

Prüfbericht-Nr.: Test Report No.:	60397160 003	Auftrags-Nr.: Order No.:	244237701	Seite 1 von 11 Page 1 of 11
Kunden-Referenz-Nr.: Client Reference No.:	Quotation No.: 244059762 Client No.: 2156156	Auftragsdatum: Order date:	14.05.2020	
Auftraggeber: Client:	Qingdao Yeelink Information Technology Co., Ltd. 10F-B4, Building B, Qingdao International Innovation Park, No.1 Keyuan Weiyi Road, Laoshan District, Qingdao City, Shandong Province, P.R. China.			
Prüfgegenstand: Test item:	GU10 smart bulb W1 dimmable			
Bezeichnung / Typ-Nr.: Identification / Type No.:	YLDP004			
Auftrags-Inhalt: Order content:	Testing report			
Prüfgrundlage: Test specification:	Regulation (EU) 2017/1369 COMMISSION REGULATION (EU) 2019/2020 COMMISSION DELEGATED REGULATION (EU) 2019/2015 COMMISSION DELEGATED REGULATION (EU) 2021/340 and COMMISSION REGULATION (EU) 2021/341 also considered ANSI C78.377:2011 (Test items specified by client's requirement)			
Wareneingangsdatum: Date of receipt:	29.10.2020			
Prüfmuster-Nr.: Test sample No.:	Number 1# to 10# for each model			
Prüfzeitraum: Testing period:	29.10.2020-28.03.2021			
Ort der Prüfung: Place of testing:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüflaboratorium: Testing laboratory:	TÜV Rheinland (Shanghai) Co., Ltd.			
Prüfergebnis*: Test result*:	Siehe Sonstiges / See Other aspects			
geprüft von / tested by:		kontrolliert von / reviewed by:		
03.04.2021 Fernando Dai / PE 		03.04.2021 Jimmy Wang / Reviewer 		
Datum Date	Name / Stellung Name / Position	Unterschrift Signature	Datum Date	Name / Stellung Name / Position
Sonstiges / Other aspects The requirements of 2019/2020 for light source were performed and 3600h test results see test report. Energy efficiency class according to COMMISSION DELEGATED REGULATION (EU) 2019/2015 is also considered, and the result is for reference. Appendix: Photo of tested samples.				
Zustand des Prüfgegenstandes bei Anlieferung: Condition of the test item at delivery:		Prüfmuster vollständig und unbeschädigt Test item complete and undamaged		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested				
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.				

TEST REPORT**COMMISSION REGULATION (EU) 2019/2020**

laying down ecodesign requirements for light sources and separate control gears pursuant to Directive 2009/125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 244/2009, (EC) No 245/2009 and (EU) No 1194/2012

Test item particulars:

Product name GU10 smart bulb W1 dimmable

Model name YLDP004

Trade Mark YEELIGHT

Manufacturer Qingdao Yeelink Information Technology Co., Ltd.

address 10F-B4, Building B, Qingdao International Innovation Park, No.1
Keyuan Weiyi Road, Laoshan District, Qingdao City, Shandong
Province, P.R. China.

Factory LEEDARSON LIGHTING CO., LTD

address Xingda Road, Xingtai Industrial Zone, Changtai County,
Zhangzhou, Fujian, China

Declare value description:

Rated voltage and frequency: 220-240V~, 50/60Hz

Rated wattage: 4.8W

Lamp cap: GU10

Nominal luminous flux Φ : 350lm

Declared η_{TM} (lm/W): 85.8

Declared Colour rendering (CRI): 80

Declared Displacement factor for LED and
OLED MLS(DF): N/A

Declared Lumen maintenance factor for
LED and OLED: 0.93

Declared Survival factor for LED and OLED: 0.9

Declared colour consistency for LED and
OLED: SDCM ≤ 6

Declared beam angle for DLS: 36°

Declared lamp life: 15000hours

Declared color temperature: 2700K

Declared Flicker for LED and OLED MLS ..: ≤ 1.0

Declared Stroboscopic effect for LED and
OLED MLS: ≤ 0.4

Possible test case verdicts:

- test case does not apply to the test object N/A
- test object does meet the requirement..... P(Pass)
- test object does not meet the requirement F(Fail)

