Radium

CABLE SUSPENDED (CS)

EXTRUDED ALUMINUM HOUSING PREMIUM LEDS WITH VARIOUS COLOR TEMPERATURES AND LIGHT OUTPUT HIGH FFFICACY REFLECTOR "LIGHT STREAM" SIDE LIGHT OR LINEAR DETAIL MACHINED END CAPS SOFT GLOW FROSTED LENS

FEATURES:

- Powered Suspension System No power cord
- 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
- Bi-directional fixture
- $\bullet~360^{\circ}$ rotation option- with mechanical locking
- Unique "light stream" side light detail

NOTES:

- REQUIRES REMOTE DRIVER(S) (see page 4 for more info)
- Continuous Run requires the rotational option







PRODUCT SPECIFICATION _

2-7/16

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

FIXTURE TYPE Ra2		DUNTING/ IENTATION		NOMINAL LENGTH*	COLOR TEMP			DRIV WER		V	OLTAGE		DRIVER		HOUSING FINISH
Ra2 Radium 2	CSD	Cable Suspended - BI-DIRECTIONAL Cable Suspended - DIRECT ONLY Cable Suspended - ROTATIONAL	2' 3' 4' 5' 6' 7' 8' CR' *Dimen reference factory shop dra **Odd I higher p.	engths may incur er foot pricing.	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	so HO	Very Low Output 300 lumens/ft. (4w/ft.) Low Output 450 lumens/ft. (6w/ft.) Standard Output 590 lumens/ft. (18w/ft.) High Output 740 lumens/ft. (10w/ft.) Very High Output 860 lumens/ft. (12w/ft.) Custom Power Output Consult factory	SC HC VHC	Very Low Output 455 lumens/ft. (4w/ft.) Low Output 690 lumens/ft. (6w/ft.) Standard Output 900 lumens/ft. (8w/ft.) High Output 1,130 lumens/ft. (10w/ft.) Very High Output 1,315 lumens/ft. (12w/ft.) Custom Power Output Consult factory	UNV	Universal (120-277v)	10D 1D LTEA LDE1 LDE5	Non-Dimming 0-10v DIMMING —— 10% DIM 1% DIM LUTRON —— LUTRON —— Lutron Fi-Lume 1% (2-Wire) Lutron EcoSystem 1% "Soft on" (Digital) Lutron EcoSystem 5% 5-Series (Digital) —— DALI Digital Addressable Lighting Interface	SW MB CF	(Powder Coat) Matte Black (Powder Coat) Custom Finish* (Consult factory)
				tinuous Run rotational option					Applicable with CSD option. T ONLY.					*RAL availa	and color match are able.

HARDWAR DETAIL FIN	* DRIVER HOUSING FINISH	CANOPY SIZE OPTIONS*	CANOPY FINISH	LIGHTSTREAM COLOR/FINISH	POWER CORD COLOR	AIRCRAFT CABLE LENGTH*	OPTIONS/ CUSTOMIZATION*
MF Machin	-		CANOPY ———	CF Clear Frost	PSS Powered	2 2'	XX No EMB or Customization
Finish (Standa CF Custom Finish (Consul factory, NOTE: The MF option is strongl recommended. Other options w result in higher costs and potent	SW Satin White SB Satin Black CF Custom Finish (Consult factory)	55 "Power feed canopy 5" Non-power feed canopy 2" Non-power feed canopy 2" Non-power feed canopy 50 5" Power feed canopy canopy only at power feed 4" Power feed canopy 4" Non-power feed canopy 4" Power feed canopy 1" Non-power feed canopy 1" Non-power feed canopy 4" Power feed canopy	SW Satin White (Standard) CPC Custom Powder Coat canopy finish* GCANOPY MF Machine Finish (Standard) SW Satin White CF Custom Finish*	CC Custom Color	Suspension System (No power cord) W White** G Gray** B Black** CC Custom Cord*	4 4' 6 6' 8 8' CL_ Custom Length Specify in feet (IE: CL10 for 10') Consult factory to confirm specification	EMB7 7 Watt battery back-up** (Approximately 600 lumens) EMB12 12 Watt battery back-up** (Approximately 1,000 lumens) 90 90+ CRI LED BOARDS (2700K - 4000K only) CD Custom Driver* CR Customization Requested* DUAL Dual switching/dimming
longer lead time *"Hardware" ref to the end caps : knuckles (knuckl only for the "Rotational" option).	d	*CONTINUOUS RUNS REQUIRE THE 55" OR THE 44" OPTION. CONSULT FACTORY WITH QUESTIONS. *See options section and installation instructions for more information.	*Just about any finish is possible. For the 4" machined canopies, MF is strongly recommended. Contact the factory with questions or requests.		*Consult factory. **Only available wit Continuous Runs	*Cables are field adjustable.	*Consult factory for all custom options or custom concept requests. MOTE: Customization may incur higher costs and/or increased lead times. **The EMB12 is slightly more expensive than the EMB7 option (BOTH OPTIONS ARE REMOTE ONLY).

