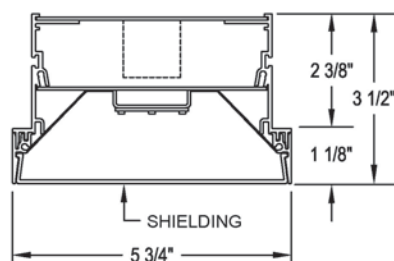




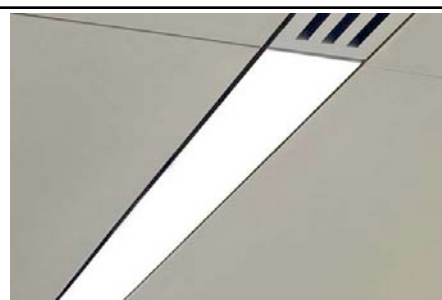
Click or scan QR code to view latest spec sheet

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Revision Date: March 05, 2018
Gammalux Lighting Systems reserves the right to change details of fixture designs and construction at any time.



LED Lamping



Click photo to view product page

Page 1: Overview & Nomenclature
 Pages 2-3: Specifications
 Pages 4-5: Photometric Info / Downloads
 Page 6: Mounting Details
 Page 8: Custom Programming

Product Overview (for complete specifications, see pages 2 & 3)

Upgrade Capability: LED components may be easily upgraded in the field to increase energy efficiency. Tool-less fastener allows quick LED retrofit while fixtures are still installed on site.

Construction: I.C. rated. Extruded aluminum housing provides superior fit and finish and is mounted in Hunter Douglas Ceilings & Walls exclusively from CertainTeed, Inc. Techstyle or Echelon ceiling from below. Continuous runs have hairline joints with no light leak. Runs of fixtures can be built to match field conditions.

Continuous Illumination: Optimized LED arrays provide consistent illumination in custom-length runs and patterns.

Electrical: LED components by major manufacturers. Fixtures can be fitted with integral sensors, control interface devices and specialty LED components (consult factory). Standard Output, High Output and Custom Output options available.

Optical: Lenses available in medium or heavy diffusion.

Standard Nomenclature

Manufacturer Gammalux	Cross Section (nom) 6" x 4"	Housing Recessed	Output * S Standard Output H High Output C Custom-Programmed Output	Color Temp. (nom) 27 2700 K 50 5000 K 30 3000 K RGB 35 3500 K 40 4000 K	Driver Options DVR Static Driver For Dimming Options, See pg 2	Mounting Method REC Recessed Mtd.	Ceiling System T1SW 15/16" Flat T Bar Techstyle Ceiling EMSW Echelon Main T EXSW Echelon Cross T	Paint Colors W White (Consult Color Chart for other standard colors) CCM Custom Color Match	Paint Finish H High Gloss SG Semi-Gloss
GB64RC2TE	-	2SL358	-	120V	- DVR -	4' N -	REC/T1SW - ASLMD	- WH	- XX
Application Techstyle or Echelon Luminaire Model 2nd Generation	CRI ** 8 for 80+ 9 for 90+	Voltage 120, 277, UNIV	Run Length Specify total run length (i.e. 43' 5 1/8", etc). Single-piece housing max is 12' unless coordinated with factory.	Length Option N Nominal length S Specific length	Shielding *** ASLMD Acrylic Satin Lens (Medium Diffuse) ASLHD Acrylic Satin Lens (Heavy Diffuse)	Options BPE Battery Pack EM. Kit DL UL Damp Label EMERG Emergency ckt. SBO = Sensor By Others#	Cross Section Shape Beam		
		Lamp Type LED	LED Arrays in X-Sec 2						

* For other than SO or HO, see Custom Programmed Output page. RGB must be High Output and controlled by DMX driver option.

** 90+ CRI option has longer lead time and increases wattage by nom. 27%. For RGB, do not select a CRI option.

*** Shielding options are ASLMD and ASLHD only.

Specifications (continued on next page)

Electrical

Output: Standard (**S**) and high (**H**) options deliver a pre-set lumen package (see chart below). Custom-programmed output (**C**) is specified as LPF, WPF or % of High Output (see Custom Programmed Output page).

Static Driver: Osram [Optotronic](#)* programmable driver, wired for static operation (**DVR**).