General product information:

Model name	Rated wattage	Nominal luminous flux	Declared η_{TM} (lm/W)
YLDP004	4.8W	350lm	85.8

Summary of testing:

Model name	Testing voltage	Testing period	Difference
YLDP004	230V	2020.10.29~2021.3.28	N/A

Copy of rating label:

N/A

Appendix I: Test results--Tabel 1: Initial test results:

		Test Result				P
Sample No.	Measured voltage(V)	Measured current (mA)	Measured power(W)	Initial Φuse (lm)	Beam angle (°) for DLS	--
1#	230	38.6	5.02	328.63	35.30	--
2#	230	38.3	5.00	331.52	35.02	--
3#	230	38.0	4.93	321.60	35.23	--
4#	230	38.5	5.00	329.55	35.14	--
5#	230	38.4	5.03	328.61	35.40	--
6#	230	38.6	5.02	329.77	35.35	--
7#	230	38.6	5.02	326.08	35.09	--
8#	230	38.5	5.01	326.14	35.42	--
9#	230	38.5	5.00	332.54	35.25	--
10#	230	38.1	4.93	324.37	35.19	--
Average	230	38.4	5.00	327.88	35.24	--
Sample No.	Colour rendering (CRI)	Displacement factor(DF)	Colour consistency ^{note 1}	Flicker(Pst LM)	Stroboscopic effect(SVM)	--
1#	82.9	0.953	0.7	0.003	0.001	--
2#	82.5	0.953	1.7	0.003	0.001	--
3#	82.6	0.953	0.8	0.006	0.001	--
4#	82.8	0.952	0.7	0.003	0.001	--
5#	83.0	0.953	1.0	0.003	0.001	--
6#	82.7	0.953	0.5	0.003	0.001	--
7#	82.8	0.952	0.7	0.003	0.001	--
8#	83.3	0.954	2.0	0.003	0.001	--
9#	82.5	0.952	2.3	0.003	0.001	--
10#	82.8	0.953	1.0	0.003	0.001	--
Average	82.8	0.953	1.1	0.003	0.001	--
Required	CRI≥80	--	SDCM≤6	Pst LM≤1,0	SVM≤0,4	--

Note 1 : The colour consistency is calculated according to ANSI 2700K except central x: 0.4578, y: 0.4101.

Tabel 2: Initial test results:

		Test Result					P
Sample No.	Initial Φ_{use} (lm)	Efficacy factor (F)	CRI factor (R)	Threshold efficacy (η)	End loss factor (L)	Correction factor (C)	Ponmax
1#	328.63	0.85	1.02	120	2.0	1.23	6.55
2#	331.52	0.85	1.02	120	2.0	1.23	6.59
3#	321.60	0.85	1.02	120	2.0	1.23	6.46
4#	329.55	0.85	1.02	120	2.0	1.23	6.56
5#	328.61	0.85	1.02	120	2.0	1.23	6.55
6#	329.77	0.85	1.02	120	2.0	1.23	6.57
7#	326.08	0.85	1.02	120	2.0	1.23	6.52
8#	326.14	0.85	1.02	120	2.0	1.23	6.52
9#	332.54	0.85	1.02	120	2.0	1.23	6.60
10#	324.37	0.85	1.02	120	2.0	1.23	6.50
Average	327.88	0.85	1.02	120	2.0	1.23	6.54
Factor	N/A	☐ 1.00 for NDLS ☒ 0.85 for DLS	☐ 0.65 for CRI $\leq$ 25, ☒ (CRI+80)/160 for CRI>25	120.0 for LED	2.0 for CLS	☐ NDLS & NMLS: 1.00 ☐ NDLS & MLS: 1.08 ☐ DLS & NMLS: 1.15 ☒ DLS & MLS: 1.23	$Pon = Cx(L + \Phi_{use}/(Fx \eta)) \times R$

Tabel 3: Initial test results for Energy efficiency classes:

