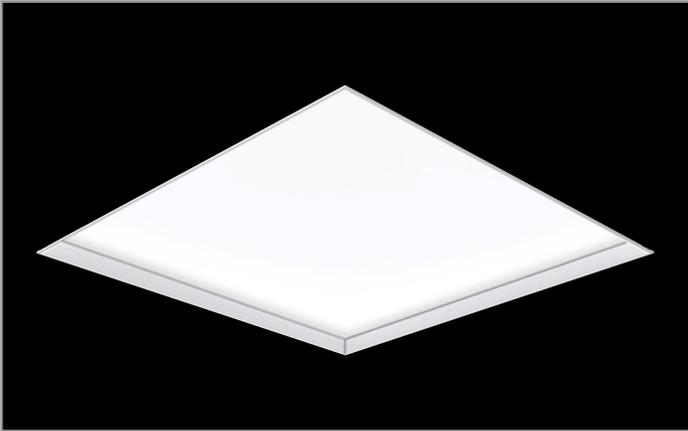


Project		Catalog #		Type	
Prepared by		Notes		Date	



Corelite

InDepth 44ID

4' x 4' LED Specification InDepth Series

Typical Applications

Office • Education • Healthcare • Hospitality • Retail

Product Certification



Systems | Features & Awards



Interactive Menu

- Order Information [page 2](#)
- Photometric Data [page 4](#)
- Connected Systems [page 5](#)
- Product Warranty

Top Product Features

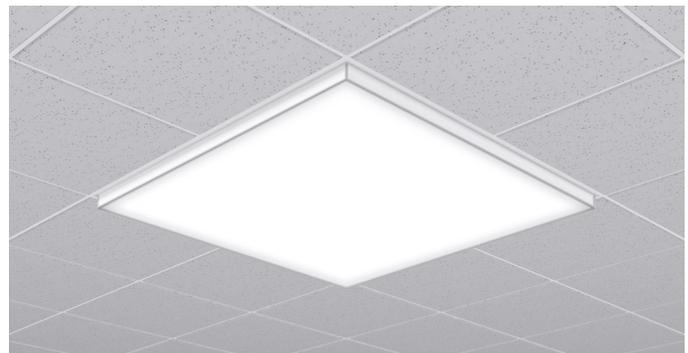
- Designer delight - create ceiling topography with regressed and drop lens options from factory or convert during installation
- Regress cube and drop cube
- Regressed lens provides optical cut off with smooth lens for reduced glare
- Large format creates unique skylight aesthetic
- Wireless control options maintain superb aesthetics
- Options to meet Trade Agreements Act requirements

Options

4x4 Cubes



4x4 - 2" Regressed Cube



4x4 - 2" Drop Cube

[additional product diagrams](#)

Order Information

SAMPLE ORDER NUMBER: **44ID-100-CFR2-L835-U**

Domestic Preferences	Rating	Series	Lumen Output	Shielding	Voltage	
Domestic Preferences ⁽¹⁾	Rating	Series	Lumen Output ⁽²⁾	Shielding	Voltage	
[Blank]=Standard TAA=Trade Agreements Act	[Blank]=Standard ATW-SW4= Chicago Rated	44ID=4x4 InDepth	40=4000 Lumens 50=5000 Lumens 60=6000 Lumens 70=7000 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens	110=11000 Lumens 120=12000 Lumens 140=14000 Lumens 160=16000 Lumens ⁽³⁾	CFR2=2" Cube Regressed CFD2=2" Cube Drop	[Blank]=Universal Voltage 120-277 347V=347 Volt ⁽⁴⁾ 48V=48 Volt Low-voltage (Class 2) ^(C)
Notes (1) Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.		Notes 2x2, 2x4, and 1x4 size also available.	Notes (2) Refer to performance table or IES files for actual performance. (3) Lumen package not available with 347V.	Notes	Notes (4) 347V only available with standard 0-10V driver. (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.	

