ELCO Lighting

Project name:

Fixture type:

Date:

# 1" Square Recessed Oak™ Pull Down

Small aperture 12V AC Downlight delivers over 600 lumens. More than a traditional 50W MR16 Halogen Lamp. Requires 12V AC Transformer (daisy chain up to 6). Dimmable ELV, MLV or 0-10V depending on transformer used.

## Features

- Requires 12V AC transformer. Dimmable ELV, MLV or 0-10V depending on transformer used.
- IC for use with direct contact to insulation
- Height allows for use in ceilings with under 4" depth. Ceiling thickness can be reduced from fixture depth.
- Daisy chain up to 6 fixtures with E1LDRV60
- 28°, 38° and 50° beam options, not recommended for in field changes.
- Remodel requires no frame. New construction E1LF2 frame available.
- UL Damp Location Rated
- UL Listed, Meets California Title 24 JA8-2016-E and Energy Star standards.
- Life Span 50,000 Hours L70

## Specifications

| | |
|---|---|
| **Wattage** | 6.1W |
| **Lumens** | 650 lm |
| **Voltage** | 12V AC |
| **Color Temp.** | 3000K |
| **Dimmable** | Yes |
| **Lamp Type** | LED |
| **Beam Angle** | 50° |

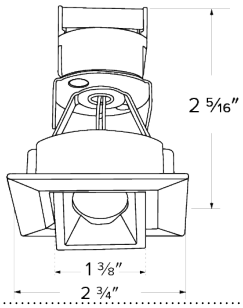
## Options

**White**

**Black**

**Bronze**

## Dimensions




## Technical Details

**Optics**: PC Lens for even lumen distribution.  28°, 38° and 50° beam options, not reccomended for in field changes.

**Adjustability**: 360° rotation with 30° gimbal adjustability. Gimbal can be locked into place by tightening locking screw.

**Construction**: Diecast construction for lasting quality and greater heat dissipation. High quality powder coat finish prevents rust and paint cracking.

**Installation:** Requires 12V AC transformer. Can be installed on E1LF2 new construction frame. Remodel requires no frame. Hole cutout size: 2 3/8" (61 mm). Height allows for use in ceilings with under 4" depth. Ceiling thickness can be reduced from fixture depth.

**LED Technology:** Extremely accurate color rendering with 93+ CRI. Efficacy of up to 110 lumens per watt. Lumen Maintenance of 50,000 hours L70 based on LM80. Superior Thermal Management by utilizing diecast aluminum body as heat sink.

**Electrical:** Requires 12V AC transformer. Can be daisy chained up to 6 fixtures with E1LDRV60 or can be wired 1 fixture per transformer.

**Delivered Lumens: E1L22F27** 625 lm/2700K  **E1L22F30** 650 lm/3000K  **E1L22F35** 675 lm/3500K  **E1L22F40** 700 lm/4000K

**Dimming:** Dims with MLV dimmers when powered by dimmable magnetic 12V AC transformer. Works with ELV dimmers when powered by dimmable electronic 12V AC transformer. Dims with 0-10V systems with 0-10V dimmable 12V AC transformer. Check transformer and dimmer compatibility before installation .

**Listings**: cUL Listed. UL Listed for DAMP Location. UL Listed for direct contact with inuslation. Meets California

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Title 24 JA8-2016-E and Energy Star standards.

**Warranty:** ELCO Products are built to last with a 5-year Limited warranty.

## Product Number Builder

Example: **E1L22F27W**

| Trim | Style | Beam Angle | Color Temperature | Finish |
|---|---|---|---|---|
| **E1L** | | | | |
| | **22** Square | **F** 38° | **27** 2700K | **W** All White |
| | | **NF** 28° | **30** 3000K | **BZ** All Bronze |
| | | **WF** 50° | **40** 4000K | **B** All Black |

