

136-513 10W 5700K specific configuration
Downlight | Ø192mm | white | 5-CCT | 6~15W | EU plug

Introduction

Purpose of this Document

This document provides information for 136-513 10W 5700K. 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	9.9 W
Correlated Colour Temperature	6289 K
Total lumen output	1110 lm
Efficiency	112 lm/W

Electrical measurement details

Input Power

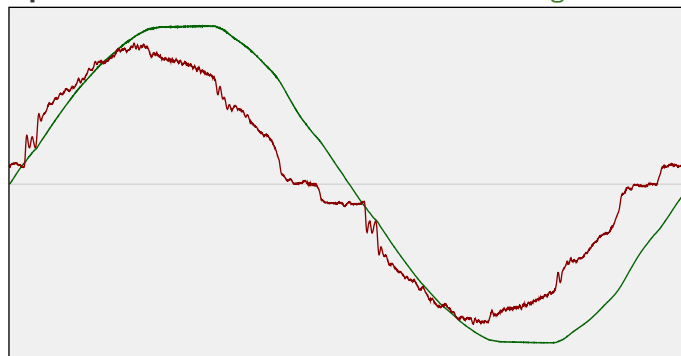
RMS Input voltage feed. V_{RMS}	229 V
RMS Input current feed. I_{RMS}	0.046 A
Total input power	9.9 W

Frequency of input power	50 Hz
Power factor	0.93
Displacement power factor	0.94

Total harmonic distortion of the current	12.85%
Total harmonic distortion of the voltage	2.39%

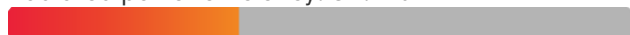
Input Power Curve

Voltage - Current



Efficiency

Radiated power efficiency: 37.4%



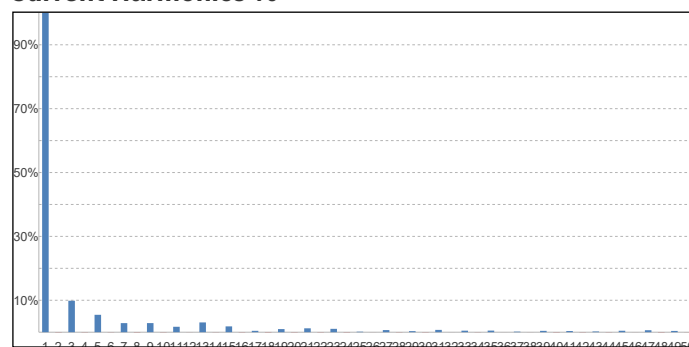
Lumen efficiency: 112 lm/W



Harmonics

3rd Harmonic	9.85%
5th Harmonic	5.45%
7th Harmonic	2.84%
9th Harmonic	2.85%
11th Harmonic	1.7%

Current Harmonics %



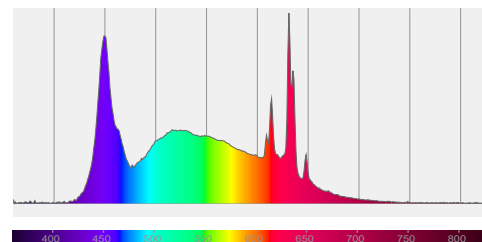
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Colour measurement details

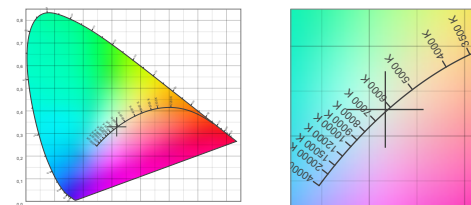
Total lumen output 1110 lm
 Correlated Colour Temperature 6289 K
 Colour coordinates CIE 1931 (x;y) = (0.317;0.330)
 Colour deviation from BBL Duv = 0.0014

TM30-18 Colour Fidelity Index R_f 92.4
 TM30-18 Colour Gamut Index R_g 103.6
 Colour Rendering Index (Ra) CRI 94.7
 Colour Rendering Index. (red component) $R_9 = 84.9$

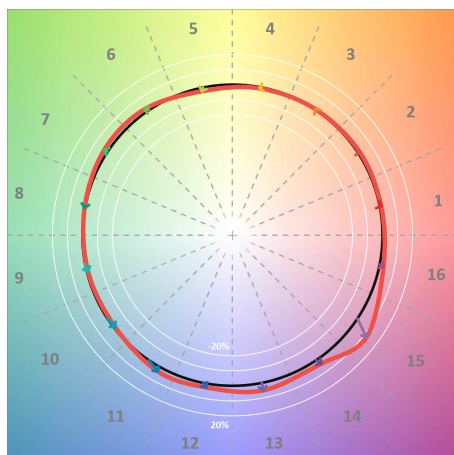
Colour Quality Scale CQS = 94.5
 Television Lighting Consistency Index TLCI = 95



Relative spectral power distribution



TM30 details

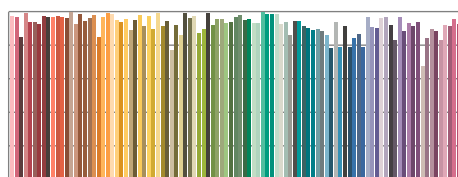


TM30 Colour vectors per hue bin

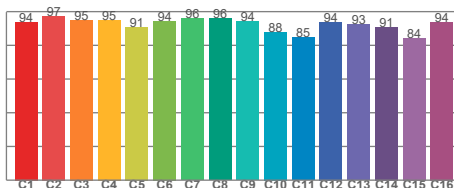


TM30 Colour distortion

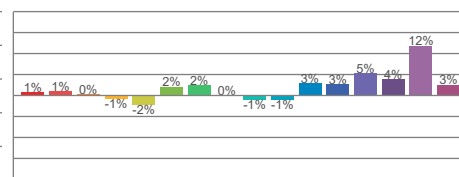
Hue Bin	R_f	Shifts (%)	
		Chroma	Hue
C1	94	1%	-1%
C2	97	1%	-1%
C3	95	0%	1%
C4	95	-1%	2%
C5	91	-2%	1%
C6	94	2%	2%
C7	96	2%	0%
C8	96	0%	1%
C9	94	-1%	5%
C10	88	-1%	8%
C11	85	3%	9%
C12	94	3%	3%
C13	93	5%	0%
C14	91	4%	2%
C15	84	12%	-7%
C16	94	3%	-1%



TM30-18 R_f -values per reference colour

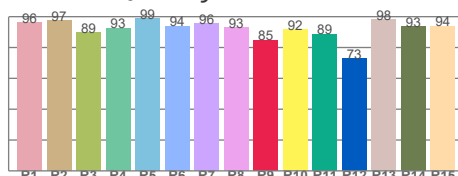


TM30-18 R_f -values per hue bin

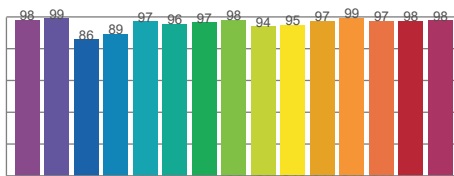


TM30 Chroma shift

Colour Quality details



Colour Rendering Index



Colour Quality Scale