Options	Emergency Options	CRI/CCT	Flex
Options	Emergency Options	CRI/CCT	Flex ⁽⁸⁾
[Blank]=None GL=Single Element Fuse GM=Double Element Fuse	[Blank]=No emergency EL7W=7-watt 120V-277V emergency battery pack ⁽⁵⁾ EL10W=10-watt 120V-277V emergency battery pack ⁽⁵⁾ EL14W=14-watt 120V-277V emergency battery pack ⁽⁵⁾ EL10WSD=10W emergency battery pack with self-diagnostic installed ^{(5),(7)} EL14WSD=14W emergency battery pack with self-diagnostic installed ^{(5),(7)} ELV7W=Low-voltage system, 7-watt emergency battery pack ^{(5),(C)} ELV14W=Low-voltage system, 14-watt emergency battery pack ^{(5),(C)} ETRD=Emergency Transfer Relay with dimming control ⁽⁶⁾	L830=80CRI, 3000K L835=80CRI, 3500K L840=80CRI, 4000K L850=80CRI, 5000K L930=90CRI, 3000K L935=90CRI, 3500K L940=90CRI, 4000K L950=90CRI, 5000K	[Blank]=No Flex A3/8-4/18GDIM=3/8" Flex with 0-10V Dimming Leads A3/8-2/18G=3/8" Flex with line and common A3/8-5/18GDIM=Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.
	Notes (5) Factory installed with integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. Battery option increases total height by 1 inch. (6) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). ETRD option only requires one relay when used on a dimming fixture. Must specify voltage as 120V or 277V when ordering these devices. 347 not available. (7) EL10WSD and EL14WSD not available with 347V. (C) Consult DLVP system pages for additional details and compatibility.		Flexible Metal Conduit Options (8) Multiple options available in online configurator. See additional notes on Flex below. Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type. A3/8-***** series notes: Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 83, 1479, 1569, 1581, 2556, NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-30B); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour through penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC®; Environmental Air-Handling Space Installation per NEC® 300.22(C).

Driver Type	Number of Drivers	Integrated Sensing Systems	Packaging
Driver Type	Number of Drivers	Integrated Sensing Systems	Packaging
[Blank]=0-10V Dimming Driver (1%-100% Dimming) SLTD=DALI Driver (1%-100% Dimming) LV1=Low-voltage System Driver (0%-100% Dimming) ^(C) LH=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming ^(F)	[Blank]=2 Drivers	[Blank]=No Sensor WPN=WaveLinX PRO Wireless Node without sensor ^{(A),(9)} WTA=Factory installed WaveLinX PRO Sensor Kit ^{(A),(9)} WTK=Factory installed WaveLinX LITE Sensor Kit ^{(B),(9)}	U=Unit Pack
Notes Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility. (F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at www.lutron.com		Notes (9) WPN, WTA, and WTK to be used with default driver Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX system pages for additional details and compatibility. (B) WaveLinX Lite devices are not currently compatible with the WaveLinX Wireless Area Controller. Consult WaveLinX Lite system pages for additional details and compatibility.	

Accessories

Accessories (order separately) ⁽¹⁰⁾
T3A END E.Q. BRACKET PARTS BAG (Standard with fixture) DF-44W-U=4' x 4' Drywall Frame Kit
Notes (10) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction

- Extruded aluminum channels form rigid housing for robust life and aesthetic appeal
- Extruded edges are smooth to enable easy installation
- Earthquake clips are included on every fixture to ensure code compliance for all regions
- If desired, one extruded frame member may be removed to enable lens conversion between regress and drop arrangement before installation
- Driver enclosures use access plate to speed wiring and conduit installation with additional KO on sides.
- Chicago plenum option available

Integrated Controls

- 0-10V dimming to 1% standard
- Tile mount Enlighted sensor compatible for IoT capability
- Low-voltage driver compatible for WaveLinx Low-Voltage and DLVP applications
- DALI 2.0 and Lutron available

LED and Light Engine

- LED's available in 3000K, 3500K, 4000K, or 5000K at 80 CRI or 90 CRI minimum
- TM21 life at 72,000 hours up to L86 and calculated L70 exceeds 172,000 hrs.
- Drivers available in 120-277V and 347V

Emergency Battery Options

- Optional 120-277V emergency battery available in 7W, 10W or 14W
- 90-minute backup period for code compliance
- Test switch ships with the battery versions and is installed remote from fixture to ensure aesthetics
- Generator transfer options available

Finish

- 90% reflective, matte white enamel finish
- Full fixture housing painted after fabrication
- Back gear tray and J-box are constructed of code gauge steel for code compliance

Shielding

- Acrylic lens design enables regression and drop options from factory or change at installation
- Acrylic lenses are finely textured to optimize aesthetics, cleaning and do not show finger prints after installation
- Texture is specifically designed to limit glare from other light sources in on or off state
- Lenses are made with smooth corners and no sharp edges to enable easy cleaning and maintenance

