Lumination® LED Luminaires
LVT 22 Series - Volumetric T-Grid
2’ x 2’ LED Recessed Luminaire

Product Description:
Current’s Lumination® LVT Series Recessed LED Luminaires bring a three-dimensional volumetric designer’s touch to any T-Grid drop ceiling landscape. By providing high uniformity, excellent efficiency and reduced glare the LVT 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. LVT is suitable for indoor general lighting for both new construction and retrofit when the luminaire is replaced. With a beautiful three-dimensional look, LVT offers an easy-to-install LED solution. A matte finish, curved or rectangular 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 literally any use case. Daintree One and EZ Connect, offer the ability to upgrade disconnected fixtures into a complete enterprise based energy management solution. This allows end users to build a digital ceiling with already installed infrastructure today, tomorrow, or whenever you are ready for the productivity benefits of IoT.

Performance Highlights:
Light Output Range: 2000-5000 lumens
CRI: 80+, R9>0, Trigain® >90, R9 > 90
CCT: 3000K/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

Product Dimensions:

A = 23.8 in
B = 23.8 in
C = 2.7 in
## Ordering Number Logic

**LVT** 22 B XX LT

<table>
<thead>
<tr>
<th>FAMILY</th>
<th>FAMILY TYPE</th>
<th>GEN.</th>
<th>VOLTAGE</th>
<th>NOMINAL LUMENS</th>
<th>DISTRIBUTION</th>
<th>CRI/CCT</th>
<th>CONTROLS</th>
<th>MOUNTING</th>
<th>FINISH</th>
<th>OPTIONS</th>
</tr>
</thead>
</table>

**EXAMPLE CONFIGURATIONS**

<table>
<thead>
<tr>
<th>LUMINAIRE</th>
<th>LUMENS</th>
<th>TOTAL SYSTEM WATTS</th>
<th>LPW</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVT22B020MMC _VQLTWHTE</td>
<td>2000</td>
<td>16.5</td>
<td>121</td>
</tr>
<tr>
<td>LVT22B033MMC _VQLTWHTE</td>
<td>3300</td>
<td>29.0</td>
<td>114</td>
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<tr>
<td>LVT22B040MMC _VQLTWHTE</td>
<td>4000</td>
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<tr>
<td>LVT22B050MMC _VQLTWHTE</td>
<td>5000</td>
<td>41.0</td>
<td>122</td>
</tr>
</tbody>
</table>

**Standard Performance**:

- LVT22B020MMC _VQLTWHTE: 2000 Lumens, 16.5 Watts, 121 LPW
- LVT22B033MMC _VQLTWHTE: 3300 Lumens, 29.0 Watts, 114 LPW
- LVT22B040MMC _VQLTWHTE: 4000 Lumens, 37.0 Watts, 108 LPW
- LVT22B050MMC _VQLTWHTE: 5000 Lumens, 41.0 Watts, 122 LPW

**High Performance** (only available in 90 CRI):

- LVT22B020MMH _VQLTWHTEHP: 2400 Lumens, 19.0 Watts, 126 LPW
- LVT22B033MMH _VQLTWHTEHP: 3300 Lumens, 25.5 Watts, 129 LPW
- LVT22B040MMH _VQLTWHTEHP: 4000 Lumens, 31.0 Watts, 129 LPW

**Controlling Codes**

- **V1**: 0-10v Dimming (1%)
- **VQ**: 0-10v Dimming
- **TQ**: Daintree Enterprise Wireless Enabled
- **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
- **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
- **LB**: Lutron Vive - VDO or DFCSJ OEM OCC Integral Fixture Control with Sensor Daylight and Occupancy
- **LU**: Lutron Vive - VRF or DFCSJ OEM RF Integral Fixture Control (RF only) No sensor

**Accessories**

- **Drywall Mount Kit 2’x2’**: GESK07, 67657
- **2’x2’ Surface Mount Kit**: B22 SMK, 212462

**Sensor Kit**

- **Daintree One/EZ Connect**: LSAATT/T1FM6 (WIT100 Sensor Kit)
- **Daintree Enterprise**: LSAAT2FM6 (WIT100 Sensor Kit)
- **Daintree Ent. Multi Sensor**: LSAATMFM6 (WMZ10 Sensor Kit)

