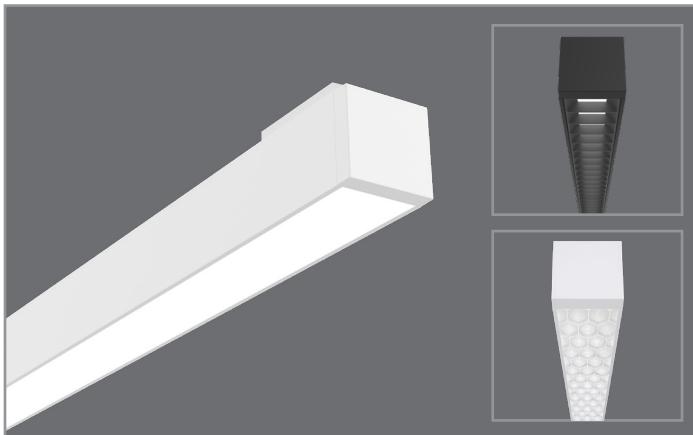


Project		Catalog #		Type	
Prepared by		Notes		Date	



Corelite

Continua™ SQ4

LED
Surface Mounted
Direct

Typical Applications

- Office • Education • Healthcare • Hospitality • Retail

Interactive Menu

- Order Information page 2
- Photometric Data page 4
- Energy and Performance Data page 5
- Connected Systems page 6
- Product Warranty

Top Product Features

- Compact square design with integral electrical components and circuiting options
- Seamless illumination with single-piece luminous roll lens
- 5 differentiated Perceive lenses in a seamless roll lens
- Black and white glare reducing louvered baffle options
- Up to 124 lumens per watt
- Options to meet Buy American Act requirements
- BioUp melanopic lighting options for 30% circadian boost and earn WELL Building Standard points

Product Certification

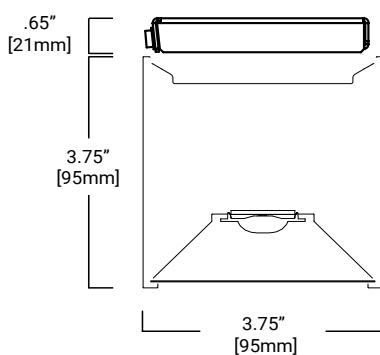


IALD LIRC

Product Features



Dimensions



Bottom Views

24" [610mm]

48" [1219mm]

72" [1829mm]

96" [2438mm]

144" [3658mm]

Note: End caps add .75" at each end. Sensor end caps add 1.5".

Order Information

SAMPLE ORDER NUMBER: SQ4-F-075D-835-1D-UNV-STD-WAA-BSL6-W-SU-16

Domestic Preferences		Series	Shielding	Lumen Package Nominal (Lms/ft)	CRI/CCT	Circuiting (In Cross Section)	Specialty Wiring
Domestic Preferences	Series	Shielding	Lumen Package Nominal (Lms/ft)	CRI/CCT	Circuiting (In Cross Section)	Specialty Wiring	
[Blank]=Standard BAA=Buy American Act	SQ4=Continua SQ 4" Surface	F =Frosted Continuous Roll Lens FB =Batwing Frosted Continuous Roll Lens FA =Asymmetric Frosted Continuous Roll Lens BB =Black Baffle, Frosted Diffuser WB =White Baffle, Frosted Diffuser PC3 =Perceive PARAmid PP3 =Perceive Prism PW1 =Perceive Waves PR1 =Perceive Ripple PH1 =Perceive Honeycomb	050D =500 Lumens/ft Down 075D =750 Lumens/ft Down 100D =1000 Lumens/ft Down 125D =1250 Lumens/ft Down D =Specify	830 =3000K, 80CRI 835 =3500K, 80CRI 840 =4000K, 80CRI 930 =3000K, 90CRI 935 =3500K, 90CRI 940 =4000K, 90CRI 93050 =White Tuning 3000K-5000K 92765 =White Tuning 2700K-6500K B35 =BioUp Static 3500K B40 =BioUp Static 4000K B50 =BioUp Static 5000K B2750 =BioUp Tunable White 2700K-5000K	1=Single Circuit	D =None (Default Dimming) E =Emergency Circuit S =Secondary Circuit N =Secondary + Emergency Circuit	
Notes Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	Notes	F, PC3, PP3, PW1, PR1, PH1 : Single piece lens supplied up to 100-ft.	Notes Custom lumen output available. Down (Direct): Min = 200 Lms/ft Max = 2000 Lms/ft Consult factory to specify custom lumen package Not all lumen packages are available for every configuration. See Driver Availability tables for more details.	Notes Tunable White is 90CRI standard to be used with W2A driver only. Must be used with two (2) 10V dimming control channels, CCT, 1 intensity. BioUp Static to be used with STD driver. BioUp white tuning provides correlated color temperatures (CCT) between 2700K (warm) to 5000K (cool). Must be used with W2A or W2D driver.	Notes Refers to wiring in cross section.	Notes Emergency and Secondary circuit section wiring are configured per unit (4ft, 6ft, 8ft or 12ft).	Notes Secondary circuit not available with integrated sensor options.

