LCAT

LED CONTEMPORARY ARCHITECTURAL TROFFER

Columbia
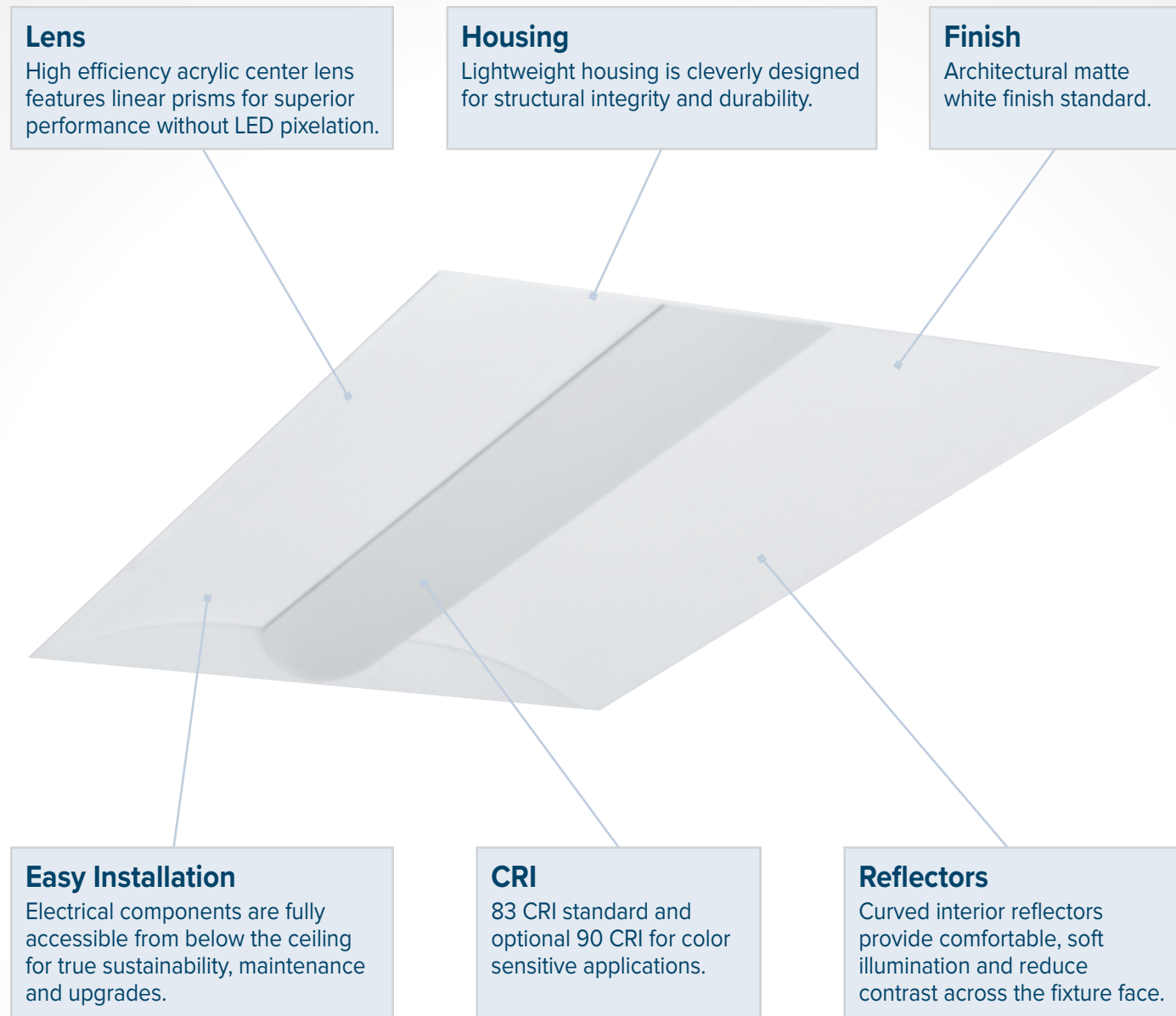LIGHTING

HUBBELL
Lighting

LCAT

LED CONTEMPORARY ARCHITECTURAL TROFFER

LCAT provides both aesthetics and value with an architectural appearance and LED technology. With a full family of sizes, LCAT offers a wide range of options for classrooms, offices, retail and healthcare applications. LCAT can be ordered from stock, through Quick-Ship, or made to order for additional customization.

Contents

A Wide Choice of Sizes, Lumen Packages, & Options

Lens
High efficiency acrylic center lens features linear prisms for superior performance without LED pixelation.

Housing
Lightweight housing is cleverly designed for structural integrity and durability.

Finish
Architectural matte white finish standard.

Easy Installation
Electrical components are fully accessible from below the ceiling for true sustainability, maintenance and upgrades.

CRI
83 CRI standard and optional 90 CRI for color sensitive applications.

Reflectors
Curved interior reflectors provide comfortable, soft illumination and reduce contrast across the fixture face.

DLC
DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations - see www.designlights.org

Multiple Shielding Options
Two attractive lens options to enhance any installation type.
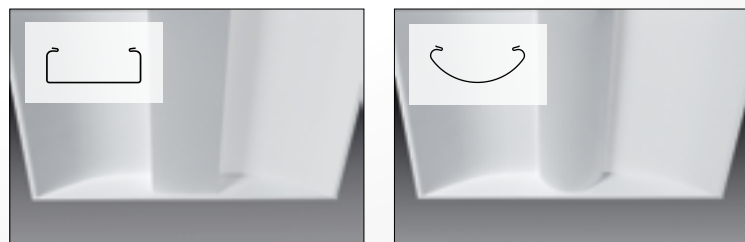
A Full Family of Architectural Sizes

1'x2'
A small scale, attractive option for corridors, conference rooms, reception desks and architectural insets.

Product Availability 80 CRI				
Size	Lumen Package	Nominal Lumens	Watts	LPW
12	VW	1519-1730	13	114-130
	MW	1744-1986	18	99-113
	LW	2676-3047	23	118-135
	ML	3331-3794	29	116-132
	HL	3584-4083	32	113-129

1'x4'
This sleek shape integrates seamlessly into architectural designs.

Product Availability 80 CRI				
Size	Lumen Package	Nominal Lumens	Watts	LPW
14	XW	2299-2478	19	119-128
	XWHE	2457-2648	19	127-136
	VW	3147-3584	28	114-130
	VWHE	3083-3511	24	128-146
	MW	3656-4164	32	113-129
	MWHE	3820-4351	31	125-142
	LW	4376-4985	36	122-138
	ML	4689-5341	38	122-139
	HL	5405-6156	44	123-140
	VL	6793-7738	58	118-135

2'x2'
Add quiet elegance to commercial spaces with the simplicity and modularity of this popular form.

Product Availability 80 CRI				
Size	Lumen Package	Nominal Lumens	Watts	LPW
22	VW	1567-1785	14	115-131
	VWHE	1530-1743	13	121-138
	MW	2049-2334	18	114-130
	MWHE	2010-2289	17	122-139
	LW	2689-3063	23	119-136
	ML	3320-3781	29	116-132
	MLHE	3392-3751	28	119-136
	HL	3599-4099	32	113-129
	HLHE	3497-3769	27	126-136
	VL	4270-4863	39	111-126
	VLHE	4257-4649	35	123-134

2'x4'
Replace existing luminaires or design for new installations with this appealing, graceful architectural troffer.

Product Availability 80 CRI				
Size	Lumen Package	Nominal Lumens	Watts	LPW
24	XW	2341-2524	19	123-132
	XWHE	2458-2650	19	129-139
	VW	3124-3558	28	113-129
	VWHE	3310-3770	27	123-140
	MW	3363-3831	30	111-127
	MWHE	3717-4234	31	121-138
	LW	4268-4861	36	118-135
	ML	4771-5434	39	123-140
	HL	5443-6200	44	124-141
	VL	6999-7972	59	119-135
	XL	8168-9304	74	111-126

NOTE: Nominal lumen range represents 3000K through 5000K. Lumens vary according to color temperatures and other factors. See specific photometric test(s).

