

Technical documentation

item number

5195401118

**the name and address of the light
source supplier;****LUTEC**
LUTEC Europe NV, Herentalsebaan 425. B-2160
Wommelgem-Belgium**supplier's model identifier of the light
source;**

LS_1954M

**the model identifier of all equivalent
models already placed on the market;**

/

declared and measured values for the following technical parameters:

useful luminous flux (Φ_{use}) in lm	1150
colour rendering index (CRI)	80
on-mode power (P_{on}) in W	7.8
beam angle in degrees for directional light sources (DLS)	NA
peak luminous intensity in cd for directional light sources (DLS)	NA
correlated colour temperature (CCT) in K;	3000
standby power (P_{sb}) in W, including when it is zero	0
networked standby power (P_{net}) in W for connected light sources (CLS)	0
R9 colour rendering index value for LED and OLED light sources	12
survival factor for LED and OLED light sources	1
lumen maintenance factor for LED and OLED light sources	0,96
indicative lifetime L70B50 for LED and OLED light sources	30000h
displacement factor ($\cos \varphi_1$) for LED and OLED mains light sources	0.7

colour consistency in MacAdam ellipse steps for LED and OLED light sources	6																				
luminance-HLLS in cd/mm ₂ (only for HLLS)	NA																				
flicker metric (PstLM) for LED and OLED light sources	1																				
stroboscopic effect metric (SVM) for LED and OLED light sources	/																				
excitation purity, only for CTLS, for the following colours and dominant wavelength within the given range:	Colour Dominant wave-length range	NA																			
	Blue 440 nm – 490 nm	NA																			
	Green 520 nm – 570 nm	NA																			
	Red 610 nm – 670 nm	NA																			
the calculations performed with the parameters, including the determination of the energy efficiency class;	on the basis of the total mains efficacy η_{TM} , which is calculated by dividing the declared useful luminous flux Φ_{use} (expressed in lm) by the declared on mode power consumption P_{on} (expressed in W) and multiplying by the applicable factor F_{TM} of Annex II, Table 2 of EU2019/2015 as follow: $\eta_{TM} = (\Phi_{use}/P_{on}) \times F_{TM}$ (lm/W)=(1150 /7.8) $\times$ 1=147.44 lm/W																				
	<table><tr><td>Light source type</td><td>Factor F_{TM}</td></tr><tr><td>Non-directional (NDLS) operating on mains (MLS)</td><td>1,000</td></tr></table> <table><tr><td>Energy efficiency class</td><td>Total mains efficacy η_{TM} (lm/W)</td></tr><tr><td>A (most efficient)</td><td>210 $\leq \eta_{TM}$</td></tr><tr><td>B</td><td>185 $\leq \eta_{TM}$ < 210</td></tr><tr><td>C</td><td>160 $\leq \eta_{TM}$ < 185</td></tr><tr><td>D</td><td>135 $\leq \eta_{TM}$ < 160</td></tr><tr><td>E</td><td>110 $\leq \eta_{TM}$ < 135</td></tr><tr><td>F</td><td>85 $\leq \eta_{TM}$ < 110</td></tr><tr><td>G (least efficient)</td><td>η_{TM} < 85</td></tr></table>		Light source type	Factor F_{TM}	Non-directional (NDLS) operating on mains (MLS)	1,000	Energy efficiency class	Total mains efficacy η_{TM} (lm/W)	A (most efficient)	210 $\leq \eta_{TM}$	B	185 $\leq \eta_{TM}$ < 210	C	160 $\leq \eta_{TM}$ < 185	D	135 $\leq \eta_{TM}$ < 160	E	110 $\leq \eta_{TM}$ < 135	F	85 $\leq \eta_{TM}$ < 110	G (least efficient)
Light source type	Factor F_{TM}																				
Non-directional (NDLS) operating on mains (MLS)	1,000																				
Energy efficiency class	Total mains efficacy η_{TM} (lm/W)																				
A (most efficient)	210 $\leq \eta_{TM}$																				
B	185 $\leq \eta_{TM}$ < 210																				
C	160 $\leq \eta_{TM}$ < 185																				
D	135 $\leq \eta_{TM}$ < 160																				
E	110 $\leq \eta_{TM}$ < 135																				
F	85 $\leq \eta_{TM}$ < 110																				
G (least efficient)	η_{TM} < 85																				

references to the harmonised standards applied or other standards used;	EN IEC 60598-1:2021 +A11:2022 EN IEC 60598-2-1:2021 EN 55015:2019/A11:2020 EN 61547:2023 EN 61000-3-2:2019 EN 61000-3-3:2013/A1:2019 EN 62321-1: 2013 EN 62321-2: 2013 EN 62321-3-1: 2013 EN 62321-4: 2013+AMD1: 2017 EN 62321-5: 2013 EN 62321-6: 2015 EN 62321-7-1: 2015. EN 62321-7-2: 2017 EN 62321-8:2017 (EU) 2019/2015 (EU) 2019/2020
testing conditions if not described sufficiently in point	Ambient temperature for test: 25 ° C Test voltage(s) (V):230V~ Test Frequency (ies)(Hz):50Hz
the reference control settings, and instructions on how they can be implemented, where applicable;	
instructions on how to remove lighting control parts and/or non-lighting parts, if any, or how to switch them	see Light source remove instruction
off or minimise their power consumption during light source testing;	NA
specific precautions that shall be taken when the model is assembled, installed, maintained or tested	see Light source remove instruction; also mentioned in the instruction manual that "The light source is only exchangeable by a professional."

identification and signature of the person empowered to bind the supplier;

LUTEC Europe N.V.
Herentalsebaan 425
B-2160 Wommelgem
VAT:BE 0685 754 069

Delegated executive director
BLUE OCEAN CONSULTING BV
Permanent representative
Stephane De Weerd

