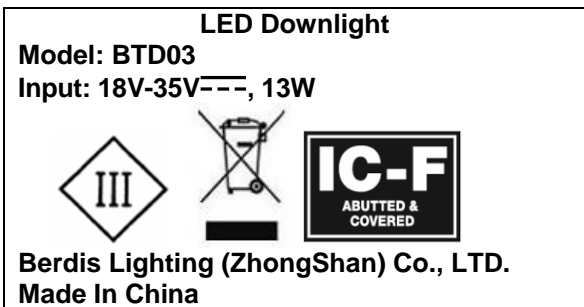





**TEST REPORT**  
**AS/NZS 60598.2.2**  
**LUMINAIRES**  
**--- SAFETY---**

**PART 2.2: Particular requirements- Recessed luminaires**

Report reference No .....	STR16018054S	
Tested by (+ signature) .....	Cage Luo	<i>Cage Luo</i>
Compiled by (+ signature) .....	Dena Zhang	<i>Dena Zhang</i>
Approved by (+ signature) .....	Ailis Ma	<i>Ailis Ma</i>
Date of issue .....	Jan. 14, 2016	
Testing laboratory .....	Shenzhen SEM.Test Technology Co., Ltd.	
Address .....	1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101)	
Testing location .....	As above	
Applicant .....	Berdis Lighting (ZhongShan) Co., LTD.	
Address .....	5F, No.10-12, South 2 <sup>nd</sup> Lane, Huasheng East Road, Caosan Industrial Park, Guzhen Town, Zhongshan City, Guangdong Province, China	
Standard .....	AS/NZS 60598.2.2:2001+Amd A+2011 used in conjunction with AS/NZS 60598.1: 2013	
Test Item .....	Annex ZA	
Procedure deviation .....	N.A	
Non-standard test method .....	N.A.	
<b>This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of SEM.Test.</b>		
Type of test object .....	LED Downlight	
Trademark .....	Berdis	
Manufacturer .....	Same as applicant	
Model/type reference .....	BTD03, B0103, B0102, BTD02, B0101, BTD01	
Rating .....	LED driver input: 200-240V~, 50-60Hz, 0.1A Output: 18V-35V $\overline{\text{---}}$ , 350mA LED Downlight: 18V-35V $\overline{\text{---}}$ , 13W	

<b>Summary of testing:</b>	
Tests performed (name of test and test clause): - AS/NZS 60598.2.2: 2001+Amd A+2011 - AS/NZS 60598.1:2013  The submitted samples were found to comply with the requirements of above specification.	Testing location:  1/F, Building A, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C (518101)
<b>Copy of label :</b>	
The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.	
 <p> <b>LED Downlight</b>  <b>Model: BTD03</b>  <b>Input: 18V-35V<sup>-</sup>, 13W</b>      <b>Berdis Lighting (ZhongShan) Co., LTD.</b>  <b>Made In China</b> </p>	
--The heights of graphical symbols aren't less than 5mm; -- the heights of letters and numerals either shown separately or with as part of symbols aren't less than 2mm.	
<b>Test item particulars</b> .....	
Classification of installation and use ..... : Recessed luminaires Supply Connection ..... : DC wire Protection class ..... : Class III	
<b>Possible test case verdicts:</b>	
- test case does not apply to the test object ..... : N (Not applicable) - test object does meet the requirement ..... : P (Pass) - test object does not meet the requirement ..... : F (Fail)	
<b>Testing:</b>	
Date of receipt of test item ..... : Jan. 08, 2016 Date(s) of performance of test ..... : Jan. 08, 2016 – Jan. 13, 2016 Degree of protection against moisture ..... : IP20	



**General remarks:**

The test results presented in this report relate only to the object tested.  
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

Clause numbers between brackets refer to clauses in AS/NZS 60598.1.

**General product information:**

The LED Downlight comprised of LED module and DC wire, supplied by an Integral LED driver  
All models are different only model names and appearance.

