

**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.

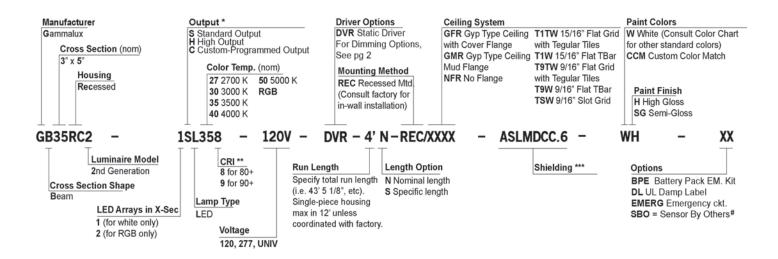
**Construction:** I.C. rated. ARRA, RoHS, REACH and Prop 65 compliant. Extruded aluminum housing for superior fit and finish. Grid mounted version can be installed from below. Runs and complex patterns are ordered, built and shipped with a single item # and can be built to match field conditions.

Unbroken Illumination: Continuous illumination in custom-length runs and patterns with illuminated corners.

**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: Concave lens provides medium or heavy diffusion.

### **Standard Nomenclature**



<sup>\*\* 90+</sup> CRI option increases wattage by nom. 14.5%. # Sensor By Others, factory installed (consult factory).







# 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: eldoLED Optotronic\* programmable driver, wired for static operation (DVR).

**0-10V Dimming:** eldoLED Optotronic\* programmable driver, wired for 0-10v control and dimming to 10% (**ZTV10**) or to 1% (**ZTV1**). For 0-10v dimming to 1% in lengths other than 1' increments, consult factory.

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

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

**Lutron Dimming:** Hi-lume LTE dim to 1% 2-wire 120V forward phase (**LTEA2WA** for PWM providing smoothest dimming or **LTEA2WC** for CCR in applications with EMI requirements). Hi-Lume dim to 1% EcoSystem with Soft-On, Fade-to-Black (**LDE1**).

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 nominal 14.5% drop in efficacy; increase calculated wattage by 14.5%.

Battery Pack: Bodine BSL310LP\* (BPE). 4W max input, 10W initial output, delivers min. 27% of High Output value per 4' length.

**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). 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.

	STANI	PUT LED	HIGH OUTPUT LED								
MEDIUM DIFFUSE LENS (ASLMD) DELIVERS: 326.5 LPF						MEDIUM DIFFUSE LENS (ASLMD) DELIVERS: 435.3 LPF					
HEAVY DIFFUSE LENS (ASLHD) DELIVERS: 241.1 LPF						HEAVY DIFFU	DELIVERS: 321.4 LPF				
ССТ	2700 K	3000 K	3500 K*	4000 K	5000 K	ССТ	2700 K	3000 K	3500 K*	4000 K	5000 K
WATTS / FT.	5.9	5.7	5.6	5.3	5.2	WATTS / FT.	8.2	7.8	7.7	7.4	7.2

#### Construction

**Housing:** I.C. rated. ARRA, RoHS, REACH and Prop 65 compliant. Extruded aluminum body 3.00" wide x 5.19" high, 6063T5, 0.070" min thickness. Flush end cap. Each housing is 12' max unless longer housings are pre-coordinated with the factory to reduce joints and installation labor. 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 factory installed bolts for hairline seam. No light leaks.

**Lamping:** Patterns are fully illuminated. Runs ordered in Specific Length (Length Option **S**) will be built to the exact dimension shown on signature-approved shop drawings. Runs ordered in Nominal Length (Option **N**) may be factory-adjusted to accomodate standard mounting positions or grid centers. Factory drawings will show all dimensions for approval prior to production. Fixtures built to less than 4' may require master/satellite driver installation - consult factory.

**Mounting:** Recessed into a ceiling system (**REC**). Fixtures surrounded by grid should be ordered in Nominal length (Length Option **N**) and can be installed from below. Consult factory for in-wall installation. Mud flange (**GMR**) includes integral expansion gap to allow for heat expansion with no pressure on surrounding plaster. GMR FIXTURE MUST BE INSTALLED PRIOR TO GYP.







# **Specifications (continued)**

## **Optical**

**Reflectors:** Shall be formed diffuse high reflectance aluminum.

Acrylic Satin Lens, Medium Diffuse, Concave: Snap-in, .6" rise. Shall be 100% DR acrylic (ASLMDCC.6).

