

| Project | name: |
|---------|-------|
| Fixture | type: |

Date:

24V DC Koto™ LED Module

Works with 4" Koto™ 24V DC Recessed Housings and Koto™ Trims



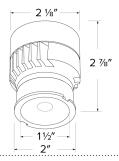
Features

- 10W, 800 lm, 24V DC input
- Integrated 24V DC Dimmable Driver for low voltage and PoE applications
- Standard 38° Lens installed, 25° and 60° lens included with each module - Optional Lens: 18° (EP731C)
- Optional: Louver (<u>L45</u>), Linear Lens (<u>L46</u>), Spread Lens (<u>L47</u>), Clear Lens (<u>L48</u>), Frosted Lens (<u>L49</u>), Snoot (<u>L50</u>), Color Shifter (<u>L51</u>), Blue Lens (<u>L52</u>), Pink Lens (<u>L53</u>), Single Asymmetric Lens (<u>L54</u>), Double Asymmetric Lens (<u>L55</u>)
- Works in 2", 3", 4", 5" & 6" ELCO Koto DC housings with Koto™ twist-&-lock trims
- Excellent color rendering 90+ CRI
- Title 24 JA8-2022 Compliant
- Meets Energy Star Requirements
- Covered by U.S. PATENTS and Patents Pending

Specifications

| Wattage | 10W |
|-------------|---------------|
| Lumens | 800 lm |
| Voltage | 24V DC |
| Color Temp. | 2700K - 3000K |
| Lamp Type | LED |
| Beam Angle | 25°, 38°, 60° |
| CRI | 90 |

Dimensions



Product Numbers

| Item | Lamp type | Lumens | ССТ | Watts | Voltage | Beam Angle |
|------------|--------------|--------|-------|-------|---------|---------------------|
| ELK0827-24 | LED | 800 lm | 2700K | 10W | 24V DC | 25°, 38°, 60° |
| ELK0830-24 | LED | 800 lm | 3000K | 10W | 24V DC | 25°, 38°, 60° |

Technical Details

Optics: Frosted polycarbonate module lens diffuses light evenly throughout while reducing glare with LED technology.

Construction: Integrated 24V DC driver. Diecast aluminum body with heat fins allows for efficient cooling.

Installation: Twist-lock design for toolless trim installation.

Electrical: Module connects to 24V DC power supply. High-efficiency driver with a power factor >0.9. Start time of less than 0.75 seconds. PoE ready.

LED Technology: Extremely accurate Color Rendering Index of 95+. Lumen Maintenance of 50,000 hours L70 Life based on LM80 standardized test results. Superior Thermal Management by utilizing integrated heat sink. Instant On to Full Brightness technology. No LED pixelation.

Dimmability: Dimming based on power supply.

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

Product Number Builder Example: ELK0827-24

| 24V DC Koto™ LED Module | Lumens | Color Temp. | Voltage |
|-------------------------|---------------------|-----------------|-------------------|
| ELK | | | |
| | 08 800 (10W) | 27 2700K | -24 24V DC |
| | | 30 3000K | |



For use with **24V DC Koto™ LED Module**

2" Koto™ Dedicated LED ICA Housings (24V DC Input)



24V DC 2" ICA Maximum Adjustability Housing New Construction

CAT NO. SPECIFICATIONS

E24V276ICA Maximum Adjustability

2" Pex™ Twist-On Trims



Round Deep Reflector

ELK2818 Finishes: (W, B, H, BB, BZ)



Square Deep Reflector

ELK2518 Finishes: (W, B, BB)





Round Adjustable Reflector

ELK2829 Finishes: (W, B, H, BB, BZ)



Square Adjustable Reflector

ELK2529 Finishes: (W, B, BB)



Square Gimbal ELK2588 Finishes: (W, B*, BZ)



Round Adjustable Pinhole

ELK2827 Finishes: (W, B, BB, BZ)



Square Reflector

ELK2541 Finishes: (W, B, BB)



Round Curved Reflector

ELK2872 Finishes: (W, B*)



Square Adjustable Pinhole

ELK2527 Finishes: (W, B, BB)



Round Adj. Trimless Reflector

ELK215 Finishes: (W, B*)



Trimless Spackle Frame EL2SFR For use with ELK215

Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black w/White Ring, C - Chrome w/White Ring, H - Haze w/White Ring, B* - All Black (For ELK2872, ELK2888, ELK2588, & ELK215)



