

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 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. 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 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
2U1-5/8, 2U6T8
2BX40

2' X 2' TROFFER
2 OR 4 LAMPS

Specification T8 Troffer
New York City Rated



ENERGY DATA

Input Watts:

EB Ballast & STD Lamps
2BX40 (67), 2U1-5/8 (61), 2U6T8 (61)

STD Ballast & STD Lamps
2BX40 (82)

HB Ballast & STD Lamps
2U1-5/8 (54), 2U6T8 (54)

Luminaire Efficacy Rating

LER = FL-56

Catalog Number: 2GC8-2U6T8A
Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$4.29

LER = FL-59

Catalog Number: 2GC8-2BX40A
Yearly Cost of 1000 lumens,
3000 hrs at .08 KWH = \$4.08

*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.

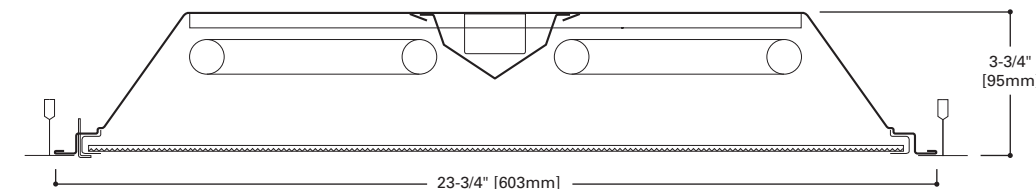
LAMPS CONTAIN MERCURY. DISPOSE ACCORDING TO LOCAL, STATE OR FEDERAL LAWS

LINEAR DISCONNECT

Safe and convenient means of disconnecting power.

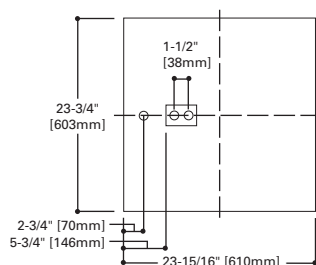


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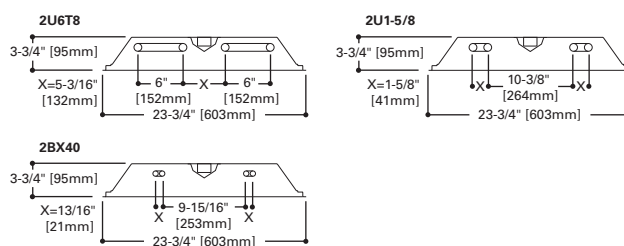


*maximum overall nominal depth

MOUNTING DATA



LAMP CONFIGURATIONS

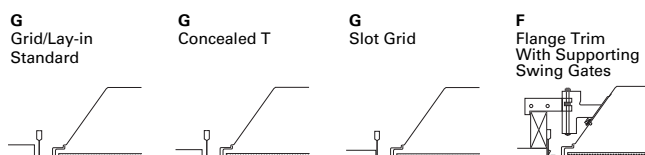


DOOR FRAMES

GC8 Flat, White Steel
GC8FA Flat, Extruded White Aluminum
GC8RA Deep, Regressed, Extruded Natural Aluminum



CEILING COMPATIBILITY

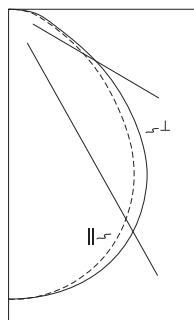


Ceiling Type **Trim Type**

Exposed Grid G
Concealed T G
Slot Grid G
Flange F

(Verify compatibility/ consult factory.)

PHOTOMETRICS



2GC8-2U6T8A
 Electronic Ballast
 (2) FB31T8/TL741/6
 lamps
 2600 lumens
 Spacing criterion:
 (II) 1.2 x mounting
 height, (L) 1.3 x
 mounting height
 Efficiency 74.6%
 Test Report:
 2GC82U6T8A.IES
 LER = FL-56
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$4.29

