

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

Tunable White Koto™ LED Module

Works with 2". 3" & 4" Recessed Housings and Koto™ Trims



Features

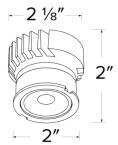
- Driver on housing extends lifespan and allows for more dimming options and applications
- Includes Standard 38º lens, with 28º and 60º lenses.
 Optional: 15º and 18º lens available
 Works in 2", 3" and 4" ELCO Tunable White housings
- with Koto™ twist-On trims

 Excellent color rendering 95+ CRI throughout, white
- Excellent color rendering 95+ CRI throughout white tuning
- Title 24 JA8 2019 Registered
- Life span of 50,000 hours L70
- Covered by U.S. PATENTS and Patents Pending
- Damp location rated and wet location rated for wet location trims

Specifications

| Color Temp. | 1800K - 4000K - 2700K - 6500K | |
|---------------------|----------------------------------|--|
| Lamp Type | LED | |
| Beam Angle | 38° | |
| CRI | 95 | |
| Wet Location | Rated for wet location trims | |
| Damp Location Rated | | |

Dimensions



Technical Details

Optics: PC lens diffuses light evenly throughout while reducing glare with LED COB technology.

Construction: Diecast aluminum body with heat fins allow for efficient cooling.

Compatible Housings: Koto $^{\text{TM}}$ Module is compatible with Tunable White Housings: 120/277V AC/50-60Hz universal input voltage.

Installation: Twist-On design for toolless trim installation, for use with Koto™ trims only. Can be used in 2″, 3″ & 4″ Tunable White Koto™ Housings only.

LED Technology: Extremely accurate Color Rendering Index (CRI) 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. No LED pixelation.

Dimmability: Based on housing dimmer used.

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

Product Numbers

| Item | Lamp type | ССТ | Beam Angle |
|-----------|-----------|---------------|------------|
| ELK19TWD | LED | 2700K - 5000K | 38° |
| ELK19T41D | LED | 1800K - 4000K | 38° |
| ELK19T62D | LED | 2700K - 6500K | 38° |

Product Number Builder Example: ELK19TWD

| Tunable White Koto™ LED Module | | Color Temperature | | Beam Spread | | Optional Accessory |
|-----------------------------------|------|-------------------|----|-------------|------|--------------------|
| ELK19 | | | | | | |
| | TWD | 2700K - 5000K | | 38º lens | | Standard |
| | T41D | 1800K - 4000K | -S | 18º lens | L45 | Hex Louver |
| | T62D | 2700K - 6500K | -N | 25º lens | L46 | Linear Lens |
| | | | -W | 60º lens | L47 | Spread Lens |
| | | | | | L49 | Frosted Diffuser |
| | | | | | L51 | Color Shifter |
| | | | | | L50W | White Snoot |
| | | | | | L50B | Black Snoot |



For use with Dedicated 2", 3" & 4" Koto Tunable White Housings



Control Modules Features

- · Requires control ready housing
- Seamless device commissioning
- Rules setting and supervision
- Data gathering on usage, locations, users, time of day
- Automation based on users and sensors
- Firmware updates over the air
- Customizable and integration-ready APIs
- Control module required per housing

Wireless Control Modules for Tunable White Koto™



ETW3CS

- iOS app and Android app interface options
- Predictive Maintenance
- Ecosystem with sensors and switches, lamps and







ETW3SL

- iOS app and web portal interface options
- Energy usage monitoring
- Ecosystem with sensors, switches







ETW3WZ

- iOS app, Android app, and web portal interface
- Predictive Maintenance
- Ecosystem with sensors and switches, lamps and luminaires





- iOS app, Android app, and web portal interface
- Energy usage monitoring
- Predictive Maintenance
- Ecosystem with sensors. switches, gateways

Wired Control Protocol for Tunable White Koto™

*Wired control devices required





ETW3DL

- DALI-2 DT8 certified
- Two-channel control of color temperature and intensity
- Commission and manage lighting fixtures via DALI2 DT8 certified controller





0-10V Control Module is compatible with industry standard 0-10V, 1-10V current sourcing or current sinking wired control devices. The Control Module provides for two-channel control of color temperature and intensity

