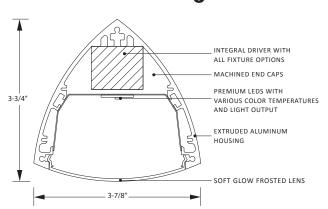
<u>Thallium</u> <u>3</u> L E

CABLE SUSPENDED (CS)



FEATURES:

- 3/64" aircraft cable suspension system
- High transmission frosted lenses with no diode imaging
- No visible fasteners
- Extruded aluminum housing
- Dimmable/Programmable drivers for controllable light output
- High efficacy LEDs with 5 year warranty
- Under 2 steps MacAdams Ellipse Binning
- 3/8" thick machined end caps
- 360° rotation option- with mechanical locking







PRODUCT SPECIFICATION _

NOTE: All options italicized in gray may increase lead times and/or incur higher costs - please consult factory with questions.

| TI3 | MOUNTING/ ORIENTATION | NOMINAL LENGTH* | COLOR TEMP | LED DRIVE POWER | VOLTAGE | DRIVER |
|-------------------|--|--|---|--|---|----------------|
| TI3 Thallium 3 | CSD Cable Suspended - DIRECT CSI Cable Suspended - INDIRECT CSR Cable Suspended - ROTATIONAL | 1' 1' 1-3/8"** 2' 2' 1-3/8" 3' 3' 1-3/8"** 4' 4' 1-3/8" 5' 5' 1-3/8"** 6' 6' 1-3/8" 7' 7' 1-3/8"** 8' 1-3/8" 12' 12' 1-3/8** CR' Continuous Run (Specify length in nominal feet) *Dimensions are for reference only. Contact factory for more specific information or shop | 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K | VLO Very Low Output 410 lumens/ft. (4w/ft.) LO Low Output 620 lumens/ft. (6w/ft.) SO Standard Output 815 lumens/ft. (8w/ft.) HO High Output 1,020 lumens/ft. (10w/ft.) VHO Very High Output 1,185 lumens/ft. (12w/ft.) DHO Dual High Output 2,035 lumens/ft. (15-5w/ft.) CPO Custom Power Output Consult factory | UNV Universal (120-277v) 1V 120v 2V 277v 3V 347v* | ND Non-Dimming |
| | | drawings. **Odd lengths may incur slightly higher per foot pricing. | | | *Not all dimming options are available with 347v. | |

| | HOUSING | HARDWARE* DETAIL FINISH | | CANOPY SIZE OPTIONS* | | CANOPY FINISH | P | OWER CORD COLOR | CA | AIRCRAFT ABLE LENGTH* | | OPTIONS/ CUSTOMIZATION* |
|-----------------------|--------------------------|---|----|---|-----------------|---|-----|--------------------|-----|---------------------------|---------------------------------------|--|
| SC S | Satin Clear | MF Machined Finish | | 5 SERIES | CANO | Υ | w | White | 2 | 2' | хх | No EMB or Customization |
| A | Anodize | (Standard) | 55 | 5" Power feed canopy | SW | Satin White | G | Gray | 4 | 4' | EMB7 | 7 Watt battery back-up** |
| (9 | Standard) | CF Custom Finish | | 5" Non-power feed canopy | | (Standard) | В | Black | 6 | 6' | | (Approximately 600 lumens) |
| SW S | Satin White | (Consult factory) | 52 | 5" Power feed canopy | CPC | , | CC | Custom Cord* | 8 | 8' | EMB12 | 12 Watt battery back-up** |
| (F | Powder Coat) | | | 2" Non-power feed canopy | | Coat canopy | | | CL_ | Custom Length | | (Approximately 1,000 lumens) |
| MB N | Matte Black | | 50 | 5" Power feed canopy | | finish* | | | _ | Specify in feet | 90 | 90+ CRI LED BOARDS |
| (F | Powder Coat) | | | Canopy only at power feed | | | | | | (IE: CL10 for 10') | | (2700K - 4000K only) |
| CF C | Custom Finish* | | | 4 SERIES | CANO | ΡΥ | | | | Consult factory | CCP | Corners/patterns* |
| (0 | Consult factory) | | 44 | 4" Power feed canopy | MF | Machine Finish | | | | to confirm spec | CD | Custom Driver* |
| | | | | 4" Non-power feed canopy | | (Standard) | | | | | CR | Customization Requested* |
| | | | 41 | 4" Power feed canopy | SW | Satin White | | | | | | |
| | | <u>. </u> | | 1" Non-power feed canopy | CF | Custom Finish* | | | | | | |
| | | NOTE: The MF option is strongly recommended. Other options will result in higher costs and potentially longer lead times. *"Hardware" refers to the end | | 4" Power feed canopy Canopy only at power feed | possil canor | about any finish is ble. For the 4" machined bies, MF is strongly nmended. Contact the | | | | | concept re NOTE: Cus and/or inc | stomization may incur higher costs creased lead times. |
| *RAL and available | id color match are e. | caps and knuckles (knuckles only for the "Rotational" option). | | options section and installation ructions for more information. | factor reque | y with questions or sts. | *co | nsult factory. | | oles are field stable. | | B12 is slightly more expensive than the ion (BOTH OPTIONS ARE INTEGRAL). |

