

## 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 diformed stiffeners and unibody endplate 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. Unibody endplates are securely attached with interlocking tabs and screws. Four auxiliary fixture end suspension points provided. Ample KO's are provided 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 Rotor-lock T8 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. Housing and ballast 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. Acrylic prismatic lens. Standard #12 pattern. Numerous additional shielding options available.

### Controls

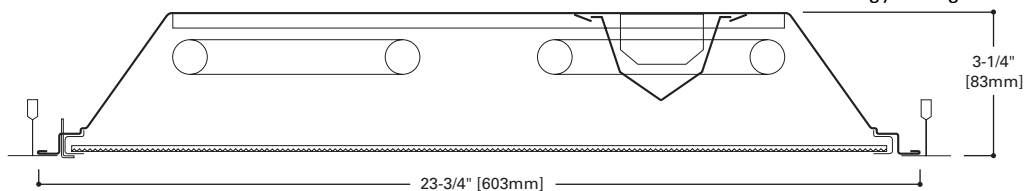
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Lighting Solutions ([www.cooperlighting.com](http://www.cooperlighting.com)) to maximize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



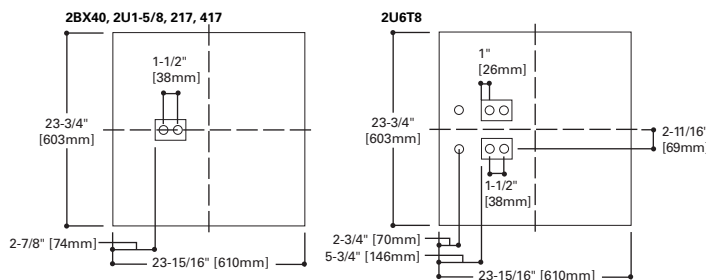
**2GC8**  
**2U6T8**  
**2BX40**  
**2U1-5/8**

**2' X 2' TROFFER**  
**2 LAMPS**

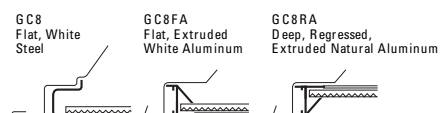
Specification T8 Troffer



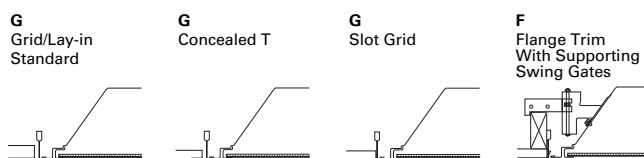
## MOUNTING DATA



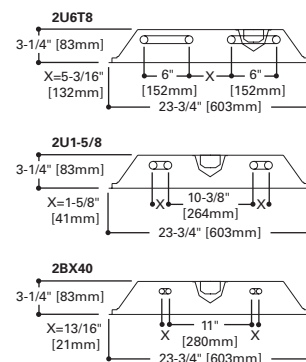
## DOOR FRAMES



## CEILING COMPATIBILITY



## LAMP CONFIGURATIONS



## ENERGY DATA

Input Watts:

**EB Ballast & STD Lamps**

2U1-5/8 (61), 2U6T8 (61), 2BX40 (71)

**ES Ballast & STD Lamps**

2U1-5/8 (71), 2U6T8 (71), 2BX40 (77)

Luminaire Efficacy Rating

**LER = FL-77**

**Catalog Number: 2GC8-2U6T8**

**Yearly Cost of 1000 lumens, 3000**

**hrs at .08 KWH = \$3.12**

\*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**

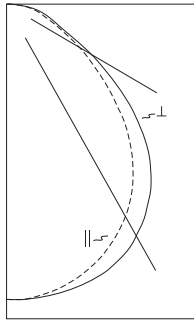
**LINEAR DISCONNECT**

Safe and convenient means of disconnecting power.



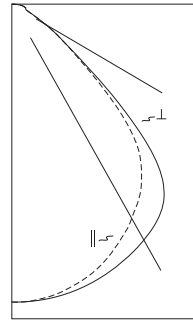
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PHOTOMETRICS



**2GC8-2U6T8A**  
 Electronic Ballast  
 (2) 31W U6T8 lamps  
 2850 lumens  
 Spacing criterion:  
 (II) 1.2 x mounting  
 height, (⊥) 1.3 x  
 mounting height  
 Efficiency 80.1%  
 Test Report:  
 2GC82U6T8A.IES  
 LER = FL-77  
 Yearly Cost of 1000  
 lumens, 3000 hrs at  
 .08 KWH = \$3.12

Candela			
Angle	Along II	45°	Across ⊥
0	1847	1847	1847
5	1843	1838	1848
10	1812	1820	1838
15	1763	1786	1819
20	1697	1738	1788
25	1610	1671	1733
30	1507	1581	1647
35	1378	1459	1539
40	1222	1312	1408
45	1046	1121	1243
50	845	910	1031
55	663	706	798
60	512	511	592
65	378	339	415
70	283	229	319
75	218	181	254
80	159	152	183
85	84	89	91
90	0	0	0



