

## FEATURES & SPECIFICATIONS

**INTENDED USE** — The 2VTL2R LED Relight assembly is the ideal solution for renovating existing fluorescent troffer and parabolic systems, delivering improved quality of light and refreshing the space. VTLR volumetric lighting eliminates the “cave effect” by delivering the ideal amount of light to walls, work surfaces, and people. The 2VTL2R Relight assembly is recommended for offices, schools, hospitals, and other general lighting applications where existing 2x2 troffer and parabolic fluorescent fixtures are currently in use.

**CONSTRUCTION** — Universal end brackets are constructed of 20-gauge powder-painted steel and are secured to the host fixture with provided tek screws. End brackets are painted black or white to match existing parabolic or troffer door frame reveals. The LED light engine is 20-gauge powder painted steel and is wired to the supply voltage using a driver-disconnect plug system provided as standard. A steel wiring connection cover is provided for use if required.

The door frame and reflector assembly is vaulted cold-rolled steel with embossed facets and is painted after fabrication. Impact-modified, single clear acrylic diffuser provides excellent shielding and wide distribution.

**OPTICS** — Volumetric illumination is delivered by creating an optimal mix of light to walls, partitions, vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complementary luminous environment. Linear faceted reflector cavity softens and distributes light into the space while minimizing luminous contrast between the fixture and ceiling. Sloped end plates provide a smooth, luminous transition between fixture and ceiling while enhancing the perception of fixture depth.

**ELECTRICAL** — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 90% LED lumen maintenance at 60,000 hours (L90/60,000).

eldoLED driver options deliver choice of dimming range and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable — allowing it to digitally communicate with other nLight-enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight-enabled control devices and the 2VTL2R luminaires using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission.

**Lumen Management:** Unique lumen management system (option N80) provides onboard intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

**INSTALLATION** — After existing fluorescent components are removed from housing, universal end brackets are fastened in place with tek screws. The LED light engine assembly mounts to the end brackets and hangs securely while the wiring connection is made using a driver-disconnect plug system provided as standard. The light engine then swings up into position and is secured in place with a captive screw at each end. The door frame is then inserted via a sliding hinge into the end bracket and secured in the closed position with a rotating cam latch. Light engine may be removed from fixture during service. LED boards include plug-in connectors for easy replacement or servicing. Suitable for damp location installations.

**LISTINGS** — UL/UL classified for use in recessed fluorescent light fixtures. Installation per instructions will not impact existing fixture UL listing. Tested to LM80 standards. DesignLights Consortium® (DLC) qualified

Catalog Number
Notes
Type

**VT SERIES**  
**RELIGHT**

**Volumetric Troffer**



**2VTL2R**  
**2VTL2RT**

2' x 2' Relight  
LED

eldoLED

### Specifications

Designed to convert most existing recessed parabolic and lensed troffers.

product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products to confirm which versions are qualified.

Protected by one or more of US Patent Nos. 7,229,192; D541,467; D541,468; D544,633; D544,634; D544,992. D544,933 and additional patents pending.

**WARRANTY** — 5-year limited warranty.

Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C.

Note: Specifications subject to change without notice.

### ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

**Example:** 2VTL2R 33L ADP EZ1 LP835

Series	Lumens <sup>1</sup>	ADP		Voltage	Driver	Color temperature		Controls	
		Diffuser							
2VTL2R	20L 2000	ADP	Acrylic linear prismatic	(blank)	EZ1	LP835	82 CRI, 3500 K	(blank)	No controls
	33L 3300			(120 - 277V)				to 1%	N80
2VTL2RT	40L 4000			347	EZB	LP840	82 CRI, 4000 K	N100	N-light with no lumen management <sup>4</sup>
2VTL2RF	2x2 LED relight assembly, black end brackets for use in parabolic fixture				GTH250	LP830	82 CRI, 3000 K	N80EMG	N-light with 80% lumen management for use with generator supply EM power <sup>4,5</sup>
					EXA1				
	2x2 LED relight assembly, white end brackets for use in troffer fixture				EXAB	LP850	82 CRI, 5000 K	N100EMG	N-light without lumen management for use with generator supply EM power <sup>4,5</sup>
	2x2 LED relight assembly, flange brackets for drywall installation								

### Notes

- 1 Approximate lumen output.
- 2 Option ships separately as a field-installed accessory. Not available with GTH250 driver option. Verify compliance with local codes prior to ordering.
- 3 Gateway not included. Requires on-site commissioning.
- 4 Only available with EZ1 or EZB drivers.
- 5 nLight EMG option requires a connection to existing nLight network Power is provided from a separate N80 or N100 enabled fixture.