SPECIFICATION INFORMATION _

GENERAL NOTES:

All fixtures are **UL listed** for **dry** and **damp** locations. **INTEGRAL DRIVER** for all options.

Please contact the factory with any specification questions. *Italicized grayed* out options may incur additional costs and/or extended lead times. Please consult the factory.

FIXTURE ORIENTATION:

Direct (CSD) for downlight applications.
Indirect (CSI) for uplight applications.
Rotational (CSR) for adjustable applications: 360 degree rotational capacity with locking mechanism.

DRIVER: [INTEGRAL]

1) NON-DIMMING: As described... this fixture will not dim.

1) NON-DIMMINIOS: As described... this fixture will not diff.

2) DIMMING: 0-10v: 1%, 10% :: Lutron: 2-wire Forward phase (Hi-Lume 1%), Ecosystem to 1% (Soft On), Ecosystem to 5% (5 Series). "DAL!"- Specify driver. See "Dimming Options" on subsequent pages for more information. For other dimming options, consult the factory.

3) EMERGENCY: Specify EMB under the Options/Customization category at the end of the cut sheet along with the desired lumen output (600 or 1,000 lumens - the latter is slightly more costly).

4) Drivers are programmed according to our standard lumen

packages or to custom watt/lumen package requirements.
5) Consult factory with any questions or specification requirements.

FINISHES:

The standard finish is a Satin Clear anodized housing with Machine Finished hardware. Machined finish is preferable for machined components (Hardware Detail)- Powder coating these parts may result in additional costs. Consult the factory with any questions about standard or custom finishing options.

CUSTOMIZATION:

We have numerous custom options available. However, if there is something unique required for a project, from simple options to complete custom requests, we are more than willing to entertain any creative notions you might have. Just ask.





Thallium

ROTATIONAL ARM MOUNT (RAM)

INTEGRAL DRIVER WITH ALL FIXTURE OPTIONS MACHINED END CAPS PREMIUM LEDS WITH VARIOUS COLOR TEMPERATURES AND LIGHT OUTPUT EXTRUDED ALUMINUM SOFT GLOW FROSTED LENS 3-7/8"

FEATURES:

- 5/8" diameter rigid tube mounting system
- High transmission frosted lenses with no diode imaging
- · No visible fasteners
- · Extruded aluminum housing
- Dimmable/Programmable drivers for controllable light output
- · High efficacy LEDs with 5 year warrant
- Under 2 steps MacAdamss Ellipse Binning
- 3/8" thick machined end caps
- 360° rotation option- with mechanical locking





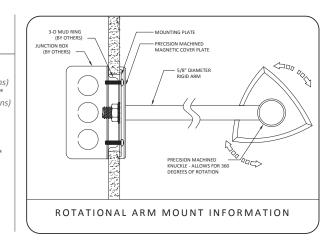


PRODUCT SPECIFICATION.

NOTE: All options italicized in gray may increase lead times and/or incur higher costs - please consult factory with questions.

