

169-362 3500K 60 degree specific configuration  
Track spot | 3-phase | black | 30W | 930-935-940 | 45° | dim

## Introduction

### Purpose of this Document

This document provides information for 169-362 3500K 60 degree. 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	28.2 W
Correlated Colour Temperature	3411 K
Total lumen output	2357 lm
Efficiency	84 lm/W

## Electrical measurement details

### Input Power

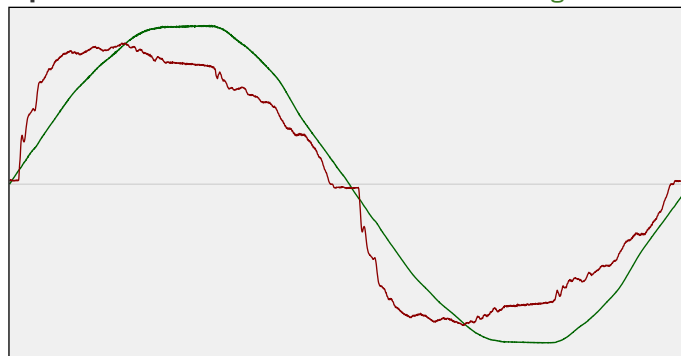
RMS Input voltage feed. $V_{RMS}$	230 V
RMS Input current feed. $I_{RMS}$	0.128 A
Total input power	28.2 W

Frequency of input power	50 Hz
Power factor	0.96
Displacement power factor	0.97

Total harmonic distortion of the current	17.38%
Total harmonic distortion of the voltage	2.51%

### Input Power Curve

Voltage - Current



### Efficiency

Radiated power efficiency: 27.2%



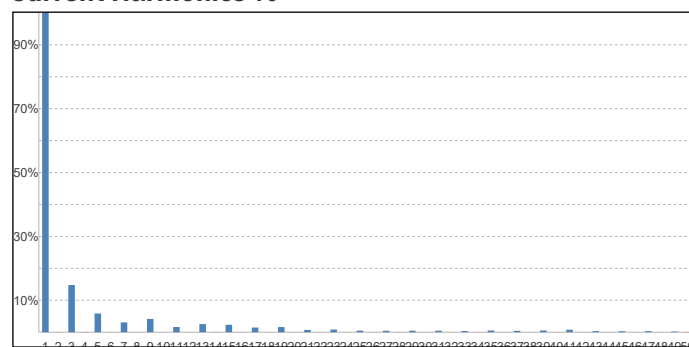
Lumen efficiency: 84 lm/W



### Harmonics

3rd Harmonic	14.76%
5th Harmonic	5.86%
7th Harmonic	3.06%
9th Harmonic	4.15%
11th Harmonic	1.62%

### Current Harmonics %



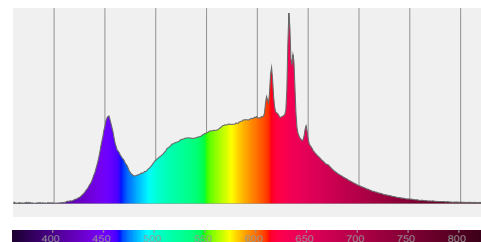
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### Colour measurement details

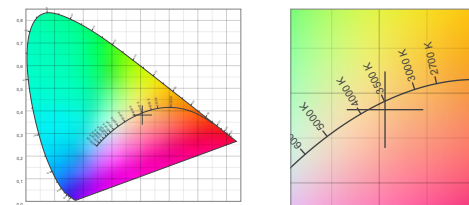
Total lumen output 2357 lm  
 Correlated Colour Temperature 3411 K  
 Colour coordinates CIE 1931 (x;y) = (0.406;0.382)  
 Colour deviation from BBL Duv = -0.0042

TM30-18 Colour Fidelity Index  $R_f$  91.5  
 TM30-18 Colour Gamut Index  $R_g$  101.4  
 Colour Rendering Index (Ra) CRI 95.2  
 Colour Rendering Index. (red component)  $R_9 = 73.6$

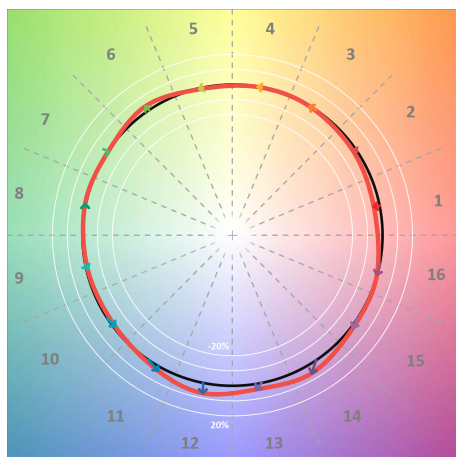
Colour Quality Scale CQS = 92.0  
 Television Lighting Consistency Index TLCI = 91



Relative spectral power distribution



### TM30 details

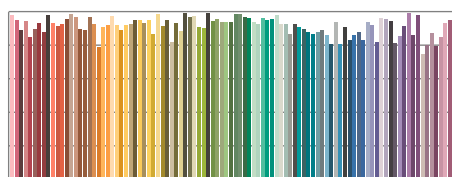


TM30 Colour vectors per hue bin

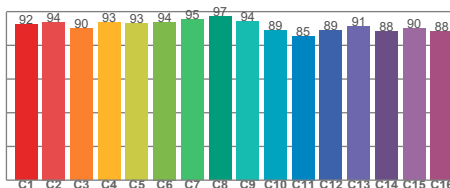


TM30 Colour distortion

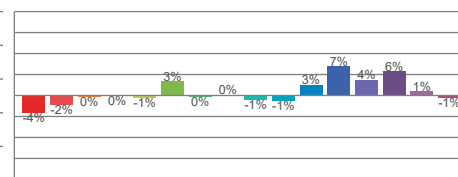
Hue Bin	$R_f$	Shifts (%)	
		Chroma	Hue
C1	92	-4%	0%
C2	94	-2%	2%
C3	90	0%	5%
C4	93	0%	3%
C5	93	-1%	3%
C6	94	3%	1%
C7	95	0%	-1%
C8	97	0%	-1%
C9	94	-1%	3%
C10	89	-1%	7%
C11	85	3%	9%
C12	89	7%	1%
C13	91	4%	-5%
C14	88	6%	-7%
C15	90	1%	-7%
C16	88	-1%	-7%



TM30-18  $R_f$ -values per reference colour

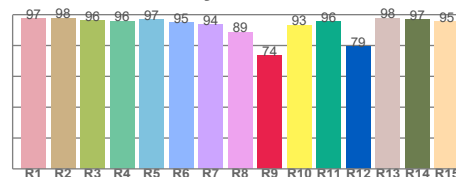


TM30-18  $R_f$ -values per hue bin

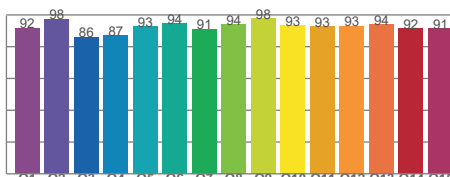


TM30 Chroma shift

### Colour Quality details



Colour Rendering Index



Colour Quality Scale