



DRIVERS & MODULES

Applications

- Office
- Industrial / Warehouse
- Retail
- Outdoor
- Hospitality
- Sign



COMPONENTS SELECTOR GUIDE

LED Driver & LED Module Solutions

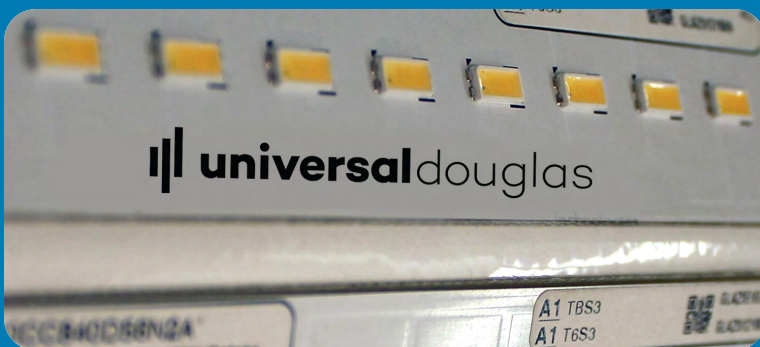
A complete range of solutions for nearly every application

Universal's **SOLUTIONS** put you in **CONTROL.**

- Clever Engineering
- Flexible Options
- High Quality
- Material Access
- Manufacturing Options
- "Matched" Systems

Universal Lighting Technologies, Inc. has been on the cutting edge of high efficiency lighting design for over 70 years, pushing the industry towards increasingly higher standards of energy efficiency for LED systems, components and control systems.

UNIVERSAL DOUGLAS: THE PREFERRED LED BRAND.



The Universal Douglas LED line of drivers and modules are among the most specified today in the lighting industry. Whether for new fixtures, retrofit of existing fixtures, or field replacement, align yourself with Universal Douglas.



For a list of DesignLights Consortium® QPL listed products please visit
www.designlights.org/qpl/en/saved/UBU24XJ

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- **LSA-25WH/WW**
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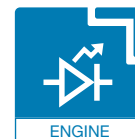
LED Sign Sticks

Lensed Modules

Light Engine Examples

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Universal's engineers look at the total LED light engine design to ensure a seamless unique solution. We can support a "matched" Module and Driver system for optimal light performance.





Driver Solutions

Universal Douglas LED drivers are designed for the latest generations of LED based indoor and outdoor lighting fixtures. **Universal Douglas** drivers feature a variety of options including 0-10V dimming, auxiliary outputs and wireless programming.

Indoor Class 2

- 10-95W power ratings
- Linear and compact case configurations for a variety of applications
- 0-10V Dimming
- Programmable, tunable or selectable output

Industrial and Outdoor Class 1

- For indoor and outdoor high lumen applications
- Enhanced transient protection for rugged applications protecting drivers and modules
- 0-10V dimming
- Tunable output

Constant Voltage

- 20-180W power ratings
- 12V and 24V output
- Class 2 output

*See individual specifications for driver dimming levels

PW Series

Wireless Programming with 1% Dimming

- 20W, 30W, 55W, 80W, 95W output power options¹
- UNV (120-277V) input voltage
- Wireless programming through near-field communication²
- 0-10V dimming with relative 1% dimming
- Dim-to-off
- Configurable dimming curve
- Class 2 output
- Wide output voltage range
- Class P / UL Listed



Linear Drivers with Wireless Programming

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C20UNVPW-C	100-700	20	16V to 29V @ 0.70A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D700C20347PW-C			16V to 56V @ 0.36A	347			
D10CC30UNVPW-C	100-1050	30	16V to 29V @ 1.05A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D10CC30347PW-C			16V to 56V @ 0.53A	347			
D15CC55UNVPW-C	100-1500	55	16V to 37V @ 1.50A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D15CC55347PW-C			16V to 56V @ 0.98A	347			
D21CC80UNVPW-C	100-2100	80	16V to 38V @ 2.10A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D21CC80347PW-C			16V to 56V @ 1.40A	347			
D28CC95UNVPW-F ³	100-2800	95	16V to 34V @ 2.08A 16V to 56V @ 1.07A	120-277 347	RFID Programming, 0-11V	9.50" x 2.38" x 1.58"	F

Compact Drivers with Wireless Programming

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C20UNVPW-L (& LS)	100-700	20	16V to 29V @ 0.70A 16V to 56V @ 0.36A	120-277	RFID Programming, 0-10V	4.95" x 2.39" x 1.00"	L / LS
D10CC30UNVPW-L (& LS)	100-1050	30	16V to 29V @ 1.05A 16V to 56V @ 0.53A	120-277	RFID Programming, 0-10V	4.95" x 2.39" x 1.00"	L / LS
D15CC55UNVPW-L (& LS)	100-1500	55	16V to 37V @ 1.50A 16V to 56V @ 0.98A	120-277	RFID Programming, 0-10V	4.95" x 2.39" x 1.00"	L / LS

Extended Warranty Linear Drivers with Wireless Programming

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C20UEXPW-C	100-700	20	16V to 29V @ 0.70A 16V to 56V @ 0.36A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D10CC30UEXPW-C	100-1050	30	16V to 29V @ 1.05A 16V to 56V @ 0.53A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D15CC55UEXPW-C	100-1500	55	16V to 37V @ 1.50A 16V to 56V @ 0.98A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C
D21CC80UEXPW-C	100-2100	80	16V to 38V @ 2.10A 16V to 56V @ 1.40A	120-277	RFID Programming, 0-10V	14.25" x 1.18" x 1.00"	C



¹ PW compact drivers are not available in 80W

² Uses EVERset Programming Software and LDPC000A wireless tuner

³ Linear case only.

⁴ 6.5 Kv Surge Available

C = Linear case

L = Compact case

LS = Compact case with mounting studs

F = Enhanced case

PWX Series

Wireless Programming with 1% Dimming and Auxiliary Output Power

- 20W, 30W, 55W, 80W, 95W output power options¹
- UNV (120-277V) input voltage
- Wireless programming through near-field communication²
- Dim-to-Off (Selectable)
- 0-10V dimming with relative 1% dimming
- < 0.5W standby power
- 1.2W auxiliary output power
- Configurable dimming curve
- Wide output voltage range
- Class P / UL Listed
- Class 2 output



