160008222171

中国认可
国际互认
检测
TESTING
CNAS L0095

No.: SKT2024-0834-00

TEST REPORT

NAME OF SAMPLE: LED Street Light

CLIENT:

CLASSIFICATION OF TEST: Commission test

Vkan Certification & Testing Co., Ltd. (CVC)

TEST REPORT

No.: SKT2024-0834-00

Name of product: LED Street Light	Trade mark: /
Type/Model: VENUS 30W 5K, VENUS 50W 5K, VENUS 70W 5K, VENUS 90W 5K, VENUS 100W 5K, VENUS 120W 5K, VENUS 150W 5K, VENUS 180W 5K, VENUS 200W 5K, VENUS 220W 5K VENUS 30W 4K, VENUS 50W 4K, VENUS 70W 4K, VENUS 90W 4K, VENUS 100W 4K, VENUS 120W 4K, VENUS 150W 4K, VENUS 180W 4K, VENUS 200W 4K, VENUS 220W 4K. 90-280V～ 50/60Hz、IP67	Sample status: /
Manufacturer: [redacted]	Commissioned by: /
Manufacturer address: huguo road erling town, danyang city P.R.China	Commissioner address: /
Quantity of sample: 76	Sampled by: /
Sample identification: /	Sampling at (place): /
Means of receiving: Submitted by manufacturer	Means of sampling: /
Classification of test: Commission test	Sampling date: /
Receiving date: 2024-05-28	Completing date: 2024-08-20
Tested according to: Ordinance No.62-2022 《Technical regulation of quality for luminaires for public street lighting》	Test item: Supplementary test report SKT2024-0833-00

Test conclusion:

The LED Street Light submitted by [redacted] are tested according to: Ordinance No.62-2022《Technical regulation of quality for luminaires for public street lighting》.

All items tested comply with the requirements of the standards.

Test result: Pass.

Seal of CVC

Date of issue: 2024.08.20

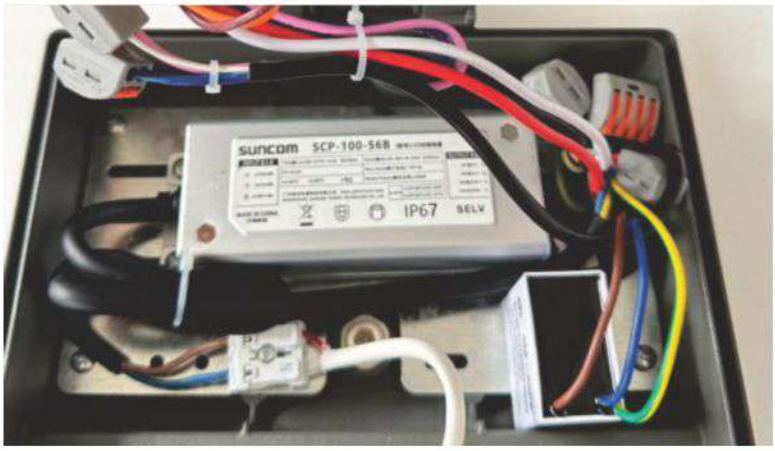
Approved by: Xiao Hanguang Reviewed by: Ni Jiyu Tested by: Zhang Zhiping

Title：Manager Xiao HanGuang Ni Jiyu Zhang Zhiping

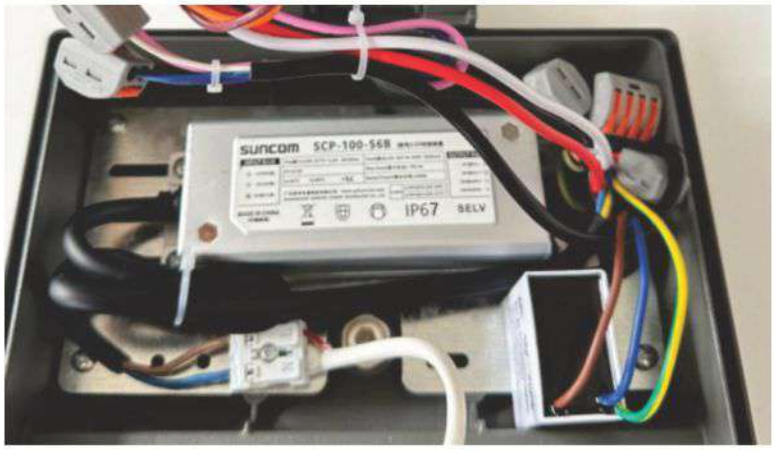
LED STREET LIGHT	
Model: VENUS 30W 4K	Power: 30W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 5400lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 50W 4K	Power: 50W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 9000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

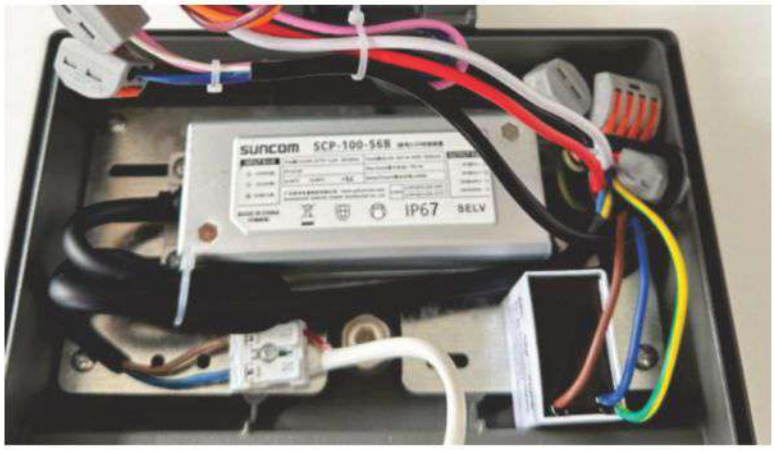
LED STREET LIGHT	
Model: VENUS 70W 4K	Power: 70W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 12600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h



LED STREET LIGHT	
Model: VENUS 90W 4K	Power: 90W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 16200lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h



LED STREET LIGHT	
Model: VENUS 100W 4K	Power: 100W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 18000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h



LED STREET LIGHT	
Model: VENUS 120W 4K	Power: 120W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 21600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 150W 4K	Power: 150W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 27000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 180W 4K	Power:180W
CCT: 4000K	CRI>70
PF> 0,98	Lumens:32400lm
V oltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

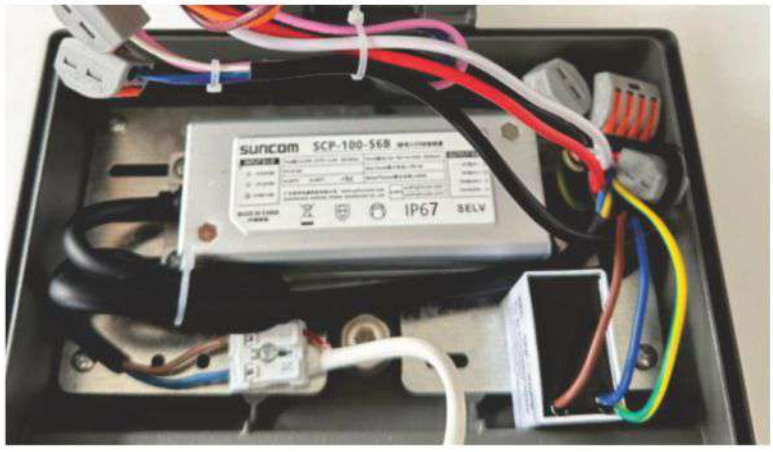
LED STREET LIGHT	
Model: VENUS 200W 4K	Power: 200W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 36000
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 220W 4K	Power: 220W
CCT: 4000K	CRI>70
PF> 0,98	Lumens: 39600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

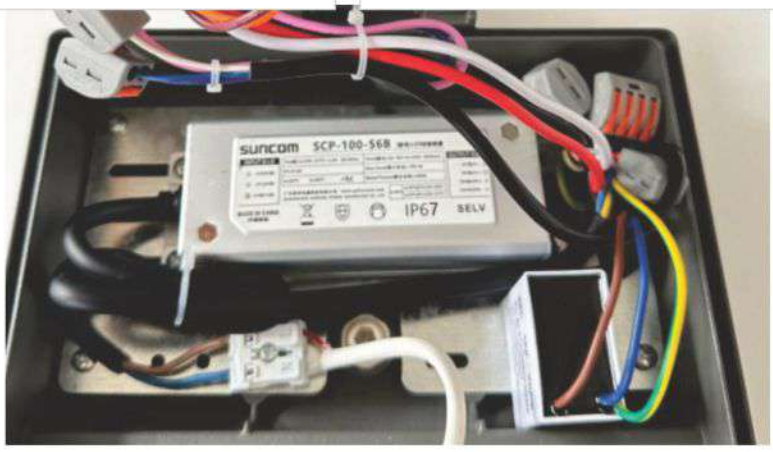
LED STREET LIGHT	
Model: VENUS 30W 5K	Power: 30W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 5400lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 50W 5K	Power: 50W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 9000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 70W 5K	Power: 70W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 12600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h



LED STREET LIGHT	
Model: VENUS 90W 5K	Power: 90W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 16200lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h



LED STREET LIGHT	
Model: VENUS 100W 5K	Power: 100W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 18000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 120W 5K	Power: 120W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 21600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 150W 5K	Power: 150W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 27000lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 180W 5K	Power:180W
CCT: 5000K	CRI>70
PF> 0,98	Lumens:32400lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

注 意 事 项

Important

1. 报告无检测单位印章无效；

   The test report is invalid without the official stamp of CVC;

2. 未经本机构书面同意，不得部分地复制本报告；

   Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;

3. 报告无主检、审核、批准人签名无效；

   The test report is invalid without the signatures of Approval and Reviewer;

4. 报告涂改无效；

   The test report is invalid if altered;

5. 对检测报告若有异议，请于收到报告之日起十五天内向检测单位提出；

   Objections to the test report must be submitted to CVC within 15 days;

6. 一般情况，委托检测结果仅对所检测样品有效；

   Generally, commission test is responsible for the tested samples only;

7. “P”表示“合格或通过”，“F”表示“不合格或不通过”，“N”或“—”表示“不适用”，“/”表示“未检测”。

   “P” means “pass” , “F” means “fail”, “N” or “—” means “not applicable” and “/ ”means “not test”.

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邮政编码(Post Code)：510663

E-mail：office@cvc.org.cn

http://www.cvc.org.cn

ED STREET LIGHT	
Model: VENUS 200W 5K	Power: 200W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 36000
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

LED STREET LIGHT	
Model: VENUS 220W 5K	Power: 220W
CCT: 5000K	CRI>70
PF> 0,98	Lumens: 39600lm
Voltage Input: 90V ~ 280 ~	IP67
Lumen Eficiency: 180lm/W	IK09
Ta: 50°C	Life Span: 108.000h

Description of the sampling procedure:

/

Description of the deviation from the standard, if any :

/

Remarks:

The tests of Ordinance No.62 of February 17, 2022, Items: 4.2.1 Total power、4.2.2 Power factor Luminous flux and Luminous efficiency are carried out on VENUS 30W 5K, VENUS 50W 5K, VENUS 70W 5K, VENUS 90W 5K, VENUS 100W 5K, VENUS 120W 5K, VENUS 150W 5K, VENUS 180W 5K, VENUS 200W 5K, VENUS 220W 5K, VENUS 30W 4K, VENUS 50W 4K, VENUS 70W 4K, VENUS 90W 4K, VENUS 100W 4K, VENUS 120W 4K, VENUS 150W 4K, VENUS 180W 4K, VENUS 200W 4K, VENUS 220W 4K., the test data as shown in Table 2 and Figure 2;

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

Sample Description			
Identification of family			
LED Technology		SMD	
Declared life (h)		108.000 h	
Model	VENUS 30W 4K	VENUS 50W 4K	VENUS 70W 4K
Voltage Test (V)	90-280	90-280	90-280
Frequency (Hz)	50/60	50/60	50/60
Power (W)	30	50	70
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	5400	9000	12600
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	4000	4000	4000
Model	VENUS 90W 4K	VENUS 100W 4K	VENUS 120W 4K
Voltage Test (V)	90-280	90-280	90-280
Frequency(Hz)	50/60	50/60	50/60
Power (W)	90	100	120
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	16200	18000	21600
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	4000	4000	4000

Model	VENUS 150W 4K	VENUS 180W 4K	VENUS 200W 4K
Voltage Test (V)	90-280	90-280	90-280
Frequency (Hz)	50/60	50/60	50/60
Power (W)	150	50	70
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	27000	32400	36000
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	4000	4000	4000

Model	VENUS 220W 4K
Voltage Test (V)	90-280
Frequency(Hz)	50/60
Power (W)	90
Power Factor	>0.98
Luminous Flux (lm)	39600
Luminous efficiency (lm/W)	180
CRI	>70
CCT(K)	4000

Sample Description			
Identification of family			
LED Technology		SMD	
Declared life (h)		108.000 h	
Model	VENUS 30W 5K	VENUS 50W 5K	VENUS 70W 5K
Voltage Test (V)	90-280	90-280	90-280
Frequency (Hz)	50/60	50/60	50/60
Power (W)	30	50	70
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	5400	9000	12600
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	5000	5000	5000
Model	VENUS 90W 5K	VENUS 100W 5K	VENUS 120W 5K
Voltage Test (V)	90-280	90-280	90-280
Frequency (Hz)	50/60	50/60	50/60
Power (W)	90	100	120
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	16200	18000	21600
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	5000	5000	5000

