylights

Save up to 90% daytime lighting costs by significantly reducing both A/C heat load and run time with tubular skylights by Sun-Dome®. These high quality, cost-efficient tubular skylights assist in conserving energy and money.

0 WATTS PER LUMEN!

- No extra directional device in the dome is required to obtain maximum sunlight capture because Sun-Dome® flashing mounts the roof dome in an upright position. Roof slopes ranging from flat to 8/12 can be accommodated.

Sun-Dome® tubular skylights have been placed in numerous LEED Certified projects as well as other projects. Under LEED, Sun-Dome® units can be used to gain any of the following credits:

- Credit for daylight: The minimum daylight factor of 2% in 75% of all space occupied for critical visual work. (1 point)

- Energy optimization credit: Determined by minimizing the design energy cost as compared to the energy cost budget for energy systems regulated by ASHRAE/ESNA Standard 90.1-1999, this credit is factored using a whole building simulation according to the Energy Cost Budget Method. (1 - 10 points depending upon the energy simulation results)

- Recycled content: Scrap metal, polycarbonate, and acrylic materials are recycled throughout the manufacturing process. More than 5% of materials are recycled. (1 point)

- Controllability of systems (perimeter and nonperimeter): Credit is applicable if the Eclypse Daylight Dimmer is used to offer daylighting control. (1 or 2 points)

Tubular Daylighting Devices in Masterformat

Source: ARCHITECTURAL LIGHTING Magazine, November 14, 2007
By Stephani L. Miller

At the urging of industry advocates, the Construction Specifications Institute (CSI) MasterFormat, a structured hierarchy of divisions and subsections that standardize information for construction project manuals, will now include a subsection on Tubular Daylighting Devices (TDDs): subsection 08 62 23. Formerly, TDD products were not given a separate designation under MasterFormat and frequently were grouped under unit skylights, roof accessories, or window openings, none of which accurately described the specification of TDDs. For more information on the new specification, visit [www.csinet.org](http://www.csinet.org).

Websites for Green Building

Current Green Building market trends:
Educational studies pertaining to natural light utilization: http://www.ncpa.org
Exterior and interior views (top to bottom) of a grocery store, bio-science lab, and office space applications.
With fuel, energy, materials and shipping costs constantly rising it is important to find ways to cut down on expenses.

ENERGY CONSERVATION is no longer something we can think about doing in the future. Through energy conservation, business and residential owners can reduce the power bill and fight back on rising prices.

By modernizing the lighting in new buildings or existing facilities, power bills can be cut as much as 75-90% of the day time lighting costs while at the same time reducing A/C heat loads and run time.

It is time to show OPEC and big oil companies that we do have a say in how much money they demand from us. We can do this by buying less from them through lowering power bills.

The Sun-Dome Tubular Daylighting Devices can be easily mounted to virtually any roofing system and provide a clean profession finish. (above is an installation on a metal deck with bulit-up insulation and membrane)
Fluorescent lighting (left) creates heat and concentration problems whereas Sun-Dome® Tubular Daylighting (right) does not.

Before Sun-Dome® Tubular Skylights, electric lights off (left) after Sun-Dome® Tubular Skylights installed(right).

Halide lighting (left) creates a cave-like environment that is greatly improved with natural sunlight provided by Sun-Dome® suspended Tubular Skylights (right).
Stores and Warehouses

This suspended installation at a wholesale grocery store saved over 31,000 watts of fluorescent lighting fixtures.

This convenience store takes advantage of free sunlight by using Sun-Dome® Tubular Daylighting Devices to illuminate their store for the shoppers. Studies have shown that natural light improves a person’s mood, memory, and productivity.
Auto Body Shops and Manufacturing Plants

Suspended tubular skylights in this auto body shop render natural light that is perfect for matching paint and performing body work repairs.

Suspended tubular skylights in this machine shop provide natural light for improved worker health and productivity.

Suspended tubular daylighting devices in this warehouse allow workers to easily identify shelf items.

The utilization of Sun-Dome® Tubular Skylights in an office building in Turkey illuminates all 4 levels.
Daylighting is an ideal choice for restrooms large or small. Whether it is a commercial restroom or a residential bathroom, Sun-Dome® can help you light that space with no more cost for usage of electric lighting.
Sun-Dome® Tubular Skylights provide optimal natural light without the heat of fluorescent lighting.

Sun-Dome® Tubular Skylights do not transfer heat or cold between the building exterior and interior.

Sun-Dome® can provide, if requested, photometric light simulations to estimate the amount of light that our system will provide.
Installation on Metal Roofs

Installation is on a flat metal deck roof with insulation.

Custom-welded roof flashing for a R-Panel roof system.

Custom-welded roof flashing for a Maxi-Rib Galvalume 24 gauge panel roof system.

Installation is on a standing-seam metal roof.

Installation on a corrugated metal roof system.
Steel Curb Mount Installation

Steel curb, insulated installation. See page 23 for illustration, Steel Curb Mount Installation (Open Ceiling Application/ Suspended Diffuser).

The Sun-Dome® Insulated curb is fabricated from 18 gauge steel with welded corners. The curb cap has a 2-3/4” turn down with boxed and riveted corners. The curb can be ordered to match the type of roof for your application for a virtually seamless installation.
2' x 2' Round to Square Troffer Diffuser Assembly

Fully Fabricated from aluminum sheet

Flat Female Conical Prism Lens

Flat Prism Lens

Also available in a Translucent White Lens
Sun-Dome® Eclypse Daylight Dimmer

The Sun-Dome® Eclypse Daylight Dimmer gives you full control of the amount of sunlight through your system. See page 19 for CAD drawings of this option.

