

# Lumination™ LED Luminaires

2' x 2' LED Refit™ Kit

LVR 22 Series - Volumetric Refit™, Enhanced Generation B



Project name \_\_\_\_\_

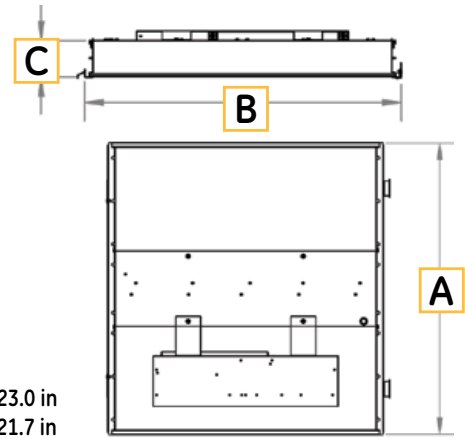
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## Product Description:

GE Lumination™ LVR Series Recessed LED Refit kits bring a three-dimensional volumetric designer touch to any drop ceiling landscape. By providing high uniformity, excellent efficiency and reduced glare the LVR is ideal for commercial office, education or healthcare applications. The newly rerated lumen maintenance of greater than L85 at 50,000 hours operation offers even lower maintenance costs and now optional "High Performance" products offer DLC premium. LVR is suitable for indoor general lighting for retrofit where the previous fixture "box" remains in place and there is no need to go above the ceiling. With a beautiful three-dimensional look, LVR offers an easy-to-install LED solution. A matte finish, curved diffused lens with no unsightly ribs, smooth uniform light (no pixels or stripes), no dark end caps and delineated details create visual interest in any ceiling. All fixtures available with Daintree's complete portfolio of wireless control options for all use cases. Daintree One and Daintree EZ Connect, offer the ability to upgrade disconnected fixtures into an enterprise grade energy management solution. This allows end users to build a digital ceiling with already installed infrastructure today, tomorrow, or when they are ready for the productivity benefits of IoT.

## Product Dimensions:



A = 23.0 in  
B = 21.7 in  
C = 2.5 in

## Performance Summary:

**Light Output Range:** 2000-5000 lumens

**CRI:** 80+, R9>0

**CCT:** 3500K/4000K/5000K

**Efficacy:** Standard: 108-122 LPW, High Performance: 129 LPW

**Input Voltage:** 120-277V, 347V

**Wattage Range:** Standard: 16.5-41.0 watts, High Performance 15.5-31.0 watts

**Luminaire Lumen Depreciation:** L85@50,000 hours

(see next page for TM-21 calcs)

**Limited Warranty:** 5 Years

**New Generation!**  
Enhanced Performance,  
Upgraded Specifications!

Certified by:

Daintree  
WIRELESS CONTROLS

a product of ecomagination™



Please refer to the DLC QPL website for the latest and most complete information.  
[www.designlights.org/QPL](http://www.designlights.org/QPL)

## Ordering Information:

**LVR** **22** **B** **XX** **MM** **RM** **WHITE**

FAMILY	FIXTURE TYPE	GENERATION	VOLTAGE	NOMINAL LUMENS	DISTRIBUTION	CRI/CRT	CONTROLS	MOUNTING	FINISH	OPTIONS
LVR = Lumination Volumetric Refit™	22 = 2' x 2'	B = 2nd Generation	0 = 120-277V D = 347V	XX = Nominal Lumen Level	MM = Med. Lambertian	835 = 80CRI, 3500K 840 = 80CRI, 4000K 850 = 80CRI, 5000K <sup>1</sup>		RM = Refit Mount	WHITE = White	(blank) = None EL = Emergency Light <sup>3</sup> B2 = Emergency Bypass <sup>4</sup> -Dual Shunt Relay to be used with building generator back up systems to override dimming HP = High Performance <sup>5</sup>

## Standard Performance<sup>5</sup>:

EXAMPLE CONFIGURATIONS	LUMINAIRE LUMENS	LUMINAIRE TOTAL SYSTEM WATTS	LUMINAIRE LPW
LVR22B020MM__VQLTWHITE	2000	16.5	121
LVR22B033MM__VQLTWHITE	3300	29.0	114
LVR22B040MM__VQLTWHITE	4000	37.0	108
LVR22B050MM__VQLTWHITE	5000	41.0	122