**2GC8-2U6T8A156**  
 Electronic Ballast  
 (2) 31W U6T8 lamps  
 2850 lumens  
 Spacing criterion:  
 (II) 1.2 x mounting  
 height, (⊥) 1.3 x  
 mounting height  
 Efficiency 77.1%  
 Test Report:  
 2GC82U6T8A19\_156.IES  
 LER = FL-74  
 Yearly Cost of 1000  
 lumens, 3000 hrs at  
 .08 KWH = \$3.24

Candela			
Angle	Along II	45°	Across ⊥
0	2045	2045	2045
5	2036	2035	2042
10	2003	2007	2026
15	1949	1965	1998
20	1874	1911	1956
25	1777	1837	1907
30	1667	1746	1847
35	1547	1631	1771
40	1372	1446	1621
45	1059	1110	1246
50	648	760	710
55	405	585	407
60	235	399	238
65	135	253	135
70	99	143	102
75	95	88	99
80	78	52	81
85	45	39	47
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	50	30	10	50	30	10	0
RCR	0	95	95	95	93	93	93	93	89	89	89	85	85	85	82	82	82	80	80	80	80	80	80	0
1	88	84	81	78	86	82	79	77	79	77	74	76	74	72	73	71	70	68	68	68	68	68	68	0
2	80	74	69	65	78	73	68	64	70	66	63	67	64	61	65	62	60	58	58	58	58	58	58	0
3	74	66	60	55	72	65	59	54	62	58	54	60	56	53	58	55	52	50	50	50	50	50	50	0
4	68	59	52	47	66	58	52	47	56	51	46	54	49	46	52	48	45	43	43	43	43	43	43	0
5	63	53	46	41	61	52	46	41	50	45	40	49	44	40	47	43	40	38	38	38	38	38	38	0
6	58	48	41	36	57	47	41	36	46	40	36	44	39	35	43	39	35	34	34	34	34	34	34	0
7	54	44	37	32	53	43	37	32	42	36	32	41	36	32	40	35	31	30	30	30	30	30	30	0
8	50	40	33	29	49	39	33	29	38	33	29	37	32	28	36	32	28	27	27	27	27	27	27	0
9	47	37	30	26	46	36	30	26	35	30	26	35	29	26	34	29	26	24	24	24	24	24	24	0
10	44	34	28	24	43	34	28	24	33	27	24	32	27	23	31	27	23	22	22	22	22	22	22	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1450	25.4	31.7
0-40	2359	41.4	51.7
0-60	3874	68.0	84.8
0-90	4567	80.1	100.0
0-180	4567	80.1	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3979	4265	4729
55	3109	3311	3743
65	2406	2158	2642
75	2266	1881	2640
85	2593	2747	2809

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	50	30	10	50	30	10	0
RCR	0	92	92	92	90	90	90	90	86	86	86	82	82	82	79	79	79	77	77	77	77	77	77	0
1	85	82	79	77	83	81	78	76	77	75	73	74	73	71	72	70	69	68	68	68	68	68	68	0
2	79	74	69	65	77	72	68	65	69	66	63	67	64	62	65	62	60	59	59	59	59	59	59	0
3	73	66	61	56	71	65	60	56	63	58	55	61	57	54	59	56	53	51	51	51	51	51	51	0
4	68	59	54	49	66	58	53	49	57	52	48	55	51	47	53	50	47	45	45	45	45	45	45	0
5	63	54	48	43	61	53	47	43	51	46	42	50	46	42	49	45	42	40	40	40	40	40	40	0
6	58	49	43	38	57	48	42	38	47	42	38	46	41	38	45	40	37	36	36	36	36	36	36	0
7	54	45	39	34	53	44	38	34	43	38	34	42	37	34	41	37	34	32	32	32	32	32	32	0
8	51	41	35	31	50	41	35	31	40	34	31	39	34	31	38	34	30	29	29	29	29	29	29	0
9	48	38	32	28	46	37	32	28	37	31	28	36	31	28	35	31	28	26	26	26	26	26	26	0
10	45	35	29	26	44	35	29	26	34	29	25	33	29	25	33	28	25	24	24	24	24	24	24	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1598	28.0	36.3
0-40	2621	46.0	59.6
0-60	3963	69.5	90.1
0-90	4396	77.1	100.0
0-180	4396	77.1	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	4029	4223	4740
55	1899	2744	1909
65	859	1610	859
75	987	915	1029
85	1389	1204	1451

