

Product Information Sheet

COMMISSION DELEGATED REGULATION (EU) 2019/2015 with regard to energy labelling of light sources

Supplier's name or trade mark: ELMARK

Supplier's address: ELMARK INDUSTRIES SC, bul.Dobrudja 2, 9300 Dobrich Dobrich, BG

Model identifier: 99DS409

Type of light source:

Lighting technology used:	LED	Non-directional or directional:	NDLS
Light source cap-type (or other electric interface)	Integrated LED		
Mains or non-mains:	NMLS	Connected light source (CLS):	Yes
Colour-tuneable light source:	No	Envelope:	-
High luminance light source:	No		
Anti-glare shield:	No	Dimmable:	No

Product parameters

Parameter	Value	Parameter	Value
General product parameters:			
Energy consumption in on-mode (kWh/1000 h), rounded up to the nearest integer	18	Energy efficiency class	G
Useful luminous flux (ϕ_{use}), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°)	1 564 in Sphere (360°)	Correlated colour temperature, rounded to the nearest 100 K, or the range of correlated colour temperatures, rounded to the nearest 100 K, that can be set	4 000
On-mode power (P_{on}), expressed in W	17,7	Standby power (P_{sb}), expressed in W and rounded to the second decimal	0,15
Networked standby power (P_{net}) for CLS, expressed in W and rounded to the second decimal	0,50	Colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set	78
Outer dimensions without separate control gear, lighting control	Height	Spectral power distribution in the range 250 nm to 800 nm, at full-load	See image in last page
	Width		
	Depth		

parts and non-lighting control parts, if any (millimetre)				
Claim of equivalent power ^(a)	-	If yes, equivalent power (W)	-	
		Chromaticity coordinates (x and y)	0,347 0,367	
Parameters for LED and OLED light sources:				
R9 colour rendering index value	0	Survival factor	0,50	
the lumen maintenance factor	0,95			

(a) : not applicable;

(b) : not applicable;

P/Lightsource Test Report1)

Product Information

Product Category: LED

Product Number: 584

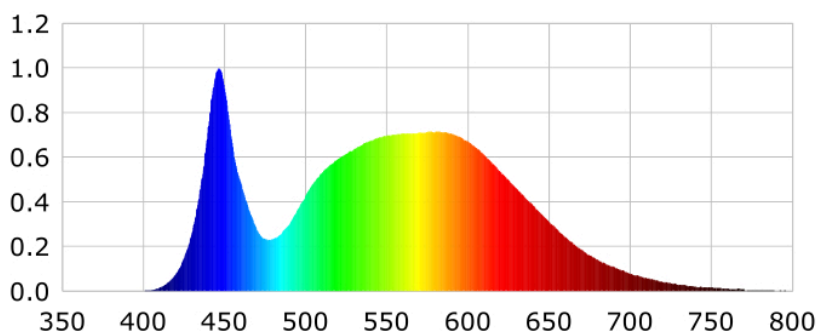
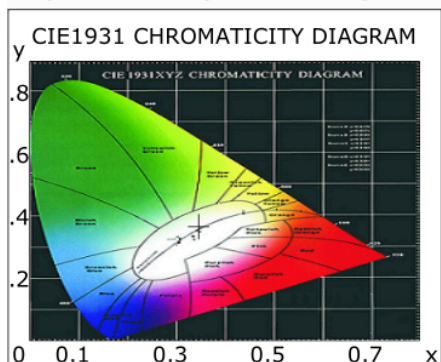
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3477$ $y=0.3676$ $u(u')=0.2071$ $v=0.3284$ $v'=0.4926$
 CCT: $T_c=4961K$ ($duv=0.00685$) Color Ratio: $R=0.148$ $G=0.813$ $B=0.039$
 Peak Wavelength: 446.5nm Half Bandwidth: 23.7nm
 Dominant Wavelength: 568.2nm Color Purity: 0.147
 CRI: $R_a=78.5$, $avgR(1\sim14)=70.7$, $avgR(1\sim15)=70.6$ TM30: $R_f=81$, $R_g=94$
 GAI: $GAI_BB_8=85.2$, $GAI_BB_15=90.7$, $GAI_EES=77.3$

R1 =75	R2 =83	R3 =89	R4 =79	R5 =76	R6 =77	R7 =86	R8 =63
R9 =0	R10=60	R11=77	R12=55	R13=76	R14=94	R15=68	

 Color Quality Scale: $Q_a=80.4$, $Q_f=80.8$, $Q_p=79.9$, $Q_g=90.1$

Q1 =81	Q2 =98	Q3 =78	Q4 =75	Q5 =80	Q6 =80	Q7 =82	Q8 =88
Q9 =96	Q10=86	Q11=83	Q12=82	Q13=82	Q14=67	Q15=72	



Photometric Parameters

Luminous Flux: 1564.1 lm Efficiency: 88.37 lm/W Radiant Power: 4.716 W
 EEI: 0.15 Energy Efficiency Class: A+ (EU 874-2012)
 Pupil Flux: 2551.10 Plm Pupil Lumens Per Watt: 144.13 Plm/W Pupil Factor (K_p): 1.631
 Mesopic Flux (CIE R.): 1990.85 lm ($L_p=0.100$ cd/m², $S/P=1.87$)
 Mesopic Flux (USP): 2314.91 lm ($L_p=0.100$ cd/m², $S/P=1.87$)
 Mesopic Flux (MOVE): 2063.07 lm ($L_p=0.100$ cd/m², $S/P=1.87$)

Electric Parameters

Voltage: 220.30V Current: 0.0870A Power: 17.70W
 Power Factor: 0.9250 Frequency: 49.99Hz

Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-spectroradiometer
 Stabilization Time: 0 Sec ALC.: 0.9000 Photometric Condition: Sphere diameter: 1.00m, 4PI
 Max of Signal: 49655 (2360) CCD Integration Time: 42.50 ms

Condition: Tx:27.8'C, Ti:28.3'C, R.H.:60%
 Test Lab:
 Operator:

Test Device: Inventfine CMS-2S (Plus)
 Test Time: 2021-08-26 09:09:21
 Inspector: