

## DESCRIPTION

GC8IC is a premium grade specification lensed troffer series. This innovative, high quality luminaire is dedicated to the latest T8 lamp and micro electronic ballast technology for optimal performance and energy efficiency. The GC8IC is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for application versatility.

The GC8IC Series features efficiency, quality and performance. The GC8IC is designed for installations when the housing will be in direct contact with insulation.

## SPECIFICATION FEATURES

### Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length die formed stiffeners for added strength. Side flanges are hemmed. Innovative design provides superior lens brightness uniformity and is easily removed without tools. Die formed captive lampholder brackets fully enclose lampholder wiring permitting easy lampholder replacement. Heavy endplates are securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. KOs for continuous row wiring. Endplates have integral Gridlock feature for safety and convenience.

### Electrical

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolts. Pressure lock lampholders. UL Listed Type IC Recessed Luminaire (Rated for direct contact with insulation). Suitable for damp locations.

### Finish

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

### Hinging/Latching

Positive cam action spring loaded steel latches with baked white enamel finish. Safety-lock Things 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 100% virgin acrylic prismatic lens. Standard #12 pattern. Numerous additional shielding options available.

### 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.

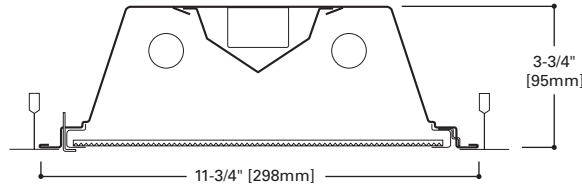


**GC8IC**  
**228T8**  
**232**

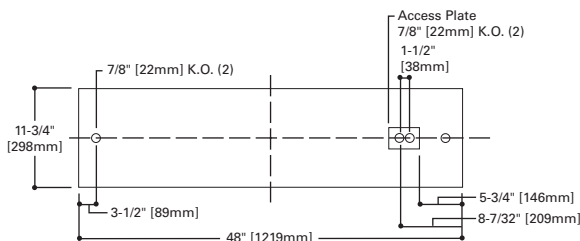
**1' X 4' TROFFER**  
**2 LAMP**

Specification T8 Troffer

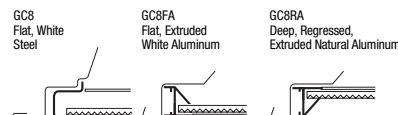
For Use in Insulated  
Ceilings



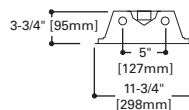
## MOUNTING DATA



## DOOR FRAMES



## LAMP CONFIGURATIONS



## ENERGY DATA

Input Watts:  
**EB BALLAST & STD Lamps**  
232 (61)  
**HB BALLAST & STD LAMPS**  
228T8 (48)  
**ER BALLAST & STD LAMPS**  
232 (71)

Luminaire Efficacy Rating  
**LER = FL-58**

**Catalog Number:** GC8IC-232A  
**Yearly Cost of 1000 lumens,**  
**3000 hrs at .08 KWH = \$4.15**

\*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.

\*\*\*Full sized ballast cover for emergency option.

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

**LINEAR DISCONNECT**

Safe and convenient means of disconnecting power.



## CEILING COMPATIBILITY

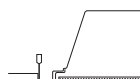
**G**  
Grid/Lay-in  
Standard



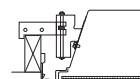
**G**  
Concealed T



**G**  
Slot Grid



**F**  
Flange Trim  
With Supporting  
Swing Gates



**Ceiling Type**

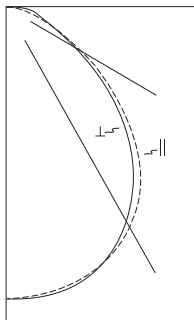
Exposed Grid  
Concealed T  
Slot Grid  
Flange

**Trim Type**

G  
G  
G  
F

(Verify compatibility/ consult factory.)

PHOTOMETRICS



**GC81C-232A**  
 Electronic Ballast  
 (2) FO32/35K lamps  
 2800 lumens  
 Spacing criterion:  
 (H) 1.2 x mounting  
 height, (L) 1.2 x  
 mounting height  
 Efficiency 71.6%  
 Test Report:  
 GC81C232A.IES  
 LER = FL-58  
 Yearly Cost of 1000  
 lumens, 3000 hrs at  
 .08 KWH = \$4.15

**Coefficients of Utilization**

rc	Effective floor cavity reflectance																		
	80%				70%				20%										
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	10%	0%			
<b>RCR</b>	<b>0</b>	85	85	85	85	83	83	83	83	80	80	80	76	76	76	73	73	73	72
	<b>1</b>	79	76	74	71	77	75	72	70	72	70	68	69	67	66	66	65	64	62
	<b>2</b>	73	68	64	61	71	67	63	60	64	61	58	62	59	57	60	58	56	54
	<b>3</b>	68	61	56	52	66	60	56	52	58	54	51	56	53	50	55	52	49	48
	<b>4</b>	63	55	50	45	61	54	49	45	53	48	45	51	47	44	49	46	43	42
	<b>5</b>	58	50	44	39	56	49	43	39	47	43	39	46	42	38	45	41	38	37
	<b>6</b>	54	45	39	35	52	44	39	35	43	38	34	42	37	34	41	37	34	32
	<b>7</b>	50	41	35	31	48	40	35	31	39	34	30	38	34	30	37	33	30	29
	<b>8</b>	46	37	31	27	45	36	31	27	35	30	27	34	30	27	34	29	26	25
	<b>9</b>	42	33	27	24	41	33	27	23	32	27	23	31	27	23	30	26	23	22
	<b>10</b>	39	30	25	21	38	30	24	21	29	24	21	28	24	21	28	24	21	19

