Part Number:

ORDERING GUIDE

rioject nume.





PHOTOMETRIC DATA

Kit Installed into Existing Housing

DIGITAL NAVIGATION Explore the spec sheet through the links below

LINE DRAWINGS

Kit Provided

Strip Retrofit

Surface Retrofit

Low Bay Retrofit

LED SYSTEMS TABLE

Resulting In

SCAN OR CLICK HERE

CONTROLS

FEATURES

- Highly Configurable & Adaptable BAA linear retrofit available in 4ft and 8ft lengths, with mounting options for strip, surface, and low bay applications.
- Strip mounting includes fixed 4.3" and 5.0" widths, adjustable 2.8" to 5.5" options, and custom-width channels for a tailored installation.
- Offers 8 lumen packages ranging from 2,000 to 12,000 lumens, with 3500K, 4000K, and 5000K CCT options and up to 180 lm/W efficiency.
- Features IK06 rated curved or flat frosted acrylic lens options and integrated wireless grouping controls for enhanced energy savings.
- Designed for -4°F to 123°F ambient temperatures and calculated L70 > 100,000 hours
- DLC® Premium qualified, ETL listed for dry and damp locations, with a 5-year standard warranty (optional 10-year warranty).

SUITABLE APPLICATIONS

•	Education	•	Healthcare	•	Offices	•	Groc	ery	•	Retail	•	Storage	e Facility	•	Resi	dential	•	Stairwe	ell
Cl		OI	NS		UTRON	Enlig	ghted	UTROI Athena Wirele	V ess Nod				e Constanting States St	G	Des	10			DL LIST PREMI

SPECIFICATIONS

CONSTRUCTION

Steel cover for rigidity, durability, and ease of installation. Designed to achieve maximum performance and improved aesthetics. Designed to retrofit existing fluorescent strip, surface, and low bay fixtures. Product proudly assembled in the United States of America.

ELECTRICAL

Class 2 LED light engine for high efficacy and long life. Calculated L70 > 100,000 hrs and L90 > 54,000 hrs. LED Lumen Maintenance Estimates based on TM-21 projections for the light source at 25°C ambient. Power Factor > 0.90. THD < 20%. Standard 120-277 Vac 0-10V dimmable (10%-100%) with optional 347-480 Vac High Voltage, Bi-Level, 1% Dimming, and 120V Line Volage Dimming Options. Optional emergency battery backups, generator transfer device, and UL924 devices available to meet critical life safety lighting requirements.

INSTALLATION

Designed to retrofit existing fluorescent strip, surface, and low bay fixtures. Strip mounting type offers fixed 4.3", 5.0", and Adjustable 2.8"/4.3"/5.0"/5.5" channel width options to mount to existing housings. Custom width options available as well; contact factory for more information. Surface mounting type standard with 5.6" width channel. Low Bay mounting type standard with 6.3" width channel. ILP recommends a trial installation prior to ordering project quantities.

OPTICS

Standard without lens. Optional impact resistant Curved and Flat Frosted Glare Reducing Acrylic lens available for durability and LED Glare reduction. Field removable lens for installation and maintenance.

CONTROLS

Factory installed Advanced and Basic sensor options available to maximize energy savings. Please see more information below on Pages 4 & 5. Inquire with manufacturer for additional controls options, including customer supplied items.

CERTIFICATIONS

ETL Listed to US and Canadian safety standards. Suitable for damp locations. Title 24 Compliant with sensor option; see local ordinance for qualification information. DLC (DesignLights Consortium) Premium and Standard Qualified. Please refer to the DLC Qualified Products List at www. Designlights.org/QPL to confirm specific product qualifications.

WARRANTY

5 Year Warranty Standard; 10 Year Warranty Optional (Terms and Conditions apply).



ORDERING GUIDE

PART

Example: VLR4-4LHE-U-40-FFLGR-43ST-NURO

	—		-		_		-			_			-		
SERIES		LUMENS		LIGHT ENGINE		DRIVER			сст		LENS	OPTION		I	MOUNTING TYPE
VLR4 4' Linear		2L	1	HE High Efficacy		U 120-277V	1	35	3500K		BLANK	No Lens	1	43ST ²	Fixed 4.3" Strip Channel Width
Retrofit		3L						40	4000K		FFLGR	Frosted		50ST	Fixed 5.0" Strip Channel Width
		4L						50	5000K			Flat Glare		ADJST	Adjustable Width Bracket
		6L										Reducing Lens			Strip Channel
											FCLGR	Frosted			(2.8" / 3.6 / 4.3" / 5.0" / 5.5")
VLR8 8' Linear		5L										Curved Glare		xxST ^{3,4}	Custom Width Strip Channel
Retrofit		6L										Reducing Lens			
		8L												SF	Surface
		10L												LB	Low Bay
		12L													

