

Project		Catalog #		Type	
Prepared by		Notes		Date	



# Metalux

## 14GR LED

1' x 4' LED Troffer  
General Recessed LED Troffer  
For Use in Insulated Ceilings

### Typical Applications

- Office • Schools • Residential • Hospitals
- Retail Merchandising Areas

### Interactive Menu

- Order Information [page 2](#)
- Photometric Data [page 3](#)
- Control Systems [page 3](#)
- VividTune™ ColorTuning Solutions [page 4](#)
- Product Warranty

### Product Certification



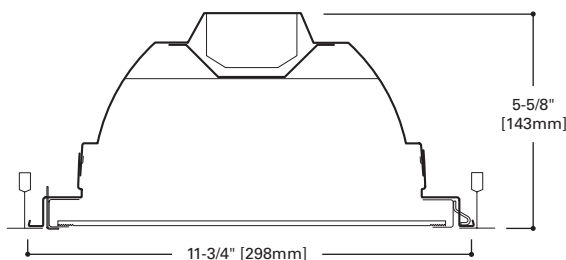
### Product Features



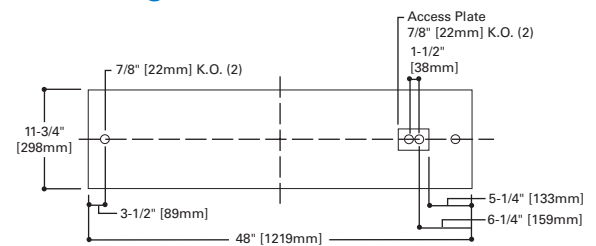
### Top Product Features

- Available in 2' x 4', 2' x 2' and 1' x 4'
- Multiple lumen packages up to 18,000 in 2x4 and 9,000 in 2x2
- Up to 140 lm/W for maximum energy savings versus fluorescent troffers
- Correlated Color Temperatures 3000K, 3500K, 4000K and 5000K at 80 and 90 CRI
- Standard 0-10V continuous dimming driver

### Dimensional and Mounting Details



### Mounting Data



### Ceiling Compatibility

G	G	G	Ceiling Type	Trim Type
Grid/Lay-in Standard	Concealed T	Slot Grid	Exposed Grid	G
			Concealed T	G
			Slot Grid	G

### Door Frames

GR	GRFA	GRRA
Flat, White Steel	Flat, Extruded White Aluminum	Deep, Regressed, Extruded White Aluminum

## Order Information

SAMPLE ORDER NUMBER: **14GR-LD5-24-F1-UNV-L835-CD1-U**

Rating	Width / Length	Trim Type	Series	Door Frame	LED Type	LED Lumen Output	Shielding
Rating	Width / Length	Trim Type	Series <sup>(11)</sup>	Door Frame	LED Type	LED Lumen Output <sup>(9)</sup>	Shielding
<b>[Blank]</b> =Standard <b>ATW-SW4</b> =Chicago Rated	<b>14</b> =1'x4'	<b>G</b> =Grid/Lay-in (Standard) <sup>(11)</sup> <b>G</b> =Concealed T <b>G</b> =Slot Grid	<b>R</b> =General Purpose Troffer	<b>Standard</b> =Flat White Steel Door (Leave Blank) <b>FA</b> =Flush White Extruded Aluminum c/w Spring Latch <b>RA</b> =Regressed White Extruded Aluminum <b>FAN</b> =Flush Natural Anodized Extruded Aluminum <b>RAN</b> =Regressed Natural Anodized Extruded Aluminum <b>FAB</b> =Flush Black Extruded Aluminum <b>RAB</b> =Regressed Black Extruded Aluminum	<b>LD5</b> =LED 5.0	<b>20</b> =2000 <sup>(16)</sup> <b>24</b> =2400 <sup>(16)</sup> <b>28</b> =2800 <b>32</b> =3200 <b>36</b> =3600 <b>40</b> =4000 <b>43</b> =4300 <b>50</b> =5000 <sup>(14)</sup> <b>60</b> =6000 <sup>(14)</sup>	<b>F1</b> =A12 .095 HP (Standard) <b>F125</b> =A12 .125 HP <b>A</b> =A12 .095 <b>A125</b> =A12 .125 <b>A19/156</b> =#19 Pattern Acrylic (.156" Thick) <sup>(12)</sup> <b>FGW080</b> =Frosted Glazed Lens .080
		<b>Notes</b> (1) An EQ Grid Clip is recommended for all 9/16" ceiling systems.	<b>Notes</b> (11) DesignLights Consortium® Qualified and classified for DLC Standard, refer to <a href="http://www.designlights.org">www.designlights.org</a> for details.			<b>Notes</b> (9) Nominal lumen output. See table for actual values. (14) White tuning not available with this model. (16) Not compatible with WN driver.	<b>Notes</b> (12) A19/156 lens creates holographic effect on the surface of the lens.

