

OBD™ Flex Optics 24V

Flexible linear lighting with on-board optics for grazing, wall washing, and architectural accents.
Suitable for wet locations (IP65) and outdoor applications.

Date _____

Project Notes _____



FEATURES

- 20° and Asymmetric beam angle options for grazing and wall washing
- Flexible and field cuttable for easy installation
- IP65 for outdoor applications
- Optional mounting channels and accessories
- 5 Year Limited Warranty



ORDERING CODES

Order spools, and components for field assembly

OPTIONAL ORDERING CODES

Add Mounting, Driver, and Delivery

	Voltage	Model	CCT	Beam Angle	Length	Mounting	Driver	Delivery	
DI									
	24V (24V Volt)	OBD4	27 (2700K)	20 (20° Beam Angle)	016 (16 feet)	3M (3M Adhesive)	ELV (Electronic)	O/O (On / Off)	Field Assembly
		OBD6	30 (3000K)	AS (Asymmetrical)		CHN (Mounting Channel)	MAG (MLV)	SWX (Switchex)	Factory + Field (Hybrid)
			35 (3500K)			AB (Aiming Bracket)		PoE (Power over Ethernet)	Factory Assembly
			40 (4000K)				LUT (Lutron)		

OBD™ Flex Optics - SPECIFICATION TABLE

Models	24V-OBD4-20	24V-OBD4-AS	24V-OBD6-20	24V-OBD6-AS	
Voltage	24VDC	24VDC	24VDC	24VDC	
Wattage	5.5W/ft.	5.5W/ft.	7.6W/ft.	7.6W/ft.	
Lumens	2700K	465 Lm/ft.	405 Lm/ft.	685 Lm/ft.	603 Lm/ft.
	3000K	488 Lm/ft.	414 Lm/ft.	683 Lm/ft.	615 Lm/ft.
	3500K	505 Lm/ft.	435 Lm/ft.	695 Lm/ft.	633 Lm/ft.
	4000K	560 Lm/ft.	460 Lm/ft.	705 Lm/ft.	645 Lm/ft.
Beam Angle	20°	Asymmetrical	20°	Asymmetrical	
Cut Points	6.56 in.	6.56 in.	6.56 in.	6.56 in.	
Max Run (ft.)	17.5 ft.	17.5 ft.	14 ft.	14 ft.	
CRI	90+	90+	90+	90+	
Dimensions	0.9 × 0.43 in. (W x H)	0.9 × 0.43 in. (W x H)	0.9 × 0.43 in. (W x H)	0.9 × 0.43 in. (W x H)	
TM-21 (LM-80)	>50,000 hours	>50,000 hours	>50,000 hours	>50,000 hours	
Environment	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	Outdoor / Wet Location (IP65)	
Lead Wire A	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	
Lead Wire B	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	36 in. Bare Lead 20/2 AWG UL 2464 Wire	
LED Chips	14/ft.	14/ft.	14/ft.	14/ft.	
Chip Type	3030	3030	3030	3030	
Certification	UL Listed 2108	UL Listed 2108	UL Listed 2108	UL Listed 2108	
Warranty	5 Year Limited	5 Year Limited	5 Year Limited	5 Year Limited	

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RECOMMENDED 24V DRIVERS

SKU	INPUT VOLTAGE / FREQUENCY	OUTPUT VOLTAGE	MAXIMUM LOAD	MINIMUM LOAD	CLASS 2	DIMMABLE	LENGTH	WIDTH	HEIGHT
OMNIDRIVE® X Dimmable Driver Versatile driver for most high-performance dimming on ELV, TRIAC, and 0-10V systems. https://www.diodeled.com/custom/download/productFile/filename/omnidrive-x-specification-sheet.pdf/ Contains • Additional Models • Additional Features • Derating Curves • System Diagrams									
DI-ODX-24V30W-J	120-277V	24V	30W	No Minimum Load	Yes	Yes	6.5 in.	3.7 in.	1.57 in.
DI-ODX-24V60W-J	120-277V	24V	60W	No Minimum Load	Yes	Yes	7.4 in.	3.7 in.	1.57 in.
DI-ODX-24V96W-J	120-277V	24V	96W	No Minimum Load	Yes	Yes	8.66 in.	3.7 in.	1.57 in.
DI-ODX-24V120W-J	120-277V	24V	120W	No Minimum Load	No	Yes	8.66 in.	3.7 in.	1.57 in.
VLM Series Constant Voltage Driver Compact driver for on/off, PWM dimming, and color-changing applications. https://www.diodeled.com/custom/download/productFile/filename/VLM-Specification%20Sheet%20(Driver%20&%20J-Box).pdf/ Contains • Additional Models • Additional Features • Derating Curves • System Diagrams									
VLM60W-24-LPS3R	120 / 277VAC 47 - 63Hz	24V	60W	No Minimum Load	Yes	PWM	10.79 in.	7.34 in.	2.36 in.
VLM60W-24-LPM	120 / 277VAC 47 - 63Hz	24V	60W	No Minimum Load	Yes	PWM	8.19 in.	2.94 in.	1.31 in.
VLM100W-24-LPS3R	120 / 277VAC 47 - 63Hz	24V	100W	No Minimum Load	Yes	PWM	10.79 in.	7.34 in.	2.36 in.
MAGNETIC DIMMABLE DRIVER All-purpose dimmable driver for everyday tape light projects. https://www.diodeled.com/custom/download/productFile/filename/DI-MLV-Specification%20Sheet.pdf/ Contains • Additional Models • Additional Features • Derating Curves • System Diagrams									
DI-MLV-24V60W	120VAC	24V	60W	12W	Yes	Yes	6.8 in.	3.1 in.	2.9 in.
DI-MLV-24V96W	120VAC	24V	96W	20W	Yes	Yes	6.8 in.	3.1 in.	2.9 in.
PoE (Power over Ethernet) Constant voltage platform, ready for Power over Ethernet (inquire)									

RECOMMENDED CONTROLLERS

SKU	DESCRIPTION
CASAMBI® Controllers The CASAMBI controllers will remotely control your lighting through the app - downloadable for iOS & Android.	
CBU-PWM4	CASAMBI PWM4 Single Color Dimming Controller
CBU-A2D	CASAMBI A2D 2 Channel 0-10V/DALI Controller
CBU-ASR	CASAMBI ASR 0-10V Controller
DI-CBU-PWM5-PRO	Casambi CBU-PWM5-Pro RGB/W/WW Applications, 5 x PWM for constant voltage lights, 4 amps/CH max
SWITCHEX® Driver and Dimmer Switch LED driver and dimmer switch combined in a single gang box.	
DI-24V-SE-60W	SWITCHEX 24V Switch/Driver Combo - 60W
DI-24V-SE-100W	SWITCHEX 24V Switch/Driver Combo - 100W



