

## DESCRIPTION

GC8 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 GC8 is compatible with all of today's popular ceiling systems and is available with a number of options and accessories for application versatility.

The GC8 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 for added strength. Side flanges are hemmed. Innovative design provides superior lens brightness uniformity and visual comfort. Micro ballast cover\*\*\* reduces ballast shadow for 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 Grid-lock feature for safety and convenience.

### Electrical

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolts. Pressure lock lampholders. UL/CUL listed. 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 latch 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 100% virgin acrylic prismatic lens. Standard #12 pattern. Numerous additional shielding options available.

### Controls

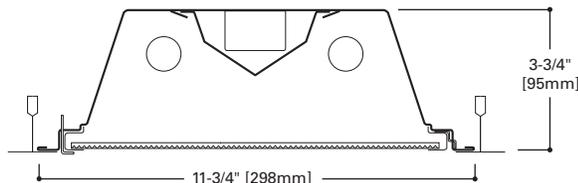
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls ([www.coopercontrol.com](http://www.coopercontrol.com)) to maximize energy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



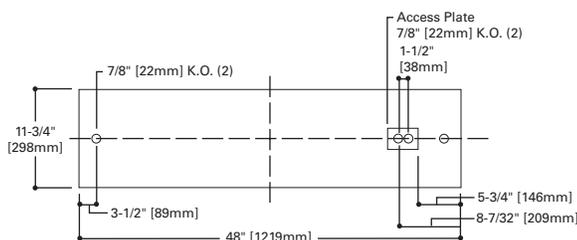
## GC8 232

1' X 4' TROFFER  
2 LAMP

Specification T8 Troffer  
New York City Rated



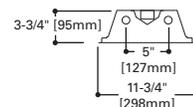
## MOUNTING DATA



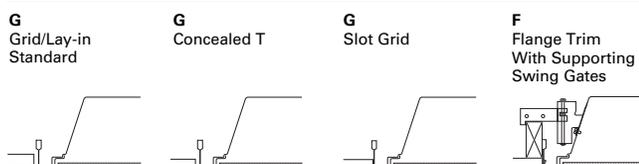
## DOOR FRAMES



## LAMP CONFIGURATIONS



## CEILING COMPATIBILITY



| Ceiling Type | Trim Type |
|--------------|-----------|
| Exposed Grid | G         |
| Concealed T  | G         |
| Slot Grid    | G         |
| Flange       | F         |

(Verify compatibility/ consult factory.)

## ENERGY DATA

Input Watts:  
EB Ballast & STD Lamps  
232 (61)

ES Ballast & STD Lamps  
232 (71)

Luminaire Efficacy Rating  
LER = FL-58  
Catalog Number: GC8-232A

Yearly Cost of 1000 lumens,  
3000 hrs at .08 KWH = \$4.15

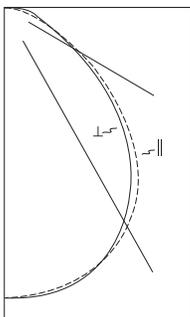
\*Standard G (Grid) Type Fixtures can be field converted by adding trim kits. See Compatibility Section or Consult Factory.

\*\*Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

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

**LINEAR DISCONNECT**  
Safe and convenient means of disconnecting power.

PHOTOMETRICS



**GC8-232A**  
 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:  
 GC8232A.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% |    |    |    | 0% |    |    |    |    |    |
| rw         | 70                                 | 50 | 30 | 10 | 70  | 50 | 30 | 10 | 50  | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 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 ⊥ |
|-----------|---------|------|----------|
| <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: NYGC8-232A-120V-EB81-U

**Rating**  
 NY=New York  
 City Rated  
 (20 Gauge  
 Riveted End  
 Plates)

**Width**  
 Blank=1' Width

**Trim Type**  
 G=Grid/Lay-in (Standard)<sup>(1)</sup>  
 G=Concealed T  
 G=Slot Grid  
 F=Flange Trim  
 C=Modular Trim

**Series**  
 C8=Specification T8 Troffer

**Door Frame**  
 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

**Number of Lamps**  
 2=2 Lamps  
 (Not included)

**Wattage**  
 32=32W T8 (48")

**Shielding**  
 A=#12 Acrylic Pattern  
 A125=#12 Pattern Acrylic (.125"  
 Thickness)  
 A19/156=#19 Pattern Acrylic  
 (.156" Thickness)  
 DA=Dropped Dish Matte White  
 Acrylic  
 IMA48=Injection Molded Acrylic  
 (.150" Thick)

**Voltage**<sup>(2)</sup>  
 120V=120 Volt  
 277V=277 Volt  
 347V=347 Volt  
 UNV=Universal Voltage 120-277<sup>(3)</sup>

**Options**  
 GL=Single Element Fuse  
 GM=Double Element Fuse  
 Flex=Flex Installed  
 EL=Emergency Installed<sup>(7)</sup>

**Ballast Type**  
**EB8** =T8 Electronic Start.  
 Total Harmonic Distortion < 10%  
**EB8 /PLUS**= T8 Electronic Start.  
 Total Harmonic Distortion < 10%.  
 High Ballast Factor > 1.15.  
**ER8** = T8 Electronic Program Rapid Start.  
 Total Harmonic Distortion < 10%  
**High Performance T8 Ballasts**  
**HB8** =T8 Electronic Instant Start.  
 Total Harmonic Distortion < 10%.  
 Standard Ballast Factor .86 – .88  
**HB8\_L**=T8 Electronic Instant Start.  
 Total Harmonic Distortion < 10%.  
 Low Ballast Factor .77 – .82  
**HB8\_N**=T8 Electronic Instant Start.  
 Total Harmonic Distortion < 10%.  
 Normal Ballast Factor 1.0  
**HB8\_H**=T8 Electronic Instant Start.  
 Total Harmonic Distortion < 10%.  
 High Ballast Factor 1.15 – 1.20  
**HR8** =T8 Electronic Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 Standard Ballast Factor .86 – .88  
**HR8\_DIM**=T8 Electronic Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 Step Dimming. Ballast Factor .88  
**HR8\_L**=T8 Electronic Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 Low Ballast Factor .71 – .79  
**HR8\_H**=T8 Electronic Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 High Ballast Factor 1.15 – 1.20  
**0-10V Dimming Ballasts**<sup>(5)</sup>  
**5LTV8** =T8 0-10V Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 Ballast Factor 0.87  
**5LTVS8** =T8 0-10V Spec Grade Program  
 Rapid Start. Total Harmonic  
 Distortion < 10%.  
 Ballast Factor 0.87<sup>(6)</sup>  
**Fifth Light DALI Ballasts**<sup>(4)</sup>  
**5LT8** =T8 DALI Program Rapid Start.  
 Total Harmonic Distortion < 10%.  
 Ballast Factor 1.0

**Options**  
 RLS=Rotor Lock Socket  
 (T8 Lamp only)  
 FR=Fire Rated Label  
 MEP=Modified End Plate  
 REP=Riveted End Plate  
 PAF=Painted After  
 Fabrication

**Packaging**  
 U=Unit Pack  
 PAL=Job Pack, out of carton  
 PALC=Job Pack, in carton

**ACCESSORIES**

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

**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>For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. <sup>(5)</sup>0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. <sup>(6)</sup>Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. <sup>(7)</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 INFORMATION**

| Catalog No. | Wt.    |
|-------------|--------|
| NYGC8-232A  | 19 lbs |