		—]–				
ALTERNATE DRIVERS				EMERGENCY				CONTRO	LS
BLANK	None		BLANK	None	1		BASIC		ADVANCED
SR	Sensor Ready		EM7	7W Battery Backup		BLANK	None	BLANK	None
	Driver		EM7/HE	7W Battery Backup -		FIOS ⁵	On/Off Occupancy Sensor	NURO 5, 7	NUROAir Integrated Groupable Sensor
DR	DALI Ready Driver		EM10	10W Battery Backup		FIOSPC ⁵	On/Off Occupancy Sensor w/ Photocell	ESMC ^{5,7}	EasySense Grouping Sensor for Mounting Heights < 10ft
DIM1 11	1% Dimming Driver		EM10/HE	10W Battery Backup - CEC Title 20 Compliant		FIOSPC/DLH	⁵ On/Off Occupancy Sensor w/ Davlight Harvesting	5E/5W/CL⁵	Enlighted 5E Connected Lighting (CL) Sensor w/ Aux Driver / 5 Wire Connection
BLD ^{11, 13, 14}	Bi-Level		EM12	12W Battery Backup		USBD 5, 10	User Selectable Bi-Level	5E/5W/IOT⁵	Enlighted 5E Internet of Things (IOT)
	Dimming Driver w/ Two		GTD	Generator Transfer			Dimming Occupancy Sensor		Sensor w/ Aux Driver / 5 Wire Connection
	Hot Leads (100%/50%)		DTS	Device Dimming Transfer Switch	I	BDxx ^{5, 10}	Preset Bi-Level Dimming Occupancy Sensor (xx=%	VDO ^{5, 9}	Lutron Vive DFCSJ-OEM-OCC (Daylight & Occupancy)
LVD120 ^{11,13}	³ Mark X Phase						eg. 20,30)	VRF ^{5, 9}	Lutron Vive DFCSJ-OEM-RF (RF Only)
	Dimming 120V					BDxxPC ^{5,10}	Preset Bi-Level Dimming	AWNR ^{5,9}	Lutron Athena Wireless Node
							Occupancy Sensor (xx=% eg. 20,30) w/ Photocell	AWNS ^{5,9}	Lutron Athena Wireless Node with Sensor

]-		WIRING	-	WARRANTY		SHI	P WITH ACCESSORIES
SD347 ¹² 347V Step Down Transformer	R	RW/3W ⁶	3 Wire Raceway Wiring Harness for		BLANK 5 Year		NURO-SW-3B-BT-BLE-WP-V1	NUROAir Bluetooth 3-Key Wireless Battery Powered Wall Switch
SD480 ¹² 480V Step Down Transformer		continuous wiring through fixtures (non-dim function)					NURO-SW-5B-BT-BLE-WP-V1	NUROAir Bluetooth 5-Key Wireless Battery Powered Wall Switch
		RW/5W6	5 Wire Raceway Wiring Harness for	5 Wire Raceway Wiring Harness for		NURO-SW-7B-AC-BLE-WP-V1	NUROAir Bluetooth 7-Key Line Voltage (AC 120-277V) Powered Wall Switch	
			continuous wiring through fixture				ESMC/WWS/DR	EasySense Dual Rocker Wireless Wall Switch
	J		(dimming)				+VLRx WC ¹	11ga Unpainted Galvanized Finish Wire Cage (X=2, 4, 8)
							+VLRx RS ⁸	Reflector Kit, Symmetrical, White (x=2, 4, 8)

+VLRx RA⁸

FOOTNOTES

- ¹ Only to be used with 43ST mounting type
- ² See pages 6-10 for line drawings
- ³ Minimum width is 2.8"
- ⁴ Contact factory for more information
- $^{\scriptscriptstyle 5}$ Mounted Integral within Fixture Length
- ⁶ Used only when mounting fixtures in continuous rows. One needed between each fixture.
- ⁷ Easily Controlled via Mobile Phone with Bluetooth App
- ⁸ Only available with 43ST and 50ST Mounting Type
- ⁹ Must be used with SR Sensor Ready Driver
- ¹⁰ Modified coverage area (see page 4 for details)
- ¹¹Not compatible with sensor options
- ¹²Cannot be combined with EM for VLR4
- ¹³Not compatible with SD347 or SD480
- $^{\rm 14}\,{\rm Will}$ not work with the stepdowns or sensors

