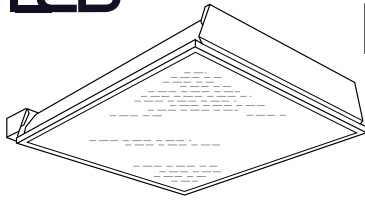


LED



createchange

FEATURES

- Full distribution provides controlled high angle light for visual comfort
- Long-life, 50,000 hour LEDs at L80 reduce life cycle maintenance costs
- Lens design and materials provide uniform appearance without pixilation
- Three lens choices
- Three door frame choices
- Excellent color consistency and 82 CRI
- Fixed output or 0-10V dimming drivers available
- Hinged optical system allows easy access to LED boards and drivers from below the ceiling; modular replaceability of components
- Low W/ft² ratio typically meets the most restrictive lighting power density codes
- DesignLights Consortium® (DLC) qualified; see www.designlights.org
- Recessed, surface or cable mount
- All models standard with IC rating

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing, end caps, and reflectors are die-formed code-gauge cold-rolled steel. Optical system hinges from either side for easy access to LED module and electrical components. Mechanical light trap prevents light leaks. Spring loaded latches optional on steel door, standard on aluminum doors.

FINISH

Door frame is powder coat paint after fabrication. All metal parts processed with a multi-stage phosphate bonding treatment and finished with a high reflectance baked white enamel. For a post painted housing finish suffix catalog number with PAF.

SHIELDING

Lenses are high transmission extruded acrylic. Lens selections are Pattern 12 frosted acrylic (A12F), Pattern 19 frosted acrylic .156" (A19F), or Smooth Frosted Acrylic (SFA).

INSTALLATION

An access plate or mounting collar is furnished with each fixture for fast wiring connections without the necessity to open the fixture or wireway.

CEILING COMPATIBILITY

Luminaire fits recessed exposed grid ceilings (G); for (4) field installable T-Bar clips, order option 4TB. A flange kit (FK) option is available for recessed hard ceiling applications. Surface Mount (SM) option allows placement on ceiling plane. Cable Mount option (CM) allows suspension below ceiling plane. For information on compatibility with specific ceilings, or where plenum depth is a problem, contact your Hubbell Lighting representative.

CERTIFICATION

All luminaires are built to UL 1598 and 2108 standards, and bear appropriate CSA labels. Damp location labeling is standard. Emergency equipped fixtures labeled UL924. Adheres to LM79, LM80 and TM21 industry standards. IC rating is standard on all models. DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org. UL Sanitation Approved.

WARRANTY

Five year warranty. (Terms and Conditions Apply)

ORDERING INFORMATION

EXAMPLE LLT22-35HLG-FSA12F-EU

LLT 22 -			U -			
MODEL	COLOR TEMP	CEILING TYPE	SHIELDING	DRIVER	VOLTAGE	OPTIONS
LLT LED Lensed Troffer	30 3000K 35 3500K 40 4000K 50 5000K	G Grid ¹ SM Surface Mount CM Cable Mount ²	A12F Pattern 12 Frosted Acrylic Lens A19F Pattern 19 Frosted Acrylic Lens .156" SFA Smooth Frosted Acrylic	E Fixed Output ED 0-10V Dimming ED1 0-10V 1% Dimming LUTH Lutron H Series LUTS Lutron S Series	U 120V-277V 347 347V	C388 3-Wire Flex C488 4-Wire Flex C588 5-Wire Flex ELL14 Emergency Battery Pack Installed, 1400 Lumens ³ PAF Paint After Fabrication SLL Spring Loaded Latches 4TB Four T-Bar Clips GTD Generator Transfer Device G1 Single Gasket (door to housing) G2 Double Gasketing (G1 and lens to door) G3 Triple Gasketing (G2 and housing to ceiling) GLR Fast Blow Fuse NYC NYC Compliant
SIZE	LUMEN OUTPUT	DOOR				
22 2' x 2'	LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen	FS White Flush Steel FA White Flush Aluminum ³ RA White Regressed Aluminum ³ <small>For more door options contact factory.</small>				

