RECESSED



PROJECT:

TYPE:

NOTES:

### CHROMAWERX TUNABLE WHITE AND DIM TO WARM

#### IMPORTANT: a qualified DMX integration consultant is required to ensure proper installation and function of any DMX network



## DESCRIPTION

Via Perimeter 5 creates a continuously illuminated "slot" at the wall/ceiling intersection. Lighted corners are available. Via Perimeter installs in grid or drywall ceilings in a choice of three arrangements: level, shallow 1", and deep 3 1/4 ".

Via Perimeter 5 is an ideal vehicle for ChromaWerx white tuning in education, office, and healthcare applications

where modular luminaires are used.

## up to 115 lm/w performance

**IC RATED** 

#### **ORDER GUIDE**

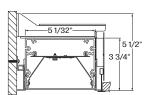
	HLO	LED			
LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	CHROMAWERX
V5PERL - via 5 perimeter levelled	HLO - High-Efficiency	LED - high	80 - 80CRI	500 - min. low output 500lm/ft	DUO - tunable white 2
V5PERS - via 5 perimeter shallow	Lambertian Optic	performance LED	<b>90</b> - 90CRI	750 - medium output 750lm/ft	channel control 27k to 65k
V5PERD - via 5 perimeter deep				1000 - max. high output 1000lm/ft	SOLA - dim to warm single
				#### - other required lm/ft	channel control 22k to 35k

			1			
LUMINAIRE LENGTH	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	OPTIONS
Available sections - 4', 8' & 12'	<b>120</b> - 120V	DMX - to specify see pages	1-1 circuit	<b>TG9</b> - tegular 9/16"	W - matte white	FU - fuse
<b>#FT</b> - nominal length in feet	<b>277</b> - 277V	5 to 10		TG15 - tegular 15/16"	CF# - custom finish	FWC - flexible whip
(2' increments only)		<b>DA</b> - Dali (duo only) local		<b>TB9</b> - t-bar 9/16"	specify RAL#	cable (6' std)
Continuous Run - for luminaires over 12'		on-site commissioning is		<b>TB15</b> - t-bar 15/16"		CP - Chicago Plenum
Minimum Individual section 4'		required		ST - screw slot t-bar		CU - custom
		0-10 - Single 0-10V input		DTR - drywall trim		
		(Sola) or dual 0-10V input for		DTL - drywall trimless		
		CCT/Intensity (Duo)		DMF - drywall mud flange		
		PSQO - Lutron T-Series 1%				
		Tunable White				

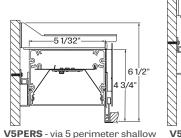
DMX WALL CONTROLS

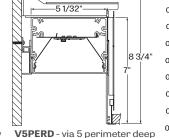
To specify see pages 5 to 10

#### **CROSS SECTION**



**V5PERL** - via 5 perimeter levelled





# HROMAWERX

See page 2 for ordering code detailed information

### ANSI C78.377-2015



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#### TECHZONE<sup>™</sup> & USG Compatible with 6" ceiling



Intertek

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### CHROMAWERX TUNABLE WHITE AND DIM TO WARM

#### **OPTICS**

**HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO)** - matte white side reflectors combined with High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

#### LIGHT SOURCE - LED

#### PERFORMANCE PER 4' AT 4000K

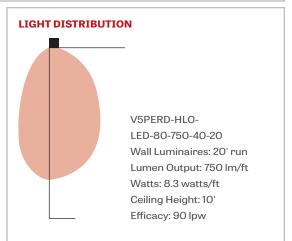
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	17.5	2000	115
medium output	4000K	26.5	3000	114
high output	4000K	36	4000	111

#### Lumen Adjustment Factors

2700K	0.917
3000K	0.959
3500K	0.988
4000K	1.000
6500K	1.053

Custom linear array of alternating color temperature mid-flux LED's are mounted directly to the housing for optimal thermal performance. For the Duo products, a color temperature range from 2700K-6500K is achievable with color points on or below the black body curve. For the Sola products, a color temperature range from 2200K-3500K is controlled synchronously with intensity. Color consistency between fixtures is maintained to within 3SDCM. LEDs are operated at reduced drive current to optimize efficacy and lumen maintenance.

All LED's have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.



