

# COOPER LIGHTING SOLUTIONS - METALUX®

## DESCRIPTION

The GR8 is a T8-dedicated lensed troffer designed to offer premium performance in a low profile housing. T8 dedication and optimized lamp to lens spacing provides the best in energy efficiency and optical control. The GR8's shallow, low profile housing is compatible with even highly restrictive plenums. Luminaires are compatible with today's popular ceiling systems.

The GR8 offers great performance and great quality. The series is an excellent choice for commercial offices, schools, hospitals, retail merchandising and many other applications.

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

## SPECIFICATION FEATURES

### Construction

Unitized low profile recessed housing is die formed of code gauge prime cold rolled steel with full length stiffeners and unibody endplate for added strength. Ballast cover is easily removed without tools. Die formed captive lampholder bracket fully encloses lampholder wiring for easy lampholder replacement. Ample KOs are provided for continuous row wiring. Built-in grid-lock feature for safety and convenience.

### Electrical\*\*

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolts. Rotor-lock lampholders. Biaxial models use 2G11 base lampholders with double-edge wiping action pressure-lock contacts and horizontally oriented lamp support clips. UL/CUL listed. Suitable for damp locations.

### Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Lighting grade baked white enamel finish with premium reflectance for high efficiency.

### Hinging/Latching

Positive spring loaded steel latches and safety lock T-hinges provide secure, high quality door fit and allow hinging and latching from either side.

### Frame/Shielding

Heavy gauge flat steel door is die formed with reinforced mitered corners. Housing and door frame assemblies incorporate full width mechanical light traps. Light stabilized, acrylic prismatic lens.

### Controls

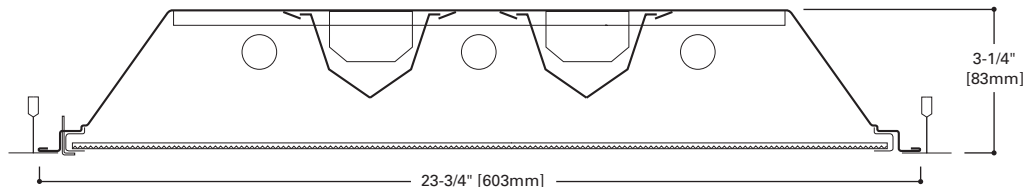
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Lighting Solutions ([www.cooperlighting.com](http://www.cooperlighting.com)) to maximize energy savings.



**2GR8**  
**317**  
**3BX40**  
**3U1-5/8**

**2' X 2' TROFFER**  
**3 LAMP**

General Purpose  
T8 Commercial Troffer



## ENERGY DATA

Input Watts:  
**EB Ballast & STD Lamps**  
317 (52), 3BX40 (98), 3U1-5/8 (88)

**ES Ballast & STD Lamps**  
317 (69), 3BX40 (125), 3U1-5/8 (105)

Luminaire Efficacy Rating  
**LER = FL-61**  
**Catalog Number: 2GR8-317A**

**Yearly Cost of 1000 lumens,**  
**3000 hrs at .08 KWH = \$3.93**

\*Standard G (Grid) Type Fixtures can be field converted by adding trim kits. See Compatibility Section or Consult Factory.  
  
\*\*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.  
  
\*\*\*When ordering Flange Kit for installation in drywall ceilings, see options and accessories compatibility section and ordering logic.

LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

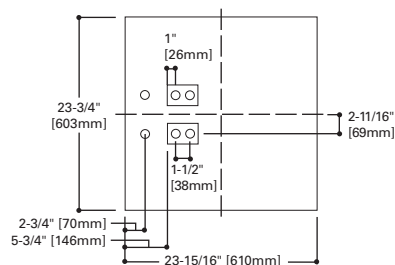
**LINEAR DISCONNECT**

Safe and convenient means of disconnecting power.