ACCESSORIES (ORDER SEPARATELY)		PRODUCT AVAILABILITY				
		SIZE	OUTPUT	NOMINAL LUMENS (3500K)	NOMINAL WATTS	LUMENS PER WATT
FK22	2' x 2' Flange Kit, Single Mounting (for rows add FKCR)	2' x 2'	LW	2100	22	95
FKCR	Flange Kit Row Adaptor		ML	2500	27	93
CM 48Y25C3F-KIT	48" Cable Mount Kit for 2' wide Cable Mount fixtures, 3-Wire Feed Cord		HL	3300	36	92
			VL	4000	45	89

Lumens vary according to color temperature and other factors. See specific photometric test(s).

¹ For drywall order Flange Kit accessories separately.
² Order hanger accessories separately.
³ Standard with Spring Loaded Latches.
⁴ For compatibility with Dual-Lite LiteGear® inverters in lieu of installed battery pack, contact Hubbell Lighting representative.
 Damp Label - standard. IC Rating - standard.

PHOTOMETRIC DATA

Test 5366 Test Date 7/9/12

LUMINAIRE DATA

Luminaire	LLT22-35MLG-A12F-ESD LLT LED, Lensed Troffer 2 x 2 LED with frosted A12 lens
Ballast	D185CQ30UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	2520
Watts	26.70
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.16 90° = 1.18
Luminous Opening in Feet	Length: 1.83 Width: 1.83 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	812	32.2	32.2
0-40	1289	51.2	51.2
0-60	2084	82.7	82.7
0-90	2520	100.0	100.0
0-180	2520	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	94
ANSI/IESNA RP-1-2004 Compliance	Yes - VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.58 based on 3000 hrs. and \$0.08 per KWH

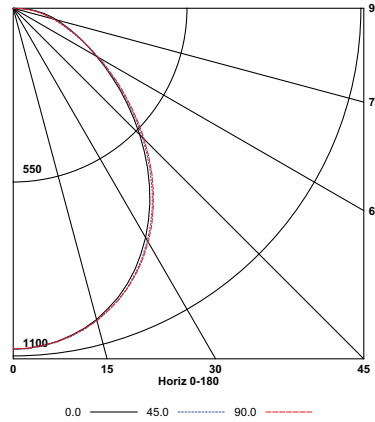
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0
		RW	70	50	30	10	70	50	30	10	50	30	10	0
1	109	105	101	97	107	102	99	95	98	95	92	85		
2	100	92	86	80	97	90	84	79	87	82	77	72		
3	92	82	74	68	89	80	73	67	77	71	66	62		
4	84	73	65	58	82	72	64	58	69	62	57	53		
5	78	66	57	51	76	65	57	50	63	55	50	47		
6	72	60	51	45	70	59	50	45	57	50	44	41		
7	67	54	46	40	66	53	45	40	52	45	39	37		
8	63	50	41	36	61	49	41	36	48	41	36	33		
9	59	46	38	32	57	45	38	32	44	37	32	30		
10	55	42	35	30	54	42	35	30	41	34	29	27		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	3465	3465	3465	3465	3465
30	3106	3121	3151	3162	3170
40	2773	2794	2832	2853	2862
45	2573	2591	2632	2650	2664
50	2355	2370	2410	2430	2445
55	2146	2157	2185	2208	2225
60	1961	1961	1974	1993	2012
65	1825	1810	1795	1810	1833
70	1757	1729	1663	1682	1710
75	1763	1714	1627	1614	1639
80	1888	1795	1684	1629	1666
85	2102	2065	1881	1733	1807