Voltage	Driver/Dimming	Integral Sensor Options	Integral Emergency Device Options	Finish	Mounting	Run Length
Voltage	Driver/Dimming	Integral Sensor Options	Integral Emergency Device Options	Finish	Mounting	Run Length
UNV =Universal (120V-277V) 347 =347V	STD =Standard 0-10V (1%-100%) SR =Sensor Ready (1%-100%) 5LT =Fifth Light DALI (1%-100%) LH =Lutron HILume 1% EcoSystems (LDE1) W2A =Tunable White, 2ch, 0-10V Intensity and CCT Control W2D =Tunable White, DALI Type 8 (1%-100%)	WLS (formerly WAB) =WaveLinx LITE Wireless Sensor, Occupancy w/ photocell, Independent & Networked ^(*) WPS (formerly WAA) =WaveLinx PRO Wireless Sensor, Occupancy w/ photocell, Networked ^(*) LWIPD1 =Enlighted Wireless Integrated Sensor	BSL6 =Bodine 6-watt, 120V-277V Emergency Battery Pack, Self-Diagnostic, BSL6LST EPC-LVS Controls EPC UL924 Bypass Relay	W =White S =Silver B =Black CC =Custom Color	SU =Ceiling Surface Mount, Junction Box	2=2 ft 4=4 ft 6=6 ft 8=8 ft 12=12 ft XX=Specify Run Length
Notes Integral 347V driver with STD 0-10V option only.	Notes Not all driver options are available for every configuration. See Driver Availability tables for more details. W2A used with two (2) 10V dimming control channels - color and intensity. May be combined with WaveLinx. W2D for use with BioUp options only. Tunable White CCT between 2700K and 5000K. Must be used with DALI controls; one address to control two channels - intensity and CCT.	Notes WPS and WLN sensor must be used with "STD" driver. LWI sensor must be used with "SR" driver. Integrated Sensors combined with Emergency Circuit require one UL924 Bypass Relay per emergency fixture. Integrated sensor 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 PRO 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.	Notes EPC option used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). Battery operates entire downlight portion of 4ft, 6ft fixtures and 4ft sections of 8ft and 12ft fixtures.	Notes CC =must denote RAL color number	Notes Surface mount bracket is pre-installed on luminaire.	Notes See "Standard Row Configurations" table on Page 4 for continuous row length breakdowns. 2ft not available with integral sensors, BioUp or emergency.

Product Specifications

Construction

- Single-piece extruded aluminum housing
- 3.75" x 3.75" square profile
- Die-formed 22 gauge cold rolled steel top housing cover
- Driver accessible from above

End Caps

- Die cast aluminum end caps allow for expansion of roll lens to eliminate light leak
- Attach mechanically to the end of the fixture without exposed fasteners
- Standard end cap adds 0.75" at each end. Integrated sensor end cap adds 1.5" at each end

Lengths

- Available in 2-ft, 4-ft, 6-ft, 8-ft and 12-ft sections
- Modular design eliminates the need for starter, intermediate, and end of run sections
- See table on page 4 for standard continuous row length breakdowns

Finish

- Electrostatically applied polyester powder coat paint
- White, silver, and black finishes are standard.
- RAL custom colors are available

Mounting

- Surface mount fixture mounts directly to structure over a 2"x 4" standard electrical box
- All sections are continuously wired with push-in connectors for fast installation
- Refer to installation instructions for various ceiling interface details

Shielding

- **F:** Frosted continuous flexible roll lens creates seamless illumination along entire row length. Single piece roll lens up to 100 ft.
- **FB:** Frosted batwing continuous flexible roll lens creates seamless illumination along entire row length. Single piece roll lens up to 100 ft.
- **FA:** Frosted Asymmetric continuous flexible roll lens creates seamless illumination along entire row length. Single piece roll lens up to 100 ft.
- **BB(Black) and WB(White):** Injection molded louvered baffles with 1.5" openings for glare management and frosted glare control diffuser to shield direct view of LEDs and lower UGR values and improve visual comfort.
- **PC3, PP3, PW1, PR1, PH1:** Proprietary Perceive™ optical system enables dynamic visual depth on a flat surface while providing glare-reducing performance with comfortable, high-quality illumination. Perceive continuous flexible roll lens creates seamless illumination along entire row length. Single piece roll lens up to 100 ft.

