

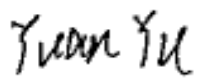
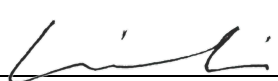




Test Report issued under the responsibility of:



TEST REPORT IEC 62384 DC or AC supplied electronic control gear for LED modules Performance requirements	
Report Number.....	6120041.51
Date of issue.....	2021-11-23
Total number of pages	14 (including this page 1)
Name of Testing Laboratory preparing the Report	DEKRA Testing and Certification (Shanghai) Ltd.
Applicant's name	Signify Netherlands B.V.
Address.....	High Tech Campus 48, 5656 AE Eindhoven, The Netherlands.
Test specification:	
Standard	IEC 62384:2006, AMD1:2009
Test procedure	CB Scheme
Non-standard test method	N/A
Test Report Form No.	IEC62384C
Test Report Form(s) Originator	IMQ S.p.A.
Master TRF	Dated 2019-05-07
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General disclaimer:	
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Test item description	LED driver
Trade Mark	PHILIPS
Manufacturer	Signify Netherlands B.V. High Tech Campus 48, 5656 AE Eindhoven, The Netherlands.
Model/Type reference	Xi SR 75W 2:0.3-1.0A SNEMPF C170 sXt
Ratings	Pin: 87W; Uin: 220-240V~; Iin: 0,38-0,34A~; fn: 50/60Hz; PF: 0,95; Uin: 186-250Vdc; Iin: 0,3-0,2Adc; Pout: 75W; Uout: 35-108Vdc; Iout: 300-1050mA; ta: -40...+55°C; ISR:52-60mA tc(max): 90°C; Uout (open circuit): 170Vmax; Built-in; isolating

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	CB Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd.
Testing location/ address.....:		3F, #250 Jiangchangsan Road, Building 16, Headquarter Economy Park Shibei Hi-Tech Park, Jing'an District, Shanghai, 200436, China
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
Testing location/ address.....:		
Tested by (name + signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature)....:		
<input checked="" type="checkbox"/>	Testing procedure: CTF Stage 3:	Signify (China) Investment Co., Ltd. Standard Testing Laboratory
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
Testing location/ address.....:		Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233, China
Tested by (name, function, signature)		Yu Yuan 
Witnessed by (name, function, signature)		Lix Li 
Approved by (name, function, signature)		Xiaojun Mao 
Supervised by (name, function, signature)		Lix Li 

List of Attachments (including a total number of pages in each attachment): N/A	
Summary of testing:	
Tests performed (name of test and test clause): 6111136.51 – Original report Full type testing according to the IEC 62384 requirements. 6120041.51 – Amendment 1 report No further test was considered necessary.	Testing location: Signify (China) Investment Co., Ltd. Standard Testing Laboratory Building no.9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233, China
Summary of compliance with National Differences (List of countries addressed): EU Group Differences <input checked="" type="checkbox"/> The product fulfils the requirements of IEC 62384:2006, AMD1:2009 Note: There are no differences between the IEC 62384:2006 + A1:2009 compared to the EN 62384:2006 + A1:2009.	

Copy of marking plate

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.


SimpleSet
→


PHILIPS


XITANIUM™


Xi SR 75W 2:0.3-1.0A SNEMPF C170 sXt


9290 028 272







 Signify IBRS 10461, 5600VB, NL


 05


 D4


 UK
CA



Excl. high risk task areas *_{tc}

Configurable Constant Current LED Driver

Pin : 87 W	PF : 0.95
Uin : 220-240 V	Pout : 75 W
Iin : 0.38-0.34 A	Uout : 35-108 V
Uin : 186-250V $\overline{=}$	Iout : 300-1050 mA
Iin : 0.3-0.2 A $\overline{=}$	tc(max) : 90° C
fn : 50/60 Hz, DC	
ta : -40...+55 °C	
ISR : 52-60 mA	

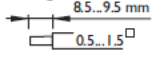
Uout (open circuit) = 170 Vmax

- Equipotential terminal double insulated
- Always connect equipotential terminal for optimal surge protection
- To prevent water traps do not mount the connectors upwards
- Operational Uin per MainsGuard 80-190Vac