| Distance from Transformer to 1st Fixture | #12 Gauge | | | | | | #14 Gauge | | | | | | #18 Gauge | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Fixtures | | | | | | Number of Fixtures | | | | | | Number of Fixtures | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1' | 12.0 | 11.9 | 11.6 | 11.5 | 11.1 | 10.8 | 12.0 | 11.9 | 11.6 | 11.5 | 10.9 | 10.7 | 11.9 | 11.8 | 11.3 | 11.1 | 9.9 | 9.6 |
| 2' | 11.9 | 11.9 | 11.6 | 11.4 | 10.8 | 10.7 | 11.9 | 11.8 | 11.5 | 11.3 | 10.7 | 10.5 | 11.9 | 11.6 | 11.1 | 10.9 | 9.7 | 9.1 |
| 4' | 11.9 | 11.8 | 11.5 | 11.3 | 10.6 | 10.4 | 11.9 | 11.8 | 11.4 | 11.2 | 10.2 | 10.2 | 11.8 | 11.5 | 11.0 | 10.8 | 9.5 | 8.7 |
| 6' | 11.9 | 11.8 | 11.4 | 11.3 | 10.5 | 10.3 | 11.9 | 11.7 | 11.3 | 11.2 | 10.3 | 10.0 | 11.7 | 11.3 | 10.8 | 10.5 | 9.3 | 8.2 |
| 8' | 11.8 | 11.7 | 11.3 | 11.1 | 10.3 | 9.9 | 11.7 | 11.6 | 11.5 | 10.9 | 9.8 | 9.5 | 11.5 | 11.2 | 10.4 | 9.8 | 8.6 | 7.4 |
| 10' | 11.7 | 11.6 | 11.2 | 10.9 | 10.1 | 9.4 | 11.7 | 11.6 | 11.1 | 10.9 | 9.7 | 9.2 | 11.4 | 11.0 | 10.4 | 9.3 | 8.1 | 6.9 |
| 16' | 11.7 | 11.7 | 11.3 | 10.7 | 9.9 | 8.9 | 11.5 | 11.4 | 10.9 | 10.2 | 9.0 | 8.2 | 11.3 | 10.9 | 10.1 | 8.8 | 7.6 | 6.6 |
| 20' | 11.4 | 11.3 | 10.9 | 10.1 | 9.2 | 8.2 | 11.5 | 11.3 | 10.8 | 9.9 | 8.6 | 7.6 | 10.8 | 10.0 | 8.5 | 7.1 | 5.9 | 4.4 |

Notes:

1. Max 6 fixtures.
2. For this analysis, 3' of wire was used between fixtures.
3. There will be an additional drop of ~1V if a dimmer is used.
4. Recommended maximum voltage drop is to 10.5V.


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# Compatible Products

For use with **1″ Oak™ Adjustable Light Engines**

## 1″ Oak™ New Construction IC Frames

IC Rated Frame*
New Construction

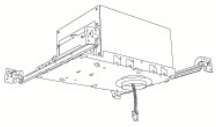
| CAT NO. | SPECIFICATIONS |
|---|---|
| E1LF2 | 2 ⅜″ Cutout for E1L32 and E1I22 |

IC Rated Multiple Frame*
New Construction

| CAT NO. | SPECIFICATIONS |
|---|---|
| E1LF2-M2 | 2 Set for E1L32 and E1I22 |
| E1LF2-M3 | 3 Set for E1L32 and E1I22 |
| E1LF2-M4 | 4 Set for E1L32 and E1I22 |
| E1LF2-M5 | 5 Set for E1L32 and E1I22 |

*Requires 12V AC transformer (not included)

## 1″ Oak™ New Construction IC Rated



Specialty R-60
1″ IC Housing - Includes transformer
New Construction

| CAT NO. | SPECIFICATIONS |
|---|---|
| E1LF2ICAJ | 2 ⅜″ Cutout for E1L32 and E1I22 |

**PRODUCT NUMBER BUILDER**

| 1″ Oak™ IC Rated Housing | |
|---|---|
| **E1LF2ICAJ** | R60 IC New Construction Housing |

| Dimming | |
|---|---|
| **(blank)** | 120V Input, ELV Dimmable |
| **-7** | 277V Input, Non-Dimmable |
| **DX** | 120V Input, 0-10V Dimmable |
| **DX-7** | 277V Input, 0-10V Dimmable |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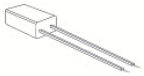
# Compatible Products

For use with **1″ Oak™ Light Engines**

## 1″ Oak™ 12V AC Transformers

### Enclosed Electronic Transformer

| CAT NO. | SPECIFICATIONS |
|---|---|
| E1LDRV60 | ELV Dimmable |



### Electronic Transformer

| CAT NO. | SPECIFICATIONS |
|---|---|
| LET-60 | 120V Input |
| LET-60H | 120V Input, Hatch |
| LET-60-277 | 277 Input |

