

createchange

FEATURES

- Enclosed high transmission extruded acrylic lens features linear prisms custom frosted for superior lamp diffusion
- Appropriate for schools, medical facilities, dining areas, locker rooms, and public spaces
- Enclosed lens protects against intrusion of contaminants
- Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces
- High performance matte white paint standard
- T8, T5, T5HO, and Twin Tube lamps available; for LED see LTRE series
- Lens gasket optional
- Wet label listing optional
- Controls compatible for code compliance and energy savings
- Completely recessed; provides a smooth ceiling aesthetic with uniform illumination

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge cold rolled steel. Reflector is stiffened with linear forms, profiled to a precision curve. High transmission extruded acrylic enclosed lens features linear prisms custom frosted for superior lamp diffusion. All reflective surfaces are finished after fabrication with unique formula high reflectivity matte white paint for soft, uniform indirect illumination. Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces.

BALLASTS

Energy efficient, thermally protected, automatic re-starting, Class P, power factor corrected ballast. Otherwise specify CEE ballast. IEMA Premium compliant.

ELECTRICAL

Standard (Programmable, auto-restarting) ballast. All ballast connections extend through access plate. NEC/CEC compliant. Connect is standard.

SHIELDING

Enclosed thermoplastic light seals to the housing at both ends of the lens to prevent light leaks. Lens hinges for easy access to center wireway. Optional gasket available to surround the lamp cavity.

CEILING COMPATIBILITY

Compatible with all grid trim fixtures. See installation instructions for details on reverse side. 16" wide Slot Grid or Screw Slot ceilings (SG) order Gasket type; fixture in SG will be regressed 3/8" from the face of the ceiling tee. For hard ceilings order Gasket type and flange accessory. Cable Mount (CM) provides suspension below the ceiling plane.

FINISH

All reflective surfaces are finished with unique formula high reflectivity matte white paint for soft, uniform indirect illumination. Antimicrobial® high performance matte white paint available. Specify -AM option.

CERTIFICATION

Luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location listing is standard. Wet location listing available on most configurations. Emergency-equipped fixtures labeled UL 924 and Dry Location unless specified. For IC rated configurations, contact your local Hubbell Lighting representative. UL Sanitation Approved.

INSTALLATION

An access plate is furnished with the luminaire for fast wiring. The plenum without the necessary wiring is not to be opened.

ORDERING INFORMATION

EXAMPLE TRE22-224G-RFA-EPU

MODEL	NO. OF LAMPS	CEILING TYPE	SHIELDING	VOLTAGE	OPTIONS
TRE Transition® Enclosed High Efficiency Architectural Lens	1 2 3	Grid Lay-in ¹ SM Surface Mount ² CM Cable Mount ²	RFA Ribbed Frosted Acrylic	U 120V-277V	C388 3-Wire Flex C488 4-Wire Flex C588 5-Wire Flex GLR Fast Blow Fuse EL Emergency Battery Pack ^{6,7} EL5 Emergency Battery Pack, T5 or T5HO ^{6,7} NYC NYC Compliant NYCU NYC Compliant, Union Label AM Antimicrobial® Paint ⁴ G1 Lens Gasketing WL Wet Label ^{6,7} EOR End of Row (SM and CM only. Provides end wiring access for continuous row mounting.) INT Intermediate (SM and CM only. Provides ends with wiring access for continuous row mounting.) CP Chicago Plenum
ACCESSORIES (ORDER SEPARATELY)	LAMP TYPE	BALLAST			
FK22 2' x 2' Single Flange Kit (Shipped separately)	2', T8: 17 Watt 14 2', T5: 14 Watt 24 2', T5HO: 24 Watt 40TT Twin Tube Compact, 2G11 Base: 40 Watt 50TT Twin Tube Compact, 2G11 Base, 50 Watt	E Electronic T8, Instant Start ED Electronic Dimming T8 and T5 ³ EP Electronic T5, T5HO, or T8, Programmed Start ESD Electronic Step Dimming for 2-Lamp T8 or T5 (14W) only ³ E104 Electronic T8, 1.04 Ballast Factor, Instant Start ESD104 Electronic T8, 1.04 Ballast Factor, Step Dimming, Programmed Start ³ ETT Electronic Twin Tube, Instant Start (specify voltage) EPTT Electronic Twin Tube, Programmed Start			
CM48Y2SC3F-KIT 48" Cable Mount Kit for 2' wide CM Trim fixtures, 3 Wire					

¹ For drywall order FK22 accessories separately.