Diverse Installation Options with a Consistent Look

Flange Kit
Recessed hard ceilings are simple and straightforward with the FK (flange kit) accessory available on all sizes. Continuous row (CR) also available on most configurations.

Surface & Cable Mount
LCAT offers an optional surface mount for areas where a recessed ceiling is not available. A cable mount option is offered for high or obstructed ceilings where a matching suspended luminaire is optimal.

SLK Troffer Conversion Kit
For retrofit opportunities where existing luminaire housings can be utilized, SLK LED troffer conversion kit matches the appearance of LCAT24 and LCAT22.

Optional Air Return
Slots along the housing edge allow air return to the HVAC when this option is specified. Air return is available in all sizes.

Customize with Practical Options

LED drivers
A wide range of drivers make LCAT flexible and controls friendly. Choose from 0-10V dimming, 0-10V dimming to 1%, Lutron Series 5, Lutron H, fixed output and stepped output.

Egress
Life safety compatibility for security and code compliance:
• Integral LED NiCAD battery or
• Remote mounted Dual-Lite inverter systems

Color Temperatures
3000K, 3500K, 4000K and 5000K corrected color temperatures are well suited to office, education, health care and retail applications. For color consistency across the ceiling plane, LCAT maintains a 3-Step MacAdam ellipse within the fixture, from fixture-fixture, and over time.

Controls
In addition to controllable drivers, LCAT luminaires can also be controlled individually with integral sensors or tied into a Hubbell Control Solutions system.

SpectraSync™
Color Tuning Technology

Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with three distinct SpectraSync™ Color Tuning Technologies.

Dim to Warm
Dim to Warm mimics the familiar warming effect that occurs with traditional incandescent sources as they are dimmed. (Available with 2200K-3000K)

Tunable White
Tunable White offers you the ability to tailor correlated color temperature (CCT) to your personal preference, enhancing task visibility, material and colors and the aesthetics of the space. (Available with 2700K-5000K or 2700K-6500K)

Scheduled White
Scheduled White creates an environment that mimics the rhythm of natural light or follows an alternative user-defined schedule throughout the day, enhancing an occupant's mood and well-being. (Available with 2700K-5000K or 2700K-6500K)

Performance
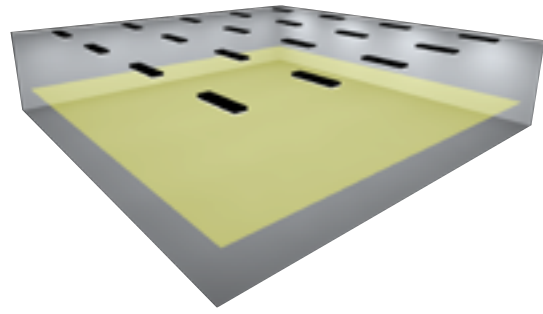
LCAT14 PERFORMANCE

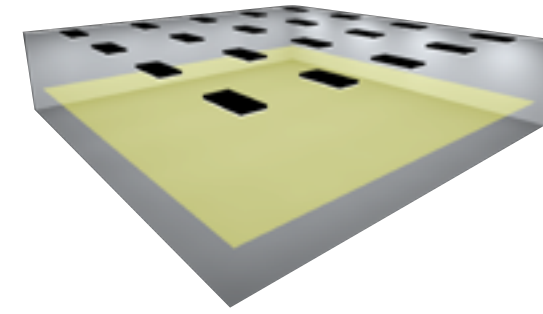| Room Size (L x W)	40' x 40'
Number of Luminaires	20
Workplane, Horizontal	2.5'
Reflectances	80/50/20
Light Loss Factors	1.0/0.90/0.90

Image rendered using LitePro DLX application software.

Mounting Height	OC Spacing	Lumen Package	Fixture Lumens 3500K CCT	Avg fc 2.5'	Max/Min	Avg/Min	Fixture Watts	LPD
9'	8' x 8'	XW	2375	23 fc	2.0	1.9	19.4	0.24
	8' x 10'	VW	3239	32 fc	2.0	2.7	27.5	0.34
		MW	3764	38 fc	2.0	2.7	32.3	0.40
		LW	4506	44 fc	2.0	2.6	36.0	0.45
		ML	4828	47 fc	2.0	2.6	38.3	0.48
14'		HL	5563	46 fc	1.8	2.2	43.9	0.55
25'		VL	6993	40 fc	1.6	2.0	57.5	0.72

Data provided utilizing 80+ CRI and curve lens.