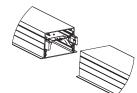
#### Foot Candles on 20' wide wall, 10' ceiling

156.9	154.3	162.4	152.9	153.0	152.9	152.9	163.0	154.4	157.5
14.8	14.1	13.1	12.7	12.6	12.6	12.7	13.1	14.2	15.8
8.6	8.0	7.2	6.9	6.8	6.8	6.8	7.2	8.1	8.7
7.0	6.5	6.0	5.8	5.8	5.8	5.9	6.1	6.5	7.0
6.2	5.9	5.5	5.6	5.9	5.9	5.7	5.5	5.9	6.4

#### LUMINAIRE LENGTH

Via Perimeter 5 is made up of standard 4, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 4 foot, and continuous run lengths can be ordered in 2 foot increments. All individual sections are joined together onsite using the joiner kits provided. LumenWerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

#### Joining system



Drywall joining

Grid joining

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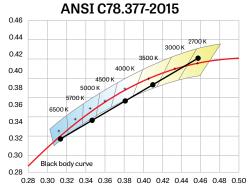
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### CHROMAWERX TUNABLE WHITE AND DIM TO WARM

#### **CHROMAWERX - TUNABLE WHITE**



ChromaWerx Sola is single-channel control that dims output while warming the color temperature in a pre-determined relationship. A simple digital or analog control sends a common signal to dual output digital drivers, which are programmed to adjust a specially populated LED array to emulate the effect of dimming a filament source. Dimming range is programmable but the default option runs from 3500K at 100% of full power to 2200K at 5% of full power. CRI is maintained above 80 throughout the dimming range.

ChromaWerx Duo is two-channel control. It uses an analog (0-10V) protocol for separate control of luminaire CCT and intensity or a digital (DMX, DALI) protocol for synchronous control of both warm and cool LED arrays to enable the user to set color temperature and light output. Commonly called "tunable white", ChromaWerx two-channel control provides the range of warm (2700K) to cool (6500K) color that can be useful for helping to entrain circadian rhythms, stimulate alertness for improved educational and work productivity, and compensate for jet lag, among other applications. The ChromaWerx drivers are programmed to limit maximum light output and power usage across all color temperatures. CRI is maintained above 80.

#### **ELECTRICAL**

#### DMX (Duo only)

Factory-set, adjustable output current, multi-channel LED driver with universal (120-277VAC) input. Using DMX wall controls (optionally supplied by LumenWerx) or an existing DMX control system, two channels of LEDs (warm-white & cool-white) are independently adjustable. Each DMX driver has multiple output channels that can be independently addressed at the factory or on-site using built-in RDM (Remote Device Management) functionality. Dimming range from 100%-0%. At maximum driver load, efficiency<89%, PF>0.9, THD<20%.

#### Dali (Duo Only)

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Using an existing DALI control system (supplied by others), one control channel adjusts the fixture color temperature, and the other control channel adjusts fixture brightness. Dimming range from 100%-0%. At maximum driver load, efficiency<86%, PF>0.9, THD<20%.

#### 0-10V (Sola)

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Using a single 0-10V control signal, the light output warms in color temperature as it dims down to 1% and 2200K. At maximum driver load, efficiency<86%, PF>0.9, THD<20%.

#### 0-10V (Duo)

Factory-set adjustable output current LED driver with universal (120-277VAC) input. Controlled via two individual 0-10V signals, one for setting light output down to a minimum of 1% and the other for adjusting the CCT (default range of 2700K-6500K). Rated life of 50,000 hours at 70°C maximum driver case temperature and 100% load conditions. Typical efficiency of 86%, PF>0.9, THD<20% at 100% load conditions.

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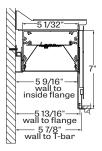
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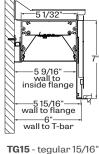


## CHROMAWERX TUNABLE WHITE AND DIM TO WARM

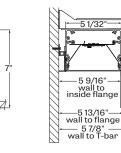
#### **MOUNTING OPTIONS**

Recess mount into exposed or concealed T-Bar or Tegular grid ceiling,





**TG9** - tegular 9/16"



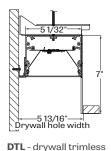
**TB15** - t-bar 15/16"

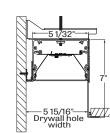
— 5 9/16" wall to inside flange

—5 15/16" wall to flange

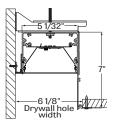
**ST** - screw slot t-bar

Mounting for drywall ceilings are available with visible trim, mud flange, trim or trimless.





DTR - drywall trim



— 5 9/16" wall to inside flange

— 5 7/8" wall to T-bar

TB9 - t-bar 9/16"

DMF - drywall mud flange

#### FINISH

Interior - 95%, reflective matte powder coated white paint Exterior - matte white powder coating. Custom finishes are also available.

