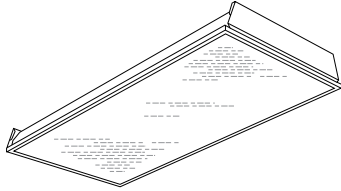


LED



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
- All models standard with IC rating
- DesignLights Consortium® (DLC) qualified; see www.designlights.org
- Recessed, surface or cable mount

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); 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. 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 LLT24-35LWG-FSA12F-EU

LLT	24	-	-	-	-	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 LUT5 Lutron 5 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 ⁴ PAF Paint After Fabrication SLL Spring Loaded Latches 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					
24 2' x 4'	LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen XL Extra High Lumen	FS White Flush Steel FA White Flush Aluminum ³ RA White Regressed Aluminum ³					

For more door options contact factory.

ACCESSORIES (ORDER SEPARATELY)

- FK24 2' x 2' Flange Kit, Single Mounting (for rows add FKCR)
- FKCR Flange Kit Row Adaptor
- CM 48Y2SC3F-KIT 48" Cable Mount Kit for 2' wide Cable Mount fixtures, 3-Wire Feed Cord

PRODUCT AVAILABILITY

SIZE	OUTPUT	NOMINAL LUMENS (3500K)	NOMINAL WATTS	LUMENS PER WATT
2' x 4'	LW	4300	33	130
	ML	4900	38	129
	HL	5600	45	124
	VL	7200	61	118
	XL	8700	75	116

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 5602 Test Date 8/17/12

LUMINAIRE DATA

Luminaire	LLT24-35LWG-A12F-ESD LLT LED, Lensed Troffer 2 x 4 LED with frosted A12 lens
Ballast	D255CQ42UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	3856
Watts	40.80
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.18 90° = 1.17
Luminous Opening in Feet	Length: 3.81 Width: 1.81 Height: 0.00

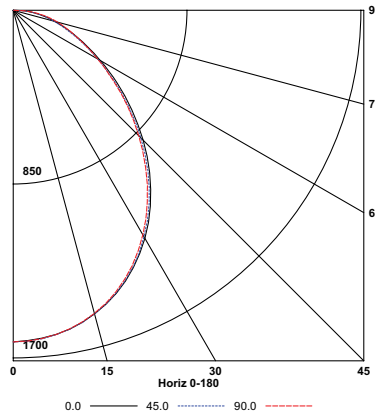
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1223	31.7	31.7
0-40	1946	50.5	50.5
0-60	3171	82.2	82.2
0-90	3856	100.0	100.0
0-180	3856	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	95
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.55 based on 3000 hrs. and \$0.08 per KWH

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	2530	2530	2530	2530	2530
30	2320	2320	2305	2293	2284
40	2113	2109	2086	2062	2054
45	1982	1973	1947	1920	1916
50	1836	1826	1797	1773	1770
55	1687	1671	1641	1622	1622
60	1539	1523	1495	1486	1489
65	1411	1392	1367	1378	1389
70	1314	1296	1278	1314	1337
75	1266	1248	1242	1303	1345
80	1267	1258	1285	1366	1420
85	1361	1343	1415	1558	1594

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	100	97	106	102	99	95	98	95	92	85	
	2	100	92	85	80	97	90	84	79	87	82	77	72	
	3	92	81	74	67	89	80	73	67	77	71	66	61	
	4	84	73	64	58	82	71	64	57	69	62	57	53	
	5	78	65	57	50	76	64	56	50	62	55	50	46	
	6	72	59	51	44	70	58	50	44	56	49	44	41	
	7	67	54	45	39	65	53	45	39	52	44	39	37	
	8	63	49	41	35	61	49	41	35	47	40	35	33	
9	59	45	37	32	57	45	37	32	44	37	32	30		
10	55	42	34	29	54	42	34	29	41	34	29	27		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

LUMINAIRE DATA

Luminaire	LLT24-35MLG-A12F-ESD LLT LED, Lensed Troffer 2 x 4 LED with frosted A12 lens
Ballast	D310CQ50UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	4696
Watts	51.40
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.18 90° = 1.17
Luminous Opening in Feet	Length: 3.81 Width: 1.81 Height: 0.00

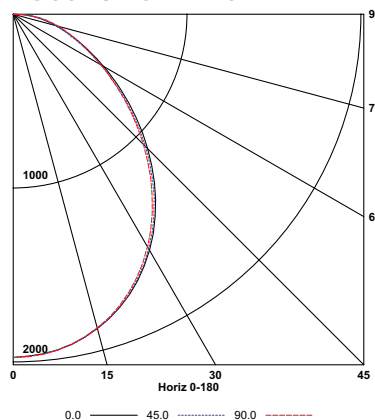
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1489	31.7	31.7
0-40	2370	50.5	50.5
0-60	3862	82.2	82.2
0-90	4696	100.0	100.0
0-180	4696	100.0	100.0

ENERGY DATA

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

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	3081	3081	3081	3081	3081
30	2824	2824	2808	2792	2783
40	2573	2569	2543	2512	2504
45	2413	2406	2373	2342	2335
50	2236	2224	2188	2159	2156
55	2055	2036	2000	1976	1976
60	1876	1854	1820	1807	1814
65	1717	1699	1666	1677	1692
70	1602	1579	1556	1597	1625
75	1538	1520	1514	1586	1628
80	1546	1528	1564	1663	1726
85	1666	1630	1719	1881	1934

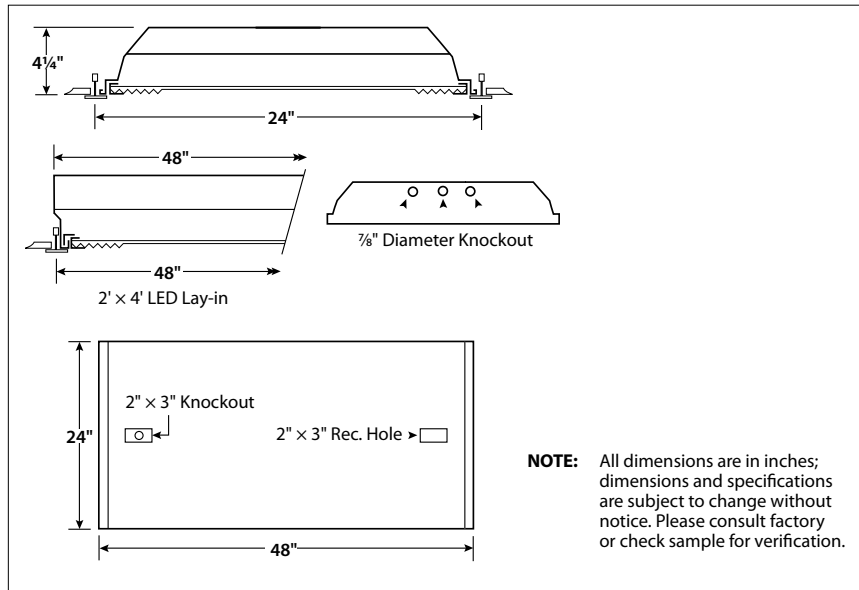
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0	
	1	109	105	100	97	106	102	99	95	98	95	92	85	
	2	100	92	85	80	97	90	84	79	87	82	77	72	
	3	92	81	74	67	89	80	73	67	77	71	66	61	
	4	84	73	64	58	82	71	64	57	69	62	57	53	
	5	78	65	57	50	76	64	56	50	62	55	50	46	
	6	72	59	51	44	70	58	50	44	56	49	44	41	
	7	67	54	45	39	65	53	45	39	52	44	39	37	
	8	63	49	41	35	61	49	41	35	47	40	35	33	
9	59	45	37	32	57	45	37	32	44	37	32	30		
10	55	42	34	29	54	42	34	29	41	34	29	27		

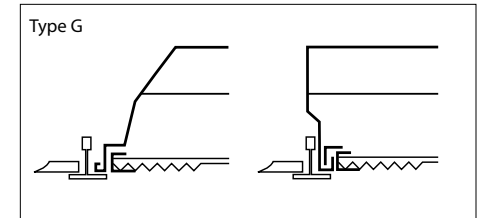
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

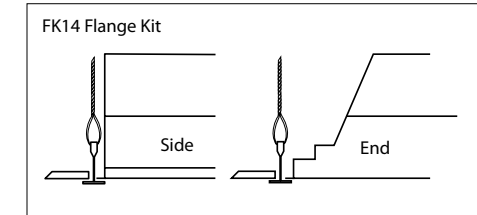
DIMENSIONAL DATA



CEILING COMPATIBILITY

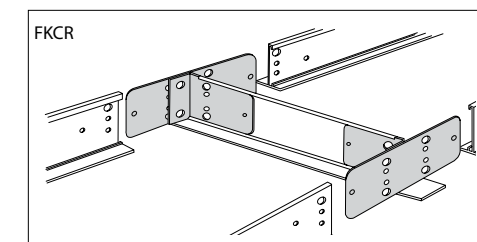
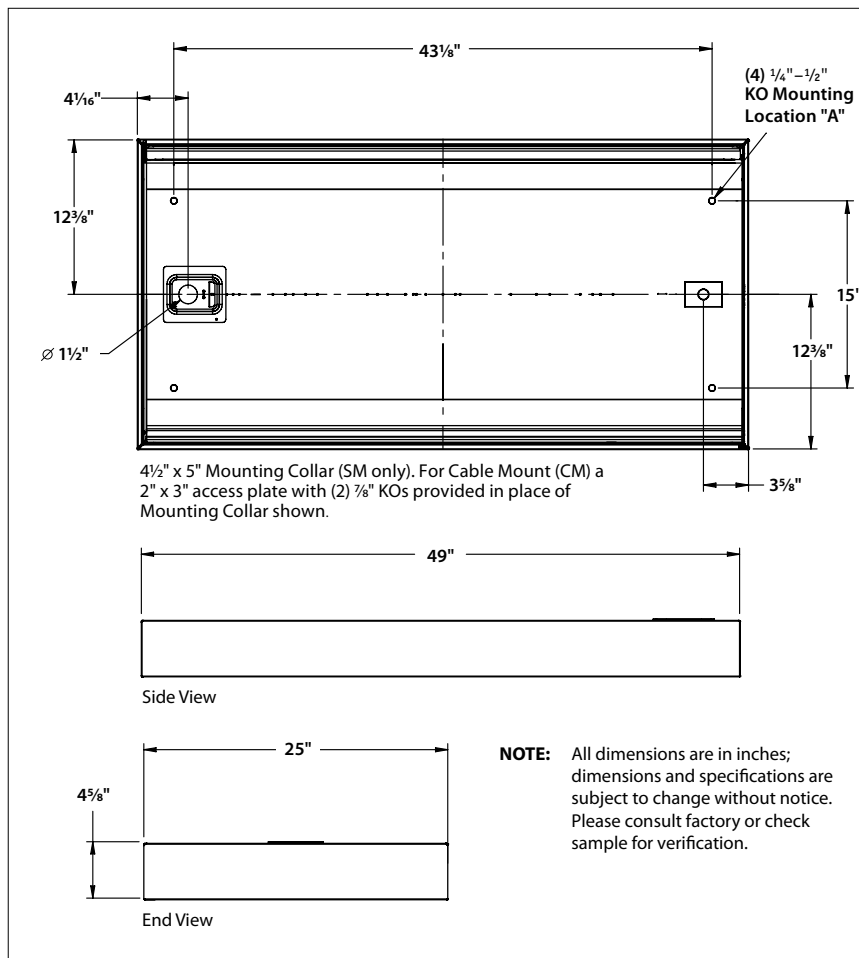


For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed. Shown with flush lens.



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 24 3/8", Length [48" x (# in row)] + 3/8" = 96 3/8"

Flange kit rough in dimensions for single unit only: 24 3/8" x 48 3/8"

Surface Mount

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