Optics

- Precision engineered acrylic TIR optics on LED light engines for optimal light uniformity on continuous lens

LED and Light Engine

- LEDs are available in 3000K, 3500K, 4000K
- CRI options of either ≥80CRI or ≥90CRI
- Lumen output will be affected - please refer to the lumen adjustment factor tables
- TM21 life at 60,000 hours up to L84 and calculated L70 exceeds 121,000 hrs.
- Drivers available in 120-277V and 347V

Integrated Controls

- 0-10V dimming to 1% standard
- WaveLinx sensor compatible for IoT capability
- Enlighted sensor compatible for IoT capability
- DALI 2.0 and Lutron dimming available

Emergency Options

- Emergency circuit option operates entire downlight portion of a specified unit (4 ft, 6 ft, 8 ft, or 12 ft)
- Optional 6-watt 120-277V integral emergency battery illuminates a 4 ft. down-light section
- 90-minute backup period for code compliance
- Test switch/indicator button located on the top side of the luminaire
- 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 6 = 600 lumens)
- Battery is self-testing
- UL 924 emergency/generator transfer options available

Weight

- < 3.5 lbs. per foot

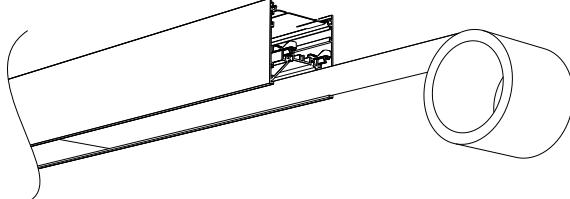
Compliance

- cULus listed for damp locations
- Tested to IESNA LM-79 and LM-80
- RoHS compliant
- Stated life per TM21 standards
- Can be used for State of California Title 24 high efficacy luminaire