| FIXTURE TYPE T13 | MOUNTING RAM | NOMINAL LENGTH* | COLOR TEMP | LED DRIVE POWER | VOLTAGE | DRIVER | HOUSING FINISH |
|-------------------|--------------------------------|--|---|--|---|----------------|---|
| TI3 Thallium 3 | RAM Rotational Arm Mount | 1' 1'1-3/8"** 2' 2'1-3/8" 3' 3'1-3/8"** 4' 4'1-3/8" 5' 5'1-3/8"** 6' 6'1-3/8" 7' 7'1-3/8"** 8' 8'1-3/8 12' 12'1-3/8** CR' Continuous Run (Specify length in nominal feet) *Dimensions are for reference only. Contact factory for more specific information or shop drawings. | 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K | VLO Very Low Output 410 lumens/ft. (4w/ft.) LO LOW OUtput 620 lumens/ft. (6w/ft.) SO Standard Output 815 lumens/ft. (8w/ft.) HO High Output 1,020 lumens/ft. (10w/ft.) VHO Very High Output 1,185 lumens/ft. (12w/ft.) DHO Dual High Output 2,035 lumens/ft. (19.5w/ft.) CPO Custom Power Output Consult factory | UNV Universal (120-277v) 1V 120v 2V 277v 3V 347v* | ND Non-Dimming | SC Satin Clear Anodize (Standard) SW Satin White (Powder Coat) MB Matte Black (Powder Coat) CF Custom Finish* (Consult factory) |
| | | **Odd lengths may incur slightly higher per foot pricing. | | | *Not all dimming options are available with 347v. | | *RAL and color match are available. |

| HARDWARE* DETAIL FINISH | ARM LENGTH* | MOUNTING/ COVER PLATE | OPTIONS/ CUSTOMIZATION |
|--|--|--|--|
| MF Machined Finish (Standard) CF Custom Finish (Consult factory) | 3 3" 6 6" 9 9" 12 12"** CAL Custom Arm Length- Consult factory | 4CPF Flat 4" diameter Cover Plate - For use with a 3-O mud ring CCP Custom Cover Plate (Consult factory) | XX No EMB or Customization EMB7 7 Watt battery back-up** (Approximately 600 lumens 90 90+ CRI LED BOARDS (2700K - 4000K only) CCP Corners/patterns* CD Custom Driver* CR Customization Requested* |
| NOTE: The MF option is strongly recommended. Other options will result in higher costs and potentially longer lead times. ""Hardware" refers to the end caps, knuckles, arms, and cover plates. | *Arm length is measured from the mounting surface to the center of the fixture. *Limitations apply. Consult factory. | | *Consult factory for all custom options or custom concept requests. NOTE: Customization may incur higher costs and/or increased lead times. **The EMB12 is slightly more expensive than the EMB7 option (BOTH OPTIONS ARE INTEGRAL). |



SPECIFICATION INFORMATION _

GENERAL NOTES:

All fixtures are ${\bf UL}$ listed for ${\bf dry}$ and ${\bf damp}$ locations. INTEGRAL DRIVER for all options.

Please contact the factory with any specification questions. Italicized araved out options may incur additional costs and/or extended lead times. Please consult the factory.

DRIVER: [INTEGRAL]

1) NON-DIMMING: As described... this fixture will not dim.

2) DIMMING: 0-10v: 1%, 10% :: Lutron: 2-wire Forward phase (Hi-Lume 1%), Ecosystem to 1% (Soft On), Ecosystem to 5% (5 Series). "DALI" - Specify driver. See "Dimming Options" on subsequent pages for more information. For other dimming options, consult the factory.

3) EMERGENCY: Specify EMB under the Options/Customization category at the end of the cut sheet along with the desired lumen output (600 or 1,000 lumens - the latter is slightly more costly).

4) Drivers are programmed according to our standard lumen packages or to custom watt/lumen package requirements.

5) Consult factory with any questions or specification requirements.

FINISHES:

The standard finish is a Satin Clear anodized housing with Machine Finished hardware. Machined finish is preferable for machined components (Hardware Detail) - Powder coating these parts may result in additional costs. Consult the factory with any questions about standard or custom finishing options.

CUSTOMIZATION:

We have numerous custom options available. However, if there is something unique required for a project, from simple options to complete custom requests, we are more than willing to entertain any creative notions you might have. Just ask.





Thallium 3 LED

PHOTOMETRIC DATA

LED COMPONENT INFORMATION

- Fixture delivered light potential: 103 Lumens/Watt*
- Uniform light distribution
- 90+ CRI LED diode options
- Exceptional binning- less than 2 step MacAdams Elipse
- Minimum 70% initial lumen output at 70,000 hours
- Standard 0-10v dimming to %10
- Lutron, Eldoled, Dali, and other dimming options
- 5 year system warranty

*Actual fixture efficacy will be dependent on specification. Higher lumens per watt are achieved with lower drive powers. Please contact the factory with questions or for more information.

