

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 dieformed 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. KO's 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

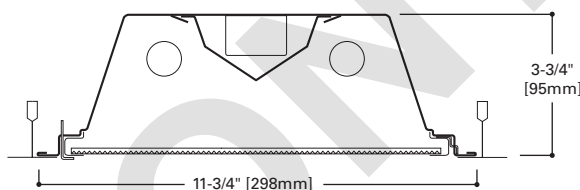
Positive cam action spring loaded steel latches with baked white enamel finish. Safety-lock Things allow hinging and latching either side.

Frame/Shielding

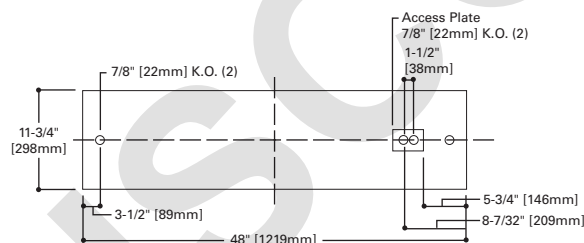
Die formed, heavy gauge, flat steel door with reinforced mitered corners and baked white enamel finish. Flat and regressed aluminum doors also available. Positive light seals. Light stabilized 100% virgin acrylic prismatic lens. Standard #12 pattern. Numerous additional shielding options available.

Controls

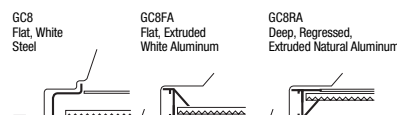
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.



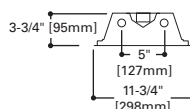
MOUNTING DATA



DOOR FRAMES



LAMP CONFIGURATIONS



CEILING COMPATIBILITY

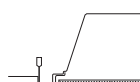
G
Grid/Lay-in
Standard



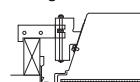
G
Concealed T



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.)

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.

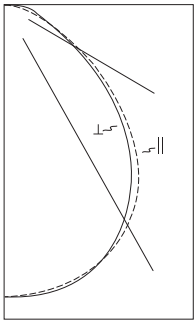
**Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

***Full sized ballast cover for emergency option.

LINEAR DISCONNECT

Designed to provide safe and convenient means of disconnecting power

PHOTOMETRICS

**GC81C-232A**

Electronic Ballast

(2) FO32/35K lamps
2800 lumensSpacing 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**

Effective floor cavity reflectance					20%																
rc	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	85	85	85	85	83	83	83	83	80	80	80	76	76	76	73	73	73	72			
1	79	76	74	71	77	75	72	70	72	70	68	69	67	66	66	65	64	62			
2	73	68	64	61	71	67	63	60	64	61	58	62	59	57	60	58	56	54			
3	68	61	56	52	66	60	56	52	58	54	51	56	53	50	55	52	49	48			
4	63	55	50	45	61	54	49	45	53	48	45	51	47	44	49	46	43	42			
5	58	50	44	39	56	49	43	39	47	43	39	46	42	38	45	41	38	37			
6	54	45	39	35	52	44	39	35	43	38	34	42	37	34	41	37	34	32			
7	50	41	35	31	48	40	35	31	39	34	30	38	34	30	37	33	30	29			
8	46	37	31	27	45	36	31	27	35	30	27	34	30	27	34	29	26	25			
9	42	33	27	24	41	33	27	23	32	27	23	31	27	23	30	26	23	22			
10	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
0-30	1380	24.6	34.4
0-40	2196	39.2	54.8
0-60	3452	61.6	86.1
0-90	4011	71.6	100.0
0-180	4011	71.6	100.0

Typical VCP Percentages

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

Candlepower

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

ORDERING INFORMATION

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

Width Blank =1' Width	Number of Lamps Z =2Lamps (Not included)	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 < 0%. 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 ⁽⁶⁾ 5LT8 =T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 ⁽⁸⁾ 5LTVS8 =T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87 ⁽⁷⁾ Fifth Light DALI Ballasts ⁽⁶⁾ 5LT8 =T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	Options RLS =Rotor Lock Socket (T8 Lamp only) 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 ⁽¹⁾
Trim Type G =Grid/Lay-in (Standard) ⁽¹⁾ G =Concealed T G =Slot Grid F =Flange Trim C =Modular Trim Series C8 =Specification T8 Troffer Type IC =IC Rated 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	Wattage 28T8 =28W T8 (48") ⁽⁴⁾ 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 ⁽²⁾ 120V =120 Volt 277V =277 Volt 347V =347 Volt UNV =Universal Voltage 120-277 ⁽³⁾ Options GL =Single Element Fuse GM =Double Element Fuse Flex =Flex Installed EL =Emergency Installed ⁽⁹⁾		

NOTES: ⁽¹⁾ An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. ⁽²⁾ Products also available in non-US voltages and frequencies for international markets. ⁽³⁾ Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾ When utilizing 28W T8 lamps, HPT8 ballast must be specified. ⁽⁵⁾ For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽⁶⁾ 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽⁷⁾ Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. ⁽⁸⁾ Standard 0-10V ballast not available for 28W T8 lamps. ⁽⁹⁾ 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