

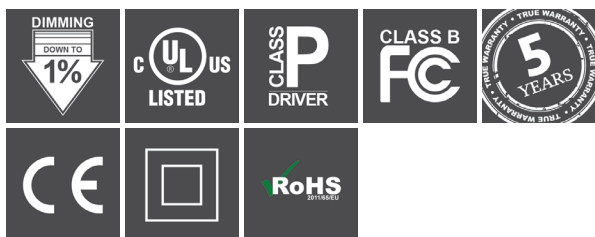
CEL-045R

Configurable Commercial Series



5~45W, 1% 0-10V Dimming Driver

Nominal Input Voltage (Vin)	Family Output Power Range (W)	Output Voltage Range (Vout)	Output Current Range (A)	Max Efficiency (%)	UL Max Case Temp. TC (°C)	THD (%)	Power Factor	Dimming Method	Dimming Range (% of Iout)
120~277Vac	5~45W MAX	26~42Vdc	0.18~1.05A	≤ 88% (typical)	90°C	< 20%	> 0.9	0-10V (Isolated Sink/Source)	1-100% (% of Iout)



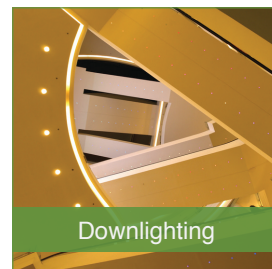
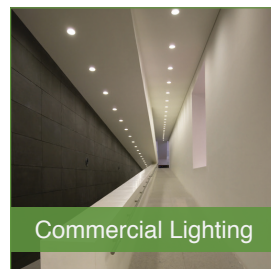
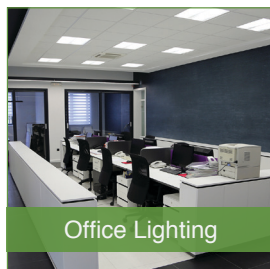
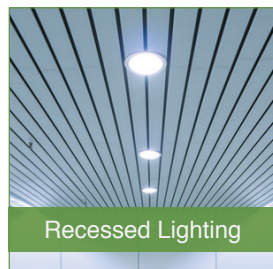
Variants available:

ALTERNATE PACKAGES	
XEL-045L (OUTDOOR)	XEL-045REC (347V-CANADA)

- ✓ Ideal for Indoor Downlight & Recessed Lighting
- ✓ Universal AC input (108~305Vac)
- ✓ Field Adjustable & Preset Fixed Output Current Ratings
- ✓ 1% Deep Dimming (0-10V) (Optional higher levels)
- ✓ Enables DLC compliant fixtures
- ✓ Turn on/off in less than 750 milliseconds
- ✓ Built-in Commercial grade Surge Protection
- ✓ Integrated over voltage & open load, over current, short circuit & temperature protection
- ✓ Double-insulated power supply between input and output (Class II)
- ✓ Turn on & Full power operation between -30°C to +55°C ambient¹
- ✓ XenerQi Industry Leading 5 Year True Warranty^{TM 2}
- ✓ UL Class P & Class 2 Output Driver
- ✓ Class A Noise Rating
- ✓ Complies to FCC CFR Title 47 Part 15

See product specific data pages for details.

Typical Applications



Dimensions & Installation

(not to scale)

CASE

Material	Painted White Steel
Unit Weight	See variant pages for details
Dimensions	126.5mm x 60.5mm x 30mm / 5.0" x 2.4" x 1.2"

WIRING

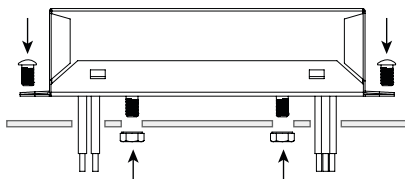
Input Wires	18AWG (UL1569) (L:Black, N:White)
Output Wires	18AWG (UL1569) (LED+:Red, LED-:Blue)
DIM Wires	18AWG (UL1430) (DIM+:Purple, DIM-:Gray)
RSET Wires*	18AWG (UL1430) (RSET:Yellow)
Wire Lengths	152.4mm (±3mm) / 6" (±0.12")
Strip Lengths	9.5mm (±0.5mm) / 0.375" (±0.02")

* Optional - See "Configurable Output" PN's in Available Model Table.