LUMINAIRE DATA

Test 5352 Test Date 7/6/12

Luminaire	LLT22-35HLG-A12F-ESD LLT LED, Lensed Troffer 2 x 2 LED with frosted A12 lens
Ballast	D255CQ42UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	3251
Watts	35.50
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.16 90° = 1.18
Luminous Opening in Feet	Length: 1.83 Width: 1.83 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1049	32.3	32.3
0-40	1665	51.2	51.2
0-60	2690	82.8	82.8
0-90	3251	100.0	100.0
0-180	3251	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	92
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.67 based on 3000 hrs. and \$0.08 per KWH

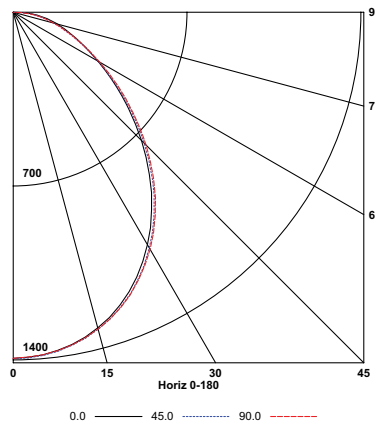
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0
		RW	70	50	30	10	70	50	30	10	50	30	10	0
1	109	105	101	97	107	102	99	95	98	95	92	85		
2	100	92	86	80	97	90	84	79	87	82	78	72		
3	92	82	74	68	89	80	73	67	77	71	66	62		
4	84	73	65	58	82	72	64	58	69	62	57	53		
5	78	66	57	51	76	65	57	51	63	55	50	47		
6	72	60	51	45	70	59	50	45	57	50	44	41		
7	67	54	46	40	66	53	45	40	52	45	39	37		
8	63	50	42	36	61	49	41	36	48	41	36	33		
9	59	46	38	32	57	45	38	32	44	37	32	30		
10	55	42	35	30	54	42	35	30	41	34	29	27		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

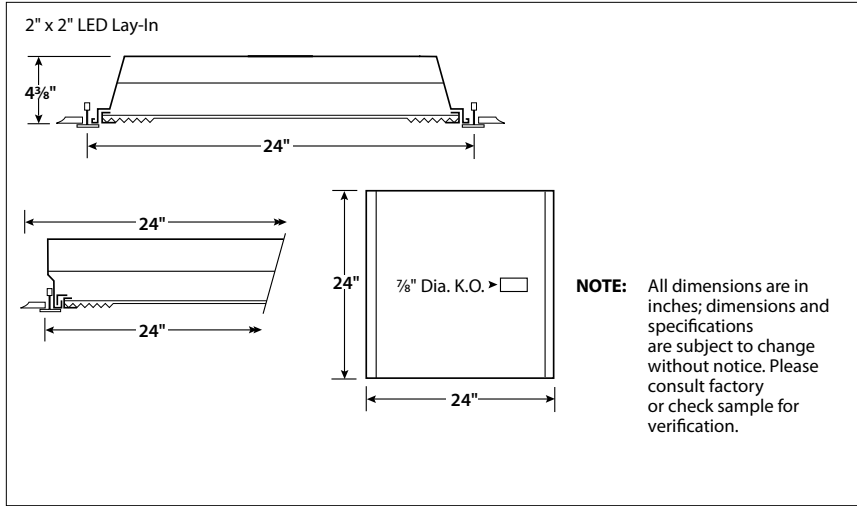
INDOOR CANDELA PLOT



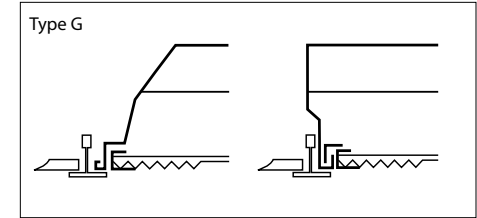
AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	4477	4477	4477	4477	4477
30	4008	4027	4068	4083	4090
40	3575	3600	3650	3680	3692
45	3318	3336	3391	3423	3436
50	3040	3060	3105	3140	3150
55	2768	2779	2819	2852	2869
60	2520	2526	2539	2571	2597
65	2350	2327	2312	2335	2365
70	2255	2218	2143	2161	2199
75	2285	2211	2086	2086	2111
80	2425	2314	2166	2110	2147
85	2729	2692	2434	2287	2360

