

LUXroll TW

Flexible LED Module

Tunable White

Cuttable Every 1/2"

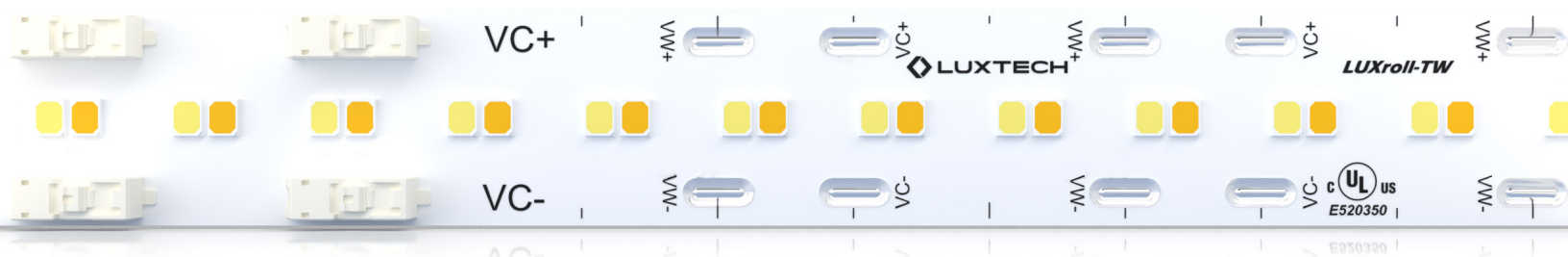


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About LUXTECH

LUXTECH Designs & Produces Versatile, Specification-Grade LED Modules for Architectural Lighting Manufacturers.



Product Description

LUXroll Tunable White is LUXTECH's premium architectural grade flexible LED product. Designed with people in mind, LUXroll Tunable White is constant current, cuttable every 1/2 inch, and stocked with 90+ CRI LEDs standard with a 27K - 65K tuning range. With a nominal 36V forward voltage, long runs are even more achievable at distances specified down to the 1/2 inch.

Technical Specifications

Mechanical Information:

- » Flexible reeled form factor
- » Cuttable Every 1/2 in
- » LED Pitch: 1/2 in
- » Width: 0.787 in (20mm)
- » Reel Length: 44'
- » Specification Grade 3M 300LSE Adhesive Backing

Photometric Performance:

- » Max Warm Lumen Output: 2667 lm/ft (2700K, 90CRI)
- » Max Cool Lumen Output: 2942 lm/ft (6500K, 90CRI)
- » Nominal Warm Efficacy: 129 lm/W (2700K, 90CRI, 800 lm/ft)
- » Nominal Cool Efficacy: 144 lm/W (6500K, 90CRI, 800 lm/ft)
- » Beam Angle: 120°
- » Tuning Range: 2700K - 6500K
- » 90+ CRI Standard (80 CRI Available)
- » 3-Step MacAdam Ellipse Color Binning

Electrical Information:

- » UL 2108 Listed: E520350
- » Poke-In Connectors
- » Forward Voltage: 33V (90 CRI, 800 lm/ft)
- » On Board ESD Protection
- » Max Recommended Run Length: 8 ft
- » Wire Size: 18-24 AWG, solid or stranded

Lifetime Information:

- » LM-80 Tested LEDs by CREE
- » L80 > 72,000 Hrs for Ts = 55°C, 42mA Per Section
- » L80 = 60,500 Hrs for Ts = 105°C, 42mA Per Section
- » 5-Year Warranty



[Request Samples & Pricing Here](#)

REQUESTING SAMPLES & PRICING

Product Name	CCT1	CCT2	CRI
LUXROLL-TW	22K	40K	80
	27K*	50K	90*
	30K	65K*	

*Normally Stocked

Example: LUXROLL-TW-27K-65K-90

ELECTRICAL CHARACTERISTICS

Instructions: Multiply the length of your run of LUXroll in inches by the desired flux and current to find the total values needed for your fixture.