LCAT24 PERFORMANCE

Room Size (L x W)	40' x 40'
Number of Luminaires	20
Workplane, Horizontal	2.5'
Reflectances	80/50/20
Light Loss Factors	1.0/0.90/0.90

Image rendered using LitePro DLX application software.

Mounting Height	OC Spacing	Lumen Package	Fixture Lumens 3500K CCT	Avg fc 2.5'	Max/Min	Avg/Min	Fixture Watts	LPD
9'	8' x 10'	XW	2420	23 fc	2.6	2	19.1	0.24
		VW	3216	30 fc	2.6	2	27.6	0.35
		MW	3462	33 fc	2.6	2	30.2	0.38
		LW	4394	42 fc	2.6	2	36.4	0.46
		ML	4912	46 fc	2.6	2	38.8	0.49
14'		HL	5604	45 fc	2.1	1.7	44	0.55
20'		VL	7205	47 fc	2.1	1.7	59	0.74
25'		XL	8408	47 fc	2	1.6	73.8	0.92

Data provided utilizing 80+ CRI and curve lens.
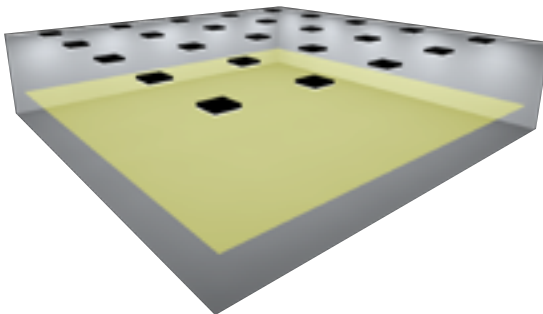
LCAT22 PERFORMANCE

Room Size (L x W)	40' x 40'
Number of Luminaires	25
Workplane, Horizontal	2.5'
Reflectances	80/50/20
Light Loss Factors	1.0/0.90/0.90

Image rendered using LitePro DLX application software.

Mounting Height	OC Spacing	Lumen Package	Fixture Lumens 3500K CCT	Avg fc 2.5'	Max/Min	Avg/Min	Fixture Watts	LPD
8'	8' x 8'	VW	1614	20 fc	2.6	2	13.6	0.21
9'		MW	2109	25 fc	2.4	1.9	18	0.28
		LW	2768	33 fc	2.4	1.9	22.6	0.35
10'		ML	3418	40 fc	2.4	1.9	28.7	0.45
12'		HL	3705	40 fc	2.2	1.9	31.8	0.5
16'		VL	4396	41 fc	2.2	1.8	38.6	0.6

Data provided utilizing 80+ CRI and curve lens.

CORRIDOR PERFORMANCE

Room Size (L x W)	40' x 6'x 9'
Workplane, Horizontal	0' (Floor)
Reflectances	80/50/20
Light Loss Factors	1.0/0.90/0.90

LCAT Size	1x2	2x2	1x4	2x4
Lumen Designation	ML	ML	MW	LW
Nominal Fixture Lumens 3500K CCT	3051	3418	3764	4394
# of Fixtures	5	5	4	4
Avg fc	21 fc	23 fc	22 fc	24 fc
Max/Min	1.9	1.7	1.9	1.8
Avg/Min	1.6	1.6	1.6	1.6
Fixture Watts	28.9	28.4	32.3	36.1
LPD	0.6	0.6	0.54	0.6

Data provided utilizing 80+ CRI and curve lens.

Long Life, Low Maintenance & Reliable

Long Life LEDs – Low Facility Maintenance Over Time

Tested in according with the rigorous standards of IESNA TM-21

• 60,000 hours rated life with 80% lumen maintenance (L80)
• Over 150,000 hours projected life

Snap-Fit Center Lens

LCAT's attractive center lens installs or removes with a simple, secure, snap-fit attachment.

