

MORTAR JOINT
Smooth Face
Color: Natural (Gray)

TEK 02-03A

ARCHITECTURAL CONCRETE MASONRY UNITS

INTRODUCTION

One of the most significant architectural benefits of designing with concrete masonry is its versatility – the finished appearance of a concrete masonry wall can be varied with the unit size and shape, color of units and mortar, bond pattern, and surface finish of the units. The term “architectural concrete masonry units” typically is used to describe units displaying any one of several surface finishes that affects the texture of the unit, allowing the structural wall and finished surface to be installed in a single step.

Architectural concrete masonry units are used for interior and exterior walls, partitions, terrace walls, and other enclosures. Some units are available with the same treatment or pattern on both faces, to serve as both exterior and interior finish wall material, increasing both the economic and aesthetic advantages. Architectural units comply with the same quality standards as conventional concrete masonry, Standard Specification for Loadbearing Concrete Masonry Units, ASTM C90 (ref. 3). In some cases, noted below where applicable, additional provisions govern which are more applicable to the specific unit.

The units described herein are some of the more common architectural concrete masonry units. However, manufacturers may carry additional products not listed here, and conversely, not all products listed will be available in all locations. Consult a local manufacturer for final unit selection.

Exterior Block to be Painted on-site.
Color TBD

ARCHITECTURAL UNIT TYPES

Split Faced Units

Split faced units have a natural stone-like texture produced by molding two units face-to-face, then mechanically splitting them apart after curing, creating a fractured surface. Because coarse aggregate is also fractured and exposed in this process, aggregate selection can alter the final appearance.

Split-faced units can also be manufactured with ribs or scores to provide strong vertical lines in the finished wall. Rough textures, like those available with split face units, are often used in areas prone to graffiti, as the texture tends to discourage graffiti vandals.

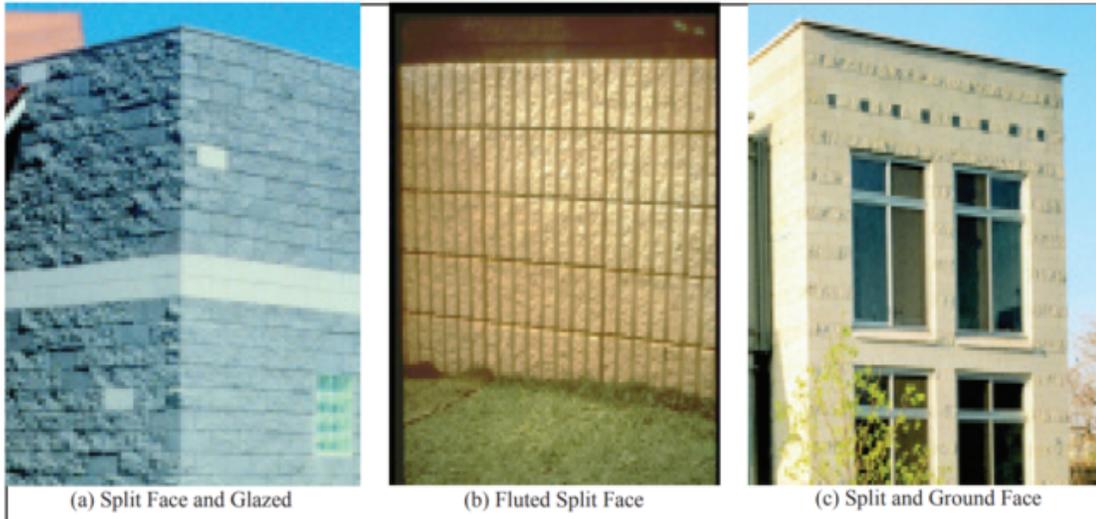
Split face units are governed by ASTM C90, which includes an allowance to account for the rough face. ASTM C90 prescribes minimum faceshell thickness requirements for all loadbearing concrete masonry units, but also contains a variance for split face units where up to 10% of a split faceshell can be less than the minimum specified thickness, but not less than $\frac{3}{4}$ (19 mm). This 10% limit does not apply, however, in. when the units are solidly grouted. Walls utilizing a variety of split face units are shown in Figure 1.

