

Lumination® LED Luminaires

LVT 14 Series - Volumetric T-Grid

1' x 4' LED Recessed Luminaire



New Generation!
Enhanced Performance,
Upgraded Specifications!

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: 1500-6000 lumens

CRI: 80+, R9>0, Trigain® >90, R9 > 90

CCT: 3000K/3500K/4000K/5000K

Efficacy: Standard: 114 - 125 LPW

High Performance: 126 - 133 LPW

Input Voltage: 120-277V, 347V

Wattage Range: Standard: 12.5 - 49.0 watts

High Performance 19.0-30.5 watts

Luminaire Lumen Depreciation: L85@50,000 hours

(see next page for TM-21 calcs)

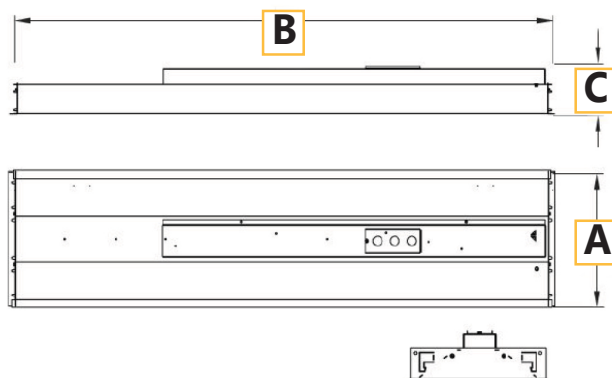
Limited Warranty: 5 Years

Certifications:



Please refer to the DLC QPL website for the latest and most complete information.
www.designlights.org/QPL

Product Dimensions:



A = 11.8 in

B = 47.8 in

C = 3.9 in

Ordering Number Logic

FAMILY	FAMILY TYPE	GEN.	VOLTAGE	NOMINAL LUMENS	DISTRIBUTION	CRI/CCT	CONTROLS	MOUNTING	FINISH	OPTIONS
LVT = Lumination® Volumetric T-Grid	14 = 1' x 4'	B = 2 nd Gen	0 = 120-277 D = 347	XX = Nominal Lumen Level	MM = Med. Lambertain	830 = 80CRI, 3000K ¹ 835 = 80CRI, 3500K 840 = 80CRI, 4000K 850 = 80CRI, 5000K ¹ T35 = TriGain, 90CRI ⁸ , 3500k* HP Only T40 = TriGain, 90CRI ⁸ , 4000k* HP Only	SEE CHART BELOW	LT = T-Grid	WHITE = White WHAM = White Antimicrobial Paint	(blank) = None CP = ChicagoPlenum EL = Emergency Light ³ B2 = Emergency Bypass ⁴ –Dual Shunt Relay to be used with building generator back up systems to override dimming DF = Dim-to-off ⁹ (must be ordered with V1 Controls code) HP = High Performance ⁵ W3 = 6' Whip, 4 Wire: Ground, L1, L2, EL Sense W5 = 6' Whip, 6 Wire: Ground, L1, L2, EL Sense, dimming leads

Standard Performance⁵:

EXAMPLE CONFIGURATIONS	LUMINAIRE LUMENS	LUMINAIRE TOTAL SYSTEM WATTS	LUMINAIRE LPW
LVT14B015MM8_VQLTWHITE	1500	12.5	120
LVT14B020MM8_VQLTWHITE	2000	16.5	121
LVT14B030MM8_VQLTWHITE	3000	24.5	122
LVT14B040MM8_VQLTWHITE	4000	35.0	114
LVT14B050MM8_VQLTWHITE	5000	40.0	125
LVT14B060MM8_VQLTWHITE	6000	49.0	122

High Performance⁵: (only available in 90 CRI)

EXAMPLE CONFIGURATIONS	LUMINAIRE LUMENS ⁶	LUMINAIRE TOTAL SYSTEM WATTS	LUMINAIRE LPW
LVT14B020MMT_VQLTWHITE	2400	19.0	126
LVT14B030MMT_VQLTWHITE	3000	22.5	133
LVT14B040MMT_VQLTWHITE	4000	30.5	131

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 1500 Lumen, 347V and EL for meeting PF and/or THD results. Please check the DLC QPL
- 5000 & 6000 lumens not available in High Performance
- See product specifications section: Controls on page 4 for additional Daintree system details
- 90 CRI Trigain® is only available on HP (high performance) SKU's
- Must be ordered with V1 (1% Diming) controls code

CONTROLS CODE	DESCRIPTION
V1	0-10v Dimming (1%)
VQ	0-10v Dimming
TQ	Daintree Enterprise Wireless Enabled ²
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 ⁴
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	DESCRIPTION CODE	PRODUCT CODE
Drywall Mount Kit 1'x4'	GESK09	69068
1'x4' Surface Mount Kit	B14 SMK	212464

SENSOR KIT (FOR SQ CONTROL OPTION ONLY)	PRODUCT CODE
Daintree One/EZ Connect: LSAATT/T1FM6 (WIT100 Sensor Kit)	93098472
Daintree Enterprise: LSAATZFM6(WIZ100 Sensor Kit)	93098473
Daintree Ent. Multi Sensor: LSAATMFM6 (WMZ10 Sensor Kit)	93119594

Photometric Data

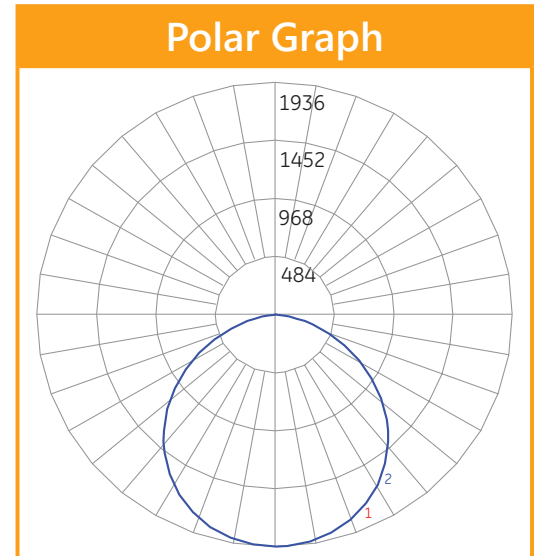
ZONAL LUMEN SUMMARY	
ZONE	LUMENS
0-10°	182.59
10-20°	517.83
20-30°	770.54
30-40°	911.58
40-50°	928.84
50-60°	827.30
60-70°	620.28
70-80°	347.00
80-90°	85.59
90-100°	1.35
100-110°	1.07
110-120°	0.98
120-130°	0.99
130-140°	1.11
140-150°	1.14
150-160°	1.02
160-170°	0.70
170-180°	0.27

COEFFICIENTS OF UTILIZATION																		
RC	80%				70%				50%			30%			10%			0%
RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

NOTE: Floor Cavity Reflectance 20%

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	% OF FIXTURE
0-20°	700.42	13.50
0-30°	1470.96	28.30
0-40°	2382.54	45.80
0-60°	4138.67	79.60
0-80°	5105.95	98.20
0-90°	5191.54	99.80

LUMINANCE DATA (CANDELA/M ²)			
GAMMA	0°	45°	90°
45°	2696	2695	2696
55°	2553	2561	2553
65°	2333	2360	2333
75°	1993	2000	1993
85°	1287	1185	1287



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 Compliant

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: <15 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