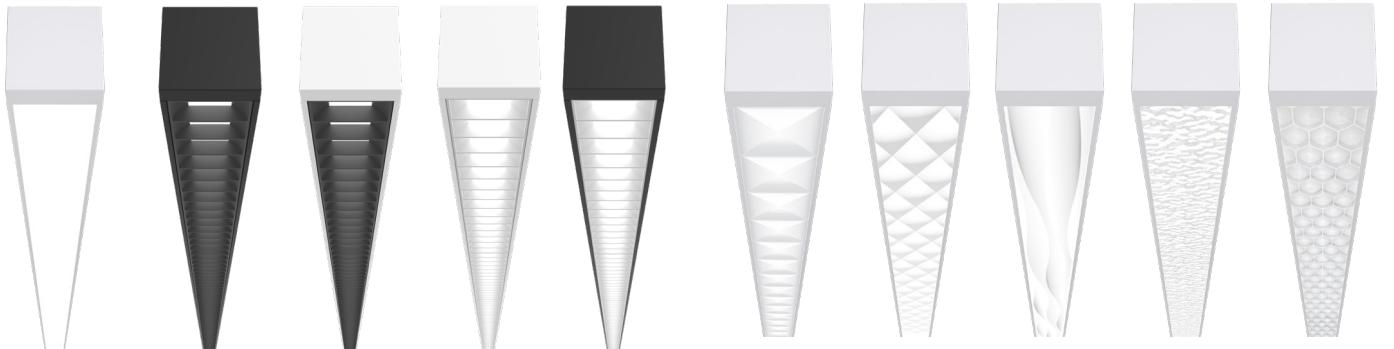
Warranty

- Five year warranty standard
www.cooperlighting.com/legal

Continuous Lens



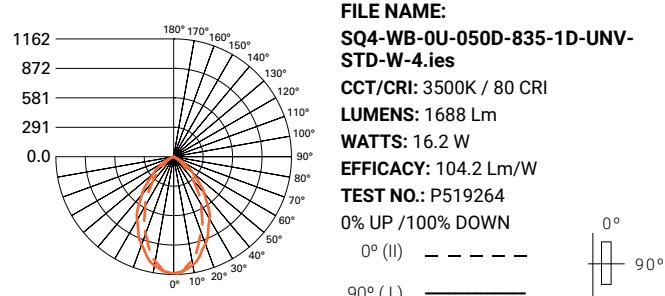
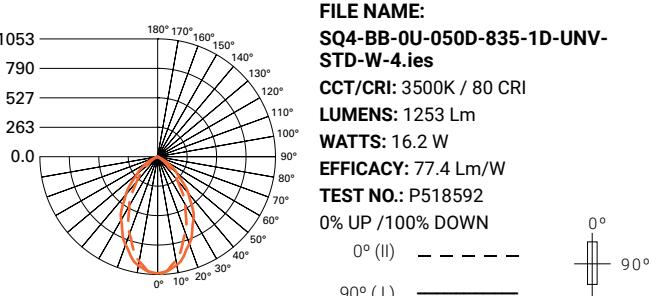
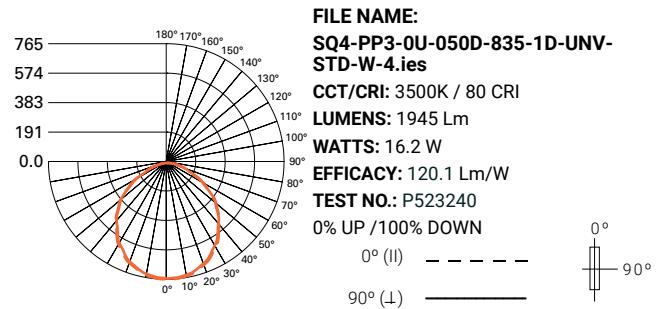
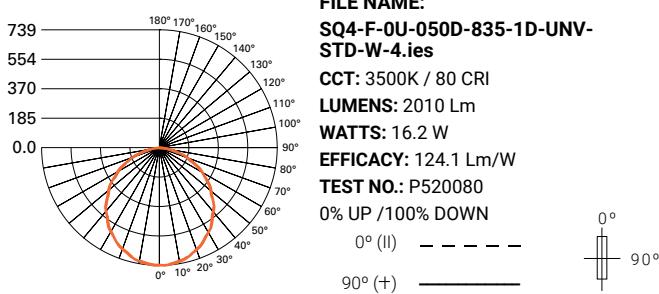
Shielding & Finish Options



F-W BB-B BB-W WB-W WB-B PC3-W PP3-W PW1-W PR1-W PH1-W
Frosted Continuous Lens, Black Baffle Black Baffle White Baffle White Baffle Perceive PARAmid Lens Perceive Prism Lens Perceive Waves Lens Perceive Ripple Lens Perceive Honeycomb Lens
White Fixture Finish Black Fixture Finish White Fixture Finish White Fixture Finish Black Fixture Finish White Fixture Finish

Note: All Finish and Shielding combinations are available. Not all are shown. Custom color housing finishes are also available.

Photometric Data

[View IES files](#)

Note: Refer to IES files for more product data.

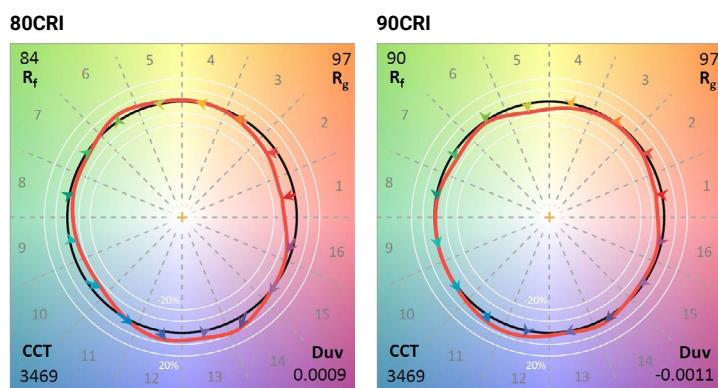
Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours) ⁽¹⁾	Theoretical L ₇₀ (Hours) ⁽²⁾
25°C	>84%	121,000

Notes: (1) Supported by IES TM-21 standards. (2) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

Color Data (3500K)

		80CRI	90CRI
TM-30-15	R _f	84	89.7
	R _g	97.2	97.2
CRI/CIE	R _a	83.4	94.3
	R _g	10.9	61.7



Energy and Performance Data - Continuous Lens and Indirect

Continua SQ4 Suspended Performance (3500K)				Glare	
Lumen Package	Lumens/ft	W/ft	Lm/W	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾
050D	499	4.0	124	22.3	6202
075D	744	6.0	123	23.6	9167
100D	983	8.2	120	24.6	12204
125D	1259	10.9	115	25.5	15513



Energy and Performance Data - White Baffle (SQ4-WB)

Continua SQ4 Suspended Performance (3500K)				Glare	
Lumen Package	Lumens/ft	W/ft	Lm/W	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾
050D	422	4.1	104	16.9	5194
075D	623	6.0	104	18.2	7671
100D	823	8.2	100	19.2	10122
125D	1026	10.9	94	20	12629