Model	VENUS 150W 5K	VENUS 180W 5K	VENUS 200W 5K
Voltage Test (V)	90-280	90-280	90-280
Frequency (Hz)	50/60	50/60	50/60
Power (W)	150	50	70
Power Factor	>0.98	>0.98	>0.98
Luminous Flux (lm)	27000	32400	36000
Luminous efficiency (lm/W)	180	180	180
CRI	>70	>70	>70
CCT(K)	5000	5000	5000

Model	VENUS 220W 5K
Voltage Test (V)	90-280
Frequency(Hz)	50/60
Power (W)	90
Power Factor	>0.98
Luminous Flux (lm)	39600
Luminous efficiency (lm/W)	180
CRI	>70
CCT(K)	5000

Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX I-B – TECHNICAL REQIUREMENTS FOR LUMINAIRES FOR STREET PUBLIC LIGHTING USING LED TECHNOLOGY			**P**
	TECHNICAL SAFETY REQIUREMENTS		P
5	**Marking and instructions**		**P**
5.1	Luminaire manufacturing serial number		P
	Luminaire model		P
	ENCE label		N
	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P

5.2	Instruction information		P
	Name and or trade mark of supplier		P
	Supplier's model or code	VENUS 220W 5K VENUS 200W 5K VENUS 220W 4K VENUS 200W 4K	P
	Photometric classification		N
	Nominal power(W)	220W 200W	P
	Nominal voltage range(V)	90-280V	P
	Nominal frequency(Hz)	50/60Hz	P
	Country of origin of the product	Made in China	P
	Information on the controller(brand, model, power, nominal electric current)	Brand: SUCOM Model: SCP-240-56B Power: 240W Max. Model: SCP – 200 -56B Power: 200W Max. Nominal electric current: 3000mA-.6000mA	P
	Instructions to user on the electrical installation, handling and recommended care		P
	Information on the importer or distributor	R3 Comercial LTDA	P
	Product guarantee	5 years	P
	Expiration date for storage: indeterminate	3 years after production date	P
	Type of protection against electrical shock	Class I	P
	ENCE label		N
	Life expectancy(h)	108.000H	P
	Guidelines for obtaining the IES file of photometry	Website or sales people	P
	Project position (normal operating position)	-30℃ ~ + 50 ℃	P

	Mass, including control device		P
	Global dimensions		P
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
	Maximum projected area subject to wind force, if it is intended for installation more than 8 m above the ground	Less than 8m	P
	Range of sections of suspension cables suitable for the luminaire, if applicable		N
	Suitable for indoor use		N
	Dimensions of the enclosure where the connection box is installed		N
	The torque in newton-meters to be applied to the screws or threads that fix the luminaire to the support	17 Nm	P
	Date of manufacture (month and year)	May, 2024	P
	Degree (s) of protection	IP67	P
	Type of lamp	LED	P

5.3	The controller must be marked according to ABNT NBR IEC 61347-2-13 and ABNT NBR 16026		P
5.3	ENCE label on the packaging of luminaires		N

4.0	Specific conditions		P
	The luminaires shall be presented fully assembled and connected		P
4.1.3	Materials		P
	Internal and external wiring		P
	Means of connection	Supply cords	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N
4.1.6	Type of cable		P
	Nominal cross-sectional area (mm^2)	$3 \times 1.0 mm^2$	P
	Cables equal to IEC 60227 or IEC 60245		P
4.1.6	Type of attachment, X, Y or Z		P

	Type Z not connected to screws		P
	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.3	Cable entries through rigid material have rounded edges		N
	Insulating bushings:		N
	- suitably fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- tubes or guards made of insulating material		N
	Locking of screwed bushings		N
	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
4.1.3	Cord anchorage for type X attachment:		N
	a) at least one part fixed		N
	b) types of cable		N
	c) no damaging of the cable		N
	d) whole cable can be mounted		N
	e) no touching of clamping screws		N
	f) metal screw not directly on cable		N
	g) replacement without special tool		N
	Glands not used as anchorage		N
	Labyrinth type anchorages		N
4.1.3	Adequate cord anchorage for type Y and type Z attachment		P
4.1.3	Tests:		P

	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)	60	P
	- torque test: torque (Nm).....	0.25	P
	- displacement 2 mm	0.5mm	P
	- no movement of conductors		P
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
	- no damage of cable or cord		P
	- function independent of electrical connection		P
4.1.3	External wiring passing into luminaire		P
	Looping-in terminals		N
	Wire ends not tinned		N
	Wire ends tinned: no cold flow		N
4.1.3	Mains plug same protection		N
	Class III luminaire plug		N
	No unsafe compatibility		N
	Appliance inlets (IEC 60320)		N
	Installation couplers (IEC 61535)		N
	Other appliance inlet or connector according relevant IEC standard		N
	No standardized interconnecting cables properly assembled		N
	Used plug in accordance with		N
	- IEC 60083		N
	- other standard		N
4.1.6	Internal wiring		P
	Internal wiring of suitable size and type		P
	Through wiring		N
	- not delivered/ mounting instruction		N
	- factory assembled		N
	- socket outlet loaded (A)		N
	- temperatures.....		N
	Green-yellow for earth only		P

	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm²).....		P
	Insulation thickness		P
	Extra insulation added where necessary		N
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.6	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Adequate cross-sectional area and insulation thickness		P
	Double or reinforced insulation for class II		N
	Conductors without insulation		N
	SELV current-carrying parts		P
	Insulation thickness other than PVC or rubber		N
	Sharp edges etc.		P
	No moving parts of switches etc.		N
	Joints, raising/lowering devices		N
	Telescopic tubes etc.		N
	No twisting over 360		P
4.1.6	Insulating bushings:		N
	- suitable fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- cables with protective sheath		N
	Joints and junctions effectively insulated		N
	Strain on internal wiring		N
	Wire carriers		N
	Wire ends not tinned		N
	Wire ends tinned: no cold flow		N
	Cord anchorage if applicable		P

	- pull test: 25 times; pull (N).....	60	P
	- torque test: torque (Nm).....	0.25	P
	Photoelectric relay socket		P

4.1.5	**Degree of protetion**		**P**
	Classification according to IP.....	IP67	P
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.5	IP66 for vital parts(LED, secondary optical system and controller)		P
	Tests for ingress of dust, solid objects and moisture:		P
	- mounting position during test	As in normal use	P
	- fixing screws tightened; torque (Nm)	0.33Nm	P
	- tests according to clauses.....	9.2.2; 9.2.7	P
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		P
	b) no talcum in dust-tight luminaire		P
	c) no trace of water on current-carrying parts or SELV parts or where it could become a hazard		P
	d) i) For luminaires without drain holes – no water entry		P
	d) ii) For luminaires with drain holes – no hazardous water entry		N
	e) no water in watertight luminaire		P
	f) no contact with live parts (IP 2X)		N
	f) no entry into enclosure (IP 3X and IP 4X)		N
	f) no contact with live parts (IP3X and IP4X)		N
	g) no trace of water on part of lamp requiring protection from splashing water		P
	h) no damage of protective shield or glass envelope		P

4.1.1	**Operating Conditions**		**P**
	Design conditions of use		P
	An altitude not exceeding 1500m		P
	Average ambient air temperature over a period of 24 hours not exceeding + 35℃		P
	Ambient air temperature between -20℃ and + 50℃		P
	Relative air humidity up to 100%		P
	Conditions of use outside the limits		P

4.1.2	Packaging		P
	Individually packed in packaging		P
	Information on the packages		P
	Name and/or brand of the manufacturer	DANYANG BRIGHT-MOON LIGHTING CO.,LTD	P
	Model or type of luminaire	VENUS 220W 5K VENUS 200W 5K VENUS 220W 4K	P

		VENUS 200W 4K	
	CNPJ and address of the supplier	53.836.108/0001-85 R3 Comercial LTDA Avenida República Argentina 1505 Loja 2012 Andar 20 Cond Union Tower Ed Água Verde Curitiba PR 80620-005	P
	Gross weight		P
	Stacking capacity and position		P
	ENCE Lable		P
Ordinance No.62-2022			
Clause	Requirement + Test	Result - Remark	Verdict
4.1.6	**Electrical characteristics**		**P**
	Dielectric strength		P
	Dummy lamp		N
	Luminaires with ignitors after 24 h test		N
	Luminaires with manual ignitors		N
	Testvoltage (V):		P
	EBTS/SELV:		P
	- between current-carrying parts of different polarity	500V	P
	- between current-carrying parts and mounting surface	500V	P
	- between current-carrying parts and metal parts of the luminaire	500V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	500V	P
	- Insulation bushings as described in Section 5	500V	P
	Other than EBTS/ SELV:		P
	- between live parts of different polarity	1480V	P
	- between live parts and mounting surface	1480V	P
	- between live parts and metal parts	1480V	P
	- between live parts of different polarity through action of a switch		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	1480V	P
	- Insulation bushings as described in Section 5	1480V	P
4.1.6	Insulation resistance		P
	EBTS/ SELV:		P
	- between current-carrying parts of different polarity	＞100MΩ	P
	- between current-carrying parts and mounting surface	＞100MΩ	P
	- between current-carrying parts and metal parts of the luminaire	＞100MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	＞100MΩ	P

	- Insulation bushings as described in Section 5	＞100MΩ	P
	Other than EBTS/ SELV:		P
	- between live parts of different polarity	＞500MΩ	P
	- between live parts and mounting surface	＞500MΩ	P
	- between live parts and metal parts	＞500MΩ	P
	- between live parts of different polarity through action of a switch		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	＞500MΩ	P
	- Insulation bushings as described in Section 5	＞500MΩ	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.1	**Total power of the circuit**		**P**
	Measured total power value shall not exceed 110% of the Declared value	See Table 1	P

4.2.2	**Power factor**		**P**
	The measured power factor shall not be less than 0.92	See Table 1	P
	Measured power factor value shall not less than the value marked by more than 0.05	See Table 1	P

4.2.4	**Power supply**		**P**
	The supply current shall not differ by more than 10% from the value marked on the control device or declared in the manufacturer's literature	See Table 1	P
	The supply current harmonics shall conform to IEC 61000-3-2	See report: SKT2024-0834-00	P

4.2.3	**Voltage and output current of the control device during operation**		**P**
	For control devices with non-stabilized output voltage, the output voltage shall not differ by more than ±10% from the nominal voltage of the LED modules		P
	For control devices with a stabilized output voltage, when fed by any voltage between 92% and 106% of the rated voltage, the output voltage shall not differ by more than ±10% from the nominal voltage of the LED modules		N
	For control devices with non-stabilized output current, the output current shall not differ by more than ±10% from the rated current of the LED modules		N
	For control devices with a stabilized output current, when fed by any voltage between 92% and 106% of the rated voltage, the output current shall not differ by more than ±10% from the rated current of the LED modules		P

4.1.7	**Leakage current**		**P**
	Measured leakage current (mA)		P

4.1.8	**Protection against electric shock**		**P**
	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable and adjustable luminaires		N
	Basic insulated parts not accessible with Ø 50 mm probe from outside, within arm's reach, on wall-mounted luminaires		N
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Clause	Requirement + Test	Result - Remark	Verdict
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N
	Basic insulation only accessible under lamp or starter replacement		N
	Protection in any position		P
	Double-ended tungsten filament lamp		N
	Insulation lacquer not reliable		P
	Double-ended high pressure discharge lamp		N
	Relevant warning according to 3.2.18 fitted to the luminaire		N
	Portable luminaire adjusted in most unfavourable position		N
	Class II luminaire:		N
	- basic insulated metal parts not accessible during starter or lamp replacement		N
	- basic insulation not accessible other than during starter or lamp replacement		N
	- glass protective shields not used as supplementary insulation		N
	BC lampholder of metal in class I luminaires shall be earthed		N
	Class III luminaires with exposed SELV parts:		N
	Ordinary luminaire:		N
	- touch current		N
	- no-load voltage.....		N
	Other than ordinary luminaire:		N
	- nominal voltage		N
	Portable luminaire have protection independent of supporting surface		N
	Compliance with the standard test finger or relevant probe		P
	Covers reliably secured		P
	Discharging of capacitors 0,5 F		N
	Portable plug connected luminaire with capacitor		N
	Other plug connected luminaire with capacitor		N

	Discharge device on or within capacitor		N
	Discharge device mounted separately		N

4.1.11	**Mechanical Characteristics**		**P**
	Torque resistance of screws and fittings		P
	Screws not made of soft metal		P
	Screws of insulating material		N
	Torque test: torque (Nm); part.....	Enclosure: 0.5Nm	P
	Torque test: torque (Nm); part.....	Covers: 0.5Nm	P
	Torque test: torque (Nm); part.....	LED driver: 0.5Nm	P
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Clause	Requirement + Test	Result - Remark	Verdict
	Not show any deformation during tightening and loosening or causing deformation and/or breakage of the luminaire		P
4.1.12	Resistance to wind force		P
	- drag coefficient	1.2	P
	- loaded area (m^2)	0.1395	P
	- used load (N).....	222	P
	- measured deformation (cm/m)	＜2 cm/m	P
	- no rotation		P
4.1.13	Vibration resistance		P
	Vibration test Duration: 30min Amplitude: 0.35mm Frequency range: 10Hz,55Hz,10Hz Sweep rate: one octave per minute	No loosened part	P
	Not show any electric and mechanical failures such as cracks, breaks, bends, opening of latches and others that may compromise their performance		P
4.1.13	Protection against external mechanical impacts		P
	The luminaires must have a resistance to external mechanical impacts corresponding to at least IK09 degree	No breaks or cracks	P
4.1.13	Resistance to ultraviolet radiation		P
	An exposure time of 2016 hours		P