SPECIFICATION INFORMATION _

GENERAL NOTES:

All fixtures are **UL listed** for **dry** and **damp** locations. **REMOTE 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:

Bi-directional (CS) for downlight and uplight applications. Direct (CSD) for ONLY downlight applications.

Rotational (CSR) for adjustable applications: 360 degree rotational capacity with locking mechanism.

DRIVER: [REMOTE]

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.



Radium

ROTATIONAL ARM MOUNTED (RAM)

EXTRUDED ALUMINUM HOUSING PREMIUM LEDS WITH VARIOUS COLOR TEMPERATURES AND LIGHT OUTPUT HIGH FFFICACY REFLECTOR "LIGHT STREAM" SIDE LIGHT OR LINEAR DETAIL MACHINED END CAPS SOFT GLOW FROSTED LENS

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 warranty
- Under 2 steps MacAdams Ellipse Binning
- 3/8" thick machined end caps
- Bi-directional fixture
- 360° rotation option- with mechanical locking
- Unique "light stream" side light detail

NOTES:

• REQUIRES REMOTE DRIVER(S) (see page 4 for more info)







PRODUCT SPECIFICATION _

2-7/16

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

FIXTURE TYPE Ra2	MOUNTING RAM	NOMINAL LENGTH*	COLOR TEMP	DIRECT POV	ORIVE ——— VER INDIRECT	VOLTAGE	DRIVER	HOUSING FINISH
Ra2 Radium 2	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" CR' Continuous Run (Specify length in nominal feet) *Dimensions are for reference only. Contact	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	VLO Very Low Output 300 lumens/ft. (4w/ft.) LO Low Output 450 lumens/ft. (6w/ft.) SO Standard Output 590 lumens/ft. (8w/ft.) HO High Output 740 lumens/ft. (10w/ft.) VHO Very High Output 860 lumens/ft. (12w/ft.) CPO Custom Power Output Consult factory	VLO Very Low Output 455 lumens/ft. (4w/ft.) LO Low Output 690 lumens/ft. (6w/ft.) SO Standard Output 900 lumens/ft. (8w/ft.) HO High Output 1,130 lumens/ft. (10w/ft.) VHO Very High Output 1,315 lumens/ft. (12w/ft.) CPO Custom Power Output Consult factory	UNV Universal (120-277v)	ND Non-Dimming	SC Satin Clear Anodize (Standard) SW Satin White (Powder Coat) MB Matte Black (Powder Coat) CF Custom Finish* (Consult factory)
		factory for specific info or shop drawings. **Odd lengths may incur higher per foot pricing.					ыднынд телјисе	*RAL and color match are available.