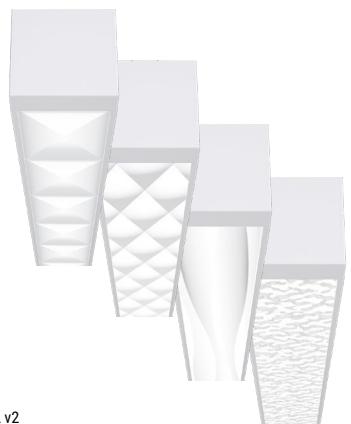
Energy and Performance Data - Black Baffle (SQ4-BB)

Continua SQ4 Suspended Performance (3500K)				Glare	
Lumen Package	Lumens/ft	W/ft	Lm/W	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾
050D	313	4.1	77	12.4	4231
075D	463	6.0	77	13.8	6250
100D	611	8.2	74	14.8	8248
125D	762	10.9	70	15.5	10290



Energy and Performance Data - Perceive™ Lenses

Glare								
	PARAmid (PC3)		Prism (PP3)		Waves (PW1)		Ripple (PR1)	
Lumen Package	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	MAX LUMINANCE ⁽³⁻⁶⁾	UGR ⁽¹⁻²⁾⁽⁴⁻⁶⁾	
050D	21.8	6194	21.1	6202	21.5	5959	20.7	6464
075D	23.2	9130	22.5	9140	22.8	8782	22	9528
100D	24.1	12131	23.5	12144	23.8	11669	23	12659
125D	25	15480	24.3	15497	24.6	14891	23.9	16155



Notes:

- (1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane
- (2) For other UGR data for room or reflective ceiling plans please see technical data on website.
- (3) Luminance measured at 45-90 degrees from nadir.
- (4) UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell. (UGR < 16, Luminance < 6,000, Indirect-only)
- (5) UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text. (UGR < 19, Luminance < 7,000, Indirect-only)
- (6) For technical data of other configurations please see photometric section on website or click link at top-right

KEY:

 	Meets WELL v2
TEXT	Meets LEED v4.1

Lumen Adjustment Factors

CCT	3000K		3500K		4000K		5000K	
CRI	80+	90+	80+	90+	80+	90+	80+	90+
Lumen Multiplier	0.956	0.803	1.000	0.852	0.988	0.888	-	-
BioUp Static	-		0.969		0.955		0.934	

Example Calculation:

075D / 3500K / 80 CRI

Lumen Output selected = 985 lms/ft

3500K / 90 CRI Desired

Lumen Adjustment Factor = 0.852

Adjusted Lumen Output = 744 lms/ft x 0.852 = 634 lms/ft

Lens Lumen Multipliers (applied to Direct/Down output)- Perceive Lenses

F = Frosted	1.000
PC3 = Perceive PARAmid	0.979
PP3 = Perceive Prism	0.970
PW1 = Perceive Waves	0.964
PR1 = Perceive Ripple	0.959

Control Solutions

- WaveLinx LITE wireless
- WaveLinx PRO wireless
- WaveLinx CAT wired
- WaveLinx Wired



The SQ4 with WaveLinx offers no-hassle lighting control with multiple luminaire level control solutions.



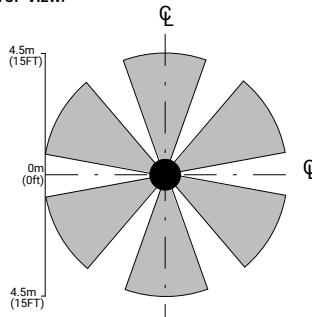
WaveLinx PRO is a wireless lighting control solution, for connected spaces, that significantly reduces a building's energy consumption. From a single floor to an entire campus, WaveLinx PRO connects more than lighting assets; it shares aggregated sensor data with the WaveLinx CORE platform and other building systems, so building owners can improve operations, spaces environment, and tenants' experience. WaveLinx PRO offers a rich portfolio of wireless devices, WaveLinx PRO-enabled luminaires, and an intuitive WaveLinx mobile app for office, education, warehouse, and parking garage applications.



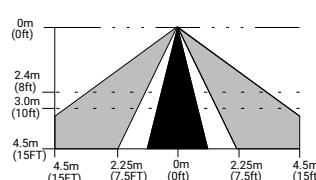
WaveLinx LITE is a cost effective, wireless digital lighting control solution, with out-of-the-box functionality, that saves energy and meets code. It's designed for applications that require occupancy-based, daylighting, or manual light control. Customize installations for office, education, warehouse and parking garages using the secure, simple mobile app.

Integrated Sensor Coverage Pattern

TOP VIEW:



SIDE VIEW:



With Integrated WaveLinx Sensor Endcap



With Integrated WaveLinx Sensor Side Mount



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.