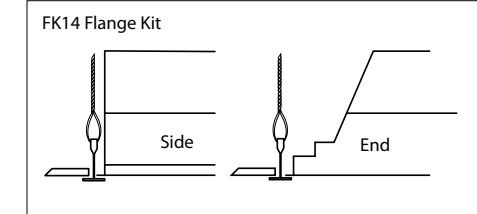
DIMENSIONAL DATA



CEILING COMPATIBILITY

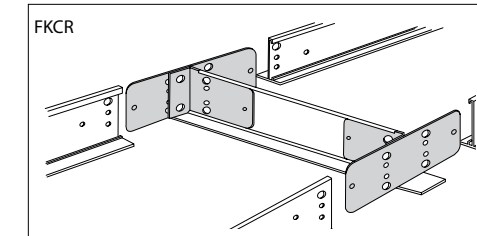
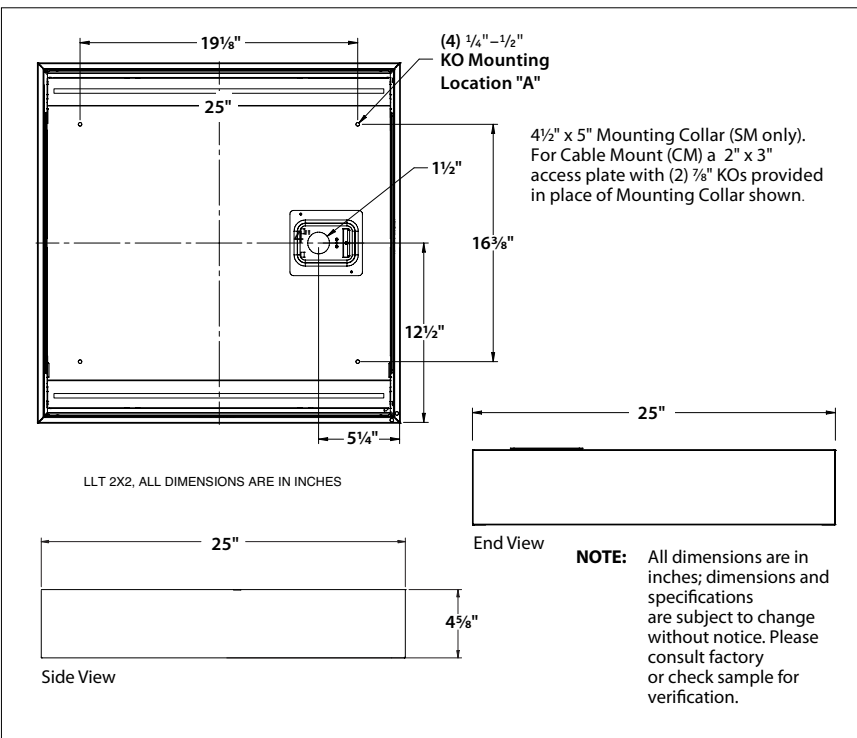


For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed. Shown with flush lens.



For hard ceiling applications, order FK14 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance. Shown with flush lens.

DIMENSIONAL DATA - SURFACE OR CABLE MOUNT



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK14 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK14 & (1) FKCR)

Row cut out dimensions using FK14 & FKCR adapters:
Width 12 3/8", Length [48" x (# in row)] + 3/8" = 96 3/8"

Flange kit rough in dimensions for single unit only: 12 3/8" x 48 3/8"

Surface Mount

Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting KO's, 1/4" to 1/2" provided as shown at left, marked "A".

Cable Mount

Order CM ceiling type. Access plate supplied for cable mounting or suspension. Use CM48Y2C3F-KIT 48" Cable Mount Kit. Includes 3-wire feed cord. For other wiring needs, contact Hubbell representative. Mounting KO's, 1/4" to 1/2", provided as shown at left, marked "A".