### 0-10V Dimmable Electronic Transformer

| CAT NO. | SPECIFICATIONS |
|---|---|
| LET-60DX | 120V Input |
| LET-60DX-277 | 277V Input |

### Magnetic Transformer

| CAT NO. | SPECIFICATIONS |
|---|---|
| ETR12 | 50W, Daisy Chain 2-6 |
| ETR12-20 | 20W, Daisy Chain 1-3 |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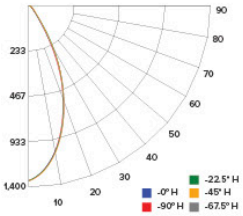
# Photometric Report

## Oak™ LED Light Engine

### PHOTOMETRIC REPORT

Product #: E1L22F30
Wattage / Lumens: 6.4W / 600 lm
Luminaire LPW: 93.7 lm/W




### CANDLE POWER SUMMARY

| Degress Vertical | 0° |
|---|---|
| 0 | 1302 |
| 5 | 1259 |
| 15 | 869 |
| 25 | 368 |
| 35 | 108 |
| 45 | 39 |
| 55 | 13 |
| 65 | 6 |
| 75 | 3 |
| 85 | 0 |
| 90 | 0 |

### ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|---|---|---|
| 4′ | 81.4 | 2.8′ |
| 6′ | 36.2 | 4.2′ |
| 8′ | 20.3 | 5.6′ |
| 10′ | 13.0 | 7.0′ |

### ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|---|---|---|
| 0-30° | 529.5 | 88.3 |
| 0-40° | 608.0 | 91.7 |
| 0-60° | 653.2 | 98.5 |
| 0-90° | 663.2 | 100 |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# Dimmer Compatibility Chart

## Oak™ System

With Electronic Low Voltage Transformers

ELCO Lighting

### For Reference Only

Testing conducted by ELCO Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification. Refer to manufacturer specifications for more detailed information on product certifications and standards. Consult the dimmer manufacturer prior to installation to ensure compatibility.

| Manufacturer | Product | Part Number | Dimmed Light Output Range |
|---|---|---|---|
| **ELV Dimming** | | | |
| Lutron | Diva® 300W Single-Pole Electronic Low Voltage Dimmer | DVELV-300P | 10% - 100% |
| | Diva® 300W 3-Way Electronic Low Voltage Dimmer | DVELV-303P | 10% - 100% |
| | Skylark® 300W Single-Pole Electronic Low Voltage Dimmer | SELV-300P | 10% - 100% |
| | Skylark® 300W 3-Way Electronic Low Voltage Dimmer | SELV-303P | 10% - 100% |
| | Maestro® 600W Single-Pole/Multi-Location Electronic Low Voltage Dimmer | MAELV-600 | 10% - 100% |
| Leviton | SureSlide® 300W 3-Way Electronic Low Voltage Dimmer | 6615-P0 | 10% - 100% |
| | Decora® 450W Single-Pole/3-Way Electronic Low Voltage Dimmer | DSE06-10Z | 10% - 100% |
| | IllumaTech® 300W Single-Pole/3-Way Electronic Low Voltage Dimmer | IPE04-1LZ | 10% - 100% |
| | Vizia® RF + 600W Single-Pole/3-Way/Multi-Location Electronic Low Voltage Dimmer | VRE06-1LZ | 10% - 100% |
| | Vizia® 600W Single-Pole/3-Way/Multi-Location Electronic Low Voltage Dimmer | VZE06-1LX | 10% - 100% |
| | Decora® Digital Bluetooth 600W Single-Pole/3-Way/Multi-Location Electronic Low Voltage Dimmer | DDE06-BLZ | 10% - 100% |

*NOTE: Refer to dimmer manufacturer's documentation for installation instructions and circuit details

Disclaimer: Minimum and maximum loads for LEDs and CFLs are given in number of lamps and may vary depending on the lamp being used. Testing conducted by ELCO Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification. Refer to manufacturer specifications for more detailed information on product certifications and standards.

Integrating our lighting with your Smart Home System is a breeze. Simply check your Smart Home system for compatible smart switches and cross refrence that with our Dimming Compatibility Chart. Once the switches are integrated with your Smart Home system your lights will be ready to go.

amazon alexa | Google Assistant | Apple HomeKit | INSTEON | LUTRON | wemo

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