

# NewEnergy Horticulture Starboard Data Sheet

Industry Leading High Powered LED Starboards

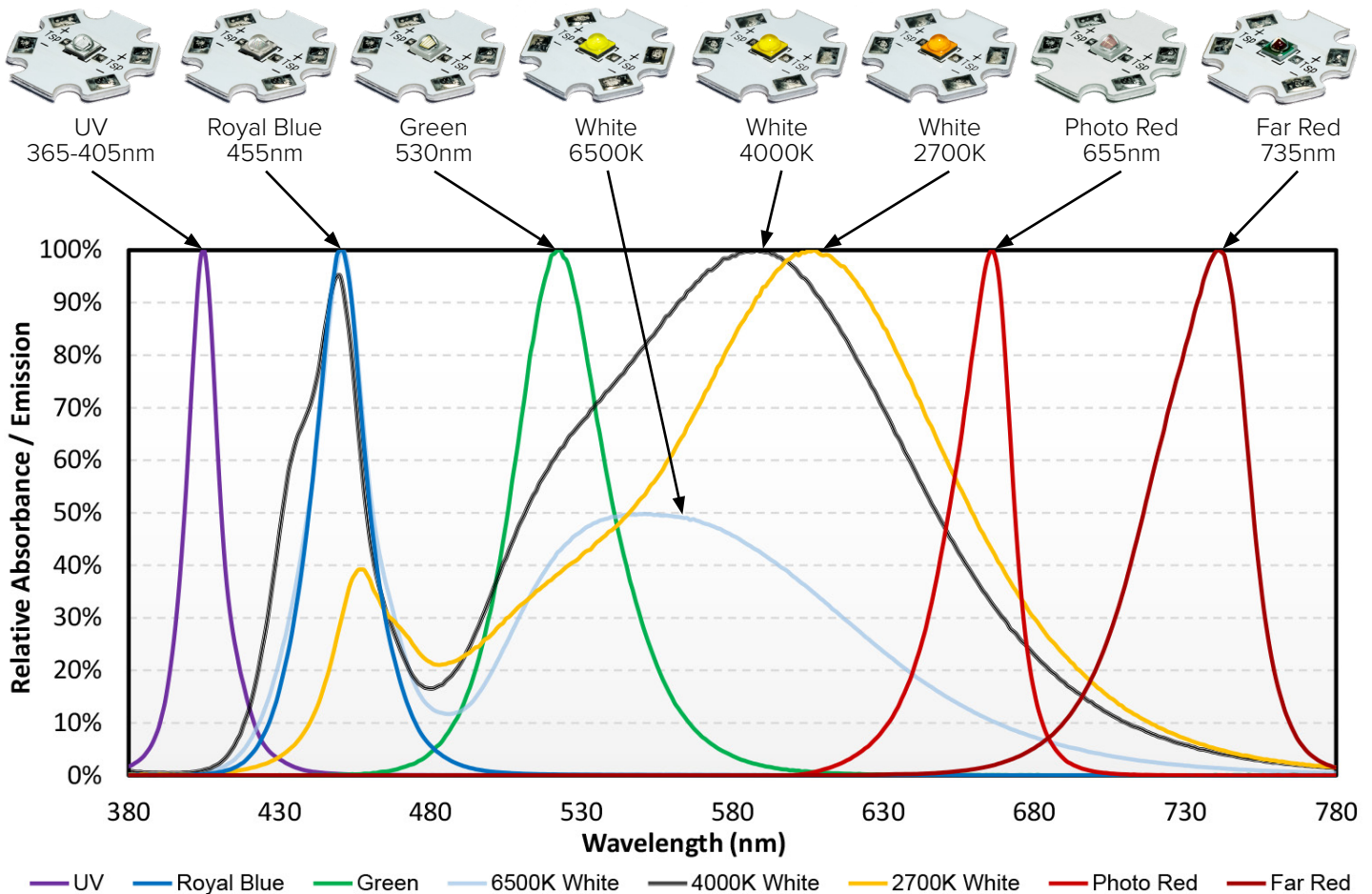
## Lean & Fast

- Industry leading efficiency across the spectrum of high power color and white LEDs
- Horticulture LEDs specifically selected for the highest performance at a given color
- Light output and efficiency evaluated at elevated drive current and temperature
- Specific wavelengths targeted within the PAR range for optimized plant growth
- Create multiple spectral configurations quickly and easily

## Made Smarter

Ideal for horticulture lighting applications, the NewEnergy starboards, built with high power white and color LED technology, deliver high efficacy across the PAR range. Specifically selected from a portfolio of color options for various stages of plant growth, including white light to achieve a similar outcome to natural sunlight. The variety of color options and easy set-up allow for flexibility, quick adjustments to support different growth phases, rapid prototyping and sampling of the latest LEDs in an easy to use footprint.

