

LED Spectrum Simulation Report

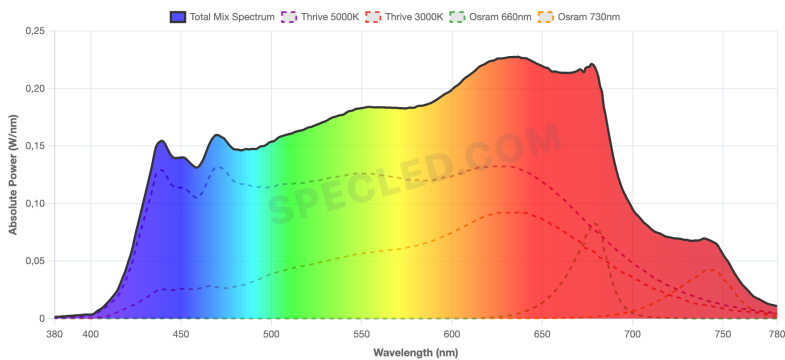
Date: 05.10.2026 01:35 | User: Александр Васильев



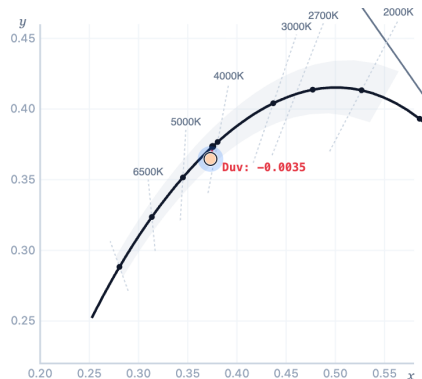
Summary Luminaire Metrics

POWER CONSUMPTION 116.8 W	LUMINOUS FLUX 13372 lm	RADIOMETRIC POWER 54.1 W	TOTAL PPF (400-700NM) 235.6 μmol/s
EXTENDED EPAR (400-750NM) 257.5 μmol/s	PHOTOSYNTHETIC PHOTON EFFICACY (PPE) 2.2 μmol/J	LUMINOUS EFFICACY (LED) 114.48 lm/W	LUMINOUS EFFICACY (LER) 247.4 lm/W
COLOR TEMPERATURE (CCT) 4121 K	COLOR RENDERING INDEX (CRI) Ra 96	DUV -0.0035	CIE 1931 (X, Y) 0.3731, 0.3647

Resulting Luminaire Spectrum (SPD)



CIE 1931 Chromaticity Diagram



Phyto-spectrum Analysis (ePAR)

UV (380-400 nm) 0.1%	Blue (400-500 nm) 16.7%	Green (500-600 nm) 31.7%	Red (600-700 nm) 42.8%	Far Red (700-750 nm) 8.6%
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650-680nm Range Assessment: 14% of total ePAR photon flux • Maximum for 660nm±5 peak: 0.0% of spectrum peak

Luminaire Channel Configuration & Calculation

#	CHANNEL	DATASHEET (I / V / FLUX)	OPERATING I	QUANTITY	VF (V)	POWER (W)	PPF (MMOL/S)	LUMENS (LM)
1	Thrive 5000K	100 mA / 9.1 V / 108 lm	80 mA	100 pcs	9.039 V	72.31 W	148.2	8934
2	Thrive 3000K	100 mA / 9.1 V / 100 lm	85 mA	50 pcs	9.056 V	38.49 W	74.3	4355
3	Osram 660nm	700 mA / 2 V / 1000 mW	505 mA	3 pcs	1.981 V	3 W	12.5	70
4	Osram 730nm	700 mA / 2 V / 800 mW	505 mA	3 pcs	1.981 V	3 W	0.7	13
TOTAL LUMINAIRE:			156 pcs	-		116.8 W	235.6 μmol/s	13372 lm

CRI (R1-R14) Scores

R1 94.4	R2 96.4	R3 98.9	R4 95.6	R5 94.9	R6 95.5	R7 98.6	R8 93.7	R9 83.1	R10 93.5	R11 94.3	R12 93.1	R13 94.6	R14 98.7
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