2700K, 90 CRI, 45 °C

EACH 1" SEGMENT					
Current (mA/1")	10	20	30	45	60
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/1")	42	83	120	172	217

1 FOOT					
Current (mA)	120	240	360	540	720
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm)	510	992	1445	2064	2602

8 FEET					
Current (mA)	960	1920	2880	4320	5760
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm)	4079	7939	11562	16510	20817

6500K, 90 CRI, 45 °C

EACH 1" SEGMENT					
Current (mA/1")	10	20	30	45	60
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm/1")	47	91	133	190	239

1 FOOT					
Current (mA)	120	240	360	540	720
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm)	563	1095	1595	2277	2871

8 FEET					
Current (mA)	960	1920	2880	4320	5760
Voltage (V)	32.7	33.9	35.0	36.3	37.2
Flux (lm)	4501	8760	12757	18216	22968

COLOR MIXING

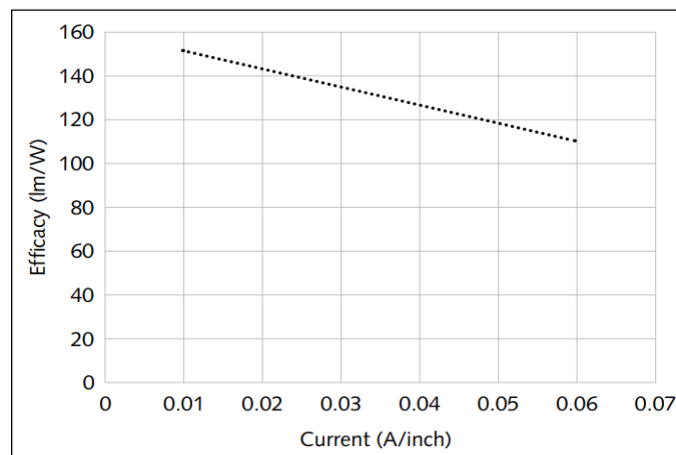
» Approximated from nominal current of 250mA per foot.

» Flux derating relative to 6500K LEDs

CCT (K)	2700	3000	3500	4000	5000	6500
Current, 27K (%)	100%	83%	67%	52%	30%	0%
Current, 65K (%)	0%	17%	33%	48%	70%	100%
Flux (%)	88%	90%	92%	94%	96%	100%
SDCM	3	6.5	8.5	8.5	6.5	3

*Performances will vary based on installation and thermal conditions.

WHITE EFFICACY VS. CURRENT



*LUXTECH maintains a tolerance of 7% on flux measurements.

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ABSOLUTE MAXIMUM RATINGS

Channel 65K, 90 CRI, 45 °C

PER 1" SEGMENT	
Current (mA)	60
Voltage (V)	39
Flux (lm)	239
Temperature (°C)	95

COMPONENTS	
Max Connector Current (A)	9
Max Recommended Run Length (ft)	8

Channel 27K, 90 CRI, 45 °C

PER 1" SEGMENT	
Current (mA)	60
Voltage (V)	39
Flux (lm)	217
Temperature (°C)	95

*Max ratings determined from LED Specifications.

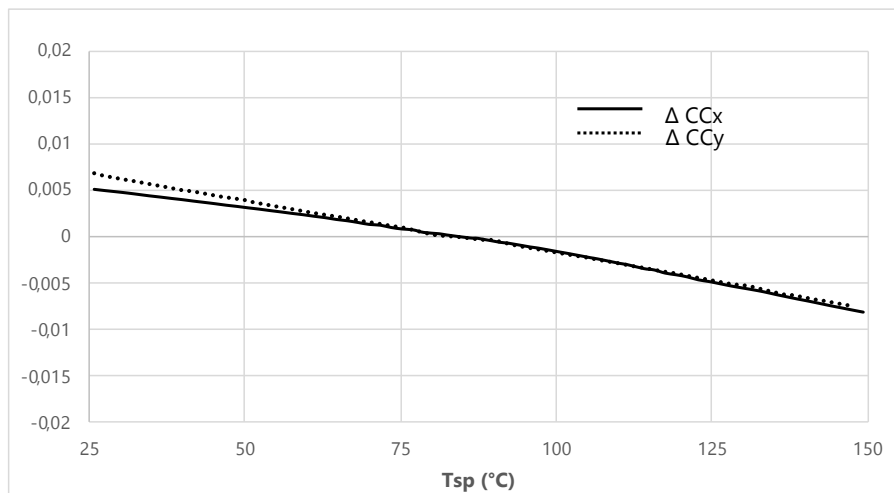
LUXTECH advises to measure the solder point temperature (Ts) of each application to confirm it is below our recommended max temperature.