		Test Result				P
Sample No.	Initial Φ_{use} (lm)	Initial P_{on} (W)	F_{TM}	η_{TM} (lm/W)	Test Energy efficiency class	Declare Energy efficiency class
1#	328.63	5.02	1.176	77	G	G
2#	331.52	5.00	1.176	78	G	G
3#	321.60	4.93	1.176	77	G	G
4#	329.55	5.00	1.176	78	G	G
5#	328.61	5.03	1.176	77	G	G
6#	329.77	5.02	1.176	77	G	G
7#	326.08	5.02	1.176	76	G	G
8#	326.14	5.01	1.176	77	G	G
9#	332.54	5.00	1.176	78	G	G
10#	324.37	4.93	1.176	77	G	G
Average	327.88	5.00	1.176	77	G	G
Energy efficiency class: A: $210 \leq \eta_{\text{TM}}$ B: $185 \leq \eta_{\text{TM}} < 210$ C: $160 \leq \eta_{\text{TM}} < 185$ D: $135 \leq \eta_{\text{TM}} < 160$ E: $110 \leq \eta_{\text{TM}} < 135$ F: $85 \leq \eta_{\text{TM}} < 110$ G: $\eta_{\text{TM}} < 85$				Factors FTM by light source type: ☐ NDLS & MLS: 1.000 ☐ NDLS & NMLS: 0.926 ☒ DLS & MLS: 1.176 ☐ DLS & NMLS: 1.089		

Table 4: Test results of survival factor and Lumen maintenance:

		Test Result			P
Sample No.	Initial Φ_{use} (lm)	3600H Φ_{use} (lm)	XLMF, MIN% at 3600H	survival factor at 3600H	
1#	328.63	319.90	97.34%	survival	
2#	331.52	323.82	97.68%	survival	
3#	321.60	313.34	97.43%	survival	
4#	329.55	321.04	97.42%	survival	
5#	328.61	319.94	97.36%	survival	
6#	329.77	320.88	97.30%	survival	
7#	326.08	317.68	97.42%	survival	
8#	326.14	317.23	97.27%	survival	
9#	332.54	324.98	97.73%	survival	
10#	324.37	314.41	96.93%	survival	
Average	327.88	319.32	97.39%	--	
Required	--	--	93.11%	0.9	

Table 5: Test results of No-load power (Pno), Standby power (Psb) and Networked standby power (Pnet)

Test Result			P
Sample No.	Pno (W)	Psb (W)	Pnet (W)
1#	--	--	0.42
2#	--	--	0.42
3#	--	--	0.44
4#	--	--	0.43
5#	--	--	0.42
6#	--	--	0.41
7#	--	--	0.42
8#	--	--	0.44
9#	--	--	0.43
10#	--	--	0.42
Average	--	--	0.43
Required	<0.5W	<0.5W	<0.5W

Remarks:**3. Information requirements**

From 1 September 2021 the following information requirements shall apply:

- (a) Information to be displayed on the light source itself
- For all light sources, except CTLS, LFL, CFLni, other FL, and HID, the value and physical unit of the useful luminous flux (lm) and correlated colour temperature (K) shall be displayed in a legible font on the surface if, after the inclusion of safety-related information, there is sufficient space available for it without unduly obstructing the light emission.
- For directional light sources, the beam angle (°) shall also be indicated.
- If there is room for only two values, the useful luminous flux and the correlated colour temperature shall be displayed. If there is room for only one value, the useful luminous flux shall be displayed.
- (b) Information to be visibly displayed on the packaging
- (1) Light source placed on the market, not in a containing product
- If a light source is placed on the market, not in a containing product, in a packaging containing information to be visibly displayed at a point-of-sale prior to its purchase, the following information shall be clearly and prominently displayed on the packaging:
- (a) the useful luminous flux (Φ_{use}) in a font at least twice as large as the display of the on-mode power (P_{on}), clearly indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°);
 - (b) the correlated colour temperature, rounded to the nearest 100 K, also expressed graphically or in words, or the range of correlated colour temperatures that can be set;
 - (c) the beam angle in degrees (for directional light sources), or the range of beam angles that can be set;
 - (d) electrical interface details, e.g. cap- or connector-type, type of power supply (e.g. 230 V AC 50 Hz, 12 V DC);
 - (e) the L70B50 lifetime for LED and OLED light sources, expressed in hours;
 - (f) the on-mode power (P_{on}), expressed in W;
 - (g) the standby power (P_{sb}), expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging;
 - (h) the networked standby power (P_{net}) for CLS, expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging;
 - (i) the colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set;
 - (j) if $\text{CRI} < 80$, and the light source is intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a $\text{CRI} < 80$, a clear indication to this effect. For HID light sources with useful luminous flux $> 4\,000$ lm, this indication is not mandatory;
 - (k) if the light source is designed for optimum use in non-standard conditions (such as ambient temperature $T_a \neq 25^\circ \text{C}$ or specific thermal management is necessary): information on those

conditions;

