

149-139 90 graden specific configuration

Wall lamp | cube 10x10x10cm | white | 6W | 2300K | dim

## Introduction

### Purpose of this Document

This document provides information for 149-139 90 graden. 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	5.4 W
Correlated Colour Temperature	2313 K
Total lumen output	226 lm
Efficiency	42 lm/W

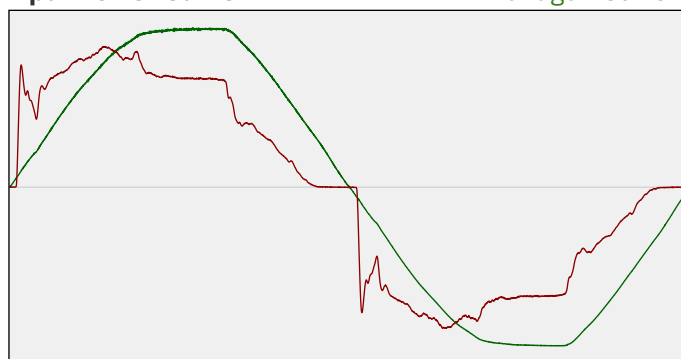
## Electrical measurement details

### Input Power

RMS Input voltage feed. $V_{RMS}$	230 V
RMS Input current feed. $I_{RMS}$	0.026 A
Total input power	5.4 W
Frequency of input power	50 Hz
Power factor	0.91
Displacement power factor	0.93
Total harmonic distortion of the current	18.27%
Total harmonic distortion of the voltage	2.86%

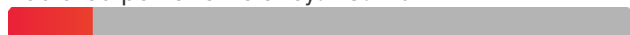
### Input Power Curve

Voltage - Current



### Efficiency

Radiated power efficiency: 13.9%



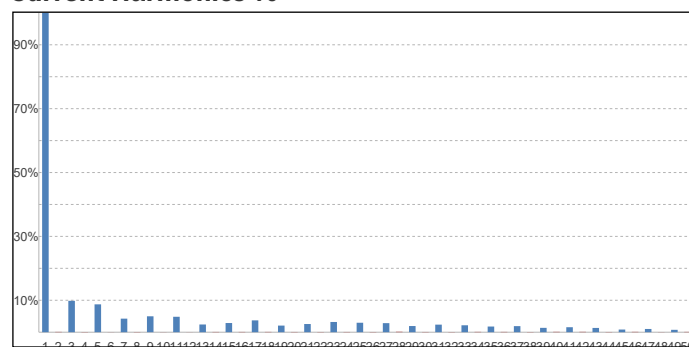
Lumen efficiency: 42 lm/W



### Harmonics

3rd Harmonic	9.83%
5th Harmonic	8.72%
7th Harmonic	4.25%
9th Harmonic	4.98%
11th Harmonic	4.83%

### Current Harmonics %



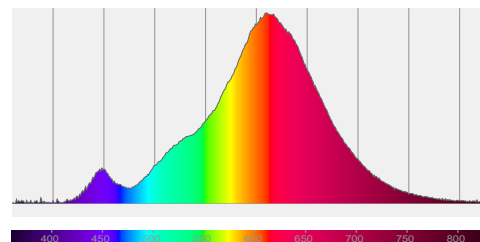
## 149-139 90 graden specific configuration

### Colour measurement details

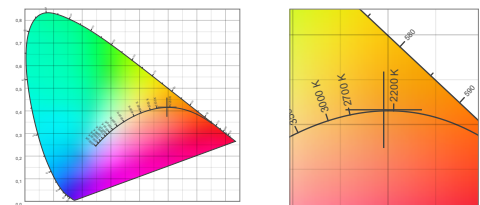
Total lumen output 226 lm  
 Correlated Colour Temperature 2313 K  
 Colour coordinates CIE 1931 (x;y) = (0.495;0.416)  
 Colour deviation from BBL Duv = 0.0004

TM30-18 Colour Fidelity Index  $R_f$  85.2  
 TM30-18 Colour Gamut Index  $R_g$  97.7  
 Colour Rendering Index (Ra) CRI 83.1  
 Colour Rendering Index. (red component)  $R_9 = 13.1$

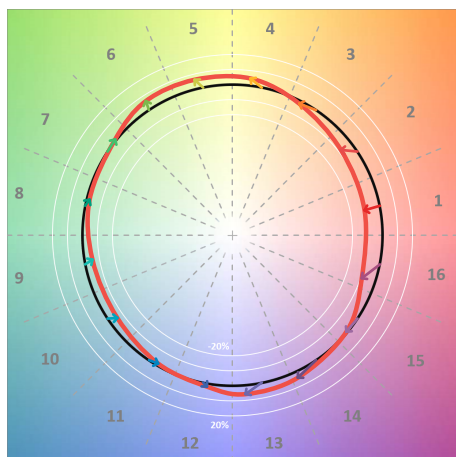
Colour Quality Scale CQS = 80.0  
 Television Lighting Consistency Index TLCI = 68



Relative spectral power distribution



### TM30 details

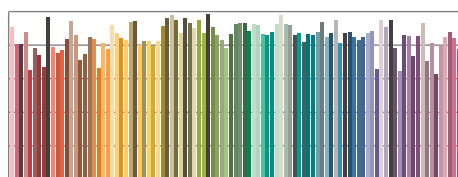


TM30 Colour vectors per hue bin

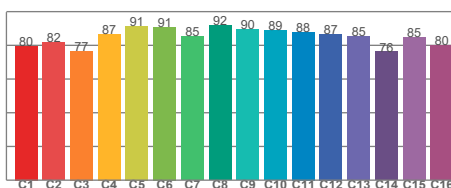


TM30 Colour distortion

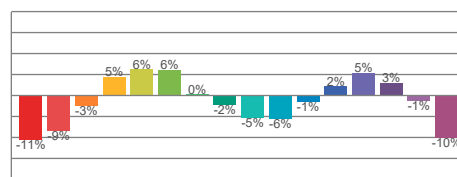
Hue Bin	$R_f$	Shifts (%)	
		Chroma	Hue
C1	80	-11%	-1%
C2	82	-9%	7%
C3	77	-3%	12%
C4	87	5%	9%
C5	91	6%	5%
C6	91	6%	-2%
C7	85	0%	-10%
C8	92	-2%	-5%
C9	90	-5%	-2%
C10	89	-6%	3%
C11	88	-1%	6%
C12	87	2%	3%
C13	85	5%	-12%
C14	76	3%	-17%
C15	85	-1%	-11%
C16	80	-10%	-11%



TM30-18  $R_f$ -values per reference colour

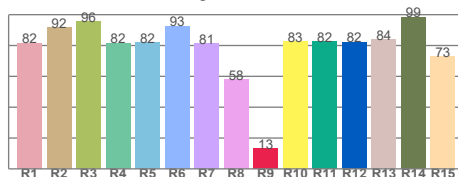


TM30-18  $R_f$ -values per hue bin

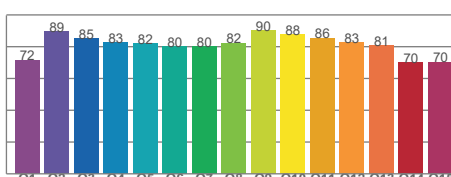


TM30 Chroma shift

### Colour Quality details



Colour Rendering Index



Colour Quality Scale