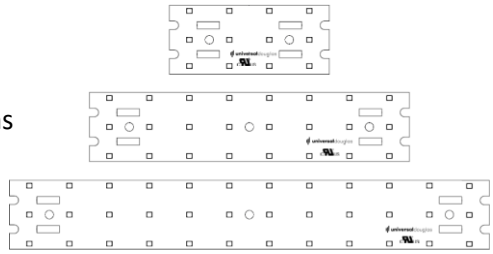
TRIOS SERIES MODULES



Features and Benefits

- Designed for architectural applications
- Evenly spaced LEDs are ideal for end-to-end configurations
- Three row LED design creates a wide light distribution
- 3.5”, 7.0” and 10.5” options available
- The modules use a 1.5” wide footprint

General Performance Specifications

	Rating	Unit	Notes
Lumen Maintenance	>50,000	Hours	L85, Tc=55°C
Color Rendering Index	80	CRI	
Color Consistency	3	SDCM	
Minimum Ambient Operating Temperature	-30	°C	-22°F
Maximum Board Temperature	80	°C	176°F

Maximum Ratings

	Rating	Unit	Notes
M525C8xyD36N11Q	525	mA	19W
M350C8yzD24N07Q	350	mA	13W
M175C8yzD12N04Q	175	mA	7W

Regulatory

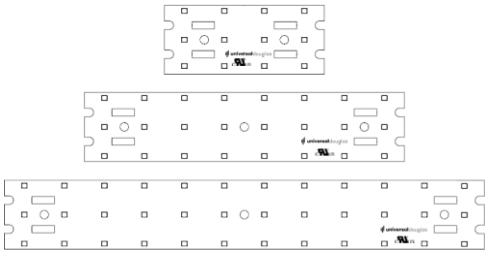
Recognized – UL8750
CAN/CSA-C22.2 No. 250.13
RoHS Compliant

Module Notes

Parallel wiring applications are limited to 2.1 Amps
Differential wiring is recommended for parallel board layouts
This module is not recommended for cold storage and freezer applications
It is recommended that light engines be tested for irregular illumination when operating under the minimum current specification

Assembled in North America

Application and operation performance specification information subject to change without notification.