Acrylic Satin Lens, Heavy Diffuse, Concave: Snap-in, .6" rise. Shall be 100% DR acrylic (ASLHDCC.6).

### **Finish**

Acid etched or clear annodized housing electrostatically sprayed with high solids aliphatic two component polyurethane high (**H**) or semi-gloss (**SG**) to an avg. thickness of 2 mils. Custom finish, consult factory. Wood Finishes, back page.



## Packing and Shipping

Fixtures built for continuous rows and patterns are given a specific location identifier, clearly identified on factory layout drawings, 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 13 lbs. including carton. Weight of pallet and supplemental packing materials not factored in.







## **Photometric Reports for** STANDARD OUTPUT FIXTURES

## FIXTURE USES, ASLMDCC.6 (MEDIUM DIFFUSE CONCAVE LENS) AND 3500 K BOARDS.\* @80+ CRI

IESNA: LM 79-2008 ISSUEDATE: 04/19/13

TEST: 12175860.01 MOD TO SO

TESTLAB: ITL, INC.

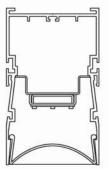
MANUFAC: GAMMALUX LIGHTING SYSTEMS LUMCAT: GB35D2-SL35-4'-ASLMDCC.6 LAMPS: 73571 PLPG2-Bar-1100-835-289x38-DC

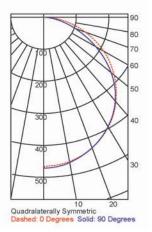
EFFICACY (Total): 53.1 LPW DISTRIBUTION % UP: 0% DISTRIBUTION % DOWN: 100% CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR 0.25 (Feet) Width:

4.00 Length: 0.00 Height: INPUT WATTS: 24.6







# FIXTURE USES, ASLHDCC.6 (HEAVY DIFFUSE CONCAVE LENS) AND 3500 K BOARDS.\* @80+ CRI

IESNA: LM 79-2008 ISSUEDATE: 04/19/13

TEST: 12175860.02 MOD TO SO

TESTLAB: ITL, INC.

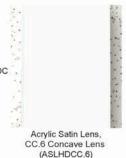
MANUFAC: GAMMALUX LIGHTING SYSTEMS LUMCAT: GB35D2-1SL35-4'-ASLHDCC.6 LAMPS: 73571 PLPG2-Bar-1100-835-289x38-DC

EFFICACY (Total): 39.04 LPW DISTRIBUTION % UP: 0% DISTRIBUTION % DOWN: 100% CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: **RECTANGULAR** 

0.25 (Feet) Width: 4.00 Length:

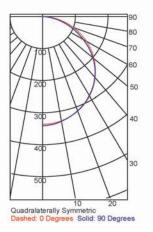
0.00 Height: INPUT WATTS: 24.7

















# Photometric Reports for HIGH OUTPUT FIXTURES

# FIXTURE USES, ASLMDCC.6 (MEDIUM DIFFUSECONCAVE LENS) AND 3500 K BOARDS.\* @80+ CRI

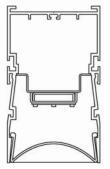
IESNA: LM 79-2008 ISSUEDATE: 04/19/13 TEST: 12175860.01 TESTLAB: ITL, INC.

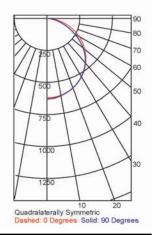
MANUFAC: GAMMALUX LIGHTING SYSTEMS LUMCAT: GB35D2-1HOLED35-4'-ASLMDCC.6 LAMPS: 73571 PLPG2-Bar-1100-835-289x38-DC

EFFICACY (Total): 51.7 LPW
DISTRIBUTION % UP: 0%
DISTRIBUTION % DOWN: 100%
CIE CLASSIFICATION: DIRECT

LUMINOUS OPENING: RECTANGULAR Width: 0.25 (Feet)

Length: 4.00 Height: 0.00 INPUT WATTS: 33.6 Acrylic Satin Lens, CC.6 Concave Lens (ASLMDCC.6)





# FIXTURE USES, ASLHDCC.6 (HEAVY DIFFUSE CONCAVE LENS) AND 3500 K BOARDS.\* @80+ CRI

IESNA: LM 79-2008 ISSUEDATE: 04/19/13 TEST: 12175860.02 TESTLAB: ITL, INC.