Integrated Controls Options					
Option	Out of the Box Functionality	Luminaire Level Lighting Control (LLLCC)	Automatic Dimming Photocell	Occupancy Sensing	CCT Control
WLS	X	X	X	X	
WPS		X	X	X	X

Note: WaveLinx utilizes scenes to allow users to change an area's fixtures Correlated Color Temperature (CCT) and intensity using commissioned manual wireless wallstation scene control. To enable CCT adjustments through WaveLinx, include WPS or WPW devices in addition to VividTune or BioUp technologies for integrated fixture control.

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



Standalone
Spaces
WaveLinx CAT



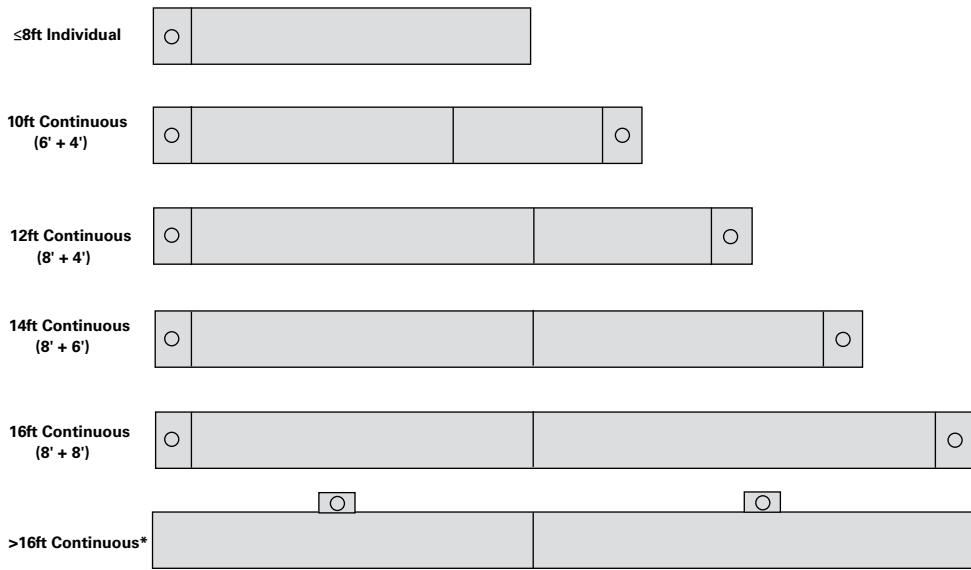
Networked
Spaces
WaveLinx PRO



Enterprise
WaveLinx
CORE

Occupancy	Yes	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes	Yes
Wallstations	-	Yes	Yes	Yes	Yes
Gateways	-	-	-	1 WAC	300 WACs
Devices (MAX)	-	40 per Area (1120 per space)	40 per Area	200 per WAC2	32,500 per CORE Enterprise
Software	-	WaveLinx LITE Mobile App	WaveLinx CAT Mobile App	WaveLinx Mobile App	CORE
Areas	-	28 per Space	Unlimited	50 per WAC2	up to 3,000
Zones	-	16 per Area	16 per Area	16 per Area	up to 9,000
Scheduling	-	-	-	Local	Global
VividTune™	-	-	-	Yes	Yes
Plug-Load Control	-	Yes	Yes	Yes	Yes
Low-Voltage Power	-	-	Yes	Yes	Yes
Integration	-	-	-	-	BACnet, API
Dashboards	-	-	-	-	Energy, Occupancy
Configuration	-	Installer	Installer	Technician	Technician / IT

Default Integral Sensor Placement



Note: *See Standard Row Configuration table on Page 4.

○ Standard Sensor with Luminaire Control

⊗ Auxiliary Sensor used for Sensor Coverage
(wireless systems only)

Standard Row Configurations

12' Unit Max

Fixture Length	2'	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'	42'	44'	46'	48'	50'
2'	1																								
4'		1			1																				
6'			1		1		1		1		1		1		1		1		1		1		1		1
8'				1			1	2		1	2		1	2		1	2		1	2		1	2		1
12'						1			1	1		2	1	1	2	2	1	3	2	2	3	3	2	4	3

Fixture Length	52'	54'	56'	58'	60'	62'	64'	66'	68'	70'	72'	74'	76'	78'	80'	82'	84'	86'	88'	90'	92'	94'	96'	98'	100'
4'																									
6'			1		1			1		1		1		1		1		1		1		1		1	
8'	2		1	2		1	2		1	2		1	2		1	2		1	2		1	2		1	2
12'	3	4	4	3	5	4	4	5	5	4	6	5	5	6	6	5	7	6	6	7	7	6	8	7	7