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24
VDC

TITLE
24

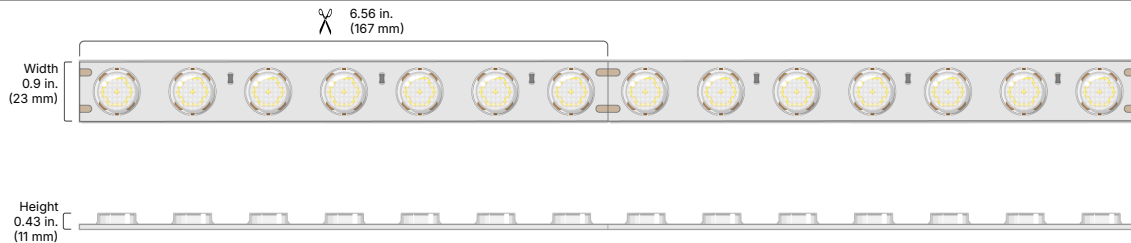
MECHANICAL DIAGRAMS

24V-OBD4-20

24V-OBD4-AS

24V-OBD6-20

24V-OBD6-AS

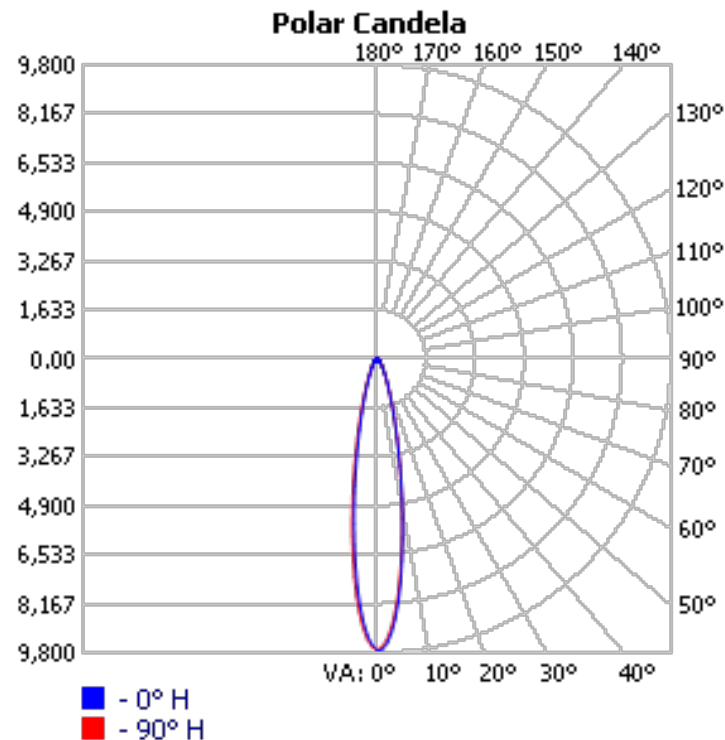


CONNECTIONS

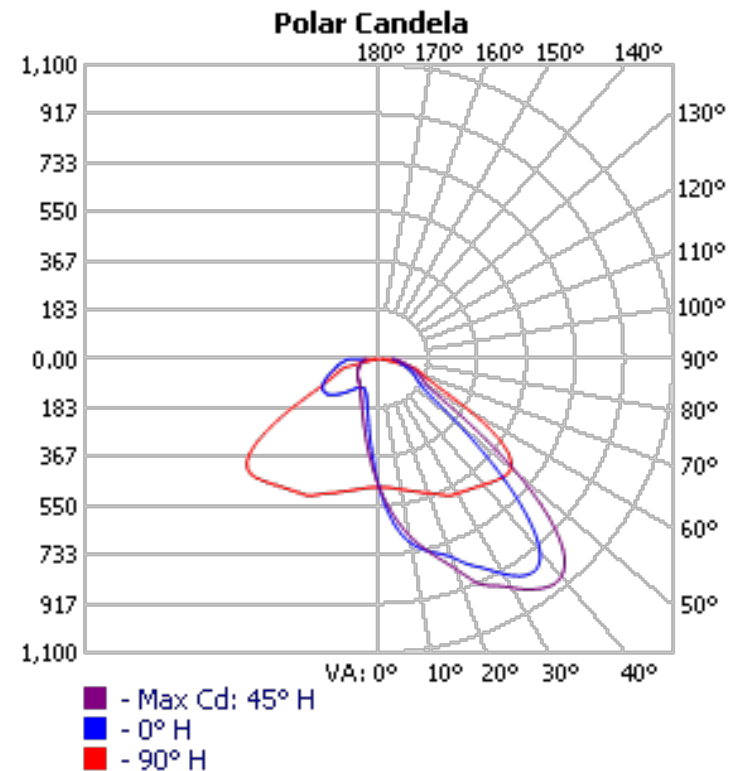


PHOTOMETRICS

PHOTOMETRICS (Narrow Angle)



PHOTOMETRICS (Asymmetrical)



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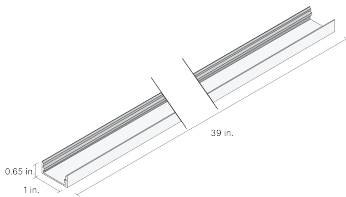
Project Notes _____



ACCESSORIES

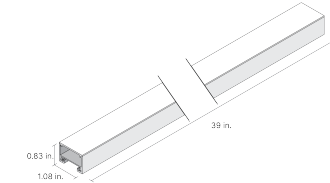
DI-OBD-MTCH-39

OBD Flex Optics Low Profile Mounting Channel, 39 Inch Length, Aluminum Finish - Stand Alone Channel



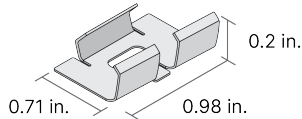
DI-OBD-MTCH-CL-39

OBD Flex Optics Mounting Channel & Clear Lens with Clips & End Caps, 39 Inch, Aluminum Finish



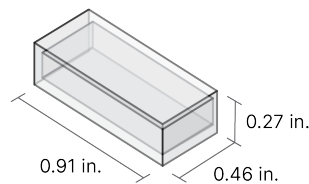
DI-OBD-MTCL-2

OBD Flex Optics Mounting Channel Clips, 2-Pack (For use with OBD-MTCH-CL-39)



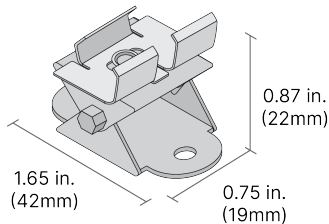
DI-OBD-EC-5

OBD Flex Optics Silicone End Cap Pack, 5 Open & 5 Closed End Caps, Packaged & Labeled



DI-OBD-120-AB1-BA-2

OBD Flex Optics, 120-Degree Aiming Bracket, 2-pack, Aluminum (For use with OBD-MTCH-CL-39)



DELIVERY OPTIONS

- **Field Assembly**
Fastest order fulfillment. Field connectors and accessories not included.
- **Factory + Field (Hybrid)**
Onsite modifications with factory connection. Additional accessories not included.
- **Factory Assembly**
Fastest Installation. Factory made-to-order fixtures.

