VUU125050LP365A, VUU125050LP395A

22”LP-LINEARHO UV DC MODULE, 1250mA 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	VUU125050LP365A	365-375nm	700mA	41.9 V	29.3 W	10.94 W
395nm UVA	VUU125050LP395A	395-405nm		36.2 V	25.4 W	9.82 W

	Part Number	Peak Wavelength	Max. Input Current	Input Voltage	Input Power	Radiation Power
365nm UVA	VUU125050LP365A	365-375nm	1250mA	43.1 V	53.9 W	19.53 W
395nm UVA	VUU125050LP395A	395-405nm		38.9 V	48.6 W	17.53 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	22” L x 1.26” W x 0.29” H (559mm 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	96pcs.
Module Weight	141g / 0.31lb
PCB Part Number	PTL024C01M1
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	3 years @ Max. Tc from the date of manufacture

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

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
VUU125050LP365A	96	150 mA	39.8 V	6.0 W	43 V	6 W	2.34 W
		200 mA	40.0 V	8.0 W	43 V	9 W	3.13 W
		250 mA	40.3 V	10.1 W	43 V	11 W	3.91 W
		300 mA	40.5 V	12.1 W	43 V	13 W	4.69 W
		350 mA	40.7 V	14.2 W	44 V	15 W	5.47 W
		400 mA	40.9 V	16.4 W	44 V	18 W	6.25 W
		450 mA	41.1 V	18.5 W	44 V	20 W	7.03 W
		500 mA	41.3 V	20.6 W	44 V	22 W	7.81 W
		550 mA	41.5 V	22.8 W	44 V	24 W	8.59 W
		600 mA	41.6 V	25.0 W	45 V	27 W	9.38 W
		650 mA	41.8 V	27.1 W	45 V	29 W	10.16 W
		700 mA	41.9 V	29.3 W	45 V	32 W	10.94 W
		750 mA	42.0 V	31.5 W	45 V	34 W	11.72 W
		800 mA	42.2 V	33.7 W	45 V	36 W	12.50 W
		850 mA	42.3 V	35.9 W	45 V	38 W	13.28 W
		900 mA	42.4 V	38.2 W	45 V	41 W	14.06 W
		950 mA	42.5 V	40.4 W	45 V	43 W	14.85 W
		1000 mA	42.6 V	42.6 W	46 V	46 W	15.63 W
		1050 mA	42.7 V	44.8 W	46 V	48 W	16.41 W
		1100 mA	42.8 V	47.1 W	46 V	51 W	17.19 W
		1150 mA	42.9 V	49.3 W	46 V	53 W	17.97 W
		1200 mA	43.0 V	51.6 W	46 V	55 W	18.75 W
		1250 mA*	43.1 V	53.9 W	46 V	58 W	19.53 W

NOTES:

1) Performance based on Tc mod = 25°C. See thermal de-rating chart (pg. 4) for higher temperature operation
2) 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.

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

Electrical and Optical Specifications

395-405nmUVA

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
VUU125050LP395A	96	150 mA	32.7 V	4.9 W	35 V	5 W	2.10 W
		200 mA	33.1 V	6.6 W	35 V	7 W	2.80 W
		250 mA	33.5 V	8.4 W	36 V	9 W	3.51 W
		300 mA	33.8 V	10.2 W	36 V	11 W	4.21 W
		350 mA	34.2 V	12.0 W	37 V	13 W	4.91 W
		400 mA	34.5 V	13.8 W	37 V	15 W	5.61 W
		450 mA	34.8 V	15.7 W	37 V	17 W	6.31 W
		500 mA	35.1 V	17.6 W	38 V	19 W	7.01 W
		550 mA	35.4 V	19.5 W	38 V	21 W	7.71 W
		600 mA	35.7 V	21.4 W	38 V	23 W	8.41 W
		650 mA	36.0 V	23.4 W	38 V	25 W	9.11 W
		700 mA	36.2 V	25.4 W	39 V	27 W	9.82 W
		750 mA	36.5 V	27.4 W	39 V	29 W	10.52 W
		800 mA	36.8 V	29.4 W	39 V	31 W	11.22 W
		850 mA	37.0 V	31.5 W	40 V	34 W	11.92 W
		900 mA	37.3 V	33.5 W	40 V	36 W	12.62 W
		950 mA	37.5 V	35.6 W	40 V	38 W	13.32 W
		1000 mA	37.8 V	37.8 W	40 V	40 W	14.02 W
		1050 mA	38.0 V	39.9 W	41 V	43 W	14.72 W
		1100 mA	38.2 V	42.0 W	41 V	45 W	15.42 W
		1150 mA	38.5 V	44.2 W	41 V	47 W	16.13 W
		1200 mA	38.7 V	46.4 W	41 V	49 W	16.83 W
		1250 mA*	38.9 V	48.6 W	42 V	53 W	17.53 W