Module Performance Charts

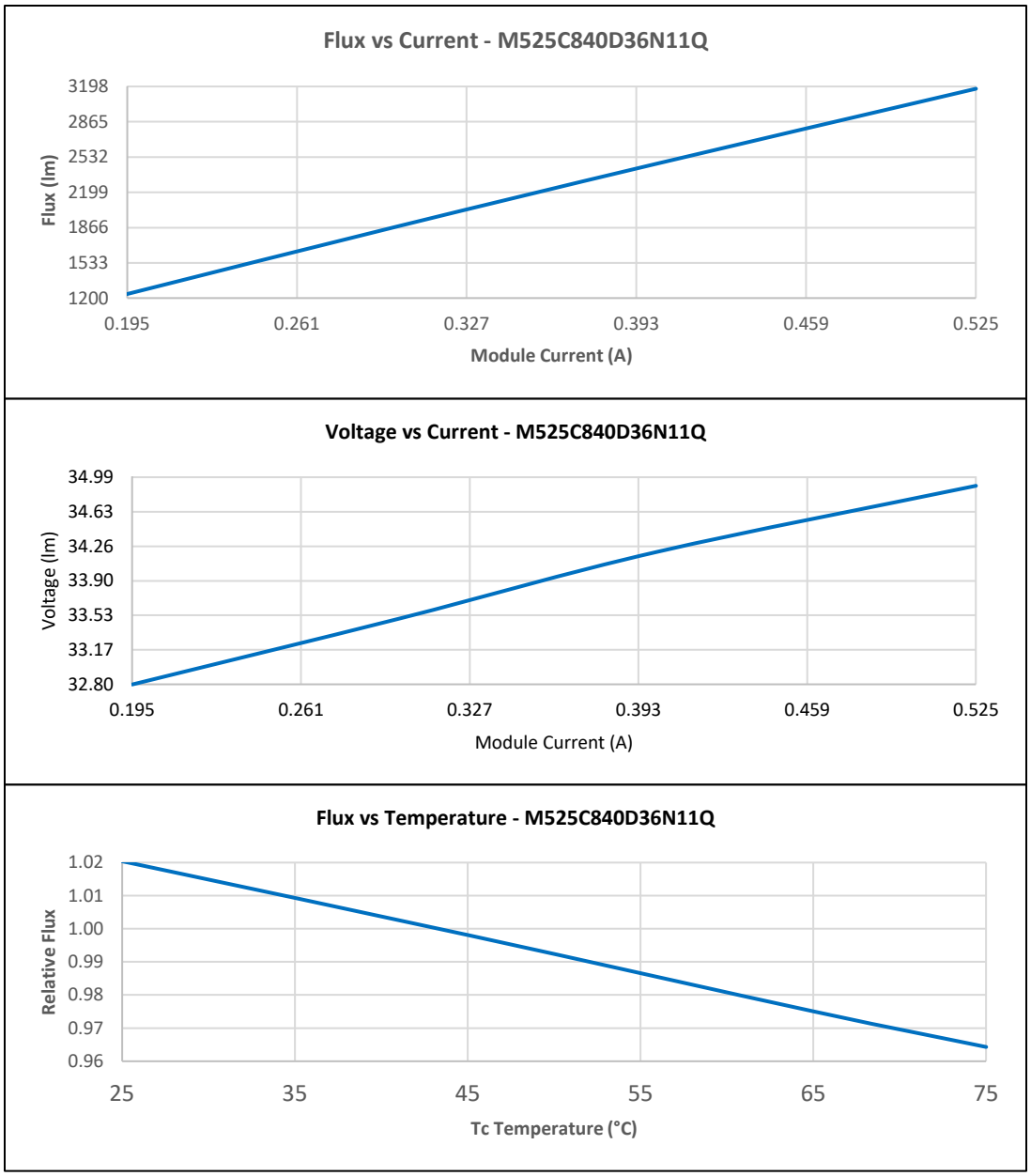
36 LED Module							
Part Number	Nominal					CRI	Length
	Current (A)	Initial Lumens (1)	Vf (2) (Volts)	Power (W)	Lm/W		
M525C840D36N11Q	0.195	1240	32.8	6.4	194	80	N11 = 10.5"
	0.225	1424	33.0	7.4	192		
	0.375	2319	34.0	12.8	182		
	0.450	2752	34.5	15.5	177		
	0.525	3176	34.9	18.3	173		

24 LED Module							
Part Number	Nominal					CRI	Length
	Current (A)	Initial Lumens (1)	Vf (2) (Volts)	Power (W)	Lm/W		
M350C840D24N07Q	0.130	826	32.8	4.3	194	80	N07 = 7.0"
	0.150	949	33.0	5.0	192		
	0.250	1547	34.0	8.5	182		
	0.300	1835	34.5	10.4	177		
	0.350	2117	34.9	12.2	173		

12 LED Module							
Part Number	Nominal					CRI	Length
	Current (A)	Initial Lumens (1)	Vf (2) (Volts)	Power (W)	Lm/W		
M175C840D12N04Q	0.065	413	32.8	2.1	194	80	N04 = 3.5"
	0.075	475	33.0	2.5	192		
	0.125	773	34.0	4.3	182		
	0.150	917	34.5	5.2	177		
	0.175	1059	34.9	6.1	173		

(1) MID Flux Bin Values are shown for CCT of 4000K. Tolerance of ±10% at 45°C
(2) Vf is at Tc of 45°C with max tolerance of +/- 5%.
(3) Vf increases by 2% at 25 °C and 10% at -30 °C during the initial on state.