Reflector Kit, Asymmetrical, White (x=2, 4, 8)



LED SYSTEMS INFORMATION

LED SYSTEMS INFO ²	LENS	3500K		400	ок	50	оок			DICI
Part Numbers		Lumens	Efficacy	Lumens	Efficacy	Lumens	Efficacy	WAI IAGE ³	REPLACES	DLC
	No Lens	2820	168.0	2881	171.8	2962	175.8			Standard
VLR4-2LHE	FCLGR	2668	159.1	2743	162.8	2802	166.6	16.8	1T8	Standard
	FFLGR	2681	160.0	2740	163.6	2816	167.3			Standard
	No Lens	3788	162.1	3865	165.9	3958	169.7			Standard
VLR4-3LHE	FCLGR	3584	153.6	3656	157.2	3745	160.9	23.3	2T8	Standard
	FFLGR	3602	154.3	3675	158.0	3763	161.6			Standard
	No Lens	4499	159.0	4586	162.3	4708	166.1			Standard
VLR4-4LHE	FCLGR	4257	150.3	4355	153.8	4454	157.4	28.3	2T8	Standard
	FFLGR	4278	151.0	4377	154.5	4476	158.1			Standard
	No Lens	6581	147.0	6744	150.6	6911	154.1			Premium ⁴
VLR4-6LHE	FCLGR	6254	139.5	6396	142.8	6539	146.0	44.8	3T8	Premium ^₄
	FFLGR	6271	140.0	6427	143.4	6571	146.7			Premium ⁴
	No Lens	5179	172.9	5286	176.5	5411	180.7			Standard
VLR8-5LHE	FCLGR	4892	163.3	5009	167.2	5119	170.9	30.0	2T8	Standard
	FFLGR	4916	164.1	5034	168.1	5145	171.8			Standard
	No Lens	6553	168.9	6699	172.7	6854	176.6		4T8	Standard
VLR8-6LHE	FCLGR	6207	160.0	6349	163.6	6496	167.4	38.8		Standard
	FFLGR	6227	160.5	6382	164.5	6528	168.3			Standard
	No Lens	9796	157.0	9998	160.2	10236	163.9			Standard
VLR8-8LHE	FCLGR	9253	148.3	9475	151.8	9684	155.3	62.4	2T5HO	Standard
	FFLGR	9299	149.0	9522	152.5	9732	156.0			Standard
	No Lens	10638	152.0	10899	155.8	11148	159.3			Standard
VLR8-10LHE	FCLGR	10094	144.2	10327	147.6	10563	151.0	70.0	2T5HO	Standard
	FFLGR	10145	145.0	10378	148.3	10616	151.7			Standard
	No Lens	13107	148.0	13404	151.3	13721	154.8			Standard
VLR8-12LHE	FCLGR	12415	140.1	12711	143.4	12997	146.7	88.6	6Т8	Standard
	FFLGR	12491	141.0	12760	144.1	13062	147.4			Standard

¹Please check DLC website for updates and current listing ²Values are nominal, check IES file for more detail ³2 Electrical data at 25C (77F). Actual wattage may differ by +/-10%

⁴ Only VLR4-6LHE-LB is DLC Premium Listed. All other configurations are DLC Standard Listed

ELECTRICAL DATA (AMPS)

Lumen Package	Wattage ¹	120V	208V	240V	277V	347V	480V
VLR4-2LHE	16.8	0.14	0.08	0.07	0.06	0.05	0.04
VLR4-3LHE	23.3	0.19	0.11	0.10	0.08	0.06	0.05
VLR4-4LHE	28.3	0.24	0.14	0.12	0.10	0.08	0.06
VLR4-6LHE	44.8	0.37	0.22	0.19	0.16	0.13	0.09
VLR8-5LHE	30.0	0.25	0.14	0.13	0.11	0.08	0.06
VLR8-6LHE	38.8	0.32	0.19	0.16	0.14	0.11	0.08
VLR8-8LHE	62.4	0.52	0.3	0.26	0.23	0.18	0.13
VLR8-10LHE	70.0	0.58	0.34	0.29	0.25	0.20	0.15
VLR8-12LHE	88.6	0.74	0.43	0.37	0.32	0.26	0.18

 $^1\textsc{Electrical}$ data at 25C (77F). Actual wattage may differ by +/-10%



BASIC CONTROLS OPTIONS

FIOS

Standard on/off motion sensor that provides 360° detection of motion from 8 to 20 ft mounting heights.

