

# 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

<b>Wattage</b>	6.1W
<b>Lumens</b>	625 lm - 700 lm
<b>Voltage</b>	12V AC
<b>Color Temp.</b>	2700K - 4000K
<b>Dimmable</b>	Yes
<b>Lamp Type</b>	LED
<b>Beam Angle</b>	28° - 50°

## Options



White



Black



Bronze

## Technical Details

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

**Adjustability:** 360° rotation with 30° gimbals 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.

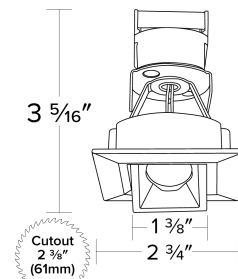
**Electrical:** Requires 12V AC transformer. Can be daisy chained up to 6 fixtures with E1LDRV60 or can be wired 1 fixture per transformer.

**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 insulation. Meets California Title 24 JA8-2016-E and Energy Star standards.

## Dimensions



**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
<b>E1L</b>				
	22 Square	<b>F</b> 38° <b>NF</b> 28° <b>WF</b> 50°	<b>27</b> 2700K <b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K	<b>W</b> All White <b>BZ</b> All Bronze <b>BB</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.

# Compatible Products



For use with 1" Oak™ Adjustable Light Engines

## 1" Oak™ New Construction IC Frames



IC Rated Frame\*  
New Construction



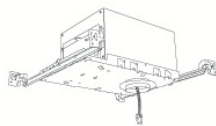
IC Rated Multiple Frame\*  
New Construction

CAT NO.	SPECIFICATIONS
E1LF2	2 3/8" Cutout for E1L32 and E1I22

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 3/8" Cutout for E1L32 and E1I22

### PRODUCT NUMBER BUILDER

#### 1" Oak™ IC Rated Housing

E1LF2ICAJ	R60 IC New Construction Housing
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#### Dimming

(blank)	120V Input, ELV Dimmable
-7	277V Input, Non-Dimmable
DX	120V Input, 0-10V Dimmable
DX-7	277V Input, 0-10V Dimmable

# Compatible Products

For use with 1" Oak™ Light Engines

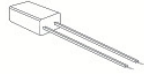


## 1" Oak™ 12V AC Transformers

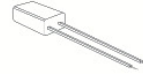
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**Enclosed Electronic Transformer**



**Electronic Transformer**



**0-10V Dimmable Electronic Transformer**



**Magnetic Transformer**

CAT NO.	SPECIFICATIONS
E1LDRV60	ELV Dimmable

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

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

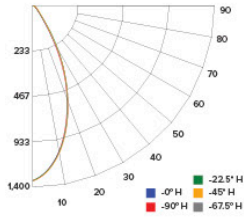
CAT NO.	SPECIFICATIONS
ETR12	50W, Daisy Chain 2-6
ETR12-20	20W, Daisy Chain 1-3

# 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

Degree 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



**ELCO Lighting**

# Dimmer Compatibility Chart

## The Oak™ System

With Electronic Low Voltage Transformers

### 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
<b>ELV Dimming</b>			
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.