Ground Face Units (Burnished, Honed)

Ground face concrete masonry units are polished after manufacture to achieve a smooth finish which reveals the natural aggregate colors. The units have the appearance of polished natural stone. The finished look of the ground surface can be altered by changing aggregate type and proportions. Often, specific aggregates will be used to enhance the appearance of the polished surface (Figure 1c and 2a), while coatings are sometimes used to deepen the color. Ground face units are often scored to achieve a scale other than the conventional 8 16 in. (203 x 406 mm), as shown in Figure 2a.

Smooth Faced Units

Smooth faced units have a "natural" smooth finish that does not show aggregate. Smooth faced units can present a somewhat variable appearance in color, and are often used with another covering, such as siding or veneer.



📷 Figure 1—Examples of Architectural Concrete Masonry Units



📷 Figure 2—Additional Examples of Architectural Concrete Masonry Units

COLOR

Architectural concrete masonry units are often integrally colored to enhance the appearance or achieve a particular effect. Concrete masonry units are colored by adding mineral oxide pigments to the concrete mix. Mortars can also be integrally colored to blend or contrast with the masonry units.

The final unit color varies with the amount and type of pigment used, cement color, aggregate color, and the amount of water used in the mix (a wetter mix will generally produce lighter and brighter colors). Both white and gray cements are available. The use of white cement results in more vibrant colors, but also increases cost. The aggregates used in the concrete mix also impact the final appearance. Because of these varying factors, there are typically some subtle variations in color among units.

When units must be exactly the same color to achieve a particular architectural effect, uncolored units should be used, then painted or stained the desired color.

Variiegated units provide color variations within each unit, producing a marbled effect.

These units are manufactured by mixing two different concrete colors into the same unit mold.

STANDARD UNIT NOMENCLATURE

As with many construction products and systems, there are often regional differences in terminology for the same type of architectural concrete masonry units: ribbed and fluted, ground and burnished, etc. The National Concrete Masonry Association has developed a standardized nomenclature (see Table 1) which can be used to avoid confusion when specifying and supplying masonry units. (See Figure 3 for examples).

