

FEATURES

- Precision optical design produces high efficiency in a high visual comfort architecturally styled lensed fixture
- Linear prism acrylic optic is backed by a high transmission lamp obscuring overlay
- Optimized coating process and unique paint formulation provide exceptional reflectivity in a matte finish for a soft visual image and balanced lens and reflector illumination
- Completely recessed, provides a clean ceiling with uniform illumination at mounting heights as low as 8 feet
- Available for use with T8, T5 or T5HO linear fluorescent lamps
- Optional acrylic dust guards pivot to protect lamp compartment against contaminants especially for schools, medical facilities and public spaces

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge cold rolled steel. The sturdy reflector is stiffened with linear forms, profiled to a precision curve. Linear prism basket with high transmission overlay for improved optical efficiency plus lamp obscuration. All reflective surfaces are finished after fabrication with unique formula high reflectivity matte white paint for soft, uniform indirect illumination.

Thermoplastic light seals snap into the housing at both ends of the lens to prevent light leakage. Lens hinges down for easy access to center wireway.

INSTALLATION

An access plate is furnished for each luminaire for fast wiring access from above. No need to open fixture.

BALLASTS

Energy efficient, thermostatically protected, automatic resetting class "P" type ballast for sound rate A, unless otherwise specified. See NEMA Premium

ELECTRICAL

Standard class "P" type ballast protected, auto-resetting HPF ballast for sound rate A. CEE NEC premium compliance. Ballast extends a minimum 18" through access partition. NEC/CEC compliant ballast disconnect standard.

CEILING COMPATIBILITY

EC-compliant Bar clips supplied with all grid trim fixtures. See details on page 10. For type SG ceilings order trim. Fixture is pre-regressed 3/8" from the face of the ceiling. For hard ceilings order G-Trim and FK flange accessory. Assemble using tie wires (4mm). Contact your Columbia representative for compatibility information for specific ceiling types or for continuous row applications in hard ceilings.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE TRA24-228G-CL0-EPU

TRA	24	32	CL			
MODEL	NO. OF LAMPS	CEILING TYPE	SHIELDING	VOLTAGE	OPTIONS	
TRA Transition® High Efficiency Architectural Lensed	1 2 3	Grid Lay-in SM Surface Mount	CL0 Clear Linear Prism Acrylic with Overlay	U 120V-277V 347 347V	GLR Fast Blow Fuse GMF Slow Blow Fuse EL5 Emergency Battery Pack, T5 DG Dust Guard 4TB 4 Tee Bar Clips NYC NYC Compliant NYCU NYC Compliant, Union Label CP Chicago Plenum	
SIZE	LAMP TYPE	BALLAST				
24 4' x 4'	28 4' x 28 Watt 5' x 5' T5HO: 54 or 51 Watt	ED Electronic Dimming EP Electronic, Programmed Start ESD Electronic Step Dimming for 2-Lamp T8 or T5HO EP85 Electronic T5, 0.85 Ballast Factor, Programmed Start (N/A T5HO) EP95 Electronic T5, 0.95 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp) ESD80 Electronic T5HO, 0.80 Ballast Factor, Step Dimming, Programmed Start (2-Lamp 54W only) EP115 Electronic T5, 1.15 Ballast Factor, Programmed Start (N/A T5HO, 1-Lamp) ESD115 Electronic T5, 1.15 Ballast Factor, Step Dimming, Programmed Start (N/A T5HO, 1-Lamp)				

ACCESSORIES (ORDER SEPARATELY)

FK24 2' x 4' Single Flange Kit
(Shipped separately)

PHOTOMETRIC DATA

Test ITL67658 Test Date 3/3/11

LUMINAIRE DATA

Luminaire	TRA24-228G-CLO-EPU
	2 x 4 2-lamp with clear linear prisms lens and opal overlay
Ballast	B228PUNV-C
Ballast Factor	1.00
Lamp	F28T5
Lumens per Lamp	2600
Watts	65
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.23 90° = 1.31
Luminous Opening in Feet	Length: 3.93 Width: 1.91 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1371	26.4	26.0
0-40	2258	43.4	42.9
0-60	4062	78.1	77.1
0-90	5266	101.3	100.0
0-180	5266	101.3	100.0

ENERGY DATA

Total Luminaire Efficiency	101.3%*
Luminaire Efficacy Rating (LER)	81
IESNA RP-1-1993 Coefficient of Utilization	Noncompliant
Comparative Year 2000 Lighting Energy Cost (\$/1000 Lumens)	\$2.96 based on 3000 hrs. and \$0.08 per KWH

