

137-020 4W 3000K specific configuration
Bulkhead | 3-CCT | IK10 | IP65

Introduction

Purpose of this Document

This document provides information for 137-020 4W 3000K. 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	3.7 W
Correlated Colour Temperature	2964 K
Total lumen output	292 lm
Efficiency	79 lm/W

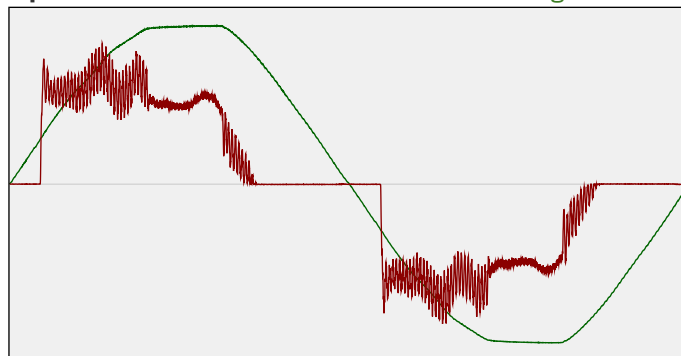
Electrical measurement details

Input Power

RMS Input voltage feed. V_{RMS}	230 V
RMS Input current feed. I_{RMS}	0.019 A
Total input power	3.7 W
Frequency of input power	50 Hz
Power factor	0.84
Displacement power factor	0.91
Total harmonic distortion of the current	37.23%
Total harmonic distortion of the voltage	2.59%

Input Power Curve

Voltage - Current



Efficiency

Radiated power efficiency: 24.7%



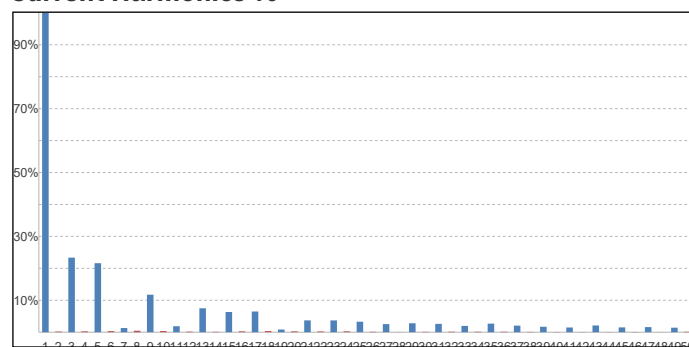
Lumen efficiency: 79 lm/W



Harmonics

3rd Harmonic	23.35%
5th Harmonic	21.61%
7th Harmonic	1.3%
9th Harmonic	11.74%
11th Harmonic	1.87%

Current Harmonics %



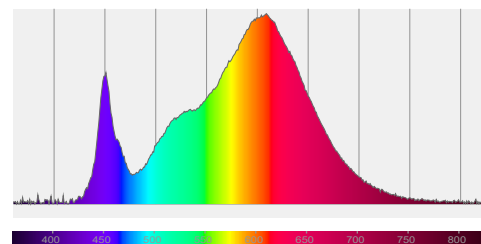
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Colour measurement details

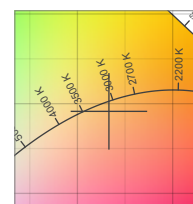
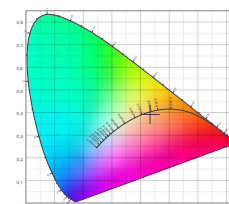
Total lumen output 292 lm
 Correlated Colour Temperature 2964 K
 Colour coordinates CIE 1931 (x;y) = (0.433;0.391)
 Colour deviation from BBL Duv = -0.0046

TM30-18 Colour Fidelity Index R_f 84.5
 TM30-18 Colour Gamut Index R_g 98.6
 Colour Rendering Index (Ra) CRI 84.2
 Colour Rendering Index. (red component) R_9 = 12.9

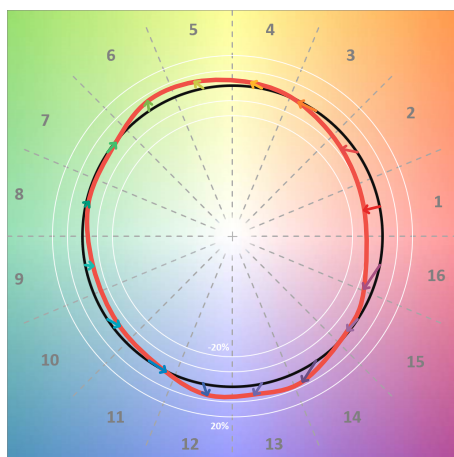
Colour Quality Scale CQS = 81.8
 Television Lighting Consistency Index TLCI = 67



Relative spectral power distribution



TM30 details

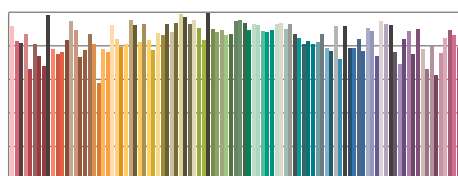


TM30 Colour vectors per hue bin

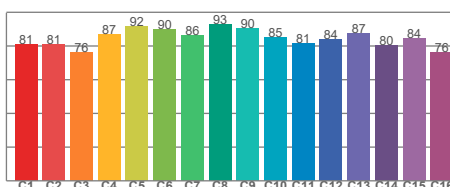


TM30 Colour distortion

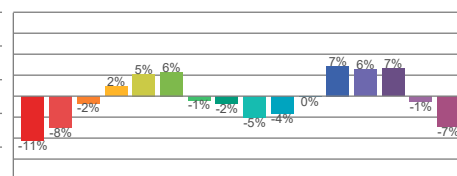
Hue Bin	R_f	Shifts (%)	
		Chroma	Hue
C1	81	-11%	0%
C2	81	-8%	8%
C3	76	-2%	13%
C4	87	2%	7%
C5	92	5%	5%
C6	90	6%	-3%
C7	86	-1%	-8%
C8	93	-2%	-3%
C9	90	-5%	2%
C10	85	-4%	8%
C11	81	0%	13%
C12	84	7%	4%
C13	87	6%	-6%
C14	80	7%	-15%
C15	84	-1%	-10%
C16	76	-7%	-17%



TM30-18 R_f -values per reference colour

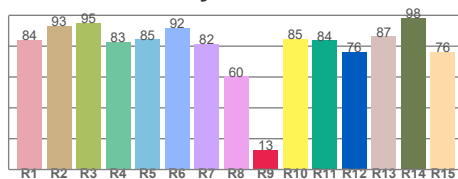


TM30-18 R_f -values per hue bin

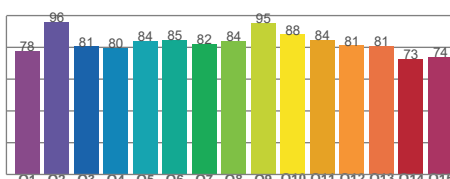


TM30 Chroma shift

Colour Quality details



Colour Rendering Index



Colour Quality Scale