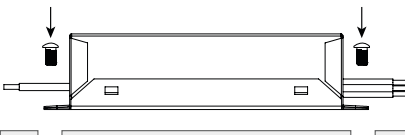
MOUNTING & INSTALLATION

Fixings 2x M6*8mm / 12-24*5/15" Fasteners / 2x M4 Nuts

REU (Bottom Exit)



RBU (Side Exit)

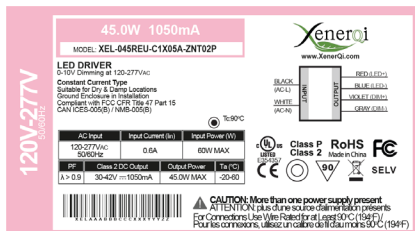


WARNING: TO REDUCE THE RISK OF FAILURE / INJURY
DRIVER CASE MUST BE ELECTRICALLY GROUNDED.
DRIVER MUST BE INSTALLED IN LUMINAIRE IN ACCORDANCE WITH THE LOCAL CODES.
FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY AND/ OR DAMAGE TO THE SYSTEM.

(DRIVER INSTALLATION WITHIN LUMINAIRE MUST FORM A FIRE RATED ENCLOSURE - ELECTRICAL CONNECTIONS MUST BE MADE WITHIN A FIRE RATED ENCLOSURE - COMPLIANCE IS THE RESPONSIBILITY OF THE LUMINAIRE MANUFACTURER)

LABELS

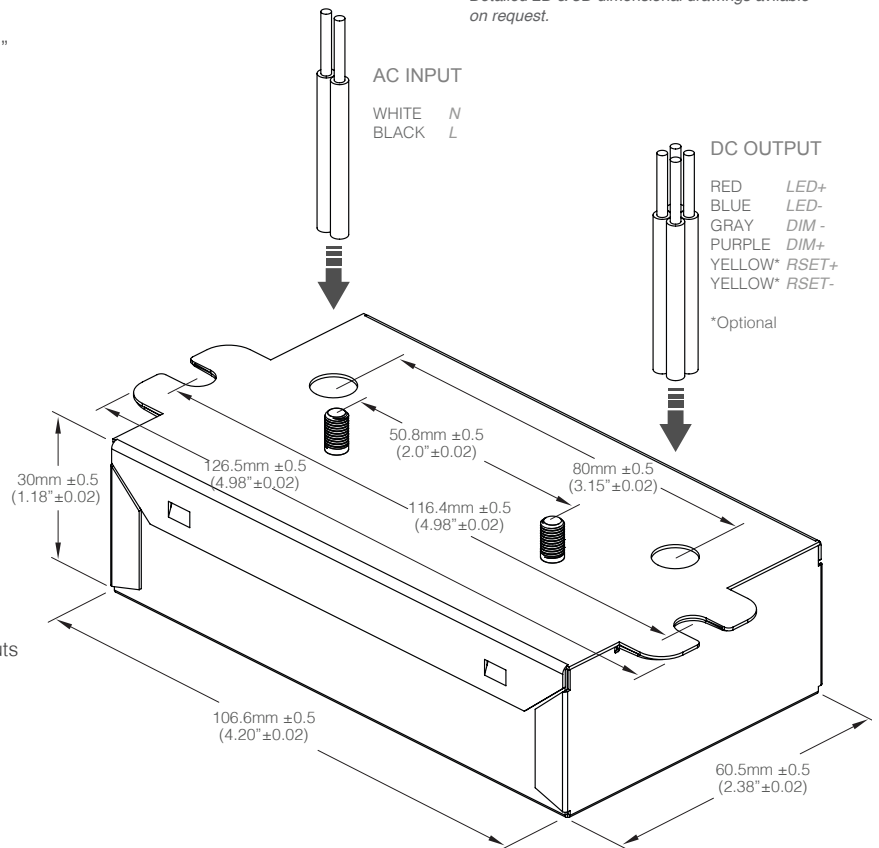
Example Label



BOTTOM EXIT WIRE PACKAGE (REU)