Voltage	Options	Emergency	CCT	Factory Wiring	Driver Type
Voltage <sup>(2)</sup>	Options	Emergency	CCT	Factory Wiring	Driver Type
<b>347V</b> =347 Volt <sup>(15)</sup> <b>UNV</b> =Universal Voltage 120-277 <sup>(3)</sup> <b>48V</b> =48 Volt Low-voltage (Class 2)	<b>GL</b> =Single Element Fuse <b>GM</b> =Double Element Fuse	<b>EL7W</b> =7-watt, 120V-277V emergency battery pack installed <sup>(4)</sup> <b>EL14W</b> =14-watt 120V-277V emergency battery pack installed <sup>(4)</sup> <b>ELV7W</b> =7-watt, DLVP-compatible low voltage emergency battery pack installed <sup>(5)</sup> <b>ELV14W</b> =14-watt DLVP-compatible low voltage emergency battery pack installed <sup>(5)</sup> <b>GTR2</b> =Bodine Generator Transfer Relay <sup>(8)</sup> <b>ETRD</b> =Iota Emergency Transfer Relay with dimming control <sup>(8)</sup>	<b>L830</b> =80CRI, 3000K <b>L835</b> =80CRI, 3500K <b>L840</b> =80CRI, 4000K <b>L850</b> =80CRI, 5000K <b>L930</b> =90CRI, 3000K <b>L935</b> =90CRI, 3500K <b>L940</b> =90CRI, 4000K <b>L950</b> =90CRI, 5000K <b>L83050</b> =80CRI 3000K-5000K White Tuning <sup>(13)</sup> <b>L93050</b> =90CRI 3000K-5000K White Tuning <sup>(13)</sup> <b>L82765</b> =80CRI 2700K-6500K White Tuning <sup>(13)</sup> <b>L92765</b> =90CRI 2700K-6500K White Tuning <sup>(13)</sup>	<b>A3/8-4/18GDIM</b> =3/8" Flex with 0-10V Dimming Leads Multiple other configurations available. See below for details.  <b>A3/8-4/18GDIM series notes:</b> Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 83, 1479, 1569, 1581, 2556. NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-30B); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour through penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC®; Environmental Air-Handling Space Installation per NEC® 300.22(C).	<b>CD</b> =0-10V Dimming Driver (10%-100% Dimming) <b>HCD</b> =0-10V Dimming Driver (1%-100% Dimming) <b>SR</b> =Sensor-ready Dimming Driver for LWIPD1 option (1%-100% Dimming) <sup>(10),(8)</sup> <b>5LTD</b> =Fifth Light DALI Driver (10%-100% Dimming) <sup>(7),(4)</sup> <b>5LTHD</b> =Fifth Light Dimming Driver (1%-100% Dimming) <sup>(4)</sup> <b>LV1</b> =DLVP Dimming Driver (0%-100% Dimming) <sup>(2)</sup> <b>SD</b> =Step Dimming Driver (50% or 100% Dimming) <sup>(7)</sup> <b>LH</b> =Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming <sup>(7)</sup> <b>L5</b> =Lutron 5 Series (LDE5-Series) 5%-100% EcoSystem Driver <sup>(7)</sup> <b>WZA</b> =White Tuning, 2 ch, Intensity and CCT Control <sup>(13)</sup> <b>WN</b> =WaveLinX Wireless Fixture, No Sensor. <sup>(A),(G),(H)</sup>
<b>Notes</b> (2) Products also available in non-US voltages and frequencies for international markets. (3) Not available when specifying emergencies, voltage must be specific. (15) 347V is not available with the WZA driver.		<b>Notes</b> (4) With integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7-700 lumens). IES-format photometry for luminaire under emergency operation available. (8) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 option includes 2 relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. Must specify voltage as 120V or 277V when ordering these devices.  (C) Consult DLVP system pages for additional details and compatibility.	<b>Notes</b> (13) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with WZA.	<b>Flexible Metal Conduit Options</b>  Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type.	<b>Notes</b> (7) Step Dim (Bi Level) and DALI only available in 3600 lumen and above. (10) SR driver required for LWIPD1 only. See table for actual values. (13) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with WZA.  Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX system pages for additional details and compatibility. (B) Consult LumaWatt Pro system pages for additional details and compatibility. (C) Consult DLVP system pages for additional details and compatibility. (E) Consult Fifth Light system pages for additional details and compatibility. (F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at <a href="http://www.lutron.com">www.lutron.com</a> . (G) Not compatible with emergency or integrated sensor options. (H) Available with UNV voltage only.