	In the specific case of polymer refractors, their transparency shall not be less than 90% of the initial value	Light transmittance before ultraviolet radiation (UV) test: 84.8%(Sample 1) 84.6%(Sample 2) 84.4%(Sample 3) Light transmittance after ultraviolet radiation (UV) test: 83.5%(Sample 1) 83.1%(Sample 2) 83.4%(Sample 3) Transparency: 98.5%(Sample 1) 98.2%(Sample 2) 98.8%(Sample 3)	P

	Surge protection devices(DPS)		**P**
	The luminaire with LED technology must have a surge protection device		P

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Clause	Requirement + Test	Result - Remark	Verdict
	TECHNICAL PERFORMANCE REQIUREMENTS		P
4.2.11	**Photometric charecteristics**		**P**
	The light disribution	See Figure 1	P
	The horizontal and vertical angles		P
	The angle adjustment indicated by the manufacturer		P

4.2.10	**Classification of luminous intensity distributions**		**P**
	Transverse distribution	☐ Type I ☐ TypeIII ■ Type II	P
	Longitudinal distribution	☐ Short ■ Medium ☐Long	P
	Luminous intensity distribution control	■ Fully limited ☐FLimited	P

4.2.5	**Energy Efficiency for LED luminaires**		**P**
	Declared Energy Efficiency value	180 lm/W	P
	Measured Energy Efficiency value	See Table 1	P
	Measured Energy Efficiency value shall not be less than 90% of the Declared Energy Efficiency value	See Table 1	P

4.2.7	**Color reproduction index - IRC**		**P**
	Public LED luminaires shall have Ra≥70	73.5	P

4.2.6	**Correlated color temperature - TCC**		**P**
	The value of the corresponding color temperature shall be between 2700K and 6500K		P

	Nominal TCC	4000K	P
	Measured TCC	3972K	P
	Nominal TCC	5000K	P
	Measured TCC	4985K	P

	Performance characteristics		**P**
4.2.11	Light distribution control		P
	Totally limited	CDL(%) of above 90° : CDL(%) of above 80° to90° :	P
	Limited	CDL(%) of above 90° : 0.62% CDL(%) of above 80° to 90° : 1.05%	N

4.2.8	Maintaining the luminous flux of the luminaire		P
4.2.9	Option 1: LED Component Performance		P
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Clause	Requirement + Test	Result - Remark	Verdict
B.6.2.1.1	LM-80 test report	Test report: N02A24030686L00101 Model:TS1-E30FL Manufacture: Shenzhen Tongyifang Optoeletronic Technology Co., Ltd. Test duration:18.000h 180mA,55℃：L70（18.000）＞108.000hours 180mA,85℃：L70（18.000）＞108.000hours 180mA,105℃：L70（108.0000）＞108.000hours	P
	Calculate the maintenance of the luminous flux design according to TM-21	TMP: 88.1℃	P
B.6.2.2	Option 2: Luminaire Performance		N
B.6.2.2.2	LM-79 test report		N
	The initial luminous flux(0h)		N
	The luminous flux(6000h)		N
	Luminous flux maintenance of 6000h must not be less than 95.8% for declared nominal life 108.000H		N

B.6.3	Qualification of electronic control device CC or AC foe LED modules		P
B.6.3.1	Measured the controller housing temperature at the indicated point at an ambient temperature of 35℃	76.5℃(tc: 85℃)	P
B.6.3.2	LED controller ‘s life expectancy should be not less than 108.000H		P

B.6.3.3	The diagram / figure of the location of the tc	On the marking og LED driver	P

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 220W 5K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤220 ×110%	≤1.98 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	219.2	1.987	0.983	39610	180,9
	2	219.3	1.985	0.981	39620	180,9
	3	220.1	1.984	0.985	39679	180,4
Voltage	No.	≤220 ×110%	≤1.98 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 200W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤200 ×110%	≤1.83 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	199.2	1.821	0.982	36010	180,8
	2	200.7	1.835	0.982	36033	179,5
	3	199.5	1.841	0.984	36051	180,7
Voltage	No.	≤200 ×110%	≤1.83 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 180W 5K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤180 ×110%	≤1.62 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	180.2	1.624	0.986	32410	179,9
	2	179.3	1.628	0.981	32433	180,9
	3	179.6	1.621	0.985	32451	180,7
Voltage	No.	≤180 ×110%	≤1.62 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 150W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤150 ×110%	≤1.35 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	149.2	1.356	0.984	26910	180,4
	2	149.8	1.354	0.985	27033	180,5
	3	150.6	1.357	0.982	27051	179,6
Voltage	No.	≤150 ×110%	≤1.35 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 120W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤120 ×110%	≤1.08 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	120.9	1.086	0.986	21635	180,0
	2	119.8	1.084	0.984	21621	180,5
	3	120.6	1.087	0.981	21610	179,2
Voltage	No.	≤120 ×110%	≤1.08 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 100W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤100 ×110%	≤0.900 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	99,3	0.910	0.985	17950	180,8
	2	100,2	0.905	0.984	18001	179,7
	3	100,5	0.911	0.981	18010	179,2
Voltage	No.	≤100 ×110%	≤0.900 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 90W 5K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤90 ×110%	≤0.810 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	90.1	0.819	0.989	16230	180,1
	2	89.9	0.817	0.984	16242	180,7
	3	89.8	0.810	0.981	16248	180,9
Voltage	No.	≤90 ×110%	≤0.810 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 70W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤70 ×110%	≤0.630 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	70.5	0.637	0.986	12690	180,0
	2	70.2	0.633	0.984	12671	180,5
	3	70.3	0.635	0.989	12689	180,5
Voltage	No.	≤70 ×110%	≤0.630 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 50W 5K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤50 ×110%	≤0.450 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	50.1	0.453	0.983	8995	179,5
	2	50.3	0.457	0.982	9061	180,1
	3	50.4	0459	0.981	9072	180,0
Voltage	No.	≤50 ×110%	≤0.450 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 30W 5K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤30 ×110%	≤0.450 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	30.3	0.453	0.983	5471	180,6
	2	30.5	0.457	0.982	5489	180,0
	3	30.6	0459	0.981	5462	180,9
Voltage	No.	≤30 ×110%	≤0.450 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 220W 4K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤220 ×110%	≤1.98 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	220.1	1.987	0.983	39684	180,3
	2	219.7	1.985	0.981	39660	180,5
	3	220.1	1.984	0.985	39685	180,3
Voltage	No.	≤220 ×110%	≤1.98 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		**4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency**				
Model		**VENUS 200W 4K**				
Testrequirement		**Voltage:220V** **Temperature:25,2℃** **Humidity: 60%**				
Standard terms		**Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3** **Number of samples: 3 pieces.**				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		**Lamp Power(W)**	**Supply current(A)**	**Power factor (Nominal value:0.98)**	**Luminou sflux(lm)**	**Luminous efficiency (lm/W)**
Voltage	**No.**	**≤200 ×110%**	**≤1.83 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
220V~	**1**	199.7	**1.821**	**0.982**	36084	180,7
	2	201.2	**1.835**	**0.982**	36108	179,5
	3	200.0	**1.841**	**0.984**	36127	180,6
Voltage	**No.**	**≤200 ×110%**	**≤1.83 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
Uncertainty		**The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).**				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 180W 4K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤180 ×110%	≤1.62 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	180.2	1.624	0.986	32410	179,9
	2	180.1	1.628	0.981	32433	180,9
	3	180.6	1.621	0.985	32451	180,7
Voltage	No.	≤180 ×110%	≤1.62 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 150W 4K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤150 ×110%	≤1.35 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	149.7	1.356	0.984	26992	180,3
	2	150.3	1.354	0.985	27116	180,4
	3	151.1	1.357	0.982	27135	179,6
Voltage	No.	≤150 ×110%	≤1.35 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 120W 4K				
Testrequirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤120 ×110%	≤1.08 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	120.7	1.086	0.986	21721	180,0
	2	120.3	1.084	0.984	21708	180,4
	3	121.1	1.087	0.981	21698	179,2
Voltage	No.	≤120 ×110%	≤1.08 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		**4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency**				
Model		**VENUS 100W 4K**				
Testrequirement		**Voltage:220V** **Temperature:25,2℃** **Humidity: 60%**				
Standard terms		**Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3** **Number of samples: 3 pieces.**				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		**Lamp Power(W)**	**Supply current(A)**	**Power factor (Nominal value:0.98)**	**Luminou sflux(lm)**	**Luminous efficiency (lm/W)**
Voltage	**No.**	**≤100 ×110%**	**≤0.900 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
220V~	**1**	99.8	**0.910**	**0.985**	18040	180,8
	2	100.7	**0.905**	**0.984**	18092	179,7
	3	101.0	**0.911**	**0.981**	18102	179,2
Voltage	**No.**	**≤100 ×110%**	**≤0.900 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
Uncertainty		**The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).**				
Remark		/				

Table 1						
Testitems:		**4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency**				
Model		**VENUS 90W 4K**				
Test requirement		**Voltage:220V**	**Temperature:25,2℃**	**Humidity: 60%**		
Standard terms		**Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3** **Number of samples: 3 pieces.**				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the **models belonging to that family will fail.**				
Requirement		**Lamp Power(W)**	**Supply current(A)**	**Power factor (Nominal value:0.98)**	**Luminou sflux(lm)**	**Luminous efficiency (lm/W)**
Voltage	**No.**	**≤90 ×110%**	**≤0.810 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
220V~	**1**	90.6	**0.819**	**0.989**	16324	180,2
	2	90.4	**0.817**	**0.984**	16337	180,7
	3	90.3	**0.810**	**0.981**	16344	181,0
Voltage	**No.**	**≤90 ×110%**	**≤0.810 ×（1± 10%）**	**≥0.98**	**/**	**≥180×90%**
Uncertainty		**The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty** **of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).**				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 70W 4K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤70 ×110%	≤0.630 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	71.0	0.637	0.986	12788	180,1
	2	70.7	0.633	0.984	12770	180,6
	3	70.8	0.635	0.989	12789	180,6
Voltage	No.	≤70 ×110%	≤0.630 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 50W 4K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤50 ×110%	≤0.450 ×（1±10%）	≥0.98	/	≥180×90%
220V~	1	50.6	0.453	0.983	9097	179,8
	2	50.8	0.457	0.982	9164	180,4
	3	50.9	0459	0.981	9176	180,3
Voltage	No.	≤50 ×110%	≤0.450 ×（1±10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Table 1						
Testitems:		4.2.1 Total power、4.2.2 Power factor、4.2.3 Supply current、B.3 Luminous flux and Luminous efficiency				
Model		VENUS 30W 4K				
Test requirement		Voltage:220V Temperature:25,2℃ Humidity: 60%				
Standard terms		Ordinance No.62 of February 17, 2022 Items: 4.2.1, 4.2.2, 4.2.3 Number of samples: 3 pieces.				
		In order to accept the sample there shall not be non-compliances. If a family fails, all the models belonging to that family will fail.				
Requirement		Lamp Power(W)	Supply current(A)	Power factor (Nominal value:0.98)	Luminousflux(lm)	Luminous efficiency (lm/W)
Voltage	No.	≤30 ×110%	≤0.450 ×（1± 10%）	≥0.98	/	≥180×90%
220V~	1	30,8	0.453	0.983	5577	181,1
	2	31,0	0.457	0.982	5596	180,5
	3	30,7	0459	0.981	5570	181,4
Voltage	No.	≤30 ×110%	≤0.450 ×（1± 10%）	≥0.98	/	≥180×90%
Uncertainty		The expanded uncertainty of the Lamp Power is U=0.3%(k=2), the expanded uncertainty of the Power factor is U=0.002(k=2), the expanded uncertainty of the Luminous flux isU=2.5%(k=2), the expanded uncertainty of the Luminous efficiency is U=2.5%(k =2).				
Remark		/				

Test Report issued under the responsibility of

SGS

TEST REPORT

Ordinance no. 62 - February 17, 2022

Technical Quality Regulation And The Compliance Assessment Requirement For Luminaires For Road – Consolidated Street Lighting

Report Reference No.....:	GZEE240300111201
Tested by (name + signature).....:	Simon Chen
Approved by (name + signature) .....:	Alex Tan
Date of issue.....:	2024-10-18
Total number of pages.....:	116
Testing Laboratory.....:	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
Address.....:	198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China
Applicant's name.....:	RAJIX COMERCIAL LTDA
Address.....:	AV REPUBLICA ARGENTINA, 1505, SALA 2012, AGUA VERDE, CURITIBA, PARANA, BRASIL
Manufacturer's name .....:	[redacted]
Address.....:	[redacted]
Test specification:	
Standard .....:	Ordinance no. 62 – February 17, 2022
Test procedure.....:	INMETRO
Non-standard test method.....:	None
Test Report Form No.....:	62/2022_A
Test Report Form(s) Originator.....:	SGS-CSTC
Master TRF .....:	2022-03-24
Test item description ..... :	LED ROAD LIGHTING
Trade Mark.....:	—
Factory.....:	[redacted]
Model/Type reference.....:	Detail see "General product information"
Ratings.....:	Detail see "General product information"

Summary of testing:

The samples tested comply with the requirements of Ordinance no. 62 – February 17, 2022.