#### EMERGENCY

Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

#### CONSTRUCTION

**Housing** - Extruded Aluminum (0.095" nominal) up to 90% Recycled Content

**Interior brackets** - Die formed cold rolled sheet steel 18 gauge thick

**Joining system** - Die cast Zinc (0.95" nominal) and die Formed galvanized sheet 18 gauge

**Reflectors** - Flat rolled Aluminum sheet 0.040" thick precisely die formed, 95% reflective matte white painted

Recessed flanges - Extruded Aluminum (0.075" nominal) up to 90% Recycled Content

**End plate** - Die formed cold rolled sheet steel 18 gauge thick

#### MAINTENANCE

LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

#### WEIGHT

Via 5 perimeter 4ft - 11.78lbs - 5.35kg Via 5 perimeter 8ft - 23.79lbs - 10.8kg Via 5 perimeter 12ft - 35.24lbs - 16kg

#### CERTIFICATIONS

**ETL** - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0. **IC rated** - suitable for direct contact with insulation.

#### WARRANTY

For all ChromaWerx products, LumenWerx provides a three-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

Wall controllers are covered by the manufacturer warranty.



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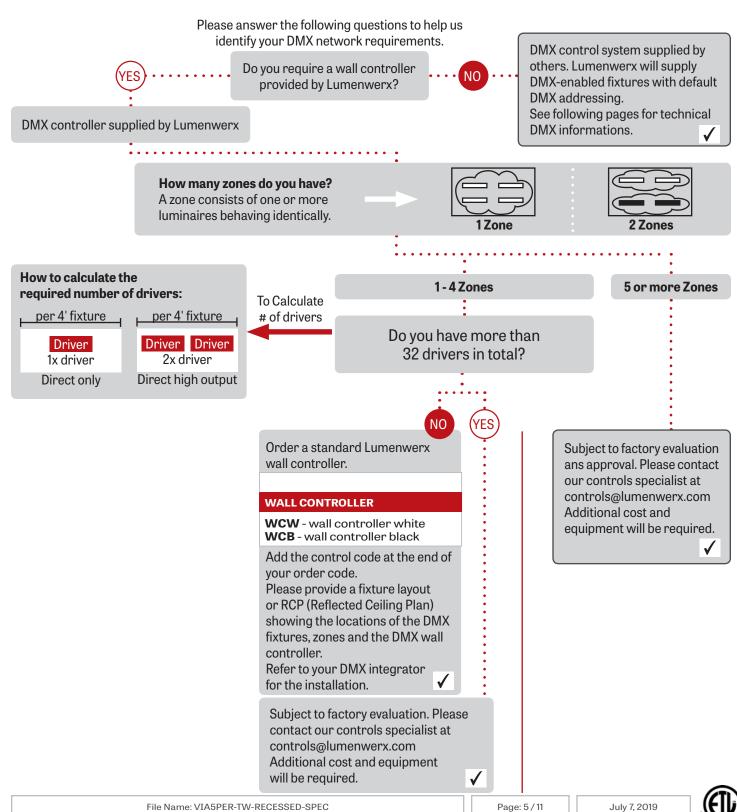
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## CHROMAWERX TUNABLE WHITE



A qualified DMX integrator is required to assure proper installation and commissioning of the DMX network. When placing the PO, please provide the <u>contact information of your</u> <u>DMX integrator</u>.