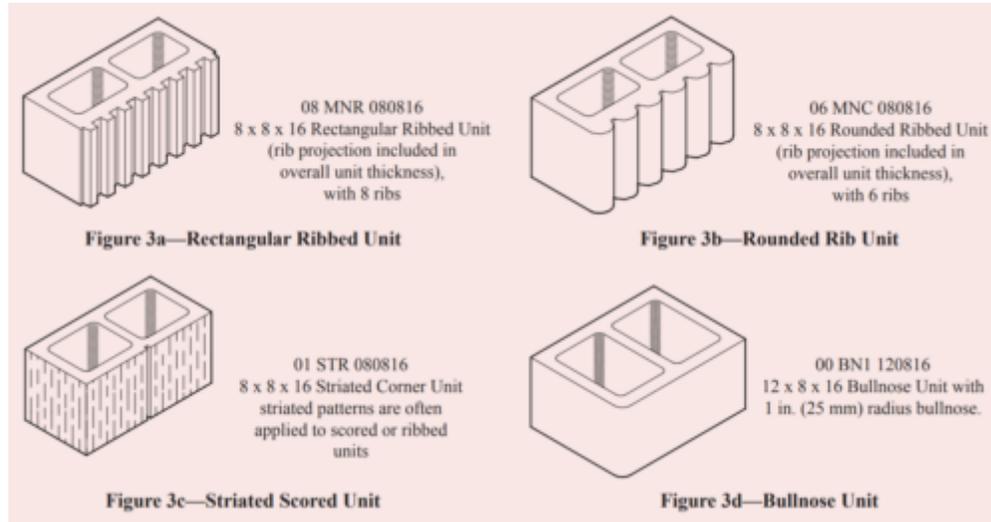


Figure 3—Examples of Standard Unit Nomenclature

References

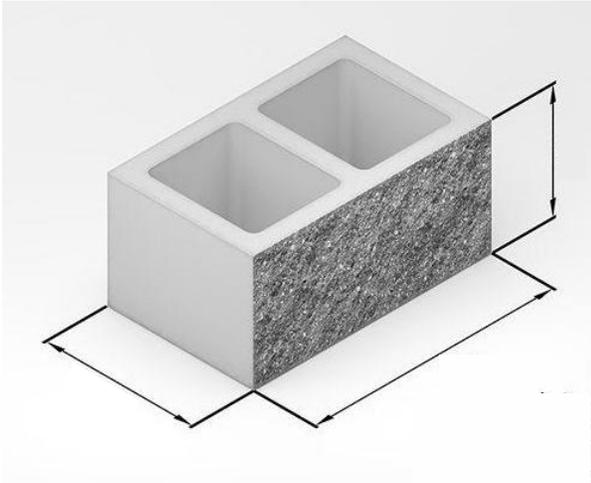
1. Concrete Masonry Bond Patterns, TEK 14-6. National Concrete Masonry Association, 1996.
2. Concrete Masonry Shapes & Sizes Manual, CM 260A. National Concrete Masonry Association, 1997.
3. Standard Specification for Loadbearing Concrete Masonry Units, ASTM C 90-00. American Society for Testing and Materials, 2000.
4. Standard Specification for Prefaced Concrete and Calcium Silicate Masonry Units, ASTM C 744-99. American Society for Testing and Materials, 1999.

NCMA TEK 2-3A, Revised 2001

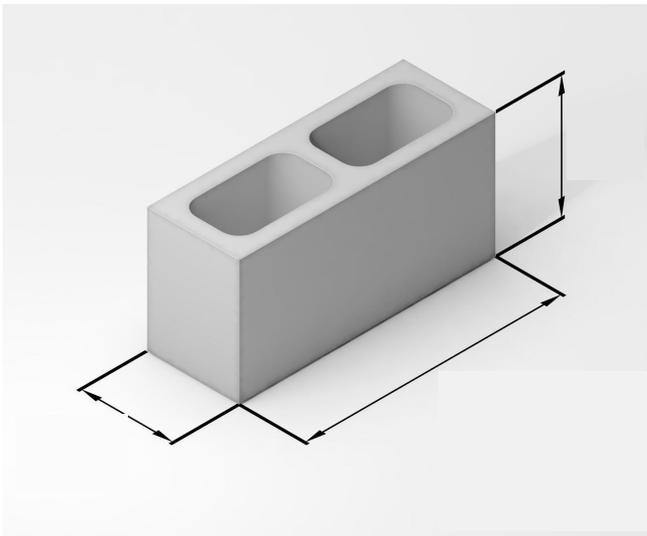
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Keywords

Split Face Examples



Smooth Face Examples





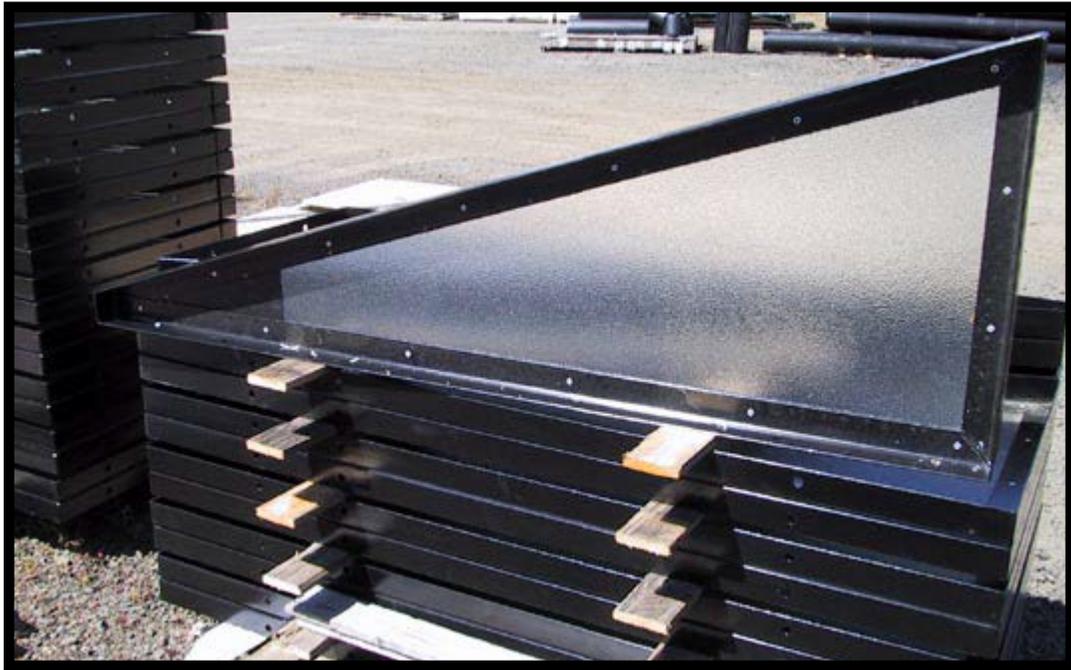
Gable Window

Description:

The following is an example of the Romtec gable window included in the design of this building.