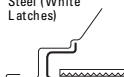
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## MOUNTING DATA

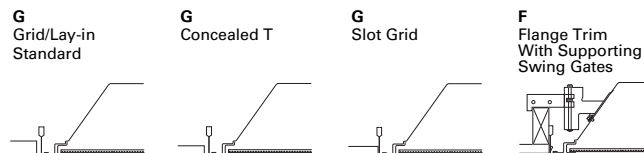


## DOOR FRAMES

2GR8  
Flat, White  
Steel (White  
Latches)

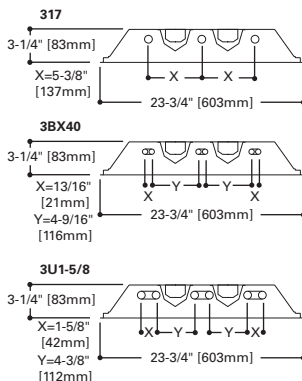


## CEILING COMPATIBILITY



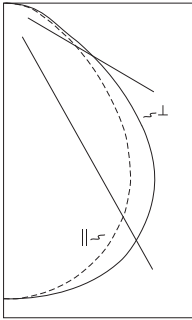
COOPER LIGHTING SOLUTIONS

## LAMP CONFIGURATIONS



Ceiling Type	Trim Type
Exposed Grid	G
Concealed T	G
Slot Grid	G
Flange	G***

PHOTOMETRICS



**2GR8-317A**  
 Electronic Ballast  
 (3) F17T8 lamps  
 1350 lumens  
 Spacing criterion:  
 (||) 1.2 x mounting  
 height, (⊥) 1.3 x  
 mounting height  
 Efficiency 73%  
 Test Report:  
 2GR8317A.IES  
 LER = FL-61  
 Yearly Cost of 1000  
 lumens, 3000 hrs at  
 .08 KWH = \$3.93

Candela			
Angle	Along	45°	Across ⊥
0	1171	1171	1171
5	1167	1167	1172
10	1150	1157	1169
15	1121	1139	1161
20	1079	1111	1145
25	1025	1074	1118
30	961	1021	1069
35	877	948	1009
40	772	855	932
45	658	729	826
50	530	599	687
55	419	474	538
60	323	335	395
65	238	223	273
70	180	150	207
75	140	118	165
80	103	99	120
85	54	58	62
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	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
RCR																		
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	75	75	75	73
1	80	77	74	71	78	75	72	70	72	70	68	69	67	66	67	65	64	62
2	73	68	63	59	71	66	62	58	64	60	57	61	58	56	59	57	55	53
3	67	60	54	50	66	59	54	50	57	52	49	55	51	48	53	50	47	45
4	62	54	48	43	60	53	47	43	51	46	42	49	45	41	48	44	41	39
5	57	48	42	37	56	47	42	37	46	41	37	44	40	36	43	39	36	34
6	53	44	37	33	52	43	37	33	42	36	32	40	36	32	39	35	32	30
7	49	40	34	29	48	39	33	29	38	33	29	37	32	29	36	32	28	27
8	46	36	30	26	45	36	30	26	35	30	26	34	29	26	33	29	26	24
9	43	33	28	24	42	33	27	24	32	27	23	31	27	23	31	26	23	22
10	40	31	25	21	39	30	25	21	30	25	21	29	24	21	28	24	21	20

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	927	22.9	31.3
0-40	1516	37.4	51.3
0-60	2507	61.9	84.8
0-90	2957	73.0	100.0
0-180	2957	73.0	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3269	3622	4104
55	2567	2904	3296
65	1979	1854	2270
75	1901	1602	2240
85	2177	2338	2499

