

## DESCRIPTION

GR LED is a lensed troffer series. This high quality luminaire is dedicated to the latest solid state lighting and electronic driver technology for optimal performance and energy efficiency. The GR LED is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for application versatility.

The GR LED series features efficiency, quality and performance. The series is an excellent choice for commercial office spaces, schools, hospitals or retail merchandising areas.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length die-formed stiffeners and unibody endplate for added strength. Side flanges are hemmed. 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. KOs for continuous row wiring. Endplates have integral Grid-lock feature for safety and convenience.

### Controls

The GR LED is equipped standard with a 0-10V continuous dimming driver that works with any standard 0-10V control/dimmer. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls ([www.coopercontrol.com](http://www.coopercontrol.com)) to maximize energy savings.

### Electrical

Long-Life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3500k or 4000k with a CRI ≥ 85. Projected life is 50,000 hours at 70% lumen output. cULus listed. Electronic drivers are available for 120-277V applications. A 0-10V dimming driver is standard.

### Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Housing and driver cover finished with new 90% reflective white enamel for superior performance. "PAF" Painted After Fabrication option also available.

### Hinging/Latching

Positive spring loaded steel latches with baked white enamel finish. Safety-lock T-hinges allow hinging and latching either side.

### Frame/Shielding

Die formed, heavy gauge, flat steel door with reinforced mitered corners and baked white enamel finish. Flat and regressed aluminum doors also available. Positive light seals. Light stabilized, acrylic prismatic lens. Standard #12 pattern.

### Compliance

Modules are UL recognized components and indoor luminaires are cULus listed for 25°C ambient environments, RoHS compliant, and LED modules comply with IESNA LM-79 and LM-80 standards.

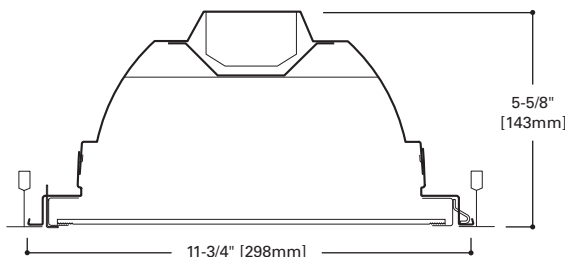


**GR LED**

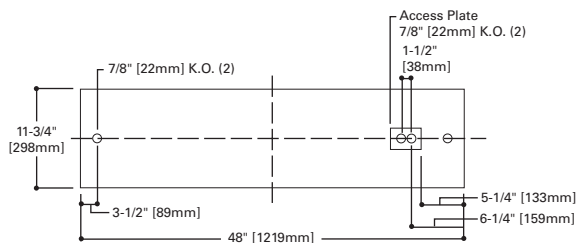
1' X 4' LED TROFFER

General Recessed LED Troffer

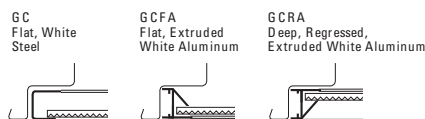
For Use in Insulated Ceilings



## MOUNTING DATA



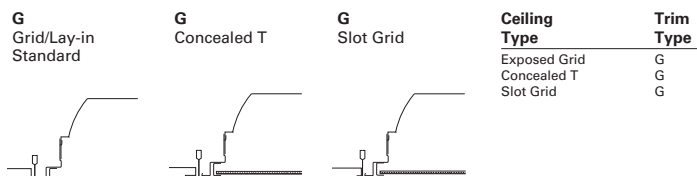
## DOOR FRAMES



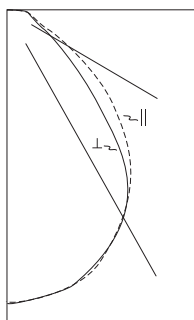
## ENERGY DATA

Input Watts:  
32=36W  
43=49W

## CEILING COMPATIBILITY



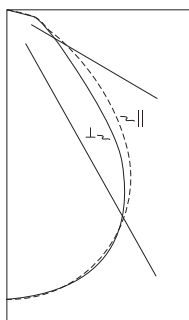
PHOTOMETRICS



**GRLED-LD1-32-A-UNV-L835-CD1-U**  
Dimming Driver  
Linear LED 3500K  
Spacing criterion:  
(H) 1.2 x mounting  
height, (L) 1.2 x  
mounting height  
Efficiency: 100%  
Lumens: 3179  
Input Watts: 36.4W  
Efficacy: 87.3 LPW  
Test Report:  
GRLED-LD1-32-A-UNV-L835-CD1-U-IES

**Candlepower**

Angle	Along H	45°	Across L
0	1471	1471	1471
5	1472	1462	1468
10	1455	1442	1450
15	1419	1411	1414
20	1371	1360	1363
25	1303	1290	1291
30	1207	1196	1193
35	1097	1077	1041
40	957	917	856
45	810	761	627
50	644	576	466
55	490	403	357
60	367	282	280
65	259	188	226
70	194	136	193
75	152	117	164
80	116	104	125
85	62	60	64
90	0	0	0