Features:

- Angle Iron Frame - 2" by 2" by 1/8"
- Pre-assembled steel frame
- Polycarbonate is 1-8" thick
- Translucent Pebble finish
- Powder coated, standard color is black
- See plans for dimensions



Note: Image is example only. Dimensions, appearance, and features may vary as needed for specific project(s).

*** Minimum one year limited warranty included for all Romtec Custom Fabrication items.**

For more info about Romtec and other available products, see:

FABRAL® SLIM SEAM®

BRIEF PRODUCT SPECIFICATION



Stubbs Home, Ferriday, LA, USA

A custom designed residence that is easy to live in, fun and sustainable. Using local resources, the homeowner chose Fabral for a sustainable metal roof while incorporating solar to harness the sun's energy into electricity for her home.

FABRAL CORE™

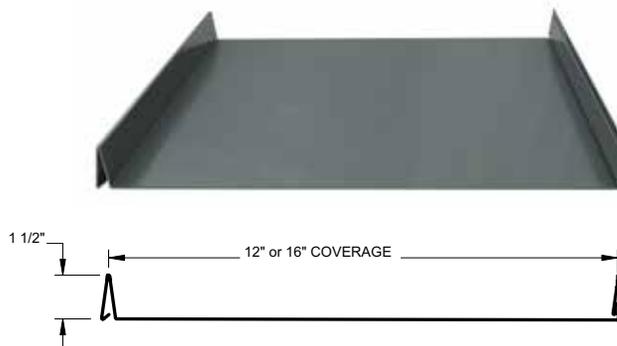
**You challenge us.
And we like it.**

Your vision for a building and what you want to achieve makes us think harder. It'd be easy to say - That won't work. Instead we go with - Let's see what we can do.

Fabral.com
800.884.4484

STANDING SEAM ROOFING PANEL SLIM SEAM®

With superior strength and spanning capability, Fabral® Slim Seam® is a high-performance structural standing seam panel suited for roofing applications. With its unique one-piece stainless steel clip system that allows for unlimited thermal movement and reduces panel pan uplift under negative load, Slim Seam® is great solution for your project. This standing seam roof panel, available with the unlimited color options inherent to all Fabral® products, is primed for use in demanding applications from healthcare to government.



(Product details on reverse)

FABRAL® SLIM SEAM®

BRIEF PRODUCT SPECIFICATION

MANUFACTURER DESCRIPTION

- Fabral®, 308 Alabama Blvd, Jackson, GA 30233
- Telephone: 800.884.4484
- Email: sales@fabral.com
- Website: www.fabral.com

PRODUCT DESCRIPTION

Acceptable Product:	Fabral® Slim Seam®	
Air Infiltration:	ASTM E1680 ASTM E283	No air penetration @ 20 psf 0.09 cfm/ft ² @ 1.57 psf
Water Penetration:	ASTM E1646 ASTM E331	No water leakage @ 12 psf No water leakage @ 25 psf
Wind Uplift:	ASTM E1592 UL580	Test results vary depending on gauge and panel thickness Class 90, #274, 274A, 369
Class 4 impact:	UL2218	
Class A fire:	UL790	
TX Dept of Insurance approved		
FL approved		

WIND UPLIFT LOAD TABLE (PSF)

Substrate	Width	Spans	2'-6"
26 ga. Steel	16"	3	48

DESIGN INFORMATION

- Roof Slope: Minimum required - 1:12
- Purlin Spacing: Maximum – 3' on-center
- Panel Length: Maximum - 48' Minimum - 4'
- Panel Width: 12", 16"

PRODUCT INSTALLATION

Install panels plumb, level and straight so it is watertight and without waves or other distortions, allowing for thermal movement considerations. Apply sealant tape or caulking as necessary at flashing and panel joints to prevent water penetration.

PRODUCT MAINTENANCE AND WARRANTY

Fabral® provides a 20 year paint-finish warranty for cracking, chipping, peeling, fading and chalking, and a wide selection of weathertightness warranties are available for up to 20 years – providing confidence in a long-lasting application.