## High Performance<sup>5</sup>:

EXAMPLE CONFIGURATIONS	LUMINAIRE LUMENS <sup>6</sup>	LUMINAIRE TOTAL SYSTEM WATTS	LUMINAIRE LPW
LVR22B020MM__VQLTWHITEHP	2000	15.5	129
LVR22B033MM__VQLTWHITEHP	3300	25.5	129
LVR22B040MM__VQLTWHITEHP	4000	31.0	129

### Ordering Notes:

- Contact manufacturer for lead times
- Most commonly ordered for Daintree Enterprise Wireless Enabled
- Test switch is remote mounted in the ceiling, EL option not available in 347V
- Contact manufacturer prior to ordering to confirm application
- Most Standard and HP (High Performance) base SKU's are DLC, there are exceptions for 347V and EL for meeting PF and/or THD results. Please check the DLC QPL.
- 5000 lumens not available in High Performance
- See product specifications section: Controls on page 2 for additional Daintree system details

CONTROL OPTIONS	DESCRIPTIONS	REF DOCUMENT
VQ	0-10v Dimming	N/A
TQ	Daintree Enterprise Wireless Enabled <sup>2</sup>	
TS	Daintree Enterprise Wireless Enabled with Daintree WFA100	
TZ	Daintree Enterprise Wireless with fixture integrated sensor	
TT	Daintree EZ Connect Wireless with fixture integrated sensor	
T1	Daintree One with fixture integrated sensor with factory programmed preset <sup>4</sup>	
SQ	Digital Input Driver (does not have 0-10v input) that uses a field installed accessory (in the ceiling -not the fixture) that is Daintree compatible such as Daintree One, EZ Connect or Enterprise sensors	

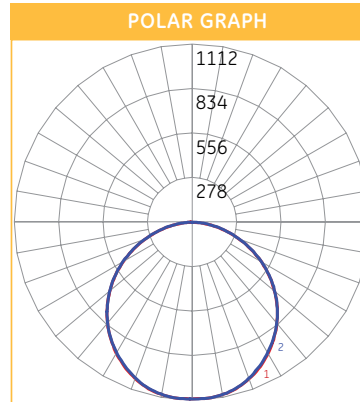
**current**  
powered by GE



# Photometric Data: Lumination™ 2' x 2' LVR22 Series -Volumetric Refit™, Enhanced Generation B

ZONAL LUMEN SUMMARY	
Zone	Lumens
0-10°	105.23
10-20°	302.53
20-30°	460.02
30-40°	557.81
40-50°	583.15
50-60°	532.83
60-70°	414.99
70-80°	251.86
80-90°	79.83
90-100°	1.97
100-110°	1.63
110-120°	1.59
120-130°	1.54
130-140°	1.52
140-150°	1.37
150-160°	1.04
160-170°	0.78
170-180°	0.29

ZONAL LUMEN SUMMARY			
Zone	Lumens	% of Lamp	% of Fixture
0-20°	407.76	N.A.	12.40
0-30°	867.78	N.A.	26.30
0-40°	1425.59	N.A.	43.20
0-60°	2541.57	N.A.	77.00
0-80°	3208.42	N.A.	97.20
0-90°	3288.25	N.A.	99.60
10-90°	3183.02	N.A.	96.50
20-40°	1017.82	N.A.	30.80
20-50°	1600.97	N.A.	48.50
40-70°	1530.98	N.A.	46.40
60-80°	666.85	N.A.	20.20
70-80°	251.86	N.A.	7.60
80-90°	79.83	N.A.	2.40
90-110°	3.60	N.A.	0.10
90-120°	5.19	N.A.	0.20
90-130°	6.73	N.A.	0.20
90-150°	9.62	N.A.	0.30
90-180°	11.73	N.A.	0.40
110-180°	8.13	N.A.	0.20
0-180°	3299.98	N.A.	100.00