Models YR24045-60-L, YR24045-60-H, YR20045-40-L, YR15045-50-L, YR05045-60-L, YR15045-40-H, YR20045-50-H and YR10045-30-H were selected for the full tests at 127 V & 220 V because they have the Max. wattage and CCT. For the other models, tests were conducted according to clause 4.2.1 – 4.2.7 & 4.2.9 - 4.2.11.

Test item particulars.....:	
Luminaire type .....:	☒ LED Luminaires / ☐ Discharge Luminaires
Mass of the equipment.....:	Max. 2.84 kg for YR24045-60-H
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.....:	2024-03-22
Date (s) of performance of tests.....:	2024-03-22 to 2024-08-27

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.

When determining for test conclusion, measurement uncertainty of tests has been considered.

General product information:

Product information table:

No.	Model number	Ratings	Luminous intensity distributions
1.	YR24045-40-L	100 – 260 VAC, 50/60 Hz, 2.4 A, 240 W, 31200 lm, 130 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
2.	YR20045-40-L	100 – 260 VAC, 50/60 Hz, 2 A, 200 W, 26000 lm, 130 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
3.	YR15045-40-L	100 – 260 VAC, 50/60 Hz, 1.5 A, 150 W, 19500 lm, 130 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
4.	YR10045-40-L	100 – 260 VAC, 50/60 Hz, 0.9 A, 100 W, 13000 lm, 130 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
5.	YR05045-40-L	100 – 260 VAC, 50/60 Hz, 0.46 A, 50 W, 6500 lm, 130 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
6.	YR24045-50-L	100 – 260 VAC, 50/60 Hz, 2.4 A, 240 W, 31200 lm, 130 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
7.	YR20045-50-L	100 – 260 VAC, 50/60 Hz, 2 A, 200 W, 26000 lm, 130 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
8.	YR15045-50-L	100 – 260 VAC, 50/60 Hz, 1.5 A, 150 W, 19500 lm, 130 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
9.	YR10045-50-L	100 – 260 VAC, 50/60 Hz, 0.9 A, 100 W, 13000 lm, 130 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
10.	YR05045-50-L	100 – 260 VAC, 50/60 Hz, 0.46 A, 50 W, 6500 lm, 130 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
11.	YR24045-60-L	100 – 260 VAC, 50/60 Hz, 2.4 A, 240 W, 31200 lm, 130 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
12.	YR20045-60-L	100 – 260 VAC, 50/60 Hz, 2 A, 200 W, 26000 lm, 130 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
13.	YR15045-60-L	100 – 260 VAC, 50/60 Hz, 1.5 A, 150 W, 19500 lm, 130 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
14.	YR10045-60-L	100 – 260 VAC, 50/60 Hz, 0.9 A, 100 W, 13000 lm, 130 lm/W, FP: ≥ 0.92, 6500 K,	Cross-sectional distribution: Type II; Longitudinal distribution: Short;

No.	Model number	Ratings	Luminous intensity distributions
		IRC ≥ 70, Life: 100 kh, IP66, IK08	Control of luminous intensity distribution: Limited
15.	YR05045-60-L	100 – 260 VAC, 50/60 Hz, 0.46 A, 50 W, 6500 lm, 130 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
16.	YR24045-30-L	100 – 260 VAC, 50/60 Hz, 2.4 A, 240 W, 31200 lm, 130 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
17.	YR20045-30-L	100 – 260 VAC, 50/60 Hz, 2 A, 200 W, 26000 lm, 130 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
18.	YR15045-30-L	100 – 260 VAC, 50/60 Hz, 1.5 A, 150 W, 19500 lm, 130 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
19.	YR10045-30-L	100 – 260 VAC, 50/60 Hz, 0.9 A, 100 W, 13000 lm, 130 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
20.	YR05045-30-L	100 – 260 VAC, 50/60 Hz, 0.46 A, 50 W, 6500 lm, 130 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
21.	YR24045-40-H	100 – 260 VAC, 50/60 Hz, 2.65 A, 240 W, 36000 lm, 150 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
22.	YR20045-40-H	100 – 260 VAC, 50/60 Hz, 2.3 A, 200 W, 30000 lm, 150 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
23.	YR15045-40-H	100 – 260 VAC, 50/60 Hz, 1.8 A, 150 W, 22500 lm, 150 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
24.	YR10045-40-H	100 – 260 VAC, 50/60 Hz, 1.3 A, 100 W, 15000 lm, 150 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
25.	YR05045-40-H	100 – 260 VAC, 50/60 Hz, 0.53 A, 50 W, 7500 lm, 150 lm/W, FP: ≥ 0.92, 4000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
26.	YR24045-50-H	100 – 260 VAC, 50/60 Hz, 2.65 A, 240 W, 36000 lm, 150 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
27.	YR20045-50-H	100 – 260 VAC, 50/60 Hz, 2.3 A, 200 W, 30000 lm, 150 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
28.	YR15045-50-H	100 – 260 VAC, 50/60 Hz, 1.8 A, 150 W, 22500 lm, 150 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity

No.	Model number	Ratings	Luminous intensity distributions
			distribution: Limited
29.	YR10045-50-H	100 – 260 VAC, 50/60 Hz, 1.3 A, 100 W, 15000 lm, 150 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
30.	YR05045-50-H	100 – 260 VAC, 50/60 Hz, 0.53 A, 50 W, 7500 lm, 150 lm/W, FP: ≥ 0.92, 5000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
31.	YR24045-60-H	100 – 260 VAC, 50/60 Hz, 2.65 A, 240 W, 36000 lm, 150 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
32.	YR20045-60-H	100 – 260 VAC, 50/60 Hz, 2.3 A, 200 W, 30000 lm, 150 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
33.	YR15045-60-H	100 – 260 VAC, 50/60 Hz, 1.8 A, 150 W, 22500 lm, 150 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
34.	YR10045-60-H	100 – 260 VAC, 50/60 Hz, 1.3 A, 100 W, 15000 lm, 150 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
35.	YR05045-60-H	100 – 260 VAC, 50/60 Hz, 0.53 A, 50 W, 7500 lm, 150 lm/W, FP: ≥ 0.92, 6500 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
36.	YR24045-30-H	100 – 260 VAC, 50/60 Hz, 2.65 A, 240 W, 36000 lm, 150 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
37.	YR20045-30-H	100 – 260 VAC, 50/60 Hz, 2.3 A, 200 W, 30000 lm, 150 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
38.	YR15045-30-H	100 – 260 VAC, 50/60 Hz, 1.8 A, 150 W, 22500 lm, 150 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
39.	YR10045-30-H	100 – 260 VAC, 50/60 Hz, 1.3 A, 100 W, 15000 lm, 150 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited
40.	YR05045-30-H	100 – 260 VAC, 50/60 Hz, 0.53 A, 50 W, 7500 lm, 150 lm/W, FP: ≥ 0.92, 3000 K, IRC ≥ 70, Life: 100 kh, IP66, IK08	Cross-sectional distribution: Type II; Longitudinal distribution: Short; Control of luminous intensity distribution: Limited

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Clause	Requirement + Test	Result - Remark	Verdict
Annex I - Regulation Technician of Quality Towards Fixtures Towards The Lighting Public Road			
3	Technical requirement Towards Fixtures Used Discharge Lamps		N/A
3.1	Requirements from safety Electric		N/A
3.1.1	The body of the door lamps should be porcelain; the conductive parts must be nickel-plated brass with Threads E-27/27 or E-40/40, central contact, with spring effect and wetting device; the terminals and screws for fixing the conductors must be nickel-nickel-nickeled brass, according to ABNT NBR IEC 60238:2005 (Edison Screw Lamp Holder).		N/A
3.1.2	The lamp holder or adjustable optical parts must contain the appropriate reference marks, according to ABNT NBR IEC 60238:2005 (Edison Screw Lamp Holder).		N/A
3.1.3	The luminaire must be provided with adequate anchorage, so that the conductors of the power cables are relieved of mechanical request at the points where they are connected to the terminals, when, without the anchorage, the weight of the power cables would exert a request on the connections.		N/A
3.1.3.1	The luminaire must already have the internal wiring necessary for its connection, identifying the cable corresponding to the central contact of the lamp		N/A
3.1.4	The photoelectric circuit socket (where applicable) must be electrically insulating material and its contacts must be tinned brass and suitable to support rated current of 10 A.		N/A
3.1.5	The luminaire enclosure shall ensure the degree of protection against the penetration of dust, solid objects and moisture, according to the classification of the luminaire and the IP code marked on the luminaire.		N/A
3.1.5.1	Luminaires must have the following minimum degrees of protection, according to ABNT NBR IEC 60598-1:2010 (Luminaires - Part 1: General requirements and tests):		N/A
	- IP-65 for optical compartment		N/A
	- IP-44 to reactor compartment		N/A
3.1.6	The insulation resistance and dielectric stiffness must be adequate, so that the luminaire is free of electrical insulation failures so that, at the operating temperature, the leakage current of the appliance is not excessive		N/A
3.1.7	Filters should be provided for the suppression of electromagnetic interference and radio frequency		N/A
3.1.7.1	Electromagnetic reactors for discharge lamps must meet the requirements according to the current Inmetro Ordinance.		N/A
3.1.8	The voltage increase of the reference sodium vapor lamp, when installed in the luminaire fed at		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	the rated voltage, shall not exceed the maximum values specified in Table 1 below		
3.1.9	Luminaires must have resistance to the external mechanical impacts to which they are subjected in the conditions of use.		N/A
3.1.9.1	Luminaires must have at least the degree of protection IK08, according to ABNT NBR IEC 62262:2015 (Degrees of protection ensured by electrical equipment enclosures against external mechanical impacts (IK Code).		N/A
3.2	Requirements from performance		N/A
3.2.1	The luminaires must meet the minimum energy efficiency (EE) of 70 lm/W, as well as be classified in the Energy Efficiency classes of Table 2		N/A
3.2.1.1	The measured energy efficiency may not be lower than the acceptable minimum values defined in Table 2, nor less than 90% of the declared energy efficiency value		N/A
3.2.2	The luminaire should be classified according to the distributions of transverse and longitudinal iluminous intensity, according to the categories listed in Table 3		N/A
3.2.3	The luminaire should be classified as light distribution control (CDL) for each elevation angle declared as possible for installation (0°, 5°, 10°, 15°), in the categories specified in Table 4		N/A
3.2.4	The luminaire must have the following resistances to ultraviolet radiation		N/A
	(a) thermoplastic or polymeric components subject to time exposure shall not present premature degradation that compromises the operational performance of luminaires;		N/A
	(b) the transparency of polymer lenses and refractors shall not be less than 90% of the initial value; and		N/A
	(c) Refractors shall be designed against UV rays and with uniformthickness in order to avoid distortions in the photometric curve		N/A
3.2.5	The luminaire must not become unsafe or have premature failure under cyclic cooling and cooling conditions in service.		N/A
3.2.6	In conditions that represent abnormal operating conditions, parts of the luminaire and its mounting surface cannot reach excessive temperatures and wiring inside the luminaire cannot become unsafe.		N/A
4	Requirements Technical Towards Fixtures With Technology LED		P
4.1	Requirements from safety Electric		P
4.1.1	Luminaires must be designed to work under the following conditions of use:		P
	a) altitude not exceeding 1500 m		P
	(b) average ambient air temperature over a period of 24 h, not exceeding + 35 ℃		P

