

# MANUFACTURER'S DECLARATION OF CONFORMITY CERTIFICATE OF CONFORMITY

#### Manufacturer

Solutions4GA Sp. Z o.o. Sylwestra Kaliskiego 57 01-476 Warsaw, Poland

#### **Product details**

Airport lamp: model SP-401, Battery LED, Battery parameters: 2 x 12V DC / 9Ah VRLA Charging parameters: 24V DC, 1A, Radio band: UHF

Charger: model OCT-401 Input parameters: 88-264V AC, 275 W, Output parameters: 24 V DC, 10A.

<u>Photovoltaic panel</u>: model CL020-12, Rated parameters: 17,5V DC, 20W, 1,15 A

### **Declaration & Applicable standards**

We hereby declare, that product above was tested by third-party accredited laboratory for compliance with the essential requirements of emission.



Based upon the results obtained, it was confirmed that SP-401 airfield lamp subject to test along with OCT-401 AC charger and photovoltaic panel <u>meet requirements</u> of electromagnetic as per the specification shown in table 1.

Table 1. Test results

No.	Test name	Requirement standard	Result	Report no.
1.	AC mains ports disturbance voltage test	PN-EN 61000-6-3:2008	Positive	18/2020
2.	EM field disturbane electric component intensity test	PN-EN 61000-6-3:2008 + A1:2012	Positive	18/2020
3.	Harmonic emission test	PN-EN 61000-6-3:2008 + A1:2012 PN-EN 61000-3-2: 2014-10	Positive	34/2019
4.	Voltage fluctuation and flicker test	PN-EN 61000-6-3:2008 + A1:2012 PN-EN 61000-3-3: 2013-10	Positive	34/2019
5.	Electrostatic discharge immunity test	PN-EN 61000-6-1:2008	Positive	34/2019
6.	Radiated, radio-frequency, electromagnetic field immunity test	PN-EN 61000-6-1:2008	Positive	34/2019
7.	Electrical fast transient/burst immunity test	PN-EN 61000-6-1:2008	Positive	34/2019
8.	Surge immunity test	PN-EN 61000-6-1:2008	Positive	34/2019
9.	Radio-frequency induced, conducted disturbance immunity test	PN-EN 61000-6-1:2008	Positive	34/2019
10.	Magnetic field imunity test	PN-EN 61000-6-1:2008	Positive	34/2019
11.	Voltage dips, short interruptions and voltage variations immunity test	PN-EN 61000-6-1:2008	Positive	34/2019

Confirmation of compliance with the requirements mentioned above are the tests reports no. 34/2019, 18/2020, carried out at the Military Institute of Armament Technology.

Warsaw, Poland, 6/04/2020

**R&D** Manager

Robert Stankiewicz



#### MILITARY INSTITUTE OF ARMAMENT TECHNOLOGY

INSTITUTE LABORATORY – LABORATORY COMPLEX ul. Prym. St. Wyszyńskiego 7, 05-220 ZIELONKA tel. 22 / 76 14 422 accredited by the Polish Centre for Accreditation

PCA accreditation centre no. AB 171

EMC AND EM FIELD TESTING LABORATORY

CONTRACT (ORDER) NO.

16/B5/2019/B511/192/00

TEST REPORT NO. 34/2019

Issue date

23.12.2019 г.

## SP-401 AIRFIELD LAMP EMC TEST REPORT

Signature of a person in charge Report ref. of the test: /-/ illegible signature Page: Copy 34/2019



#### V. FINAL REMARKS

Based upon the results obtained, it was found that SP-401 airfield lamp subject to test, <u>does not meet requirements</u> of conducted emissions and radiated emissions. Results of individual tests are shown in the table 18.

Table 18. Test results

No.	Test name	Requirement standard	Result
4	AC mains ports disturbance voltage test	PN-EN 61000-6-3:2008 + A1:2012	Negative
2.	EM field disturbance electric component intensity test	PN-EN 61000-6-3:2008 + A1:2012	Negative
3.	Harmonic emission test	PN-EN 61000-6-3:2008 + A1:2012 PN-EN 61000-3-2:2014-10	Positive
4.	Voltage fluctuation and flicker test	PN-EN 61000-6-3:2008 + A1:2012 PN-EN 61000-3-3:2013-10	Positive
5.	Electrostatic discharge immunity test	PN-EN 61000-6-1:2008	Positive
6.	Radiated, radio-frequency, electromagnetic field immunity test	PN-EN 61000-6-1:2008	Positive
7.	Electrical fast transient/burst immunity test	PN-EN 61000-6-1:2008	Positive
8.	Surge immunity test	PN-EN 61000-6-1:2008	Posítive
9.	Radio-frequency induced, conducted disturbance immunity test	PN-EN 61000-6-1:2008	Positive
10.	Magnetic field immunity test	PN-EN 61000-6-1:2008	Positive
11,	Voltage dips, short interruptions and voltage variations immunity test	PN-EN 61000-6-1:2008	Positive

Test results contained in this report refer to the device subject to test only.