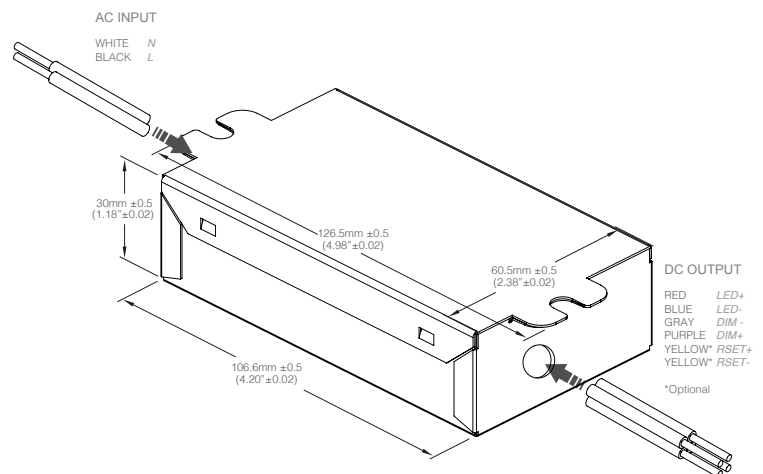
ORDER CODE: XEL-045REU

Detailed 2D & 3D dimensional drawings available on request.



SIDE EXIT WIRE PACKAGE (RBU)

ORDER CODE: XEL-045RBU



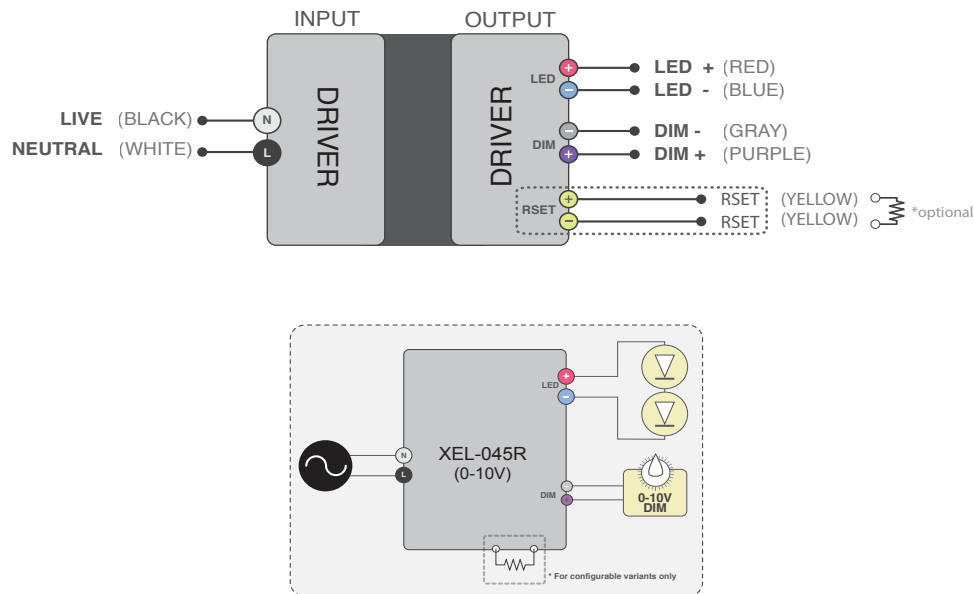
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Specification Data