**Specification for Sun-Dome® Eclypse Daylight Dimmer**

- The Sun-Dome® Eclypse Daylight Dimmer is supplied as a completely assembled unit ready for installation.
- The unit is powered by a 110V AC power source, while only drawing 4W of power during operation.
- Adjust light level to any desired amount from 100% light to 2% light.
- Hardwire operation is controlled by a 3-Position Momentary Contact Switch; 15A, 120/277VAC; SPDT
- The unit can be ordered for hardwired applications, or it is also available with a pre-configured, wireless control system. (wireless control recommended for residential use only - 4 selectable channels)
Sun-Dome® “Omni-Hybrid” LED Light Kit

The Sun-Dome® LED Light Kit gives added usage to your tubular daylighting device by providing an additional light source other than the sun to your room seamlessly through the tubular skylight diffuser.

- Sun-Dome® “Omni-Hybrid” LED Light Kit hooks up directly into 90/265VAC, 50/60HZ power source.
- Comes ready to install between reflective tubing sections, hardwire to power and operate with a standard (on)(off) wall switch.
- Operated by a wireless control system (recommended residential use only - 4 selectable channels)
- No heat build up due to break-through LED technology
- The 10” and 13” models use only 20w of power during operation
- The 21” and Round to Square Troffer Box models use only 48w of power during operation.
The Sun-Dome® Prismatic Diffuser for commercial applications is designed for easy installation into open areas. Because the units can be lowered directly into the flashing barrel from the roof, there is no need to access the inside of the building to attach the diffuser.

- The installation is fast, cost-effective, and is less labor intensive.
- No tall ladders or platform scaffolds required, liability exposures are greatly reduced.

Convex Female Conical Prism Lens
Also available in a Convex Translucent White Lens

Convex Prism Lens
The Sun-Dome® Commercial Series is a new standard in tubular daylighting devices with higher structural integrity, faster install time, and a robust architectural friendly design for our 21” tubular skylights.

- Withstands greater impact forces and design load pressure than conventional tubular skylights.
- Faster installation; the unit comes with the dome, top tube and mounting ring preassembled (above).
- Cuts installation time in half and insures a proper seal.
- Rated Design Pressure: +150/ -100 (tested with a safety factor of 3x).
Burglar Bar and Dome Security Kit

- The Sun-Dome® Burglar Bar option consists of a 1.5 x 1.5 inch rolled aluminum angle ring 3/16” thick.
- A 3/8” stainless steel rod crosses the center of the tube through the ring.
- The ring is installed on the underside of the roof surface and is not exposed to the outside.
- The surface of the roof must be breached before the burglar bar is accessible.

- The Sun-Dome® Dome Security Kit replaces the standard phillips head dome screws with tamper-proof screws.
- Dome security kit screws come with the washer and o-rings pre-attached to the screw.
- Each dome security kit comes with two corresponding drill tips.
Metal Deck Illustrations

Metal Roof Deck Installation
W/ Pyramidal Diffuser

SUN-DOME, Inc.  (561) 840-6094
3612 Reese Avenue
West Palm Beach, FL 33404
Standing Seam Metal Roof Illustrations

TUBES NOT DRAWN TO EXACT LENGTH

STANDING SEAM METAL ROOF W/ ROUND TO SQUARE TROFFER

SUN-DOME, Inc.
3012 Reese Avenue
West Palm Beach, FL 33404
(561) 840-0995

STANDING SEAM METAL ROOF
INSTALLATION W/ SUSPENDED DIF-

POLYCARBONATE CLEAR DOME
PILE SEAL
1/2" S.S. DOME SCREWS
(180° ALUMINUM)
ROOF FLASHING
1-3/8" S.S.
FLASHING SCREWS
ROOF DECK
WEATHER INSULATION
ROUGH CUT RIDGE
1/2" LARGER HOE MARKED RIDGE
TOP TUBE
EXTENSION TUBE
BOTTOM TUBE
SUSPENSION FLANGE
DIFFUSER
PER CORE
STANDING SEAM METAL ROOF

TUBES NOT DRAWN TO EXACT LENGTH

PEG CORE
STANDING SEAM METAL BASE
1/2" LARGER HOE MARKED RIDGE
CIRCULAR PYRAMIDAL DIAMETER
SUSPENSION SCREW
EXTENSION TUBE
SELF TAPPING SCREW
ROOF DECK
WEATHER INSULATION
ROUGH CUT RIDGE
1/2" LARGER HOE MARKED RIDGE
TOP TUBE
DIFFUSER

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Sloped Wood Roof Illustrations

Typical Installation
Vaulted Ceiling Install
(Typical) NTS

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West Palm Beach, FL 33404

Typical Roof Suspended
(N.T.S.)

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3612 Reese Avenue
West Palm Beach, FL 33404
Visit Sun-Dome® Tubular Skylights on ARCAT

Download installation instructions, current testing certifications, order forms, etc. from the Sun-Dome® website

www.sun-dome.com
www.sun-dome.com/direct.html
www.sun-dome.com/links.html
www.sun-dome.com/shopDrawing.html