**GRLED-LD1-43-A-UNV-L835-CD1-U**  
Dimming Driver  
Linear LED 3500K  
Spacing criterion:  
(H) 1.2 x mounting  
height, (L) 1.2 x  
mounting height  
Efficiency: 100%  
Lumens: 4324  
Input Watts: 49.9W  
Efficacy: 86.7 LPW  
Test Report:  
GRLED-LD1-43-A-UNV-L835-CD1-U-IES

**Candlepower**

Angle	Along H	45°	Across L
0	2005	2005	2005
5	2009	1991	2001
10	1981	1964	1976
15	1935	1919	1928
20	1867	1852	1860
25	1766	1756	1756
30	1640	1630	1626
35	1491	1467	1416
40	1314	1247	1167
45	1099	1037	854
50	873	784	633
55	667	552	485
60	490	381	382
65	351	254	307
70	263	185	263
75	208	159	223
80	157	139	169
85	85	81	91
90	0	0	0

**Coefficients of Utilization**

rc	Effective floor cavity reflectance								20%							
	80%		70%		50%		30%		10%		0%		0%			
r <sub>w</sub>	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RCR																
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	

**Coefficients of Utilization**

rc	Effective floor cavity reflectance								20%							
	80%		70%		50%		30%		10%		0%		0%			
r <sub>w</sub>	70	50	30	10	70	50	30	10	50	30	10	50	30	10	0	
RCR																
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	
2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	

**Zonal Lumen Summary**

Zone	Lumens	%Fixture
0-30	1133	35.6
0-40	1800	56.6
0-60	2747	86.4
0-90	3179	100.0
0-180	3179	100.0

**Luminaire Data**

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3858	3625	2987
55	2878	2367	2096
65	2064	1498	1801
75	1978	1523	2134
85	2396	2319	2473

**Zonal Lumen Summary**

Zone	Lumens	%Fixture
0-30	1543	35.7
0-40	2450	56.7
0-60	3738	86.4
0-90	4324	100.0
0-180	4324	100.0

**Luminaire Data**

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	5235	4940	4068
55	3917	3242	2848
65	2798	2024	2447
75	2707	2069	2902
85	3285	3130	3517

ORDERING INFORMATION

SAMPLE NUMBER: GR-LD1-32-A-UNV-L835-CD1-U

<p><b>Rating</b> Blank=Standard ATW-SW4=Chicago Rated</p> <p><b>Width</b> Blank=1' Width</p> <p><b>Trim Type</b> G=Grid/Lay-in (Standard)<sup>(1)</sup> G=Concealed T G=Slot Grid</p> <p><b>Series</b> R=General Purpose Troffer</p> <p><b>Door Frame</b> Standard=Flat White Steel Door (Leave Blank) FA=Flush White Extruded Aluminum c/w Spring Latch RA=Regressed White Extruded Aluminum FAN=Flush Natural Anodized Extruded Aluminum RAN=Regressed Natural Anodized Extruded Aluminum FAB=Flush Black Extruded Aluminum RAB=Regressed Black Extruded Aluminum</p>	<p><b>LED Type</b> LD1=LED 1.0</p> <p><b>LED Lumens Output</b><sup>(6)</sup> 32=3200 43=4300</p> <p><b>Shielding</b> A=A12 .095 A125=A12 .125 A125MIN=A12 .125 MIN A19/156=A19 .156 F=A12 .095 Frost F125=A12 .125 Frost</p>	<p><b>Voltage</b><sup>(2)</sup> UNV=Universal Voltage 120-277<sup>(3)</sup></p> <p><b>Options</b> GL=Single Element Fuse GM=Double Element Fuse Flex=Flex Installed EL=Emergency Installed<sup>(4),(5)</sup></p>	<p><b>CCT</b> L835=3500K L840=4000K</p>	<p><b>Driver Type</b> CD=0-10V Dimming Driver</p> <p><b>Number of Drivers</b> 1=1 Driver</p>	<p><b>Options</b> PAF=Painted After Fabrication G1=Gasket, Door Frame and Housing G2=G1 plus Gasket between Lens and Door G3=G1 and G2 plus Gasketing on Mounting Surface of Fixture Trims</p>	<p><b>Packaging</b> U=Unit Pack PALC=Palletized Fixtures In Carton</p>
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**ACCESSORIES**

EQ-CLIP-U=T-BAR Safety Earthquake Clips<sup>(1)</sup>

NOTES: <sup>(1)</sup> An EQ Grid Clip is recommended for all 9/16" ceiling systems. <sup>(2)</sup> Products also available in non-US voltages and frequencies for international markets. <sup>(3)</sup> Not available when specifying emergencies, voltage must be specific. <sup>(4)</sup> EL options are non-integral. <sup>(5)</sup> Call factory. <sup>(6)</sup> Nominal lumen output.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.

**SHIPPING INFORMATION**

Catalog No.	Wt.
GR-LD1-32	10 lbs.
GR-LD1-43	10 lbs.