Number of Drivers	Options	Integrated Sensing Systems	Packaging	Accessories
Number of Drivers	Options	Integrated Sensing Systems	Packaging	Accessories
<b>1=1</b> Driver	<b>PAF</b> =Painted After Fabrication <b>G1</b> =Gasket, Door Frame and Housing <b>G2</b> =G1 plus Gasket between Lens and Door <b>G3</b> =G1 and G2 plus Gasketing on Mounting Surface of Fixture Trims <sup>(6),(8)</sup>	<b>SWPD1</b> =WaveLinX Wireless Integrated Sensor <sup>(A)</sup> <b>LWIPD1</b> =LumaWatt Pro Wireless Integrated Sensor <sup>(B)</sup> <b>LWTPD1</b> =LumaWatt Pro Wireless Tile-mount Sensor <sup>(B)</sup> <b>SLVPD1</b> =DLVP Low-voltage Integrated Sensor <sup>(C)</sup> <b>SVPD1</b> =0-10V Stand-alone Integrated Sensor <sup>(D)</sup>	<b>U</b> =Unit Pack <b>PAL</b> =Job Pack, out of carton <b>PALC</b> =Job Pack, in carton	<b>EQ-CLIP-U</b> =T-BAR Safety Earthquake Clips <sup>(1)</sup> <b>DF-14-WU</b> =1' x 4' Drywall Frame Kit <b>ISHH-01</b> =Programming Remote for Integrated Sensor <sup>(D)</sup> <b>ISHH-02</b> =Personal Control Remote for Integrated Sensor <sup>(D)</sup>
	<b>Notes</b> (5) Gasketing only available with aluminum door frame. (6) Gasketing minimum .125.	<b>Notes</b> Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX system pages for additional details and compatibility. (B) Consult LumaWatt Pro system pages for additional details and compatibility. (C) Consult DLVP system pages for additional details and compatibility. (D) Consult SVPD series system pages for additional details and compatibility.		<b>Notes</b> (1) An EQ Grid Clip is recommended for all 9/16" ceiling systems.  (D) Consult SVPD series system pages for additional details and compatibility.

