

DESCRIPTION

The GR8 is a T8-dedicated lensed troffer designed to offer premium performance in a low profile housing. T8 dedication and optimized lamp to lens spacing provides the best in energy efficiency and optical control. The GR8's shallow, low profile housing is compatible with even highly restrictive plenums. Luminaires are compatible with today's popular ceiling systems.

APPLICATION

The GR8 offers great performance and great quality. The series is an excellent choice for commercial offices, schools, hospitals, retail merchandising and many other applications.

SPECIFICATION FEATURES

A... Construction

Unitized low profile recessed housing is die formed of code gauge prime cold rolled steel with full length stiffeners and mechanical endplate attachment for added strength. Ballast cover is easily removed without tools. Die formed captive lampholder bracket fully encloses lampholder wiring for easy lampholder replacement. Ample KOs are provided for continuous row wiring. Built-in grid-lock feature for safety and convenience. Standard unit is NYC Approved. (No modifications necessary).

B... Electrical**

Ballasts are CBM/ETL Class "P" and are positively secured by mounting bolts. Pressure lock lampholders. UL/CUL listed. Suitable for damp locations.

C... Finish

Multistage, iron phosphate pretreatment ensures maximum bonding and rust inhibition. Lighting grade baked white enamel finish with premium reflectance for high efficiency.

D... Hinging/Latching

Positive spring loaded cam action steel latches and safety lock T-hinges provide secure, high quality door fit and allow hinging and latching from either side.

E... Frame/Shielding

Heavy gauge flat steel door is die formed with reinforced mitered corners. Housing and door frame assemblies incorporate full length and width mechanical light traps. Light stabilized, acrylic prismatic lens.

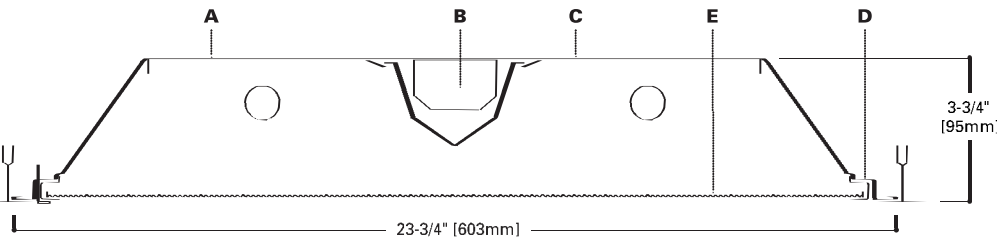
Catalog #	Type
Project	
Comments	
Prepared by	Date



2GR8232 432

2' X 4' TROFFER
2 OR 4 LAMP

General Purpose
T8 Commercial Troffer



ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
 232 (61)
 432 (122)

ES Ballast & STD Lamps
 232 (71)
 432 (142)

Luminaire Efficacy Rating
LER = FL-67
Catalog Number: 2GR8-232A

**Yearly Cost of 1000 lumens,
 3000 hrs at .08 KWH = \$3.58**

Luminaire Efficacy Rating
LER = FL-68
Catalog Number: 2GR8-432A

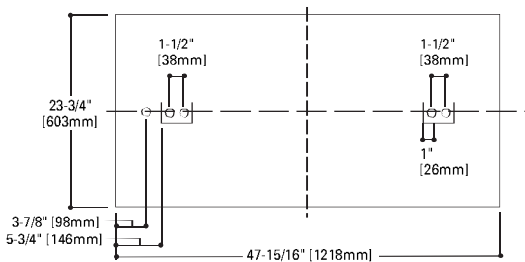
**Yearly Cost of 1000 lumens,
 3000 hrs at .08 KWH = \$3.53**

*Standard G (Grid) Type Fixtures can be field converted by adding trim kits. See Compatibility Section or Consult Factory.