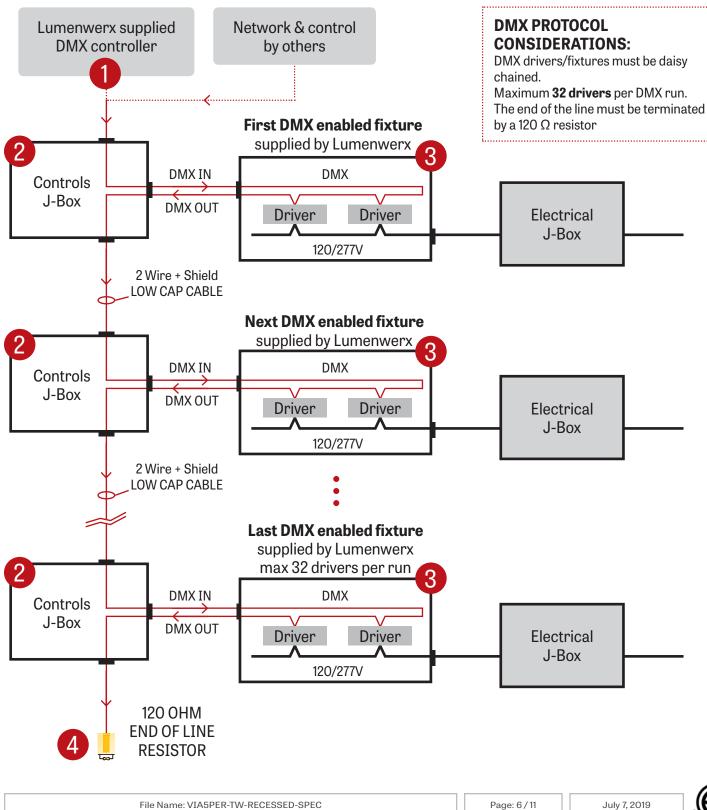


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## CHROMAWERX TUNABLE WHITE

## GENERIC DMX NETWORK ARCHITECTURE

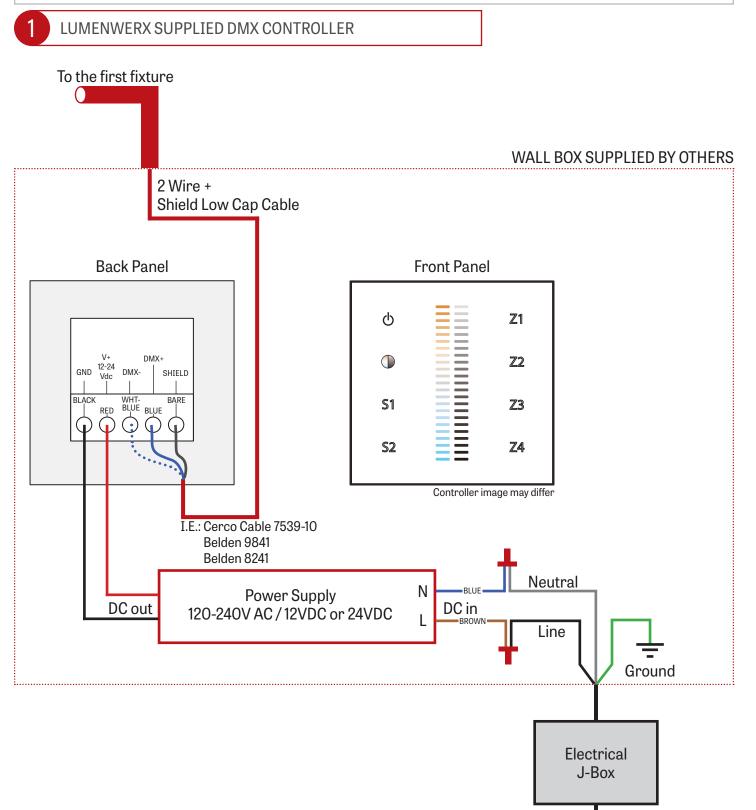




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## CHROMAWERX TUNABLE WHITE



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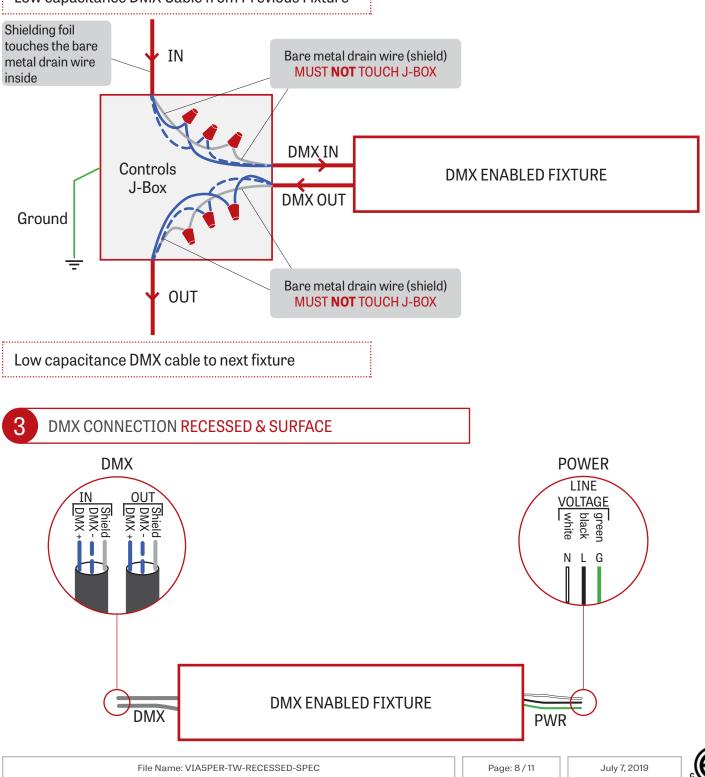