Linear Drivers with Wireless Programming and Auxiliary Output Power

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C20UNVPWX12-C	100-700	20	16V to 29V @ 0.70A 16V to 56V @ 0.36A	120-277	RFID Programming, 0-10V, 12Vdc Aux	14.25" x 1.18" x 1.00"	C
D10CC30UNVPWX12-C	100-1050	30	16V to 29V @ 1.05A 16V to 56V @ 0.53A	120-277	RFID Programming, 0-10V, 12Vdc Aux	14.25" x 1.18" x 1.00"	C
D15CC55UNVPWX12-C	100-1500	55	16V to 37V @ 1.50A 16V to 56V @ 0.98A	120-277	RFID Programming, 0-10V, 12Vdc Aux	14.25" x 1.18" x 1.00"	C
D21CC80UNVPWX12-D	100-2100	80	16V to 38V @ 2.10A 16V to 56V @ 1.40A	120-277	RFID Programming, 0-10V, 12Vdc Aux	16.88" x 1.25" x 1.00"	D
D21CC80UNPWX12-C ⁴	100-2800	95	16V to 34V @ 2.08A 16V to 56V @ 1.07A	120-277	RFID Programming, 0-10V, 12Vdc Aux	14.25" x 1.18" x 1.00"	C
D28CC95UNPWX12-F ³	100-2800	95	16V to 34V @ 2.08A 16V to 56V @ 1.07A	120-277	RFID Programming, 0-10V, 12Vdc Aux	9.50" x 2.38" x 1.58"	F

Compact Drivers with Wireless Programming and Auxiliary Output Power

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C20UNVPWX12-K (& KS)	100-700	20	16V to 29V @ 0.70A 16V to 56V @ 0.36A	120-277	RFID Programming, 0-10V, 12Vdc Aux	4.93" x 2.95" x 1.00"	K / KS
D10CC30UNVPWX12-K (& KS)	100-1050	30	16V to 29V @ 1.05A 16V to 56V @ 0.53A	120-277	RFID Programming, 0-10V, 12Vdc Aux	4.93" x 2.95" x 1.00"	K / KS
D15CC55UNVPWX12-K (& KS)	100-1500	55	16V to 37V @ 1.50A 16V to 56V @ 0.98A	120-277	RFID Programming, 0-10V, 12Vdc Aux	4.93" x 2.95" x 1.00"	K / KS



¹ Compact cans are not available in 80W

² Uses EVERset Programming Software with LDPC000A wireless tuner

³ 6.5 KV Surge protection

⁴ Check with ULT for Availability

C & D = Linear Case

K = Compact Case

KS = Compact Case with Mounting Studs

F = Enhanced Case



TW Series

Constant Power Output Tuning (Compact Case)

- 30W, 55W output power options
- 347V input voltage
- Compact case
- 0-10V dimming to 1%
- Tunable output current¹
- Class P / UL Listed
- Class 2 output



Compact Drivers with Constant Power Output Tuning

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C30347TW-K (& KS)	280-700	30	15V to 44V @ 0.70A 15V to 56V @ 0.53A	347	Tuning, 0-10V	4.93" x 2.95" x 1.00"	K / KS
D10CC30347TW-K (& KS)	420-1050	30	15V to 30V @ 1.05A 15V to 56V @ 0.53A	347	Tuning, 0-10V	4.93" x 2.95" x 1.00"	K / KS
D10CC55347TW-K (& KS)	420-1050	55	15V to 53V @ 1.05A 15V to 56V @ 0.98A	347	Tuning, 0-10V	4.93" x 2.95" x 1.00"	K / KS
D15CC55347TW-K (& KS)	600-1500	55	15V to 37V @ 1.50A 15V to 56V @ 0.98A	347	Tuning, 0-10V	4.93" x 2.95" x 1.00"	K / KS



¹ Uses Universal Douglas Tuning Utility with TD101U (USB tuner) or LPTC01U (stand alone handheld tuner)

K = Compact case
KS = Compact case with mounting studs

TW Series

Constant Power Output Tuning (Linear Case)

- 90W output power
- UNV (120-277V) or HRV (347-480V) input voltage
- 0-10V dimming to 10%
- Tunable output current¹
- Class P / UL Listed
- Class 2 output
- 6KV Surge Protection
- UL type HL



Linear Drivers with Constant Power Output Tuning

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D23CC90HRVTW-F ¹	580-2300	90	18V to 39V @ 2.30A 18V to 45V @ 2.00A	347-480	Tuning ¹ , 0-10V	9.50" x 2.40" x 1.55"	F
D23CC90UNVTW-F ¹	580-2300	90	18V to 39V @ 2.30A 18V to 45V @ 2.00A	120-277	Tuning ¹ , 0-10V	9.50" x 2.40" x 1.55"	F



¹ Uses Universal Douglas Tuning Utility with TD101A (USB tuner) or LDTC01A (standalone handheld tuner)

PA Series

Auxiliary Output Power with 6kV Transient Protection

- 55W, 95W output power options
- 12VDC, 1.2W auxiliary output power
- UNV (120-277V) input voltage
- 0-10V dimming to 5% with dim-to-off
- Programmable¹
- UL Type HL
- Class P / UL Listed
- Class 2 output
- Thermal NTC



Programmable Drivers with Auxiliary Output Power

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page#18)
	Current (mA)	Max Power (W)	Voltage				
D15CC55UVPA12-FS	450-1500	55	15V to 37V @ 1.50A 15V to 56V @ 0.98A	120-277	Programming, 0-10V, Thermal NTC, 12Vdc Aux	6.59" x 2.37" x 1.53"	FS
D28CC95UVPA12-F	840-2800	95	18V to 34V @ 2.80A 18V to 56V @ 1.70A	120-277	Programming, 0-10V, Thermal NTC, 12Vdc Aux	9.50" x 2.40" x 1.55"	F
D28CC95UVPA12-VF	840-2800	95	18V to 34V @ 2.80A 18V to 56V @ 1.70A	120-277	Programming, 0-10V, Thermal NTC, 12Vdc Aux	5.43" x 3.62" x 1.57"	VF

¹ Uses EVERset Programming Software with LDPC000A wired tuner



Value Series - 1st Generation

Selectable Output Current

- 15W, 25W, 26W, 33W, 36W, 44W, 46W, 57W output power options
- UNV (120-277V) input voltage
- Three small form factor case size options
- 0-10V dimming to 5%
- Dim-to-off
- Four selectable output currents dip switches on back side
- Class B EMI at 120VAC input
- Class P / UL Listed
- Class 2 output
- High Efficiency



Drivers with Selectable Output Current

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D400C16UNVSL-GA	250 / 300 / 350 / 400	16	24V to 42V	120-277	Selectable Output Current, 0-10V	3.74" x 1.57" x 1.00"	GA
D600C25UNVSL-GA	450 / 500 / 550 / 600	25	24V to 42V	120-277	Selectable Output Current, 0-10V	3.74" x 1.57" x 1.00"	GA
D900C25UNVSL-GA	600 / 700 / 800 / 900	25	18V to 28V	120-277	Selectable Output Current, 0-10V	3.74" x 1.57" x 1.00"	GA
D500C26UNVSL-GA	350 / 400 / 450 / 500	26	35V to 52V	120-277	Selectable Output Current, 0-10V	3.74" x 1.57" x 1.00"	GA
D800C33UNVSL-GB	650 / 700 / 750 / 800	33	24V to 42V	120-277	Selectable Output Current, 0-10V	4.72" x 1.69" x 1.00"	GB
D700C36UNVSL-GB	550 / 600 / 650 / 700	36	35V to 52V	120-277	Selectable Output Current, 0-10V	4.72" x 1.69" x 1.00"	GB
D10CC44UNVSL-GC	900 / 950 / 1000 / 1050	44	24V to 42V	120-277	Selectable Output Current, 0-10V	6.10" x 1.69" x 1.00"	GC
D900C46UNVSL-GC	750 / 800 / 850 / 900	46	35V to 52V	120-277	Selectable Output Current, 0-10V	6.10" x 1.69" x 1.00"	GC
D11CC57UNVSL-GC	950 / 1000 / 1050 / 1100	57	35V to 52V	120-277	Selectable Output Current, 0-10V	6.10" x 1.69" x 1.00"	GC