Requires Control Ready Housing Option. One Control module required per housing *Control Modules Order Separately



For use with Tunable White Koto™ LED Module

2" Tunable White Koto™Dedicated LED ICA Housings



2" Tunable White Koto™ IC Airtight Housing Shallow New Construction

| CAT NO. | SPECIFICATIONS | |
|-------------|-----------------------------|--|
| E21KT10ICAD | 1000 lm, 14W, 120/277V AC | |
| E21KT12ICAD | 1250 lm, 18.3W, 120/277V AC | |

2" Pex™ Twist-On Trims



Round Deep Reflector

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



Square Adjustable Reflector

ELK2529 Finishes: (W, B, BB)



Round Adjustable Reflector

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



Square Reflector

ELK2541 Finishes: (W, B, BB)



Round Adjustable Pinhole

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



Square Adjustable Pinhole

ELK2527 Finishes: (W, B, BB)



Square Deep Reflector

ELK2518 Finishes: (W, B, BB)



Round Gimbal

ELK2888 Finishes: (W, B, BZ)



(W, BZ)



For use with Tunable White Koto™ LED Module

3" Tunable White Koto™Dedicated LED ICA Housings



3" Tunable White Koto™ IC Airtight Housing

New Construction

| CAT NO. | SPECIFICATIONS | |
|-------------|-----------------------------|--|
| E35KT10ICAD | 1000 lm, 14W, 120/277V AC | |
| E35KT12ICAD | 1250 lm, 18.3W, 120/277V AC | |

3" Pex™Twist-On Trims





Round Deep Reflector

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





Round Adj. Slot Aperture

ELK3620 Finishes: (W)



Square Adjustable Pinhole

ELK3327 Finishes: (B, BB, BZ)



Round Adjustable Gimbal

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





Round Adj. Wall Wash

ELK3622 Finishes: (W)



Square Reflector

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



Round Adjustable Pinhole

ELK3627 Finishes: (B, BB, BZ)



Square Deep Reflector

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



Square Adj. Wall Wash

ELK3322 Finishes: (W)



Round Adjustable Baffle

ELK3693 Finishes: (W)



Square Adjustable Gimbal

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



Square Adjustable Baffle

ELK3393 Finishes: (W)



For use with **Tunable White Koto™ LED Module**

3" Pex™ Trimless



Spackle Frame

EL3SFR



Adjustable Trimless Reflector

> ELK315 Finishes: (W, B, H)

3" Flush Mount Trim Adaptors



Round Flush Mount

EL3FMR



Square Flush Mount

EL3FMS



For use with Tunable White Koto™ LED Module

4" Koto™ Dedicated LED ICA Housings



4" Tunable White Koto™ IC Airtight Housing **New Construction**

| CAT NO. | SPECIFICATIONS |
|-------------|-------------------------------|
| E45KT10ICAI | 0 1000 lm, 14W, 120/277V AC |
| E45KT12ICAI | D 1250 lm, 18.3W, 120/277V AC |

4" Pex™Round Twist-On Trims





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



Adjustable Gimbal

ELK4129 Finishes: (W, BB, BZ, B, C, H)



Adjustable Pinhole

ELK4127 Finishes: (B, BB, BZ)



Adjustable Baffle

ELK4193 Finishes: (W, BB, B)







Slot Aperture ELK4130 Finishes:

(W)





Rotatable Slot Aperture

ELK4120 Finishes: (W)





Adj. Wall Wash

ELK4122 Finishes: (W)



For use with Tunable White Koto™ LED Module

4" Pex™Square Twist-On Trims





Reflector

ELK4218 Finishes: (W, BB, BZ, B, C, H)



Adjustable Gimbal

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



Adjustable Pinhole

ELK4227 Finishes: (B, BB, BZ)



Adjustable Phenolic Baffle

ELK4293 Finishes: (W, BB, B)









Adj. Slot Rotatable Aperture ELK4220 Finishes: (W)



Adjustable Wall Wash

ELK4222 Finishes: (W)



Adjustable Reflector ELK4282

Finishes: (W)