LUMEN OUTPUT*

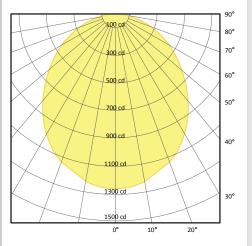
| DRIVER | LUMEN OUTPUT (PER FOOT) | | | | | |
|-----------------|-------------------------|--------|--|--|--|--|
| OUTPUT | WATTAGE | LUMENS | | | | |
| VERY LOW (VLO) | 4 | 410 | | | | |
| LOW (LO) | 6 | 620 | | | | |
| STANDARD (SO) | 8 | 815 | | | | |
| нібн (но) | 10 | 1,020 | | | | |
| VERY HIGH (VHO) | 12 | 1,185 | | | | |
| DUAL HIGH (DHO) | 19.5 | 2,035 | | | | |

| DRIVER | PER 4' FIXTURE (TOTAL DELIVERED LUMENS) | | | | | |
|-----------------|---|--------|--|--|--|--|
| OUTPUT | WATTAGE | LUMENS | | | | |
| VERY LOW (VLO) | 16 | 1,640 | | | | |
| LOW (LO) | 24 | 2,480 | | | | |
| STANDARD (SO) | 32 | 3,260 | | | | |
| нібн (но) | 40 | 4,080 | | | | |
| VERY HIGH (VHO) | 48 | 4,740 | | | | |
| DUAL HIGH (DHO) | 78 | 8,140 | | | | |

- VERY LOW: Considerably underdrives the LEDs to maximize fixture efficacy potential and limit wattage use.
- LOW: Underdrives the LEDs for reasonable light output while maintaining low wattage use.
- **STANDARD**: Drives the LEDs for the best combination of lumen output and fixture efficacy.
- **HIGH:** Drive the LEDs at higher capacity for higher lumen output with good efficacy.
- **VERY HIGH:** Drives the LEDs at the highest capacity for the highest lumen output with the best efficacy.

*Lumen output will vary depending on ambient temperature. Cooler ambient and LED color temperatures result in higher luminaire performance. Calculations are based on 3500K LEDs.

LUMINOUS INTENSITY DISTRIBUTION



FIXTURE PROPERTIES (AS TESTED)

- 4' nominal length fixture
- Standard Output (SO)
- Total system energy consumption: 32 Watt
- 103 Lumens/Watt
- 4000K 80 CRI LED

ZONAL LUMEN SUMMARY

| ZONE | LUMEN | %LAMP | %FIXTURE | |
|--------|-------|-------|----------|--|
| 0 - 30 | 944 | 21.9% | 29% | |
| 0 - 40 | 1,516 | 35.1% | 46.6% | |
| 0 - 60 | 2,571 | 59.9% | 79.1% | |
| 0 - 90 | 3,252 | 75.3% | 100% | |













OPTIONS GUIDE

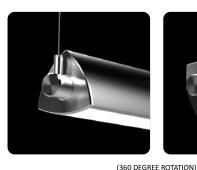
MOUNTING





CABLE SUSPENDED (CS)

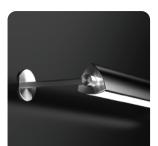
3/64" aircraft cable suspension system. Thallium 3 (TI3) can be static down-light: Direct (CSD), static up-light: Indirect (CSI), or Rotational (see below). Standard and custom power cord finishes, sleeve options, and canopy colors offer options to match almost any space. Stainless steel cables come in various lengths (4' is standard) and are field adjustable.





CABLE SUSPENDED ROTATIONAL (CS-R)

Using a similar setup to the Cable Suspended system above, the Cable Suspended-Rotational system has 360 degree rotational capacity with mechanical fasteners to lock fixtures in place if desired. This system offers incredible flexibility, light direction control, and a dynamic aesthetic.





(360 DEGREE ROTATION)

ROTATIONAL ARM MOUNT (RAM)

This system uses 5/8" diameter aluminum arms and subtle details in combination with a 360 degree rotational capacity to create some of the most versatile linear fixtures in the architectural market. Standard mounting uses 3-0 mud rings (supplied by others) or a 1" optional trim ring for furniture mounted applications. Engineered with no visible fasteners, smooth rotation, and mechanical locking, the RAM system reveals an impressive aesthetic with exceptional versatility.



OPTIONS GUIDE

CONTINUOUS RUN

Continuous runs are available with all fixtures and have several connection options. Single Seam continuous run options offer smooth section transitions while Component Seams lend to a more dramatic visual statement. The 360 Rotational option enables individual sections to rotate independently of each other, which offers adjustable asymmetric light distribution capacity along with striking appearances such as alternating up/down fixtures or spiral transitions. The flexibility within the rotational option makes for infinite design and functional possibilities.