# 2VTL2R Volumetric Recessed Lighting 2'x2'

Energy Comparison - 2x2 LED vs. T12 & T8				
System	Lamp type	Ballast factor	Input watts <sup>1</sup>	Watts saved by using LED
2VTL2R 20L	LED	1.0	19.6	---
3-lamp T12 F40	F40T12U	0.88	108	88
3-lamp T8 F32	F32T8U	0.88	90	70
3-lamp T12 F20	F20T12	0.88	84	64
3-lamp T8 F17	F17T8	0.88	47	27
2-lamp T12	F40T12U	0.88	72	52
2-lamp T8	F32T8U	0.88	60	40

## Notes

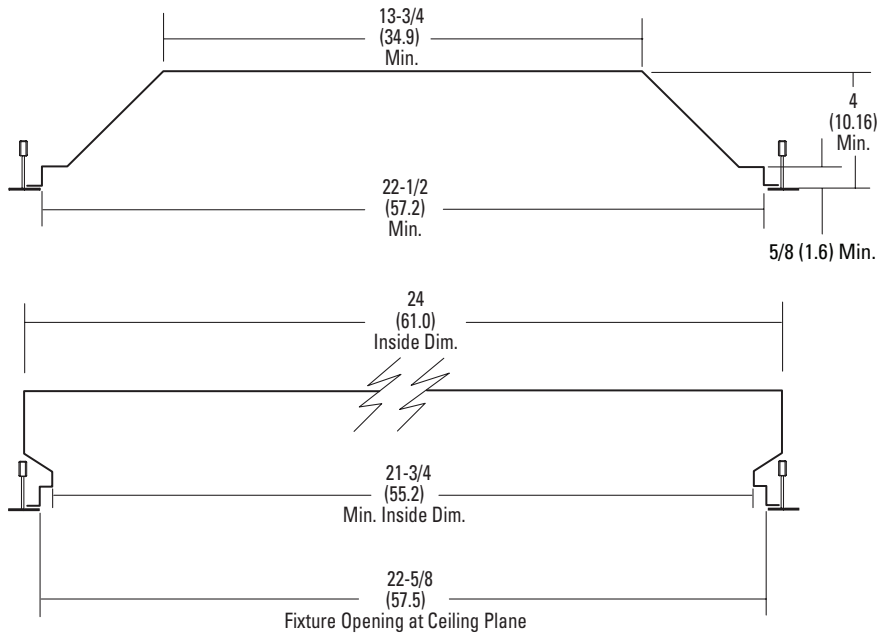
- Actual wattage may differ by +/- 5% when operating between 120-277V +/- 10%.

Performance Data			
Lumen Package	Lumens	Input Watts <sup>1</sup>	LPW
20L LP830	1839	19.58	94
20L LP835	1931	19.58	99
20L LP840	2023	19.58	103
20L LP850	2133	19.79	108
33L LP830	3219	35.26	91
33L LP835	3384	35.26	96
33L LP840	3550	35.26	101
33L LP850	3734	35.26	106
40L LP830	3476	38.97	89
40L LP835	3641	38.97	93
40L LP840	3825	38.97	98
40L LP850	4046	38.42	104

## FIT COMPATIBILITY

The 2VTL2R Relight assembly was engineered to upgrade recessed 2X2 fixtures, including most parabolic and lensed troffers from all major manufacturers.

Dimensional requirements are below but Lithonia Lighting recommends a trial installation prior to purchasing project quantities.