FIOSPC

Motion sensor with the addition of photocell control. When installed, fixture will not activate unless 1. motion is detected and 2. light levels are below the preset level. When activated, fixture will turn on to 100% light output & will only shut off when one of the two levels mentioned above are met. If no motion is detected & light levels fall below preset level the fixture remains off.

FIOSPC/DLH

Factory installed motion sensor with the addition of photocell control that will allow for daylight harvesting. When installed, fixture will not activate unless 1. motion is detected & 2. light levels are below the preset level. When activated, fixture will turn on only enough to meet the preset light levels and will adjust as the amount of light in the space adjusts between 100%-10%. If light levels are adequate the fixture will remain off.

USBD

User Selectable Bi-Level Dimming. Allows the end user to manually select the unoccupied dimming level. Once motion is detected, the fixture will return to 100% light output.

BDxx

Factory set Bi-Level Dimming. Sensor is set to dim level, as indicated in the "xx" portion of the part number, when the area is unoccupied. Example: BD20 sets the fixture to dim down to 20% lumen output when the area is unoccupied. Once motion is detected, the fixture will return to 100% light output.

BDxxPC

Factory set Bi-Level Dimming with motion and photocell. Sensor is set to dim level, as indicated in the "xx" portion of the part number, when the area is unoccupied and will not return to 100% light output unless 1. motion is detected and 2.the light level is below the preset level. Example: BD20PC sets the fixture to dim down to 20% lumen output when the area is unoccupied and will not return to 100% light output unless the above conditions are met for both motion and light level readings.

USBD, BDxx, BDxxPC - Modified Coverage





ADVANCED CONTROLS OPTIONS

NUROAir by ILLUMUS

NURO NUROAir Integrated Bluetooth Sensor is the optimal groupable controls lighting solution. With main features such as PIR Motion Sensing, Occupancy/Vacancy, Bi-Level Dimming and Davlight Harvesting - this flexibility makes the NUROAir Integrated Sensor ideal for tailoring lighting to specific space needs, optimizing both ambiance and efficiency. The NUROAir App, available for download on iOS and Google Play Store, offers a user-friendly interface for automatic or manual customization of your space. Through the app, users can configure sensor settings such as the Light Output, CCT, Hold Time, Standby Time/Level, High/Low End Trim, Background Light Level, Set Schedules, and Control Lighting Groups or Zones, all from a mobile or tablet device. Manual control is also available with a range of compatible wireless & wired wall switch options.

EASYSENSE

ESMC

EasySense sensor combines occupancy sensing, daylight harvesting and institutional tuning in one compact solution. This is an ideal control for any Commercial application. Each device allows you to turn on/off occupancy and/or daylight harvesting functions as well as set the full light output, background light level, occupancy prolong time, occupancy grace fading time & occupancy time out/ hold time. It can be easily controlled via the Philips MasterConnect Bluetooth App on a mobile phone.

ESMC/WWS/DR

Optional Wireless / Batteryless Dual Rocker Wall Switch. Up to 100ft range. Functions include: On/Off, dimming and setting of (2) scenes for full room control.

Specifications:

- Wireless ZigBee[®]
- 30-100ft Range Batteryless
- Dual Rocker

Functions:

- 1. On (Hold to brighten up) 2. Off (Hold to dim down)
- 3. Scene 1 4. Scene 2

LUTRON

VDO

Vive DFCSJ-OEM-OCC integral fixture control sensor with daylight & occupancy. Vive provides intuitive programming allowing for maximum flexibility with wireless communication & sensing as desired. Provided with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.

VRF

Vive DFCSJ-OEM-RF integral fixture control with Radio Frequency (RF) communication. Vive provides intuitive programming allowing for maximum flexibility with wireless communication as desired. Provided with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.





Click Here or Scan Code to Learn More About

NUROAir Bluetooth Controls

ENLIGHTED

Occupancy

Sensor (PIR)

Light Sensor

I FD Indicator

NFC Antenna

Infrared Receiver

5E/5W/CL

() so

Bundled System with Enlighted 5E sensor (SU-5E-CL), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by the Enlighted Smart Sensors for energy, occupancy and environment. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information.

