

146-371 50W 5000K specific configuration

Floodlight | 50W/75W/100W | 100x60° | 3-CCT | light sensor

Introduction

Purpose of this Document

This document provides information for 146-371 50W 5000K. During measurement, the product is used in a different mode where output power, colour temperature and/or beam angle are changed from factory standard. These adjustments can be made without altering the product and are designed to be set by the installer. In most cases, the options are set through switches on the product.

Results

Total input power	48.3 W
Correlated Colour Temperature	5254 K
Total lumen output	7049 lm
Efficiency	146 lm/W

Electrical measurement details

Input Power

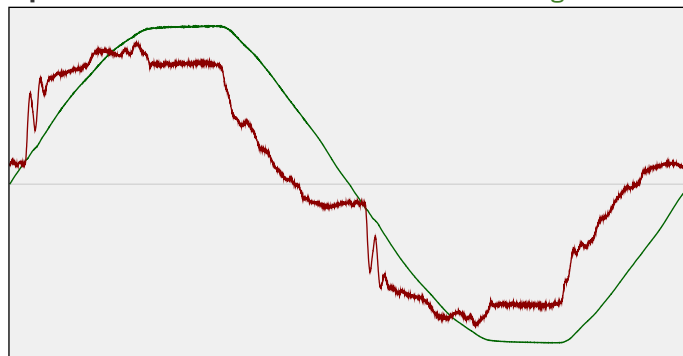
RMS Input voltage feed. V_{RMS}	230 V
RMS Input current feed. I_{RMS}	0.232 A
Total input power	48.3 W

Frequency of input power	50 Hz
Power factor	0.91
Displacement power factor	0.92

Total harmonic distortion of the current	15.61%
Total harmonic distortion of the voltage	2.45%

Input Power Curve

Voltage - Current



Efficiency

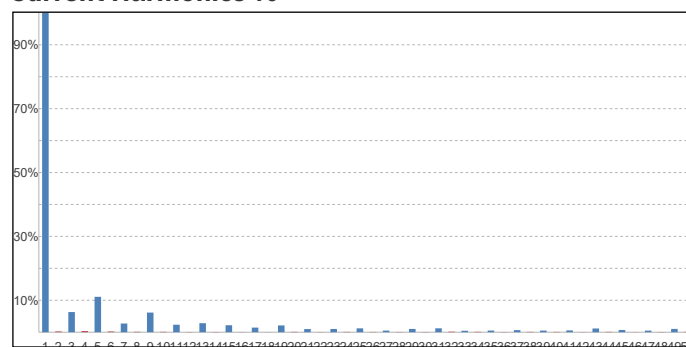
Radiated power efficiency: 46.0%

Lumen efficiency: 146 lm/W

Harmonics

3rd Harmonic	6.31%
5th Harmonic	11.08%
7th Harmonic	2.71%
9th Harmonic	6.15%
11th Harmonic	2.35%

Current Harmonics %



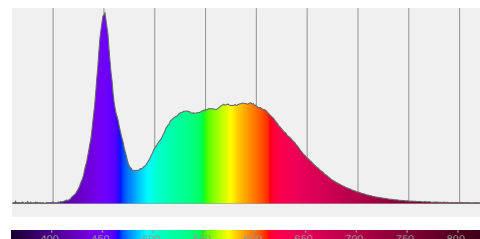
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Colour measurement details

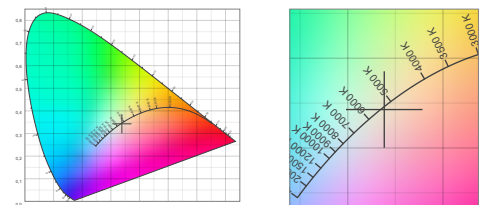
Total lumen output 7049 lm
 Correlated Colour Temperature 5254 K
 Colour coordinates CIE 1931 (x;y) = (0.338;0.343)
 Colour deviation from BBL Duv = -0.0017

TM30-18 Colour Fidelity Index R_f 82.2
 TM30-18 Colour Gamut Index R_g 98.1
 Colour Rendering Index (Ra) CRI 83.2
 Colour Rendering Index. (red component) $R_9 = 13.6$

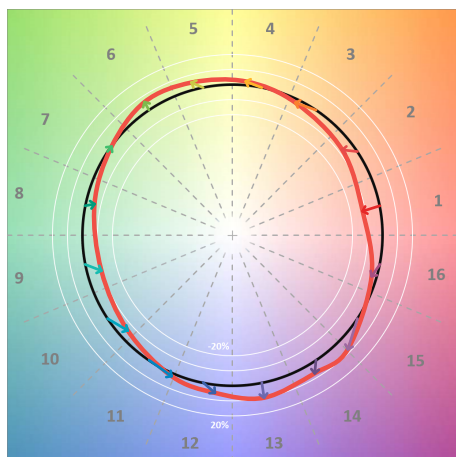
Colour Quality Scale CQS = 79.6
 Television Lighting Consistency Index TLCI = 72



Relative spectral power distribution



TM30 details

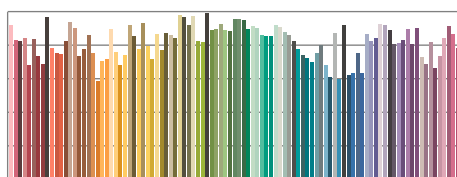


TM30 Colour vectors per hue bin

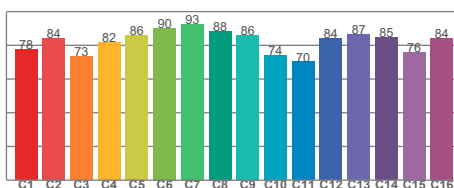


TM30 Colour distortion

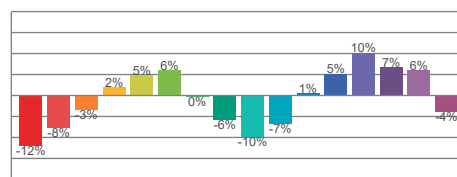
Hue Bin	R_f	Shifts (%)	
		Chroma	Hue
C1	78	-12%	-1%
C2	84	-8%	7%
C3	73	-3%	14%
C4	82	2%	11%
C5	86	5%	7%
C6	90	6%	0%
C7	93	0%	-4%
C8	88	-6%	-2%
C9	86	-10%	6%
C10	74	-7%	14%
C11	70	1%	18%
C12	84	5%	9%
C13	87	10%	-1%
C14	85	7%	-6%
C15	76	6%	-20%
C16	84	-4%	-9%



TM30-18 R_f -values per reference colour

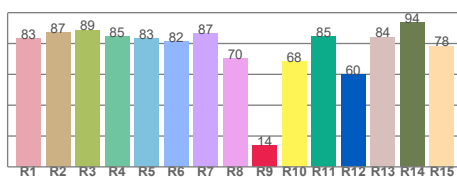


TM30-18 R_f -values per hue bin

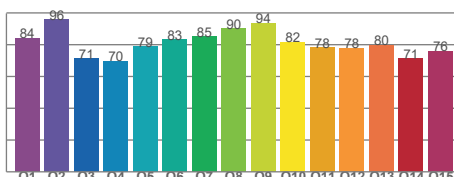


TM30 Chroma shift

Colour Quality details



Colour Rendering Index



Colour Quality Scale