

136-820 5W 4000K specific configuration
Spot | 82x82mm | square | white | 5/7W | 3CCT/DTW

Introduction

Purpose of this Document

This document provides information for 136-820 5W 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	5.7 W
Correlated Colour Temperature	3836 K
Total lumen output	381 lm
Efficiency	66 lm/W

Electrical measurement details

Input Power

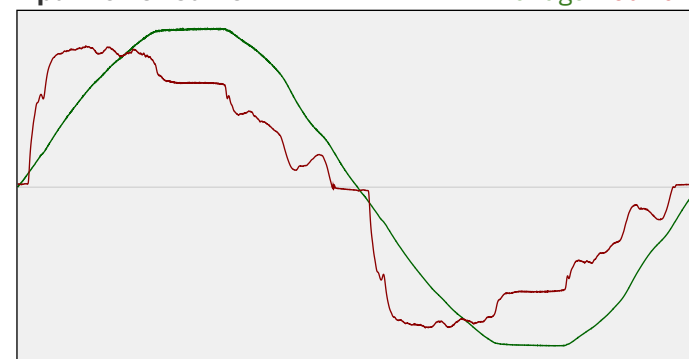
RMS Input voltage feed. V_{RMS}	230 V
RMS Input current feed. I_{RMS}	0.028 A
Total input power	5.7 W

Frequency of input power	50 Hz
Power factor	0.9
Displacement power factor	0.93

Total harmonic distortion of the current	23.89%
Total harmonic distortion of the voltage	2.61%

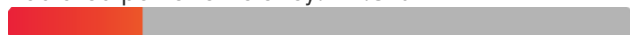
Input Power Curve

Voltage - Current



Efficiency

Radiated power efficiency: 21.8%



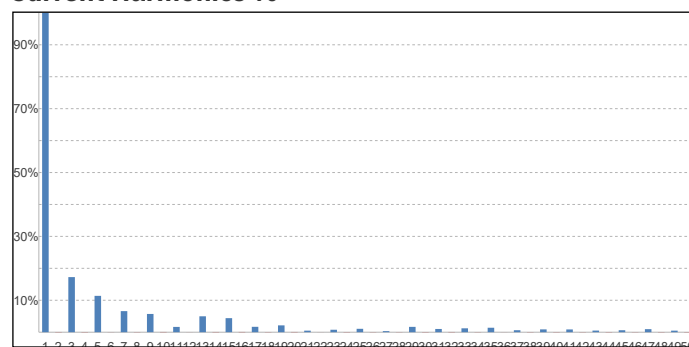
Lumen efficiency: 66 lm/W



Harmonics

3rd Harmonic	17.25%
5th Harmonic	11.38%
7th Harmonic	6.6%
9th Harmonic	5.72%
11th Harmonic	1.66%

Current Harmonics %



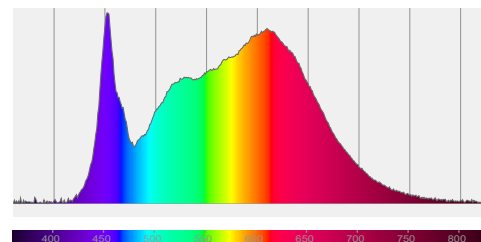
136-820 5W 4000K specific configuration

Colour measurement details

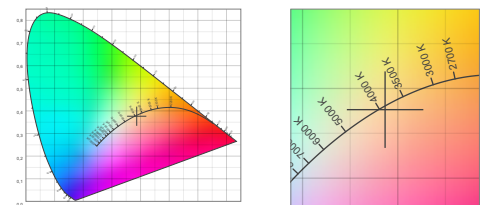
Total lumen output 381 lm
 Correlated Colour Temperature 3836 K
 Colour coordinates CIE 1931 (x;y) = (0.387;0.376)
 Colour deviation from BBL Duv = -0.0019

TM30-18 Colour Fidelity Index R_f 90.2
 TM30-18 Colour Gamut Index R_g 98.6
 Colour Rendering Index (Ra) CRI 92.7
 Colour Rendering Index. (red component) $R_9 = 55.2$

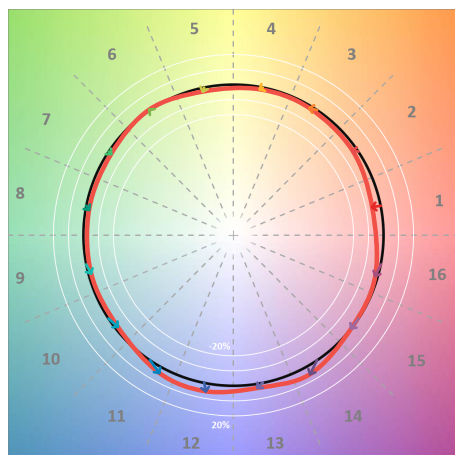
Colour Quality Scale CQS = 90.9
 Television Lighting Consistency Index TLCI = 89



Relative spectral power distribution



TM30 details

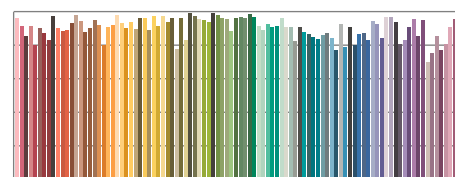


TM30 Colour vectors per hue bin

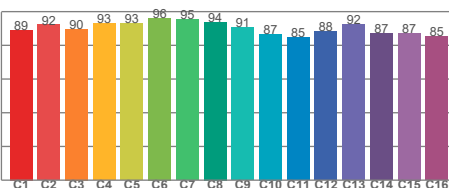


TM30 Colour distortion

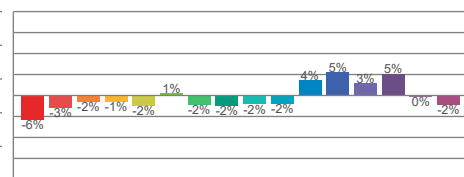
Hue Bin	R_f	Shifts (%)	
		Chroma	Hue
C1	89	-6%	0%
C2	92	-3%	3%
C3	90	-2%	5%
C4	93	-1%	2%
C5	93	-2%	1%
C6	96	1%	0%
C7	95	-2%	0%
C8	94	-2%	2%
C9	91	-2%	7%
C10	87	-2%	8%
C11	85	4%	10%
C12	88	5%	2%
C13	92	3%	-4%
C14	87	5%	-9%
C15	87	0%	-8%
C16	85	-2%	-8%



TM30-18 R_f -values per reference colour

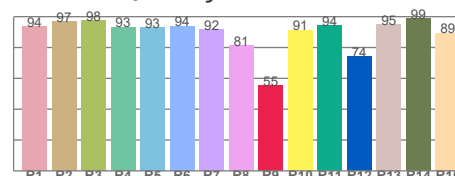


TM30-18 R_f -values per hue bin

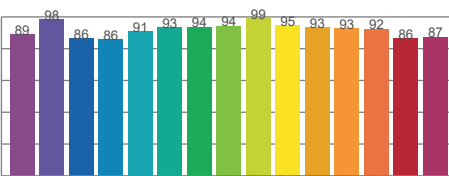


TM30 Chroma shift

Colour Quality details



Colour Rendering Index



Colour Quality Scale