For use with **24V DC Koto[™] LED Module**

3" Koto™ Dedicated LED ICA Housings (24V DC Input)



24V DC 2-Hour Fire Rated 3" ICA Housing New Construction

| CAT NO. | SPECIFICATIONS |
|-------------|-----------------------------|
| E341/30EICV | 7 1/2" Height - Sound Pated |



24V DC 3" ICA Housing New Construction

| CAT NO. | SPECIFICATIONS |
|------------|----------------|
| E24V390ICA | |



24V DC 3" ICA Maximum Adjustability Housing
New Construction

| CAT NO. | SPECIFICATIONS |
|------------|-----------------------|
| E24V386ICA | Maximum Adjustability |



24V DC 3" ICA Housing Remodel

| CAT NO. | SPECIFICATIONS | |
|-------------|----------------|--|
| E24V390RICA | | |

3" Pex™ Twist-On Trims





Round Deep Reflector

ELK3618 Finishes: (W, BB, BZ, B, C, H)





Round Adj. Wall Wash

ELK3622 Finishes: (W)



Round Adjustable Baffle

ELK3693 Finishes: (W)



Round Adjustable Gimbal

ELK3629 Finishes: (W, BB, BZ, B, C, H)



Round Regressed Eyeball

ELK3653 Finishes: (W, BB, B)



Square Deep Reflector

ELK3318
Finishes:
(W, BB, BZ, B, C, H)



Round Adjustable Pinhole

ELK3627 Finishes: (B, BB, BZ, B, H)



Round Curved Reflector

ELK3672 Finishes: (W, B)



Square Adjustable Reflector

ELK3329 Finishes: (W, BB, BZ, B, C, H)





Round Adj. Slot Aperture

ELK3620 Finishes: (W)



Round Directional Gimbal

ELK3679 Finishes: (W, BB, B, H)





Square Adj. Wall Wash

ELK3322 Finishes: (W)

*Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black Reflector w/White Ring, C - Chrome Reflector w/White Ring, H - Haze Reflector w/White Ring



For use with **24V DC Koto™ LED Module**

3" Pex™ Twist-On Trims





Square Adjustable Pinhole ELK3327
Finishes:

(W, BB, BZ, B, H)



Square Reflector ELK3341 Finishes: (W, BB, BZ, B)



Square Adjustable Baffle ELK3393 Finishes: (W)

3" Pex™ Trimless





Round Trimless Reflector

ELK308 Finishes: (W, B, H)



Finishes: (W, B, H)

Round Adjustable
Trimless Reflector
ELK315
Finishes:



(W, B, H)

ELK381 Finishes: (W, B, H)



Round Trimless Spackle Frame EL3SFR

For use with ELK315



Round Knife Edge Wood Ceiling Trim w/Mounting Clips

EL3WCR Finishes: (W, B)



EL03SFSFor use with ELK370 & ELK381

3" Flush Mount Trim Adaptors



Round Flush Mount EL3FMR



Square Flush Mount EL3FMS

*Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black Reflector w/White Ring, C - Chrome Reflector w/White Ring, H - Haze Reflector w/White Ring



For use with 24V DC Koto™ LED Module

4" Koto™ Dedicated LED ICA Housings (24V DC Input)



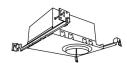
24V DC 4" ICA Maximum Adjustability Housing **New Construction**

| CAT NO. | SPECIFICATIONS |
|------------|-----------------------|
| F24V485ICA | Maximum Adjustability |



24V DC 4" ICA Housing **New Construction**

| CAT NO. | SPECIFICATIONS |
|------------|----------------|
| E24V490ICA | |



24V DC 4" R-60 Spray Foam Insulation **New Construction Housing**

| CAT NO. | SPECIFICATIONS |
|--------------|---|
| E24V490AJICA | Maximum Adjustability, For use in R60 or Chicago plenum applications |



CAT NO. **SPECIFICATIONS**

E24V490RICA



24V DC 2-Hour Fire Rated 4" ICA Housing **New Construction**

| CAT NO. | SPECIFICATIONS | |
|------------|----------------|--|
| E24V48FICA | 7½" Height | |
| | Sound Rated | |







Shallow Reflector ELK4116 Finishes:





Slot Aperture ELK4120 Finishes: (W)



Adjustable Spot ELK4188 Finishes:

(W, B, BZ)



Deep Reflector ELK4118 Finishes: (W, BB, BZ, B, C, H)