## Product Specifications:

### LED & Optical:

**CRI:** >80+  
**R9:** >0  
**Color Consistency:** Central limit 4-Step MacAdam Ellipse with LED recipe approach for tight unit to unit color control  
**Rated Luminaire Lumen Depreciation:** L85@50,000 Hours  
**TM-21 LED Data:**  
**Standard Performance:**  
**Calculated:** L80>100,000 hrs  
**Reported:** L85>60,000 hrs  
**High Performance:**  
**Calculated:** L90>100,000 hrs  
**Reported:** L90>60,000 hrs

### Electrical System:

**Input Voltage:** 120-277, 347 VAC  
**Input Frequency:** 50/60 Hz  
**System Power Factor (PF):** >0.9\*  
**Total Harmonic Distortion (THD):** <20%\*  
**LED Driver Type:** Class 2  
*\*PF and THD may vary with options*

### Ratings and Evaluations:

**Operating Temperature:** -20°C to +35°C  
**Storage Temperature:** -40°C to +70°C  
**Surge Protection:** ANSI C82.77 Complaint  
**Location:** Damp  
**Safety:** UL/cUL Classified  
**Environmental:** RoHS compliant  
**Utility:** DLC™ Qualified Product Listed, check [www.designlights.org/QPL](http://www.designlights.org/QPL) for specific products

### Construction & Finish:

**Housing:** Durable, long lasting construction. Steel, electrogalvanized, cold-rolled, commercial quality.  
**Lensing:** Precision formed optical lens/diffuser curved and technically balanced for efficacy, and transmissivity. This offers smooth uniform light (no pixels or stripes) and no dark end caps. There are no unsightly ribs which are typically used to distract from pixels, stripes and poor uniformity.  
**Paint:** Highly reflective matte finish  
**Weight:** <11 pounds

### Design Life & Warranty:

**System Warranty:** 5 Year  
**Minimum Luminaire Design Lifetime:** >10 Years  
**Driver Design Lifetime:** >10 year life of continuous operation, >100,000 hour design parameters  
**Reliability Testing:** Components and systems evaluation

### Controls:

**Standard Dimming:** 0-10VDC ANSI C137.x compliant  
**Minimum Dimming:** 10% of rated lumen LED drive current. Contact manufacturer for other available options.  
**Optional Dimming:** Contact Manufacturer  
**Wireless Networking and Sensing Device Options\***  
**Daintree One:** Wireless fixture integrated sensor that is perfect for single fixtures or small area applications. Standalone wireless lighting controls that work independently. Comes preset from the factory, yet can be upgraded to Daintree EZ Connect and/or Daintree Enterprise in the future. Factory preset to shut off 20 minutes after the space is vacated of occupants. Daylight harvesting preset enabled on.  
**Daintree EZ Connect:** Wireless fixture integrated sensor that is designed for room based controls where a group of fixtures communicate to each other and communicate wirelessly in chorus as a system. The advantage is simple, minimal field based commissioning. Factory preset to shut off 20 minutes after the space is vacated of occupants. No daylight harvesting set in initial preset. EZ Connect wireless lighting controls are set up and/or can be changed by the Daintree EZ Connect application that can be downloaded via a smart device.  
**Daintree Enterprise:** Wireless fixture integrated sensor technology that is ideal for multi-site lighting system management. System requires software and commissioning. Monitor multiple controls, lighting, energy, HVAC with unlimited potential for other (3rd party) sensor integration. "Open on the bottom" means that ZigBee communication protocol is an industry standard with countless wireless hardware sensing options. "Open on the top" means that the data from the sensors can be used by any 3rd party software supplier/developer, be it part of a complete BMS system or simple API (Application Programming Interface or "App"). Daintree Enterprise offers a complete future proof solution from any Daintree enabled installed base of fixtures.  
**Power Addition for Controls:** <2 watts  
*\*Contact Factory for specific option availability*

### Mounting:

**Typical Mounting:** Fits standard T-Bar grid luminaires (dropceilings)

### Accessories & Options:

**Optional Emergency Battery:** Provides 90-minutes of Emergency lighting.  
**Notes:** EL option is not available with 347V option, test button is remote mounted in the field.

For more information and access to all of our resources, including our design tool visit: <https://products.currentbyge.com>

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