² Order hanger accessories separately.

³ Can be converted to fixed output by tying hot leads together.

⁴ Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces.

⁵ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

⁶ Not available with Surface Mount ceiling types.

⁷ Not available with Cable Mount ceiling types.

³ Specify vendor and series.

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	TRE22-224G-RFA-EPU TRA Transition, Recessed Architectural 2 x 2 2-lamp with frosted linear prismed lens
Ballast	ICN-2524
Ballast Factor	1.00
Lamp	F24T5
Lumens per Lamp	1750
Watts	51
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.22 90° = 1.38
Luminous Opening in Feet	Length: 1.92 Width: 1.92 Height: 0.00

COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	
1	90	85	82	78	87	83	80	77	80	77	74	68	0	
2	81	74	68	63	79	72	67	62	69	64	60	56	0	
3	74	64	57	51	71	63	56	51	60	55	50	46	0	
4	67	57	49	43	65	56	48	43	53	47	42	39	0	
5	62	50	43	37	60	49	42	37	48	41	36	34	0	
6	57	45	38	32	55	44	37	32	43	36	32	29	0	
7	52	41	33	28	51	40	33	28	39	32	28	26	0	
8	49	37	30	25	47	37	30	25	36	29	25	23	0	
9	46	34	27	22	44	34	27	22	33	26	22	20	0	
10	43	31	25	20	42	31	25	20	30	24	20	18	0	

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ZONAL LUMEN SUMMARY

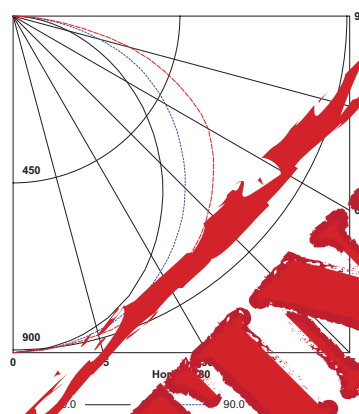
Zone	Lumens	% Lamp	% Fixt.
0-30	717	20.5	24.7
0-40	1188	33.9	40.9
0-60	2177	62.2	74.9
0-90	2906	83.0	100.0
0-180	2906	83.0	100.0

Test 6946 Test Date 4/25/2013

ENERGY DATA

Total Luminaire Efficiency	83.0%
Luminaire Efficacy Rating (LER)	57
IESNA RP-1-1993 Coefficient of Utilization	Non-Compliant
Comparative Yearly Lighting Energy Cost (1000 Lumens)	\$4.21 based on 3000 hrs. and \$0.08 per KWH

INDOOR CANDELA PLOT

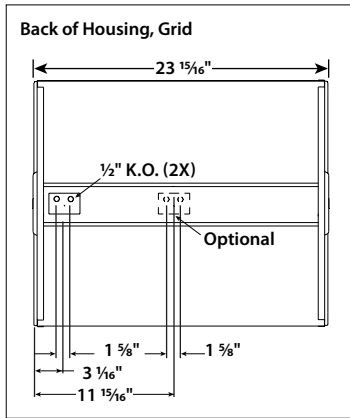
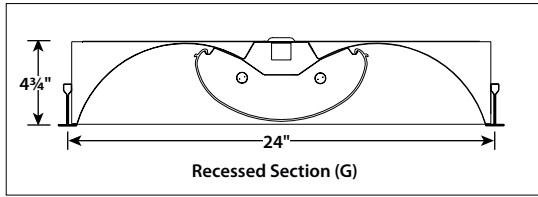


AVERAGE LUMINANCE (cd/Sq. M.)