Value Series - 2nd Generation

Selectable Output Current

- UNV (120-277V) input voltage
- 0-10V dimming to 10%
- Dim-to-off
- Four selectable output currents via switches
- Class A EMI at 120 & 277Vac input
- Class P / UL Listed
- Class 2 output



Drivers with Selectable Output Current

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D500C26UNVSL NT	350 / 400 / 450 / 500	26	30V to 52V	120-277	Selectable Output Current, 0-10V	9.48" x 1.18" x 0.98"	NT
D700C36UNVSL NT	550 / 600 / 650 / 700	36	30V to 52V	120-277	Selectable Output Current, 0-10V	9.48" x 1.18" x 0.98"	NT
D900C46UNVSL NT	750 / 800 / 850 / 900	46	30V to 52V	120-277	Selectable Output Current, 0-10V	9.48" x 1.18" x 0.98"	NT



High Wattage - 120W, 150W

Outdoor & Industrial

- 120W, 150W output power options
- UNV (120-277V) or HRV (347-480V) input voltage models
- 0-10V dimming to 10%
- Tunable output current¹
- Enhanced 6kV transient protection²
- UL dry and damp location
- UL Type HL
- UL Listed / Class P³
- Thermal NTL



High-Wattage Drivers with Output Tuning

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D700C120UVT-VF	247-700	120	60V-172V	120-277	Tuning, 0-10V, Thermal NTC, 12V Aux	5.43" x 3.62" x 1.57"	VF
D700C120UVTB-VF	247-700	120	60V-172V	120-277	Tuning, 0-10V, 12V Aux	5.43" x 3.62" x 1.57"	VF
D700C150UVT-F	229-700	150	75V-214V	120-277	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F
D700C150HVT-F	276-700	150	75V-214V	347-480	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F
D10CC150UVT-F	332-1050	150	50V-143V	120-277	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F
D10CC150HVT-F	409-1050	150	50V-143V	347-480	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F
D14CC150UVT-F	443-1400	150	38V-107V	120-277	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F
D14CC150HVT-F	437-1400	150	38V-107V	347-480	Tuning, 0-10V, Thermal NTC	9.50" x 2.40" x 1.55"	F



¹ Uses Universal Douglas Tuning Utility with TD101A (USB tuner) or LDTC01A (standalone handheld tuner)

² Available on 150W drivers

³ Not applicable for the D700C120UVT-VF

PWX Series High Wattage - 180W

Outdoor & Industrial

- 180W output power
- UNV (120-277V) or HRV (347-480V) input voltage
- Wireless programming through near-field communication¹
- Dim-to-Off (Selectable)
- 0-10V dimming with dimming
- < 0.5W standby power
- 1.2W auxiliary output power
- Configurable dimming curve
- Wide output voltage range
- Class P / UL Listed



High-Wattage Drivers with Output Tuning

P/N	Output			Input Voltage	Control	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage				
D14CC180HRVPWX12-F	200 - 1400	180	80V to 128V @ 1.40 Amps 80V to 192V @ 0.94 Amps	347 ~ 480	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F
D20CC180HRVPWX12-F	200 - 2000	180	50V to 90V @ 2.00 Amps 50V to 130V @ 1.39 Amps	347 ~ 480	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F
D14CC180UNVPWX12-F	200 - 1400	180	80V to 128V @ 1.40 Amps 80V to 192V @ 0.94 Amps	120 ~ 277	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F
D20CC180UNVPWX12-F	200 - 2000	180	50V to 90V @ 2.00 Amps 50V to 130V @ 1.39 Amps	120 ~ 277	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F
D950C180HRVPWX12-F	200 - 950	180	114V to 189V @ 0.95 Amps 114V to 285V @ 0.63 Amps	347 ~ 480	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F
D950C180UNVPWX12-F	200 - 950	180	114V to 189V @ 0.95 Amps 114V to 285V @ 0.63 Amps	120 ~ 277	RFID Programming, 0-10V, 12Vdc Aux	9.5 X 2.38 X 1.58	F



¹ Uses EVERset Programming Software with LDPC000A Wireless Tuner

Emergency Drivers

Constant Power LED Emergency

- 7W, 10W, 20W output power options
- UNV (120-277V) input voltage
- Automatically return to charging mode once AC power is restored
- Integral or remote mount case styles
- 90 minutes illumination time in emergency mode
- Approved for field or factory installation
- Meets CEC Title 20 efficiency standards
- UL Listed



ELD7UNVCL (7W)



ELD20UNVL (20W)



ELD10UNVPL (10W)



ELD10UNVL (10W)

Part Number	Power	Input Voltage	Output Voltage	Connection	Battery Type	Case Drawing (Ref. Page #18)
ELD7UNVCL	7W	120-277	15-50V	Conduit Leads	Ni-Cad	12.00" x 2.40" x 1.50"
ELD10UNVL	10W	120-277	15-50V	Leads	Ni-Cad	14.50" x 2.25" x 1.18"
ELD10UNVPL	10W	120-277	15-52V	Leads	Ni-Cad	22.50" x 1.18" x 1.18"
ELD20UNVL	20W	120-277	20-50V	Conduit Leads	Ni-Cad	16.60" x 2.80" x 2.85"

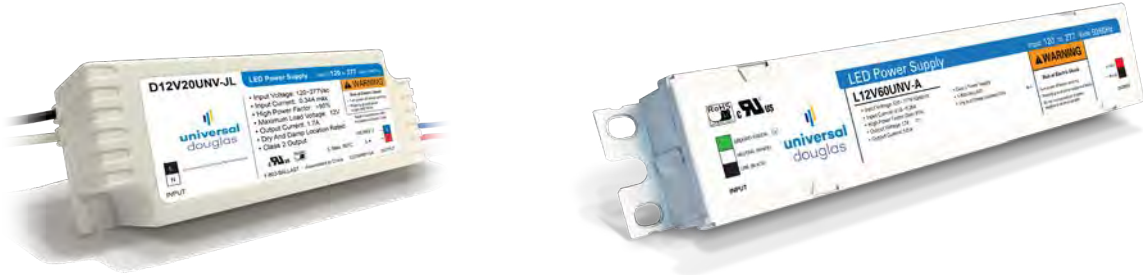




Constant Voltage

12V or 24V Output Voltage

- 20W, 60W, 96W output power options
- Dry, damp, and wet location options
- UNV (120-277V) input voltage
- RoHS compliant
- Class 2 output