8' Unit Max

Fixture Length	2'	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'	34'	36'	38'	40'	42'	44'	46'	48'	50'
2'	1																								
4'		1			1	1			1	1			1	1			1	1			1	1			1
6'			1		1		1		1		1		1		1		1		1		1		1		1
8'				1		1	1	1	2	1	2	2	3	2	3	3	4	3	4	4	5	4	5	6	5

Fixture Length	52'	54'	56'	58'	60'	62'	64'	66'	68'	70'	72'	74'	76'	78'	80'	82'	84'	86'	88'	90'	92'	94'	96'	98'	100'
4'	1			1	1			1	1			1	1			1	1			1	1			1	1
6'		1		1		1		1		1		1		1		1		1		1		1		1	
8'	6	6	7	6	7	7	8	7	8	8	9	8	9	9	10	9	10	10	11	10	11	11	12	11	12



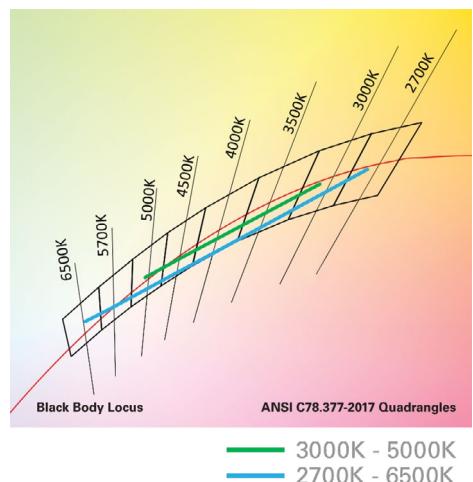
SQ4 with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.

Performance Data

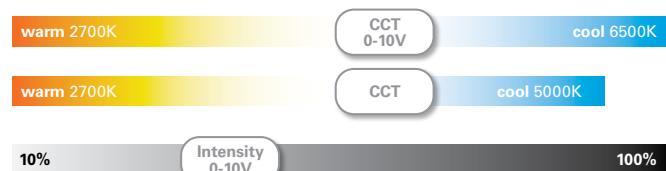
Continua SQ4 Suspended Performance (3500K)						
Lumen Package	"Lumens/ft Up"	"Lumens/ft Down"	"Lumens/ft Total"	"W/ft Total"	Lm/W	Distribution (up%/down%)
OU-050D	0	510	510	5.2	98	0%/100%
OU-075D	0	753	753	7.9	95	0%/100%
OU-100D	0	994	994	10.6	94	0%/100%
OU-125D	0	1251	1251	13.9	90	0%/100%

CCT Multiplier	90CRI 3000K-5000K	90CRI 2700K-6500K	BioUp 2700K-5000K
2700K	-	0.954	0.996
3000K	0.981	0.974	0.986
3500K	1.000	0.997	0.969
4000K	1.011	1.016	0.955
4500K	1.018	1.032	0.945
5000K	1.025	1.044	0.934
5700K	-	1.058	-
6500K	-	1.068	-



Controlling VividTune and BioUp Tunable White

From wall dimmers to wireless controls, tunable white luminaires are compatible with industry standard 0-10V and DALI controls. One channel to control intensity (brightness) and a second channel to adjust CCT.



Example Calculation:

025U-075D / 3000K-5000K tuned to 3500K

Lumen Output selected = 1202 lms/ft

90CRI 3000K-5000K tuned to 4000K

Lumen Adjustment Factor = 1.011

Adjusted Lumen Output = 1130 lms/ft x 1.011 = 1215 lms/ft

Driver Availability

	'STD' 0-10V, UNV Qty of Drivers					'5LT' DALI / 'SR' Qty of Drivers					'L5' / 'LH' Lutron Qty of Drivers					'STD' 0-10V, 347V Qty of Drivers					'W2A' 2Ch WT 0-10V, UNV Qty of Drivers					
Lumen Package	2'	4'	6'	8'	12'	2'	4'	6'	8'	12'	2'	4'	6'	8'	12'	2'	4'	6'	8'	12'	2'	4'	6'	8'	12'	
0U-050D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	N/A	1	1	1	1	2	
0U-075D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	
0U-100D	1	1	1	1	2	1	1	1	1	2	1	1	1	1	2	1	1	1	1	2	1	1	1	2	3	
0U-125D	1	1	1	2	3	1	1	1	2	3	1	1	1	2	3	1	1	1	1	2	3	1	1	2	2	3

Driver Availability with BioUp

	BioUp 0-10V STD & W2A					BioUp DALI W2D				
Lumen Package	2'	4'	6'	8'	12'	2'	4'	6'	8'	12'
0U-050D	N/A	1	1	1	1	N/A	1	1	1	2
0U-075D	N/A	1	1	1	3	N/A	1	1	2	3
0U-100D	N/A	1	2	2	3	N/A	1	2	2	3
0U-125D	N/A	1	2	2	3	N/A	1	2	2	3

Material Transparency



The ILFI (International Living Future Institute) has created a program where manufacturers can disclose the components or "ingredients" of a product. This disclosure has a rating system that shows transparency in the materials chosen in developing products, and whether there are any chemicals of concern, to help meet the requirements of leading green building standards that support human and environmental health.