### Spectral Power Distribution

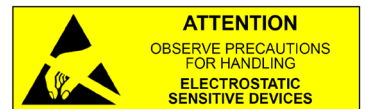


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RoHS







**WARNING**  
 UV LIGHT  
 Do not look into the light emitting from these LEDs as it is harmful to the human eye. Eye injury may result. Use skin and eye protection as necessary.



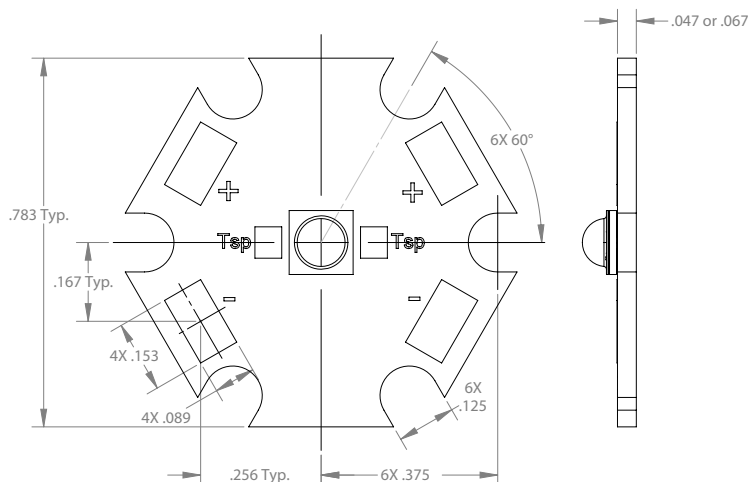
# Cree Horticulture Starboards

## Product Selection Guide

Color	Part Number	Description	Beam Angle	Dominant Wave length	Vf	Flux (mW)	uMol/s	uMol/J	uMol/s	uMol/J
					@ 350mA, Tj 25C				@700mA, Tj 85C	
 Royal Blue 455nm	XPGDRY-L1-0000-00601-SB01	Starboard, Cree Xlamp XP-G3, Royal Blue	130°	455nm	2.82	730	2.75	2.78	4.84	2.42
	XQEROY-00-0000-000000Q01-SB01	Starboard, Cree Xlamp XQ-E, Royal Blue	130°	455nm	3.10	588	2.21	2.04	3.62	1.68
 White 2700K to 6500K	XPGDWT-H1-0000-00H8E-SB01	Starboard, Cree Xlamp XP-G3, 2700K / 80CRI	125°	na	2.81	500	2.47	2.42	4.10	2.07
	XPGDWT-B1-0000-00L5E-SB01	Starboard, Cree Xlamp XP-G3, 4000K / 70CRI	125°	na	2.81	545	2.57	2.52	4.27	2.16
	XPGDWT-01-0000-00LE1-SB01	Starboard, Cree Xlamp XP-G3, 6500K / 70CRI	125°	na	2.81	595	2.69	2.64	4.47	2.26
 Photo Red 665nm	XPEEPR-L1-0000-00C01-SB01	Starboard, Cree Xlamp XP-E HE, Photo Red	130°	665nm	2.10	437	2.40	3.27	4.16	2.67
	XQEEPR-00-0000-000000A01-SB01	Starboard, Cree Xlamp XQ-E, Photo Red	130°	665nm	2.10	375	2.06	2.81	3.42	2.10
 Far Red 735nm	XPEFAR-L1-0000-00601-SB01	Starboard, Cree Xlamp XP-E, Far Red	130°	735nm	1.90	230	1.30	1.96	2.27	1.59

All values shown above are typical.  
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## Mechanical Dimensions (Units:Inches)





### About NewEnergy

NewEnergy is a fully integrated, global manufacturer for the lighting, automotive and medical industries. Through 30 years of manufacturing experience and state-of-the-art facilities, the company offers leading solid state lighting components and modules. The NC-based office provides quick engineering & sales support with an R&D lab to provide prototype development and custom solutions. See [new-energyllc.com](http://new-energyllc.com) for more information.