Constant Voltage Drivers

P/N	Output			Input Voltage	Control / Notes	Case Dimensions	Case Drawing (Ref. Page #18)
	Voltage	Max Power (W)	Current (A)				
L12V60UNV-A	12	60	5.0	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
L12V60UV6-A	12	60	5	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
L12V60UNV-Q	12	60	5.0	120-277	Fixed Output / IP67	12.13" x 2.08" x 1.54"	Q
L12V60UNV-R	12	60	5.0	120-277	Fixed Output	5.50" x 1.70" x 1.18"	R
L12V120UNV-S	12	120	5	120-277	Fixed Output	11.73" x 1.70" x 1.18"	S
L12V180UNV-E	12	180	5	120-277	Fixed Output	16.7" x 1.70" x 1.18"	E
L24V100UNV-A	24	96	4.0	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
D24V100UNV-A	24	100	4.2	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
D24VA100UNV-A ²	24	96	4.0	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
D24VA100UNVA-A ¹	24	96	4.0	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A
L24V100UV6-A	24	96	4.0	120-277	Fixed Output	9.50" x 1.70" x 1.18"	A

1. Additional 4.1A constant current with 0-10V dimming available
2. Additional 4.1A constant current available

Auxiliary Power Supply

12V 1W Power Supply for Powering Controls

- 120-347 Input Voltage
- 1.2 W Output Power
- Dry & Damp locations
- RoHS compliant
- Class 2 output



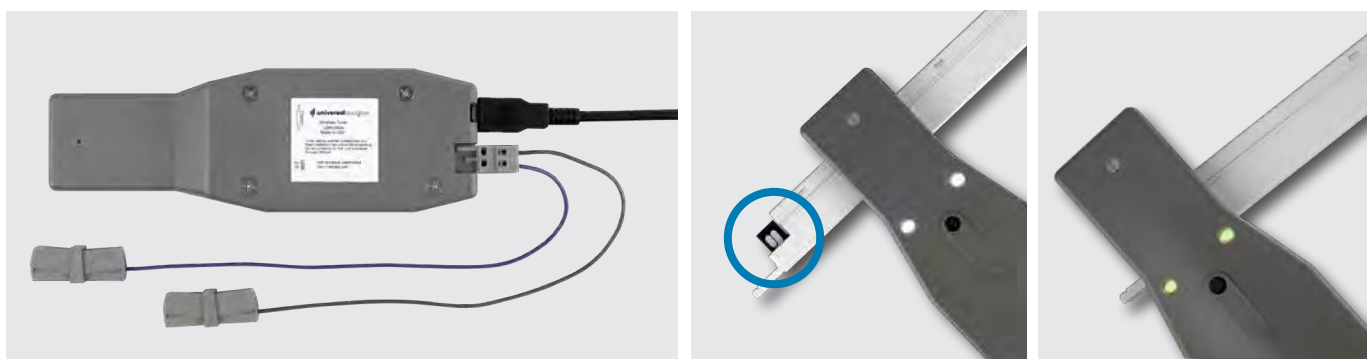
Constant Voltage Drivers

P/N	Output			Input Voltage	Case Dimensions	Case Drawing (Ref. Page #18)
	Current (mA)	Max Power (W)	Voltage			
P12V01WRV-GA	100	1.2	12V	120-347	3.9" x 1.82" x 1.38"	GA





universaldouglas Driver Programming



The Universal Douglas Advanced Driver Programming system allows designers to customize LED Driver parameters with the EVERset™ software and a compatible programming tool. With this system, the driver's minimum and maximum output currents, dimming curves, dimming control voltages, and dim to off can all be configured. Specific configurations can then be set and saved for production use.

Universal Douglas LED Drivers that use EVERset Programming Software are:
PW Series
PWX Series
PA Series

universaldouglas Tuning Utility

The Universal Douglas Tuning Utility allows users to easily tune to a specific Output Current value using the program and tuning adaptor USB device.

Universal Douglas LED Drivers that use the Universal Douglas Tuning Utility are:
TW Series
High Wattage



EVERset™ Programming Software and Universal Douglas Tuning Utility are available at <https://unvlt.com/support/led-driver-tuning/>.

Driver Case Dimensions

Case	Length	Width	Height	Mounting Length	Lead Exit
A	9.50"	1.70"	1.18"	8.89"	Side
C	14.25"	1.18"	1.00"	13.75"	Side
D	16.88"	1.25"	1.00"	16.28"	Side
E	16.7"	1.70"	1.18"	16.10"	Side
F	9.50"	2.40"	1.55"	8.89"	Side
FS	6.59"	2.37"	1.53"	6.00"	Side
GA	3.74"	1.57"	1.00"	3.35" with 1.18" offset	Side
GB	4.72"	1.69"	1.00"	4.37" with 1.30" offset	Side
GC	6.10"	1.69"	1.00"	5.71" with 1.22" offset	Side
J	3.74"	1.57"	1.00"	3.35" x 1.18"	Side
JF	4.67"	1.30"	1.19"	4.39" x 0.96"	Side
JL	5.30"	1.34"	1.00"	4.82" x 0.97"	Side
K	4.93"	2.95"	1.00"	4.59"	Side or Bottom
KS	4.93"	2.95"	1.00"	#8/32 Studs 2.0"	Bottom
L	4.95"	2.39"	1.00"	4.61"	Side or Bottom
LS	4.95"	2.39"	1.00"	#8/32 Studs 2.0"	Bottom
Q	12.13"	2.08"	1.54"	9.9" with 0.9" offset	Side
R	5.50"	1.70"	1.18"	5.24" with 1.13" offset	Side
S	11.73"	1.70"	1.18"	11.14"	Side
VF	5.43"	3.62"	1.57"	5.16" x 2.84"	Side
VJ	5.02"	3.62"	1.57"	#8/32 Studs 2.0"	Bottom
NT	9.48"	1.18"	0.98"	8.89"	Side



A-Can



C-Can



D-Can



E-Can



F-Can



FS-Can



GA, GB, GC-Can
(GA-Can Shown)



J-Can



JF-Can



JL-Can



K, KS-Can
(K-Can Shown)



L, LS-Can
(L-Can Shown)



Q-Can



S-Can



R-Can



VF, VN-Can
(VF-Can Shown)



NT-Can



Module Solutions

Universal Douglas LED Modules are designed for use in high performance lighting applications with features that include high efficacy, consistent color, and excellent lumen maintenance.

Universal Douglas LED modules are available in linear, square, rectangular, and round configurations for a variety of lighting applications. We provide modules for DLC® Standard and DLC® Premium luminaires. Also offered are Assembled in the U.S.A. modules produced in our Huntsville, Alabama facility.

Industry-Best Testing:

- Accelerated Life Cycle Testing
- Dielectric Strength Testing and Ground Bond Testing
- Individual Module Optical Output Validation Testing
- X-Ray Inspection of the Solder Joints and Thermal Imaging
- Ongoing Reliability Testing
- Electrical Parametric Validation



Zhaga-Hybrid Linear Modules

Zhaga-Hybrid Mounting Pattern

- Lengths - 11", 22" and 23"
- Lumens - 1930 to 4680 lumens
- LPW - 146 to 181 LPW
- CRI – 80 CRI standard, 90 CRI available
- SDCM – 3
- CCT Options - 2700K - 5000K
- L85 50K hours, Tc=75°C
- Connectors – 4 single pole
- Warranty – 5 years
- Conformal Coating Available
- UL Recognized / Class 2
- Made in USA Option Available



Zhaga-Hybrid Series

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M525C8xxD28N11A	11.00" x .94"	28	600	22.1	13.3	1930	146
M525C8xxD28N11W	11.00" x .94"	28	650	21.2	13.8	2340	170
M10CC8xxD32N2S	22.00" x .94"	32	1200	12.6	15.1	2200	146
M10CC8xxD32N3S	22.88" x .94"	32	1200	12.6	15.1	2200	146
M10CC8xxD32N2W	22.00" x .94"	32	1300	12.1	15.7	2675	170
M10CC8xxD32N3W	22.88" x .94"	32	1300	12.1	15.7	2675	170
M10CC8xxD56N2A	22.00" x .94"	56	1200	22.1	26.5	3860	146
M10CC8xxD56N3A	22.88" x .94"	56	1200	22.1	26.5	3860	146
M10CC8xxD56N2S	22.00" x .94"	56	1050	21.6	22.6	3130	138
M10CC8xxD56N3S	22.88" x .94"	56	1050	21.6	22.6	3130	138
M10CC8xxD56N2W	22.00" x .94"	56	1300	21.2	27.6	4680	170
M10CC8xxD56N3W	22.88" x .94"	56	1300	21.2	27.6	4680	170

¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C



Zhaga Linear Modules

Zhaga Mounting Pattern

- Lengths - 22" and 23"
- Lumens - 4965 to 8025 lumens
- LPW - 146 to 175 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 5000K
- L85 50K hours, Tc=75°C
- Connectors - 1 two pole
- Warranty - 5 years
- Conformal Coating Available
- UL Recognized / Class 2
- Made in USA Option Available



Zhaga Linear Series

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M700C8xxD72N2A	22.00" x 1.61"	72	900	37.8	34.0	4965	146
M700C8xxD72N3A	22.88" x 1.61"	72	900	37.8	34.0	4965	146
M700C8xxD72N2S	22.00" x 1.61"	72	900	37.4	33.3	4450	134
M700C8xxD72N3S	22.88" x 1.61"	72	900	37.4	33.3	4450	134
M700C8xxD72N2W	22.00" x 1.61"	72	1000	36.4	36.4	6150	169
M700C8xxD72N3W	22.88" x 1.61"	72	1000	36.4	36.4	6150	169
M10CC8xxD96N2S	22.00" x 1.61"	96	1200	37.5	45.0	6400	142
M10CC8xxD96N3S	22.88" x 1.61"	96	1200	37.5	45.0	6400	142
M10CC8xxD96N2W	22.00" x 1.61"	96	1300	36.3	47.2	8025	170
M10CC8xxD96N3W	22.88" x 1.61"	96	1300	36.3	47.2	8025	170



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45° C



ECO Plus Modules

ECO Plus Mounting Pattern

- Length - 22" and 23"
- Lumens - 2328 to 7981 lumens
- LPW - 160 to 186 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, TC=55°C
- Connectors - 4 single pole
- Warranty - 5 years
- UL Recognized / Class 2
- Made in USA Option Available



Eco-Plus Series

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M350C8xxD28N2Y	22" x 0.79"	28	350	41.6	14.6	2328	160
M350C8xxD28N3Y	23" x 0.79"	28	350	41.6	14.6	2328	160
M350C8xxD32N2Y	22" x 0.79"	32	350	47.6	16.7	2660	160
M350C8xxD32N3Y	23" x 0.79"	32	350	47.6	16.7	2660	160
M525C8xxD42N2Y	22" x 0.79"	42	525	41.6	21.8	3492	160
M525C8xxD42N3Y	23" x 0.79"	42	525	41.6	21.8	3492	160
M525C8xxD48N2Y	22" x 0.79"	48	525	47.6	25	3991	160
M525C8xxD48N3Y	23" x 0.79"	48	525	47.6	25	3991	160
M700C8xxD56N2Y	22" x 0.79"	56	700	41.6	29.1	4656	160
M700C8xxD56N3Y	23" x 0.79"	56	700	41.6	29.1	4656	160
M700C8xxD64N2Y	22" x 0.79"	64	700	47.6	33.3	5321	160
M700C8xxD64N3Y	23" x 0.79"	64	700	47.6	33.3	5321	160
M900C8xxD84N2Y	22" x 0.79"	84	1050	41.6	43.7	6983	160
M900C8xxD84N3Y	23" x 0.79"	84	1050	41.6	43.7	6983	160
M800C8xxD96N2Y	22" x 0.79"	96	1050	47.6	47.6	7981	160
M800C8xxD96N3Y	23" x 0.79"	96	1050	47.6	47.6	7981	160



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45° C

23" = 22.88" actual

ECO Pro Modules

ECO Pro Mounting Pattern

- Length - 22" and 23"
- Lumens - 2490 to 8539 lumens
- LPW - 174 to 200 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, TC=55°C
- Connectors – 4 single pole
- Warranty – 5 years
- UL Recognized / Class 2
- Made in USA Option Available



Eco Pro Series

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M350C8xxD28N2Q	22" x 0.79"	28	350	40.8	14.3	2490	174
M350C8xxD28N3Q	23" x 0.79"	28	350	40.8	14.3	2490	174
M350C8xxD32N2Q	22" x 0.79"	32	350	46.6	16.3	2846	174
M350C8xxD32N3Q	23" x 0.79"	32	350	46.6	16.3	2846	174
M525C8xxD42N2Q	22" x 0.79"	42	525	40.8	21.4	3736	174
M525C8xxD42N3Q	23" x 0.79"	42	525	40.8	21.4	3736	174
M525C8xxD48N2Q	22" x 0.79"	48	525	46.6	24.5	4269	174
M525C8xxD48N3Q	23" x 0.79"	48	525	46.6	24.5	4269	174
M700C8xxD56N2Q	22" x 0.79"	56	700	40.8	28.6	4981	174
M700C8xxD56N3Q	23" x 0.79"	56	700	40.8	28.6	4981	174
M700C8xxD64N2Q	22" x 0.79"	64	700	46.6	32.6	5693	175
M700C8xxD64N3Q	23" x 0.79"	64	700	46.6	32.6	5693	175
M900C8xxD84N2Q	22" x 0.79"	84	1050	40.8	42.8	7471	174
M900C8xxD84N3Q	23" x 0.79"	84	1050	40.8	42.8	7471	174
M800C8xxD96N2Q	22" x 0.79"	96	1050	46.7	49.0	8539	174
M800C8xxD96N3Q	23" x 0.79"	96	1050	46.7	49.0	8539	174