## Product Specifications

### Construction

- Rigid housing is die formed of code gauge prime cold rolled steel
- Full length die-formed stiffeners and unibody endplate for added strength
- Innovative design provides superior lens brightness, uniformity and visual comfort
- Unibody endplates are securely attached with interlocking tabs and screws
- Four auxiliary fixture end suspension points provided
- Endplates have integral Grid-lock feature for safety and convenience

### Controls

- Standard with 0-10V dimming driver (10% standard, 1% optional)
- WaveLinx wireless fixture for sensor-less wireless control
- Options compatible with Eaton's Connected Lighting Systems: WaveLinx sensor, LumaWatt Pro sensor, SVPD sensor, DLVP sensor and driver, Fifth Light DALI driver
- Other options include step-dimming and 3rd party drivers

### Electrical

- Long-Life LED system to deliver optimal performance
- Available in 3000K, 3500K, 4000K or 5000K with a minimum of 80 CRI
- Drivers are cULus recognized and available for 120-277V and 347V applications
- Standard dimming is 0-10V to 10% with 1%, step and Fifth Light DALI dimming options available
- ColorTuning options available with Eaton's VividTune

### Emergency Battery Pack Option

- Optional 120V-277V integral emergency battery pack available in 7-watts, 14-watts
- 90-minute batteries provide constant power to the LED system
- Test switch/indicator button can be tested safely from the ground using a laser pointer
- Emergency/generator transfer options available

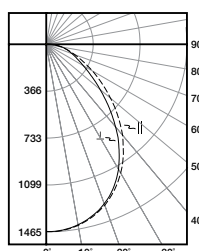
### Frame/Optical Shielding

- Die formed, flat steel door with frosted #12 pattern acrylic prismatic lens
- Primary stocking skus come standard with robust .095 lens
- Other options available for maximum versatility

### Compliance

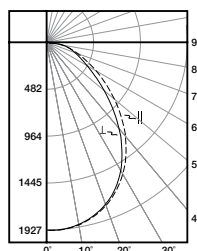
- UL recognized components
- Indoor luminaires are cULus listed for 25°C ambient environments
- Suitable for direct insulation contact and are damp location listed
- RoHS compliant
- Tested according to IESNA LM-79 and LM-80 procedures

## Photometric Data

[View IES files](#)


### 14GR-LD5-32-F1-UNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.18 x mounting height, (⊥) 1.15 x mounting height  
Lumens: 3257  
Input Watts: 29.9W  
Efficacy: 108.9 lm/W  
Test Report: 14GR-LD5-32-F1-UNV-L835-CD1-U. IES



### 14GR-LD5-43-F1-UNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.18 x mounting height, (⊥) 1.15 x mounting height  
Lumens: 4284  
Input Watts: 41.9W  
Efficacy: 102.2 lm/W  
Test Report: 14GR-LD5-43-F1-UNV-L835-CD1-U. IES

## Energy and Performance Data

Stock or MTO	Catalog Logic (Rectilinear Shielding)	Delivered Lumens	Watts	Efficacy (lm/W)
MTO	14GR-LD5-20-F1-UNV-L835-CD1-U	2029	17.2	117
MTO	14GR-LD5-24-F1-UNV-L835-CD1-U	2425	21.0	115
MTO	14GR-LD5-28-F1-UNV-L835-CD1-U	2803	24.8	113
MTO	14GR-LD5-32-F1-UNV-L835-CD1-U	3257	29.8	109
MTO	14GR-LD5-36-F1-UNV-L835-CD1-U	3671	35.0	105
MTO	14GR-LD5-40-F1-UNV-L835-CD1-U	4045	38.8	104
MTO	14GR-LD5-43-F1-UNV-L835-CD1-U	4338	42.0	102
MTO	14GR-LD5-50-F1-UNV-L835-CD1-U	4951	45.1	101
MTO	14GR-LD5-60-F1-UNV-L835-CD1-U	6024	59.9	110