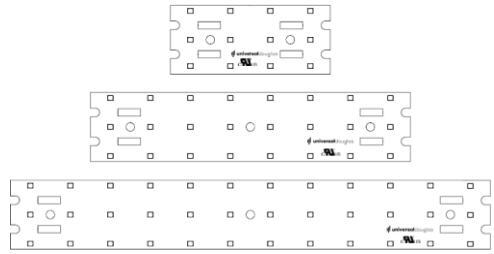
Flux and Voltage vs. Current



Notes:

- Graphs provided are based on a 36 LED module.
- Typical Values are shown for flux and voltage graphs with Tc=45°C.

TRIOS SERIES MODULES



Module Part Numbers

ARCH 10 Pack Part Numbers	Description	Qty/Ctn
M525C8xzD36N11Q10C	525mA, 80CRI, xx00K, 12 LED, Linear 10.5"	10
M350C8xzD24N07Q10C	350mA, 80CRI, xx00K, 24 LED, Linear 7.00"	10
M175C8xzD12N04Q10C	175mA, 80CRI, xx00K, 36 LED, Linear 3.50"	10

ARCH 100/90 Pack Part Numbers	Description	Qty/Ctn
M525C8xzD36N11Q00C	525mA, 80CRI, xx00K, 12 LED, Linear 10.5"	100
M350C8xzD24N07Q00C	350mA, 80CRI, xx00K, 24 LED, Linear 7.00"	100
M175C8xzD12N04Q90C	175mA, 80CRI, xx00K, 36 LED, Linear 3.50"	90

Lumen Multiplier

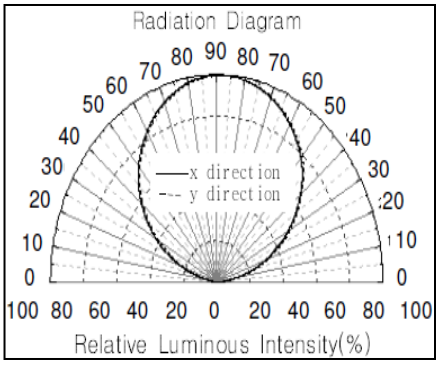
CRI	CCT	Color Code	Lumen Multiplier
80	2700K	xz = 27	93.2%
80	3000K	xz = 30	95.9%
80	3500K	xz = 35	97.3%
80	4000K	xz = 40	100.0%
80	5000K	xz = 50	100.0%
80	6500K	xz = 65	100.0%

Assembled in North America

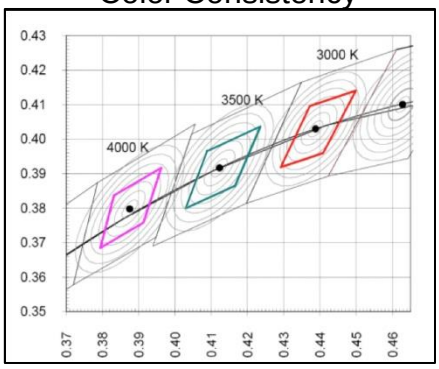
Application and operation performance specification information subject to change without notification.

TRIOS SERIES MODULES

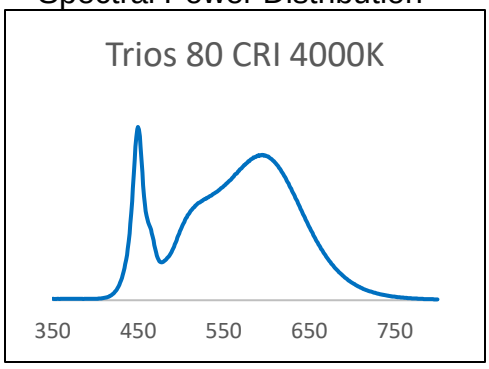
Photometric Distribution



Color Consistency



Spectral Power Distribution



Installation & Assembly Guidelines

Mounting:

• Modules may be installed using the provided mounting slots.

• Nylon washers should be used on the top side to prevent the screw-head from making electrical contact with traces.

• The modules may also be mounted using thermal transfer adhesive.

• LEDs should not be touched or contacted during installation to avoid damage

Wire Connector

• Wire connectors will accept 18 to 26 AWG solid or bonded stranded wire.