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DERATING

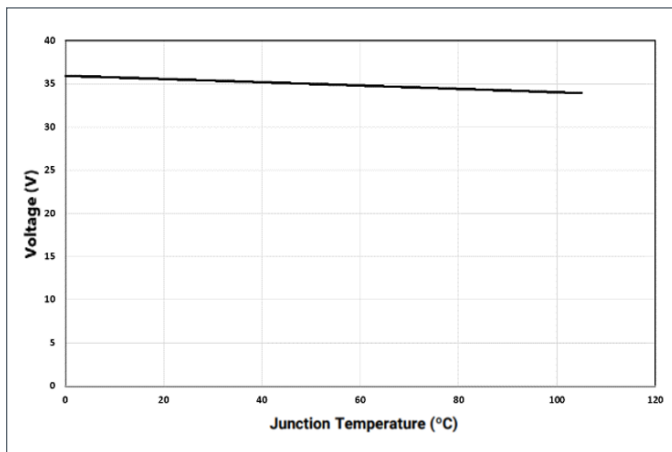
CRI	LIGHT OUTPUT
80 CRI	118%
90 CRI	100%

CHROMATICITY VS. TEMPERATURE

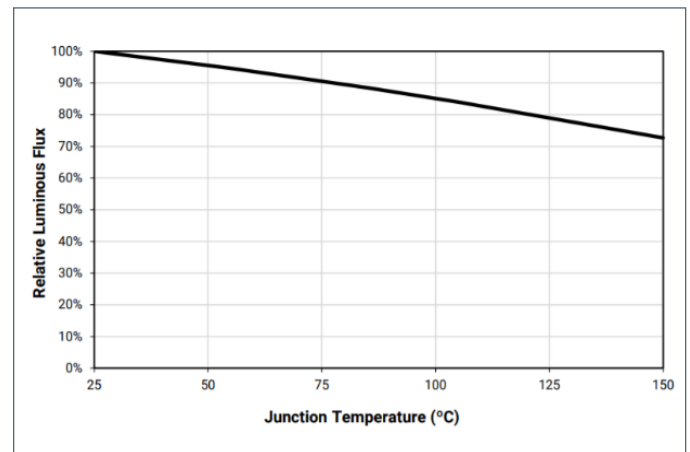


Chromaticity binned @ 85°C

VOLTAGE VS. TEMPERATURE



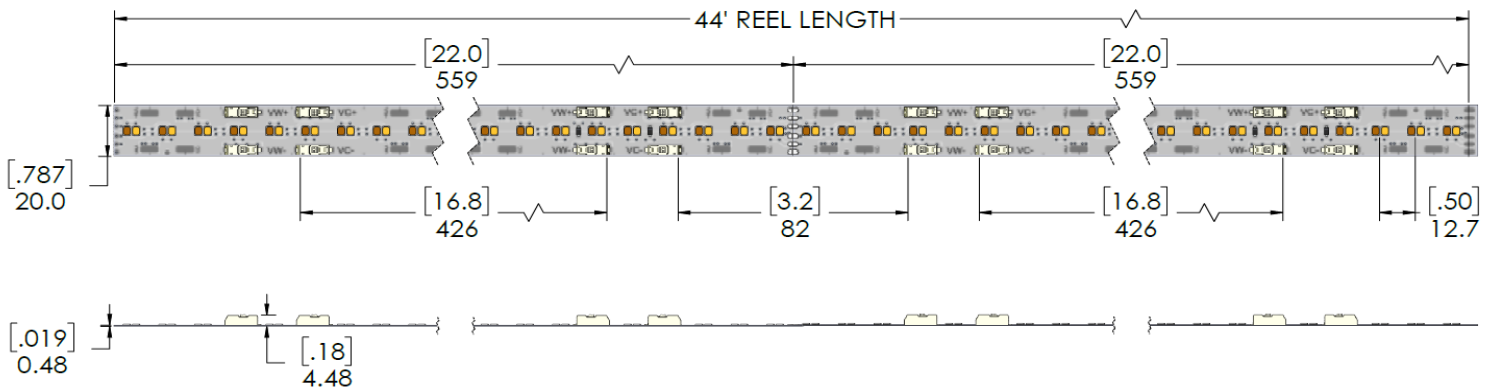
FLUX VS. TEMPERATURE



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MECHANICAL CHARACTERISTICS

TECHNICAL DRAWING



Units: [inches] mm

PRODUCT DIMENSIONS

PARAMETER	SPECIFICATION
Width	0.787"
Reel Length	44'
Connector Pattern	Repeating Pairs Every 22"
Solder Pad Spacing	2.0"
Cut Length	0.5"
PCB Thickness	0.019"
Module Thickness, to Connector Top	0.18"

WIRING

PARAMETER	SPECIFICATION
Wire Size	18-24 AWG

Design resources: Performance Calculator and CAD files available at LUXTECH.com

[Request Samples & Pricing Here](#)

DRIVER SELECTION

Recommended for use with the following two-channel drivers.

BRAND	MODEL	PROGRAMMABLE DRIVE CURRENT (mA)	OUTPUT VOLTAGE (V)	DIMMING	CONTROL