To ensure the durability of your Slim Seam® panels, use proper care. Remove filings, grease, stains, marks or excess sealants from roof panels system to prevent staining. Store panels and flashings in a safe, dry environment.

RECENT PROJECTS TO REFERENCE

Segment	Project Name	Location	Architect/Distributor
Government	Keesler AFB Technical Training Facility	Biloxi, MS	Anderson & Associates, Inc
Recreation	Nordstrom's	Paramus, NJ	Custom Specified Products
Healthcare	North Carolina Cancer Center	Raleigh, NC	N.B. Handy Co
Office Building	Marketable Enterprises, Building A & B	Palm Court, FL	B & B Wholesale Metal



Charcoal Gray 851 IR=.35

Colors shown are as close to actual colors as allowed by the printing process. Actual metal samples are available. Colors may appear different when viewed at different angles & under different lighting conditions.

Due to product improvements, changes & other factors, we reserve the right to change or delete information herein without prior notice.

** Subject to premium pricing.



*All colors are ENERGY STAR[®] approved

Catalog Number
Notes
Type

FEATURES & SPECIFICATIONS

INTENDED USE

Provides years of maintenance-free illumination for outdoor use in residential & commercial applications. Ideal for applications such as lighting walkways and stairways for safety and security.

CONSTRUCTION

Cast-aluminum housing with corrosion-resistant paint in either dark bronze or white finish.

ADA compliant.

OPTICS

4000K CCT LEDs.

Polycarbonate lens protects the LED from moisture, dirt and other contaminants.

LUMEN MAINTENANCE: The LED will deliver 70% of its initial lumens at 50,000 hour average LED life. See Lighting Facts label on page 2 for performance details.

ELECTRICAL

MVOLT driver operates on any line voltage from 120-277V

Operating temperature -30°C to 40°C.

1KV surge protection standard.

INSTALLATION

Surface mounts to universal junction box (provided by others).

LISTINGS

UL Listed to U.S. and Canadian safety standards for wet locations.

Tested in accordance with IESNA LM-79 and LM-80 standards.

WARRANTY — 5-year limited warranty. Complete warranty terms located at

www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Note: Specifications subject to change without notice.

Outdoor General Purpose

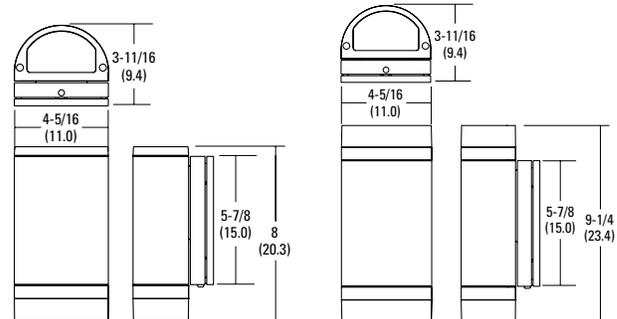
OLLWD & OLLWU

LED WALL CYLINDER LIGHT



Specifications

All dimensions are inches (centimeters)



ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

Example: OLLWD LED P1 40K MVOLT DDB

Series	Performance Package	Color temperature (CCT)	Voltage	Finish
OLLWD LED Downlight	P1	40K 4000K	MVOLT 120V-277V	DDB Dark bronze
OLLWU LED Up & downlight			120 120V ¹	WH White