Lexis Code

 Made in Poland
 XXX YYWW

Wiring: 85...95 mm



LED- CW	LED+ CW	LED- WW	LED+ WW	DA- / SGND	DA +	AUX	NTC SIG	NTC COM	EQUI	N	L
9	8	7	6	5	4	3	2	1	□	□	□

Test item particulars: --	
Classification of installation and use: Built-in	
Supply Connection: Terminal block	
.....:	
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)	
Testing: --	
Date of receipt of test item: 2021-11-01	
Date (s) of performance of tests: 2021-11-01 ~ 2021-11-11	
General remarks:	
<p>"(See Enclosure #)" refers to additional information appended to the report.</p> <p>"(See appended table)" refers to a table appended to the report.</p> <p>The measurement result is considered in conformance with the requirement if it is within the prescribed limit. It is not necessary to calculate the uncertainty associated with the measurement result.</p> <p>The test results presented in this report relate only to the object tested.</p> <p>The information provided by the customer in this report may affect the validity of the results, the test lab is not responsible for it.</p> <p>This report shall not be reproduced, except in full, without the written approval.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p> <p>The project performed under CTF program is not covered by DEKRA's 17025 RvA accreditation.</p>	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60060-2:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies): Signify Poland Sp. z.o.o. ul Przemyslowa 29, 64-920 Pila, Poland	

General product information and other remarks:

The Xitanium LED Outdoor FlexTune driver is designed to operate a string of serial and parallel connected LEDs by means of current controlled output. It is suitable for nominal 202V to 254V 50Hz/60Hz mains supply. The LED driver is equipped with a dual reinforced isolated Class 2 output and is designed to be used in outdoor luminaires and to operate 2 white color strings (Cool White and Warm White, from 2200k to 6500k) to allow tunable color temperature, DALI Part 209 (Device Type 8). Alternatively, the two driver output channels of the SR FlexTune LEDXtreme driver can be controlled independently per DALI Part 207 (2x Device Type 6) in case CCT control is not required.

The topology contains an AC/DC off-line switch mode power supply. It consists of an input stage with EMI suppression, a Power Factor Corrector (PFC) stage followed by two DC/DC converters with current control.

It is designed to operate a series of LEDs by means of current controlled output. The operating window of this driver is limited by a minimum and maximum voltage, minimum and maximum current and minimum and maximum power. All performance specifications are guaranteed within this operating window, and any LED load which is specified to be within this operating window can be connected to the driver and will be operated according to the performance specifications. The LED current can be set within a range by means of SR (DALI) or NFC SimpleSet. Furthermore, NFC SimpleSet allows for configuration of key driver parameters (e.g. CLO, MTP, DynaDim)

Dimming is possible through the SR interface. Dimming range is 10%...100%. The SR interface provides power for a RF/Sensor. Final configuration of the output current and LED array information can be done through, the SR interface or the Philips SimpleSet NFC interface in the OEM production facility.

An auxiliary power supply provides a higher power than can be provided through the DALI bus power supply; this is intended for OLC controllers with GPRS or GPS.

The driver is certified with D4i. D4i extends the existing DALI-2 certification program with additional features and functions, creating new possibilities for DALI in the IoT world.

Description of SNEMP in the product name:

S = Simple set

N = MTP

E = DC operation

M = Energy metering

P = Aux power supply

F = FlexTune

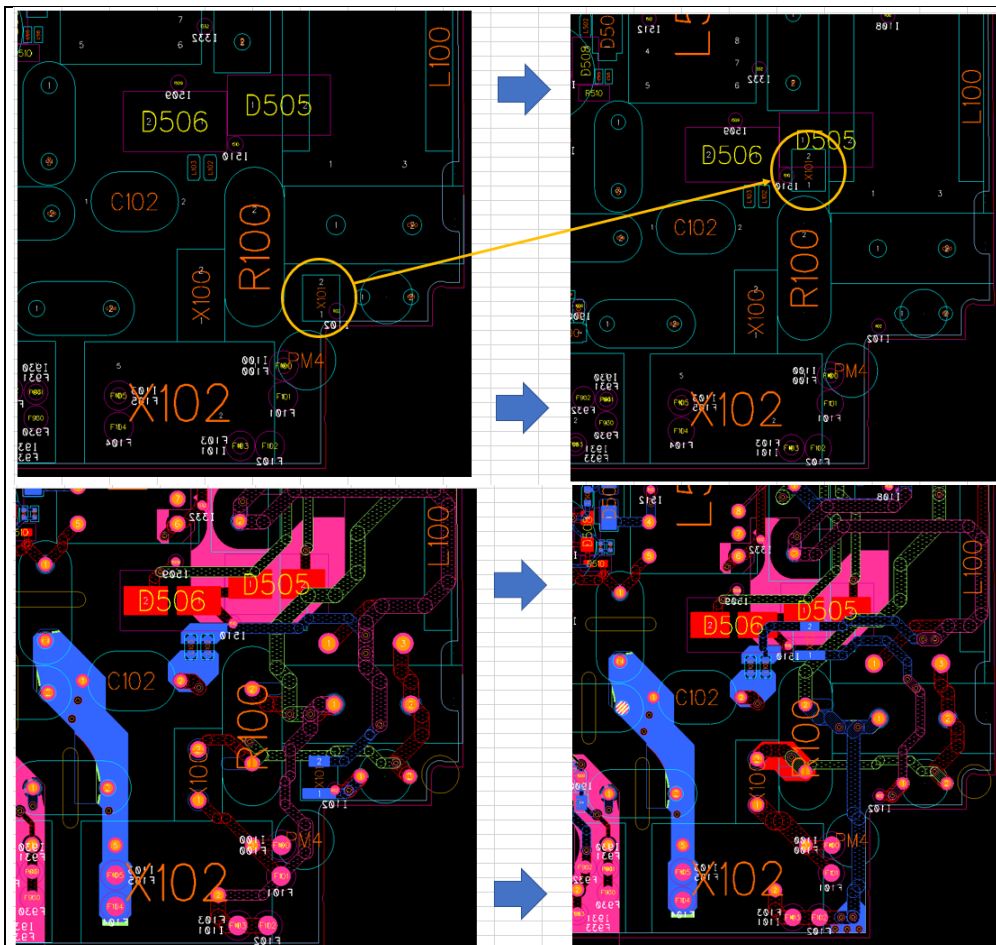
The insulation between input and output, input and DALI are considered as reinforced insulation.

LED driver is completely potted with asphalt

Amendment 1 report:

This report is issued to supersede the original test report 6111136.51 dated 2020-08-25 with the ENEC certificate 31- 120413 dated 2020-08-29 and the CB certificate NL-75952 dated 2020-09-08 to include the following changes:

1. **Update the PCB layout**



Due to these changes, no further test was considered necessary.

IEC 62384			
Clause	Requirement + Test		Verdict
5	CLASSIFICATION		P
5.1	Classification according to the load		P
	a) Single value load control gear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	P
	b) Multiple value load control gear.....	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	P
5.2	Classification according to the output voltage		P
	a) Control gear with stabilized output voltage	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
	b) Control gear without stabilized output voltage	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	P
5.3	Classification according to the output current		P
	a) Control gear with stabilized output current.....	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	P
	b) Control gear without stabilized output current	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
6	MARKING		P
6.1	Mandatory marking	Xi SR 75W 2:0.3-1.0A SNEMPF C170 sXt	P
6.1.1	Circuit power factor	0,95	P
6.1.2	a) temperature range	-40 °C...+55 °C	P
	b) stabilized output voltage		N/A
	c) stabilized output current.....	0,3-1,05 A	P
	d) operation with a mains supply dimmer.....		N/A
	e) operation mode		N/A
6.2	Optional markings		P
	Total circuit power	87 W	P
	b) Z symbol.....		N/A
	c) short-circuit proof type control gear.		N/A
7	OUTPUT VOLTAGE AND CURRENT		P
7.1	Starting and connecting requirements		P
	The output should be within 110% of the rated value within 2 s		P
7.2	Voltage and current during operation		P
	- For non-stabilized output voltage, when supplied with the rated supply voltage, the output voltage shall not differ by more than $\pm 10\%$ of the rated voltage	See Appendix 1	P
	- For stabilized output voltage, when supplied between 92% and 106% of the rated supply voltage, the output voltage shall not differ by more than $\pm 10\%$ of the rated value		N/A