Candela				
Angle	Along II	45°	Across ⊥	
0	1567	1567	1567	
5	1563	1560	1564	
10	1541	1544	1552	
15	1503	1514	1530	
20	1449	1468	1494	
25	1376	1407	1439	
30	1285	1325	1365	
35	1178	1216	1275	
40	1048	1079	1166	
45	894	926	1025	
50	736	777	861	
55	591	625	694	
60	454	462	525	
65	333	311	375	
70	242	197	273	
75	180	139	213	
80	135	112	163	
85	76	64	94	
90	0	0	0	

Coefficients of Utilization

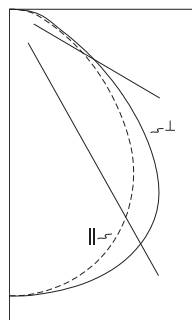
rc	Effective floor cavity reflectance 20%																											
	80%				70%				50%				30%				10%				0%							
	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																												
0	89	89	89	89	87	87	87	87	83	83	83	79	79	79	76	76	76	75										
1	82	78	75	73	80	77	74	71	73	71	69	71	69	67	68	66	65	64										
2	75	69	64	60	73	68	63	60	65	61	58	63	60	57	60	58	56	54										
3	69	61	56	51	67	60	55	51	58	53	50	56	52	49	54	51	48	46										
4	63	55	49	44	62	54	48	43	52	47	43	50	46	42	49	45	42	40										
5	58	49	43	38	57	48	42	38	47	42	38	45	41	37	44	40	37	35										
6	54	45	38	34	53	44	38	33	43	37	33	41	36	33	40	36	33	31										
7	50	41	34	30	49	40	34	30	39	33	30	38	33	29	37	32	29	28										
8	47	37	31	27	46	37	31	27	36	30	27	35	30	26	34	29	26	25										
9	44	34	28	24	43	34	28	24	33	28	24	32	27	24	31	27	24	22										
10	41	32	26	22	40	31	26	22	30	25	22	30	25	22	29	25	22	20										

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1225	23.6	31.6
0-40	1989	38.2	51.3
0-60	3277	63.0	84.5
0-90	3878	74.6	100.0
0-180	3878	74.6	100.0

Typical VCP Percentages

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
20 x 20	61	65	58	62
30 x 30	54	58	51	55
30 x 60	45	48	40	44
60 x 30	56	60	55	59
60 x 60	46	49	42	46



2GC8-2BX40A
 Electronic Ballast
 (2) F40BX/SP35/RS
 lamps
 3150 lumens
 Spacing criterion:
 (II) 1.2 x mounting
 height, (L) 1.4 x
 mounting height
 Efficiency 78.6%
 Test Report:
 2GC82BX40A.IES
 LER = FL-59
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$4.08

Candela				
Angle	Along II	45°	Across ⊥	
0	1941	1941	1941	
5	1933	1936	1942	
10	1906	1920	1935	
15	1861	1893	1925	
20	1796	1853	1905	
25	1707	1795	1869	
30	1596	1711	1810	
35	1460	1590	1720	
40	1298	1426	1575	
45	1103	1235	1361	
50	905	1031	1111	
55	722	809	861	
60	554	581	640	
65	410	385	460	
70	302	244	340	
75	225	175	271	
80	168	142	212	
85	97	84	125	
90	0	0	0	

Coefficients of Utilization

rc	Effective floor cavity reflectance 20%																											
	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	50	30	10	
RCR																												
0	94	94	94	94	91	91	91	91	87	87	87	84	84	84	80	80	80	79										
1	86	83	79	77	84	81	78	75	77	75	73	74	72	71	72	70	69	67										
2	79	73	68	64	77	71	67	63	69	65	61	66	63	60	64	61	59	57										
3	72	65	59	54	70	63	58	53	61	56	52	59	55	51	57	54	51	49										
4	67	58	51	46	65	57	51	46	55	49	45	53	48	45	51	47	44	42										
5	61	52	45	40	60	51	45	40	49	44	40	48	43	39	46	42	39	37										
6	57	47	40	35	55	46	40	35	45	39	35	43	38	35	42	38	34	33										
7	53	43	36	31	52	42	36	31	41	35	31	40	35	31	39	34	31	29										
8	49	39	33	28	48	38	32	28	37	32	28	36	31	28	36	31	28	26										
9	46	36	30	25	45	35	29	25	35	29	25	34	29	25	33	28	25	24										
10	43	33	27	23	42	33	27	23	32	27	23	31	26	23	31	26	23	21										