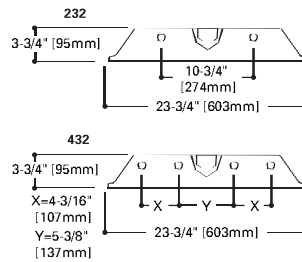
**Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

***Order FCS-24W-U Flange Kit for installation in drywall ceiling. See options and accessories compatibility section.

MOUNTING DATA

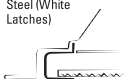


LAMP CONFIGURATIONS

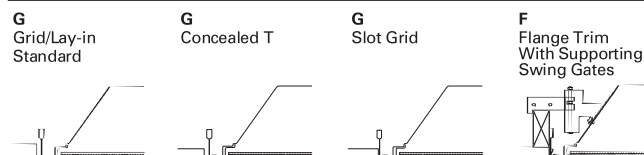


DOOR FRAMES

2GR8
 Flat, White
 Steel (White
 Latches)



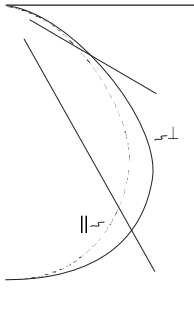
CEILING COMPATIBILITY



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

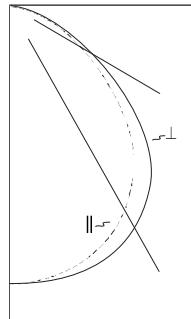


PHOTOMETRICS



2GR8-232A
 Electronic Ballast
 F32T8/35K lamps
 2800 lumens
 Spacing criterion:
 (H) 1.2 x mounting
 height, (L) 1.4 x
 mounting height
 Efficiency 79.8%
 Test Report:
 2GR8232A.IES
 LER = FL-67
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.58

Candela			
Angle	Along H	45°	Across L
0	1697	1697	1697
5	1689	1696	1705
10	1669	1685	1703
15	1636	1665	1694
20	1586	1632	1673
25	1518	1582	1634
30	1430	1512	1582
35	1320	1427	1517
40	1188	1318	1422
45	1031	1162	1271
50	843	964	1046
55	657	740	796
60	501	528	581
65	378	353	405
70	277	232	294
75	196	172	231
80	143	144	176
85	77	85	97
90	0	0	0



2GR8-432A
 Electronic Ballast
 F32T8/35K lamps
 2800 lumens
 Spacing criterion:
 (H) 1.2 x mounting
 height, (L) 1.4 x
 mounting height
 Efficiency 75.5%
 Test Report:
 2GR8432A.IES
 LER = FL-68
 Yearly Cost of 1000
 lumens, 3000 hrs at
 .08 KWH = \$3.53

Candela			
Angle	Along H	45°	Across L
0	3299	3299	3299
5	3281	3295	3310
10	3241	3274	3306
15	3176	3233	3284
20	3079	3164	3236
25	2946	3059	3145
30	2772	2911	3012
35	2555	2721	2841
40	2296	2480	2612
45	1989	2162	2293
50	1621	1770	1890
55	1262	1357	1442
60	957	970	1043
65	716	649	736
70	520	430	542
75	368	321	427
80	269	269	327
85	147	160	185
90	0	0	0

Coefficients of Utilization

rc RCR	Effective floor cavity reflectance 20%																	
	80%		70%		50%		30%											
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	95	95	95	95	93	93	93	93	89	89	89	85	85	85	81	81	81	80
1	88	85	82	79	86	83	80	78	79	77	75	76	74	73	73	72	71	69
2	81	75	70	66	79	74	69	66	71	67	64	68	65	63	66	64	61	60
3	75	67	62	57	73	66	61	56	64	59	55	62	58	55	60	56	54	52
4	69	60	54	49	67	59	53	49	57	52	48	56	51	47	54	50	47	45
5	63	54	47	42	62	53	47	42	51	46	42	50	45	41	48	44	41	39
6	58	48	42	37	57	48	41	37	46	41	36	45	40	36	44	39	36	34
7	54	44	37	32	53	43	37	32	42	36	32	41	35	32	40	35	31	30
8	50	39	32	28	48	39	32	28	38	32	28	37	31	28	36	31	27	26
9	46	35	29	24	45	35	28	24	34	28	24	33	28	24	32	27	24	22
10	42	32	26	21	41	31	25	21	31	25	21	30	25	21	29	24	21	20

