

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
- 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.

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). Four integral T-bar clips standard. 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. UL Sanitation Approved.

WARRANTY

Five year warranty. (Terms and Conditions Apply)

ORDERING INFORMATION

EXAMPLE LLT14-35MLG-FSA12F-EU

LLT 14 -											
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	A12 Pattern 12 Acrylic Lens A12F Pattern 12 Frosted Acrylic Lens A12125 Pattern 12 Acrylic Lens .125" A12125F Pattern 12 Frosted Acrylic Lens .125" A19 Pattern 19 Acrylic Lens .156" A19F Pattern 19 Frosted Acrylic Lens .156" SFA Smooth Frosted Acrylic	E Fixed Output ED 0-10V Dimming LUTH Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology LUT5 5-Series EcoSystem LED driver	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 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 EOR End of Row (SM/CM only) ⁴ INT Intermediate (SM/CM only) ⁴					
SIZE	LUMEN OUTPUT	DOOR	PRODUCT AVAILABILITY								
14 1' x 4'	LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen	FS White Flush Steel FA White Flush Aluminum RA White Regressed Aluminum	SIZE	OUTPUT	NOMINAL LUMENS (3500K)	NOMINAL WATTS	LUMENS PER WATT				
		For more door options contact factory.	1' x 4'	LW	1900	22	86				
				ML	2400	27	88				
				HL	3100	36	86				
				VL	3800	45	84				

¹ For drywall order Flange Kit accessories separately.
² Order hanger accessories separately.
³ For compatibility with Dual-Lite LiteGear® inverters in lieu of installed battery pack, contact Hubbell Lighting representative.
⁴ Provides ends with wiring access for continuous row mounting. Damp Label - standard. IC Rating - standard.

PHOTOMETRIC DATA

Test 6007 Test Date 10/24/12

LUMINAIRE DATA

Luminaire	LLT14-35MLG-A12F-ESD LLT LED, Lensed Troffer 1 x 4 LED with frosted A12 lens
Ballast	D185CQ30UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	2397
Watts	26.40
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.19 90° = 1.13
Luminous Opening in Feet	Length: 3.81 Width: 0.81 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	786	32.8	32.8
0-40	1241	51.8	51.8
0-60	1989	83.0	83.0
0-90	2397	100.0	100.0
0-180	2397	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	91
ANSI/IESNA RP-1-2004 Compliance	Yes - VDT Normal Use
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.61 based on 3000 hrs. and \$0.08 per KWH

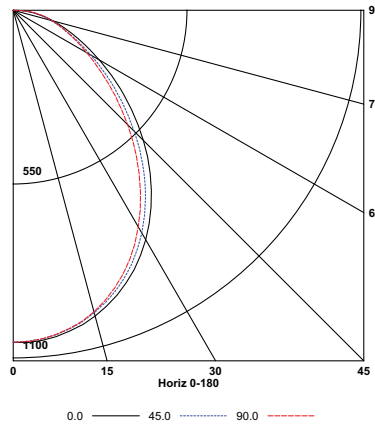
COEFFICIENTS OF UTILIZATION (%)

RC	RW	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	
1	109	105	101	97	107	103	99	95	98	95	92	85		
2	100	92	86	81	98	90	85	80	87	82	78	72		
3	92	82	74	68	89	80	73	67	77	71	66	62		
4	85	73	65	59	82	72	64	58	69	63	57	54		
5	78	66	57	51	76	65	57	51	63	56	50	47		
6	73	60	51	45	71	59	51	45	57	50	45	42		
7	68	55	46	40	66	54	46	40	52	45	40	37		
8	63	50	42	36	62	49	42	36	48	41	36	34		
9	59	46	38	33	58	46	38	33	44	37	33	30		
10	55	43	35	30	54	42	35	30	41	34	30	28		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	3662	3662	3662	3662	3662
30	3375	3335	3274	3206	3186
40	3069	3010	2900	2800	2764
45	2871	2802	2673	2565	2525
50	2648	2572	2431	2322	2284
55	2420	2335	2195	2092	2055
60	2197	2114	1974	1897	1870
65	1989	1915	1799	1758	1750
70	1846	1774	1683	1683	1693
75	1765	1711	1644	1698	1725
80	1768	1727	1707	1788	1868
85	1921	1841	1881	2121	2081

