


<b>Prüfbericht-Nr.:</b> <i>Test Report No.:</i>	50202870 001	<b>Auftrags-Nr.:</b> <i>Order No.:</i>	154371940	<b>Seite 1 von 10</b> <i>Page 1 of 10</i>	
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	Quotation No.: 52258297 Client No.: 60005478	<b>Auftragsdatum:</b> <i>Order date:</i>	06.11.2018		
<b>Auftraggeber:</b> <i>Client:</i>	<b>Qingdao Yeelink Information Technology, Co., Ltd.</b> F10-B4, Bldg.B International Innovation Park, 1# Keyuanweiyi Rd., Laoshan, Qingdao, 266101 Shandong, China				
<b>Prüfgegenstand:</b> <i>Test item:</i>	<b>Mi Bedside Lamp 2 (without plastic enclosure)</b>				
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	MJCTD02YL (LED module)				
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Commission test				
<b>Prüfgrundlage:</b> <i>Test specification:</i>	Annex III of EU 1194/2012 Annex II of EC 244/2009 Annex II.2 of EU 2015/1428				
<b>Wareneingangsdatum:</b> <i>Date of receipt:</i>	14.11.2018				
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	A000837384-011~020				
<b>Prüfzeitraum:</b> <i>Testing period:</i>	23.11.2018-07.01.2019				
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	TÜV Rheinland (Shanghai) Co., Ltd.				
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland (Shanghai) Co., Ltd.				
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Siehe Sonstiges / See Other aspects				
<b>geprüft von / tested by:</b>	<b>kontrolliert von / reviewed by:</b>				
18.01.2019	Fernando Dai /PE <i>Fernando Dai</i>	18.01.2019	Jimmy Wang /Reviewer <i>Jimmy Wang</i>		
<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>	<b>Unterschrift</b> <i>Signature</i>	<b>Datum</b> <i>Date</i>	<b>Name / Stellung</b> <i>Name / Position</i>	<b>Unterschrift</b> <i>Signature</i>
<b>Sonstiges / Other aspects</b>					
<p>Tests were performed on LED module without plastic enclosure.            Stage 3 requirements of 1194/2012/EU for LED lamp were performed and 1000h test results see test report. The rated lamp lifetime and rated color temperature are declared by client.            Stage 6 requirements of 244/2009/EC for non-directional Lamp Efficacy Requirements were performed and results see test report.            Commission Regulation (EU) No. 2015/1428 of 25 August 2015. Amending of the above mention regulations.            Energy efficiency class according to Annex VI of COMMISSION DELEGATED REGULATION (EU) No 874/2012+am. (EU) 518/2014 is also considered, and the result is for reference.            Related requirements in COMMISSION REGULATION (EU) No 1194/2012 were considered in this test report.            Note: The test result for 6000h survival factor and lumen maintenance are not included, test report will be updated after the test finish.</p>					
<b>Zustand des Prüfgegenstandes bei Anlieferung:</b> <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
<p>* 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</p> <p>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</p>					
<p><b>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.</b>  <i>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.</i></p>					

	<b>Lamp type: MJCTD02YL</b>		
	<b>Rated Voltage:</b>	<b>AC 220-240V</b>	<b>Rated Wattage:</b> <b>Max. 9W (nature white)</b>
	<b>Rated Life time:</b>	<b>25000h</b>	<b>Rated Color Temperature</b> <b>4000K (nature white)</b>
	<b>Luminous flux(lm):</b>	<b>Max. 850lm (nature white)</b>	<b>Rated current:</b> <b>0.45A</b>