NOTES:

1) Performance based on Tc mod = 25°C. See thermal de-rating chart (pg. 4) for higher temperature operation
2) 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.

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

Thermal Specifications

	LP-LinearHO UV DC Module
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

Thermal De-Rating

Module Case Temperature	UVA 365nm		UVA 395nm	
	Total Vf Multiplier	Rad. Power Multiplier	Total Vf Multiplier	Rad. Power 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

VUU125050LP365A, VUU125050LP395A

Certification Chart

Classification \ Model	VUU125050LPxxxA
RoHS COMPLIANT	YES
c UL us	YES
CE	N/A
Energy Efficiency Label (EEI-Label)	N/A
Suitable for UL Class 2 Lighting System	YES

⚠ CAUTION

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.

VUU125050LP365A, VUU125050LP395A

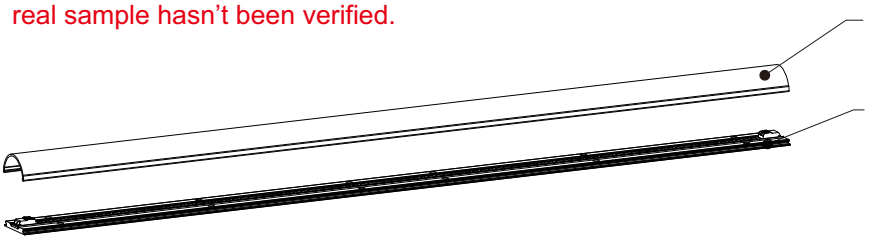
RoHS COMPLIANT

Accessories

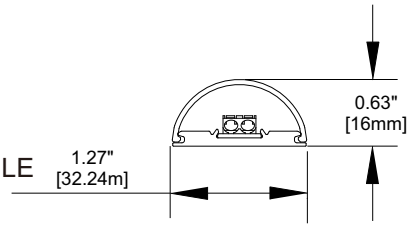
Fulham Part Number: **TLE-OPT-120-004 (22" Diffuser Lens - 120° Beam Angle)**

- 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:

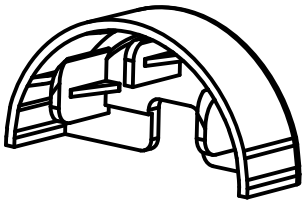
1.Place the LED Module on the luminaire surface.
2.Place the Diffuser lens on top of LED module (line it up with LED module mounting edges).
3.Push down to snap into place.