**Ordering Notes**:

1. Contact manufacturer for lead times
2. Most commonly ordered for Daintree Enterprise Wireless Enabled
3. Test switch is remote mounted in the ceiling. EL option not available in 347V
4. Contact manufacturer prior to ordering to confirm application
5. Most Standard and HP (High Performance) base SKUs are DLC, there are exceptions for 347V and EL for meeting PF and/or THD results. Please check the DLC QPL
6. 5000 lumens not available in High Performance
7. See product specifications section. Controls on page 4 for additional Daintree system details
8. 90 CRI Trigain® is only available on HP (high performance) SKU’s
9. Must be ordered with V1 (1% Dimming) controls code
### Photometric Data

#### Zonal Lumen Summary

<table>
<thead>
<tr>
<th>Zone</th>
<th>Lumen</th>
</tr>
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<tbody>
<tr>
<td>0-10°</td>
<td>105.23</td>
</tr>
<tr>
<td>10-20°</td>
<td>302.53</td>
</tr>
<tr>
<td>20-30°</td>
<td>460.02</td>
</tr>
<tr>
<td>30-40°</td>
<td>557.81</td>
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<tr>
<td>40-50°</td>
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<td>532.83</td>
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<tr>
<td>60-70°</td>
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<tr>
<td>70-80°</td>
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<td>80-90°</td>
<td>79.83</td>
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<tr>
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<td>100-110°</td>
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<td>110-120°</td>
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<tr>
<td>120-130°</td>
<td>1.54</td>
</tr>
<tr>
<td>130-140°</td>
<td>1.52</td>
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<tr>
<td>140-150°</td>
<td>1.37</td>
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<tr>
<td>150-160°</td>
<td>1.04</td>
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<tr>
<td>160-170°</td>
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<tr>
<td>170-180°</td>
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#### Zonal Lumen Summary (°)

<table>
<thead>
<tr>
<th>Zone</th>
<th>Lumen</th>
<th>% of Lamp</th>
<th>% of Fixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20°</td>
<td>401.76</td>
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<td>12.40</td>
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<tr>
<td>0-30°</td>
<td>867.78</td>
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<td>0-40°</td>
<td>1425.59</td>
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<td>2541.57</td>
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<td>77.00</td>
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<td>0-80°</td>
<td>3208.42</td>
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<td>97.20</td>
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<tr>
<td>0-90°</td>
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<td>99.60</td>
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<td>20-40°</td>
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<td>20-50°</td>
<td>1600.97</td>
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<td>40-70°</td>
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<td>70-80°</td>
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<td>79.83</td>
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<td>90-110°</td>
<td>1.97</td>
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<td>90-120°</td>
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<td>90-130°</td>
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<td>90-150°</td>
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<tr>
<td>90-180°</td>
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<td>0-180°</td>
<td>3299.98</td>
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#### Polar Graph
LED & Optical Assembly

**CRIa:** >80+ (835/840/850), >90 (T35,T40)
**R9:** >0 (835/840/850), >90 (T35,T40)
**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:**
  - Estimated Lumen Maintenance: L81 >100,000 hrs
  - Reported: L88 >60,000 hrs
- **Premium Performance:**
  - Estimated Lumen Maintenance: L75 >100,000 hrs
  - Reported: L90 >36,000 hrs
  - Reported: L77 >90,000 hrs

Electrical

**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 & Evaluations

- **Operating Temperature:** -20°C to +35°C
- **Storage Temperature:** -40°C to +70°C
- **Surge Protection:** ANSI C82.77 Complaint
- **Location:** Damp
- **Insulation Contact:** Type IC Rated
- **Safety:** UL/cUL Listed
- **Environmental:** RoHS compliant
- **Utility:** DLC™ Qualified Product Listed, check 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

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 multisite 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.

**Lutron Vive:** Vive by Lutron is a simple, scalable, wireless control that can be installed in a single space or throughout an entire campus. It’s designed to meet today’s energy codes, be used in new construction or retrofit situations, and meet your budgetary needs. And with a wide family of products – including sensors, remotes, load controls, and an available software management suite -- Vive provides the flexibility to select the products you want and handle any on-site challenges with ease.

**Power Addition for Controls:** <2 watts
*Contact Factory for specific option availability

Mounting

- **Typical Mounting:** Fits standard T-Bar grid (drop ceilings)
- **Wiring Access:** ½” trade-size KO’s on a removable access plate provided
- **T-Grid Clips:** T-Grid clips included on fixture body, with holes for seismic wires
- **Surface Mounting:** Surface mount kit available.

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.
- **Optional Chicago Plenum:** Openings in recessed fixture sealed per requirements for CCEA.

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