<b>Annex ZA</b>	<b>Thermal Test for type IC-F, IC, CA80 and CA135 recessed luminaires</b>	<b>P</b>
<b>Annex ZA.5</b>	<b>Normal test</b>	See below

Type reference.....	BTD03	—
Lamp used.....	LED	—
Lamp control gear used.....		—
Mounting position of luminaire.....		—
Supply wattage (W).....		—
Supply current (A).....		—
Calculated power factor.....		—
Table: measured temperatures corrected for ta = 25 °C:		—
Rated voltage	240Vx1.06=254.4V, 0.056A, 13.2W (test with LED driver)	—
temperature (°C) of part	temperature (°C)	limits
T1(1)	31.9	90
T1(2)	31.7	90
T1(3)	30.1	90
T2	25.0	90
T3	67.0	90
T4	74.8	80
ambient	24.6	--

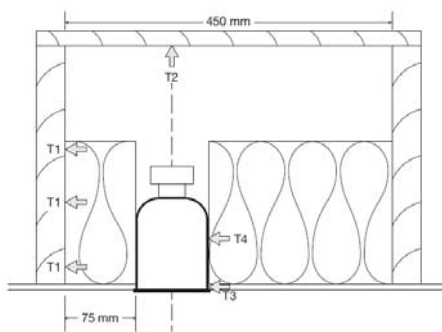


Figure ZA.1 – Test box for Type IC-F, IC, CA 80 and CA 135 luminaires

Table ZA.1 – Normal test – Maximum thermocouple temperatures

Thermocouple reference (figure ZA.1)	IC-F	IC	CA 80	CA 135
T1, T2, T3	90°C	90°C	90°C	90°C
T4	80°C	80°C	80°C	135°C



<b>Annex ZA.6</b>	<b>Abnormal test 1</b>	See below	P
	Type reference.....:	BTD03	—
	Lamp used.....:	LED	—
	Lamp control gear used.....:		—
	Mounting position of luminaire.....:		—
	Supply wattage (W).....:		—
	Supply current (A).....:		—
	Calculated power factor.....:		—
	Table: measured temperatures corrected for ta = 25 °C:		—
	Rated voltage	240Vx1.1=264V, 0.056A, 13.2W (test with LED driver)	—
temperature (°C) of part	temperature (°C)		limits
T1(1)	32.3		90
T1(2)	30.3		90
T1(3)	29.4		90
T2	25.7		90
T3	66.1		90
T4	73.7		90
Ambient	24.5		--

