

Sensing is life.

ams OSRAM

OSCONIQ® S 5050 Horti White

Product Presentation

06/2021

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Horticulture Market Overview

Focus on the 2 largest and fastest growing segments

Greenhouse (~58%)



- Greenhouse applications have the biggest share within the horticulture market
- Growing crops in greenhouses is the most economy efficient solution
- Crops like tomatoes, cucumbers and herbs are cultivated in greenhouses
- High power LEDs are pre-dominantly used in greenhouse applications

Indoor farming (32%)



- Vertical farms form the second biggest market within horticulture lighting
- The USPs of vertical farms are: local food supply, low water demand and a controlled and very stable production
- Lettuce is the most grown crop in vertical farms
- High Power and Mid Power LEDs are used to find the right compromise between homogeneity and efficiency

Horti Consumer (~10%)



- Consumer applications contribute with 10% the smallest share to the horticulture lighting market
- DIY and furniture shops offer smart grow boxes for home usage
- Lettuce and herbs are commonly promoted by consumer horti solution provider
- Consumer LEDs with a high mW/\$ value are mostly used in this application

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Key application: Indoor Farming



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Enabling higher fixture level efficacy

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5.0 x 5.0 mm

- To be used in tandem with Hyper Red LEDs to deliver superior fixture level efficacy by facilitating the increased use of non-phosphor-converted red photons.
- Enhanced corrosion stability, meeting L95 @ 40°C, 80% 15ppm 96hrs
- ESD protection up to 8kV
- Dedicated Q90(6k) report by May'22



Type	Emission angle [°]	Binning current [mA]	Max. current [mA]	Color Bin/ Coordinates [Cx/Cy]	Radiant flux [mW]	Voltage [V]	WPE ¹⁾ [%]	PF ²⁾ [μmol/s]	PFE ³⁾ [μmol/J]
GW Q9LR32.HW	120	180	1050	M1 (0.319/0.455)	620	5.52	62%	2.84	2.85
	120	180	1050	M2 (0.301/0.409)	630	5.52	63%	2.85	2.86
	120	180	1050	M3 (0.282/0.363)	640	5.52	64%	2.85	2.86

1) Wall plug efficiency
 2) Photon Flux, 280nm – 800nm
 3) Photon Flux efficacy

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