

## 1 General information

- 1.1 Report n°: 55 0321 10, Vers. 0
- 1.2 Date of report: 01.12.10
- 1.3 Prepared by: Paolo Frigerio - TÜV Rheinland Italy
- 1.4 Main reference norm: EN 13032
- 1.5 Equipment under test: Street luminaire
- 1.6 Manufacturer: P.A.C. circuiti stampati s.r.l.  
Via Del Lavoro, 271  
37050 – Angiari (VR)
- 1.7 Applicant's name and address: P.A.C. circuiti stampati s.r.l.  
Via Del Lavoro, 271  
37050 – Angiari (VR)
- 1.8 Type: LS81-25
- 1.9 Tested versions: -
- 1.10 Functions: Street luminaire

The test results and observations indicated in this test report refer exclusively to the samples tested. It is not permitted to transfer the results to other systems or configurations.

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## 2 Tests and results:

Description of test	Test procedure	Performance criteria	Result
Intensity distribution	EN 13032 2004.01	-	-
IP 6X	CEI EN 60529 2001.02.01	Visual Inspection	PASS
IP X6		Visual Inspection	PASS

## 3 Note:

- 3.1 The Test Report comprises 7 pages, 5 of which are appendix.  
The English version is the only official version of this test report.

Ponte S. Marco, 01.12.2010

Paolo Frigerio  
Project Engineer

## **Intensity distribution**

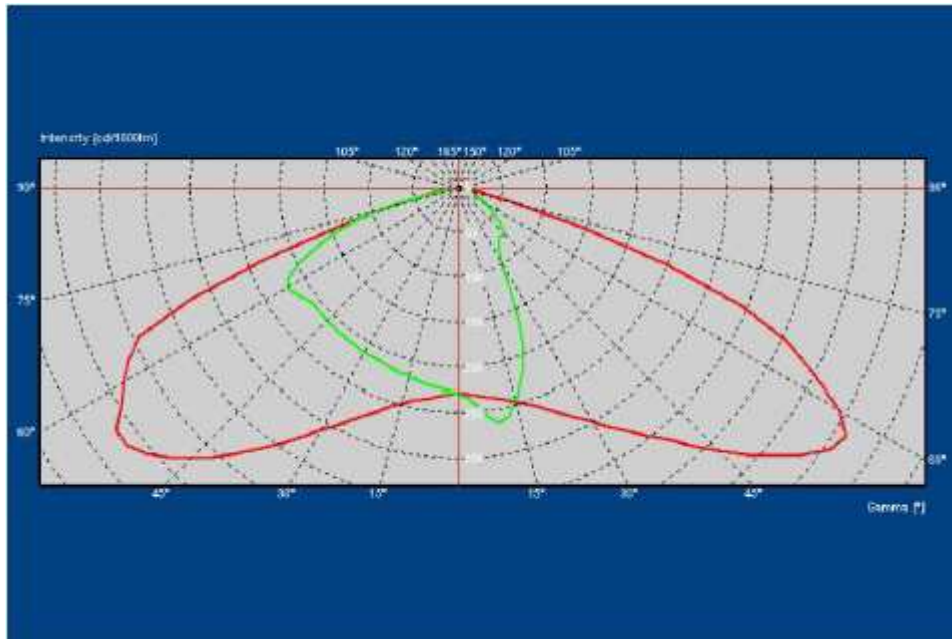
## Appendix 1

### **1 General informations**

- 1.1 Reference norm(s) EN 13302
- 1.2 Equipment under test: Street luminaire
- 1.3 Type: LS81-25

### **2 Test specifications:**

- 2.1 Place of test: INTEK  
Via Mazzini, 75  
25086 – Rezzato (BS)
- 2.2 Date of test: 2010-11-11
- 2.3 Test equipment: Mirror based gonio-photometer  
LMT GO-DS 2000  
Power supply AC CHROMA 6415
- 2.4 TÜV identification n° of the samples: -
- 2.5 General test procedure: EN 13302
- 2.6 Test procedure: The sample was mounted on the Goniophotometer in its mounting position. The light emitting surface was horizontal with its geometric center in the pivot point of the Goniophotometer. The sample was powered with 230 VAC and was stabilized for at least 30 minutes. After stabilization the light intensity distribution was measured with an angle resolution of 2,5° (C-planes) and 2,5° (D-planes).