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1546	24.5	31.2
0-40	2539	40.3	51.3
0-60	4198	66.6	84.8
0-90	4951	78.6	100.0
0-180	4951	78.6	100.0

Typical VCP Percentages

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
20 x 20	55	60	52	56
30 x 30	49	53	46	50
30 x 60	39	43	34	38
60 x 30	51	55	49	53
60 x 60	40	43	36	40

ORDERING INFORMATION

SAMPLE NUMBER: NY2GC8-2U6T8A-120V-EB81-U

<p>Rating NY=New York City Rated (20 Gauge Riveted End Plates)</p> <p>Width 2=2' Width</p> <p>Trim Type G=Grid/Lay-in (Standard)⁽²⁾ G=Concealed T G=Slot Grid F=Flange Trim</p> <p>Series C8=Specification T8 Troffer</p>	<p>Number of Lamps 2=2 Lamps 4=4 Lamps</p> <p>Wattage (Length) U6T8=32W T8 (24")⁽⁸⁾ U1-5/8=31W T8 (24")⁽⁷⁾ BX40=40W Biax (24")</p> <p>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)</p>	<p>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% EB5_=T5 Biax Electronic Instant Start. Total Harmonic Distortion < 20%⁽¹¹⁾ TEB5_=T5 Biax Electronic Instant Start. Total Harmonic Distortion < 10%⁽¹¹⁾ ER5_= T5 Biax 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⁽⁹⁾ 5LTV8_=T8 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87^{(13),(14)} 5LTVS8_=T8 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 0.87^{(10),(11),(12)} Fifth Light DALI Ballasts⁽⁶⁾ 5LT8_=T8 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LT5B_= T5 Biax DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0</p>	<p>Options FR=Fire Rated Label Plates MEP=Modified End Plates PAF=Painted After Fabrication (see options & accessories)</p> <p>Packaging U=Unit Pack PAL=Job Pack, out of carton PALC=Job Pack, in carton</p>
<p>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</p>	<p>Voltage 120V=120 Volt 277V=277 Volt 347V=347 Volt UNV=Universal Voltage 120-277⁽⁵⁾</p> <p>Options GL=Single Element Fuse GM=Double Element Fuse Lamps=Lamps Installed Flex=Flex Installed EL=Emergency Installed⁽¹⁵⁾</p>	<p>ACCESSORIES EQ-CLIP-U=T-BAR Safety Earthquake Clips⁽²⁾</p>	

NOTES: ⁽¹⁾ Integral end plate grid lock feature not available in heat removal. ⁽²⁾ An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. ⁽³⁾ Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾ Specify row configuration, type in catalog number when ordering complete fixture. ⁽⁵⁾ Fixtures equipped with "EL" option may require a 5-1/2" housing depth. If installing in field, must use low profile battery pack. ⁽⁶⁾ For a complete listing of Fifthlight Technology products and other solutions from Cooper Lighting Solutions, visit www.cooperlighting.com. ⁽⁷⁾ Fifthlight ballast option not available. ⁽⁸⁾ Ballast Factor is 0.88 for 4 lamp 32W T8 fixtures. ⁽⁹⁾ 0-10V ballast do not include DALI feature. Please select DALI ballast for use with Fifth Light system. ⁽¹⁰⁾ Specification grade 0-10V dimming ballast are NEMA premium and CEE listed. They are compatible with low mercury and energy saving lamps. ⁽¹¹⁾ Specification Grade 0-10V ballast not available for Biax lamps. ⁽¹²⁾ Specification Grade 0-10V ballast not offered in 3 or 4-lamp versions. ⁽¹³⁾ Standard 0-10V ballast not available for Biax lamps. ⁽¹⁴⁾ Standard 0-10V ballast not offered in 3 or 4-lamp versions. ⁽¹⁵⁾ Please specify required voltage, 120V or 277V.

For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Solutions Representative for availability and ordering information.

SHIPPING INFORMATION

Catalog No.	Wt.
NY2GC8-2U6T8A	18 lbs.
NY2GC8-2U1-5/8A	18 lbs.
NY2GC8-2BX40	18 lbs.