EldoLED	DUALDrive 1060/M	200mA - 1050mA	2V - 57V	CCR, PWM	DALI
	DUALDrive 560/L	150mA - 1400mA	2V - 55V	CCR, PWM	DALI
	DUALDrive 1060/S	200mA - 1050mA	2V - 57V	CCR, PWM	DALI
	DUALDrive 560/S	150mA - 1400mA	2V - 55V	CCR, PWM	DALI
Moons	MU050S150BQI501	150mA - 1500mA	8V - 55V	CCR, PWM	DALI
	MU050S150BQI201	150mA - 1500mA	8V - 55V	CCR, PWM	0-10V
Lutron	T Series	200mA - 1500mA	8V - 54V	CCR, PWM	Lutron Ecosystem (Quantum/Athena)

CONTROLLER SELECTION

Recommended for use with the following controllers.

BRAND	MODEL	CONTROL TYPE	NEEDED ACCESSORIES
Lunatone	DALI Touchpanel	DALI	Lunatone PS2 30mA DALI Bus Power supply
Lutron	Diva, NovaT	0-10V Dimmer	2x dimmers (1 for CCT, 1 for Intensity)
Legrand	Radiant	0-10V Dimmer	2x dimmers (1 for CCT, 1 for Intensity)
Leviton	Decora DS710-10Z	0-10V Dimmer	2x dimmers (1 for CCT, 1 for Intensity)

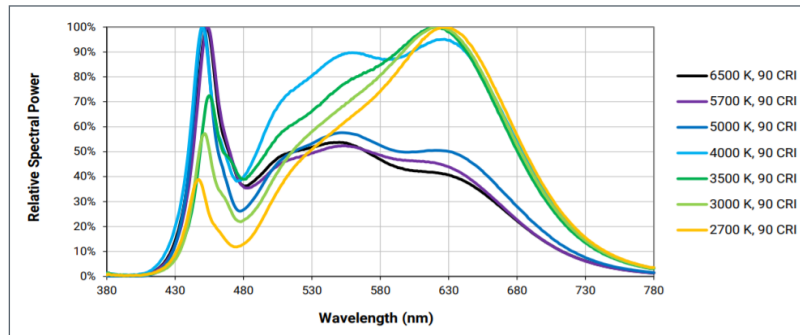
Design resources: Performance Calculator and CAD files available at [LUXTECH.com](https://luxtech.com)

