

136-097 4000K specific configuration
Downlight surface mounted | black | 13W | 3-CCT | dim

Introduction

Purpose of this Document

This document provides information for 136-097 4000K. 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	11.8 W
Correlated Colour Temperature	4164 K
Total lumen output	1134 lm
Efficiency	96 lm/W

Electrical measurement details

Input Power

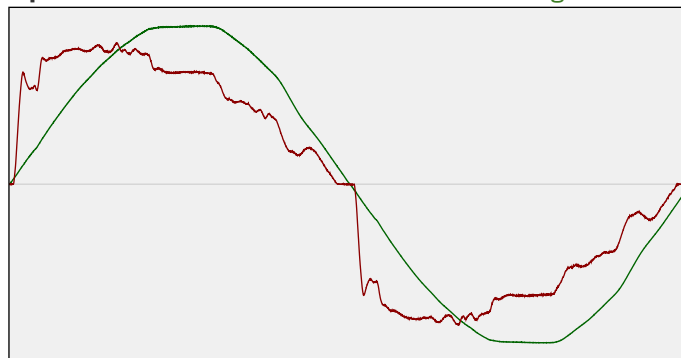
RMS Input voltage feed. V_{RMS}	229 V
RMS Input current feed. I_{RMS}	0.056 A
Total input power	11.8 W

Frequency of input power	50.1 Hz
Power factor	0.92
Displacement power factor	0.94

Total harmonic distortion of the current	21.81%
Total harmonic distortion of the voltage	2.21%

Input Power Curve

Voltage - Current



Efficiency

Radiated power efficiency: 30.9%



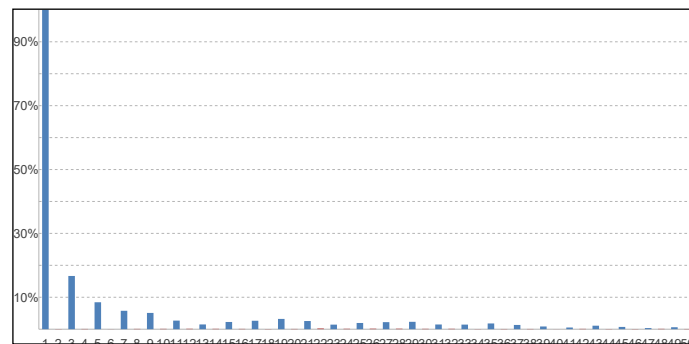
Lumen efficiency: 96 lm/W



Harmonics

3rd Harmonic	16.67%
5th Harmonic	8.44%
7th Harmonic	5.77%
9th Harmonic	5.1%
11th Harmonic	2.69%

Current Harmonics %



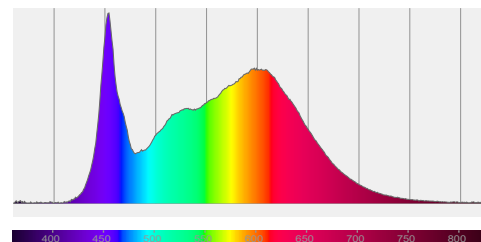
136-097 4000K specific configuration

Colour measurement details

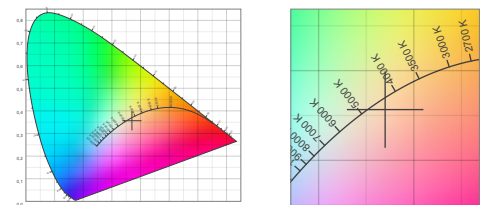
Total lumen output 1134 lm
 Correlated Colour Temperature 4164 K
 Colour coordinates CIE 1931 (x;y) = (0.370;0.357)
 Colour deviation from BBL Duv = -0.0065

TM30-18 Colour Fidelity Index R_f 86.4
 TM30-18 Colour Gamut Index R_g 97.2
 Colour Rendering Index (Ra) CRI 89.0
 Colour Rendering Index. (red component) $R_9 = 36.6$

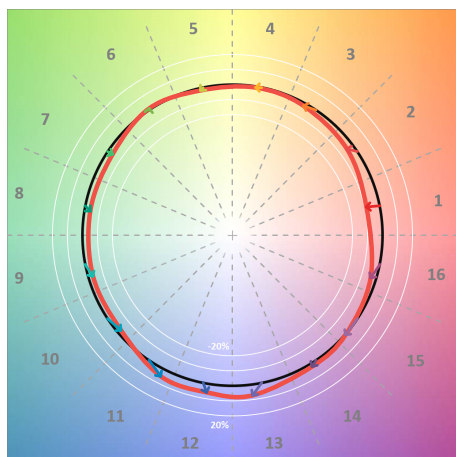
Colour Quality Scale CQS = 85.5
 Television Lighting Consistency Index TLCI = 79



Relative spectral power distribution



TM30 details

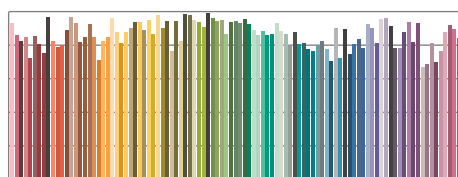


TM30 Colour vectors per hue bin

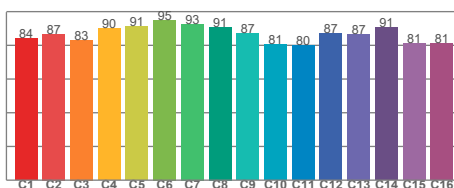


TM30 Colour distortion

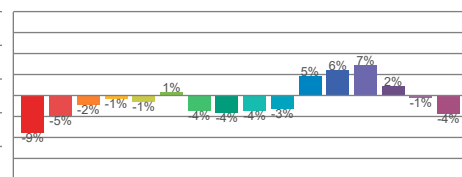
Hue Bin	R_f	Shifts (%)	
		Chroma	Hue
C1	84	-9%	1%
C2	87	-5%	5%
C3	83	-2%	8%
C4	90	-1%	4%
C5	91	-1%	2%
C6	95	1%	-1%
C7	93	-4%	0%
C8	91	-4%	3%
C9	87	-4%	9%
C10	81	-3%	11%
C11	80	5%	12%
C12	87	6%	3%
C13	87	7%	-8%
C14	91	2%	-5%
C15	81	-1%	-13%
C16	81	-4%	-10%



TM30-18 R_f -values per reference colour

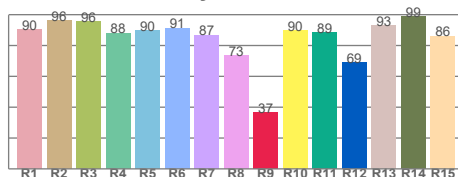


TM30-18 R_f -values per hue bin

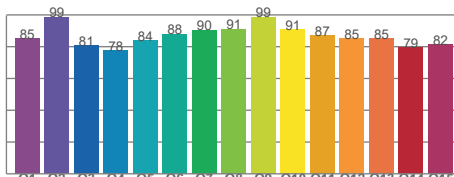


TM30 Chroma shift

Colour Quality details



Colour Rendering Index



Colour Quality Scale