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Clause	Requirement + Test	Result - Remark	Verdict
	c) ambient air temperature between - 5 ℃ and + 50 ℃; and		P
	d) Relative humidity up to 100%.		P
4.1.2	Luminaires must be individually packed in packages suitable for the type of transport (where applied) and the normal loading, unloading, handling and storage operations		P
4.1.3	The luminaire must be provided with adequate anchorage, so that the conductors of the power cables are relieved of mechanical request at the points where they are connected to the terminals.		P
4.1.4	The photoelectric circuit socket (where applicable) must have insulation resistance, dielectric stiffness, the ability to conduct currents of the appropriate contacts and mechanical fixation of the appropriate conductors, in order to avoid the risk of electric shock, overheating and undue unlocking of pins and cables:		N/A
4.1.5	The luminaire enclosure shall ensure the degree of protection against the penetration of dust, solid objects and moisture, according to the classification of the luminaire and the IP code marked on the luminaire		P
4.1.5.1	The housings of vital parts (LED, secondary optical system and controller) must have at least IP66 protection, according to ABNT NBR IEC 60598-1:2010 (Luminaires - Part 1: General requirements and tests).	IP66	P
4.1.5.2	If the controller is IP-65 or higher, the controller housing on the luminaire must be at least IP-44.		P
4.1.6	The insulation resistance and dielectric stiffness must be adequate, so that the luminaire is free of electrical insulation failures so that, at the operating temperature, the leakage current of the appliance is not excessive		P
	Right after the moisture test of item 9.3 of ABNT NBR IEC 60598-1, the luminaire shall be subject to the insulation resistance test as per ABNT NBR IEC 60598-1.		P
	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø .....:		–
	Insulation resistance (M).....:		–
	SELV		P
	- between current-carrying parts of different polarity .....:	> 20 M	P
	- between current-carrying parts and mounting surface .....:	> 20 M	P
	- between current-carrying parts and metal parts of the luminaire.....:	> 20 M	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	and accessible metal parts.....:		
	- Insulation bushings .....:		N/A
	Other than SELV		P
	- between live parts of different polarity.....:	> 20 M	P
	- between live parts and mounting surface .....:	> 20 M	P
	- between live parts and metal parts.....:	> 20 M	P
	- between live parts of different polarity through action of a switch.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings .....:		N/A
	Electric strength test		P
	Test voltage (V).....:		P
	SELV		P
	- between current-carrying parts of different polarity .....:	500 V	P
	- between current-carrying parts and mounting surface .....:	500 V	P
	- between current-carrying parts and metal parts of the luminaire.....:	500 V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings .....:		N/A
	Other than SELV		P
	- between live parts of different polarity.....:	1520 V	P
	- between live parts and mounting surface .....:	1520 V	P
	- between live parts and metal parts.....:	1520 V	P
	- between live parts of different polarity through action of a switch.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings.....:		N/A
4.1.7	Leakage current that may occur during normal use of the luminaire may not cause a risk of electric shock		P
	The luminaire shall be subjected to the leakage current test according to ABNT		P

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Clause	Requirement + Test	Result - Remark	Verdict
	NBR IEC 60598-1.		
	Touch current or protective conductor current (mA).:	1.2 mA	P
4.1.8	Luminaires must be constructed in such a way that their living parts are not accessible when the luminaire is electrically installed and connected for normal use.		P
ABNT NBR IEC 60598-1	The luminaire shall be subjected to the leakage current test according to ABNT NBR IEC 60598-1.		P
8.2.3 c)	For ordinary class III luminaires, the voltage under no-load exceeds 25 V r.m.s. or 60 V d.c., the touch current measured (mA):		N/A
	If the voltages or currents exceed the values given above, at least one of the conductive parts in the SELV circuit shall be insulated by insulation, withstanding:		N/A
8.2.5	Standard test finger and with force of 10 N test against electric shock		P
8.2.6	A force is applied to covers whose fixing is not dependent on screws:	☐ 20 N ☐ 80 N	N/A
8.2.7	Capacitor discharge test, Max. discharged voltage (V):	4 V	P
4.1.9	Filters should be provided on the controller (**driver**) for suppression of electromagnetic interference and radio frequency.		P
	Conformity is verified by submitting the controller to one of the following standards: EN 55015 or CISPR 15.		P
4.1.10	Luminaires must have a resistance to external mechanical impacts to which they are subject under the conditions of use		P
4.1.10.1	Luminaires must have at least the degree of protection IK08, according to ABNT NBR IEC 62262:2015 (Degrees of protection ensured by electrical equipment enclosures against external mechanical impacts (IK Code).	IK08	P
4.1.11	The screws used in the luminaires and connections intended for the installation of the luminaires shall not show any deformation during tightening and untightening or causing deformation or breakage of the luminaire		P
ABNT NBR IEC 60598-1	The screws used to make the luminaires and the connections for installation of the luminaires shall be tested according to standard ABNT NBR IEC 60598-1 and shall not show any deformation during tightening or untightening or cause deformations and/or break the luminaires.		P
	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :	0.5; enclosure	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
	Locked connections:		N/A
	- fixed arms; torque (Nm).....:		N/A
	- lampholder; torque (Nm).....:		N/A
	- push-button switches; torque 0,8 Nm.....:		N/A
	Screwed glands; force (Nm).....:		N/A
4.1.12	Must be resistant to the force of the wind to which they are subject when in normal use.		P
ABNT NBR 15129	The luminaires must withstand the wind forces, as per standard ABNT NBR 15129.		P
7.3	Static load test (10 min)		P
4.1.13	Luminaires must continue to function in vibration situations to which they are subject when in normal use, and may not present any electrical or mechanical failures such as cracks, breaks, warps, opening of the fasteners and others that may compromise their performance.		P
ABNT NBR IEC 60598-1	The luminaires must be resistant to vibration, according to ABNT NBR IEC 60598-1. The test must be made with the luminaire completely mounted with all the components.		P
	To be considered approved in the test, in addition to the evaluations provided in ABNT NBR IEC 60598-1, the luminaires must operate after the test the same way as before the test and shall present any electric or mechanic failures such as cracks, breaks, warp, locks opening, and others that may impair their performance.		P
4.2	Requirements from performance		P
4.2.1	The total power of the circuit, at the rated voltage, shall not exceed 110% of the declared value		P
4.2.2	The power factor of the luminaires must meet the following requirements		P
4.2.2.1	The measured power factor of the circuit cannot be lower than the value declared by more than 0.05, when the luminaire is fed with nominal voltage and frequency	See table 1 & 2	P
4.2.2.2	The power factor must be equal to or greater than 0.92.	See table 1 & 2	P
4.2.3	The voltage and output current conditions of the control device during operation must be as follows.		P
4.2.3.1	For control devices with unstabilized output voltage, when powered with the rated voltage, the output voltage may not differ more than ±10% from the rated voltage of the LED modules.		N/A
4.2.3.2	For control devices with a stabilized output voltage, when powered at any voltage between		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	92% and 106% of the rated voltage, the output voltage may not differ more than ±10% from the rated voltage of the LED modules		
4.2.3.3	For control devices with unstabilized output current, when powered with the rated voltage, the output current may not differ more than ±10% from the rated current of the LED modules.		N/A
4.2.3.4	For control devices with stabilized output current, when fed at any voltage between 92% and 106% of the rated voltage, the output current may not present superfluous variation to ±10% of the rated current of the LED modules	See table 1	P
4.2.3.5	The Luminaire with LED technology must have a voltage surge protection device		P
4.2.4	The power current, in the rated voltage, may not differ by more than 10% from the declared value in the control device or in the supplier's literature		P
4.2.4.1	The harmonics of the power supply current must comply with IEC 61000-3-2:2014 ((Electromagnetic compatibility (EMC) - Limits Is harmonic Current emissions (equipment input Current 16 The Per phase)).		P
4.2.5	The luminaires must meet the minimum energy efficiency (EE) of 68 lm/W, as well as be classified in the Energy Efficiency classes of Table 5.		P
4.2.5.1	The average measured energy efficiency may not be lower than the minimum acceptable values defined in Table 5, nor less than 90% of the declared energy efficiency value.		P
4.2.6	The nominal color temperature (CBT) of a lamp should be between 2700 K and 6500 K, following the variations established in Table 6.	See table 1	P

Color temperature (K)		
Minimum Value	Declared Value	Maximum Value
2 580	2 700	2 870
2 870	3 000	3 220
3 220	3 500	3 710
3 710	4 000	4 260
4 260	4 500	4 746
4 746	5 000	5 312
5 312	5 700	6 022
6 022	6 500	7 042
TCC Flexible (2800 – 5600K)	$TF^2 = \Delta T^2$	

1) TF shall be selected in steps of 100 K (2 800, 2 900, 6 400 K), excluding the nominal TCC values listed above.
2) ΔT shall be calculated by $\Delta T = 1.1900 \times 10^{-8} \times T^3 - 1.5434 \times 10^{-4} \times T^2 - 0.7168 \times T - 902.35$

4.2.7	The luminaire must be able to properly reproduce the actual colors of an object or surface when compared to natural light.		P
4.2.7.1	The General Color Reproduction Index (Ra), which characterizes the Color Reproduction Index (IRC), must be greater than or equal to 70 (Ra ≥ 70).		P
4.2.8	The minimum life expectancy for maintaining the luminous flux of 70% (L70) is 50,000 hours.		P
4.2.9	The built-in control device must have durability compatible with the rated life of the lamp.		P
4.2.10	The luminaire should be classified according to the distributions of transverse and longitudinal iluminous intensity, according to the categories listed in Table 7, for an		P

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Clause	Requirement + Test	Result - Remark	Verdict
	installation with an elevation angle of 0°).		
	Classification of the luminous intensity distributions (3 samples)		P
	The luminaires are classifiable, based on ABNT NBR 5101, as to the cross-sectional distribution, longitudinal distribution and distribution control, as per Table 3.		P
	Cross-sectional distribution	Type II	P
	Longitudinal distribution	Short	P
	Control of luminous intensity distribution	Limited	P
4.2.11	The luminaire should be classified as for the control of light distribution (CDL), for an installation with an elevation angle of 0°, in the categories specified in Table 8.		P
	The luminous distribution control is defined by standard ABNT NBR 5101 and its values shown in below Table. (3 samples)		P
	Inform the CDL classification corresponding to the possible angles of elevation at installation, from the following: 0°, 5°, 10°, 15°, as well as meet the requirements according to their classification, as per the limits specified in below Table. (3 samples)		P
	LUMINOUS DISTRIBUTION CONTROL - CDL Type of luminaire / CDL(%) = (Cd × 100) / luminaire flux ENCE Totally limited: above 90° = 0; above 80° & to 90° ≤ 10 Limited: above 90° ≤ 2,5; above 80° & to 90° ≤ 10	Limited	P
4.2.12	The luminaire must have the following resistances to ultraviolet radiation:		P
	(a) lenses and polymer refractors subject to time exposure shall not have premature degradation that compromises the operational performance of luminaires;		P
	(b) the transparency of polymer lenses and refractors shall not be less than 90% of the initial value; and	91.24%	P
	(c) Refractors shall be designed against UV rays and with uniform thickness in order to avoid distortions in the photometric curve		P
	The thermoplastic components subject to exposure to the weather must be submitted to weather tests based on standard ASTM G154, cycle 3, in UV chamber with exposure time of 2016 hours. After the test, the parts shall not show degradation that impairs the operational performance of the luminaires.	See Annex 2	P
5	Requirements from markings and instructions		P
5.1	Markings must be indicated legibly and indelible on the luminaire, by means of adhesive, engraving or other method that guarantees readability and indelebility. Additionally, the luminaires must present the following information, in addition to those established in the ABNT NBR 15129:2012 standard (Lighting Fixtures - Particular Requirements):		P
	(a) number of luminaire manufacturing serials; and		P

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Clause	Requirement + Test	Result - Remark	Verdict
	b) Luminaire model		P
5.2	The instruction leaflet must provide the following information, in addition to those set out in ABNT NBR 15129:2012 (Lighting Fixtures - Particular Requirements):		P
	a) name and or brand of the supplier		P
	b) supplier model or code;		P
	c) photometric classification, with indication of the corresponding elevation angle;		P
	d) rated power, in watts;		P
	e) rated voltage range, in volts;		P
	f) nominal frequency, in hertz;		P
	(g) the country of origin of the product;		P
	h) instructions to the user regarding electrical installation, handling and recommended care		P
	(i) information on the importer or distributor		P
	j) product warranty, from the date of the note of sale to the consumer, being at least 60 months;		P
	k) expiration date for storage: undetermined;		P
	l) type of protection against electric shock; and		P
	m) guidelines for obtaining the IES file of photometry.		P
5.3	For LED luminaires, the following additional marking requirements apply:		
	(a) The instruction leaflet shall also contain information on the controller (make, model, power, rated electric current) and life expectancy (h) corresponding to the maintenance of the luminous flux of 70 % (L70) or 80 % (L80).		P
	b) The controller must be marked according to ABNT NBR IEC 61347-2-13:2012 (Lamp Control Device - Part 2-13: Particular electronic control requirements fed in c.c. or c.a. for LED modules) and ABNT NBR 16026:2012 (Electronic control device c.c. or c.a. for LED modules - Performance requirements).		P
	(c) Packaging shall be identified externally with the following minimum information, marked legibly and indeliblely, by means of adhesive, engraving or other method ensuring readability and indelebility:		P
	- name and/or brand of the manufacturer;		P
	- model or type of luminaire;		P
	- CNPJ and supplier address;		P
	- Gross weight; and		P
	- Stacking capacity and position.		P