# Luminus Horticulture Starboards

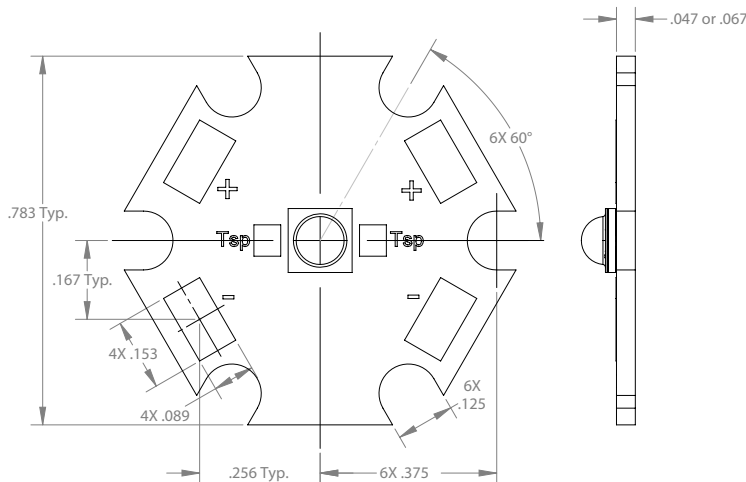
## Product Selection Guide

Color	Part Number	Description	Beam Angle	Peak Wave Length	Vf	Flux (mW)	uMol/s	uMol/J
					@ 500mA, Tj 25C			
	LST1-01G01-UV01-00	Starboard, Luminus SST-10-UV-A130, 365nm	130°	365nm	3.6	875	2.69	1.49
 UV 365 to 405nm	LST1-01G01-UV02-00	Starboard, Luminus SST-10-UV-A130, 385nm	130°	385nm	3.4	1015	3.24	1.91
	LST1-01G01-UV03-00	Starboard, Luminus SST-10-UV-A130, 395nm	130°	395nm	3.4	1015	3.35	1.97
	LST1-01G01-UV04-00	Starboard, Luminus SST-10-UV-A130, 405nm	130°	405nm	3.4	930	3.14	1.85

Color	Part Number	Description	Beam Angle	Peak Wave Length	Vf	Flux (mW)	uMol/s	uMol/J	uMol/s	uMol/J
					@ 350mA, Tj 25C				@ 700mA, Tj 85C	
 Deep Blue 450nm	LST1-01G01-RYL1-00	Starboard, Luminus SST-10-B-B130, 450nm Deep Blue	130°	450nm	3.00	600	2.26	2.15	4.01	1.83
 Green 527nm	LST1-01G01-GRN1-00	Starboard, Luminus SST-10-G-B130, 527nm Green	130°	527nm	3.40	270	1.18	0.99	2.10	0.87
 Deep Red 660nm	LST1-01G01-PRD1-00	Starboard, Luminus SST-10-DR-B130, 660nm Deep Red	130°	660nm	2.05	370	2.03	2.83	3.68	2.27
 Far Red 730nm	LST1-01G01-FRD1-00	Starboard, Luminus SST-10-FR-B130, 730nm Far Red	130°	730nm	2.10	310	1.88	2.55	3.40	2.33

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## Mechanical Dimensions



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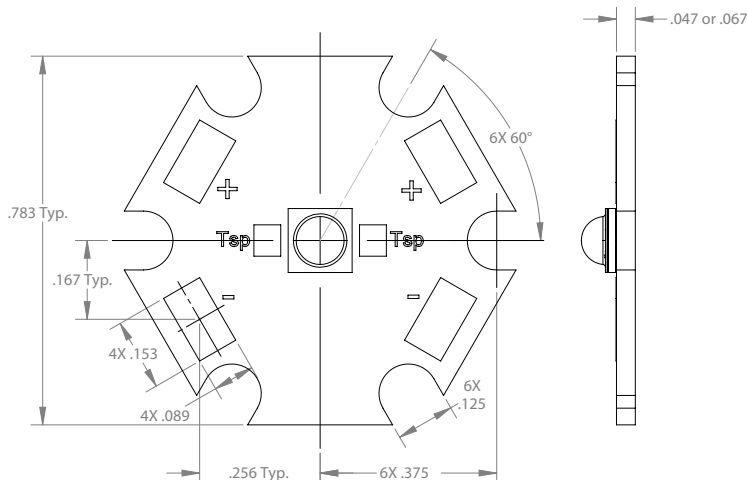
# Osram Horticulture Starboards

## Product Selection Guide

Color	Part Number	Description	Beam Angle	Peak Wave length	Vf	Flux (mW)	uMol/s	uMol/J	uMol/s	uMol/J
					@ 350mA, Tj 25C				@700mA, Tj 85C	
 Deep Blue 455nm	LST1-01F06-RYL1-00	Starboard, Osram OSOLON SSL 120, Deep Blue	120°	455nm	2.85	687	2.60	2.60	4.20	2.10
 Green 530nm	LST1-01F06-GRN1-00	Starboard, Osram OSOLON SSL 120, Green	120°	530nm	3.20	281	1.22	1.09	1.73	0.77
 White 4000K	LST1-01F06-4070-00	Starboard, Osram OSOLON Square, 4000K / 70CRI	120°	n/a	3.00	516	2.34	2.39	4.10	2.09
 Hyper Red 655nm	LST1-01F06-PRD1-00	Starboard, Osram OSOLON SSL 120, Hyper Red	120°	655nm	2.15	450	2.47	3.29	4.35	2.68
 Far Red 735nm	LST1-01F06-FRD1-00	Starboard, Osram OSOLON SSL 120, Far Red	120°	735nm	1.85	282	1.60	2.48	2.70	1.98

All values shown above are typical.  
Do not look into the light emitting from these LEDs as it is harmful to the human eye.  
Eye injury may result. Use skin and eye protection as necessary.  
Other beam angles and colors available upon request

## Mechanical Dimensions



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