Divergences in the plane through maximum intensity:	Horizontal	Vertical
One half peak divergence	98.0°	138.9°
Half peak side angle (left)	-71.3°	-69.3°
Half peak side angle (right)	26.7°	69.7°
One tenth peak divergence	143.5°	154.2°
Tenth peak side angle (left)	-79.2°	-77.1°
Tenth peak side angle (right)	64.3°	77.0°

C-planes:	0.0°	2.5°	5.0°	7.5°	10.0°	12.5°	15.0°	17.5°	20.0°	22.5°
	25.0°	27.5°	30.0°	32.5°	35.0°	37.5°	40.0°	42.5°	45.0°	47.5°
	60.0°	62.5°	65.0°	67.5°	70.0°	72.5°	75.0°	77.5°	80.0°	82.5°
	75.0°	77.5°	80.0°	82.5°	85.0°	87.5°	90.0°	92.5°	95.0°	97.5°
	100.0°	102.5°	105.0°	107.5°	110.0°	112.5°	115.0°	117.5°	120.0°	122.5°
	125.0°	127.5°	130.0°	132.5°	135.0°	137.5°	140.0°	142.5°	145.0°	147.5°
	150.0°	152.5°	155.0°	157.5°	160.0°	162.5°	165.0°	167.5°	170.0°	172.5°
	175.0°	177.5°	180.0°	182.5°	185.0°	187.5°	190.0°	192.5°	195.0°	197.5°
	200.0°	202.5°	205.0°	207.5°	210.0°	212.5°	215.0°	217.5°	220.0°	222.5°
	225.0°	227.5°	230.0°	232.5°	235.0°	237.5°	240.0°	242.5°	245.0°	247.5°
	250.0°	252.5°	255.0°	257.5°	260.0°	262.5°	265.0°	267.5°	270.0°	272.5°
	275.0°	277.5°	280.0°	282.5°	285.0°	287.5°	290.0°	292.5°	295.0°	297.5°
	300.0°	302.5°	305.0°	307.5°	310.0°	312.5°	315.0°	317.5°	320.0°	322.5°
	325.0°	327.5°	330.0°	332.5°	335.0°	337.5°	340.0°	342.5°	345.0°	347.5°
	350.0°	352.5°	355.0°	357.5°						

Gamma:	0.0°	2.5°	5.0°	7.5°	10.0°	12.5°	15.0°	17.5°	20.0°	22.5°
	25.0°	27.5°	30.0°	32.5°	35.0°	37.5°	40.0°	42.5°	45.0°	47.5°
	50.0°	52.5°	55.0°	57.5°	60.0°	62.5°	65.0°	67.5°	70.0°	72.5°
	75.0°	77.5°	80.0°	82.5°	85.0°	87.5°	90.0°	92.5°	95.0°	97.5°
	100.0°	102.5°	105.0°	107.5°	110.0°	112.5°	115.0°	117.5°	120.0°	122.5°
	125.0°	127.5°	130.0°	132.5°	135.0°	137.5°	140.0°	142.5°	145.0°	147.5°
	160.0°	162.5°	165.0°	167.5°	170.0°	172.5°	175.0°	177.5°	180.0°	

**Total flux =** 10.7525 lm  
**U =** 230 VAC  
**I =** 0.82 A  
**P =** 176.7 W  
**P.F =** 0.938

## Dust-tight test IP6X

## Appendix 2

### 1 General informations

- 1.1 Reference norm(s) Test device with dust chamber
- 1.2 Equipment under test: Street luminaire
- 1.3 Type: LS81-25

### 2 Test specifications:

- 2.1 Place of test: TÜV Rheinland Italia S.r.l. - Via Gavardina  
Trav.II, 42 25011 Ponte S.Marco (BS) - Italy
- 2.2 Date of test: 2010-11-30
- 2.3 Test equipment: Dust Chamber  
TÜV code 555 00 097  
Depression System
- 2.4 TÜV identification n°of the samples: -
- 2.5 General test procedure: § 13.6 EN 60529 2001
- 2.6 Performance criteria and requiremer § 15.3. EN 60529 2001 Fig.2
- 2.7 Test measurement: -
- 2.8 Test result: **PASS**

## Water Jet test IP6X

## Appendix 3

### 1 General informations

- 1.1 Reference norm(s) Water jet hose nozzle
- 1.2 Equipment under test: Street luminaire
- 1.3 Type: LS81-25

### 2 Test specifications:

- 2.1 Place of test: TÜV Rheinland Italia S.r.l. - Via Gavardina  
Trav.II, 42 25011 Ponte S.Marco (BS) - Italy
- 2.2 Date of test: 2010-11-30
- 2.3 Test equipment: Dust Chamber  
TÜV code 555 00 097  
Depression System
- 2.4 TÜV identification n°of the samples: -
- 2.5 General test procedure: § 14.2.6 EN 60529 2001
- 2.6 Performance criteria and requiremer § 15.3. EN 60529 2001 Fig.6
- 2.7 Test measurement: -
- 2.8 Test result: **PASS**

**Photo of the sample**

**Appendix 4**