End Caps

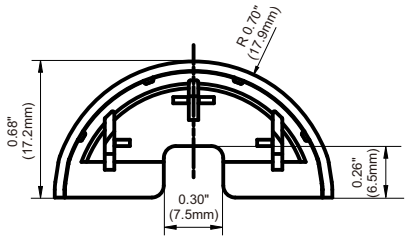
Fulham Part Number: **VLE-OPT-120-012**

- White Polybutylene Terephthalate (PBT) end caps

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



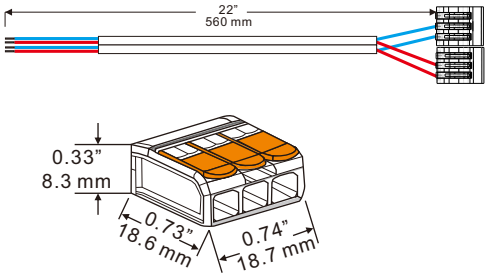
ISOMETRIC VIEW



SIDE VIEW

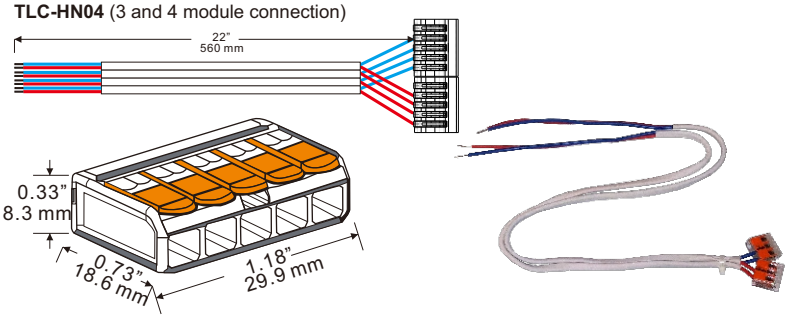
Harness

TLC-HN02 (1 and 2 module connection)



ISOMETRIC VIEW

TLC-HN04 (3 and 4 module connection)



ISOMETRIC VIEW

Interconnects

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

Top View

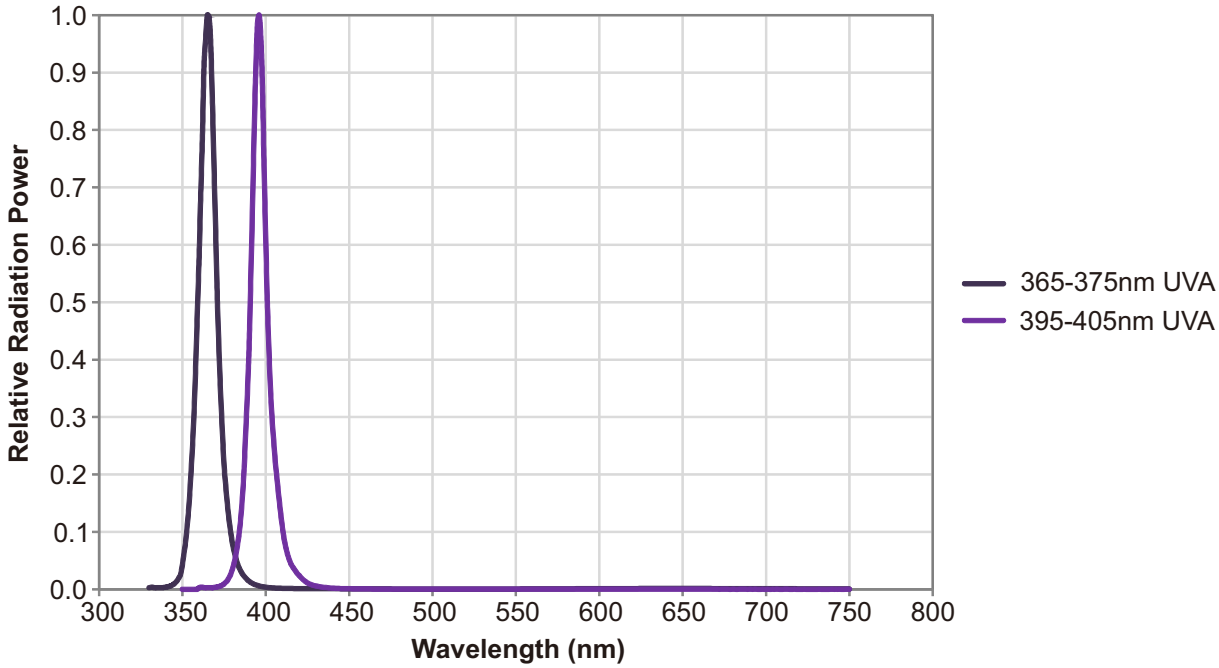
NOTES:

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

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

Optical Spectrum



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.

