

Test Report issued under the responsibility of :



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## TEST REPORT

**Report Reference No.** .....: 2199398.50

Tested by (name + signature) .....: G.W.J. Zeegers

Approved by (name + signature) .....: T.H.J.M. Michels

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Contents / enclosures .....: 15

**Testing Laboratory** .....: DEKRA Certification B.V.

Testing location / address .....: Meander 1051, 6825 MJ Arnhem, The Netherlands

**Applicant** .....: Valk-Agro VOF

Address .....: Steeg 4, 5446 Xn Wanroij, The Netherlands

### Test specification:

Standard(s) .....: EN 60598-2-24:2013

(in conjunction with EN 60598-1:2015)

Test procedure .....: Basic safety test  Screen test  Quick scan   
Basic EMC test  Flash test  temperature test

**Test object description** .....: T8 LED tube

Trade Mark .....: Valk-Agro

Manufacturer .....: Valk-Agro VOF

Model/Type reference .....: VA01.15.60.25W.T

Ratings .....: 100 - 240 V, 50/60 Hz, 25 W, IP67, Class II

**Number of test objects** .....: 3

### Possible test case verdicts:

- test case does not apply to the test object...: N/A

- test case is not checked to the test object...: N/C

- test object does meet the requirement.....: P(Pass)

- test object does not meet the requirement...: F(Fail)

**Test program** .....: The test object has been submitted to a test program  
as mentioned on the next page.

### Summary of test results:

Our confined test programme gave rise to the following remarks:

No remarks

**The test results shown in this report relate only to the tests performed according to the test program. The test object has not been submitted to a full test program.**

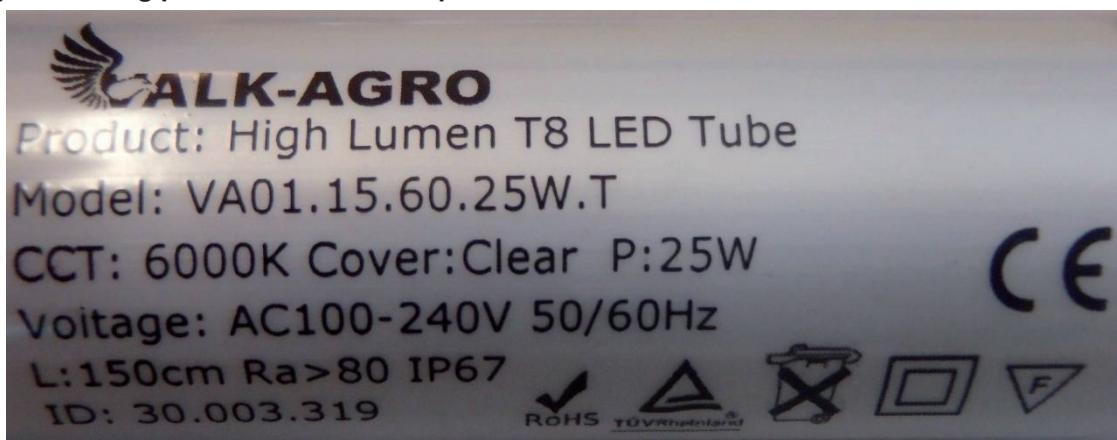
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**Test program :**

The following marked clauses of standard EN 60598-2-24 have partially been checked:

<b>24.6</b>	Marking	<input type="checkbox"/>
<b>24.7</b>	Construction	<input type="checkbox"/>
<b>24.8</b>	Creepage distances and clearances	<input type="checkbox"/>
<b>24.9</b>	Provision for earthing	<input type="checkbox"/>
<b>24.10</b>	Terminals and electrical connections	<input type="checkbox"/>
<b>24.11</b>	External and internal wiring	<input type="checkbox"/>
<b>24.12</b>	Protection against electric shock	<input type="checkbox"/>
<b>24.13</b>	Endurance test and thermal test	<input checked="" type="checkbox"/>
<b>24.14</b>	Resistance to dust, solid objects and moisture	<input type="checkbox"/>
<b>24.15</b>	Insulation resistance and electric strength	<input type="checkbox"/>
<b>24.16</b>	Resistance to heat, fire and tracking	<input type="checkbox"/>

**Note:**

**Copy of marking plate or identification photo:****General product information:**

T8 LED tube

Valk-Agro LED Tubes are available in;

- 120cm and 150cm length.
- Lightcolors 4000K (= white light) en 6000K (= cold daylight)
- Transparant – and frosted versions ( $\pm$  15-20% less light).