0-10V Dimming: Osram [Optotronic](#)* programmable driver, wired for 0-10v control and dimming to 10% (**ZTV10**) or to 1% (**ZTV1**).

Step Dimming: Generic step dimming driver, two hot inputs for 100% and 50% output (**SD2**).

DMX Dimming: Generic DMX driver with three loose control wires exiting fixture at power feed location (**DMX**).

DALI Dimming: Generic DALI driver with two loose control wires exiting fixture at power feed location (**DALI**).

Lutron Dimming: Hi-lume Premier dim to 0.1% EcoSystem with Soft-On, Fade-to-Black AVAILABLE SPRING 2018 (**PEQ0E**). [Hi-lume LTE](#) dim to 1% 2-wire 120V forward phase (**LTEA2W**). [Hi-Lume](#) dim to 1% EcoSystem with Soft-On, Fade-to-Black (**LDE1**). [5-Series](#) dim to 5% EcoSystem (**LDE5**).

White Emitter*: Nichia 757G emitters binned within 3 MacAdam ellipses in Osram or Gammalux proprietary array. 90+ CRI option with extended lead time (CRI code **9**) results in nom. 27% drop in efficacy; increase calculated wattage by nom. 27%

RGB: Uses two rows of Osram [72618](#)*. RGB with all channels at full output consumes approximately 11 watts per foot.

- Red channel at full output will provide approximately the same # of lumens compared to 3,500K white at High Output.

- Green channel at full output will provide approximately 171% of lumens compared to 3,500K white at High Output.

- Blue channel at full output will provide approximately 35% of lumens compared to 3,500K white at High Output.

Battery Pack: Integral Bodine [BSL310LP](#)* (**BPE**). 4W max input. 10W initial output.

LED System: 70% lumen output (L70) at max 85 degrees C calculated at >60k hours. Fixtures are shipped with anti-static gloves to minimize the risk of damage to LEDs during installation. [5 year limited warranty](#).

Upgrade Capability: LED assemblies can be replaced in the future with the latest factory-provided and fully warranted components. On-board sensors, control interface devices and alternate LED components may be specified (consult factory). Max driver cross section 1.0" x 1.2". Fixtures bear UL & cUL Dry Location label. Damp Location label available (**DL**).

*Subject to availability; may be substituted by Gammalux. Components and specifications may be changed without notice.

ESTIMATED LUMENS PER FOOT DELIVERED BY COMBINATION OF 80+ CRI LEDs AND LENS OPTION											
STANDARD OUTPUT 6.35 WPF (nom)						HIGH OUTPUT 8.83 WPF (nom)					
OPTIONS	2700 K	3000 K	3500 K*	4000 K	5000 K	OPTIONS	2700 K	3000 K	3500 K*	4000 K	5000 K
ASLMD	626.8	667.7	681.4	708.6	722.2	ASLMD	835.8	890.3	908.5	944.8	963
ASLHD	458.3	488.2	498.2	518.1	528.1	ASLHD	611.1	651	664.3	690.9	704.1
Consult factory for options on custom output or wattage consumption. *IES files were created using 3500K boards. Values were then adjusted by a factor of .92 for 2700K, .98 for 3000K, 1.04 for 4000K and 1.06 for 5000K boards.											

Construction

Housing: I.C. rated. Extruded aluminum body 5.75" wide x 3.50" high, 6063T5, 0.070" min thickness. In continuous runs, each housing is 12' max unless longer housings are pre-coordinated with the factory to reduce joints and save installation labor. All fixtures are built per approved factory drawings and tested as a complete system at the factory. Continuous runs and patterns are ordered, built and shipped with a single item #. Fixtures ordered as individuals are not designed to be joined together in the field.

Joiner System: Automatic alignment, no loose parts, one tool to tighten two factory installed bolts for hairline seam. No light leaks.

Lamping: Runs ordered in Specific Length (Length Option **S**) may require special lamping components which consume more energy than posted values. Runs ordered in Nominal Length (Option **N**) may be length-adjusted at the factory to use standard lamping components. Factory drawings will show all dimensions for approval prior to production. Fixtures built to less than 4' may require master/satellite installation - consult factory.

Mounting: Recessed into Hunter Douglas Ceilings & Walls exclusively from CertainTeed, Inc. Techstyle or Echelon ceiling. Fixtures surrounded by grid should be ordered in Nominal length (Length Option **N**) and can be installed from below.