VUU125050LP365A, VUU125050LP395A

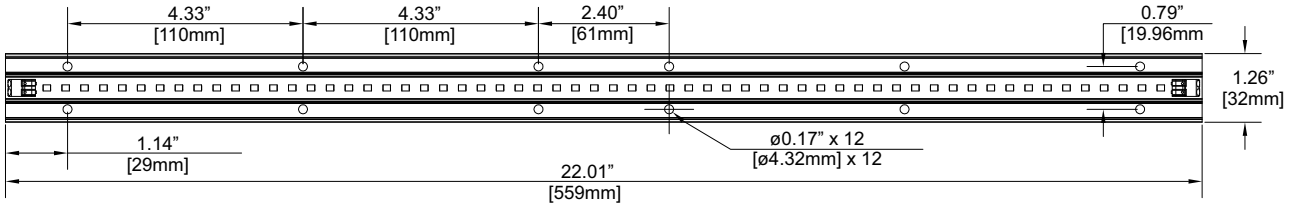
RoHS COMPLIANT

Mechanical Drawings

(Scale 1:5)

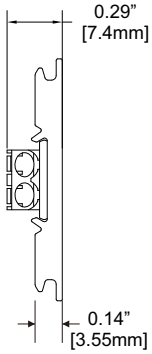
22”
[559mm]

Overall Dimensions	
Length	22” [559mm]
Width	1.26” [32mm]
Height	0.29” [7.4mm]



TOP VIEW

BOTTOM VIEW



SIDE VIEW

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

Guidelines

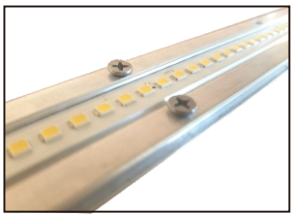
Termination Notes

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

Connector

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

Fastening Notes



Heyco Rivet 9035

- 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.

VUU125050LP365A, VUU125050LP395A

RoHS COMPLIANT

Part Number Matrix

V	U	U	125	050	LP	365	A

Product Line	Type	Control Type	Input Current	Max. Power	Design	Peak Wavelength	Option
V = Vizion	**U** = UV (UL Class 2)	**U** = None	**125** = 1250mA	**050** = 50W	**LP** = Low Profile	**365** = 365nm UVA **395** = 395nm UVA	**A =** Standard

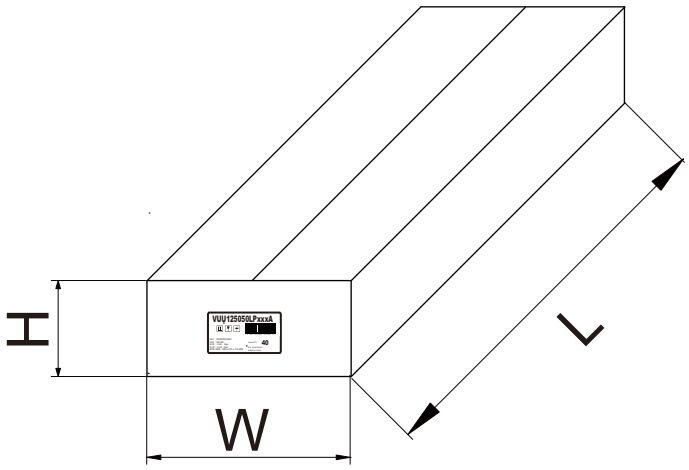
All options are made to order with MOQ and lead time

Product Image: LP-LinearHO UV Module

TOP VIEW

Packaging

Master Carton



OUTER DIMENSION		
L	W	H
23.43”(595mm)	10.63”(270mm)	4.33”(110mm)

Net Weight	Gross Weight	QUANTITY
12.4 lbs. (5.62kg)	14.09 lbs. (6.39kg)	40pc.