Adjustable Wall Wash ELK4122 Finishes: (W)



Regressed Eyeball ELK4153 Finishes: (W, BB, B)



Réflector ELK4129 Finishes:

Adjustable

(W, BB, BZ, B, C, H)



Adjustable Pinhole ELK4127 Finishes: (W, BB, BZ, B, H)



Curved Reflector ELK4172 Finishes:



Adjustable Reflector

with Clear Glass

ELK4111

Finishes:

(W, BB, BZ, B, C, H)

Adjustable Pinhole

with Frosted Glass

ELK4125





Adjustable Reflector with Frosted Lens ELK4112 Finishes: (W, BB, BZ, B, C, H)



Slot Aperture ELK4130 Finishes: (W)



Adjustable Baffle ELK4193 Finishes: (W, BB, B)

⁽W, B) *Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black Reflector w/White Ring, C - Chrome Reflector w/White Ring, H - Haze Reflector w/White Ring



For use with 24V DC Koto™ LED Module

4" Pex™ Twist-On Trims





ELK4216 Finishes: (W, H)



Adjustable Pinhole **ELK4227** Finishes: (W, BB, BZ, B, C, H)



ELK4218 Finishes:

(W, BB, BZ, B, C, H)



Adjustable Reflector ELK4282 Finishes: (W, BZ)



Adjustable Gimbal

ELK4229 Finishes: (W, BB, BZ, B, C, H)



Adjustable Baffle **ELK4284** Finishes: (W, B, BZ)



Adjustable Slot Rotatable Aperture ELK4220

Finishes: (W)



Adjustable Wall Wash ELK4222 Finishes: (W)



Adj. Phenolic Baffle ELK4293 Finishes: (W, BB, B)

Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black w/White Ring, C - Chrome w/White Ring, H - Haze w/White Ring, B* - All Black (For ELK4188, ELK472, & ELK4284)

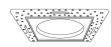
4" Pex™Flush Mount Trim Adaptors



Round Flush Mount Trim Adaptor

EL4FMR

Compatible 3" Pex™ Round trims: ELK4116, ELK4118, ELK4127, ELK4129, ELK4710, ELK4713, ELK4715 Series



Square Flush Mount Trim Adaptor

EL4FMS

Compatible 3" Pex™ Square trims: ELK4216, ELK4218, ELK4227, ELK4229 Series

4" Pex[™] Trimless



Round Trimless Reflector

ELK408 Finishes: (W, B, H, BZ)



Baffle FI K434 Finishes: (W, B, BZ)



Round Adj. Trimless Reflector

ELK415 Finishes: (W, B, H, BZ)



Square Trimless Reflector

ELK445 Finishes: (W, B, H)



Round Trimless Spackle Frame

EL4SFR For use with ELK408 & ELK415



Square Trimless Adj. Reflector

ELK459 Finishes: (W, B, H)



used with Maximum Adjustability Housing

Smooth Reflector

ELK430 Finishes: (W, B, BZ)



Square Trimless Spackle Frame **EL4SFS**

For use with ELK445 & ELK459

Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black w/White Ring, C - Chrome w/White Ring, H - Haze w/White Ring, B* - All Black, (For ELK408, ELK415, ELK434, ELK445, ELK459)



For use with **24V DC Koto™ LED Module**

4" Flexa™ Twist-On Trims



Round Reflector

ELK4721 Finishes: (WW, BB, BZBZ, BW, CW, HW)



Round Baffle

ELK4723 Finishes: (WW, BB, BZBZ, BW)



Square Reflector

ELK4741 Finishes: (WW, BB, BZBZ, BW, HW) *Not for Remodel Housing



Square Baffle

ELK4743 Finishes:

(WW, BB, BZBZ, BW)
*Not for Remodel Housing



Square Adj. Reflector

ELK4759 Finishes:

(WW, BB, B, H)

*Not for Remodel Housing

4" Unique[™] Twist-On Trims



Round Adjustable Reflector

ELK4710 Finishes: (W, B, BZ)



Round Adj. Deep Baffle

ELK4719 Finishes: (W)



Round Adjustable Baffle

ELK4713 Finishes: (W, BZ)



Square Reflector

ELK4714
Finishes:
(W, B, BZ)
*Not for Remodel Housing



Round Wall Wash

ELK4715 Finishes: (W, BZ)



Square Baffle

ELK4716
Finishes:
(W, BZ)
*Not for Remodel Housing



Round Adj. Deep Reflector

ELK4717 Finishes: (W, BZ)