Output³	Power Range	5~45W MAX (See Available Models for variant specific data)
	Current Range	0.18~1.05A (Not Dimmed - See Available Models for variant specific data)
	Output Voltage Range	26~42Vdc (Full Power 30 ~ 42dc)
	Optimized Vf Range ⁶	36~38Vdc (For 42 max)
	Line Regulation ³	±5%
	Load Regulation ³	±5%
	Turn On/Off Time	< 750ms (at full load)
Input	Voltage Range ⁴	120 ~ 277Vac Nominal (108 ~ 305Vac Operational)
	Max Input Power	60W
	Frequency Range	47 ~ 63 Hz
	Power Factor	PFC > 0.9 at ≥ 75% of full power ⁴
	THD	THD < 20% at ≥ 75% of full power ⁴
	Typical Inrush Current	< 4.0A (per ANSI test method. Compliant with NEMA410-2015)
Dimming⁸	Modes	DC Dimming Control: 0-10Vdc (1%) Sink / Source (> 1% available on request)
	0-10V Source Current	260µA (Isolated)
	Compatibility	IEC Compliant. Customized dimming curves available upon request
Protection	Short Circuit	Auto-restart (after fault removed)
	Over Voltage & Open Load	Vout < 60V (Class-2)
	Over Current	Inherently limited over operational range
	Over Temperature	Current foldback at hotspot greater than 85°C (shut down at <100°C) ⁵
Environment	Working Temperature	-30°C ~ 55°C ambient ¹ (Tc rated for 90°C)
	Working Humidity	20% ~ 90% RH non-condensing
	UL Rating	Dry / Damp location use
	Storage Temperature	-40°C ~ 85°C ambient
	Storage Humidity	10% ~ 90% RH non-condensing
	Vibration & Impact Resistance	3 ~ 50Hz 1g (for 30 minutes) / 1 g/s (Impact Resistance)
Safety & EMC	Operating Life	50,000 Hours (at full load and maximum hotspot power)
	Safety Standards	UL8750, Class 2 (UL1310), Class P rated
	Noise Rating	Class A (Less than 24dB measured at 1 meter) ^{3,7}
	EMI Conduction & Radiation	Compliant with FCC CFR Title 47 Part 15 Class A (Class B @ 120V) CAN ICES (A) (B @ 120V) / NMB-005 (A) (B @ 120V) Compliant with European CE Requirements
	EMC Susceptibility	EN61000-4-3, EN61000-4-2, EN61000-4-4
	Transient Immunity	2kV/1kA Combination, 2.5kV Ringwave Modes: L-N, L-G, N-G <i>For applications with higher surge protection requirements, pair with XenerQi's lighting optimized surge protectors: 10K Surge Protection: XEL-PA10S-277 / XEL-SU10C-277 20K Surge Protection: XEL-PA20S-277 / XEL-SU20C-277</i>

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Typical Application & Wiring Diagram



Ordering Codes & Available Models

ORDER CODE ('X' indicates type/feature selection)

XEL-045R X U - C A A A X - X N T 0 1 P

E: Bottom Exit Wires Case
B: Side Exit Wires Case

Current Rating
(see model table below)

R: Configurable Current
Z: Fixed Current

CASE OPTIONS:

BOTTOM / SIDE EXIT WIRES

XEL-045R E

XEL-045R B



	Part Number / Ordering Codes (Replace X with case choice)	Output Current (mA)	Output Voltage Range (V)	Maximum Efficiency ^{6,7}	Max Output (W)
CONFIGURABLE Output Current Variants	XEL-045R X U - C1X05E - RNT01P	1050	30 ~ 38	88.0%	39.9W
	XEL-045R X U - CX700A - RNT01P	700	26 ~ 42	88.0%	29.4W
	XEL-045R X U - CX350A - RNT01P	350	26 ~ 42	84.0%	14.7W
FIXED Output Current Variants	XEL-045R X U - C1X05A - ZNT01P	1050	26 ~ 42	88.0%	44.1W
	XEL-045R X U - CX700A - ZNT01P	700	26 ~ 42	88.0%	29.4W
	XEL-045R X U - CX500A - ZNT01P	500	26 ~ 42	86.0%	21.0W
	XEL-045R X U - CX350A - ZNT01P	350	26 ~ 42	84.0%	14.7W
	XEL-045R X U - CX250A - ZNT01P	250	26 ~ 42	83.0%	10.5W
	XEL-045R X U - CX180A - ZNT01P	180	26 ~ 42	82.0%	7.6W

Customized Variants available upon request. Replace 'X' with required feature alphanumeric when ordering.

¹ Ambient is estimated. Actual temperatures determined by trigger point temperature at driver hotspot. Assumed case is correctly mounted on flat surface.

² Warranty refers to operation for conditions listed under "Operating Life". For specific warranty details refer to XenerQi published warranty document.

³ Parameters guaranteed only over nominal input range.

⁴ Shutdown requires power cycle to recover.

⁵ Units optimized for LED load Vf as per "Optimized Vf" value in specification data. If not value is specified 36 or 42Vf nom is assumed.