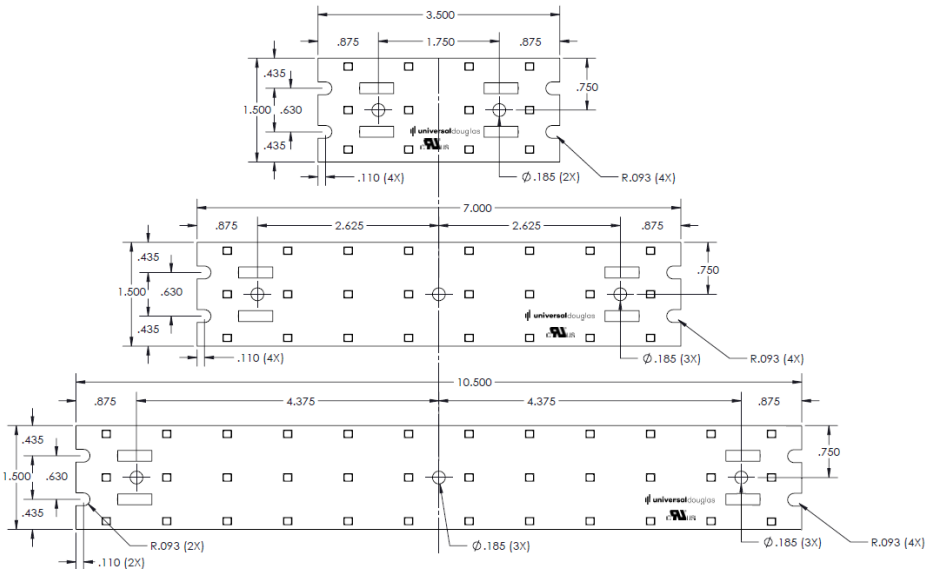
• To remove wire from connector, depress the indent on the top of the terminal with a wire release tool, and pull the wire.

Electrostatic Sensitive Product

• The installation of Universal Douglas LED modules should be in an environment that incorporates ESD protective measures.

• Technicians should be grounded and avoid contact with the LEDs when servicing LED Luminaires.

Dimensions:



Application and operation performance specification information subject to change without notification.

Application Notes:

1. Modules that do not have conformal coating are designed for indoor fixtures in dry applications. Damage caused by corrosion due to moisture, condensation, and other harmful elements, is not covered by the warranty.
2. Proper heat sinking is required to ensure that the module does not exceed its rated temperature. Damage caused by improper heat sinking is not covered by the warranty.
3. The color is measured at the LED binning condition. The LED module is designed to operate in accordance with ANSI C78 377. Color shift may occur in the system due to deviations in temperature and components that surround or cover the LED in the fixture.

CONDITIONS OF ACCEPTABLE USAGE:

This component has been judged on the basis of the required spacing distances in the Standard for LED Equipment for Use in Lighting Products, UL 8750.

1. The LED modules are intended for connection to a constant current, Class 2 power supply. When the arrays are connected and used with power supplies other than class 2, the need for an additional evaluation shall be considered in the end use product investigation.

2. The LED modules shall be installed in compliance with the mounting, spacing, casualty, and the segregation requirements applicable to the ultimate application.

3. The LED modules were not subjected to the Normal Temperature Test. A Temperature Test shall be conducted in the end product with considerations for the following components, their ratings, and LED-to-LED spacing:
Printed Wiring Board – 105°C
Connectors – 105°C

4. Use only with a suitably rated, NRTL Listed, Class 2 Power Supply. The “Dry and Damp Locations” marking on the module is based on requirements that pertain to the UL certification. The warranty covers Dry Location use for non-conformal coated LED modules, and Dry or Damp Location use for conformally coated LED modules. Do not use these LED modules in a wet location. Refer to UL 8750 and the National Electrical Code (NFPA 70) for the definition of dry, damp, and wet locations

5. All models shall be marked with any voltage and current rating that doesn’t exceed the maximum ratings in the ELECTRICAL RATINGS table of this report. All models are to be used within their marked ratings.