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45° C

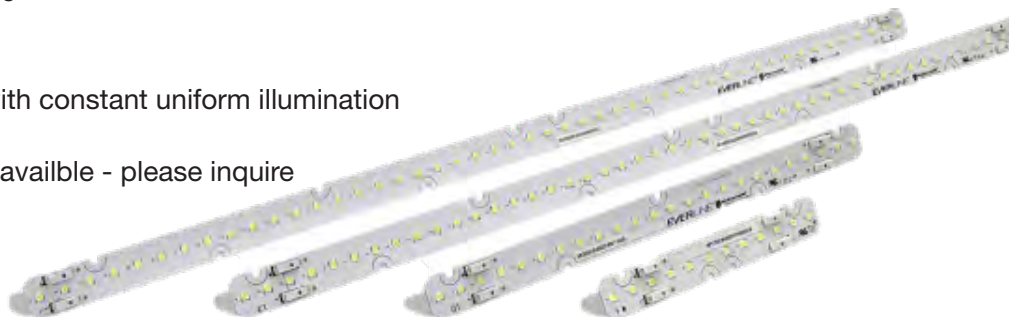
23" = 22.88" actual



EXT High Performance Line Modules (UX)

EXT Mounting Pattern

- Length - 5.5", 11", 22", 23", and 44"
- Lumens - 1055 to 8445 lumens
- LPW - 174 - 203 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, Tc=75°C
- Connectors – 4 single pole
- Warranty – 5 years
- UL Recognized / Class 2
- Mixed length capability with constant uniform illumination
- Made in USA availability
- 10 year warranty options available - please inquire with your salesman



EXT - UX Series

Model Number	Dimensions	# of LEDs	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M175C8xxD12N05UX	5.5" x 0.79"	12	175	33.7	5.9	1055	179
M350C8xxD24N11UX	11" x 0.79"	24	350	33.7	11.8	2110	179
M700C8xxD48N22UX	22" x 0.79"	48	700	33.7	23.6	4220	179
M700C8xxD48N23UX	23" x 0.79"	48	700	33.7	23.6	4220	179
M14CC8xxD96N44UX	44" x 0.79"	96	1400	33.7	47.2	8445	179



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.
23" = 23.73" actual



EXT Standard Performance Line Modules (YX)

EXT Mounting Pattern

- Length - 5.5", 11", 22", 23", and 44"
- Lumens - 4220 to 8445 lumens
- LPW - 160 - 186 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, Tc=55°C
- Connectors – 4 single pole
- Warranty – 5 years
- UL Recognized / Class 2
- Mixed length capability with constant uniform illumination
- Made in USA availability



EXT - YX

Model Number	Dimensions	# of LEDs	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M175C840D12N05YX	5.5" x 0.79"	12	175	35.7	6.2	998	160
M350C840D24N11YX	11" x 0.79"	24	350	35.7	12.5	1995	160
M700C840D48N22YX	22" x 0.79"	48	700	35.7	25	3990	160
M700C840D48N23YX	23" x 0.79"	48	700	35.7	25	3990	160
M14CC840D96N44YX	44" x 0.79"	96	1400	35.7	50	7981	160



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.
23" = 23.73" actual



Value Series Linear Modules

Multiple Mounting Patterns

- Length - 22" and 23"
- Lumens - 542 to 4400 lumens
- LPW - 158 to 177 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, TC=75°C
- Connectors – 4 single pole and 2 pole options
- Warranty – 5 years
- UL Recognized / Class 2
- Mixed length capability with constant, uniform illumination
- Made in USA availability



V Series Modules

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M10CC8xxD32N2V	22.00" x .94"	32	1050	11.6	12.2	1929	158
M10CC8xxD32N3V	22.88" x .94"	32	1050	11.6	12.2	1929	158
M10CC8xxD56N2V	22.00" x .94"	56	1050	20.4	21.4	3376	158
M10CC8xxD56N3V	22.88" x .94"	56	1050	20.4	21.4	3376	158
M700C8xxD72N2V	22.00" x 1.61"	72	800	35.0	28.0	4400	157
M700C8xxD72N3V	22.86" x 1.6"	72	800	35.0	28.0	4400	157

¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C".



HP Series Modules

- Length - 22"
- Lumens - 1110 to 11,260 lumens
- LPW - 179 to 200 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 6500K
- L85 50K hours, TC=75°C
- Connectors – 4 single pole and 2 pole options
- Warranty – 5 years
- UL Recognized / Class 2
- Made in USA availability
- Ideal for cols atmosphere, high cycling applications.
- 10 year Warranty modules are available -
Please inquire with your salesman.



HP Series Modules

Model Number	Dimensions	# of LEDs	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M350C8xxD32N2U	22" x 0.94"	32	350	44.9	15.7	2815	179
M10CC8xxD56N2U	22" x 0.94"	56	1400	19.6	27.4	4926	180
M700C8xxD64N2U	22" x 0.94"	64	700	44.8	31.4	5630	180
M10CC8xxD96N2U	22" x 1.6"	96	1400	33.7	47.1	8444	179
M12CC8xxD112N2U	22" x 1.6"	112	1200	44.8	53.8	9668	180
M14CC8xxD112NHDU	22.3" x 1.5"	112	2800	19.6	55.0	9852	179
M14C8xxD128N2U	22" x 0.94"	128	1400	44.9	62.9	11260	179

¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.



Slimline Plus Series Modules

- Length - 6", 9", 12", 18", and 24"
- Lumens - 1169 to 4676 lumens
- LPW - 162 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 5000K
- L85 50K hours, Tc=75°C
- Connectors – 2 single pole
- Warranty – 5 years
- Conformal Coating Available
- UL Recognized / Class 2
- Mixed length capability with constant, uniform illumination
- Made in USA availability



Slimline Plus Series

Model Number	Dimensions	# of LEDs	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M12CC8xxD20N06W	6" x 0.5"	20	1200	6	7.2	1169	162
M12CC8xxD30N09W	9" x 0.5"	30	1200	9	10.8	1753	162
M12CC8xxD40N12W	12" x 0.5"	40	1200	12	14.4	2338	162
M12CC8xxD60N12W	18" x 0.5"	60	1200	18.1	21.7	3507	162
M12CC8xxD80N24W	24" x 0.5"	80	1200	24.1	28.9	4676	162
M600C8xxD10N06W	6" x 0.5"	10	600	6	3.6	584	162
M600C8xxD15N09W	9" x 0.5"	15	600	9	5.4	877	162
M600C8xxD20N12W	12" x 0.5"	20	600	12	7.2	1169	162
M600C8xxD30N18W	18" x 0.5"	30	600	18.1	10.8	1753	162
M600C8xxD40N24W	24" x 0.5"	40	600	24.1	14.4	2338	162

¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.



