

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.

SPECIFICATION FEATURES

Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length dieformed 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 KOs 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 mounting bolts. 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. Light stabilized, acrylic prismatic lens. Standard #12 pattern. Numerous additional shielding options available.

Controls

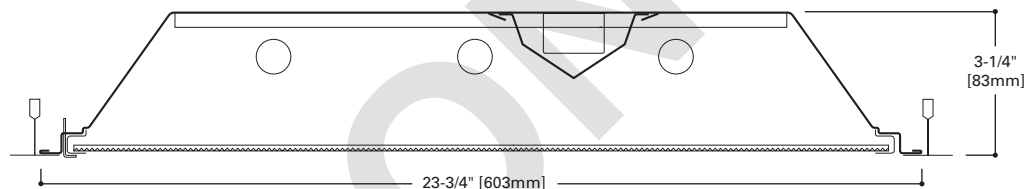
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.



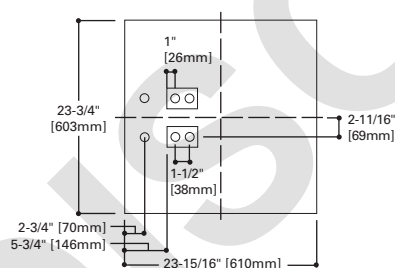
2GC8
317
3U1-5/8

2' X 2' TROFFER
3 LAMPS

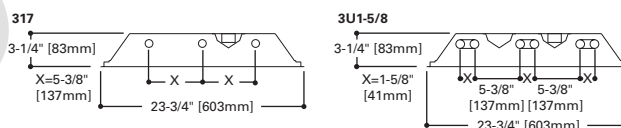
Specification T8 Troffer



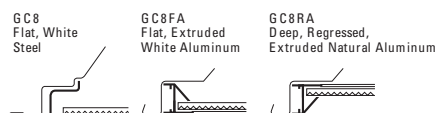
MOUNTING DATA



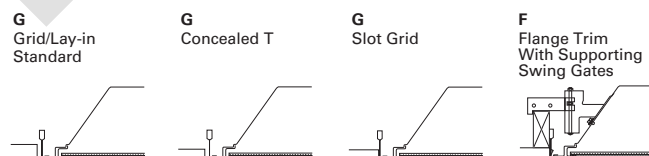
LAMP CONFIGURATIONS



DOOR FRAMES



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

317 (56), 3U1-5/8 (88)

ES Ballast & STD Lamps

317 (68), 3U1-5/8 (105)

Luminaire Efficacy Rating

LER = FL-63

Catalog Number: 2GC8-317

Yearly Cost of 1000 lumens,

3000 hrs at .08 KWH = \$3.81

*Reference the lamp/ballast data in the Technical

Section for specific lamp/ballast requirements.

**Consult Pre Sales Technical Support.

***Full sized ballast cover for biaxial lamps and

emergency option may apply.

****When ordering Flange Kit for installation

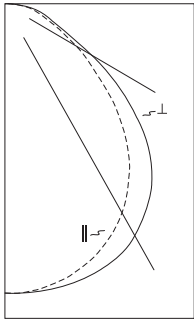
in drywall ceilings, see options and accessories

compatibility section and ordering logic.

LINEAR DISCONNECT

Designed to provide safe and convenient means of disconnecting power

PHOTOMETRICS

**2GC8-317A**

Electronic Ballast

(3) F17/SPX35

T8 lamps

1300 lumens

Spacing criterion:

(II) 1.2 x mounting

height, (⊥) 1.3 x

mounting height

Efficiency 75.5%

Test Report:

2GC8317A.IES

LER = FL-63

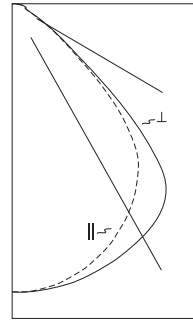
Yearly Cost of 1000

lumens, 3000 hrs at

.08 KWH = \$3.81

Candela

Angle	Along II	45°	Across ⊥
0	1213	1213	1213
5	1210	1209	1215
10	1191	1198	1211
15	1161	1180	1202
20	1120	1151	1184
25	1064	1111	1156
30	994	1056	1106
35	905	980	1040
40	804	884	960
45	683	760	851
50	553	620	708
55	435	486	559
60	335	347	404
65	250	229	284
70	186	154	213
75	143	121	171
80	107	102	125
85	56	60	63
90	0	0	0

**2GC8-317A156**

Electronic Ballast

(3) F17/SPX35

T8 lamps

1300 lumens

Spacing criterion:

(II) 1.2 x mounting

height, (⊥) 1.4 x

mounting height

Efficiency 72.6%

Test Report:

2GC8317A19_156.IES

LER = FL-60

Yearly Cost of 1000

lumens, 3000 hrs at

.08 KWH = \$4.00

Candela

Angle	Along II	45°	Across ⊥
0	1344	1344	1344
5	1340	1339	1344
10	1319	1324	1336
15	1283	1298	1320
20	1234	1263	1297
25	1172	1219	1270
30	1102	1163	1241
35	1015	1094	1199
40	905	982	1115
45	700	748	861
50	435	511	489
55	267	393	282
60	158	268	164
65	91	168	94
70	65	95	69
75	63	59	67
80	52	34	54
85	29	26	31
90	0	0	0