LUMINAIRE DATA

Test 6009 Test Date 10/24/2012

Luminaire	LLT14-35HLG-A12F-ESD LLT LED, Lensed Troffer 1 x 4 LED with frosted A12 lens
Ballast	D255CQ42UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	3099
Watts	34.70
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.19 90° = 1.13
Luminous Opening in Feet	Length: 3.81 Width: 0.81 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1016	32.8	32.8
0-40	1606	51.8	51.8
0-60	2572	83.0	83.0
0-90	3099	100.0	100.0
0-180	3099	100.0	100.0

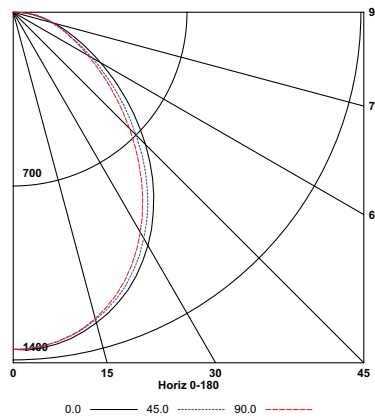
ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	89
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.70 based on 3000 hrs. and \$0.08 per KWH

COEFFICIENTS OF UTILIZATION (%)

RC	RW	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	
1	109	105	101	97	107	103	99	96	98	95	92	85		
2	100	92	86	81	98	90	85	80	87	82	78	72		
3	92	82	74	68	90	80	73	67	77	71	66	62		
4	85	73	65	59	82	72	64	58	69	63	57	54		
5	78	66	57	51	76	65	57	51	63	56	50	47		
6	73	60	51	45	71	59	51	45	57	50	45	42		
7	68	55	46	40	66	54	46	40	52	45	40	37		
8	63	50	42	36	62	49	42	36	48	41	36	34		
9	59	46	38	33	58	46	38	33	44	37	33	30		
10	55	43	35	30	54	42	35	30	41	34	30	28		

INDOOR CANDELA PLOT



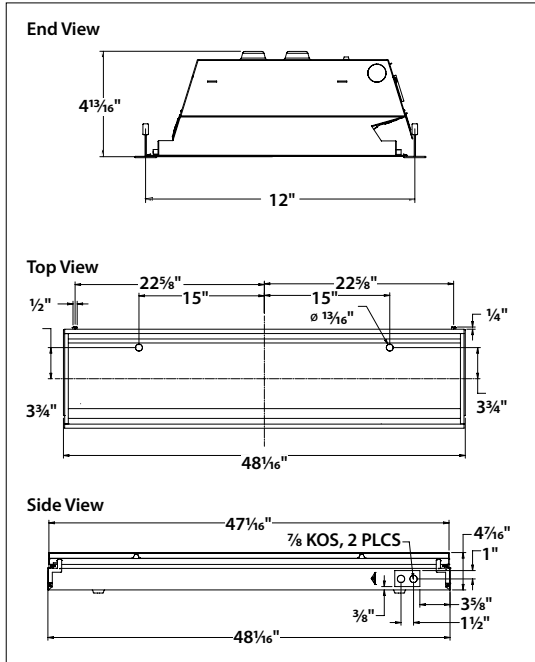
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	4733	4733	4733	4733	4733
30	4366	4313	4233	4148	4120
40	3970	3893	3752	3620	3574
45	3714	3621	3453	3315	3265
50	3429	3326	3147	3001	2952
55	3126	3016	2834	2700	2663
60	2839	2728	2553	2448	2421
65	2583	2476	2327	2270	2261
70	2386	2295	2172	2182	2193
75	2277	2197	2116	2183	2224
80	2290	2230	2209	2310	2410
85	2481	2361	2441	2721	2721

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

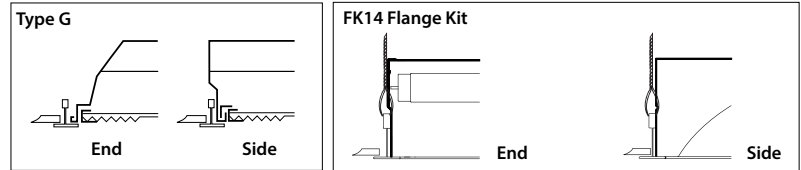
DIMENSIONAL DATA



A: 7/8" Diameter knockout
K: 2" x 3" through hole for access plate.

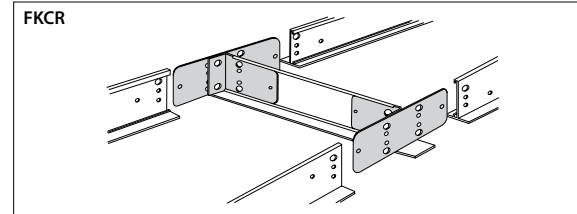
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

CEILING COMPATIBILITY



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

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

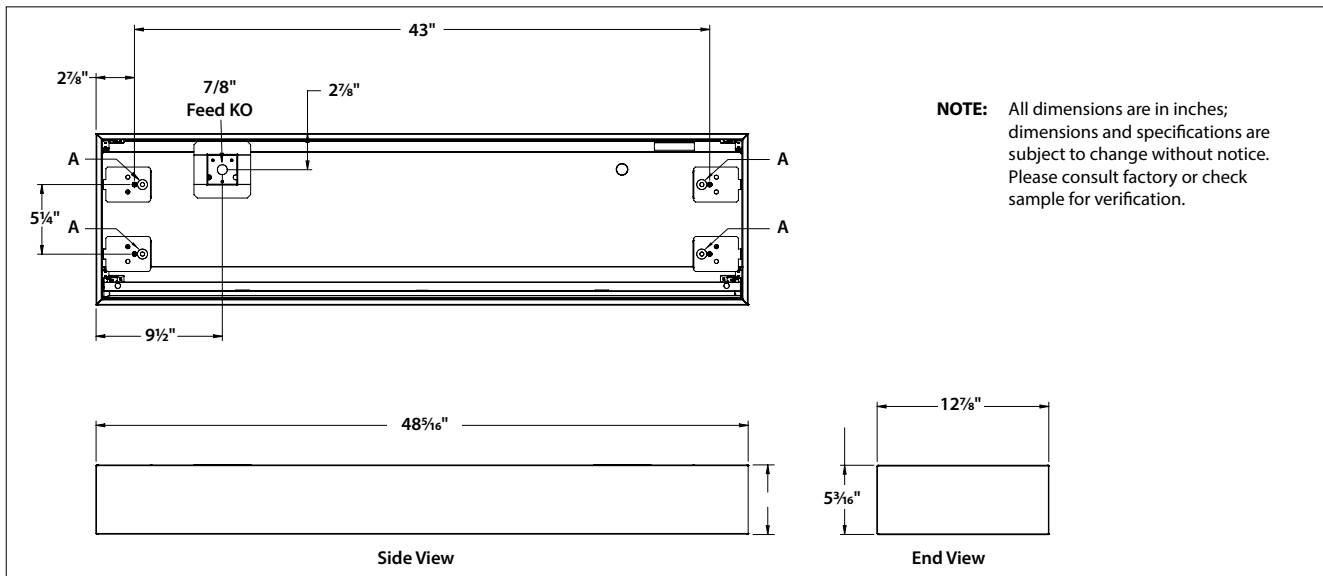


For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK14 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK14 & (1) FKCR)

Row cut out dimensions using FK14s & FKCR adapters:
Width 12 3/8", Length [48" x (# in row)] + 3/8". Example: (48" x 2) + 3/8" = 96 3/8"

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

DIMENSIONAL DATA - SURFACE MOUNT (SM) AND CABLE MOUNT (CM)



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

SURFACE MOUNT

Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting knock-outs, 1/4" to 1/2" provided as shown, marked "A".

CABLE MOUNT

Order CM ceiling type. Access plate supplied for cable mounting or suspension. Use CM48Y1 C3F-KIT 48" cable mount kit. Includes 3 wire feed cord. For other wiring needs, contact Hubbell Lighting representative. Mounting knock-outs, 1/4" to 1/2", provided as shown, marked "A".