*Finishes: **W** - All White, **WW** - All White, **B** - Black Reflector w/White Ring, **C** - Chrome Reflector w/White Ring, **H** - Haze Reflector w/White Ring, **BB** - All Black, **BZ** - All Bronze, **CC** - All Chrome, **BZBZ** - All Bronze, **BW** - Black Reflector w/White Ring, **CW** - Chrome Reflector w/White Ring, **CN** - Chrome Reflector w/Nickel Ring, **HW** - Haze Reflector w/White Ring



For use with **24V DC Koto™ LED Module**

6" Koto™ Dedicated LED ICA Housings (24V DC Input)



24V DC 2-Hour Fire Rated 6" ICA Housing
New Construction

| CAT NO. | SPECIFICATIONS |
|------------|----------------|
| E24V76FICA | 7 ¾" Height |



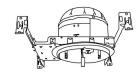
24V DC 2-Hour Shallow Fire Rated 6" ICA New Construction Housing

| CAT NO. | SPECIFICATIONS |
|-------------|----------------|
| E24V75FICAS | 6 ¾16" Height |



24V DC 6" Standard ICA Housing New Construction

| CAT NO. | SPECIFICATIONS |
|----------------|-------------------------|
| E24V770ICA | 7½" Height |
| E24V770ICA-EM5 | Battery Backup, 24W MAX |



24V DC 6" Shallow ICA Housing New Construction

| CAT NO. | SPECIFICATIONS |
|----------------|--------------------------|
| E24V760ICA | 5 ½" Height |
| E24V760ICA-EM5 | Battery Backup, 24W MAX. |



24V DC 6" Standard ICA Housing Remodel

| CAT NO. | SPECIFICATIONS |
|-------------|----------------|
| E24V770RICA | 7½" Height |



24V DC 6" Shallow ICA Housing Remodel

| CAT NO. | SPECIFICATIONS |
|-------------|----------------|
| E24V760RICA | 5 ½" Height |

5" & 6" Pex™ Twist-On Trims



5" Round Reflector

ELK5421 Finishes: (W)



6" Round Adj. Slot Aperture

ELK6420W Finishes: (W)



5" Round Baffle

ELK5493 Finishes: (W)



6" Round Adj. Pinhole Reflector

ELK6427 Finishes: (W, B, H)



6" Round Reflector

ELK6418 Finishes: (W, BB, BZ, H)



6" Square Adj. Reflector

ELK6829 Finishes: (W, BB, H)



6" Round Adj. Reflector

ELK6429 Finishes: (W, BB, BZ, H)

^{*}Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black Reflector w/White Ring, C - Chrome Reflector w/White Ring, H - Haze Reflector w/White Ring



For use with **24V DC Koto™ LED Module**

6" Flexa™ Twist-On Trims



6" Round Reflector

ELK610 Finishes: (WW, BB, BZBZ, CC, BW, CW, HW)



6" Round Adjustable Reflector 6" Round Adjustable Baffle

ELK629 Finishes: (WW, BB, BZBZ, BW, CW, HW)



ELK693 Finishes: (WW, BB, BZBZ, BW)

6" Unique™ Twist-On Trims



6" Round Reflector

ELK6710 Finishes: (W, B, BZ)



6" Round Baffle

ELK6713 Finishes: (W, BZ)



6" Round Wall Wash

ELK6715 Finishes: (W, BZ)

Finishes: W - All White, BB - All Black, BZ - All Bronze, B - Black w/White Ring, C - Chrome w/White Ring, H - Haze w/White Ring, B* - All Black (For ELK6710, ELK6713, ELK6715)



For use with 24V DC Koto™ LED Module

24V DC Transformers



Electronic Low Voltage

Dimmable Driver

| CAT NO. | SPECIFICATIONS |
|------------|-----------------|
| DRVE24V60W | 60W, 120V Input |



Constant Voltage LED Driver

| CAT NO. | SPECIFICATIONS |
|---------|---------------------|
| DRV60W | 60W, 120/277V Input |
| DRV100W | 100W 120/277V Input |



0-10V Dimmable Driver

| CAT NO. | SPECIFICATIONS |
|-----------|---------------------|
| DRV30W-10 | 30W, 120/277V Input |
| DRV60W-10 | 60W, 120/277V Input |
| DRV96W-10 | 96W, 120/277V Input |