DLC® Qualified

DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations - see www.designlights.org.

Warranty

Standard with 5 year warranty.

Hubbell Control Solutions

NX Distributed Intelligence™ supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments, and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

POWERHUBB™
PoE LIGHTING & CONTROL

Hubbell Control Solutions' PowerHUBB™ is an enterprise level Power over Ethernet (PoE) lighting and control platform that seamlessly integrates luminaires, sensors, human interfaces and software for a scalable intelligent building control solution. For more information and ordering availability, see LCATPH at www.columbialighting.com.

Replaceable Components with Below-Ceiling Access

LCAT LED boards and drivers are replaceable and accessible from below the ceiling plane for truly sustainable design.

Controls Compatible

Optional occupancy and daylight sensors are available for factory installed controls, or pair LCAT with external controls for enhanced energy savings and code compliance.

QR Code Traceability

Each LCAT ships with a QR code affixed to the housing. The QR code contains detailed product information for future traceability.

Readily Available [STOCK] [QS5]

LCAT products are available for standard and quick-turn project needs.

• Stocked in popular configurations throughout the continental USA
• Quick-ship configurations available for over 128 combinations of features and options
• Less common, Made-To-Order configurations ship with responsive lead times for project customization

Simple Fluorescent Replacement

Replace (2) 4' T8 lamps with LCAT LW for
36% energy savings
per fixture.

Replace (3) 4' T8 lamps with LCAT VL for
30% energy savings
per fixture.

Replace (4) 4' T8 lamps with LCAT XL for
33% energy savings
per fixture.

Replace 2 U-Bent lamps with LCAT22 HL for
45% energy savings
per fixture.

Ordering Information

LCAT		-				-	
MODEL	**SIZE**	**CRI**	**COLOR TEMP**	**LUMEN OUTPUT**	**CEILING TYPE**	**SHIELDING**	**AIR FUNCTION**

MODEL
LCAT LED Contemporary Architectural Troffer

SIZE
12 1' x 2'
14 1' x 4'
22 2' x 2'
24 2' x 4'

CRI
Blank >80
9 >90[1]

COLOR TEMP
30 3000K
35 3500K
40 4000K
50 5000K
2750T 2700K-5000K SpectraSync™ Tunable White[2]
2765T 2700K-6500K SpectraSync™ Tunable White[2]

LUMEN OUTPUT
XW Extra Low Watt
XWHE Extra Low Watt High Efficacy
VW Very Low Watt
VWHE Very Low Watt High Efficacy
MW Medium Low Watt
MWHE Medium Low Watt High Efficacy
LW Low Watt
ML Medium Lumen
MLHE Medium Lumen High Efficacy
HL High Lumen
HLHE High Lumen High Efficacy
VL Very High Lumen[21]
VLHE Very High Lumen High Efficacy
XL Extra High Lumen

CEILING TYPE
G Grid Lay-in[3]
SM Surface Mount[4,19]
CM Cable/ Suspended Mount[4,5]

SHIELDING
Blank Curve
R Rectangular

AIR FUNCTION
Blank Static
A Air Return Side Slots

-		-		
DRIVER	**VOLTAGE**	**OPTIONS**	**CONTROL OPTIONS**	

DRIVER
E Fixed Output[17]
ED 0-10V Dimming
ED1 0-10V 1% Dimming
EDD 0-10V Dim-to-Dark[17]
ESD Step Dimming[6,8,17]
LUTH Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology[6,8,17]
LUT5 5-Series EcoSystem LED driver[6,8,17]
DALIP DALIP DALI P driver[14,15]

VOLTAGE
U 120V- 277V
347 347V[18]

OPTIONS
ELL14 Emergency Battery Pack, 1400 Lumens[7,8]
C388 3-Wire Flex[20]
C488 4-Wire Flex[20]
C588 5-Wire Flex[20]
GLR Fast Blow Fuse
EOR End of Row (SM and CM only. Provides end wiring access for continuous row mounting.)[4]
INT Intermediate (SM and CM only. Provides end wiring access for continuous row mounting.)[4]
CP Chicago Plenum

