

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.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Rigid housing is die formed of code gauge prime cold rolled steel and features full length die-formed 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. 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. Rotor-lock lampholders ensure positive lamp retention. 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 Lighting Solutions (www.cooperlighting.com) to maximize energy savings.



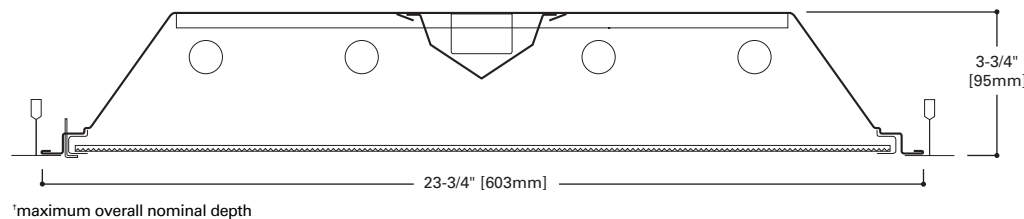
2GC8

217

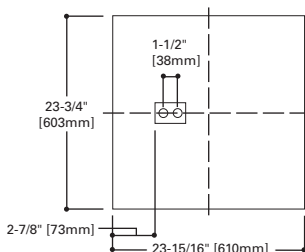
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**2' X 2' TROFFER
2 OR 4 LAMPS**

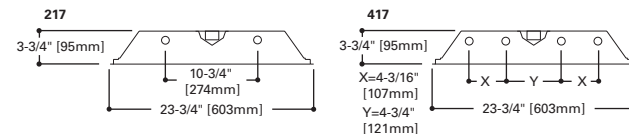
Specification T8 Troffer
New York City Rated



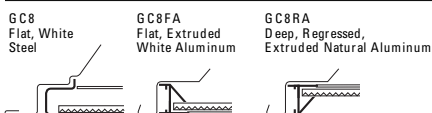
MOUNTING DATA



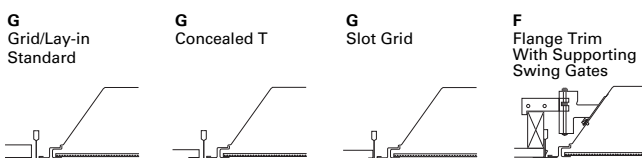
LAMP CONFIGURATIONS



DOOR FRAMES



CEILING COMPATIBILITY



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

(Verify compatibility/ consult factory.)

COOPER LIGHTING SOLUTIONS

ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
217 (36), 417 (63)

HB Ballast & STD Lamps
217 (31), 417 (59)

Luminaire Efficacy Rating
LER = FL-55
Catalog Number: 2GC8-217A

Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$4.36

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

**Consult Pre Sales Technical Support.

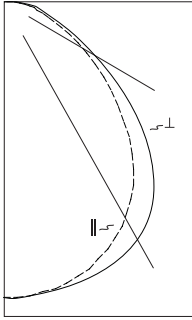
***Full sized ballast cover for biaxial lamps and emergency option.

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

LINEAR DISCONNECT
Safe and convenient means of disconnecting power.

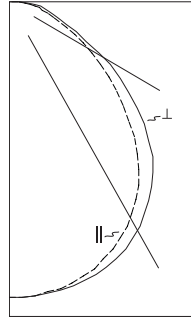
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2GC8-217A
 Electronic Ballast
 (2) F017/35K 17W lamps
 1300 lumens
 Spacing criterion:
 (||) 1.2 x mounting height,
 (⊥) 1.4 x mounting height
 Efficiency 76.9%
 Test Report:
 2GC-217A.IES
 LER = FL-55
 Yearly Cost of 1000 lumens,
 3000 hrs at .08 KWH = \$4.36

Candela			
Angle	Along	45°	Across ⊥
0	761	761	761
5	759	759	761
10	749	753	758
15	732	742	754
20	707	726	745
25	673	704	731
30	631	673	710
35	579	628	682
40	517	567	638
45	441	495	565
50	363	421	474
55	291	339	377
60	225	248	283
65	168	166	203
70	124	104	146
75	92	73	113
80	69	59	87
85	40	35	51
90	0	0	0



2GC8-417A
 Electronic Ballast
 (4) F017/35K 17W lamps
 1300 lumens
 Spacing criterion:
 (||) 1.2 x mounting height,
 (⊥) 1.3 x mounting height
 Efficiency 72.6%
 Test Report:
 2GC8-417A.IES
 LER = FL-56
 Yearly Cost of 1000 lumens,
 3000 hrs at .08 KWH = \$4.28

Candela			
Angle	Along	45°	Across ⊥
0	1514	1514	1514
5	1511	1509	1512
10	1491	1494	1501
15	1456	1467	1481
20	1406	1425	1447
25	1337	1368	1397
30	1250	1291	1328
35	1144	1188	1244
40	1016	1056	1142
45	864	908	1007
50	708	762	850
55	564	614	689
60	432	454	523
65	318	305	373
70	234	194	269
75	174	136	208
80	130	110	159
85	75	63	92
90	0	0	0

