

11"LP-LINEARHO UV DC MODULE, 640mA MAX CURRENT

- Ideal UV light source for curing, Photocatalyst and detecting applications •
- High UV radiation power density •
- Low Profile design, direct mount to surface •
- Extruded Aluminum material, superior thermal performance
- For use in UL Class 2 lighting systems Meets UL8750 recognized
- **RoHS** compliant •

General Specifications

	Part Number	Peak Wavelength	Typ. Input Current	Input Voltage	Input Power	Radiation Power
365nm UVA	VUU064025LP365A	365-375nm	200m 4	41.5 V	12.4 W	4.69 W
395nm UVA	VUU064025LP395A	395-405nm	300MA	35.6 V	10.7 W	4.21 W

	Part Number	Peak Wavelength	Max. Input Current	Input Voltage	Input Power	Radiation Power
365nm UVA	VUU064025LP365A	365-375nm	640mA	42.9 V	27.5 W	10.00 W
395nm UVA	VUU064025LP395A	395-405nm	040MA	38.8 V	24.8 W	8.97 W

Beam Angle	120°		
Storage Temperature Range	-40°C to 100°C / -40°F to 212°F		
Operating Temperature Range (ta)	-20°C to 55°C / -4°F to 131°F		
Maximum Case Temperature (Tc)	Tc max 80°C		
Overall Size	10.94" L x 1.26" W x 0.29" H (278mm x 32mm x 7.4mm)		
PCB Material / Thermal Conductivity	MCPCB (Aluminum Clad)/ 1.5W / mK		
Extruded Material / Finish	Aluminum/surface treatment with Anodic Oxidation		
LED Quantity	48pcs.		
Module Weight	68g / 0.15lb		
PCB Part Number	PTL023C01M1		
Maximum Screw Installation Torque	25 inch - ounces		
Connector Type	WAGO #2060-452 / 998-404 (2 pin connector)		
Packaging: Master Carton	40pcs.		
Thermal Feedback	Not Available		
Safety/Compliance	cURus (File # E351548)		
	Suitable for UL Class 2 Lighting Systems		
	RoHS Compliant		
	Dry and Damp Location		
Warranty	5 years @ Max. Tc from the date of manufacture		





Electrical and Optical Specifications

365-375nm UVA							
LP-LinearHO UV Module Part Number	Number of LED	Input Current	Nom. Fwd. Voltage	Nom. Rated Power	Max. Fwd. Voltage	Max. Rated Power	Radiation Power
	48	100 mA	40.0 V	4.0 W	43 V	4 W	1.56 W
		150 mA	40.4 V	6.1 W	43 V	6 W	2.34 W
		200 mA	40.8 V	8.2 W	44 V	9 W	3.13 W
		250 mA	41.2 V	10.3 W	44 V	11 W	3.91 W
		300 mA	41.5 V	12.4 W	44 V	13 W	4.69 W
		350 mA	41.8 V	14.6 W	45 V	16 W	5.47 W
VUUU64025LP365A		400 mA	42.0 V	16.8 W	45 V	18 W	6.25 W
		450 mA	42.2 V	19.0 W	45 V	20 W	7.03 W
		500 mA	42.4 V	21.2 W	45 V	23 W	7.81 W
		550 mA	42.6 V	23.4 W	46 V	25 W	8.59 W
		600 mA	42.8 V	25.7 W	46 V	28 W	9.38 W
		640 mA*	42.9 V	27.5 W	46 V	29 W	10.00 W

RoHS COMPLIANT

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395-405nm UVA

LP-LinearHO UV Module Part Number	Number of LED	Input Current	Nom. Fwd. Voltage	Nom. Rated Power	Max. Fwd. Voltage	Max. Rated Power	Radiation Power
		100 mA	33.1 V	3.3 W	35 V	4 W	1.40 W
		150 mA	33.8 V	5.1 W	36 V	5 W	2.10 W
		200 mA	34.4 V	6.9 W	37 V	7 W	2.80 W
	48	250 mA	35.0 V	8.8 W	37 V	9 W	3.51 W
		300 mA	35.6 V	10.7 W	38 V	11 W	4.21 W
		350 mA	36.1 V	12.6 W	39 V	14 W	4.91 W
VUUU64025LP395A		400 mA	36.6 V	14.6 W	39 V	16 W	5.61 W
		450 mA	37.1 V	16.7 W	40 V	18 W	6.31 W
		500 mA	37.6 V	18.8 W	40 V	20 W	7.01 W
		550 mA	38.0 V	20.9 W	41 V	23 W	7.71 W
		600 mA	38.4 V	23.1 W	41 V	25 W	8.41 W
		640 mA*	38.8 V	24.8 W	42 V	27 W	8.97 W