When necessary, this report may be reproduced in full and upon consent of the Head of EMC and EM Field Measurement Laboratory only.

Waldemar FRANKIEWICZ MSc, is responsible for preparing the subject matter part of this report.

A person conducting the test: Waldemar FRANKIEWICZ MSc /-/ illegible signature

A person authorising the report
Artur DŁUŻNIEWSKI MSc /-/ illegible signature

Head of testing laboratory
Waldemar FRANKIEWICZ MSc /-/ illegible signature

Head of Institute Laboratory Eugeniusz MILEWSKI MSc, PhD

#### Printed in 2 copies

Copy no. 1 – BORNICO Electronic Plant, Radom Copy no. 2 – WITU Archive

Waldemar Frankiewicz, tel. 22 76 14 561 Fax 22 76 14 574 Date 16.12.2019 B5.5200 "Bc"

	Signature of a person in charge of testing: /-/ illegible signature	Page:	Сору:
34/2019		45/45	1

Index No. 1044/2020. Radom, 6 April 2020. 2700 zzs. Certified to be a true translation of the original document issued in Polish – Pawel Majchrzyk – sworn translator of English.

TAIMAGZ PRZYSIĘGLY IRDYE Projestycego Ingr Powel Aids Fron





#### MILITARY INSTITUTE OF ARMAMENT TECHNOLOGY

INSTITUTE LABORATORY – LABORATORY COMPLEX ul. Prym. St. Wyszyńskiego 7, 05-220 ZIELONKA tel. 22 / 76 14 422 accredited by the Polish Centre for Accreditation

PCA accreditation centre no. AB 171

EMC AND EM FIELD TESTING LABORATORY

CONTRACT (ORDER) NO.

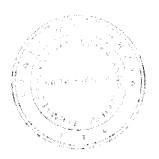
19/2020/B45/07/026

TEST REPORT NO. 18/2020

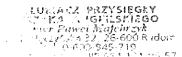
Issue date

11.03.2020 r.

### SP-401 AIRFIELD LAMP WITH OCT-401 AC CHARGER AND PHOTOVOLTAIC PANEL OF SOLUTIONS4GA SP. Z O.O. EMC TEST REPORT



	Signature of a person in charge		
Report ref.	of the test: /-/ illegible signature	Page:	Сору
18/2020		1/20	1



#### V. FINAL REMARKS

Based upon test results obtained, it was found that SP-401 airfield lamp subject to test along with OCT-401 AC charger and photovoltaic panel <u>meets</u> requirements of emissions as per the specifications shown in the table 3.

Table 3. Test results

No.	Test name	Requirement standard	Result
	AC mains ports disturbance voltage test		
1.		PN-EN 61000-6-3:2008 + A1:2012	Positive
2.	EM field disturbance electric component intensity test	PN-EN 61000-6-3:2008 + A1:2012	Positive

Test results contained in this report refer to the device subject to test only.

When necessary, this report may be reproduced in full and upon consent of the Head of EMC and EM Field Measurement Laboratory only.

Waldemar FRANKIEWICZ MSc is responsible for preparing the subject matter part of this report.

A person conducting the test: Krzysztof WOJTASIEWICZ MSc /-/ illegible signature

A person authorising the report:
Artur DŁUŻNIEWSKI MSc /-/ illegible signature

Head of testing laboratory
Waldemar Frankiewicz MSc /-/ illegible signature

Head of Institute Laboratory
Eugeniusz MILEWSKI MSc, PhD /-/ illegible signature

Printed in 2 copies
Copy no.1 – "Bornico" Maciej Bornikowski
Copy no.2 – WITU Archive

W. Frankiewicz Date: 11.03.2020 Tel. 22 76 14 561 B4.5200 "A"

Report ref. Signature of a person conducting test Page Copy 18/2020 /-/ illegible signature 20 1

Index No. 1045/2020. Radom, 6 April 2020. Certified to be a true translation of the original document issued in Polish – Pawel Majchrzyk – sworn translator of English.