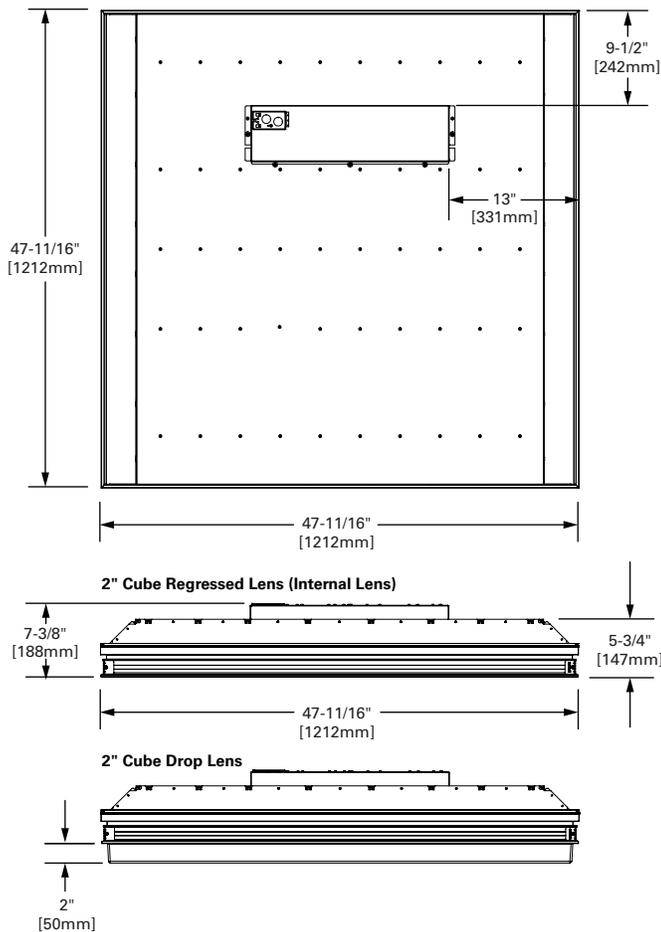
Compliance

- IC rated for insulation contact
- cULus listed for damp locations for all lens options
- cULus listed for wet location with regressed lens options
- RoHS compliant
- Tested to IESNA LM-79 and LM-80
- Stated life tested to TM21 standards
- Can be used for State of California Title 24 high efficacy luminaire
- Meets IEEE 1789-2015 Standard Recommended Practice for LED flicker light modulation
- Contributes to meeting several WELL™ v1 and v2 Features

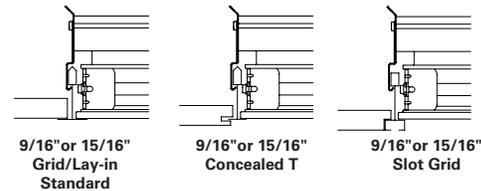
Warranty

- Five year warranty standard. Optional ten year warranty available

Dimensional and Shielding Details



Ceiling Compatibility

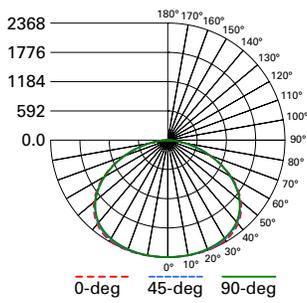


Other Ceiling Mounting

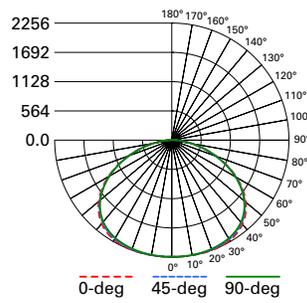
Application	Catalog	Description
Hard Ceiling Recessed	DF-44W-U	4x4 Dry Wall Frame Kit

Photometric Data

[View IES files](#)



44ID-80-L835-CFR2
 LED 3500K
 Spacing criterion: (II) 1.48 x mounting height, (L) 1.46 x mounting height
 Lumens: 8057
 Input Watts: 63.4W
 Efficacy: 121 LPW
 Test Report: 44ID-80-L835-CFR2.IES



44ID-80-L835-CFD2
 LED 3500K
 Spacing criterion: (II) 1.48 x mounting height, (L) 1.46 x mounting height
 Lumens: 7676
 Input Watts: 63.4W
 Efficacy: 121 LPW
 Test Report: 44ID-80-L835-CFD2.IES

Energy and Performance Data

Electrical Performance - 4x4 (3500K, 80 CRI)

Lumen Pkg	Delivered Nominal Lumens		Power Watts	Efficacy (LPW)		Current (A)	
	CFR2	CFD2		CFR2	CFD2	120V	277V
4000	4074	3881	32.2	127	121	0.27	0.12
5000	4913	4680	39	126	120	0.33	0.14
6000	5914	5634	47.6	124	118	0.40	0.17
7000	7072	6737	54.6	130	123	0.46	0.20
8000	8057	7676	63.4	127	121	0.53	0.23
9000	9035	8607	69.4	130	124	0.58	0.25
10000	10007	9533	79.4	126	120	0.66	0.29
11000	10972	10453	86.6	127	121	0.72	0.31
12000	12090	11518	95.6	126	120	0.80	0.35
14000	13987	13325	120	117	111	1.00	0.43
16000	16016	15258	129.4	124	118	1.08	0.47

Optical Performance - 4x4 (3500K, 80 CRI)