## ORDERING INFORMATION

SAMPLE NUMBER: 2GR8-317A-UNV-EB81-U

<b>Rating<sup>(6)</sup></b> <b>Blank</b> = Standard <b>ATW-SW4</b> = Chicago Rated	<b>Number of Lamps<sup>(4)</sup></b> <b>3</b> =3 Lamps (Not included)	<b>Voltage<sup>(2)</sup></b> <b>120V</b> =120 Volt <b>277V</b> =277 Volt <b>347V</b> =347 Volt <b>UNV</b> =Universal Voltage 120-277 <sup>(3)</sup>	<b>Ballast Type</b> <b>EB8_</b> =T8 Electronic Start. Total Harmonic Distortion < 10% <b>EB8_/PLUS</b> = T8 Electronic Start. Total Harmonic Distortion < 10%. High Ballast Factor > 1.15. <b>ER8_</b> = T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% <b>EB5_</b> =T5 Biax Electronic Instant Start. Total Harmonic Distortion < 20% <sup>(6)</sup> <b>TEB5_</b> =T5 Biax Electronic Instant Start. Total Harmonic Distortion < 10% <sup>(6)</sup> <b>ER5_</b> = T5 Biax Electronic Program Rapid Start. Total Harmonic Distortion < 10% <b>High Performance T8 Ballasts</b> <b>HB8_</b> =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 <b>HB8_L</b> =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Low Ballast Factor .77 – .82 <b>HB8_N</b> =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Normal Ballast Factor 1.0 <b>HB8_H</b> =T8 Electronic Instant Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20 <b>HR8_T</b> =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 <b>HR8_DIM</b> =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming. Ballast Factor .88 <b>HR8_L</b> =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Low Ballast Factor .71 – .79 <b>HR8_H</b> =T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20 <b>Fifth Light DALI Ballasts<sup>(8)</sup></b> <b>5LT8_</b> =T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 <b>5LT5B_</b> =T5 Biax DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	<b>Options</b> <b>FR</b> =Fire Label	<b>Packaging</b> <b>U</b> =Unit Pack <b>PAL</b> =Job Pack, out of carton <b>PALC</b> =Job Pack, in carton
<b>Width</b> <b>2</b> =2' Width	<b>Wattage</b> <b>17</b> =17W T8 (24") <b>U1-5/8</b> =31W T8 (24") <sup>(7)</sup> <b>BX40</b> =40W Biaxial (24")	<b>Options</b> <b>GL</b> =Single Element Fuse <b>GM</b> =Double Element Fuse <b>Lamps</b> =Lamps Installed <b>Flex</b> =Flex Installed <b>EL</b> =Emergency Installed <sup>(9)</sup>			
<b>Trim Type</b> <b>G</b> =Grid/Lay-in (Standard)	<b>Shielding</b> <b>A</b> =#12 Acrylic Pattern <b>A125</b> =#12 Pattern Acrylic (.125" Thick) <b>A19/156</b> =#19 Pattern Acrylic (.156" Thick)				
<b>Series</b> <b>R8</b> =General Purpose T8 Commercial Troffer <sup>(1)</sup>					

**ACCESSORIES**

**EQ-CLIP-U**=T-BAR Safety Earthquake Clips<sup>(1)</sup>  
**FCTKA-22W-U**=Field Installed Flange Kit

**FCTK** | **A** - **24** | **R** | **W** - **U**

Trim Kit  
Field  
Convertible

22=2' x 2'  
24=2' x 4'

N=Natural  
W=White

Blank=Single  
R=In Row  
E=End Row

Aluminum

U=Unit Pack

**Number of Ballasts**  
**1**=1 Ballast  
**2**=2 Ballasts  
**3**=3 Ballasts

**NOTES:** <sup>(1)</sup>An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. <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>Standard off-center ballast compartment on 3-lamp fixtures. <sup>(5)</sup>For NYC rated product, see separate specification sheets. <sup>(6)</sup>Not available in UNV voltages. Must specify voltage. <sup>(7)</sup>Fifthlight ballast option not available. <sup>(8)</sup>For a complete listing of Fifthlight Technology products and other solutions from Cooper Lighting Solutions, visit [www.cooperlighting.com](http://www.cooperlighting.com) <sup>(9)</sup>Please specify required voltage, 120V or 277V.

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information.

## SHIPPING INFORMATION

Catalog No.	Wt.
2GR8-317A	10 lbs.
2GR8-3BX40A	10 lbs.
2GR8-3U1-5/8	10 lbs.