- Products disclose 100% of ingredients present in final product, but contain one or more Red List chemicals that are not covered by an approved exception.



Proven Research. Industry Recognized.



See better



Feel better



Function better



See [BioUp brochure](#) for more details

ANSI/IES RP-46-23



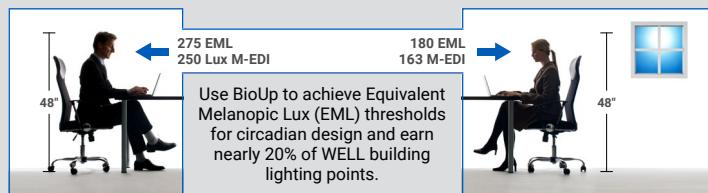
**RECOMMENDED PRACTICE:
SUPPORTING THE PHYSIOLOGICAL
AND BEHAVIORAL EFFECTS
OF LIGHTING IN INTERIOR
DAYTIME ENVIRONMENTS**
AN AMERICAN NATIONAL STANDARD

ANSI/IES RP-46-23 / TM18 published March 2024 based on over 40 years of research.

"...circadian clock synchronization is paramount to the body's efficient and appropriate functioning." – TM18



BioUp solutions maximize WELL points for Circadian Lighting Design (L03):



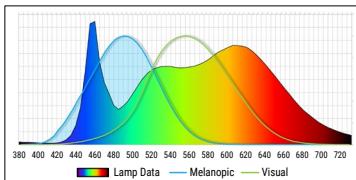
MDER, M-EDI and **EML** are key metrics used to quantify non-visual performance of indoor lighting systems.



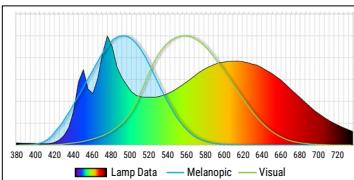
See [BioUp white paper](#) for more details

MDER - Melanopic Daylight Efficacy Ratio (MDER) measures the amount of light stimulating to the melanopsin receptors.

Standard 4000K LED
MDER = .62



BioUp 4000K LED
MDER = .82



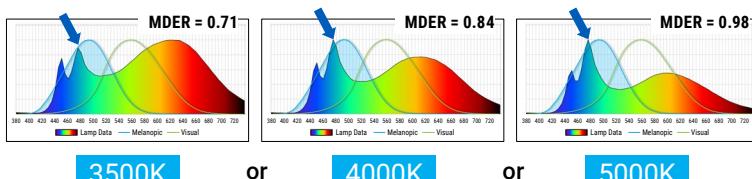
30% boost Biological impact
compared to traditional LED sources

CCT	LED MDER ~83 CRI	BioUp Static		BioUp Dynamic	
		MDER	CRI	MDER	CRI
2700K	0.44	–	–	0.43	95
3000K	0.49	–	–	0.54	94
3500K	0.56	0.71	90	0.71	90
4000K	0.64	0.84	87	0.82	87
5000K	0.77	0.98	84	0.98	84

BioUp enhances the LED spectrum with cyan light at 475nm increasing the biological impact of the light to enhance our circadian rhythm which regulates our sleep/wake cycle, daytime engagement, and mood – **all without distorting visual color impression.**

Static (non-tunable)

Static BioUp is used when simple Melanopic Lighting is desired at all times.



Cyan light component always present

Dimming Control

0%

Intensity

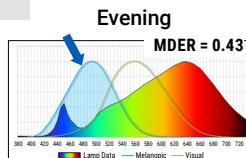
100%

➤ no CCT control needed

Arrow in graph shows BioUp spectrum boost is at 475nm where non-visual biological response is enhanced.

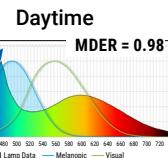
Dynamic - (Tunable)

Dynamic BioUp is used when Melanopic Lighting is desired to adjust during the day.



Warmer CCT Without Cyan content

2700K – 5000K



Cooler Light With Cyan content

CCT Control

warm 2700K

CCT

cool 5000K

Dimming Control

0%

Intensity

100%

➤ Control with Wavelinx, 2ch 0-10V, or DALI