**Test results:**

Clause	Requirement + Test	Result - Remark	Verdict
<b>24.13 (12)</b>	<b>ENDURANCE TEST AND THERMAL TEST</b>		P
24.13 (-)	Relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 24.14		—
24.13 (12.3)	Endurance test:		N/C
24.13 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
24.13 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
24.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
24.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) ..... :		—
	- case of abnormal conditions ..... :		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un .... :		—
	- measured mounting surface temperature (°C) at 1,1 Un..... :		N/A
	- calculated mounting surface temperature (°C) .... :		N/A
	- track-mounted luminaires		N/A
24.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions ..... :		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C) ..... :		N/A
	- track-mounted luminaires		N/A
24.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
24.13 (12.7.1)	Luminaire without temperature sensing control		N/A
24.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W ..... :		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions ..... :		—
	- Ballast failure at supply voltage (V) ..... :		—

	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions ..... :		—
	- measured winding temperature (°C): at 1,1 Un ..... :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un ..... :		—
	- calculated temperature of fixing point/exposed part (°C) ..... :		—
	Ball-pressure test ..... :	See Table 24.16 (13.2.1)	N/A
24.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions ..... :		—
	- measured winding temperature (°C): at 1,1 Un ..... :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un ..... :		—
	- calculated temperature of fixing point/exposed part (°C) ..... :		—
	Ball-pressure test ..... :	See Table 24.16 (13.2.1)	N/A
24.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions ..... :		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
24.13 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link ..... :	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out ..... :	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out ..... :	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions ..... :		—
	- highest measured temperature of fixing point/exposed part (°C): ..... :		—
	Ball-pressure test: ..... :	See Table 24.16 (13.2.1)	N/A
24.13 (-)	Temperature limit for vertical surfaces with gap < 30 mm	(see Annex 2)	N/A
24.13.1 (-)	Special temperature limits – normal operation	(see Annex 2)	P
24.13.2 (-)	Special temperature limits – abnormal operation	(see Annex 2)	N/A
24.13.3 (-)	Special temperature limits – fault conditions	(see Annex 2)	N/A

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		P
	Type reference .....	VA01.15.60.25W.T	—
	Lamp used.....	Leds	—
	Lamp control gear used.....	--	—
	Mounting position of luminaire .....	As required	—
	Supply wattage (W) .....		—
	Supply current (A) .....		—
	Calculated power factor.....		—
	Table: measured temperatures corrected for $ta = 25^{\circ}\text{C}$ :		
	- abnormal operating mode .....	240	—
	- test 1: rated voltage.....	100 V and 240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage .....	254,4 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	N/A	—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage .....	264 V, no fault conditions	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	N/A	—

#### Temperature measurements, ( $^{\circ}\text{C}$ )

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1 (100 V)	test 1 (240 V)	test 2	limit	test 4	limit
Horizontal surface at driver	25	44,4	44,1	44,4	90	44,6	115
Horizontal surface at middle of the tube	25	35,9	37,1	37,4	90	37,6	115
Horizontal surface at the end of the tube	25	35,9	37,5	37,7	90	37,9	115
Verticale surface at driver	25	43,4	42,0	42,2	150	42,4	150
Verticale surface at the middle of the tube	25	36,6	37,8	38,0	150	38,3	150
Verticale surface at the end of the tube	25	34,7	36,3	36,5	150	36,7	150
Supplementary information:							

**Pictures:**