1			higher per foot p	ricing.				available.
HARDWA DETAIL FII		DRIVER ISING FINISH	LIGHTSTREAM	ARM LENGTH*	MOUNTING/ COVER PLATE	OPTIONS/ CUSTOMIZATION	3-O MUD RING (BY OTHERS) JUNCTION BOX (BY OTHERS)	MOUNTING PLATE PRECISION MACHINED MAGNETIC COVER PLATE
MF Mach Finish (Stam. CF Custo Finish (Cons facto) NOTE: The M option is stro recommende Other option will result in higher costs in potentially lo lead times. ""Hardware" refers to the caps, knuckle arms, and co plates.	dard) SC m sW ult SB ry) F ngly d. s s and nger end ss, ver	Aluminum* Satin Clear Satin White	CF Clear Frost CC Custom Color	3 3" 6 6" 9 9" 12 12"** 18 18"** CAL Custom Arm Length- Consult factory *Arm length is measured from the mounting surface to the center of the fixture. **Limitations apply. Consult factory.	4CPF Flat 4" diameter Cover Plate - For use with a 3-O mud ring 1TR 1" Trim Ring - for use when mounting to finished surface IE. furniture NCP No Cover Plate CCP Custom Cover Plate (Consult factory)	XX No EMB or Customization EMB7 7 Watt battery back-up** (Approximately 600 lumens) 12 Watt battery back-up** (Approximately 1,000 lumens) 90 90+ CRI LED BOARDS (2700K - 4000K only) CD Custom Driver* CR Custom Driver* CR Customization Requested* DUAL Dual switching/dimming *Consult factory for all custom options or custom concept requests. NOTE: Customization may incur higher costs and/or increased lead times. **The EMB2 is slightly more expensive than the EMB7 option (BOTH OPTIONS ARE REMOTE ONLY).	ROTATIONAL	S/8* DIAMETER RIGID ARM PRECISION MACHINED INVOICE: ALLOWS FOR 360 DEGREES OF ROTATION ARM MOUNT INFORMATION

SPECIFICATION INFORMATION _

GENERAL NOTES:

All fixtures are **UL listed** for **dry** and **damp** locations. **REMOTE 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.

DRIVER: [REMOTE]

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.



Radium 2 LED

LED COMPONENT INFORMATION

- Fixture delivered light potential: 95 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*

LUMEN OUTPUT (PER FOOT)

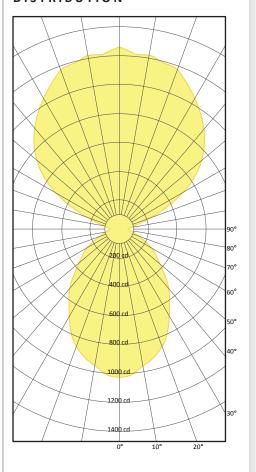
			•		
DRIVER	——DIR		INDI		
OUTPUT	WATTAGE	LUMENS	WATTAGE	LUMENS	
VERY LOW	4	300	4	455	
LOW	6	450	6	690	
STANDARD	8	590	8	900	
нібн	10	740	10	1,130	
VERY HIGH	12	860	12	1,315	

PER 4' FIXTURE (TOTAL DELIVERED LUMENS)

DRIVER	DIR	ECT	INDIRECT			
OUTPUT	WATTAGE	LUMENS	WATTAGE	LUMENS		
VERY LOW	16	1,200	16	1,820		
LOW	24	1,800	24	2,760		
STANDARD	32	2,360	32	3,600		
нібн	40	2,960	40	4,520		
VERY HIGH	48	3,440	48	5,260		

- 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.

LUMINOUS INTENSITY DISTRIBUTION



FIXTURE PROPERTIES

- 4' nominal length fixture (AS TESTED)
- Standard Output (SO)
- Total system energy consumption: 64 Watt
- 95 Lumens/Watt
- 4000K 80 CRI LED

ZONAL LUMEN SUMMARY

ZONE	LUMEN	%LAMP	%FIXTURE
0 - 30	747	8.6%	12.5%
0 - 40	1,174	13.6%	19.7%
0 - 60	1,913	22.1%	32.1%
0 - 90	2,358	27.3%	39.5%
90 - 120	828	9.6%	13.9%
90 - 150	2,638	30.5%	44.2%
90 - 180	3,606	41.8%	60.5%
0 - 180	5,963	69%	100%