## CHROMAWERX TUNABLE WHITE

2

# J-BOX DMX DAISY CHAIN DETAIL

Low capacitance DMX Cable from Previous Fixture





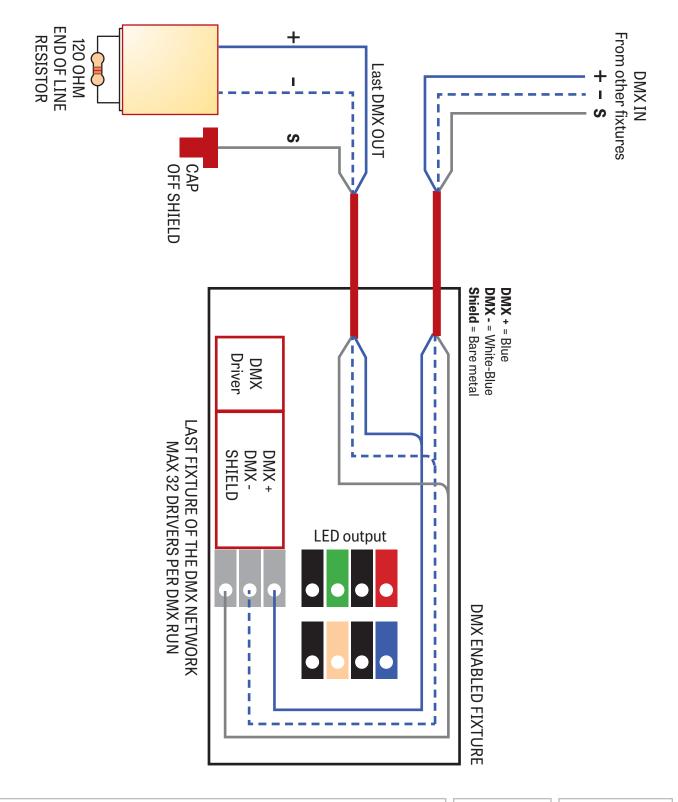
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## **CHROMAWERX TUNABLE WHITE**

# DMX LAST FIXTURE DETAIL

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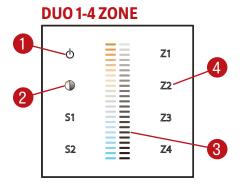
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## CHROMAWERX TUNABLE WHITE

## DMX WALL CONTROLLER



(1) Power:

(2) Brightness/CCT:	Use the color/brightness toggle button to chose between color/brightness. when Blue: brightness is selected, when Yellow: color is selected.
(3) Slider:	Depending on the mode chosen in 2, the slider will allow the user to set desired color or brightness.
(4) Zone select:	Up to 4 zones can be selected either independently or together. Once selected the commands will be sent to the zone identified

by a Blue LED.

Use this button to turn ON or OFF the fixture

**Default DMX Addresses:** 1 Warm 2 Cool

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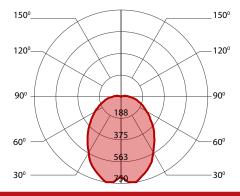
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### CHROMAWERX TUNABLE WHITE AND DIM TO WARM

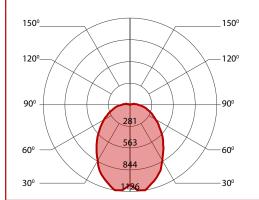
### **500 LUMEN AT 80CRI - LOW OUTPUT**



#### **PERFORMANCE PER 4**<sup>t</sup>

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	2700K	19	2000	106
low output	3000K	18.5	2000	109
low output	3500K	18	2000	112
low output	4000K	17.5	2000	115
low output	6500K	16.5	2000	120

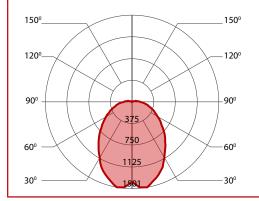
#### **750 LUMEN AT 80CRI - MEDIUM OUTPUT**



#### **PERFORMANCE PER 4**'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	2700K	29	3000	104
medium output	3000K	28	3000	108
medium output	3500K	27.5	3000	110
medium output	4000K	26.5	3000	114
medium output	6500K	25.5	3000	118

#### **1000 LUMEN AT 80CRI - HIGH OUTPUT**



#### **PERFORMANCE PER 4**'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	2700K	39	4000	102
high output	3000K	38	4000	105
high output	3500K	37.5	4000	107
high output	4000K	36	4000	111
high output	6500K	35	4000	115

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