- (l) a warning if the light source cannot be dimmed or can be dimmed only with specific dimmers or with specific wired or wireless dimming methods. In the latter cases a list of compatible dimmers and/or methods shall be provided on the manufacturer's website;
- (m) if the light source contains mercury: a warning of this, including the mercury content in mg rounded to the first decimal place;
- (n) if the light source is within the scope of Directive 2012/19/EU, without prejudice to marking obligations pursuant to Article 14(4) of Directive 2012/19/EU, or contains mercury: a warning that it shall not be disposed of as unsorted municipal waste.

Items (a) to (d) shall be displayed on the packaging in the direction meant to face prospective buyer; for other items this is also recommended, if space permits.

For light sources that can be set to emit light with different characteristics, the information shall be reported for the reference control settings. In addition, a range of obtainable values may be indicated.

The information does not need to use the exact wording on the list above. Alternatively, it may be displayed in the form of graphs, drawings or symbols.

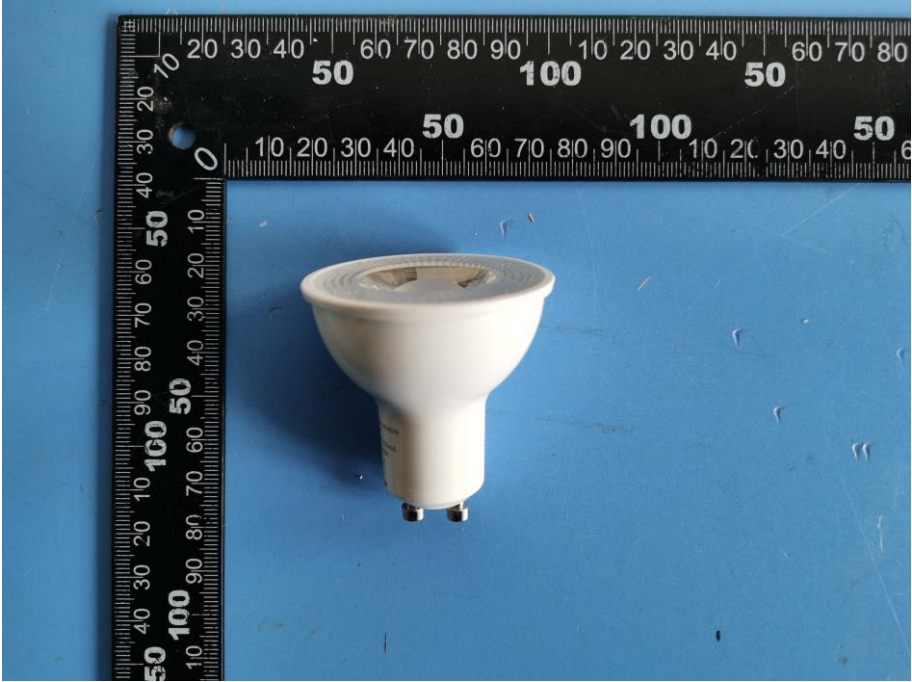
(e) Information for products specified in point 3 of Annex III

For the light sources and separate control gears specified in point 3 of Annex III the intended purpose shall be stated in the technical documentation for compliance assessment as per Article 5 of this Regulation and on all forms of packaging, product information and advertisement, together with an explicit indication that the light source or separate control gear is not intended for use in other applications.

The technical documentation file drawn up for the purposes of conformity assessment, in accordance with Article 5 of this Regulation shall list the technical parameters that make the product design specific to qualify for the exemption.

In particular for light sources indicated in point 3(p) of Annex III it shall be stated: 'This light source is only for use by photo sensitive patients. Use of this light source will lead to increased energy cost compared to an equivalent more energy efficient product.'

Appendix IV: Photo of tested samples:

	YLDP004