Specifications (continued)

Optical

Reflectors: Shall be formed diffuse high reflectance aluminum.

Acrylic Satin Lens, Medium Diffuse: Snap-in. Shall be 100% DR acrylic (**ASLMD**).

Acrylic Satin Lens, Heavy Diffuse: Snap-in. Shall be 100% DR acrylic (**ASLHD**).

See lens images on photometric pages.

Finish

Housing is electrostatically sprayed with high solids aliphatic two component polyurethane to an average thickness of 2 mils. over acid etching primer or commercial clear anodizing. Specify **H** for high gloss or **SG** for semi-gloss. Se

High Gloss Finish			Semi Gloss Finish			
						
White (WH)	Red (RH)	Yellow (YH)	White (WSG)	Silver (SSG)	Gray (GYSG)	Off White (OWSG)
						
Green (GH)	Blue (BH)	Black (BKH)	Light Gray (LGYSG)	Bronze (BZSG)	Satin Aluminum (SAPSG)	

Packing and Shipping

Fixtures built for continuous rows are given a specific location identifier, clearly identified on factory layout drawings provided to installing contractor. Location identifier is printed on the fixture's ID Label, protective wrapping and on each end of fixture carton. Shipping pallets are built with 2" clearance, extending beyond the length and width of cartons, providing shipping protection.

Approx. weight of 4' module is 19 lbs. including carton. Weight of pallet and supplemental packing materials not factored in.

Photometric Reports for
STANDARD OUTPUT FIXTURES

FIXTURE USES LENS ASLMD (MEDIUM DIFFUSE) AND 3500 K BOARDS.*

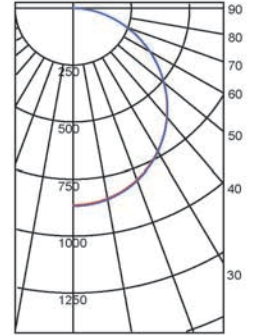
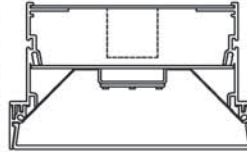
IESNA: LM 79-2008
ISSUEDATE: 07/09/13
TEST: GB64RC2-SOLED35-ASLMD.ies
TESTLAB: Photopia 3.2.6
MANUFAC: GAMMALUX LIGHTING SYSTEMS
LUMCAT: GB64RC2-1SOLED35-ASLMD 4'
LAMPS: 7.3W L9LR/250C/835/DA3R/289x38

EFFICACY (Total): 98.2 LPW
EFFICACY (Downlight): 100
EFFICACY (Uplight): 0.0
CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR
Width: 0.44 (Feet)
Length: 4.08
Height: 0.00
INPUT WATTS: 25.4



Acrylic Satin Lens,
(ASLMD)



Quadrilaterally Symmetric
Dashed: 0 Degrees Solid: 90 Degrees



FIXTURE USES LENS ASLHD (HEAVY DIFFUSE) AND 3500 K BOARDS.*

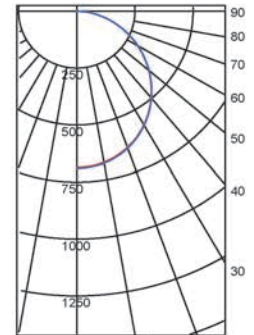
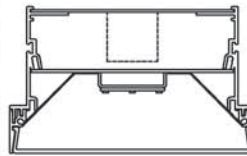
IESNA: LM 79-2008
ISSUEDATE: 07/09/13
TEST: GB64RC2-SOLED35-ASLHD.ies
TESTLAB: Photopia 3.2.6
MANUFAC: GAMMALUX LIGHTING SYSTEMS
LUMCAT: GB64RC2-1SOLED35-ASLHD 4'
LAMPS: 7.3W L9LR/250C/835/DA3R/289x38

EFFICACY (Total): 78.1 LPW
EFFICACY (Downlight): 100
EFFICACY (Uplight): 0.0
CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR
Width: 0.50 (Feet)
Length: 4.00
Height: 0.50
INPUT WATTS: 25.4



Acrylic Satin Lens,
Heavy Diffuse
(ASLHD)