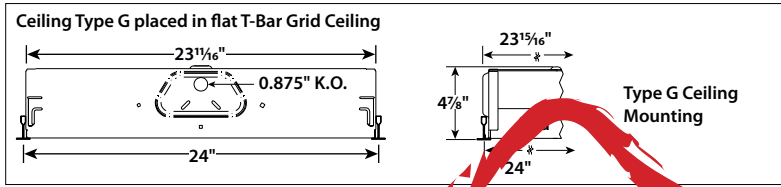
Average Luminance Angle	0°	30°	60°	67.5°	90°
0°	2648	2648	2648	2648	2648
15°	2785	2785	2785	2785	2785
30°	2904	2904	2904	2904	2904
45°	2977	2977	2977	2977	2977
60°	3065	3065	3065	3065	3065
75°	3193	3193	3193	3193	3193
90°	3355	3355	3355	3355	3355
105°	3545	3545	3545	3545	3545
120°	3641	3641	3641	3641	3641
135°	3705	3705	3705	3705	3705
150°	3689	3689	3689	3689	3689
165°	3245	3245	3245	3245	3245
180°	2680	2680	2680	2680	2680



DIMENSIONAL DATA — GRID



CEILING COMPATIBILITY



For lay-in installation in exposed grid ceilings. Maximum hole widths of 1" and maximum hole heights of 1 1/2" allowed.



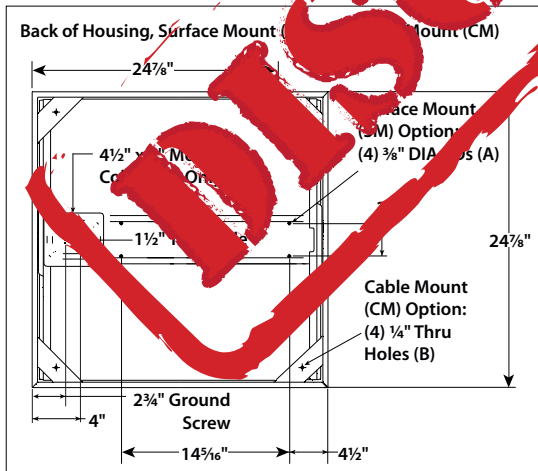
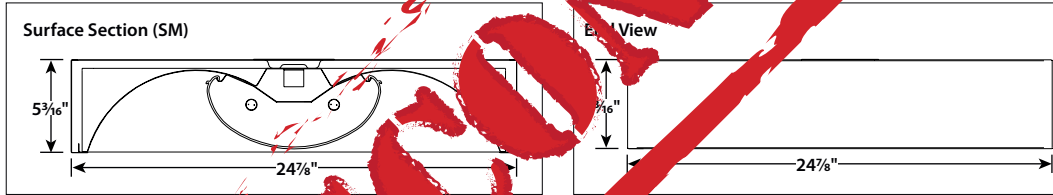
For 3/8" slot grid type ceilings. Luminaire must regress 3/8" horizontal surface of the tee.



For hard ceiling applications, fixtures can be ordered with a flange kit that wires directly into the concealed ceiling. Clean, finished appearance. For row configurations contact your local Columbia Representative.

Flange kit dimensions: single FK7 = 4 3/4" x 24 3/8"

DIMENSIONAL DATA — SURFACE MOUNT



Surface Mount:
Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting knock-outs, 3/8", provided in center channel as indicated at left, marked "A".

Cable Mount:
Order CM ceiling type. Use CM48Y2SC3F-KIT 48" Cable Mount Kit for 2' wide CM ceiling type fixtures. Mounting holes are provided in diagonal straps shown at left, marked "B".

* For Cable Mount a 2" x 3" access plate with (4) 7/8" KO's provided in place of Mounting Collar shown.

NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.