Notes

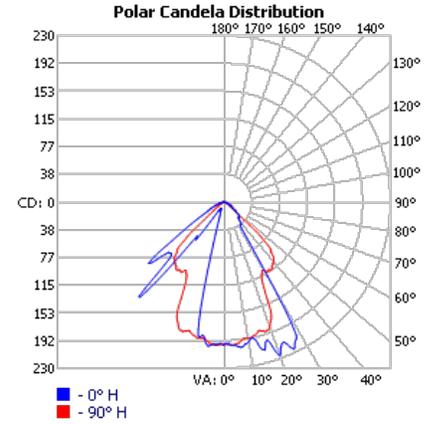
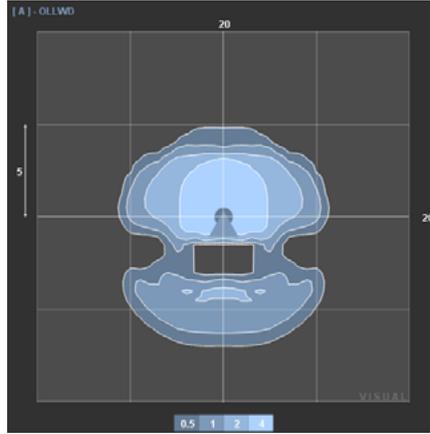
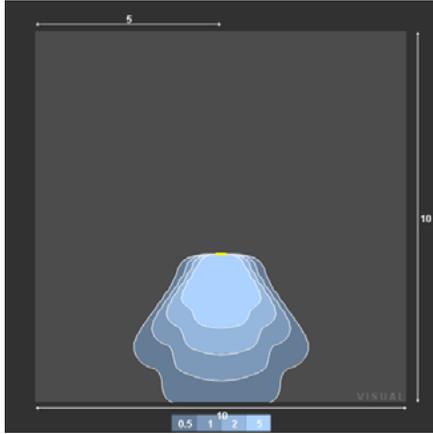
1 Only available with OLLWU and in DDB.

OLLWD & OLLWU LED Wall Cylinder Light

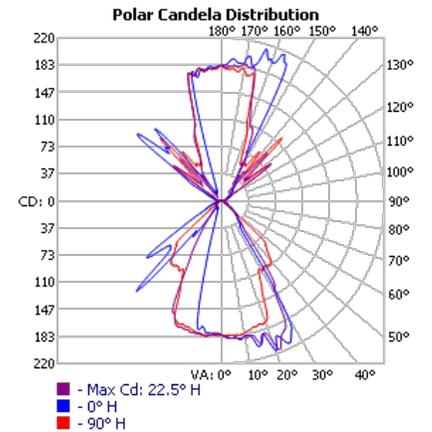
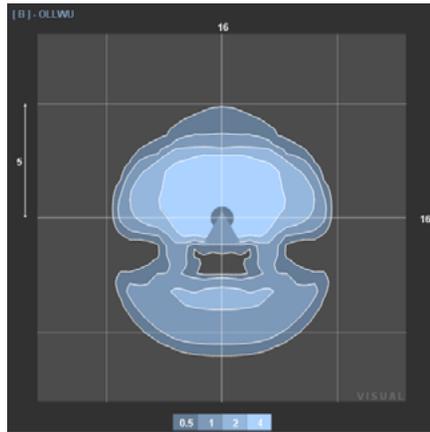
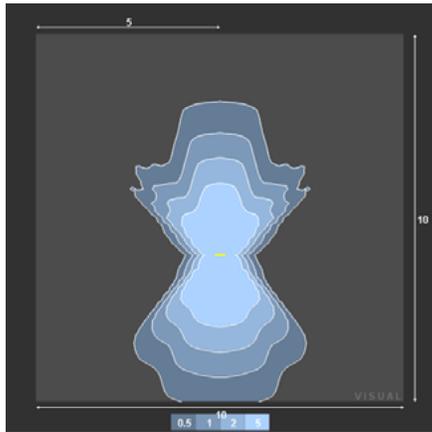
PHOTOMETRICS

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's Outdoor LED homepage
 Tested in accordance with IESNA LM-79 and LM-80 standards.

OLLWD



OLLWU



OLLWD

LED lighting facts A Program of the U.S. DOE	
Light Output (Lumens)	533
Watts	9.1
Lumens per Watt (Efficacy)	58.63
Color Accuracy Color Rendering Index (CRI)	70
Light Color Correlated Color Temperature (CCT)	4000 (Bright White)
<small>All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.</small>	
<small>Visit www.lightingfacts.com for the Label Reference Guide.</small>	
<small>Registration Number: NJSM-WSPYMF (7/20/2016) Model Number: OLLWD LED P1 40K XXXXX XXX Type: Luminaire - Other</small>	

OLLWU

LED lighting facts A Program of the U.S. DOE	
Light Output (Lumens)	947
Watts	14
Lumens per Watt (Efficacy)	67.64
Color Accuracy Color Rendering Index (CRI)	70
Light Color Correlated Color Temperature (CCT)	4000 (Bright White)
<small>All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.</small>	
<small>Visit www.lightingfacts.com for the Label Reference Guide.</small>	
<small>Registration Number: NJSM-Y7HNB8 (7/20/2016) Model Number: OLLWU LED P1 40K XXXXX XXX Type: Luminaire - Other</small>	