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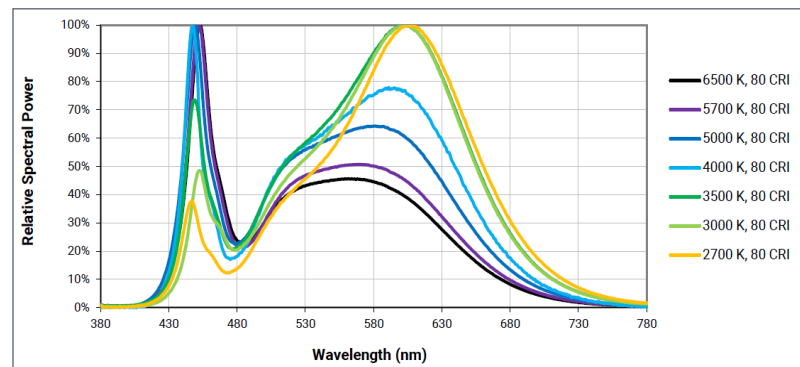
OPTICAL SPECIFICATIONS

SPECTRAL POWER DISTRIBUTION

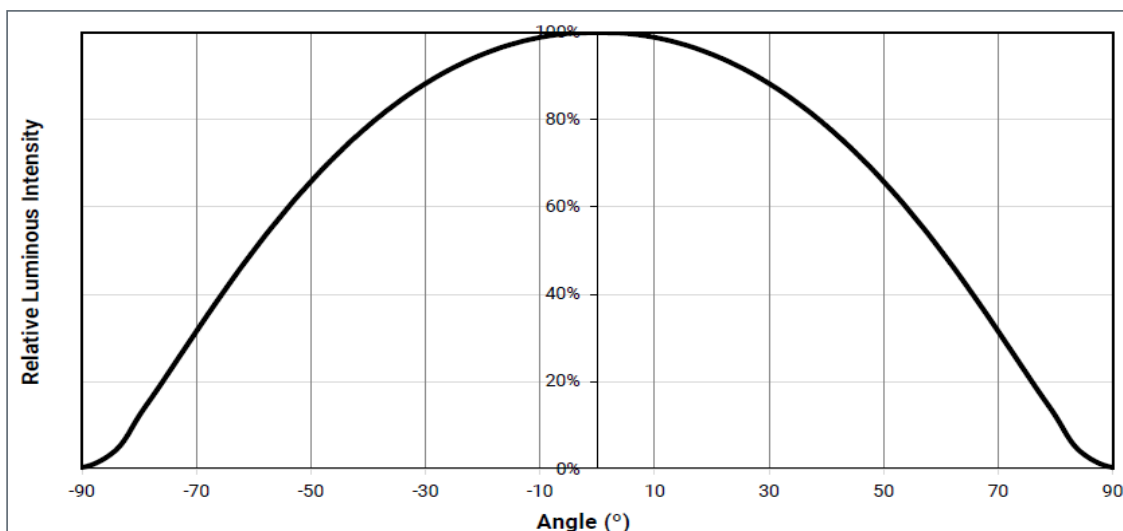
90 CRI



80 CRI



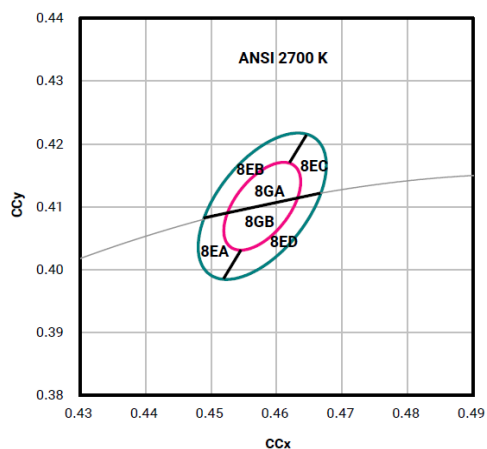
BEAM ANGLE



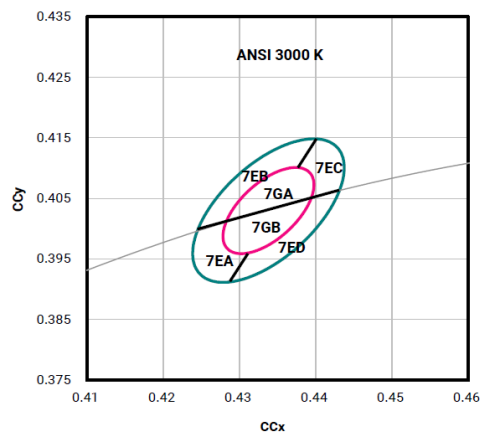
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COLOR BINNING INFORMATION