MANUFAC: GAMMALUX LIGHTING SYSTEMS LUMCAT: GB35D2-1HOLED35-4'-ASLHDCC.6 LAMPS: 73571 PLPG2-Bar-1100-835-289x38-DC

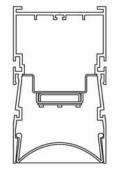
EFFICACY (Total): 38.1 LPW
DISTRIBUTION % UP: 0%
DISTRIBUTION % DOWN: 100%
CIE CLASSIFICATION: DIRECT

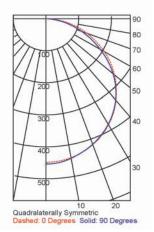
LUMINOUS OPENING: RECTANGULAR Width: 0.25 (Feet)

Length: 4.00 Height: 0.00 INPUT WATTS: 38.1













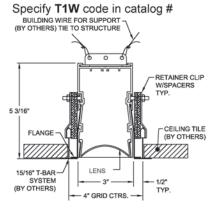


# **Mounting Details**

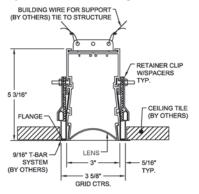
Factory Drawings: Fully dimensioned factory drawings will be provided upon receipt of purchase order.

## **Grid Mount**

# 15/16" Flat TBar: 9/16'

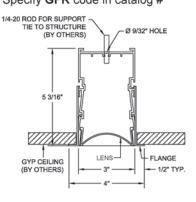


## 9/16" Flat TBar: Specify T9W code in catalog #

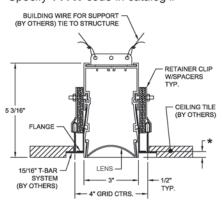


# **Hard Ceiling Mount**

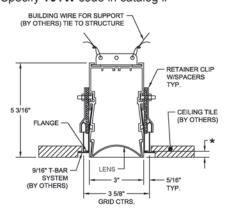
### Gyp type ceiling with cover flange: Specify GFR code in catalog #



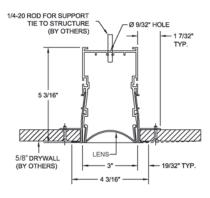
# **15/16" Flat TBar with Tegular Tiles:** Specify **T1TW** code in catalog #



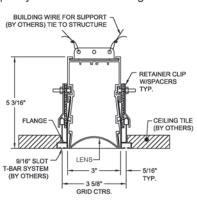
9/16" Flat TBar with Tegular Tiles: Specify T9TW code in catalog #



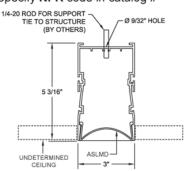
### Gyp type ceiling Mud Flange: Specify GMR code in catalog #



### 9/16" Slot Grid: Specify TSW code in catalog #



### Undetermined ceiling, Flangeless: Specify NFR code in catalog #



\*Contractor must provide dimensions to Gammalux.

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



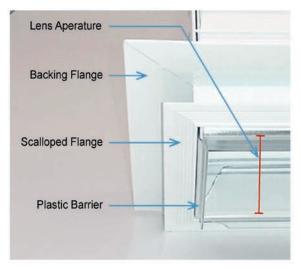




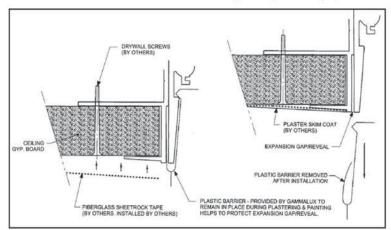
# **Mud Flange Detail**



Fixture ships with steel spacer bracket to maintain aperture integrity during installation.



Mud flange assembly consists of a backing flange and scalloped flange. Plastic barriers protect the integral expansion gap from mud and paint.



Gyp material is embedded between the backing flange and scalloped flange, then drywall screws secure the drywall to the backing flange. Fiberglass tape, skim coat of plaster and paint are added on top of the scalloped flange with the plastic barrier installed throughout all procedures. After paint is dry, plastic barrier is removed, revealing clean expansion gap.









# **Sample Installations**



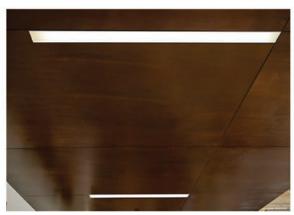
Flush with 15/16" grid (T1W)



Modified per spec



Dropped with tegular tiles in 9/16" grid (T9TW)



No flange (NFR)



Gyp flange (GFR)



Mud flange (GMR)



Mud flange (GMR)









# **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  $\mathbb{C}$  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 increase or 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 25-200% of our High Output value. For requirements outside of this range, consult factory.