**Relight assemblies are designed to fit most recessed fixtures mounted in T-grid installations. For surface mounted fixtures or for fixtures mounted in ceiling types other than T-grids, consult factory before ordering.**

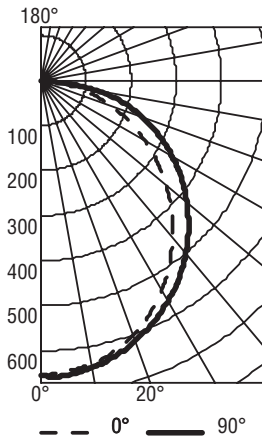
Dimensions are inches (centimeters) unless otherwise noted.

2VTL2R-2X2

# 2VTL2R Volumetric Recessed Lighting 2'x2'

## PHOTOMETRICS

2VTL2R 20L EZ1 LP835, 1931.1 delivered lumens, test no. LTL25405P tested in accordance to IESNA LM-79



### CP Summary

	0°	90
0°	653	653
5°	648	656
15°	624	633
25°	571	592
35°	498	534
45°	409	463
55°	315	381
65°	215	291
75°	118	188
85°	34	46
90	5	0

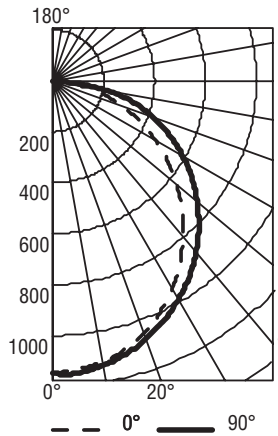
### Coefficients of Utilization

pc	pw	Coefficients of Utilization								
		80%			20%			50%		
		70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111	
1	108	103	99	101	97	93	96	93	90	
2	98	89	82	87	81	75	84	78	74	
3	89	78	70	77	69	62	74	67	61	
4	81	69	60	68	59	53	65	58	52	
5	75	62	52	61	52	45	58	51	45	
6	69	55	46	54	46	40	53	45	39	
7	64	50	41	49	41	35	48	40	35	
8	60	46	37	45	37	31	44	36	31	
9	56	42	34	41	33	28	40	33	28	
10	52	39	31	38	31	25	37	30	25	

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	508	26.3	26.3
0° - 40°	830	43.0	43.0
0° - 60°	1473	76.3	76.3
0° - 90°	1931	100.0	100.0
90° - 120°	0	0.0	0.0
90° - 130°	0	0.0	0.0
90° - 150°	0	0.0	0.0
90° - 180°	0	0.0	0.0
0° - 180°	1931	100.0	100.0

2VTL2R 33L EZ1 LP835, 3384.1 delivered lumens, test no. LTL25405P2, tested in accordance to IESNA LM-79



### CP Summary

	0°	90
0°	1144	1144
5°	1135	1150
15°	1093	1110
25°	1001	1038
35°	872	937
45°	718	811
55°	552	668
65°	377	510
75°	206	329
85°	59	81
90	9	0

### Coefficients of Utilization

pc	pw	Coefficients of Utilization								
		80%			20%			50%		
		70%	50%	30%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111	
1	108	103	99	101	97	93	96	93	90	
2	98	89	82	87	81	75	84	78	74	
3	89	78	70	77	69	62	74	67	61	
4	81	69	60	68	59	53	65	58	52	
5	75	62	52	61	52	45	58	51	45	
6	69	55	46	54	46	40	53	45	39	
7	64	50	41	49	41	35	48	40	35	
8	60	46	37	45	37	31	44	36	31	
9	56	42	34	41	33	28	40	33	28	
10	52	39	31	38	31	25	37	30	25	

### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	890	26.3	26.3
0° - 40°	1454	43.0	43.0
0° - 60°	2581	76.3	76.3
0° - 90°	3383	100.0	100.0
90° - 120°	1	0.0	0.0
90° - 130°	1	0.0	0.0
90° - 150°	1	0.0	0.0
90° - 180°	1	0.0	0.0
0° - 180°	3384	100.0	100.0