Lumen Pkg	UGR [CIE 190:2010] ⁽¹⁾ (4H, 8H; Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane)		MAX LUMINANCE [45-90 DEG FROM NADIR] ⁽²⁾ (CD/M ²)	
	CFR2	CFD2	CFR2	CFD2
4000	17.2	16.5	1022	974
5000	17.8	17.2	1230	1172
6000	18.5	17.8	1495	1424
7000	19	18.3	1702	1621
8000	19.4	18.8	1944	1852
9000	19.7	19	2116	2016
10000	20.2	19.5	2398	2285
11000	20.5	19.8	2612	2488
12000	20.8	20.1	2856	2721
14000	21.3	20.6	3335	3177
16000	21.7	21	3733	3556

Notes: (1) For other UGR data for room or reflective ceiling plans please see technical data on website. (2) For other CCT please see technical data on website.

Lumen Adjustment Factors

CCT Multiplier	80 CRI	90 CRI
3000K	0.95	0.83
3500K	1.00	0.84
4000K	1.01	0.85
5000K	1.03	0.89

Melanopic Ratio (m-EER)

CCT	80 CRI	90 CRI
3000K	0.541	0.577
3500K	0.591	0.665
4000K	0.711	0.737
5000K	0.827	0.890

Example of Lumen Adjustment Calculation

44ID-80-CFR2-L835 at 90CRI at 3500K

Lumen Adjustment Factor = 0.84

Total Light Output =

8,547 lm x 0.84 = 7,180 lm

Efficacy = = 131 lm/W

$$\frac{7,180 \text{ lm}}{32.7 \text{ W}}$$

Nominal Lumen Maintenance

TM-21 Lumen Maintenance (72,000 hours)	Theoretical L70 (hours) ⁽³⁾
> 86%	> 172,000

Notes: (3) Theoretical values represent estimations. Refer to LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

Shipping Data

Lens Catalog No.	Weight (lbs)	Units per Pallet 53" L x 53" W x 55" H
CFR2, CFD2	55	4

Control Systems

- WaveLinx Pro Wireless
- WaveLinx Lite Wireless
- WaveLinx Wired
- DLVP



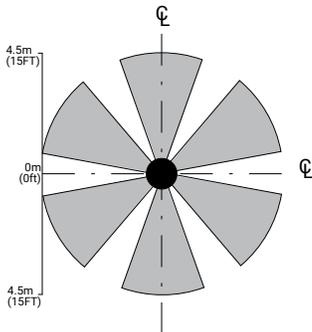
The InDepth with factory-installed tilemount sensor provides automatic energy savings without sacrificing performance. The InDepth delivers superior lighting with luminaire occupancy and daylighting control.

For standalone and controlled applications, the WaveLinx Lite sensor provides out-of-the-box functionality with no gateways required and factory startup is not needed.

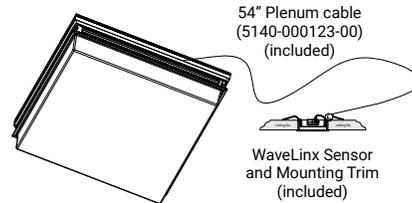
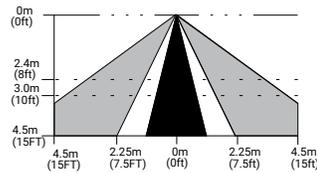
When more connectivity is required, the WaveLinx Pro Wireless sensor meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.

The WaveLinx Wireless Connected Lighting System combined with Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems to deliver actionable insights through the aggregation of valuable data.

TOP VIEW:



SIDE VIEW:



For more information on tilemount sensor specifications and installation, see WaveLinx Pro and WaveLinx Lite Tilemount Sensor Kit at cooperlighting.com.

Note: Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.

Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.



Luminaire with standalone sensor



Standalone Spaces WaveLinx LITE



Networked Spaces WaveLinx PRO



Enterprise WaveLinx CORE

	Luminaire with standalone sensor	Standalone Spaces WaveLinx LITE	Networked Spaces WaveLinx PRO	Enterprise WaveLinx CORE
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Wallstations	-	Yes	Yes	Yes
Gateways	-	-	1 WAC	300 WACs
Devices (MAX)	-	50 per Area (1400 per site)	200 per WAC2	32,500 per CORE Enterprise
Software	-	WaveLinx LITE Mobile App	WaveLinx Mobile App	CORE
Areas	-	28 per Site	50 per WAC2	up to 3,000
Zones	-	16 per Area	16 per Area	up to 9,000
Scheduling	-	-	Local	Global
VividTune™	-	-	Yes	Yes
Plug-Load Control	-	-	Yes	Yes
Low-Voltage Power	-	-	Yes	Yes
Integration	-	-	-	BACnet, API
Dashboards	-	-	-	Energy, Occupancy
Configuration	-	Installer	Technician	Technician / IT

SCALABILITY