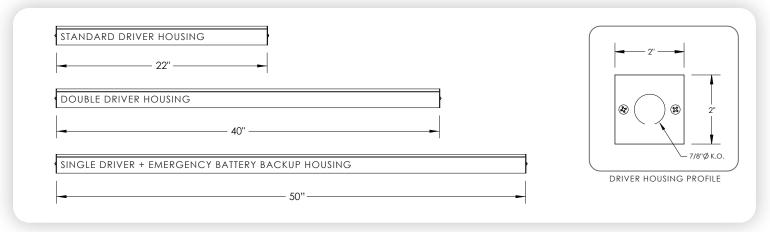
^{*}Lumen output will vary depending on ambient temperature. Cooler ambient and LED color temperatures result in higher luminaire performance. Calculations are based on 3500K LEDs.

REMOTE DRIVER HOUSING INFORMATION

REMOTE DRIVER HOUSING SIZES

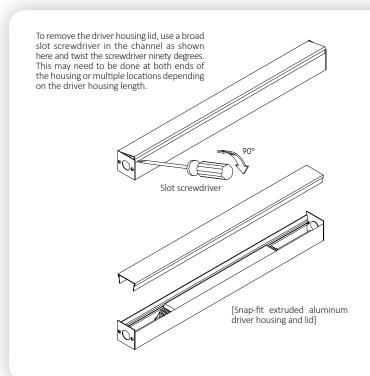
The driver housing length is typically dictated by the options selected. Standard driver housing lengths are as shown. Non standard driver requests may increase or decrease the driver housing length. Specifications are subject to change without notice. Consult factory with questions, requests, or size limitations and we will do our best to accommodate your needs.

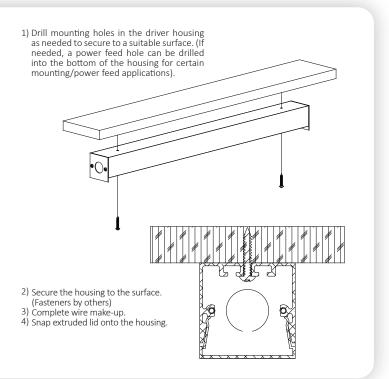




INSTRUCTIONS

See below for lid removal and installation instructions.





FINISHES

Mill Aluminum (MA) is the standard finish. Satin White and Satin Black powder coat and Satin Clear anodized finishes can be done for a small charge. Custom finishes are possible. Contact the factory for specific finish options, specific requests, RAL colors, or any other questions.













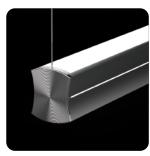
NOTES_

Other options are possible. Please contact the factory with custom requests.

OPTIONS GUIDE

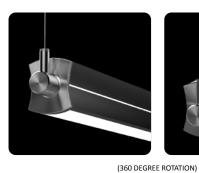
MOUNTING





CABLE SUSPENDED (CS)

Powered Suspension System. Radium 2 (Ra2) can be static down-light and up-light: Bi-Directional (CS) , only static down-light: Direct Only (CSD), 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

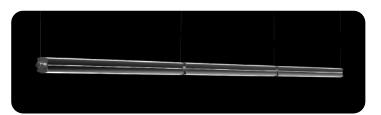
Continuous runs are available with all fixtures and have several connection options. Single Seam continuous run options offer smooth section transitions while Component Seams lend to a more dramatic visual statement. The 360 Rotational option enables individual sections to rotate independently of each 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 ROTATIONAL (SPIRAL EFFECT)



CONTINUOUS RUN ROTATIONAL



RADIUM 2 (Ra2) WITH A ROTATIONAL 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

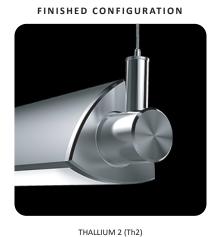


OPTIONS GUIDE

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.



LIGHTSTREAM

Lightstream is our unique 1/16" aperture lens that creates a striking light accent. Clear Frost (CF) is standard, but colored gels can be utilized to create custom color Lightstream accents. In addition, matching or two-tone metal accents can be used in lieu of an emissive lens. Please contact the factory or your local rep agency with any questions, color requests, or for specification assistance.