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%			70%			50%			30%			10%			0%		
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	92	92	92	92	89	89	89	89	85	85	85	82	82	82	78	78	78	77
1	84	81	77	75	82	79	76	73	76	73	71	73	71	69	70	68	67	65
2	77	71	66	62	75	70	65	61	67	63	60	64	61	58	62	59	57	55
3	71	63	57	52	69	62	56	52	59	55	51	57	53	50	55	52	49	47
4	65	56	50	45	63	55	49	44	53	48	44	51	47	43	50	46	43	41
5	60	50	44	39	58	49	43	39	48	42	38	46	42	38	45	41	37	36
6	55	45	39	34	54	45	38	34	43	38	34	42	37	33	41	36	33	31
7	51	41	35	30	50	41	34	30	40	34	30	38	33	30	37	33	29	28
8	48	38	31	27	47	37	31	27	36	31	27	35	30	27	34	30	26	25
9	45	35	29	24	44	34	28	24	33	28	24	33	28	24	32	27	24	23
10	42	32	26	22	41	32	26	22	31	26	22	30	25	22	29	25	22	20

Coefficients of Utilization

rc	Effective floor cavity reflectance																	
	80%			70%			50%			30%			10%			0%		
	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	76	73	71	78	75	72	70	72	69	67	69	67	65	66	65	63	62
2	73	67	63	59	71	66	62	58	63	60	57	61	58	55	59	56	54	53
3	67	60	54	50	65	59	53	49	56	52	48	54	51	47	53	49	47	45
4	62	53	47	43	60	52	47	42	51	46	42	49	45	41	47	44	41	39
5	57	48	42	37	55	47	41	37	46	40	36	44	40	36	43	39	36	34
6	53	43	37	33	51	43	37	32	41	36	32	40	35	32	39	35	32	30
7	49	39	33	29	48	39	33	29	38	32	29	37	32	28	36	31	28	27
8	46	36	30	26	44	36	30	26	35	29	26	34	29	26	33	29	25	24
9	43	33	27	23	42	33	27	23	32	27	23	31	27	23	30	26	23	22
10	40	31	25	21	39	30	25	21	30	25	21	29	24	21	28	24	21	20

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	606	23.3	30.3
0-40	998	38.4	50.0
0-60	1680	64.6	84.1
0-90	1998	76.9	100.0
0-180	1998	76.9	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2059	2312	2638
55	1675	1952	2170
65	1313	1297	1586
75	1174	931	1442
85	1515	1326	1932

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1187	22.8	31.4
0-40	1930	37.1	51.1
0-60	3188	61.3	84.4
0-90	3777	72.6	100.0
0-180	3777	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	4035	4240	4702
55	3247	3535	3967
65	2485	2383	2914
75	2220	1735	2564
85	2481	2387	3486

ORDERING INFORMATION

SAMPLE NUMBER: NY2GC8-217A-UNV-EB81-U

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

Width
2=2' Width

Trim Type
G=Grid/Lay-in (Standard)⁽¹⁾
G=Concealed T
G=Slot Grid
F=Flange 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 or **4** Lamps (Not included)

Wattage (Length)
17=17W T8 (24")

Shielding
A=#12 Acrylic Pattern
A125=#12 Acrylic Pattern (.125" Thickness)
A19/156=#19 Acrylic Pattern (.156" Thickness)
DA=Dropped Dish - Matte White Acrylic
IMA 48=Injection Molded Acrylic (.150" Thickness)

Voltage
120V=120 Volt
277V=277 Volt
347V=347 Volt
UNV=Universal Voltage 120-277⁽³⁾

Options
GL=Single Element Fuse
GM=Double Element Fuse
Lamps=Lamps Installed
Flex=Flex Installed
EL=Emergency Installed⁽⁹⁾

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⁽⁵⁾

SLTV8_ =T8 0-10V Program Rapid Start.
 Total Harmonic Distortion < 10%.
 Ballast Factor 0.87⁽⁸⁾

SLTVS8_ =T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%.
 Ballast Factor 0.87^{(6),(7)}

Fifth Light DALI Ballasts⁽⁴⁾

SLT8_ =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
FR=Fire Rated Label
MEP=Modified End Plates
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⁾

NOTES: ⁽¹⁾An EQ Grid Clip is recommended for all 9/16" ceiling systems. ⁽²⁾Standard off-center ballast on 3-lamp fixtures. ⁽³⁾Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾For a complete listing of Fifthlight Technology products and other solutions from Cooper Lighting Solutions, visit www.cooperlighting.com. ⁽⁵⁾0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽⁶⁾Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. ⁽⁷⁾Specification Grade 0-10V ballast not offered in 3 or 4-lamp versions. ⁽⁸⁾Standard 0-10V ballast not offered in 3 or 4-lamp versions. ⁽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 INFORMATION

Catalog No.	Wt.
NY2GC8-217A	19 lbs.
NY2GC8-417A	21 lbs.