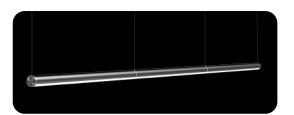
CONTINUOUS RUN SINGLE SEAM



CONTINUOUS RUN ROTATIONAL (SPIRAL EFFECT)



CONTINUOUS RUN



OXYGEN 2 (O2) WITH A SINGLE SEAM CONTINUOUS RUN

CANOPIES

STANDARD

Canopies have several standard options to suit various environment aesthetics. The standard cable suspension system has 5" Satin White canopies. However, other standard options include a 2" non-power feed canopy option as well as no canopy at all. Both of these include a 5" diameter power feed canopy.





5" diameter power feed and 5" diameter non-pow feed canopy. Most common canopy layout. Creates a consistent ceiling aesthetic.







5" diameter power feed and 2" diameter non-power feed canopy. Offers a more minimal ceiling treatment while maintaining the ability to cover up mistakes. Requires a 1/4-20 stud securely fastened to the ceiling.







5" diameter power feed canopy and no canopy on the non-power feed side. Minimal aesthetic. Requires a 1/4-20 stud securely attached to ceiling. Works well with continuous runs where the power can be carried inside the fixture.

MACHINED

Machined canopies are 4" in diameter and can be anodized as well as powder coated to match a desired color or they can be left with a mill finish for a more striking look. Similar non-power feed options are available with this aesthetic as well. These options do carry a higher cost than standard canopies, but also have an impressive appearance.





4" diameter machined power feed and 4" diameter machined non-power feed canopy. Offers a consistent ceiling aesthetic with smaller machined canopies. Mill, anodized, and powder coat finishes available.





4" diameter machined power feed and 1-1/4" diameter machined non-power feed canopy. Offers minimal ceiling treatment while maintaining the ability to cover mistakes. Requires a 1/4-20 stud securely fastened to the ceiling. Mill, anodized, and powder coat finishes available.





4" diameter machined power feed canopy and no canopy on the non-power feed side. Minimal aesthetic. Requires a 1/4-20 stud securely attached to the ceiling. Works well with continuous runs where the power can be carried inside the fixture. Mill, anodized, and powder coat finishes available.

CUSTOM

Custom canopies options are available and can look spectacular in certain applications. Contact the factory with all custom requests or with any questions.



CUSTOM POWDER COAT



CUSTOM ANODIZE



CUSTOM SHAPE

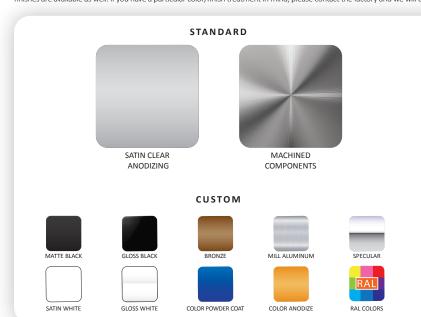


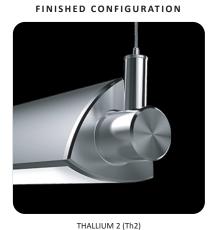


OPTIONS GUIDE

COLOR AND FINISH.

Standard finish configurations are Satin Clear (SC) housing with Machined Finish (MF) machined components (end caps, knuckles, cover plates, etc.). The incredibly clean detail within all of the machined components lends to an incredibly high end aesthetic with two tone finish. Numerous custom anodizing and powder coated finishes are available as well. If you have a particular color/finish treatment in mind, please contact the factory and we will do our best to accommodate your project needs.





Cable Suspended Rotational mount system with two-tone finish, Satin Clear housing and Machined Finish components.

COVER PLATES_

Cover plates are standard for Rotational Arm Mounting (RAM) Systems. Standard options are Flat (FT), Curved (CV), or Trim Ring (TR). With certain applications, cover plates or trim rings may not be necessary. Contact factory with questions or for more information. Custom cover plates are also available. If a certain aesthetic is desired, please contact the factory to review any concepts and we will do our best to bring your vision to life.

FLAT (CPFT) Flat has a 4" diameter cover plate for use with a 3-O mud ring.



TRIM RING (TR) 1-1/4" diameter trim ring Can be used in applications such as desk mounting.



SQUARE

сиѕтом



TALL RECTANGLE



CUSTOM