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Clause	Requirement + Test	Result - Remark	Verdict
Annex B	**Method From Measurement And Calculation Of Maintenance From Flow Bright Of LEDs (Based On In Norm Iesna Lm-80-08 And Tm-21)**		P
	Performance Characteristics		P
	Maintenance of the luminous flux of the luminaire		P
	The useful life span estimated for the LED products is normally given in terms of the expectancy in hours of operation until the luminous flux of the luminaire falls to 70 % of its initial value (shown as L70). There are two (2) options to show with luminous flux maintenance of the luminaire.	☒ option 1: Component Performance ☐ option 2: Luminaire Performance	P
	Option 1: LED Component Performance		P
	ISTMT measurement		P
	To evaluate the conformity by the LED component performance, the following conditions shall be met:		P
	a) The highest temperature measured on the ISTMT shall stay below the highest value of temperature of the component measured on LM-80.	Temperature measured on the ISTMT (C): Max. 90.1 C Temperature measured on measured on LM-80 (C): 105 C	P
	b) The location of the temperature measuring point (TMP) is defined by the manufacturer, both for the tests relative to the LM-80 for the ISTM.		P
	c) The LED current supplied by the LED controller on the luminaire, shall be lower than or equal to the LED current measured for the LM-80 report.	LED current supplied by the LED controller on the luminaire (mA): Max. 110 mA LED current measured for the LM-80 report (mA): 150 mA	P
	d) The luminous flux maintenance in time (t), estimated as per TM-21, shall be higher than or equal to the flux maintenance percent corresponding to the final projected point, listed in Table 1 in Attachment D.		P
	Final projected point / Flux maintenance required for products of 50 000 h 36 000 h / ≥ 77.35 % 38 500 h / ≥ 75.98 % 42 000 h / ≥ 74.11 % 44 000 h / ≥ 73.06 % 48 000 h / ≥ 71.01 % 49 500 h / ≥ 70.25 % 50 000 h / ≥ 70.00 %	Time (t) at which to estimate lumen maintenance (hours): >120000 h; The luminous flux maintenance: 91.47%	P
	Option 2: Luminaire Performance		N/A
	The luminaire performance conformity for the luminous flux maintenance is verified by submitting the complete luminaire to the photometric tests of LM-79, by comparing the initial luminous flux (time = 0 h) with the luminous flux after 6 000 h of operation (time ≥ 6000 h).		N/A
	The test report shall demonstrate a minimum percent of the luminous flux maintenance, as below Table.		N/A
	Nominal life declared / Maintenance of the minimum luminous flux at 6	Initial luminous flux (lm): luminous flux at at 6000 h (lm):	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	000 h 50000 h 95,8 %	Maintenance at 6000 h:	
	Qualification of the electronic control device CC or CA for LED modules		P
	The electronic control device for the LED, independent or embedded type, shall be tested at the situation of application in nominal operation conditions (nominal voltage and ambient temperature), by measuring the controller housing temperature at the indicated point (tc). For the test, the luminaire shall operate at an ambient temperature of 35 ℃.	Rated tc (C): 90 C; Measured tc (C): 72.8 C	P

Table 1 – Energy efficiency test for full test model

Model No.:	YR24045-60-L		Rated wattage (W):	240			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☒ 127 ☐ 220 ☐ 277			LED Control device:		☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current				
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device	
1#:	236.7	1882	30112	127.22	N/A	0.9954	6226	73.7	Input voltage: at 116.84 V; Output current: 1.8159 A; Input voltage: at 134.62 V; Output current:1.8266 A	
2#:	237.6	1885	30042	126.44	N/A	0.9948	6229	73.3	Input voltage: at 116.84 V; Output current: 1.8186 A; Input voltage: at 134.62 V; Output current:1.8242 A	
3#:	237.1	1880	30207	127.4	N/A	0.9962	6236	73.9	Input voltage: at 116.84 V; Output current:1.8134 A; Input voltage: at 134.62 V; Output current: 1.8279 A	
Arithmetic mean	237.1	1882	30120	127.02	N/A	0.9955	6230	73.6	–	
Rating	240	2400	31200	130	N/A	0.92	6500	70	Program set max. output current 1.8 A	
Limit	264	< 2640	28080	90	N/A	0.92	6022 to 7042	70	1.62 to 1.98 A	
Verdict	P	P	P	P	N/A	P	P	P	P	

Table 1 – Energy efficiency test for full test model

Model No.:	YR24045-60-L		Rated wattage (W):	240			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☐ 127	☒ 220	☐ 277	LED Control device:	☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current					

Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device
1#:	237.1	1100	30749	129.69	N/A	0.9739	6237	74.0	Input voltage: at 202.4 V; Output current:1.8369 A; Input voltage: at 233.2 V; Output current: 1.8596 A
2#:	237.3	1107	30746	129.57	N/A	0.9746	6228	73.5	Input voltage: at 202.4 V; Output current: 1.8347 A; Input voltage: at 233.2 V; Output current: 1.8579 A
3#:	237.2	1102	30765	129.7	N/A	0.9753	6233	73.9	Input voltage: at 202.4 V; Output current: 1.8317 A; Input voltage: at 233.2 V; Output current: 1.8609 A
Arithmetic mean	237.2	1103	30753	129.65	N/A	0.9746	6233	73.8	–
Rating	240	2400	31200	130	N/A	0.92	6500	70	Program set max. output current 1.8 A
Limit	264	< 2640	28080	90	N/A	0.92	6022 to 7042	70	1.62 to 1.98 A
Verdict	P	P	P	P	N/A	P	P	P	P

Continued Table 1

Harmonic current							
Harmonic Order (n)	Maximum harmonic measured (%)						Maximum harmonic currents limit (%)
Sample No.	1.	2.	3.	1.	2.	3.	–
voltage	127 V			220 V			
30 :	29.89	29.86	29.93	29.28	29.25	29.32	–
2	0.069	0.068	0.068	0.121	0.126	0.123	2
3	1.701	1.706	1.709	2.162	2.166	2.167	30
5	1.264	1.266	1.268	2.501	2.506	2.507	10
7	1.889	1.886	1.889	3.140	3.146	3.150	7
9	1.454	1.456	1.461	2.447	2.446	2.447	5
11 < n < 39 (Only odd harmonics)	0.869	0.866	0.869	1.645	1.665	1.650	3

Table 1 – Energy efficiency test for full test model

Model No.:	YR24045-60-H		Rated wattage (W):	240		Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☒ 127 ☐ 220 ☐ 277			LED Control device:		☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current			
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device
1#:	246.4	1946	38055	154.44	N/A	0.9941	6715	75.0	Input voltage: at 116.84 V; Output current: 0.9192 A; Input voltage: at 134.62 V; Output current:0.9206 A
2#:	246.7	1943	38007	154.06	N/A	0.9941	6726	74.2	Input voltage: at 116.84 V; Output current: 0.9191 A; Input voltage: at 134.62 V; Output current:0.9236 A
3#:	246.1	1944	37974	154.3	N/A	0.9933	6715	73.8	Input voltage: at 116.84 V; Output current:0.9275 A; Input voltage: at 134.62 V; Output current: 0.9283 A
Arithmetic mean	246.4	1944	38012	154.27	N/A	0.9938	6719	74.3	–
Rating	240	2650	36000	150	N/A	0.92	6500	70	Program set max. output current 0.92 A
Limit	264	< 2915	32400	90	N/A	0.92	6022 to 7042	70	0.828 to 1.012 A
Verdict	P	P	P	P	N/A	P	P	P	P

Table 1 – Energy efficiency test for full test model

Model No.:	YR24045-60-H		Rated wattage (W):	240			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☐ 127	☒ 220	☐ 277	LED Control device:	☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current					

Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device
1#:	234.6	1114	37444	159.61	N/A	0.9608	6753	75.1	Input voltage: at 202.4 V; Output current:0.9195 A; Input voltage: at 233.2 V; Output current: 0.9243 A
2#:	234.4	1114	37413	159.61	N/A	0.9608	6744	74.6	Input voltage: at 202.4 V; Output current: 0.9197 A; Input voltage: at 233.2 V; Output current: 0.9215A
3#:	234.9	1104	37456	159.46	N/A	0.9606	6746	74.2	Input voltage: at 202.4 V; Output current: 0.9223 A; Input voltage: at 233.2 V; Output current: 0.9257 A
Arithmetic mean	234.8	1111	37443	159.49	N/A	0.9611	6747	74.3	–
Rating	240	2650	36000	150	N/A	0.92	6500	70	Program set max. output current 0.92 A
Limit	264	< 2915	32400	90	N/A	0.92	6022 to 7042	70	0.828 to 1.012 A
Verdict	P	P	P	P	N/A	P	P	P	P

Continued Table 1

Harmonic current							
Harmonic Order (n)	Maximum harmonic measured (%)						Maximum harmonic currents limit (%)
Sample No.	13.	14.	15.	13.	14.	15.	–
voltage	127 V			220 V			
30 :	29.74	29.79	29.71	28.16	28.29	28.21	–
2	0.14	0.19	0.26	0.16	0.19	0.24	2
3	2.30	2.39	3.06	8.23	8.69	8.97	30
5	3.82	3.93	4.11	5.73	5.98	6.23	10
7	2.52	2.84	2.51	2.87	3.61	2.93	7
9	0.51	0.92	1.06	1.38	1.56	1.74	5
11 < n < 39 (Only odd harmonics)	1.23	1.51	1.48	2.39	2.55	2.43	3

Table 1 – Energy efficiency test for full test model

Model No.:	YR15045-40-H		Rated wattage (W):	150			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☒ 127 ☐ 220 ☐ 277			LED Control device:		☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current				
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device	
1#:	146.8	1162	22341	152.19	N/A	0.9897	4096	83.8	Input voltage: at 116.84 V; Output current: 0.6162 A; Input voltage: at 134.62 V; Output current: 0.6163 A	
2#:	147.3	1162	22268	151.17	N/A	0.9889	4097	82.6	Input voltage: at 116.84 V; Output current: 0.6159 A; Input voltage: at 134.62 V; Output current: 0.6155 A	
3#:	145.9	1160	22263	152.59	N/A	0.9892	4092	83.8	Input voltage: at 116.84 V; Output current: 0.6169 A; Input voltage: at 134.62 V; Output current: 0.6175 A	
Arithmetic mean	146.7	1161	22291	151.98	N/A	0.9893	4095	83.4	–	
Rating	150	1800	22500	150	N/A	0.92	4000	70	Program set max. output current 0.61 A	
Limit	165	< 1980	20250	90	N/A	0.92	3710 to 4260	70	0.549 to 0.671	
Verdict	P	P	P	P	N/A	P	P	P	P	

Table 1 – Energy efficiency test for full test model

Model No.:	YR15045-40-H		Rated wattage (W):	150			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☐ 127	☒ 220	☐ 277	LED Control device:	☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current					
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device	
1#:	144.2	682	22292	154.59	N/A	0.9344	4106	84	Input voltage: at 202.4 V; Output current: 0.6161 A; Input voltage: at 233.2 V; Output current: 0.6161 A	
2#:	142.3	679	22261	156.44	N/A	0.9346	4108	83.6	Input voltage: at 202.4 V; Output current: 0.6155 A; Input voltage: at 233.2 V; Output current: 0.6157 A	
3#:	143.5	684	22192	154.65	N/A	0.9345	4098	83.2	Input voltage: at 202.4 V; Output current: 0.6151 A; Input voltage: at 233.2 V; Output current: 0.6153 A	
Arithmetic mean	143.3	682	22248	155.23	N/A	0.9345	4104	83.6	–	
Rating	150	1800	22500	150	N/A	0.92	4000	70	Program set max. output current 0.61 A	
Limit	165	< 1980	20250	90	N/A	0.92	3710 to 4260	70	0.549 to 0.671	
Verdict	P	P	P	P	N/A	P	P	P	P	

Continued Table 1

Harmonic current							
Harmonic Order (n)	Maximum harmonic measured (%)						Maximum harmonic currents limit (%)
Sample No.	16.	17.	18.	16.	17.	18.	–
voltage	127 V			220 V			
30 :	29.74	29.79	29.71	28.20	28.25	28.19	–
2	0.14	0.16	0.11	0.18	0.25	0.22	2
3	5.69	5.76	5.78	11.66	11.26	11.39	30
5	3.37	3.42	3.36	6.21	5.98	6.15	10
7	2.42	2.54	2.55	4.48	4.53	4.36	7
9	1.80	1.82	1.74	2.71	2.98	2.79	5
11 < n < 39 (Only odd harmonics)	1.29	1.22	1.25	1.79	1.56	1.63	3

Table 1 – Energy efficiency test for full test model

Model No.:	YR20045-50-H		Rated wattage (W):	200			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☒ 127 ☐ 220 ☐ 277			LED Control device:		☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current				
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device	
1#:	204.9	1627	28306	138.15	N/A	0.9926	5192	83.7	Input voltage: at 116.84 V; Output current: 0.8082 A; Input voltage: at 134.62 V; Output current: 0.8053 A	
2#:	205.2	1627	28360	138.21	N/A	0.9927	5191	83.5	Input voltage: at 116.84 V; Output current: 0.8079 A; Input voltage: at 134.62 V; Output current: 0.8063 A	
3#:	206.1	1628	28235	137	N/A	0.9934	5182	83.2	Input voltage: at 116.84 V; Output current: 0.8062 A; Input voltage: at 134.62 V; Output current: 0.8044 A	
Arithmetic mean	205.4	1627	28300	137.79	N/A	0.9929	5188	83.5	–	
Rating	200	2300	30000	150	N/A	0.92	5000	70	Program set max. output current 0.8 A	
Limit	220	< 2530	27000	90	N/A	0.92	4746 to 5312	70	0.72 to 0.88 A	
Verdict	P	P	P	P	N/A	P	P	P	P	

Table 1 – Energy efficiency test for full test model

Model No.:	YR20045-50-H		Rated wattage (W):	200			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☐ 127	☒ 220	☐ 277	LED Control device:	☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current					

Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device
1#:	201.5	961	28263	140.26	N/A	0.9509	5184	82.8	Input voltage: at 202.4 V; Output current: 0.8097 A; Input voltage: at 233.2 V; Output current: 0.8093 A
2#:	200.3	960	28241	140.99	N/A	0.951	5200	82.4	Input voltage: at 202.4 V; Output current: 0.8085 A; Input voltage: at 233.2 V; Output current: 0.8078 A
3#:	199.8	956	28327	141.78	N/A	0.9512	5182	83.5	Input voltage: at 202.4 V; Output current: 0.8096 A; Input voltage: at 233.2 V; Output current: 0.8089 A
Arithmetic mean	200.5	959	28277	141.01	N/A	0.951	5189	82.9	–
Rating	200	2300	30000	150	N/A	0.92	5000	70	Program set max. output current 0.8 A
Limit	220	< 2530	27000	90	N/A	0.92	4746 to 5312	70	0.72 to 0.88 A
Verdict	P	P	P	P	N/A	P	P	P	P

Continued Table 1

Harmonic current							
Harmonic Order (n)	Maximum harmonic measured (%)						Maximum harmonic currents limit (%)
Sample No.	19.	20.	21.	19.	20.	21.	–
voltage	127 V			220 V			
30 :	29.83	29.89	29.87	28.58	28.51	28.55	–
2	0.11	0.16	0.19	0.15	0.19	0.17	2
3	4.05	4.12	4.23	7.41	7.49	7.45	30
5	2.43	2.59	2.67	3.73	3.91	3.79	10
7	1.83	1.93	1.96	3.08	3.15	3.11	7
9	1.38	1.24	1.28	2.31	2.36	2.32	5
11 < n < 39 (Only odd harmonics)	1.22	1.12	1.19	1.85	1.93	1.81	3

Table 1 – Energy efficiency test for full test model

Model No.:	YR10045-30-H		Rated wattage (W):	100			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☒ 127 ☐ 220 ☐ 277			LED Control device:		☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current				
Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device	
1#:	97.9	783	14028	143.29	N/A	0.9897	2904	80.9	Input voltage: at 116.84 V; Output current: 0.7847 A; Input voltage: at 134.62 V; Output current: 0.7886 A	
2#:	97.6	792	14128	144.75	N/A	0.9892	2920	81.5	Input voltage: at 116.84 V; Output current: 0.7859 A; Input voltage: at 134.62 V; Output current: 0.7875 A	
3#:	97.9	777	13986	142.86	N/A	0.9912	2903	80.5	Input voltage: at 116.84 V; Output current: 0.7859 A; Input voltage: at 134.62 V; Output current: 0.7873 A	
Arithmetic mean	97.8	784	14047	143.63	N/A	0.99	2909	81.0	–	
Rating	100	1300	15000	150	N/A	0.92	3000	70	Program set max. output current 0.78 A	
Limit	110	< 1430	13500	90	N/A	0.92	2870 to 3220	70	0.702 to 0.858	
Verdict	P	P	P	P	N/A	P	P	P	P	

Table 1 – Energy efficiency test for full test model

Model No.:	YR10045-30-H		Rated wattage (W):	100			Frequency (Hz):	60	Stabilization time (h):	1
Test voltage for Supply current (V):	☐ 127	☒ 220	☐ 277	LED Control device:	☐ Control devices with non-stabilized output voltage ☐ Control devices with a stabilized output voltage ☐ Control devices with non-stabilized output current, ☒ Control devices having a stabilized output current					

Test items / Sample No.	Lamp power (W)	Supply current (mA)	Initial luminous flux (lm)	Energy efficiency (lm/W)	luminous flux at 6000 h (lm)	Power factor ( )	TCC (K)	Ra	Voltage and output current from the control device
1#:	96.9	465	14174	146.27	N/A	0.9546	2916	81	Input voltage: at 202.4 V; Output current: 0.7946 A; Input voltage: at 233.2 V; Output current: 0.8003 A
2#:	96.9	464	14189	146.43	N/A	0.9556	2908	80.7	Input voltage: at 202.4 V; Output current: 0.7953 A; Input voltage: at 233.2 V; Output current: 0.8012 A
3#:	99.2	459	14139	142.53	N/A	0.9548	2908	80.4	Input voltage: at 202.4 V; Output current: 0.7963 A; Input voltage: at 233.2 V; Output current: 0.8025 A
Arithmetic mean	97.7	463	14167	145.08	N/A	0.955	2911	80.7	–
Rating	100	1300	15000	150	N/A	0.92	3000	70	Program set max. output current 0.78 A
Limit	110	< 1430	13500	90	N/A	0.92	2870 to 3220	70	0.702 to 0.858
Verdict	P	P	P	P	N/A	P	P	P	P

Continued Table 1

Harmonic current							
Harmonic Order (n)	Maximum harmonic measured (%)						Maximum harmonic currents limit (%)
Sample No.	22.	23.	24.	22.	23.	24.	–
voltage	127 V			220 V			
30 :	29.86	29.82	29.85	28.92	28.95	28.99	–
2	0.12	0.16	0.20	0.16	0.19	0.25	2
3	0.62	0.74	0.82	5.19	5.63	5.89	30
5	3.45	3.87	3.59	4.83	4.96	5.26	10
7	2.02	2.16	2.19	1.50	1.79	1.93	7
9	0.24	0.36	0.42	1.07	1.22	1.49	5
11 < n < 39 (Only odd harmonics)	1.09	1.11	1.26	1.66	1.89	1.98	3

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-30-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	250.1	28110	112.4	0.9965
2#:	248.7	28079	112.9	0.9952
3#:	249.2	28202	113.17	0.9971
Arithmetic mean	249.3	28130	112.82	0.9963
Rating	240	31200	130	0.92
Limit	264	28080	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-30-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	245.2	28108	114.63	0.9763
2#:	245.9	28098	114.27	0.9753
3#:	245.1	28201	115.06	0.9769
Arithmetic mean	245.4	28136	114.65	0.9762
Rating	240	31200	130	0.92
Limit	264	28080	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-30-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	202.4	24132	119.23	0.9944
2#:	203.9	24095	118.17	0.9947
3#:	203.1	24222	119.26	0.9948
Arithmetic mean	203.1	24150	118.89	0.9946
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-30-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	202.1	24310	120.29	0.9656
2#:	200.7	24240	120.78	0.9647
3#:	201.0	24237	120.58	0.9656
Arithmetic mean	201.3	24262	120.55	0.9653
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-30-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	144.3	17584	121.86	0.9932
2#:	144.6	17499	121.02	0.993
3#:	145.7	17618	120.92	0.993
Arithmetic mean	144.9	17567	121.27	0.9931
Rating	150	19500	130	0.92
Limit	165	17550	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-30-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	149.4	18133	121.37	0.9598
2#:	150.2	18093	120.46	0.9590
3#:	149.6	18204	121.68	0.9593
Arithmetic mean	149.7	18143	121.17	0.9594
Rating	150	19500	130	0.92
Limit	165	17550	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-30-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	97.4	12130	124.54	0.9878
2#:	97.7	12212	124.99	0.9879
3#:	96.9	12043	124.28	0.9883
Arithmetic mean	97.3	12128	124.6	0.988
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-30-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	99.7	12267	123.04	0.9378
2#:	98.2	12230	124.54	0.939
3#:	99.7	12340	123.77	0.9378
Arithmetic mean	99.2	12279	123.78	0.9382
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-30-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.5	5974	128.47	0.9783
2#:	46.2	5969	129.2	0.9787
3#:	48.0	6001	125.02	0.9786
Arithmetic mean	46.9	5981	127.56	0.9785
Rating	50	6500	130	0.92
Limit	55	5850	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-30-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	47.5	5994	126.19	0.925
2#:	46.9	5933	126.5	0.9255
3#:	47.7	6019	126.18	0.9246
Arithmetic mean	47.4	5982	126.29	0.925
Rating	50	6500	130	0.92
Limit	55	5850	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-40-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	233.0	28075	120.49	0.9962
2#:	233.9	28071	120.01	0.9957
3#:	233.4	28088	120.34	0.9955
Arithmetic mean	233.4	28078	120.28	0.9958
Rating	240	31200	130	0.92
Limit	264	28080	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-50-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	202.7	25811	127.34	0.9949
2#:	200.9	25762	128.23	0.9954
3#:	201.4	25904	128.62	0.9954
Arithmetic mean	201.7	25826	128.06	0.9952
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-50-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	200.2	26019	129.97	0.9651
2#:	201.4	26110	129.64	0.9652
3#:	201.7	25973	128.77	0.9654
Arithmetic mean	201.1	26034	129.46	0.9652
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-50-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	97.7	13231	135.42	0.9881
2#:	97.4	13243	135.97	0.9876
3#:	96.3	13221	137.29	0.9893
Arithmetic mean	97.1	13232	136.23	0.9883
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-50-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	97.8	13453	137.56	0.9379
2#:	97.4	13503	138.63	0.9372
3#:	99.4	13388	134.69	0.9372
Arithmetic mean	98.2	13448	136.96	0.9374
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-50-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	45.2	6714	148.54	0.9847
2#:	44.9	6690	149.0	0.9852
3#:	45.5	6690	147.03	0.9839
Arithmetic mean	45.2	6698	148.19	0.9846
Rating	50	6500	130	0.92
Limit	55	5850	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-50-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.3	6753	145.85	0.9289
2#:	45.3	6667	147.17	0.9295
3#:	45.3	6821	150.57	0.9282
Arithmetic mean	45.6	6747	147.86	0.9289
Rating	50	6500	130	0.92
Limit	55	5850	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-60-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	196.9	26810	136.16	0.9945
2#:	195.7	26788	136.88	0.9935
3#:	195.9	26785	136.73	0.9944
Arithmetic mean	196.2	26794	136.59	0.9941
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-60-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	196.4	27178	138.38	0.9623
2#:	196.2	27213	138.7	0.9629
3#:	196.6	27260	138.66	0.9623
Arithmetic mean	196.4	27217	138.58	0.9625
Rating	200	26000	130	0.92
Limit	220	23400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-60-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	146.8	20954	142.74	0.9922
2#:	145.6	21007	144.28	0.9921
3#:	146.0	21055	144.21	0.9918
Arithmetic mean	146.1	21005	143.74	0.992
Rating	150	19500	130	0.92
Limit	165	17550	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-60-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	149.1	21516	144.31	0.9592
2#:	150.3	21475	142.88	0.9587
3#:	148.8	21456	144.19	0.959
Arithmetic mean	149.4	21482	143.79	0.959
Rating	150	19500	130	0.92
Limit	165	17550	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-60-L	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	99.8	13908	139.36	0.9891
2#:	100.9	13963	138.38	0.9895
3#:	99.8	13844	138.72	0.9882
Arithmetic mean	100.2	13905	138.82	0.9889
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-60-L	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	101.1	14051	138.98	0.9427
2#:	100.2	14024	139.96	0.9438
3#:	100.7	14146	140.48	0.9426
Arithmetic mean	100.7	14074	139.81	0.943
Rating	100	13000	130	0.92
Limit	110	11700	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-30-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	249.9	33326	133.36	0.9962
2#:	248.5	33281	133.93	0.9963
3#:	250.8	33400	133.17	0.9974
Arithmetic mean	249.7	33336	133.49	0.9966
Rating	240	36000	150	0.92
Limit	264	32400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-30-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	223.7	33979	151.9	0.9598
2#:	223.3	34003	152.27	0.9594
3#:	224.5	33919	151.09	0.9586
Arithmetic mean	223.8	33967	151.75	0.9593
Rating	240	36000	150	0.92
Limit	264	32400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-30-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	190.6	28524	149.65	0.9915
2#:	189.4	28453	150.23	0.9914
3#:	189.9	28454	149.84	0.9908
Arithmetic mean	190.0	28477	149.91	0.9912
Rating	200	30000	150	0.92
Limit	220	27000	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-30-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	186.0	28517	153.32	0.9437
2#:	187.1	28605	152.89	0.9448
3#:	185.5	28572	154.03	0.9434
Arithmetic mean	186.2	28565	153.41	0.944
Rating	200	30000	150	0.92
Limit	220	27000	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-30-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	146.3	21465	146.72	0.9877
2#:	145.2	21384	147.27	0.988
3#:	146.2	21473	146.87	0.9886
Arithmetic mean	145.9	21441	146.95	0.9881
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-30-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	144.7	21543	148.88	0.9332
2#:	143.8	21504	149.54	0.9325
3#:	143.0	21498	150.34	0.9342
Arithmetic mean	143.8	21515	149.59	0.9333
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-30-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.8	6869	146.77	0.9774
2#:	46.1	6870	149.02	0.9782
3#:	46.3	6902	149.07	0.9765
Arithmetic mean	46.4	6880	148.29	0.9774
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-30-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.1	6897	149.61	0.9208
2#:	47.9	6946	145.01	0.9207
3#:	46.3	6876	148.51	0.921
Arithmetic mean	46.8	6906	147.71	0.9208
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR24045-40-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	240		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	233.0	32573	139.8	0.9942
2#:	233.3	32578	139.64	0.9933
3#:	234.3	32652	139.36	0.9927
Arithmetic mean	233.5	32601	139.6	0.9934
Rating	240	36000	150	0.92
Limit	264	32400	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-50-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	148.2	22594	152.46	0.9881
2#:	147.9	22702	153.5	0.9878
3#:	148.4	22551	151.96	0.9872
Arithmetic mean	148.2	22616	152.64	0.9877
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-50-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	145.8	22662	155.43	0.9348
2#:	145.9	22691	155.52	0.9341
3#:	145.9	22656	155.28	0.9350
Arithmetic mean	145.9	22670	155.41	0.9346
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-50-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	100.7	14792	146.89	0.9904
2#:	100.4	14776	147.17	0.9896
3#:	100.2	14826	147.96	0.9897
Arithmetic mean	100.4	14798	147.34	0.9899
Rating	100	15000	150	0.92
Limit	110	13500	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-50-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	99.4	15124	152.15	0.9549
2#:	100.2	15160	151.3	0.9555
3#:	100.1	15193	151.78	0.9556
Arithmetic mean	99.9	15159	151.74	0.9553
Rating	100	15000	150	0.92
Limit	110	13500	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-50-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.4	7258	156.42	0.9853
2#:	44.9	7179	159.89	0.9841
3#:	46.4	7272	156.72	0.9854
Arithmetic mean	45.9	7236	157.68	0.9849
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-50-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	46.5	7314	157.29	0.9275
2#:	46.3	7388	159.57	0.9284
3#:	46.0	7272	158.09	0.9279
Arithmetic mean	46.3	7325	158.32	0.9279
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-60-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	200.9	31548	157.03	0.9932
2#:	201.6	31544	156.47	0.9936
3#:	201.8	31630	156.74	0.9932
Arithmetic mean	201.4	31574	156.75	0.9933
Rating	200	30000	150	0.92
Limit	220	27000	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR20045-60-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	200		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	198.3	31747	160.1	0.949
2#:	197.8	31757	160.55	0.9487
3#:	196.9	31647	160.73	0.949
Arithmetic mean	197.7	31717	160.46	0.9489
Rating	200	30000	150	0.92
Limit	220	27000	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-60-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	140.8	22706	161.26	0.9877
2#:	140.8	22679	161.07	0.9873
3#:	141.5	22668	160.2	0.9874
Arithmetic mean	141.0	22684	160.84	0.9875
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR15045-60-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	150		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	138.9	22704	163.46	0.9302
2#:	139.1	22681	163.06	0.9296
3#:	139.5	22779	163.29	0.9285
Arithmetic mean	139.2	22721	163.27	0.9294
Rating	150	22500	150	0.92
Limit	165	20250	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-60-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	93.9	14582	155.29	0.9903
2#:	94.7	14554	153.69	0.9919
3#:	93.3	14566	156.12	0.9895
Arithmetic mean	94.0	14567	155.03	0.9906
Rating	100	15000	150	0.92
Limit	110	13500	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR10045-60-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	100		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	92.9	14504	156.12	0.9514
2#:	92.9	14579	156.93	0.952
3#:	92.6	14579	157.44	0.951
Arithmetic mean	92.8	14554	156.83	0.9515
Rating	100	15000	150	0.92
Limit	110	13500	90	0.92
Verdict	P	P	P	P