CONTROL OPTIONS
NXS NX, PIR Occupancy Sensor, Dimming Daylight Harvesting[16,17,18]
NXSW NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting[16,17,18,19]
NXWE NX Wireless Enabled[16,17,18,19]
NXE NX Enabled, Dual SmartPorts[16,17,18]
NXES NX Enabled, PIR Occupancy Sensor, Dimming Daylight Harvesting[16,17,18]
ODPG Occupancy and Daylight Sensors w/ Grouping, Philips SNS200[8,9,16]
ZRE ControlScope® compatible[10]
LV Lutron Vive Attached FCJS POWPAK Fixture Control (RF only)[11,12,13]
LVS Lutron Vive Wireless DFCSJ-OEM-OCC In-Fixture Control with Daylight and Occupancy Sensing[12,14]
LVR Lutron Vive Wireless DFCSJ-OEM-RF In-Fixture Control (RF only)[12,14]
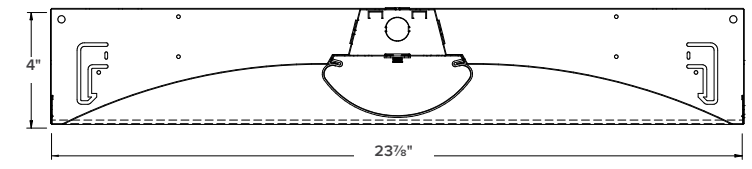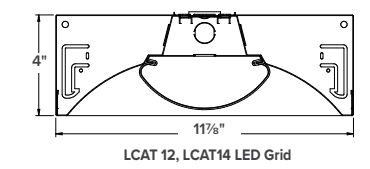
ACCESSORIES (ORDER SEPARATELY)

FK12	1' x 2' Single Flange Kit
FK14	1' x 4' Flange Kit
FK22	2' x 2' Flange Kit
FK24	2' x 4' Flange Kit
CM48Y2SC3F-KIT	48" Cable Mount Kit for 2' wide Cable Mount fixtures, 3-Wire
CM48Y1SC3F-KIT	48" Cable Mount Kit for 1' wide Cable Mount fixtures, 3-Wire

1. Not available with HE lumen output.
2. Available with ED driver and 80 CRI only, N/A with HE, VL (2x2) XL (2x4) lumen outputs.
3. For drywall, order G with Flange Kit Accessory.
4. Not available with Air Return (A) air function.
5. Order hanger accessories separately.
6. Limitations apply based on product size and lumen packages; see individual spec sheets.
7. For compatibility with Dual-Lite LiteGear(R) inverters, contact Hubbell Lighting Representative.
8. Not available in 347V.
9. Only available with 0-10V Dimming (ED) Driver Option.

10. Registered trademark of Daintree Networks, used by permission.
11. Not available with E, ESD, LUTH or LUT5.
12. VIVE is a trademark of Lutron Electronics Co., Inc.
13. Installations controlled solely by the Lutron Pico controller require accessing the LV (Lutron FCJS) module for commissioning after the circuit has been energized.
14. LVS and LVR only available with DALIP.
15. DALIP only available with LVS and LVR Control Options.

NX In-Fixture Control Options:
16. NX controls can only be used with NX Sensor options.
17. NX is available with ED and ED1 drivers only.
18. NX combined with Spectrasync is not available in 347V.
19. NXSW and NXWE cannot be used with surface mount versions.
20. For NX control and Flex Wire together, consult factory.
21. NX control function not available with VL lumen output.

For questions about configuration options, contact Hubbell Representative.
For PowerHUBBTM availability, see LCATPH at www.columbialighting.com.

Cross Sections
Dimensions shown with curve lens option.

LCAT 12, LCAT14 LED Grid

LCAT22, 24 LED Grid

HUBBELL Lighting

ALERA LIGHTING

ARCHITECTURAL AREA LIGHTING

BEACON PRODUCTS

COLUMBIA LIGHTING

COMPASS

DUAL-LITE

HUBBELL CONTROL SOLUTIONS

HUBBELL INDUSTRIAL LIGHTING

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE

Columbia
LIGHTING