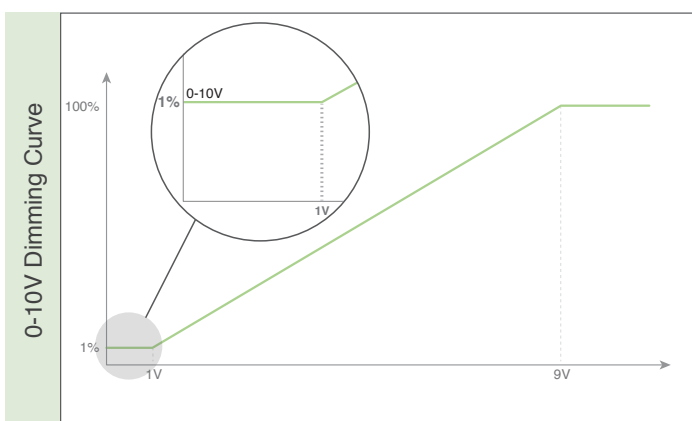
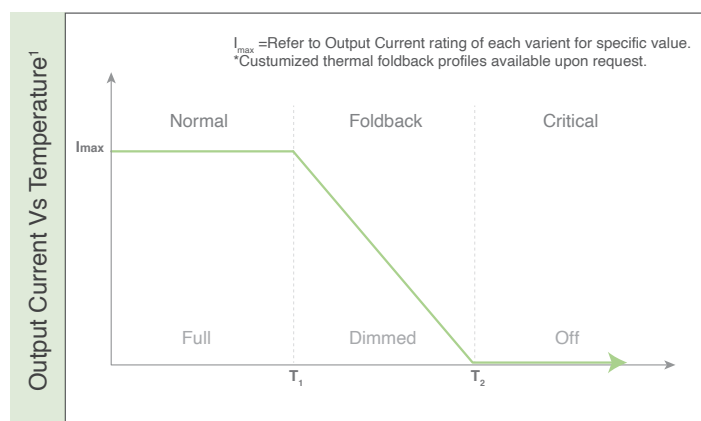
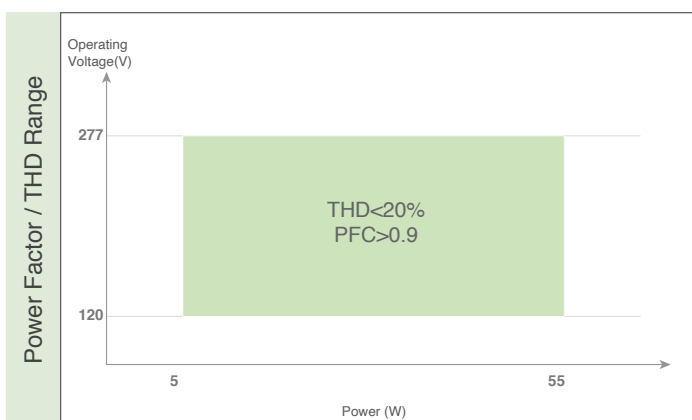
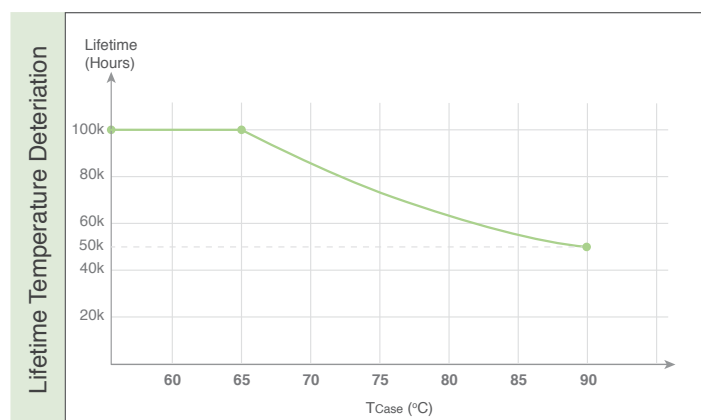
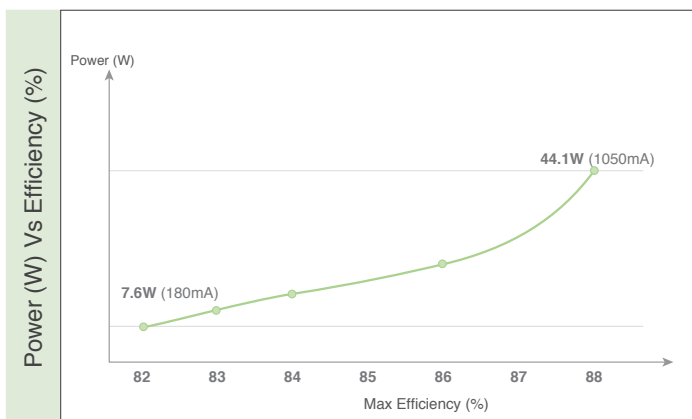
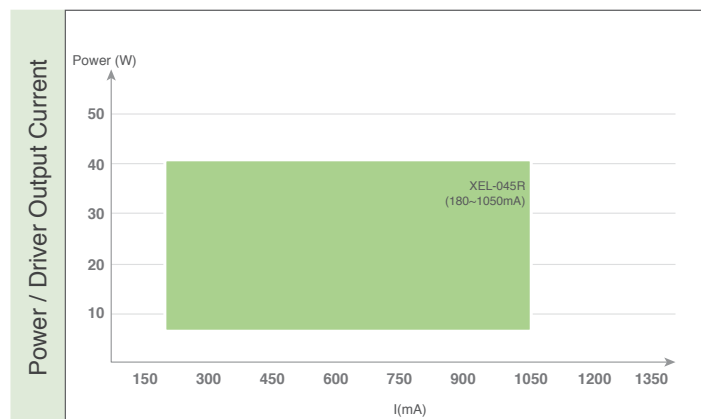
⁶ Tested under two conditions: with & without dimmer connected.

⁷ Value listed is family maximum or minimum best case value as appropriate & can vary depending on part number.

⁸ Driver is designed to meet the 2019 flicker recommendations from IEEE/NEMA with an emphasis on human factors engineering. When the driver is utilized with the appropriate LED load and conditions, the Luminaire should be able to meet IEEE-1789 recommendations for Green/Low-Risk.

⁹ Dimming performance may vary depending on brand and make of dimmer used as well as number of drivers connected to it.

Operation Performance-Family



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