Test item	Test parameter	Test requirement	Result (P/F)	Record
<input checked="" type="checkbox"/> 1	Lamp Efficiency Requirement	$P \leq P_{max}$ $= 0.6 * (0.88 \sqrt{\varnothing} + 0.049 \varnothing)$	P	Table A-01 Table A-02 Table A-03
<input checked="" type="checkbox"/> 2	Lamp wattage	Refer to EN62722	P	Table A-01 Table A-02 Table A-03
<input checked="" type="checkbox"/> 3	Luminous flux	Refer to EN62722	P	Table A-01 Table A-02 Table A-03
<input checked="" type="checkbox"/> 4	Lamp efficacy	Refer to EN62722	P	Table A-01 Table A-02 Table A-03
<input checked="" type="checkbox"/> 5	Starting time	< 0.5 s	P	Table B-01
<input checked="" type="checkbox"/> 6	Lamp warm-up time to 95% $\varnothing$	< 2 s	P	Table B-01
<input checked="" type="checkbox"/> 7	Lamp power factor (PF) for lamps with integrated control gear	<input type="checkbox"/> no requirement if $P \leq 2W$ <input type="checkbox"/> > 0.4 if $2W < P \leq 5W$ <input checked="" type="checkbox"/> > 0.5 if $5W < P \leq 25W$ <input type="checkbox"/> > 0.9 if $P > 25W$	P	Table C-01 Table C-02 Table C-03
<input checked="" type="checkbox"/> 8	Colour rendering (Ra)	<input checked="" type="checkbox"/> $\geq 80$ <input type="checkbox"/> $\geq 65$ for outdoor or industrial applications	P	Table C-01 Table C-02 Table C-03
<input checked="" type="checkbox"/> 9	Colour consistency	Variation of chromaticity coordinates within a six-step MacAdam ellipse or less	P	Table C-01
<input checked="" type="checkbox"/> 10	Number of switching cycles before failure	<input type="checkbox"/> $\geq 15000$ if rated lamp life $\geq 30000h$ <input checked="" type="checkbox"/> $\geq$ half the rated lamp life expressed in hours	P	Table C-01
<input checked="" type="checkbox"/> 11	Premature failure rate	$\leq 5.0\%$ at 1000h	P	Table D-01
<input type="checkbox"/> 12	Lumen maintenance at 6000h	$\geq 0.80$	--	Table E-01
<input type="checkbox"/> 13	Lamp survival factor at 6000h	$\geq 0.90$	--	Table E-01

Remark: Item 1, 2, 3, 4, 7 and 8 performed on three white color modes (cool white, nature white, warm white).  
Item 5, 6, 9, 10, 11, 12 and 13 performed on Max. output mode (nature white).

Table A-01: MJCTD02YL (nature white)				
Lamp Efficiency Requirement				
Rated Voltage: AC 220-240V Rated Wattage: Max.9W Test Voltage: 230V~, 50Hz				
The stabilization time: After 30 minutes in thermostatic stabilized photometric sphere, (stated by manufacturer)				
Sample No.	Lamp wattage P (W)	Luminous flux (lm)	Efficacy (lm/w)	$P \leq P_{max}$ $=0.6*(0.88\sqrt{\varnothing}+0.049\varnothing)$
1	9.10	861.93	94.72	40.84
2	8.99	857.42	95.37	40.67
3	9.04	855.70	94.66	40.60
4	8.95	862.39	96.36	40.86
5	9.14	860.72	94.17	40.80
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	9.04	859.63	95.06	40.75
Declared	9	850	94.44	--
Variation	0.44%	1.13%	≥ 80% Declared	P < Pmax
Verdict	P	P	P	P

Energy Efficiency Class (For reference)					
EEI= $P_{cor}/P_{ref}$ (based on rated value)			EEI= $P_{cor}/P_{ref}$ (based on average value)		
0.13			0.13		
<input type="checkbox"/> A++ EEI ≤ 0.11	<input checked="" type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24	<input type="checkbox"/> A++ EEI ≤ 0.11	<input checked="" type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24

Table A-02: MJCTD02YL (cool white)				
<b>Lamp Efficiency Requirement</b>				
Rated Voltage: AC 220-240V Rated Wattage: Max.9W Test Voltage: 230V~, 50Hz				
The stabilization time: After 30 minutes in thermostatic stabilized photometric sphere, (stated by manufacturer)				
Sample No.	Lamp wattage P (W)	Luminous flux (lm)	Efficacy (lm/w)	$P \leq P_{max}$ $=0.6*(0.88\sqrt{\varnothing}+0.049\varnothing)$
1	6.35	400.90	63.13	22.36
2	6.25	396.80	63.49	22.18
3	6.30	400.05	63.50	22.32
4	6.38	403.62	63.26	22.47
5	6.39	402.51	62.99	22.43
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	6.33	400.78	63.27	22.35
Declared	--	--	--	--
Variation	--	--	--	--
Verdict	--	--	--	--

Energy Efficiency Class (For reference)					
EEI= $P_{cor}/P_{ref}$ (based on rated value)			EEI= $P_{cor}/P_{ref}$ (based on average value)		
--			--		
<input type="checkbox"/> A++ EEI ≤ 0.11	<input type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24	<input type="checkbox"/> A++ EEI ≤ 0.11	<input type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24

Table A-03: MJCTD02YL (warm white)				
Lamp Efficiency Requirement				
Rated Voltage: AC 220-240V Rated Wattage: Max.9W Test Voltage: 230V~, 50Hz				
The stabilization time: After 30 minutes in thermostatic stabilized photometric sphere, (stated by manufacturer)				
Sample No.	Lamp wattage P (W)	Luminous flux (lm)	Efficacy (lm/w)	$P \leq P_{max}$ $=0.6*(0.88\sqrt{\varnothing}+0.049\varnothing)$
1	5.68	421.87	74.27	23.25
2	5.71	425.30	74.48	23.39
3	5.74	424.81	74.01	23.37
4	5.66	416.16	73.53	23.01
5	5.68	418.92	73.75	23.12
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	5.69	421.41	74.01	23.23
Declared	--	--	--	--
Variation	--	--	--	--
Verdict	--	--	--	--