**Zonal Lumen Summary**

Zone	Lumens	%Lamp	%Fixture
<b>0-30</b>	1380	24.6	34.4
<b>0-40</b>	2196	39.2	54.8
<b>0-60</b>	3452	61.6	86.1
<b>0-90</b>	4011	71.6	100.0
<b>0-180</b>	4011	71.6	100.0

**Typical VCP Percentages**

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
<b>20 x 20</b>	60	64	60	65
<b>30 x 30</b>	52	57	51	56
<b>30 x 60</b>	43	46	40	44
<b>60 x 30</b>	54	59	54	58
<b>60 x 60</b>	44	47	41	45

**Candlepower**

Angle	Along H	45°	Across L
<b>0</b>	1782	1782	1782
<b>5</b>	1768	1778	1779
<b>10</b>	1745	1759	1763
<b>15</b>	1707	1724	1728
<b>20</b>	1651	1668	1662
<b>25</b>	1574	1582	1559
<b>30</b>	1471	1463	1419
<b>35</b>	1343	1312	1258
<b>40</b>	1186	1133	1100
<b>45</b>	1002	943	931
<b>50</b>	813	760	749
<b>55</b>	633	579	549
<b>60</b>	475	401	401
<b>65</b>	348	261	305
<b>70</b>	253	175	245
<b>75</b>	193	140	212
<b>80</b>	140	117	156
<b>85</b>	75	65	84
<b>90</b>	0	0	0

## ORDERING INFORMATION

SAMPLE NUMBER: GC81C-232A-120V-EB81-U

<b>Width</b> <b>Blank</b> =1' Width	<b>Number of Lamps</b> <b>2</b> =2Lamps (Not included)	<b>Ballast Type</b> <b>EB8</b> _=T8 Electronic Start. Total Harmonic Distortion < 10% <b>EB8</b> _/ <b>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>Options</b> <b>RLS</b> =Rotor Lock Socket (T8 Lamp only) <b>REP</b> =Riveted End Plate <b>PAF</b> =Painted After Fabrication
<b>Trim Type</b> <b>G</b> =Grid/Lay-in (Standard) <sup>(1)</sup> <b>G</b> =Concealed T <b>G</b> =Slot Grid <b>F</b> =Flange Trim <b>C</b> =Modular Trim	<b>Wattage</b> <b>28T8</b> =28W T8 (48") <sup>(4)</sup> <b>32</b> =32W T8 (48")	<b>High Performance T8 Ballasts</b> <b>HB8</b> _=T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 <b>HB8</b> _L=T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Low Ballast Factor .77 – .82 <b>HB8</b> _N=T8 Electronic Instant Start. Total Harmonic Distortion < 10%. Normal Ballast Factor 1.0 <b>HB8</b> _H=T8 Electronic Instant Start. Total Harmonic Distortion < 0%. High Ballast Factor 1.15 – 1.20 <b>HR8</b> _T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor .86 – .88 <b>HR8</b> _DIM=T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming. Ballast Factor .88 <b>HR8</b> _L=T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Low Ballast Factor .71 – .79 <b>HR8</b> _H=T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor 1.15 – 1.20	<b>Packaging</b> <b>U</b> =Unit Pack <b>PAL</b> =Job Pack, out of carton <b>PALC</b> =Job Pack, in carton
<b>Series</b> <b>C8</b> =Specification T8 Troffer	<b>Shielding</b> <b>A</b> =#12 Acrylic Pattern <b>A125</b> =#12 Pattern Acrylic (.125" Thickness) <b>A19/156</b> =#19 Pattern Acrylic (.156" Thickness) <b>DA</b> =Dropped Dish Matte White Acrylic <b>IMA48</b> =Injection Molded Acrylic (.150" Thick)	<b>0-10V Dimming Ballasts</b> <sup>(6)</sup> <b>5LTV8</b> _=T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 <sup>(8)</sup> <b>5LTVS8</b> _=T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 <sup>(7)</sup> <b>Fifth Light DALI Ballasts</b> <sup>(5)</sup> <b>5LT8</b> _=T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	<b>ACCESSORIES</b> <b>EQ-CLIP-U</b> =T-BAR Safety Earthquake Clips <sup>(1)</sup>
<b>Type</b> <b>IC</b> =IC Rated	<b>Voltage</b> <sup>(2)</sup> <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>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>Door Frame</b> <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			

**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> When utilizing 28W T8 lamps, HPT8 ballast must be specified. <sup>(5)</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>(6)</sup> 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. <sup>(7)</sup> Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. <sup>(8)</sup> Standard 0-10V ballast not available for 28W T8 lamps. <sup>(9)</sup> Please specify required voltage, 120V or 277V.

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

## SHIPPING DATA

Catalog No.	Wt.
GC81C-232A	19 lbs