### Lens Table

Approximate Lumen Multiplier	
F1	1.0
F125	1.0
A125	1.01
A	1.01
A19/156	.975
FGW080	.85

### CCT Table

Approximate Color Temperature Multiplier	
5000K	1.016
4000K	1.016
3500K	1.0
3000K	.982
2700K	.930

### Shipping Data

Catalog No.	Wt.	Pallet
14GR-LD5-32	10 lbs.	24

## Control Systems

- WaveLinx
- DLVP
- LumaWatt Pro
- iLumin Plus
- VividTune

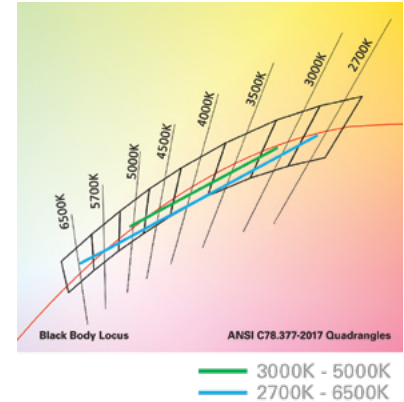


Connected Systems  
[CLICK HERE](#)



## 14GR LED with VividTune Tunable White

VividTune tunable white luminaires from Eaton deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.



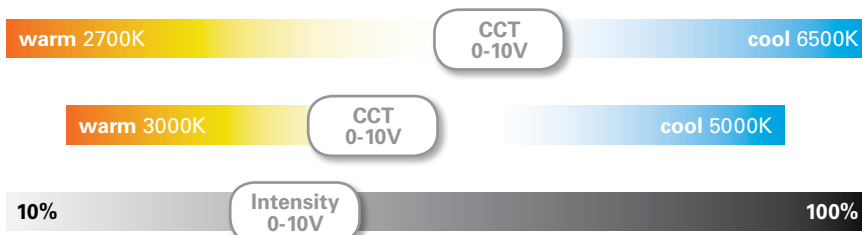
## Performance Data\*

Tunable White - Lumen Adjustment Factors (example only)				
CCT	3000K-5000K		2700K-6500K	
	80 CRI	90 CRI	80 CRI	90 CRI
2700K	-	-	0.922	0.787
3000K	0.949	0.781	0.948	0.818
3500K	1.004	0.853	0.981	0.859
4000K	1.054	0.922	1.002	0.887
4500K	1.064	0.938	1.020	0.910
5000K	1.064	0.938	1.034	0.928
6500K	-	-	1.049	0.953

1' x 4' GRLED - Example of Approximate Lumen Calculation			
	Standard Catalog #	VividTune 80 CRI Catalog #	VividTune 90 CRI Catalog #
CCT Setting	14GR-LD5-32-F1-UNV-L835-CD1-U	14GR-LD5-32-F1-UNV-L83050-W2A1-U	14GR-LD5-32-F1-UNV-L93050-W2A1-U
3000K	-	3090	2544
3500K	3257	3270	2780
4000K	-	3434	3002
4500K	-	3466	3054
5000K	-	3466	3054

## Controlling VividTune Tunable White

VividTune luminaires make tunable white more accessible by using simple and familiar controls. From wall dimmers to wireless controls, VividTune tunable white luminaires are compatible with industry standard 0-10V dimming controls. A single 0-10V dimming input is used to control intensity (brightness) while a second 0-10V dimming input is used to adjust CCT. For suggested control configurations, go to [www.eaton.com/lighting](http://www.eaton.com/lighting) for tunable white application guides.



## Example of Lumen Adjustment Calculation

**14GR-LD5-32-F1-UNV-L83050-W2A1-U**  
at 80 CRI tuned to 3500K

*Adjusted Lumen =  
published lm x adjusted lm factor*

*Adjusted Lumen = 3257 x 1.004*

*Adjusted Lumen = 3270 lm*

\* Lumen adjustment factors are for reference and may be different for each product selected. Refer to IES files for actual performance data on each.