Dual Row Linear Modules

High Lumen Output

- Length - 22" and 23"
- Lumens - 2490 to 12,745 lumens
- LPW - 164 to 195 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 2700K - 5000K
- L85 50K hours, TC=75°C
- Connectors – 4 single pole and 2 pole options
- Warranty – 5 years
- Conformal Coating Available
- UL Recognized / Class 2
- Made in USA availability



Dual Row Series

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M14CC8xxD108N2L	22.05" x 1.57"	108	1400	35.9	50.3	7350	146
M14CC8xxD112NHD	22.30" x 1.5"	112	2400	22.1	53.0	7725	146
M14CC8xxD112N3D	22.88" x 1.5"	112	2400	22.1	53.0	7725	146
M14CC8xxD112N2W	22.00" x 1.6"	112	2600	21.2	55.1	9360	170
M14CC8xxD112N3W	22.86" x 1.6"	112	2600	21.2	55.1	9360	170
M18CC8xxD156N2S	22.05" x 1.57"	156	1800	40.6	73.1	10145	139
M18CC8xxD156N2W	22.05" x 1.57"	156	2000	38.8	77.6	12745	164



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.



20-inch Modules

- Length - 20"
- Lumens - 715 to 6195 lumens
- LPW - 160 to 190 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 3000K - 5000K
- L85 50K hours, TC=55°C
- Connectors – 4 single pole
- Warranty – 5 years
- UL Recognized / Class 2
- Made in USA availability



20-inch Series

Model Number	Dimensions	# of LEDs	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficiency @ 4000K/80CRI (lm/W)
M14CC8xD56N20Y	20" x 0.94	56	1400	20.5	28.7	4738	165
M10CC8xD72N20Y	20" x 0.94	72	1050	35.2	36.9	6091	165
M10CC8xD108N20Y	20" x 0.94	108	1050	34.5	36.2	6195	171

¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C".



Square LED Modules

- Length - 6" Square
- Lumens - 3350 to 7810 lumens
- LPW - 142 to 198 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 3000K - 5000K
- L85 50K hours, TC=55°C
- Connectors – 1 two pole
- Warranty – 5 years
- UL Recognized / Class 2
- Made in USA availability



Square LED Modules

Model Number	Dimensions	# of LEDs	Input Current ¹ (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficacy @ 4000K/80CRI (lm/W)
M10CC8xxD100NSQ	6.0" x 6.0"	100	1500	31.3	46.9	6670	142
M10CC8xxD100NSQW	6.0" x 6.0"	100	1500	29.9	44.9	7810	174



¹ Values are shown at maximum current 80 CRI 4000K with a tolerance of +/- 10% at 45°C.



Chain LED Modules

• LSA-25WH & LSA-25WW

- Use in multiples of 1 to 100+ modules
- Cut chains to length between any module
- 120° viewing angle
- 3 LEDs/module, 2 modules/foot
- L80 @ 60K hours, TC=70C
- 3500K, 6500K CCT options (95 lm & 100 lm per foot)
- UL Recognized / Class 2



• LSI653933CU-EV1

- Use in multiples of 1 to 100+ modules
- Cut chains to length between any module
- 165° viewing angle
- 3 LEDs/module, 2 modules per foot
- 300 lumen/foot
- True white
- Compatible with all Universal Douglas 12V constant voltage drivers
- UL Recognized / Class 2



LED Constant Voltage Chains

Model Number	Module Dimensions	Input Voltage	Power per Foot (W)	Lumens/Foot
LSA-25WH	1.81" x .95" x .32"	12V	0.94	100
LSA-25WW	1.81" x .95" x .32"	12V	0.94	95
LSI653933CU-EV1	2.85" x 0.95" x 0.32"	12V	2	300



LED Sign Sticks

• EVSS-12-65-yy

- Simple and easy installation
- Long life with high efficacy
- Lens for superior light distribution
- Class 2 wiring
- For Dry, Damp or Wet locations



LED Single Sided Sign Sticks

Model Number	Length	Input Voltage	Rated Power	Lumens	Efficiency
EVSS12-65-24	2 ft	12V	3.9	600	154
EVSS12-65-36	3 ft	12V	5.8	900	154
EVSS12-65-48	4 ft	12V	7.8	1200	154
EVSS12-65-60	5 ft	12V	9.7	1500	154
EVSS12-65-72	6 ft	12V	11.6	1800	154
EVSS12-65-84	7 ft	12V	13.6	2100	154
EVSS12-65-96	8 ft	12V	15.5	2400	154
EVSS12-65-108	9 ft	12V	17.5	2700	154
EVSS12-65-120	10 ft	12V	19.4	3000	154

• EVDS-24-65-yy

- Simple and easy installation
- Long life with high efficacy
- Lens for superior light distribution
- Class 2 wiring
- For Dry, Damp or Wet locations

LED Double Sided Sign Sticks

Model Number	Length	Input Voltage	Rated Power	Lumens	Efficiency
EVDS24-65-24	2 ft	24V	7.8	1200	154
EVDS24-65-36	3 ft	24V	11.6	1800	154
EVDS24-65-48	4 ft	24V	15.5	2400	154
EVDS24-65-60	5 ft	24V	19.4	3000	154
EVDS24-65-72	6 ft	24V	23.3	3600	154
EVDS24-65-84	7 ft	24V	27.2	4200	154
EVSS24-65-96	8 ft	24V	31.0	4800	154
EVSS24-65-108	9 ft	24V	35	5400	154
EVSS24-65-120	10 ft	24V	38.8	6000	154



Lensed LED Modules

- Length - 21.45" and 42.65"
- Lumens - 2250 to 4500 lumens
- LPW - 114 to 126 LPW
- CRI - 80CRI standard, 90CRI available
- SDCM - 3
- CCT Options - 3500K - 5000K
- Connection – wired leads
- Warranty – 5 years
- UL Recognized / Class 2



LED Lensed Modules

Model Number	Dimensions	Input Current (mA)	Forward Voltage (VDC)	Rated Power (W)	Lumens @4000K/80CRI (lm)	Efficiency @ 4000K/80CRI (lm/W)
LRL12-15L8xx-525C	21.45" x .8"	525	37	19.8	2250	114
LRL14-30L8xx-750C	42.46" x .8"	1050	38	40	4500	113



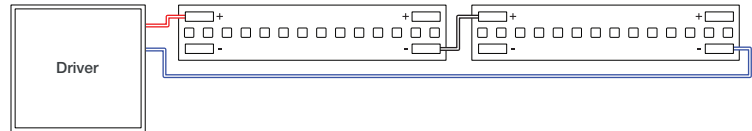
Light Engine Examples

LED | Linear Lighting

Application Example: 1x4

Two 32 LED modules connected in series with a 1050mA driver provide 4400 lumens.

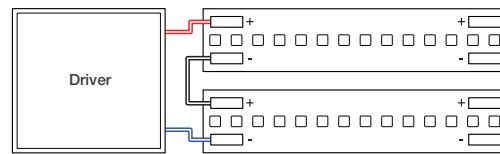
Driver	D10CC30UNVPW-C
(Qty) Module	(2) M10CC840D32N3W
Lumens	4450
Total Power	29.1
LPW	153



Application Example: 2x2

Two M10CC modules connected in series with a 1500mA driver provide 5300 lumens.