5E/5W/IOT

Bundled System with Enlighted 5E sensor (SU-5E-IOT), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. Energy Manager provides data analysis for all data collected by Enlighted Smart Sensors for energy, occupancy & environment. Additionally, the IOT functionality takes the data access and function beyond just lighting to a wide range of applications beyond the standard connected lighting controls. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information.

AWNR

Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. Enables individual wireless control of each fixture in an Athena control system. Accommodates zone and control changes without rewiring. All drivers on the link are controlled as a single zone. Provided with factory installed components only. Lutron Athena system provided by others.



AWNS

Athena wireless node with a sensor that enables simple, digital control of individual light fixtures in an Athena control system. Provides wireless control of the fixture and includes a passive infrared (PIR) sensor for occupancy and a daylight sensor. Enables individual wireless control of each fixture in an Athena control system. Accommodates zone and control changes without rewiring. All drivers on the link are controlled as a single zone. Provided with factory installed components only. Lutron Athena system provided by others.





REV: 03/25 -



FIXED 4.3" WIDE STRIP RETROFIT 43ST MOUNTING TYPE





FIXED 4.3" WIDE STRIP RETROFIT - 43ST MOUNTING TYPE - with ESMC & EM10



FIXED 5.0" WIDE STRIP RETROFIT 50ST MOUNTING TYPE





ADJUSTABLE STRIP RETROFIT - ADJST MOUNTING TYPE



SURFACE RETROFIT - SF MOUNTING TYPE





LOWBAY RETROFIT - LB MOUNTING TYPE



SYMMETRICAL REFLECTOR OPTION - RS1









¹ Exact dimensions may differ based on type of housing used. Use for general dimension estimation only.



ASYMMETRICAL REFLECTOR OPTION - RA¹









VLR4 WIRE CAGE¹



¹ Exact dimensions may differ based on type of housing used. Use for general dimension estimation only.



PHOTOMETRIC DATA

LUMINAIRE DATA	
Part Number	VLR4-3LHE-U-40
Description	VARI 4ft High Efficacy Linear Retrofit, 3,000 Lumens, No Lens.
Fixture Lumens (Im)	3865
Wattage (W)	23.3
Efficacy (Im/W)	165.9
Mounting	Fixed Strip, Adjustable Strip, or Surface
Spacing Criteria	0° = 1.3, 90° = 1.3

ZONAL LUMEN SUMMARY								
Zone	Lumens (Im)	% Fixture						
0° - 40°	1720	44.50%						
0° - 60°	3096	80.10%						
0° - 90°	3865	100.00%						
90° - 180°	0	0.00%						
0° - 180°	3865	100.00%						

CANDELA PLOT



Totally Asymmetric Solid: 180-0 Degrees Dashed: 270-90 Degrees

LUMINAIRE DATA	
Part Number	VLR4-3LHE-U-40-FCLGR
Description	VARI 4ft High Efficacy Linear Retrofit, 3,000 Lumens, Frosted Glare-Reduc- ing Curved Lens.
Fixture Lumens (Im)	3656
Wattage (W)	23.3
Efficacy (Im/W)	157.2
Mounting	Fixed Strip, Adjustable Strip, or Surface
Spacing Criteria	0° = 1.1, 90° = 1.26

ZONAL LUMEN SUMMARY								
Zone	Lumens (Im)	% Fixture						
0° - 40°	1733	47.40%						
0° - 60°	2800	76.60%						
0° - 90°	3499	95.70%						
90° - 180°	157	4.30%						
0° - 180°	3656	100.00%						

CANDELA PLOT



Totally Asymmetric Solid: 180-0 Degrees Dashed: 270-90 Degrees

LUMINAIRE DATA	
Part Number	VLR4-3LHE-U-40-FFLGR
Description	VARI 4ft High Efficacy Linear Retrofit, 3,000 Lumens, Frosted Glare-Reduc- ing Flat Lens.
Fixture Lumens (Im)	3675
Wattage (W)	23.3
Efficacy (Im/W)	158.0
Mounting	Fixed Strip, Adjustable Strip, or Surface
Spacing Criteria	0° = 1.16, 90° = 1.26

ZONAL LUMEN SUMMARY								
Zone	Lumens (Im)	% Fixture						
0° - 40°	1694	46.10%						
0° - 60°	2815	76.60%						
0° - 90°	3502	95.30%						
90° - 180°	173	4.70%						
0° - 180°	3675	100.00%						

CANDELA PLOT



Totally Asymmetric Solid: 180-0 Degrees Dashed: 270-90 Degrees