Energy Efficiency Class (For reference)					
EEI= $P_{cor}/P_{ref}$ (based on rated value)			EEI= $P_{cor}/P_{ref}$ (based on average value)		
--			--		
<input type="checkbox"/> A++ EEI ≤ 0.11	<input type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24	<input type="checkbox"/> A++ EEI ≤ 0.11	<input type="checkbox"/> A+ 0.11 < EEI ≤ 0.17	<input type="checkbox"/> A 0.17 < EEI ≤ 0.24

<b>Table B-01: MJCTD02YL</b>		
	<b>Starting time &amp; lamp warm-up time</b>	
	<b>Test voltage for starting time: 230V</b>	
	<b>Test voltage for lamp warm-up time: the rated voltage <u>230 V</u>;</b>	
Sample No.	Starting time (s)	Warm-up time (s) 95%
1	0.078	0.095
2	0.078	0.098
3	0.077	0.099
4	0.078	0.099
5	0.080	0.096
6	--	--
7	--	--
8	--	--
9	--	--
10	--	--
11	--	--
12	--	--
13	--	--
14	--	--
15	--	--
16	--	--
17	--	--
18	--	--
19	--	--
20	--	--
Average	0.078	0.097

<b>Table C-01: MJCTD02YL (nature white)</b>				
<b>Power factor &amp; Colour rendering &amp; Switching cycles</b>				
<b>Test voltage: <u>230</u> V</b>				
Sample No.	Power factor	Colour rendering (Ra)	Colour consistency (SDCM)	Switching cycles
1	0.5350	83	5.3	15000
2	0.5371	84	5.3	15000
3	0.5320	83	5.0	15000
4	0.5337	82	5.4	15000
5	0.5355	84	5.2	15000
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	0.5347	83	5.2	15000

<b>Table C-02: MJCTD02YL (cool white)</b>				
<b>Power factor &amp; Colour rendering &amp; Switching cycles</b>				
<b>Test voltage: <u>230</u> V</b>				
Sample No.	Power factor	Colour rendering (Ra)	Colour consistency (SDCM)	Switching cycles
1	0.5020	91	--	--
2	0.5008	90	--	--
3	0.5047	90	--	--
4	0.5042	91	--	--
5	0.5025	91	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	0.5028	91	--	--



<b>Table C-03: MJCTD02YL (warm white)</b>				
<b>Power factor &amp; Colour rendering &amp; Switching cycles</b>				
<b>Test voltage: <u>230</u> V</b>				
Sample No.	Power factor	Colour rendering (Ra)	Colour consistency (SDCM)	Switching cycles
1	0.4892	88	--	--
2	0.4883	87	--	--
3	0.4911	88	--	--
4	0.4904	88	--	--
5	0.4890	88	--	--
6	--	--	--	--
7	--	--	--	--
8	--	--	--	--
9	--	--	--	--
10	--	--	--	--
11	--	--	--	--
12	--	--	--	--
13	--	--	--	--
14	--	--	--	--
15	--	--	--	--
16	--	--	--	--
17	--	--	--	--
18	--	--	--	--
19	--	--	--	--
20	--	--	--	--
Average	0.4896	88	--	--

<b>Table D-01: MJCTD02YL</b>		
<b>Premature failure rate at 1000h</b>		
<b>Test voltage: <u>230</u> V</b>		
Sample total number for testing	Failure number at 1000h	Failure rate
5	0	0%

<b>Table E-01: MJCTD02YL</b>			
<b>Lumen maintenance after 6000h; Lamp survival factor at 6000h</b>			
<b>Test voltage: <u>230</u> V</b>			
Test condition: Cabinet temperature: <u>25</u> °C			
Sample No.	Life (h)	Luminous flux (lm) at 6000h	Lumen maintenance at 6000h
1	6000	--	--
2	6000	--	--
3	6000	--	--
4	6000	--	--
5	6000	--	--
6	6000	--	--
7	6000	--	--
8	6000	--	--
9	6000	--	--
10	6000	--	--
11	6000	--	--
12	6000	--	--
13	6000	--	--
14	6000	--	--
15	6000	--	--
16	6000	--	--
17	6000	--	--
18	6000	--	--
19	6000	--	--
20	6000	--	--
Average	6000	--	--
Survival factor	--		

-- End of report --