- Lumen value measured in accordance to IES LM-80-08. LED chips have a luminous flux range with a tolerance of +/- 5%.
- Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length. Max run may exceed Class 2 limit. Actual wattage may differ from calculated wattage due to voltage drop across run.
- Do not install product in an environment outside the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, lumen output, and/or adversely impact color consistency.
- Actual efficacy value is dependent to specified LED driver (power supply). An estimated efficacy value can be calculated as follows: Lumen value divided by average power consumption per foot.
- Operating temperature is measured according to the minimum and maximum ambient temperature environment.

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CERTIFICATIONS

Safety

- UL Listed 2108 Low Voltage Lighting System / Low Voltage Luminaire. UL 1598 / CSA 250.0-08, UL 8750, UL 879 / CAN/CSA-C22.2 no. 207-M89. Certified for United States and Canada. File # E469769.
- UL Listed Field Cuttable.

Environment

- Ambient Temperature: -4 ~ 122°F (-20 ~ 50°C)
- Operating Temperature: -4 ~ 176°F (-20 ~ 80°C)
- IP65 - Field Connections and Terminations
- RoHS Compliant

Performance

- Can be used to comply with TITLE 24 Part 6 High efficacy LED requirements - JA8-2016-E
- LED chip data measured in accordance to IES LM-80-08.
- Photometric & Colorimetry data measured in accordance to IES LM-79-08, in Elemental LED's Innovation Lab.

Safety / Warnings / Disclosures

- Install in accordance with national and local electrical code regulations.
- This product is intended to be installed and serviced by a qualified, licensed electrician.
- Only use copper wiring. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.
- Each maximum run requires a dedicated power feed from the driver. Do not extend beyond the recommended maximum run length.
- Tape light, attached wire leads, and additional extension cables, connectors, etc., are not rated for in-wall installation unless otherwise noted. Tape light and attached wire leads are field-cuttable.
- Ensure applicable wire is installed between driver, fixture, and any controls in-between. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet location rated, etc.). Inadequate wire installation could overheat wires, and cause fire.
- Do not install in environment where LED chips are exposed to direct sunlight as damage to the phosphor will occur.
- Do not install in environment where excessive heat may exist (ex. close proximity to fireplace, etc.) See Ambient Temperature ratings
- Do not install indoor LED tape light products in outdoor / wet location environments. Only wet location tape light models are rated for outdoor / wet locations.
- Do not modify product beyond instructions or warranty will be void.
- Tape light must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
- Actual color may vary from what is pictured on this sheet and other print materials due to the limitations of photographic processes.
- We reserve the right to modify and improve the design of our fixtures without prior notice. We cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.

WARRANTY

Limited Warranty

- 5 Year Limited Warranty

This warranty does not include the additional accessories referenced in this specification sheet. Complete warranty details for fixtures and additional accessories are available at www.diodeled.com/limited-warranty/ within the Policies section. For warranty related questions please contact product support.

Consumer's Acknowledgment

Elemental LED, Inc. stands behind its products when they are used properly and according to our specifications. By purchasing our products, the purchaser agrees and acknowledges that lighting design, configuration and installation is a complex process, wherein seemingly minor factors or changes in layout and infield adjustments can have a significant impact on an entire system. Choosing the correct components is essential. Elemental LED is able to work with the original purchaser to make an appropriate product selection to the extent of the limited information that the customer can provide, but it is virtually impossible for Elemental LED to design a system that foresees every unknown factor. For this reason, this Warranty does not cover problems caused by improper design, configuration or installation issues. Any statement from a Elemental LED employee or agent regarding a customer's bill of goods and/or purchase order is NOT an acknowledgment that the products purchased are designed and configured correctly. The purchase agrees and acknowledges that it is the customer's responsibility to adhere strictly to all information contained in the Product Specification Sheets.

There is often more than one way to design, configure and layout an LED lighting application properly to achieve the same lighting effect. Elemental LED strongly recommends that licensed professionals be used in the design and installation of lighting systems that include Elemental LED products. The specifications include important information that a designer and installer should carefully review and strictly follow. Qualified designers and certified and/or licensed installers, with access to the final installation environment, customer goals, and Elemental LED product specifications can make the requisite decisions appropriate for a successful finished lighting application.