Adjustable Baffle

ELK4284 Finishes: (W)

4" Flexa™ Twist-On Trims



Round Reflector

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



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



Adjustable Square Reflector

ELK4759 Finishes: (WW, BB, B, H)



For use with **Tunable White Koto™ LED Module**

4" Pex™ Trimless



Round Spackle Frame Only EL4SFR



Round Smooth Reflector

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



Round Adjustable Reflector

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



Adjustable Reflector with Spackle Frame ELK430

Finishes: (W, B, BZ, H)



Adjustable Baffle with Spackle Frame

ELK434 Finishes: (W, B, BZ)



Sq. Spackle Frame EL4SFS



Sq. Smooth Reflector ELK445

Finishes: (W, B, H)



Sq. Adjustable Reflector

ELK459 Finishes: (W, B, H)

4" Flush Mount Trim Adaptors



Round Flush Mount

EL4FMR For use with ELK41 & Unique™ Trims



Square Flush Mount

EL4FMS For use with ELK42 Trims

Photometric Report

Tunable White Koto™ LED Module

PHOTOMETRIC REPORT Product #: ELK19TWD (E45KT12ICAD) @2700K Wattage / Lumens: 16.9 W / 1353.4 Im Luminaire LPW: 80 Im/W

| CANDLE POWER SUMMARY | | |
|----------------------|------|--|
| Degress Vertical | 0° | |
| 0 | 3401 | |
| 5 | 3111 | |
| 15 | 1814 | |
| 25 | 543 | |
| 35 | 122 | |
| 45 | 58 | |
| 55 | 34 | |
| 65 | 18 | |

9

0

0

75

85

90

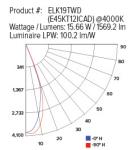
ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 5′ | 136 | 3.0′ |
| 7.5′ | 60.5 | 4.6' |
| 10′ | 34.0 | 6.1′ |
| 12.5′ | 21.8 | 7.6′ |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|-------|---------|------------|
| 0-30° | 1,145.4 | 84.7 |
| 0-40° | 1,244.7 | 92 |
| 0-60° | 1,324.7 | 97.9 |
| 0-90° | 1,352,7 | 100 |

PHOTOMETRIC REPORT



CANDLE POWER SUMMARY

| Degress Vertical | 0° |
|------------------|------|
| 0 | 3946 |
| 5 | 3646 |
| 15 | 2195 |
| 25 | 691 |
| 35 | 160 |
| 45 | 79 |
| 55 | 45 |
| 65 | 24 |
| 75 | 10 |
| 85 | 0 |
| 90 | 0 |

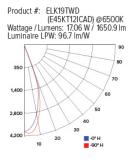
ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 5′ | 158 | 3.0' |
| 7.5′ | 70.1 | 4.5′ |
| 10′ | 39.5 | 6.0' |
| 12.5′ | 25.3 | 7.5′ |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|-------|---------|------------|
| 0-30° | 1,332.2 | 84.9 |
| 0-40° | 1,447.6 | 92.3 |
| 0-60° | 1,539.1 | 98.1 |
| U duo | 1569.2 | 100 |

PHOTOMETRIC REPORT



CANDLE POWER SUMMARY

| Degress Vertical | 0° |
|------------------|------|
| 0 | 4080 |
| 5 | 3745 |
| 15 | 2229 |
| 25 | 703 |
| 35 | 150 |
| 45 | 73 |
| 55 | 45 |
| 65 | 25 |
| 75 | 13 |
| 85 | 6 |
| 90 | 5 |

ILLUMINANCE AT A DISTANCE

| Distance to Target Plane | Center Beam Footcandles | Beam Diameter |
|--------------------------|-------------------------|---------------|
| 5′ | 163 | 3.0' |
| 7.5' | 72.5 | 4.6' |
| 10′ | 40.8 | 6.1′ |
| 12.5′ | 26.1 | 7.6′ |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Luminaire |
|-------|---------|------------|
| 0-30° | 1,386.3 | 84 |
| 0-40° | 1,509.8 | 91.5 |
| 0-60° | 1,610.3 | 97.6 |
| 0-90° | 1,649.9 | 100 |