Quadrilaterally Symmetric
Dashed: 0 Degrees Solid: 90 Degrees



**Photometric Reports for
HIGH OUTPUT FIXTURES**

FIXTURE USES LENS ASLMD (MEDIUM DIFFUSE) AND 3500 K BOARDS.*

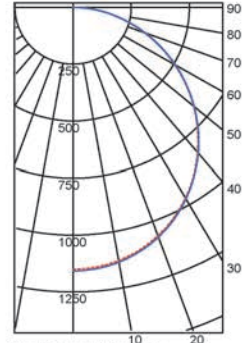
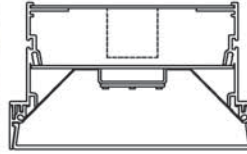
IESNA: LM 79-2008
ISSUEDATE: 07/09/13
TEST: GB64RC2-HOLED35-ASLMD.ies
TESTLAB: Photopia 3.2.6
MANUFAC: GAMMALUX LIGHTING SYSTEMS
LUMCAT: GB64RC2-1HOLED35-ASLMD 4'
LAMPS: 10.5W L9LR/250C/835/DA3R/289x38

EFFICACY (Total): 94.2 LPW
EFFICACY (Downlight): 100
EFFICACY (Uplight): 0.0
CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR
Width: 0.44 (Feet)
Length: 4.08
Height: 0.00
INPUT WATTS: 35.3



Acrylic Satin Lens,
Medium Diffuse
(ASLMD)



Quadrilaterally Symmetric
Dashed: 0 Degrees Solid: 90 Degrees



FIXTURE USES LENS ASLHD (HEAVY DIFFUSE) AND 3500 K BOARDS.*

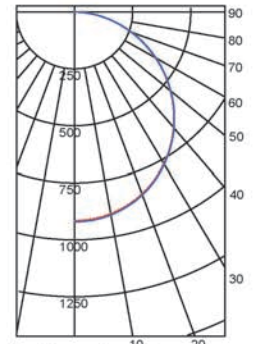
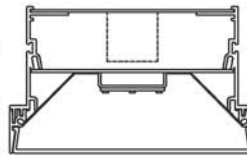
IESNA: LM 79-2008
ISSUEDATE: 07/09/13
TEST: GB64RC2-HOLED35-ASLHD.ies
TESTLAB: ITL, INC
MANUFAC: GAMMALUX LIGHTING SYSTEMS
LUMCAT: GB64RC2-1HOLED35-ASLHD 4'
LAMPS: 10.5W L9LR/250C/835/DA3R/289x38

EFFICACY (Total): 74.9 LPW
EFFICACY (Downlight): 100
EFFICACY (Uplight): 0.0
CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR
Width: 0.44 (Feet)
Length: 4.08
Height: 0.00
INPUT WATTS: 35.3



Acrylic Satin Lens,
Heavy Diffuse
(ASLHD)



Quadrilaterally Symmetric
Dashed: 0 Degrees Solid: 90 Degrees

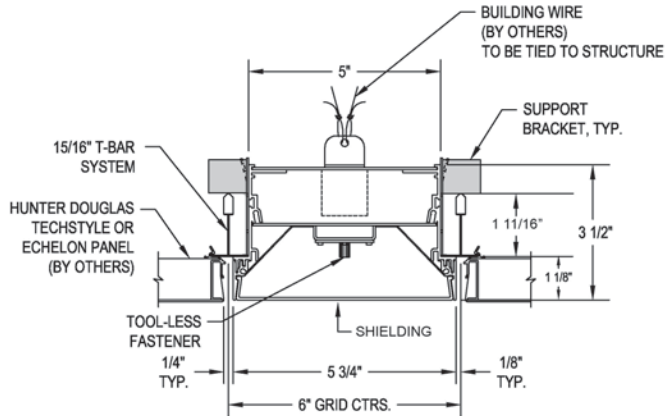


Mounting Details

Factory Drawings: Fully dimensioned factory drawings will be provided upon receipt of purchase order.