IEC 62384			
Clause	Requirement + Test	Result - Remark	Verdict
	- For non-stabilized output current, when supplied with the rated supply voltage, the output current shall not differ by more than $\pm 10\%$ of the rated voltage		N/A
	- For stabilized output current, when supplied between 92% and 106% of the rated supply voltage, the output current shall not differ by more than $\pm 10\%$ of the rated value	See Appendix 1	P
7.3	Capacitive load requirement		P
(A.2 fig. A.1a)	- The LED module or any additional control unit shall not disturb the control gear overcurrent detection		P
(A.2 fig. A.1b)	- The LED module or any additional control unit shall not disturb the starting process of the control gear		P
7.4	Voltage surges during switching and operation		N/A
	Voltage surges superimposed on the output voltage shall not exceed the values.....:	Under consideration	N/A
8	TOTAL CIRCUIT POWER		P
	The total circuit power shall not be more than 110% of the value declared by the manufacturer	See Appendix 1	P
9	CIRCUIT POWER FACTOR		P
	The measured circuit power factor shall not differ from the marked value by more than 0,05	See Appendix 1	P
10	SUPPLY CURRENT		P
	The supply current shall not differ by more than +10% from the marked value	See Appendix 1	P
11	IMPEDANCE AT AUDIO –FREQUENCIES (Appendix A, A.3)		N/A
	Audio frequency impedance (400 Hz - 2000 Hz)		N/A
12	OPERATIONAL TESTS FOR ABNORMAL CONDITIONS		P
	a) without LED module(s) inserted		P
	at the end of this test the lamps(s) shall operate normally		P
	b) test for reduced LED module resistance	Under consideration	N/A
	c) Short-circuit proof control gear		P
	After the tests and after restoration of a protecting device, function normally		P
13	ENDURANCE		P
13.1	a) temperature cycling shock test.....:	-40 °C and 90 °C 1 hour for each	P
	5 cycles are carried out		P
	b) supply voltage switching test.....:	230 V / 50 Hz	P

IEC 62384			
Clause	Requirement + Test	Result - Remark	Verdict
	1000 cycles are carried out	1000 cycles with load, 200 without load and 800 cycles with load.	P
13.2	The control gear shall then be operated at rated supply voltage and in ambient temperature which produces t_c , until a test period of 200 h has elapsed	In an oven at t_c 90 °C for 200 hours	P
	at the end of this time the ballast shall correctly start and operate for 15 min		P

14	TABLE: audio frequency impedance (400 Hz – 2000 Hz)				N/A
fr (Hz)	Ur (V)	fs (Hz)	Z (Ω)	Remarks	
supplementary information:					

14	TABLE: audio frequency impedance (250 Hz – 400 Hz)				N/A
fr (Hz)	Ur (V)	fs (Hz)	Z (Ω)	Remarks	
supplementary information:					

Appendix 1

AC:

Input parameters

Item	Un	Pm	Pr	Pm/Pr	Im	Ir	Im/Ir	PFm	PFR
Unit	V	W	W	%	A	A	%	-	-
1	220	88,44	87	101,7	0,411	0,34~0,38	108,2	0,977	0,95
2	240	88,25	87	101,4	0,379	0,34~0,38	99,7	0,971	0,95
3	220	86,76	87	99,7	0,404	0,34~0,38	106,3	0,976	0,95
4	240	86,7	87	99,7	0,372	0,34~0,38	97,9	0,97	0,95

Output parameters

Item	Un	Um	Ur	Um/Ur	Im	Ir	Im/Ir
Unit	V	V	V	%	A	A	%
1	202,4	108,25	108	100,2	0,7172	0,694	103,3
2	254,4	108,26	108	100,2	0,717	0,694	103,3
3	202,4	71,63	71,4	100,3	1,0781	1,05	102,7
4	254,4	71,55	71,4	100,2	1,0778	1,05	102,6

Note: the subscripts stand for Un - input nominal, m - measured, r - rated,

Appendix 1 (continued)

DC:

Input parameters

Item	Un	Pm	Pr	Pm/Pr	Im	Ir	Im/Ir	PFm	PFR
Unit	V	W	W	%	A	A	%	-	-
1	186,1	54,54	/	/	0,299	0,2~0,3	99,7	/	/
2	250,4	54,39	/	/	0,224	0,2~0,3	112	/	/
3	186,1	52,95	/	/	0,291	0,2~0,3	97	/	/
4	250,5	52,84	/	/	0,218	0,2~0,3	109	/	/

Output parameters

Item	Un	Um	Ur	Um/Ur	Im	Ir	Im/Ir
Unit	V	V	V	%	A	A	%
1	167,0	108,7	108	100,6	0,442	0,417	106
2	275,4	108,7	108	100,6	0,442	0,417	106
3	167,0	72,12	71,4	101	0,654	0,63	103,8
4	275,5	72,1	71,4	101	0,655	0,63	104

Note: the subscripts stand for Un - input nominal, m - measured, r - rated.

Appendix 2: Photo



Xi SR 75W 2:0.3-1.0A SNEMPF C170 sXt
For label refer to “copy of marking plate”

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