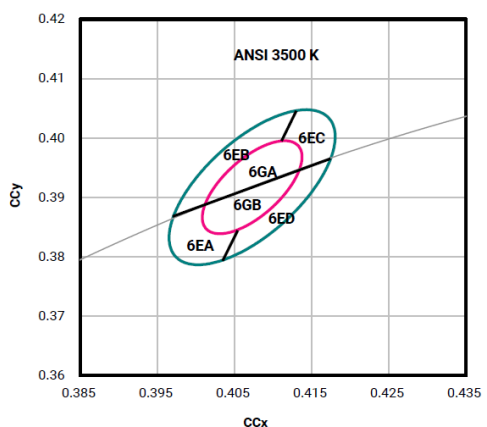
2700K 3-STEP (8GA, 8GB)



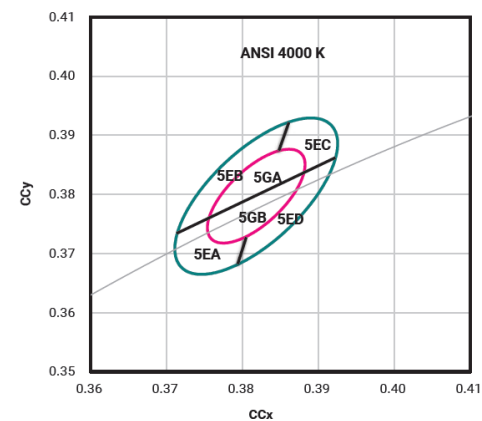
3000K 3-STEP (7GA, 7GB)



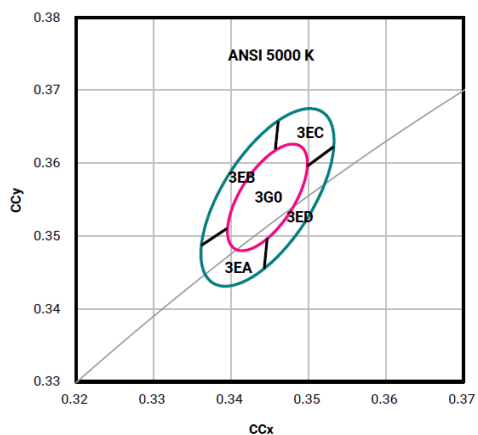
3500K 3-STEP (6GA, 6GB)



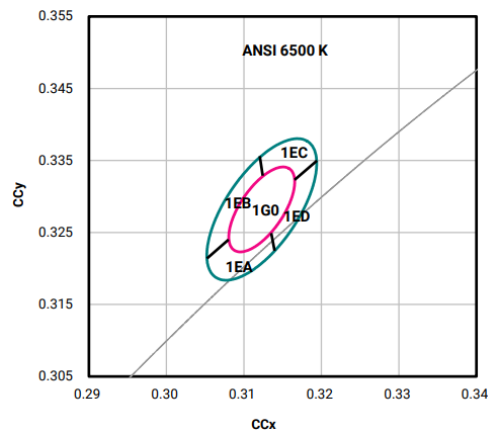
4000K 3-STEP (5GA, 5GB)



5000K 3-STEP (3G0)



6500K 3-STEP (1G0)



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ORDERING CODES

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Example: LUXROLL-TW-27K-65K-90

IF CUSTOMIZATION IS REQUIRED: CONTACT SALES: SALES@LUXTECH.COM

PROTOTYPING

- » 3.5 week lead time for new design prototypes

SINGLE ORDER

- » MOQ: 250 pieces per SKU
- » Typical lead time: 6-8 weeks

BLANKET ORDER

- » MOQ: 1,000 pieces per SKU
 - » Minimum release size: 250 pieces
 - » Quantity per SKU must be specified
- » 2.5 week lead time for blanket releases
- » 6-8 week set up time for first release

- » 6 month term from first release
- » Shipment of balance at end of term

EXPEDITE SERVICES

- » Dedicated expedite facility can turn jobs in as little as 1 week