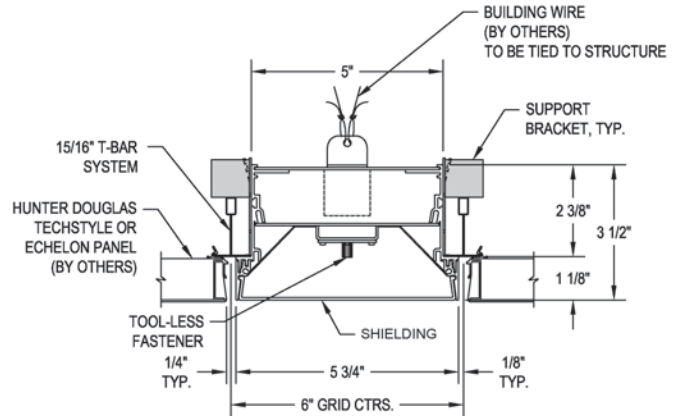
15/16" T Bar - 1 11/16":

Specify **T1SW** code in catalog #



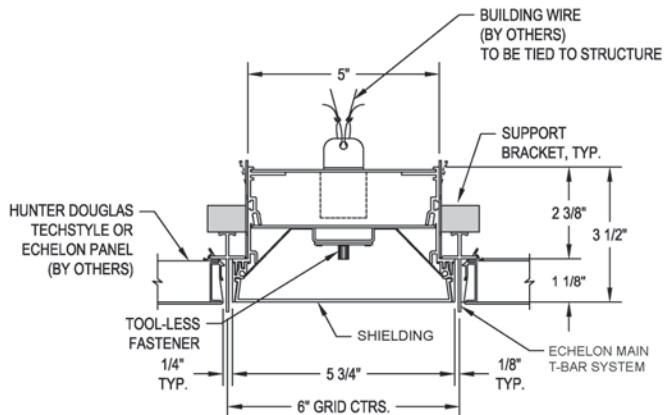
15/16" T Bar - 1 1/2":

Specify **T1SW** code in catalog #



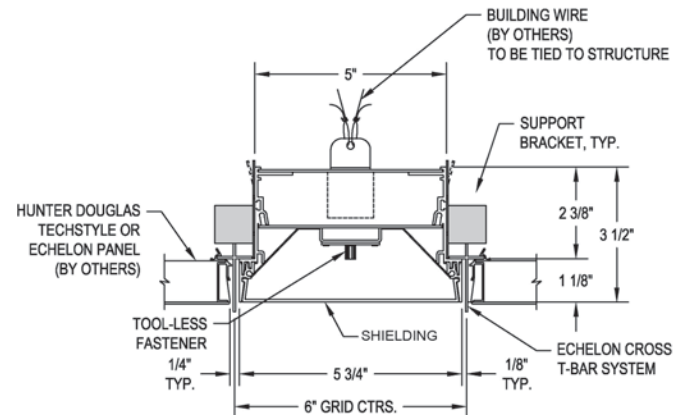
Echelon Main T Bar:

Specify **EMSW** code in catalog #



Echelon Cross T Bar:

Specify **EXSW** code in catalog #



Mounting bracket is field adjustable to accommodate all four conditions.

Gammalux Lighting Systems reserves the right to change the details of fixture design and construction at any time.

Custom Programmed Output

Custom Programmed Output can be specified to produce approximate Delivered Lumens per Foot, Percentage of High Output Value or Maximum Watts per Foot.

Delivered Lumens Per Foot

Gammalux deals only in delivered lumens per foot. When working to match or exceed a competitor product's Lumens Per Foot package, be sure you are looking at their Delivered (through the lens) lumens per foot, not their System (bare board) lumens per foot.

In the Gammalux item #, use C as the Output designator and add a fixture description stating the required Lumens Per Foot value (ie: if you need 600 lumens per foot delivered by the fixture, the line note would read "Program = 600 LPF").

Percentage of High Output Value

If the required delivered lumens per foot are not known, run lighting calculations using our High Output IES file and identify the percentage of decrease required to produce the correct lighting in the space.

In the Gammalux item #, use C as the Output designator and add a fixture description stating the required percentage of decrease from our High Output value (ie: for 60% of our High Output value, the line note would read "Program = 60% of High Output").

Maximum Watts Per Foot

In the Gammalux item #, use C as the Output designator and add a fixture description stating the required Maximum Watts per Foot (ie: if you need the fixtures capped at a maximum of 7 watts per foot, the line note would read "Program = 7 WPF").

For all three methods, custom programming capability is currently 50-125% of our High Output value. For requirements outside of this range, consult factory.