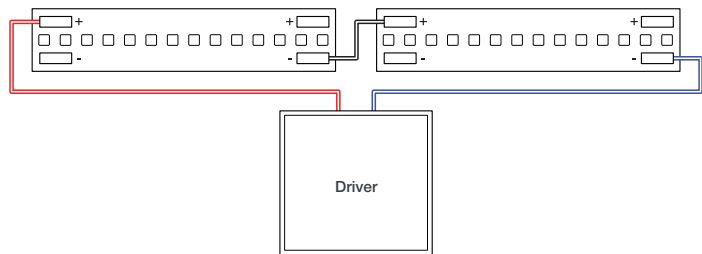
Driver	D15CC55UNVPW-C
(Qty) Module	(2) M10CC840D56N3W
Lumens	5380
Total Power	33
LPW	163



Application Example: 2x4

Two M10CC modules in series with a 1500mA driver provide 7700 lumens.

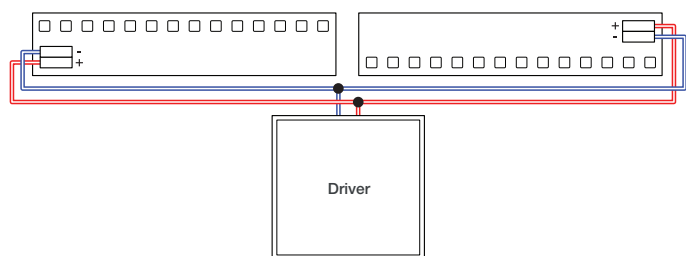
Driver	D15CC55UNVPW-C
(Qty) Module	(2) M10CC840D56N3W
Lumens	7790
Total Power	50
LPW	155



Application Example: 2x4 High Efficiency

Two M700C modules in parallel with a 1500mA driver provide 5300 lumens.

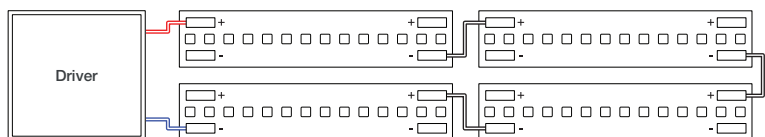
Driver	D15CC55UNVPW-C
(Qty) Module	(2) M700C840D72N3A
Lumens	5300
Total Power	44
LPW	121



Application Example: 2x4 Dual Row

Four 32LED modules in series with a 1500mA driver provide 8300 lumens.

Driver	D15CC55UNVPW-C
(Qty) Module	(4) M10CC840D32N34W
Lumens	8375
Total Power	52
LPW	160



For more configuration options, see application note EVS03 at www.unvlt.com

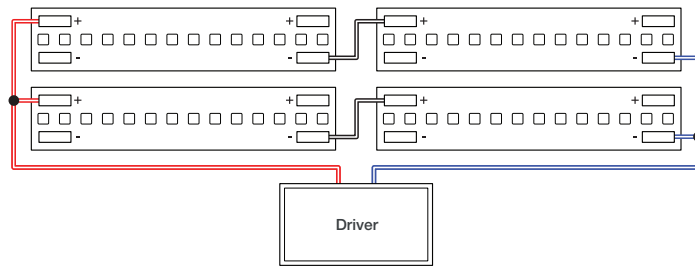
Light Engine Examples

LED | Linear Lighting

Application Example: 2x4 High Efficiency

Four 56LED modules in series/parallel with a 1500mA driver provide 8200 lumens.

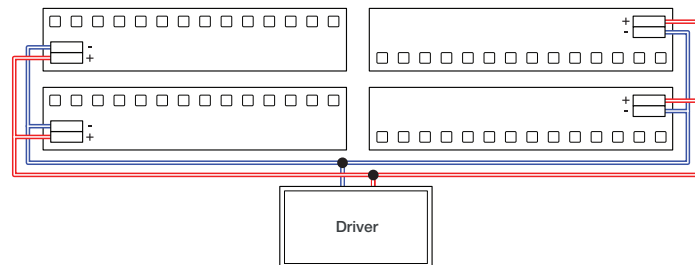
Driver	D15CC55UNVPW-C
(Qty) Module	(4) M10CC840D56N3W
Lumens	8200
Total Power	48
LPW	171



Application Example: Low Bay

Four M700C modules in parallel with a 2300mA driver provides over 10,000 lumens.

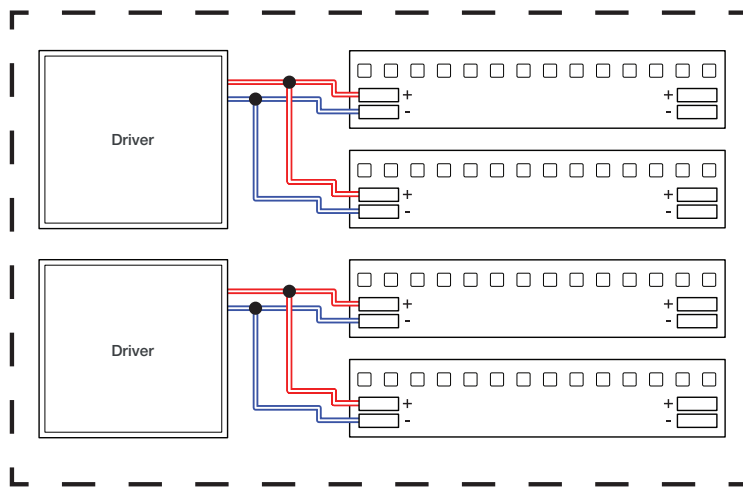
Driver	D23CC90UNVTW-F
(Qty) Module	(4) M700C840D72N3S
Lumens	11780
Total Power	93
LPW	126



Application Example: High Bay

Two sets of two 96 LED modules in parallel with 2100mA drivers provides over 20,000 lumens.

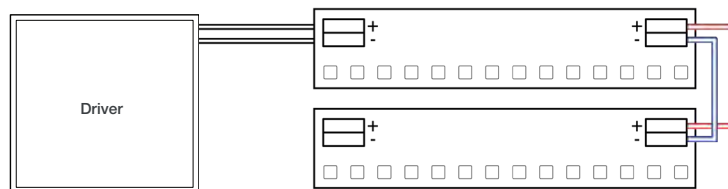
Driver	(2) D21CC80UNVPW-C
(Qty) Module	(4) M10CC840D96N3S
Lumens	20320
Total Power	182
LPW	112



Application Example: 2x2

Two 28 LED Modules in Parallel with a 700mA output driver provides 2300 lumens.

Driver	(1) D10CC30UNVPW-C
(Qty) Module	(2) M350C840D28N2Y
Lumens	2328
Total Power	29W
LPW	160



For more configuration options, see application note EVS03 at www.unvlt.com

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