Coefficients of Utilization

rc RCR	Effective floor cavity reflectance 20%																	
	80%		70%		50%		30%											
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	90	90	90	90	88	88	88	88	84	84	84	80	80	80	77	77	77	75
1	83	80	77	75	81	78	76	73	75	73	71	72	71	69	70	68	67	65
2	77	71	67	63	75	70	66	62	67	64	61	65	62	59	63	60	58	57
3	71	64	58	54	69	63	58	54	61	56	53	59	55	52	57	54	51	49
4	65	57	51	47	64	56	51	46	54	50	46	53	49	45	51	48	45	43
5	60	51	45	40	59	50	44	40	49	44	40	47	43	39	46	42	39	37
6	56	46	40	35	54	45	39	35	44	39	35	43	38	34	42	37	34	33
7	51	42	35	31	50	41	35	31	40	34	30	39	34	30	38	33	30	29
8	47	37	31	27	46	37	31	27	36	30	27	35	30	26	34	30	26	25
9	43	33	27	23	42	33	27	23	32	27	23	31	26	23	31	26	23	21
10	40	30	24	21	39	30	24	20	29	24	20	29	24	20	28	23	20	19

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	1360	24.3	30.4
0-40	2249	40.2	50.3
0-60	3788	67.6	84.7
0-90	4471	79.8	100.0
0-180	4471	79.8	100.0

Typical VCP Percentages

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
20 x 20	73	77	71	75
30 x 30	68	72	65	69
30 x 60	60	63	56	59
60 x 30	69	73	68	71
60 x 60	60	63	57	60

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	2634	23.5	31.2
0-40	4327	38.6	51.2
0-60	7184	64.1	85.0
0-90	8452	75.5	100.0
0-180	8452	75.5	100.0

Typical VCP Percentages

Room Size (Ft.)	Height Along		Height Across	
	8.5'	10.0'	8.5'	10.0'
20 x 20	60	65	58	62
30 x 30	54	58	51	55
30 x 60	45	48	40	44
60 x 30	55	59	53	58
60 x 60	45	48	42	45

ORDERING INFORMATION

SAMPLE NUMBER: 2GR8-232A-120V-EB81-U

<p>2=2' Width</p>	<p>Number of Lamps⁽²⁾ 2 or 4 Lamps (Not included)</p>	<p>Ballast Type⁽³⁾ Blank=Standard Magnetic Ballast (Biax & 20W) LEOC8=T8 Magnetic Energy Saving ER8 = T8 Electronic Program Rapid Start. Total Harmonic Distortion < 10% No. of Ballast 1, 2 or 3 EB8 = T8 Electronic Instant Start. Total Harmonic Distortion < 20% No. of Ballast 1, 2 or 3 EB8 /PLUS= T8 Electronic Instant Start. High Ballast Factor >1.13. Total Harmonic Distortion < 20% No. of Ballast 1, 2 or 3 TEB8 =T8 Electronic Instant Start. Total Harmonic Distortion < 10% No. of Ballast 1, 2 or 3 DLS=Digital Lighting System Dimming</p>	<p>Options FCS-24W-U=Field Installed Flange Kit FR=Suitable for Fire Rated Applications EQ=T-BAR Safety Earthquake Clips⁽¹⁾ (See options & accessories)</p>	<p>Packaging U=Unit Pack</p>						
<p>Series GR8=General Purpose T8 Commercial Troffer⁽¹⁾</p>	<p>Wattage (Length) 32=32W T8 (48")</p> <p>A=#12 Pattern Acrylic A125=#12 Pattern Acrylic (.125" Thick) A19/156=#19 Pattern Acrylic (.156" Thick) IMA 48=Injection Moldeed Acrylic (.150" Thick) PB1S=Silver Parabolic Louver (1/2" x 1/2" x 1/2") (Additional shielding media available, see accessory section)</p> <p>Voltage⁽³⁾ 120V=120 Volt 277V=277 Volt 347V=347 Volt UNV=Universal Voltage 120-277⁽⁴⁾</p> <p>Options GL=Single Element Fuse GM=Double Element Fuse Lamps=Lamps Installed Flex=Flex Installed Emergency=EM Installed</p>	<p>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 may be specific.</p> <p>For complete product data, reference the Fluorescent Specification binder. Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.</p>								
<p>SHIPPING INFORMATION</p> <table border="1"> <thead> <tr> <th>Catalog No.</th> <th>Wt.</th> </tr> </thead> <tbody> <tr> <td>2GR8-232A</td> <td>29 lbs.</td> </tr> <tr> <td>2GR8-432A</td> <td>29 lbs.</td> </tr> </tbody> </table>					Catalog No.	Wt.	2GR8-232A	29 lbs.	2GR8-432A	29 lbs.
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