ELCO Lighting

Project name:

Fixture type:

Date:

1" Square Recessed Oak™ Downlight

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 Airtight for use with direct contact to insulation
- Height allows for use in ceilings with under 3" depth. Ceiling thickness can be reduced from fixture depth.
- Daisy chain up to 6 fixtures with E1LDRV60
- 38° Standard beam with optional 28° and 50°
- Remodel requires no frame. New construction E1LF1 frame available.
- Wet Location Rated for Indoor and Outdoor Use
- Meets JA8-2016-E requirements, UL Listed
- Life Span 50,000 Hours L70

Specifications

Wattage	6.1W
Lumens	650 lm
Voltage	12V AC
Color Temp.	3500K
Dimmable	Yes
Lamp Type	LED
Beam Angle	38°

Options

White

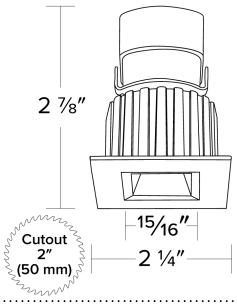
Black

Bronze

Haze

All Black

Dimensions



Technical Details

Optics: PC Lens for even lumen distribution. Standard 38° lens. Optional 28° (EP713C) and 50° (EP715C) available.

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 E1LF1 new construction frame. Remodel requires no frame. Hole cutout size: 2" (50 mm). Height allows for use in ceilings with under 3" 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.

Sunset: Sunset color temperature is our dim-to-warm LED technology that allows the color temperature to become warmer as the product is dimmed. Our SUNSET items start at 2700K and go as low as 1800K when dimmed. For Sunset dim technology be sure to order an item with "Sunset" in the Color Temperature (CCT) attribute.

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:

E1L12F27 600 lm/2700K **E1L12F30** 625 lm/3000K **E1L12F35** 650 lm/3500K **E1L12F40** 675 lm/4000K
E1L12FSD 450 lm/Sunset

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 .

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Listings: cUL Listed. UL Listed for WET Location. UL Listed for direct contact with inuslation. Airtight per ASTM E-283. Meets California Title 24 (JA8-2016-E) standards.

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

Product Number Builder Example: **E1L12F27B**

1" Oak™ Downlight	Style	Beam Angle	Color Temperature	Finish
E1L				
	12 Square	**F** 38°	**27** 2700K	**W** All White
		NF 28°	**30** 3000K	**B** Black with White Trim
		WF 50°	**35** 3500K	**BZ** Bronze
			40 4000K	**H** Haze
			SD Sunset [1]	**BB** All Black

[1] Sunset, Dim to Warm technology, automatically transitions from 2700K to 1800K when dimmed

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™ Light Engines**

1″ Oak™ New Construction IC Frames

IC Rated Frame*
New Construction

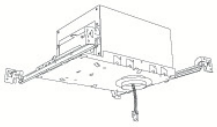
CAT NO.	SPECIFICATIONS
E1LF1	2″ Cutout for E1L02, E1L12, E111F

IC Rated Multiple Frame*
New Construction

CAT NO.	SPECIFICATIONS
E1LF1-M2	2 Set for E1L02, E1L12, E111F
E1LF1-M3	3 Set for E1L02, E1L12, E111F
E1LF1-M4	4 Set for E1L02, E1L12, E111F
E1LF1-M5	5 Set for E1L02, E1L12, E111F

*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
E1LF1ICAJ	2″ Cutout for E1L02, E1L12, E111F

PRODUCT NUMBER BUILDER

1″ Oak™ IC Rated Housing	
E1LF1ICAJ	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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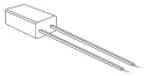
Compatible Products

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

1″ Oak™ Accessories

Downlight Trims
For E1L02 & E1L12

CAT NO.	SPECIFICATIONS
RM1W	All White
RM1B	Black w/ White Ring
RM1BZ	All Bronze
RM1H	Haze w/ White Ring
RM1BB	All Black

Downlight Trims
For E1L02 & E1L12

CAT NO.	SPECIFICATIONS
RM11W	All White
RM11B	Black w/ White Ring
RM11BZ	All Bronze
RM11H	Haze w/ White Ring
RM11BB	All Black

Optional Lenses for
E1L02, E1L12, & E1L32

CAT NO.	SPECIFICATIONS
EP713C	28°
EP715C	50°

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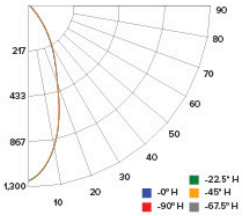
Photometric Report

Oak™ LED Light Engine

PHOTOMETRIC REPORT

Product #: E1L12F30
Wattage / Lumens: 6W / 600 lm
Luminaire LPW: 100 lm/W



CANDLE POWER SUMMARY

Degress Vertical	0°
0	1269
5	1235
15	846
25	322
35	93
45	31
55	18
65	10
75	5
85	0
90	0

ILLUMINANCE AT A DISTANCE

Distance to Target Plane	Center Beam Footcandles	Beam Diameter
4′	79.3	2.7′
6′	35.3	4.0′
8′	19.8	5.3′
10′	12.7	6.7′

ZONAL LUMEN SUMMARY

Zone	Lumens	%Luminaire
0-30°	504.7	79.8
0-40°	570.7	90.3
0-60°	615.6	97.3
0-90°	632.4	100

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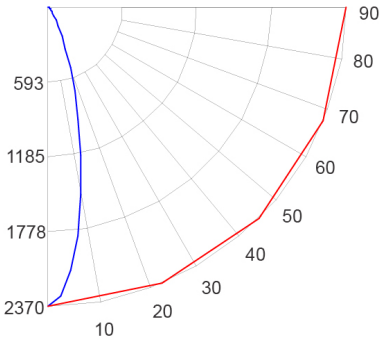
1” Square Recessed Downlight

Multiplier: 4000K (x 1.08)

PHOTOMETRIC REPORT

Product #: E1L12NF30
Wattage/Lumens: 6.3W/ 639 lm
Luminaire LPW: 101 Lm/W



CANDLE POWER SUMMARY

Degrees Vertical	0°
0	2370
5	2099
15	926
25	257
35	62
45	17
55	9
65	5
75	3
85	0
90	0

ILLUMINANCE AT A DISTANCE

Distance to Target Plane	Footcandles Beam Center	Beam Diameter
4’	148	1.8’
6’	65.8	2.7’
8’	37.0	3.6’
10’	23.7	4.5’

ZONAL LUMEN SUMMARY

Zone	Lumens	% Luminaire
0-30°	563.92	88.30
0-40°	606.28	94.90
0-60°	630.29	98.70
0-90°	638.89	100.00

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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.

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