NOTES:

Performance based on Tc mod = 25°C. See thermal de-rating chart (pg. 3) for higher temperature operation
 The LED DC Module can be configure with different LED chip quantities, series and parallel design configurations to meet a specific design requirement.

Contact Fulham for further assistance. 3) * Indicates maximum rated current. Modules may be operated at a current less than or equal to this value, below the Tc rating. 4) Specifications are subject to change without notice.



Thermal Specifications

	LP-LinearHO UV DC Module	0
Storage Temperature Range	-40 to 100°C / -40 to 212°F	
Operating Ambient Temperature Range (ta)	-20 to 55°C / -4 to 131°F	
Maximum Case Temperature (Tc)	80°C / 176°F	0

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Thermal De-Rating

Module	UVA	365nm	UVA 395nm		
Case	Total Vf	Rad. Power	Total Vf	Rad. Power	
Temperature	Multiplier	Multiplier	Multiplier	Multiplier	
25 °C	1.000	1.000	1.000	1.000	
30 °C	0.998	0.968	0.998	0.968	
35 °C	0.995	0.937	0.995	0.937	
40 °C	0.993	0.895	0.993	0.895	
45 °C	0.991	0.863	0.991	0.863	
50 °C	0.988	0.832	0.988	0.832	
55 °C	0.986	0.800	0.986	0.800	
60 °C	0.983	0.768	0.983	0.768	
65 °C	0.981	0.737	0.981	0.737	
70 °C	0.979	0.705	0.979	0.705	
75 °C	0.976	0.674	0.976	0.674	
80 °C	0.974	0.642	0.974	0.642	



Certification Chart

Model Classification	VUU064025LPxxxA
RoHS COMPLIANT	YES
c PL [®] us	YES
CE	N/A
Energy Efficiency Label (EEI-Label)	N/A
Suitable for UL Class 2 Lighting System	YES



UV emitted from this product. Eye or Skin irritation may result from exposure. Use appropriate shielding.

- UV LEDs emit high intensity UV light.
- Do not look directly into the UV light during operation.
- Wear protective clothing and eyewear to avoid exposure to UV light.
 - Attach caution labels to your products which contain UV LEDs.
- Keep out of reach of children.

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Accessories

Fulham Part Number: TLE-OPT-120-003 (11" Diffuser Lens - 120° Beam Angle)

• White polycarbonate diffuser lens - 82% transmissivity at nominally rated currents.

This PC resin material is claimed with UV resistance, real sample hasn't been verified.



ISOMETRIC VIEW

SIDE VIEW

Installation Steps when using clamps: 1.Place the LED Module on the luminaire surface. 2.Place the Diffuser lens on top of LED module (line it up with LED module mounting edges). 3.Push down to snap into place.

RoHS

COMPLIANT

End Caps

Fulham Part Number: VLE-OPT-120-012

• White Polybutylene Terephthalate (PBT) end caps

This PBT resin material is not claimed with UV resistance, real sample hasn't been verified.









Interconnects

- Interconnect Type: WAGO Double pins to interconnect Modules (#2060-952/028-000)
- Approvals: cURus, UL 1977, and RoHS Compliant





NOTES:

1) Interconnects are NOT sold by Fulham.

2) Do not connect LinearHO Modules in parallel (end to end) if the current exceeds the maximum module rated current. This type of wiring would cause the pass-through current on the first module to exceed the rated current. This setup is in reference to wiring diagram #2 per Fulham's wiring diagram (see link on page #8). If the current is higher than the rated max, it is recommended to use wiring diagram #3

Top View

Fulham Co. Inc.: 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-323-779-2980 Fax.: 1-323-754-9060. order@fulham.com Specifications subject to change without notice. Page 5 of 9 2023-938 Rev A









Compatible Fulham Drivers

(Please use the links below for a complete list of compatible Fulham drivers and wiring diagrams)

- LP-LinearHO System Combination:
- Fulham's Wiring Diagrams: https://cdn.fulham.com/PDFs/SpecSheets/DC-Modules-Wiring-Diagrams.pdf
- · Compatible with Fulham Hotspot EM Systems.

NOTES:

1) The Optical Spectrum chart is for reference only. For more detailed info, contact factory.

2) Driver not included.

3) Do not connect LinearHO Modules in parallel (end to end) if the current exceeds the maximum module rated current. This type of wiring would cause the pass-through current on the first module to exceed the rated current. This setup is in reference to wiring diagram #2 per Fulham's wiring diagram (see the link above). If the current is higher than the rated max, it is recommended to use wiring diagram #3.





(Scale 1:3)

Overall Dimensions		imensions
	Length	10.94" [278mm]
	Width	1.26" [32mm]
	Height	0.29" [7.4mm]

RoHS COMPLIANT



TOP VIEW

0	0	0
0	0	0

BOTTOM VIEW





Guidelines

Termination Notes

- Connector Type: WAGO #2060-452 / 998-404 (2 pin push wire connector)
 - AWG: 24...18 solid wire
 - 7...9mm / 0.28...0.35in Strip length:
 - Connector Max amp. rating: 9 Amps.

For more detail information, please visit Wago's website: http://www.wago.com/infomaterial/pdf/51300133.pdf

Fastening Notes

- If fastening by screw hole a recommended screw size: 6-20 x 5/8" flat head drilling screws. Use all available screw holes to ensure good contact between back side of module and mounting surface. Refer to max specified torque for installation.
- If fastening using double-sided tape, start with clean, oil-free and dust-free surface. Peel backing and place LED module on mounting surface. Firmly press down on the module to ensure good adherence. Follow the double-side tape manufacturer's installation instructions.
- BJB P2F (Push-to-Fix) fixing elements for PCBs can be used to fasten LED modules to mounting surface. Reference BJB's website for ordering information and specific model to use: http://www.bjb.com/index.php?pid=376706&lid=10.
- HEYCO HEYClip Snap Rivets 9035 is recommended for fast and easy installation with clean and finish look. For more detail information, please visit Heyco website: https://www.heyco.com/Nylon PVC Hardware/product.cfm?product=Snap-Rivets

Environmental Rating / Conformal Coating

- The DC LP-LinearHO Modules have been evaluated for use in dry or damp locations only. If used in wet locations, acceptability and the need for additional evaluation shall be determined in the end product.
- Fulham's LP-LinearHO modules are available with conformal coating; made to order with MOQ and lead time will apply. The conformal coating is a silicone based material which is double sprayed on the module only (LEDs and PCB). Conformal coating is recommended for the following applications: near ocean where salt is present, constant moisture, refrigeration, continuously high humidity, or outdoor applications. An IP rating of IP64 or IP65 is achieved when the conformal coating is used, but other factors should be considered. Fulham still recommends the luminaire also meet an IP64/65 rating.

Electrostatic Sensitive Product (ESD)

- Fulham LED products should be handled with proper measures to protect against any potential ESD damage.
- When servicing, personnel should be ground and direct contact with LED should be avoided.

Thermal Management

- Proper thermal management should be employed to ensure life and reliability of product. Max Tc of module should not be exceeded.
- Use of thermal grease, paste, pad, or other material interface is highly recommended.

Polarity Notes

- DC LP-Modules are polarity sensitive.
- Ensure that "positive" from LED Driver is connected to "positive" of LED modules and that "negative" from LED Driver is connected to "negative" of LED modules.
- Polarities of modules are marked with "+" for positive and "-" for negative.

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Connector



Hevco Rivet 9035



Part Number Matrix

<u>Type</u> **U** = UV Product Line Input Current Max. Power Design Peak Wavelength Control Type Option V = Vizion U = None LP = Low Profile **064** = 640mA 025 = 25W 365 = 365nm UVA A = Standard (UL Class 2) 395 = 395nm UVA

All options are made to order with MOQ and lead time

Product Image: LP-LinearHO UV Module







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