**ORDERING INFORMATION**

SAMPLE NUMBER: 2GC8-2U6T8A-UNV-EB81-U

<p><b>Rating<sup>(6)</sup></b> Blank= Standard ATW-SW4= Chicago Rated</p>	<p><b>Number of Lamps</b> 2=2 Lamps 4=4 Lamps (Not included)</p>	<p><b>Ballast Type</b> EB8_ =T8 Electronic Start. Total Harmonic Distortion &lt; 10% EB8_/PLUS= T8 Electronic Start. Total Harmonic Distortion &lt; 10%. High Ballast Factor &gt; 1.15. ER8_ =T8 Electronic Program Rapid Start. Total Harmonic Distortion &lt; 10% <b>High Performance T8 Ballasts</b> HB8_ =T8 Electronic Instant Start. Total Harmonic Distortion &lt; 10%. Standard Ballast Factor .86 – .88 HB8_ L=T8 Electronic Instant Start. Total Harmonic Distortion &lt; 10%. Low Ballast Factor .77 – .82 HB8_ N=T8 Electronic Instant Start. Total Harmonic Distortion &lt; 10%. Normal Ballast Factor 1.0 HB8_ H=T8 Electronic Instant Start. Total Harmonic Distortion &lt; 10%. High Ballast Factor 1.15 – 1.20 HR8_ T8 Electronic Program Rapid Start. Total Harmonic Distortion &lt; 10%. Standard Ballast Factor .86 – .88 HR8_ DIM=T8 Electronic Program Rapid Start. Total Harmonic Distortion &lt; 10%. Step Dimming. Ballast Factor .88 HR8_ L=T8 Electronic Program Rapid Start. Total Harmonic Distortion &lt; 10%. Low Ballast Factor .71 – .79 HR8_ H=T8 Electronic Program Rapid Start. Total Harmonic Distortion &lt; 10%. High Ballast Factor 1.15 – 1.20 <b>0-10V Dimming Ballasts<sup>(11)</sup></b> 5LTV8_ =T8 0-10V Program Rapid Start. Total Harmonic Distortion &lt; 10%. Ballast Factor 0.87<sup>(15), (16)</sup> 5LTVS8_ =T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion &lt; 10%. Ballast Factor 0.87<sup>(12), (13), (14)</sup> <b>Fifth Light DALI Ballasts<sup>(8)</sup></b> 5LT8_ =T8 DALI Program Rapid Start. Total Harmonic Distortion &lt; 10%. Ballast Factor 1.0</p>	<p><b>Options</b> LAO=Less Access Opening<sup>(4)</sup> FR=Fire Rated Label REP=Riveted End Plates PAF=Painted After Fabrication</p>
<p><b>Width</b> 2=2' Width</p>	<p><b>Wattage</b> U6T8=32W (24")<sup>(10)</sup> U1-5/8=31W T8 (24")<sup>(9)</sup> BX40=40W Biaxial (24")</p>	<p><b>Packaging</b> U=Unit Pack PAL=Job Pack, out of carton PALC=Job Pack, in carton</p>	
<p><b>Trim Type</b> G=Grid/Lay-in<sup>(1)</sup> (Standard) G=Concealed T G=Slot Grid F=Flange Trim</p>	<p><b>Shielding</b> A=#12 Acrylic Pattern A125=#12 Pattern Acrylic (.125" Thickness) A19/156=#19 Pattern Acrylic (.156" Thickness)</p>	<p><b>Number of Ballasts</b> 1=1 Ballast 2=2 Ballasts 3=3 Ballasts</p>	
<p><b>Series</b> C8=Specification T8 Troffer</p>	<p><b>Option – Aluminum Flange Trim<sup>(6)</sup></b> Blank=SW (Single White) Type Color 'S' Single 'N' Natural 'R' In Row 'W' White 'E' End of Row</p>		
<p><b>Standard</b>=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>Voltage<sup>(2)</sup></b> 347V=347 Volt UNV=Universal Voltage 120-277<sup>(3)</sup></p>		
	<p><b>Options</b> GL=Single Element Fuse GM=Double Element Fuse Lamps=Lamps Installed Flex=Flex Installed EL=Emergency Installed<sup>(17)</sup></p>		

**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>Consult Pre-Sales Technical Support. <sup>(5)</sup>For NYC rated product, see separate specification sheets. <sup>(6)</sup>Specify row configuration, type in catalog number when ordering complete fixture. <sup>(7)</sup> Not available in UNV voltages. Must specify voltage. <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> Fifthlight ballast option not available. <sup>(10)</sup> Ballast Factor is 0.88 for 4 lamp 32W T8 fixtures. <sup>(11)</sup> 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. <sup>(12)</sup> Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. <sup>(13)</sup> Specification Grade 0-10V ballast not available for Biax lamps. <sup>(14)</sup> Specification Grade 0-10V ballast not offered in 3 or 4-lamp versions. <sup>(15)</sup> Standard 0-10V ballast not available for Biax lamps. <sup>(16)</sup> Standard 0-10V ballast not offered in 3 or 4-lamp versions. <sup>(17)</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.

**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**

<p>Trim Kit Field Convertible</p>	<p>22=2' x 2' 24=2' x 4'</p>	<p>N=Natural W=White</p>
<p>Aluminum</p>	<p>Blank=Single R=In Row E=End Row</p>	<p>U=Unit Pack</p>

**SHIPPING DATA**

Catalog No.	Wt.
2GC8-2U6T8A	12 lbs.
2GC8-2U1-5/8A	12 lbs.
2GC8-2BX40A	15 lbs.