Coefficients of Utilization

Effective floor cavity reflectance																20%			30%			10%			0%
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	90	90	90	90	88	88	88	88	84	84	84	80	80	80	77	77	77	76							
1	83	79	76	74	81	78	75	72	74	72	70	72	70	68	69	67	66	64							
2	76	70	65	61	74	69	64	60	66	62	59	64	60	58	61	59	56	55							
3	70	62	56	52	68	61	56	51	59	54	50	57	53	49	55	51	49	47							
4	64	55	49	44	62	54	49	44	53	48	43	51	46	43	49	45	42	41							
5	59	50	43	39	58	49	43	38	47	42	38	46	41	38	45	41	37	36							
6	55	45	39	34	53	44	38	34	43	38	34	42	37	33	41	36	33	31							
7	51	41	35	30	50	40	34	30	39	34	30	38	33	30	37	33	29	28							
8	47	38	31	27	46	37	31	27	36	31	27	35	30	27	34	30	27	25							
9	44	35	29	24	43	34	28	24	33	28	24	32	28	24	32	27	24	23							
10	42	32	26	22	41	32	26	22	31	26	22	30	25	22	29	25	22	21							

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	960	23.7	31.4
0-40	1569	38.7	51.3
0-60	2594	64.1	84.8
0-90	3059	75.5	100.0
0-180	3059	75.5	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3394	3776	4228
55	2665	2977	3424
65	2078	1904	2361
75	1941	1643	2321
85	2258	2419	2540

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	86	86	86	86	84	84	84	84	81	81	81	77	77	77	74	74	74	73
1	80	77	75	72	78	76	73	71	73	71	69	70	68	67	67	66	65	64
2	74	69	65	61	72	68	64	61	65	62	59	63	60	58	61	59	57	55
3	69	62	57	53	67	61	56	52	59	55	51	57	53	51	55	52	50	48
4	64	56	50	46	62	55	50	46	53	49	45	52	48	45	50	47	44	43
5	59	51	45	40	57	50	44	40	48	44	40	47	43	39	46	42	39	38
6	55	46	40	36	53	45	40	36	44	39	36	43	39	35	42	38	35	34
7	51	42	36	32	50	41	36	32	40	35	32	39	35	32	38	34	31	30
8	48	39	33	29	47	38	33	29	37	32	29	36	32	29	36	31	28	27
9	45	36	30	26	44	35	30	26	34	30	26	34	29	26	33	29	26	25
10	42	33	28	24	41	33	27	24	32	27	24	31	27	24	31	27	24	22

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1058	26.1	36.0
0-40	1743	43.0	59.3
0-60	2649	65.4	90.1
0-90	2940	72.6	100.0
0-180	2940	72.6	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	3478	3717	4278
55	1636	2407	1727
65	757	1397	781
75	855	801	910
85	1169	1048	1250

ORDERING INFORMATION

SAMPLE NUMBER: 2GC8-317A-UNV-EB81-U

Rating⁽⁶⁾

Blank=
Standard
ATW-SW4=
Chicago
Rated

Width

2-2' Width

Trim Type

G=Grid/Lay-in⁽¹⁾
(Standard)
G=Concealed T
G=Slot Grid
F=Flange Trim

Series

C8=Specification T8 Troffer

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⁾

3 Lamps
(Not included)

Wattage

17=17W T8 (24")

U1-5/8=31W T8 (24")⁽¹⁰⁾

Shielding

A=#12 Acrylic Pattern

A125=#12 Pattern Acrylic (.125"
Thickness)

A19/156=#19 Pattern Acrylic
(.156" Thickness)

Option – Aluminum Flange Trim⁽⁷⁾

Blank=SW (Single White)

Type	Color
'S' Single	'N' Natural
'R' In Row	'W' White
'E' End of Row	

Voltage⁽³⁾

347V=347 Volt

UNV=Universal Voltage 120-277⁽⁴⁾

Options

GL=Single Element Fuse

GM=Double Element Fuse

Flex=Flex Installed

EL=Emergency Installed⁽¹¹⁾

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

Fifth Light DALI Ballasts⁽⁸⁾

5LT8= T8 DALI Program Rapid Start.
Total Harmonic Distortion < 10%.
Ballast Factor 1.0

Number of Ballasts

1=1 Ballast

2=2 Ballasts

3=3 Ballasts

Options

LAO=Less Access

Opening⁽⁹⁾

FR=Fire Rated Label

REP=Riveted End Plates

PAF=Painted After
Fabrication

Packaging

U=Unit Pack

PAL=Job Pack, out of carton

PALC=Job Pack, in carton

NOTES: ⁽¹⁾An EQ Grid Clip is recommended for all 9/16" ceiling systems. ⁽²⁾Standard off-center ballast compartment on 3-lamp fixtures. ⁽³⁾Products also available in non-US voltages and frequencies for international markets. ⁽⁴⁾Not available when specifying emergencies, voltage must be specific. ⁽⁵⁾Consult Pre Sales Technical Support. ⁽⁶⁾For NYC rated product, see separate specification sheets. ⁽⁷⁾Specify row configuration, type in catalog number when ordering complete fixture. ⁽⁸⁾Not available in UNV voltages. Must specify voltage. ⁽⁹⁾For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrol.com. ⁽¹⁰⁾Fifthlight ballast option not available. ⁽¹¹⁾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⁽¹⁾

FCTKA-22W-U=Field Installed Flange Kit

FCTK

Trim Kit
Field
Convertible

Aluminum

A – 24

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

Blank=Single
R=In Row
E=End Row

R, W – U

N=Natural
W=White

U=Unit Pack

SHIPPING DATA

Catalog No.

2GC8-3U1-5/8A

2GC8-317A

Wt.

12 lbs.

12 lbs.