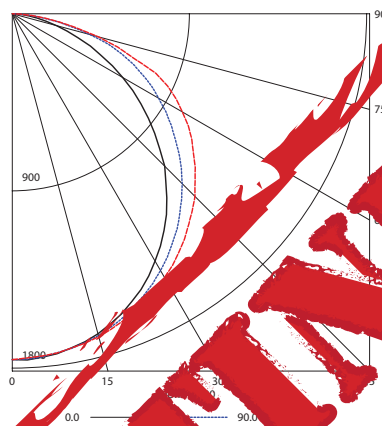
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50			0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
	1	110	105	100	96	107	103	98	95	98	95	92	75
	2	100	91	84	78	97	89	82	77	85	80	75	62
	3	91	80	71	64	88	78	70	64	75	68	63	52
	4	83	70	61	54	80	69	60	54	66	59	53	44
	5	76	63	53	46	74	61	53	46	59	52	46	38
	6	70	56	47	40	68	55	47	40	53	46	40	33
	7	65	51	42	36	63	50	42	35	49	41	35	29
	8	60	46	38	32	59	46	37	32	44	37	31	26
9	56	43	34	28	55	42	34	28	41	33	28	23	
10	53	39	31	26	52	39	31	26	38	30	26	21	

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

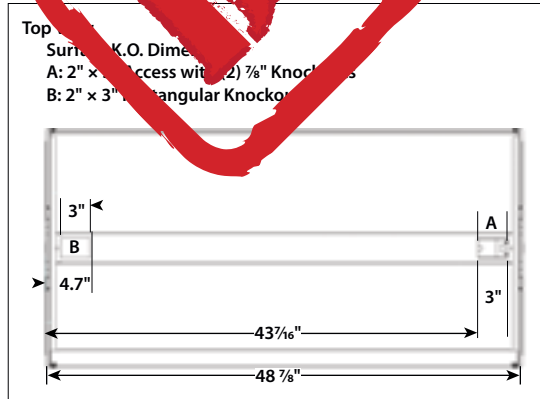
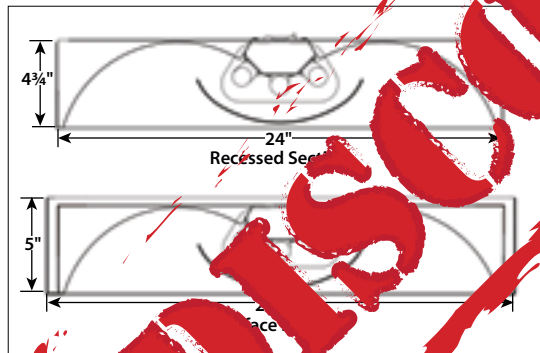
INDOOR CANDELA PLOT



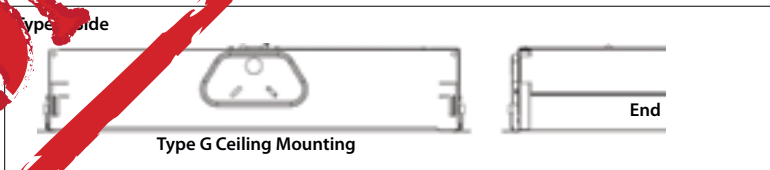
ILLUMINANCE (Foot-Candles)

Beam Angle	0°	15°	30°	45°	60°	75°	90°
0°	67.5	2518	2518	2518	2518	2518	2518
15°	2471	2471	2471	2471	2471	2471	2471
30°	2255	2255	2255	2255	2255	2255	2255
45°	2476	2476	2476	2476	2476	2476	2476
60°	2467	2467	2467	2467	2467	2467	2467
75°	2461	2461	2461	2461	2461	2461	2461
90°	2477	2477	2477	2477	2477	2477	2477

DIMENSIONAL DATA

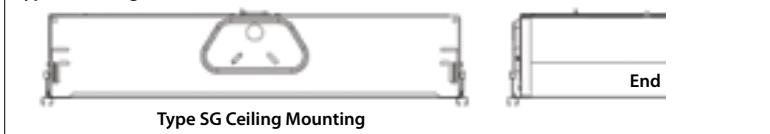


CEILING COMPATIBILITY



Play-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum heights of 1/2" allowed.

Type SG Ceiling



For 3/8" slot grid type ceilings. Luminaire will be regressed 3/8" horizontal surface of the tee.

FK Flange Kit



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

Flange kit cut out dimension for single FK22 only: 24 3/8" x 24 3/8"

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

Page 2/2 Rev. 03/15/17

RECESSED ARCHITECTURAL / TRA24-T5