Lutron™ Hi-Lume 1% LED Driver

| CAT NO. | SPECIFICATIONS |
|-----------|------------------------------------|
| DRVLT40W | 40W, Triac, 120/277V |
| DRVLT340W | 40W, Lutron Ecosystem, 120/277V |



Lutron™ Hi-Lume Premiere 0.1%

Dimming LED Driver

| CAT NO. | SPECIFICATIONS |
|----------|------------------------|
| DRVL396W | 96W, Lutron Ecosystem, |
| | 120/277V Input |



Universal (Small)

Dimming LED Driver

| CAT NO. | SPECIFICATIONS |
|---------------|------------------------------------|
| DRVU24V24WD | 24W, 24V DC (1A), Triac/ELV/MLV |
| DRVI 124V60WD | 60W 24V DC (2.54) |

Triac/ELV/MLV



Universal (Medium)

Dimming LED Driver

| CAT NO. | SPECIFICATIONS |
|--------------|-------------------------------------|
| DRVU24V100WD | 100W, 24V DC (4A), Triac/ELV/MLV |



Universal (Large)

Dimming LED Driver

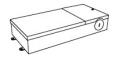
| CAT NO. | SPECIFICATIONS |
|--------------|--------------------|
| DRVU24V200WD | 200W, 24V DC (8A), |
| | Triac/ELV/MLV |



Universal (X-Large)

Dimming LED Driver

| CAT NO. | SPECIFICATIONS |
|--------------|---------------------|
| DRVU24V300WD | 300W, 24V DC (12A), |
| | Triac/ELV/MLV |



Electronic (Large)

Dimming LED Driver

| CAT NO. | SPECIFICATIONS |
|-------------|---------------------------|
| DRVE24V48DW | 48W, 24V DC (2A), Triac |
| DRVE24V60DW | 60W, 24V DC (2.5A), Triac |
| DRVF24V96DW | 96W, 24V DC (4A), Triac |



Dimmer with Built-in Driver

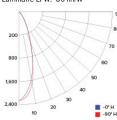
| CAT NO. | SPECIFICATIONS |
|---------|----------------|
| DIMTP2 | 60W, 120V |
| DIMTP3 | 100W, 120V |

Photometric Report

24V DC Koto™ LED Module

PHOTOMETRIC REPORT

Product #: ELK0827-24 (36°) Wattage / Lumens: 10W / 860.2 lm Luminaire LPW: 86 lm/W



| Degress Vertical | 0° |
|------------------|------|
| 0 | 2329 |
| 5 | 2082 |
| 15 | 1212 |
| 25 | 301 |
| 35 | 61 |
| 45 | 35 |
| 55 | 22 |
| 65 | 12 |
| 75 | 5 |
| 85 | 0 |
| 90 | 0 |

CANDLE POWER SUMMARY

ILLUMINANCE AT A DISTANCE

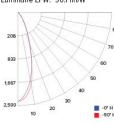
| Distance to Target Plane | Center Beam Footcandles | Beam Diameter | |
|--------------------------|-------------------------|---------------|---|
| 4' | 146 | 2.4' | |
| 6′ | 64.7 | 3.5' | |
| 8′ | 36.4 | 4.7' | 7 |
| 10′ | 23.3 | 5.9' | |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|-------|--------|------------|
| 0-30° | 754.8 | 87.3 |
| 0-40° | 806.2 | 93.2 |
| 0-60° | 850.3 | 98.3 |
| 0-90° | 864.6 | 100 |

PHOTOMETRIC REPORT

Product #: ELK0830-24 (36°) Wattage / Lumens: 10W / 901.2 lm Luminaire LPW: 90.1 lm/W



CANDLE POWER SUMMARY

| Degress Vertical | 0° |
|------------------|------|
| 0 | 2426 |
| 5 | 2169 |
| 15 | 1262 |
| 25 | 314 |
| 35 | 64 |
| 45 | 37 |
| 55 | 23 |
| 65 | 12 |
| 75 | 6 |
| 85 | 0 |
| 90 | 0 |

ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 4' | 152 | 2.4' |
| 6′ | 67.4 | 3.5' |
| 8′ | 37.9 | 4.7' |
| 10' | 24.3 | 5.9' |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|-------|--------|------------|
| 0-30° | 786.2 | 87.3 |
| 0-40° | 839.8 | 93.2 |
| 0-60° | 885.7 | 98.3 |
| 0.90° | 900.6 | 100 |