Table 2 – Energy efficiency test for partly test model

Model No.:	YR05045-60-H	Test voltage (V):	127	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	51.7	6928	134.00	0.9829
2#:	52.8	6888	130.45	0.9845
3#:	52.6	6957	132.26	0.9837
Arithmetic mean	52.4	6924	132.24	0.9837
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

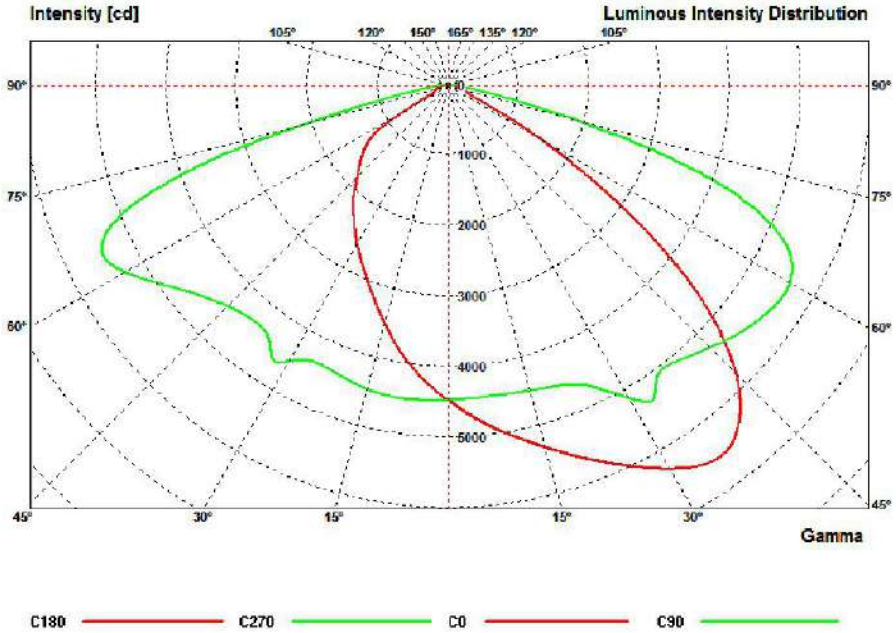
Table 2 – Energy efficiency test for partly test model

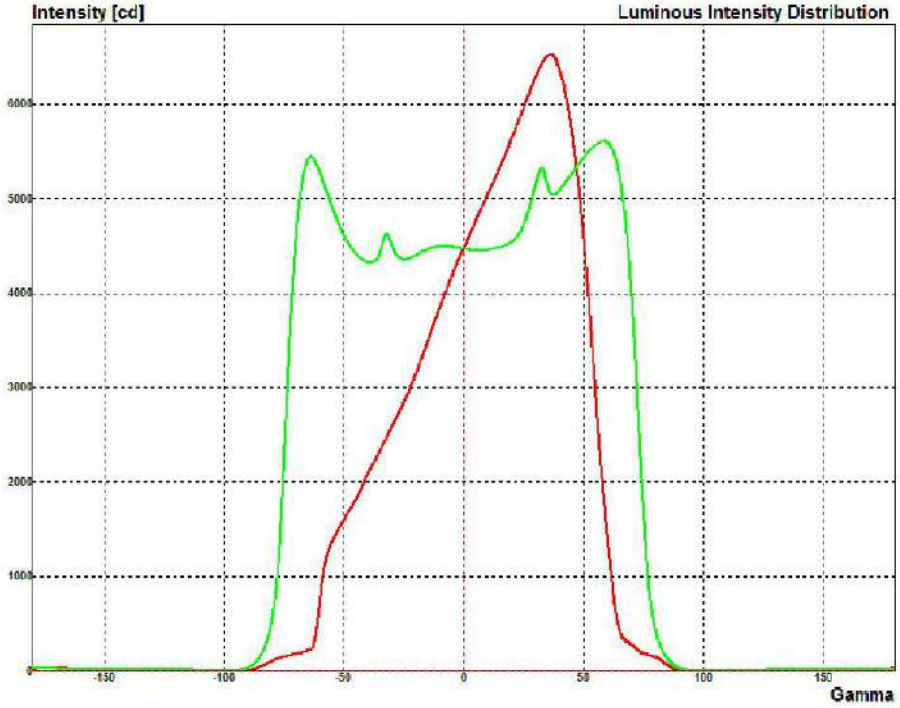
Model No.:	YR05045-60-H	Test voltage (V):	220	Frequency (Hz):	60
Rated wattage (W):	50		Stabilization time (h):	1	

Test items / Sample No.	Lamp power (W)	Initial luminous flux (lm)	Initial efficiency (lm/W)	Power factor ( )
1#:	51.7	7030	135.98	0.9355
2#:	51.5	6944	134.83	0.9359
3#:	51.3	7087	138.15	0.9353
Arithmetic mean	51.5	7020	136.32	0.9356
Rating	50	7500	150	0.92
Limit	55	6750	90	0.92
Verdict	P	P	P	P

Annex 1:

The luminous distribution for YR24045-60-H





Annex 2:

Summary of Results:

No.	Test Item	Test Method
1	Light Ageing Test-UV Exposure	ASTM G154-16 Cycle 3

Original Sample Photo:

Test Item: Light Ageing Test-UV Exposure

Sample Description: Plastic part

Test Method: ASTM G154-16 Cycle 3

Test Condition:

Exposure cycle:

ASTM G154-16 Cycle 3

Lamp type: UVB-313

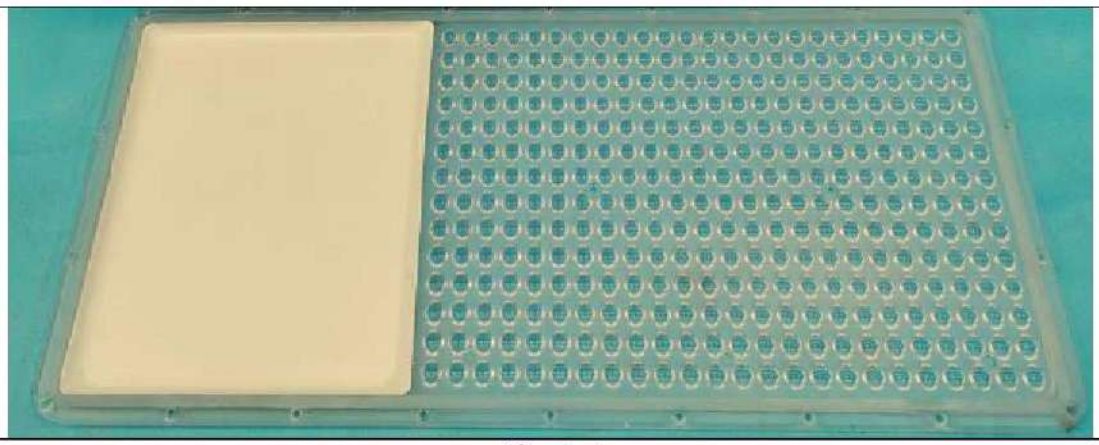
8h UV at (70±3)℃ BPT, 0 .49W/(m^2•nm)@310nm

4h condensation at (50±3) ℃ BPT

Exposure duration: 2016 h

Test Date: 2024-05-10~2024-08-02

Test Photo:



After test

Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
UV Accelerated Weathering Tester	QUV/SE	GZMR-AG-E207	2023-12-14	2024-12-13

Attachment 1: Equipment list and measurement uncertainty

Equipment list of Safety and PF:

Equipment No.	Equipment Name	Model No.	Manufacturer	Next calibration
GZE006-24	Digital power analyzer	8776A	Qingzhi	2024/11/10
GZE010-3	Insulation tester	1508	Fluke	2025/3/5
GZE014-10	Oven	QYOV-100L	QiYa	2025/7/21
GZE015-1	Temp.& Humidity chamber	MHG-800RR	Terchy	2025/9/22
GZE016-41	Digital calipers	0-150mm/0.01mm	Guanglu	2025/4/12
GZE018-49	Test probe B (Jointed)	ZX-11	Zhilitong	2025/8/31
GZE020-45	Thermo-hygrometer	608-H1	testo	2025/7/11
GZE022-3	Glow-wire test apparatus(IEC60695-2-10:2013)	ZLT-GTR	ZLT	2025/1/15
GZE027-22	Digital stopwatch	PC894	Tianfu	2025/3/13
GZE068-21	Frequency power supply	AN97015TS	Ainuo	2025/8/29
GZE100-44	Data acquisition/ switch unit	34972A	Agilent	2025/2/16
GZE120-2	Lamp cap torque tester	NJ210	Everfine	2025/9/19
GZE126-8	High accuracy array spectro-radiometer	HAAS-2000-VIS-V2	Everfine	2025/9/19
GZE126-9	Integrating sphere	AIS-2_2.0m R98	Everfine	2026/1/5
GZE126-22	Standard light source	D204H	Everfine	2025/8/7
GZE126-12	Digital CC&CV DC power supply	WY305	Everfine	2025/9/22
GZE126-14	AC Testing power source	DPS1010	Everfine	2025/9/22
GZE129-1	Goniophotometric system	GMS-1980	SENSING	2025/6/23
GZE126-39	Digital power analyzer	PF310A	Everfine	2025/4/19
GZE129-3	AC power source	APW-105N	ALL POWER	2025/7/7
GZE129-4	Total luminous flux standard lamp	110V/200W	SENSING	2025/4/17

Attachment 1: Equipment list and measurement uncertainty

For a 95% confidence level, the test result includes consideration of measurement uncertainty from the test equipment and methods, see below table:

Test Discipline	Frequency / Parameter	MU
Voltage	Up to 1000 V/ up to 1 kHz	±1,5 %
Current	Up to 5 A/ dc up to 60 Hz	±1,5 %
Power	(50/60 Hz) up to 3 kW	±3 %
Power Factor (50/60 Hz)	–	±0,05
Frequency	up to 10 kHz	±0,2 %
Temperature	- 35℃ to below 100°C	±2
Timer	10 ms up to 200 ms	±5 %
	200 ms up to 1 s	±10 ms
	1 s and above	±1 %
Force	For all value	±6 %
Torque	For all value	±10 %
Angles	For all value	±1 degree
Relative humidity	30% to 95% RH	±6 % RH
Insulation resistance	For all value	±0.016MΩ
Spectro-radiometer	For all value	±3 %
High-accuracy Digital Photometer Head	For all value	±8.2 %

Attachment 2: Photo documentation

Details of: General view of all 240 W models

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom

Details of: General view of all 240 W models

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom

Attachment 2: Photo documentation

Details of: General view of all 200 W models

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom

Details of: General view of all 200 W models

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom