

DESCRIPTION

The GR5 is a T5-dedicated lensed troffer designed to offer premium performance in a low profile housing. The GR5's shallow, low profile housing is compatible with even highly restrictive plenums. Luminaires are compatible with today's popular ceiling systems.

The GR5 offers great performance and great quality. The series is an excellent choice for commercial offices, schools, hospitals, retail merchandising and many other applications.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

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 KO's are provided for continuous row wiring. Built-in grid-lock feature for safety and convenience.

Electrical**

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

Finish

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

Hinging/Latching

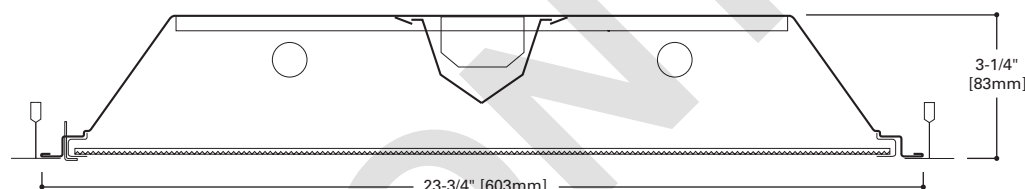
Positive spring loaded cam action steel latches and safety lock T-hinges provide secure, high quality door fit and allow hinging and latching from either side.

Frame/Shielding

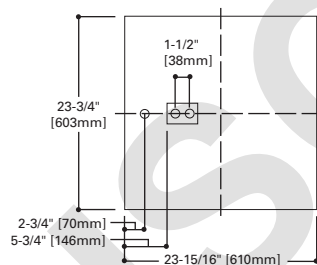
Heavy gauge flat steel door is die formed with reinforced mitered corners. Housing and door frame assemblies incorporate full width mechanical light traps. Light stabilized, acrylic prismatic lens.

Controls

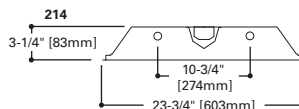
Fifth Light ballast options are offered for both 0-10V continuous dimming and DALI applications. Combine with energy-saving products like occupancy sensors, daylighting controls, and lighting relay panels from Cooper Controls (www.coopercontrol.com) to maximize energy savings.



MOUNTING DATA

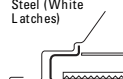


LAMP CONFIGURATIONS



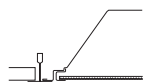
DOOR FRAMES

2GR5
Flat, White
Steel (White
Latches)

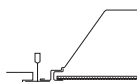


CEILING COMPATIBILITY

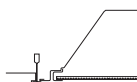
G
Grid/Lay-in
Standard



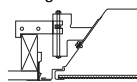
G
Concealed T



G
Slot Grid



F
Flange Trim
With Supporting
Swing Gates



**Ceiling
Type**

Exposed Grid
Concealed T
Slot Grid
Flange

**Trim
Type**

G
G
G
G***



2GR5
214T5
224T5

2' X 2' TROFFER
2 LAMP T5

General Purpose
T5 Commercial Troffer



ENERGY DATA

Input Watts:
EB Ballast & STD Lamps
214T5 (32), 224T5 (53)

Luminaire Efficacy Rating
LER = FL-60

Catalog Number: 2GR5-214T5
Yearly Cost of 1000 lumens, 3000
hrs at .08 KWH = \$4.00

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

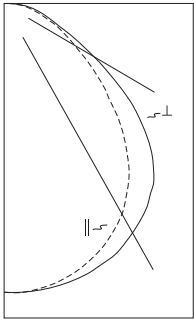
**Reference the lamp/ballast data in the Technical Section for specific lamp/ballast requirements.

***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

**2GR5-214T5A****Electronic Ballast**

(2) 14W T5 lamps
1300 lumens

Spacing criterion:
(H) 1.2 x mounting
height, (L) 1.3 x
mounting height

Efficiency 76.1%

Test Report:

2GR5-214T5A.IES

LER = FL-60

Yearly Cost of 1000
lumens, 3000 hrs at
.08 KWH = \$4.00

Coefficients of Utilization

		Effective floor cavity reflectance				20%				30%				10%				0%			
		80%				70%				50%				30%				10%			
		rc	rw	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
		RCR																			
		0	1	2	3	4	5	6	7	8	9	10	0	1	2	3	4	5	6	7	8
		91	83	76	70	64	59	55	51	48	45	42	85	75	66	59	53	49	46	42	38
		91	80	74	66	61	57	54	51	48	45	42	85	73	63	56	50	46	42	38	34
		91	77	71	63	58	54	51	48	45	42	39	85	71	61	54	48	44	40	36	32
		91	74	68	60	55	51	48	45	42	39	36	85	68	58	51	45	41	37	33	29
		91	71	65	57	52	48	45	42	39	36	33	85	65	55	48	42	38	34	30	26
		91	68	62	54	49	45	42	39	36	33	30	85	62	52	45	39	35	31	27	23
		91	65	59	51	46	42	39	36	33	30	27	85	59	49	42	36	32	28	24	20
		91	62	56	48	43	39	36	33	30	27	24	85	56	46	39	33	29	25	21	17
		91	59	53	45	40	36	33	30	27	24	21	85	53	43	36	30	26	22	18	14
		91	56	50	42	37	33	30	27	24	21	18	85	50	40	33	27	23	19	15	11
		91	53	47	39	34	30	27	24	21	18	15	85	47	37	30	24	20	16	12	8
		91	50	44	36	31	27	24	21	18	15	12	85	44	34	27	21	17	13	9	5
		91	47	41	33	28	24	21	18	15	12	9	85	41	31	24	18	14	10	6	2
		91	44	38	30	25	21	18	15	12	9	6	85	38	28	21	15	11	7	3	0
		91	41	35	27	22	18	15	12	9	6	3	85	35	25	18	12	8	4	0	0
		91	38	31	23	18	14	11	8	6	3	0	85	31	21	14	9	5	1	0	0
		91	35	28	20	15	11	8	5	3	0	0	85	28	18	11	7	3	0	0	0
		91	32	25	17	12	8	5	3	0	0	0	85	25	15	8	4	0	0	0	0
		91	29	22	14	10	7	4	2	0	0	0	85	22	12	7	3	0	0	0	0
		91	26	19	11	8	5	3	0	0	0	0	85	19	9	5	2	0	0	0	0
		91	23	16	9	6	4	2	0	0	0	0	85	16	6	3	1	0	0	0	0
		91	20	13	7	5	3	1	0	0	0	0	85	13	3	1	0	0	0	0	0
		91	17	10	6	4	2	0	0	0	0	0	85	10	1	0	0	0	0	0	0
		91	14	8	5	3	1	0	0	0	0	0	85	7	0	0	0	0	0	0	0
		91	11	6	4	2	0	0	0	0	0	0	85	4	0	0	0	0	0	0	0
		91	8	4	3	1	0	0	0	0	0	0	85	1	0	0	0	0	0	0	0
		91	5	2	1	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0
		91	2	0	0	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0
		91	0	0	0	0	0	0	0	0	0	0	85	0	0	0	0	0	0	0	0

Zonal Lumen Summary

Zone	Lumens	%Lamp	%Fixture
0-30	612	23.5	30.9
0-40	1003	38.6	50.7
0-60	1672	64.3	84.5
0-90	1979	76.1	100.0
0-180	1979	76.1	100.0

Luminance Data

Angle in Deg	Average 0-Deg cd/sm	Average 45-Deg cd/sm	Average 90-Deg cd/sm
45	2096	2713	2159
55	1651	2190	1645
65	1356	1567	1307
75	1220	1432	1114
85	1496	1850	1299

Candela

Angle	Along H	45°	Across L
0	775	775	775
5	775	773	776
10	764	766	772
15	745	753	764
20	718	732	749
25	683	705	731
30	640	672	701
35	583	626	668
40	511	564	625
45	432	486	559
50	351	407	471
55	276	331	366
60	214	239	269
65	167	167	193
70	124	108	140
75	92	76	108
80	66	59	80
85	38	35	47
90	0	0	0

ORDER INFORMATION

SAMPLE NUMBER: 2GR5-214T5A-UNV-EBT1-U

Rating⁽⁵⁾ Blank= Standard ATW-SW4= Chicago Rated	Number of Lamps 2=2 Lamps (Not included)	Voltage⁽²⁾ 347V=347 Volt UNV=Universal Voltage 120-277 ⁽³⁾	Ballast Type EBT =T5 or T5HO Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Standard Ballast Factor=1.0	Number of Ballasts 1=1 Ballast 2=2 Ballasts 3=3 Ballasts	Options FR=Fire Label
Width 2=2' Width	Wattage 14T5=14W T5 (24") 24T5=24W T5HO (24")	Options GL=Single Element Fuse GM=Double Element Fuse Flex=Flex Installed EL=Emergency Installed ⁽¹³⁾	Ballast/FactorType EBT_N=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Normal Ballast Factor=.90 ⁽⁴⁾ EBT_H=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. High Ballast Factor=1.15 ⁽⁴⁾ EBT_NDIM=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, Normal Ballast Factor=.95-1.0 ⁽⁷⁾ EBT_HDIM=T5 Electronic Program Rapid Start. Total Harmonic Distortion < 10%. Step Dimming, High Ballast Factor=1.15	ACCESSORIES EQ-CLIP-U=T-BAR Safety Earthquake Clips ⁽¹⁾ FCTKA-22W-U=Field Installed Flange Kit	Packaging U=Unit Pack
Trim Type G=Grid/Lay-in (Standard)	Shielding A=#12 Acrylic Pattern A125=#12 Pattern Acrylic (.125" Thick) A19/156=#19 Pattern Acrylic (.156" Thick)	0-10V Dimming Ballasts⁽⁸⁾ 5LTV5=T5 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LTVS5=T5 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ^{(10),(11)} 5LTV5H=T5HO 0-10V Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ⁽¹²⁾ 5LTV5SH=T5HO 0-10V Spec Grade Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 ^{(10),(11)}	Fifth Light DALI Ballasts⁽⁸⁾ 5LTV5=T5 DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0 5LTV5H=T5HO DALI Program Rapid Start. Total Harmonic Distortion < 10%. Ballast Factor 1.0	FCTK Trim Kit Field Convertible Aluminum	A - 24 22=2' x 2' 24=2' x 4'
Series R5=General Purpose T5 Commercial Troffer ⁽¹⁾				Blank=Single R=In Row E=End Row	N=Natural W=White U=Unit Pack

NOTES: ⁽¹⁾An EQ Grid Clip is recommended for all 9/16" ceiling systems. ⁽²⁾Products also available in non-US voltages and frequencies for international markets. ⁽³⁾Not available when specifying emergencies, voltage must be specific. ⁽⁴⁾.90 ballast factor available for 2 or 3 14W T5 or 28W T5 lamps only. ⁽⁵⁾For NYC rated product, see separate specification sheets. ⁽⁶⁾1-Lamp ballast in a High Ballast factor not available. ⁽⁷⁾1-Lamp step dimming ballast in a Normal Ballast factor not available. 2-Lamp ballast will not operate 1-Lamp. ⁽⁸⁾For a complete listing of Fifthlight Technology products and other solutions from Cooper Controls, visit www.coopercontrols.com. ⁽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 24W T5HO lamps. ⁽¹²⁾Standard 0-10V ballast not available for 24W T5HO lamps. ⁽¹³⁾Please specify required voltage, 120V or 277V.

Specifications & dimensions subject to change without notice. Consult your Cooper Lighting Representative for availability and ordering information.