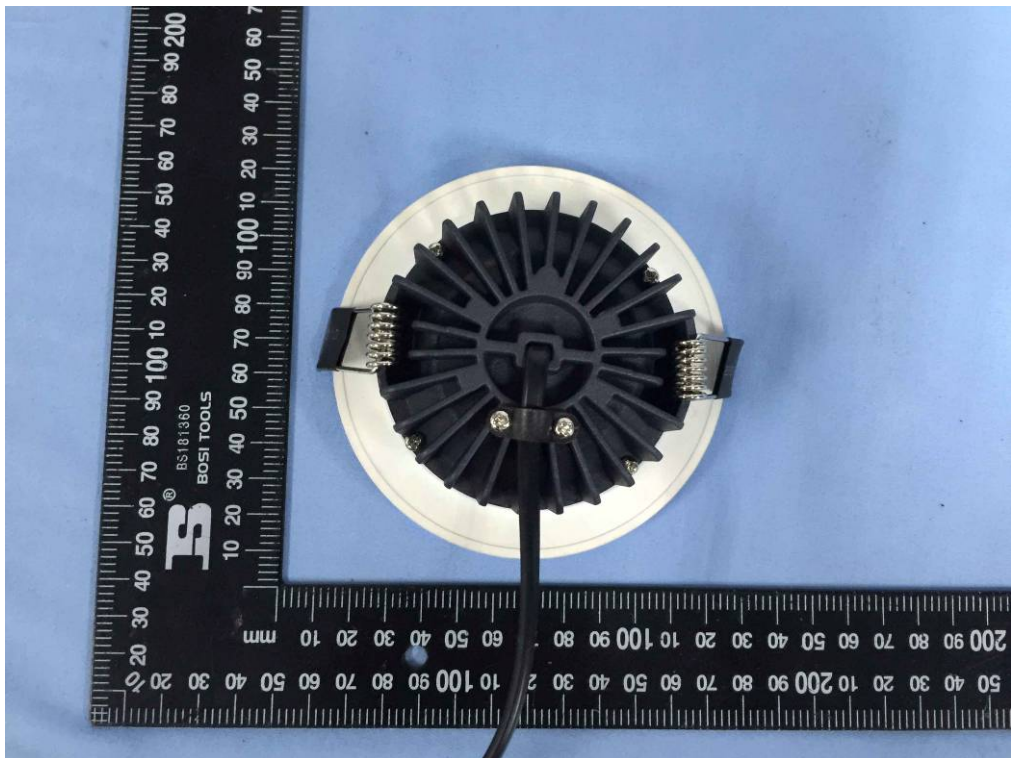
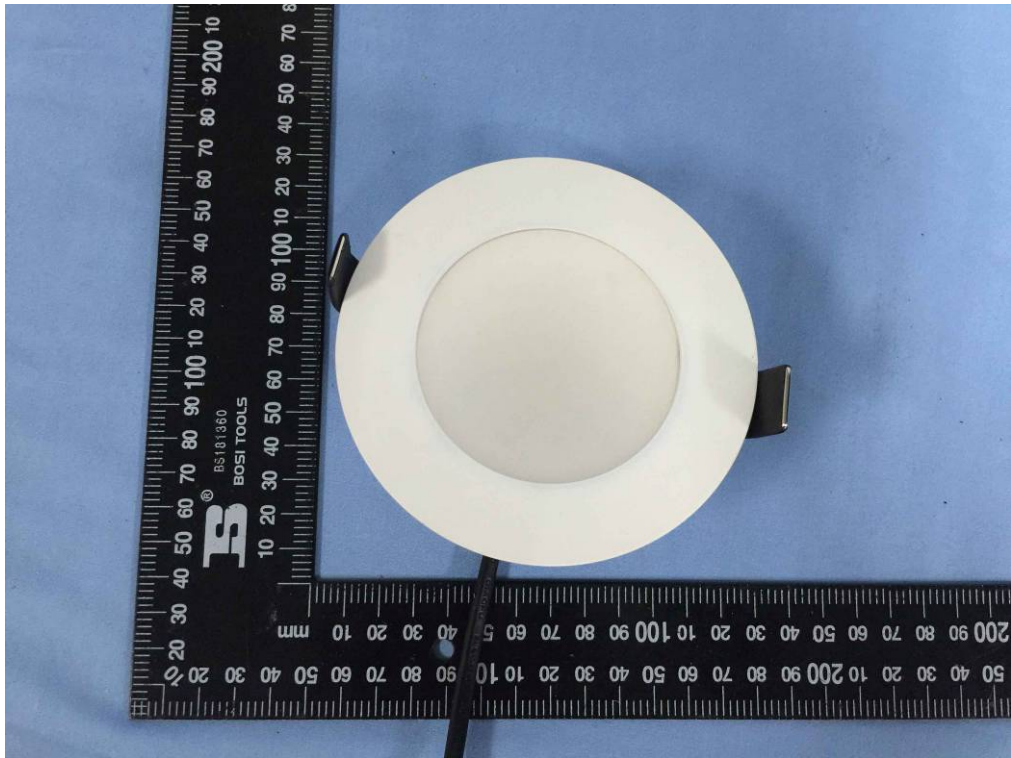
**Table ZA.2 – Abnormal test 1 – Maximum thermocouple temperatures**

Thermocouple reference (figure ZA.1)	IC-F	IC	CA 80	CA 135
T1, T2, T3	90°C	90°C	90°C	90°C
T4	90°C	90°C	90°C	150°C

## Photos

Model: BTDO3





--- END OF REPORT ---