

1.0 Reference and Address			
Report Number	24030987HKG-001	Original Issued: 25-Apr-2024	Revised: 2-Aug-2024
Standard(s)	Luminaires [UL 1598:2021 Ed.5+R:18Jun2021]		
	Luminaires [CSA C22.2#250.0:2021 Ed.5+U1]		
Applicant	Taizhou Jiaoguang Lighting Co., Ltd.	Manufacturer	Taizhou Jiaoguang Lighting Co., Ltd.
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2.0 Product Description						
Product	LED Fixed Luminaires					
Brand name	Light the future					
Description	The product covered by this report is a LED Fixed Luminaires for wet location use, provided lead wire/ flexible cord for field wiring.					
Models	<p>D236D- followed by two numbers; followed by -CCT-; followed by two characters; followed by -L.</p> <p>WP623-CCT-, WP633-CCT-, WP624-CCT-, WP634-CCT-, WP625-CCT-, WP635-CCT-, WP626-CCT- or WP636-CCT-; followed by PCR or NPC; followed by -EM or -NEM; followed by -; followed by two characters.</p> <p>WP621-CCT-, WP631-CCT-, WP622-CCT- or WP632-CCT-; followed by PCR or NPC; followed by -NEM; followed by -; followed by two characters.</p>					
Model Similarity	<p>For D236D-XX-CCT-XX-L:</p> <p>The first "XX" represents 70, 80 or 90, means color rendering index;</p> <p>The second "XX" can be two characters, represent Product housing color. For example BR represents Brown, WH represents White, BK represents Black, NK represents Nickel.</p> <p>The "L" means low frequency flicker light source.</p>					
	<u>Model No.</u>	<u>Driverless LED module</u>	<u>No. of LEDs (LED module)</u>	<u>Mounting</u>	<u>Overall dimensions</u>	<u>Max. Weight (kg)</u>
	D236D-XX-CCT-XX-L	D236D	56	Ceiling	Φ186 x 12.2mm	0.21
	<p>For WP series, these models are similar in electrical and mechanical construction, differences among them are shape, size, LED quantity, LED driver and electrical rating.</p> <p>Model nomenclature:</p> <p>The first "XXX" represent the specific light control function, PCR means Photocontrol (Photocell sensor), NPC means No Photocontrol (Photocell sensor).</p> <p>The second "XXX" represents the Emergency power function, EM means provided with Emergency driver, NEM means No Emergency driver.</p> <p>The third "XX" can be two characters, represent Product housing color. For example BR represents Brown, WH represents White, NI represents Nickel, BL represents Black, GR represents Gray or other colors.</p>					
	<u>Model No.</u>	<u>LED driver</u>	<u>No. of LEDs (LED module)</u>	<u>Mounting</u>	<u>Overall dimensions (mm)</u>	<u>Max. Weight (kg)</u>
	WP621-CCT-XXX-XXX-XX	WP621-D	24	Wall	141*85*178	0.78
	WP631-CCT-XXX-XXX-XX		24		142*85*178	0.94
	WP622-CCT-XXX-XXX-XX	WP622-D	48		141*85*214	1
	WP632-CCT-XXX-XXX-XX		48		142*85*213	0.95
	WP623-CCT-XXX-XXX-XX	WP623-D	36		170*121*213	1.31
	WP633-CCT-XXX-XXX-XX		36		169*121*208	1.1
	WP624-CCT-XXX-XXX-XX	WP624-D	72		170*121*293	2.41
	WP634-CCT-XXX-XXX-XX		72		169*121*293	1.72
	WP625-CCT-XXX-XXX-XX	WP625-D	48		216*121*208	1.7
	WP635-CCT-XXX-XXX-XX		48		204*121*208	1.92
WP626-CCT-XXX-XXX-XX	WP626-D	96	216*121*368		2.26	
WP636-CCT-XXX-XXX-XX		96	204*121*368		2.69	

2.0 Product Description				
Ratings	Model No.	Voltage , Frequency	Current (A)	Power (W)
	D236D-XX-CCT-XX-L	120Vac, 50/60Hz	0.15	15
	WP621-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.1	10
	WP631-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.1	10
	WP622-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.2	20
	WP632-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.2	20
	WP623-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.13	13
	WP633-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.13	13
	WP624-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.25	25
	WP634-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.25	25
	WP625-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.18	18
	WP635-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.18	18
	WP626-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.35	35
	WP636-CCT-XXX-XXX-XX	110-277Vac, 50/60Hz	0.35	35
	Other Ratings	NA		

3.0 Product Photographs

Photo 5 - Mounting screw of model D236D-XX-CCT-XX-L

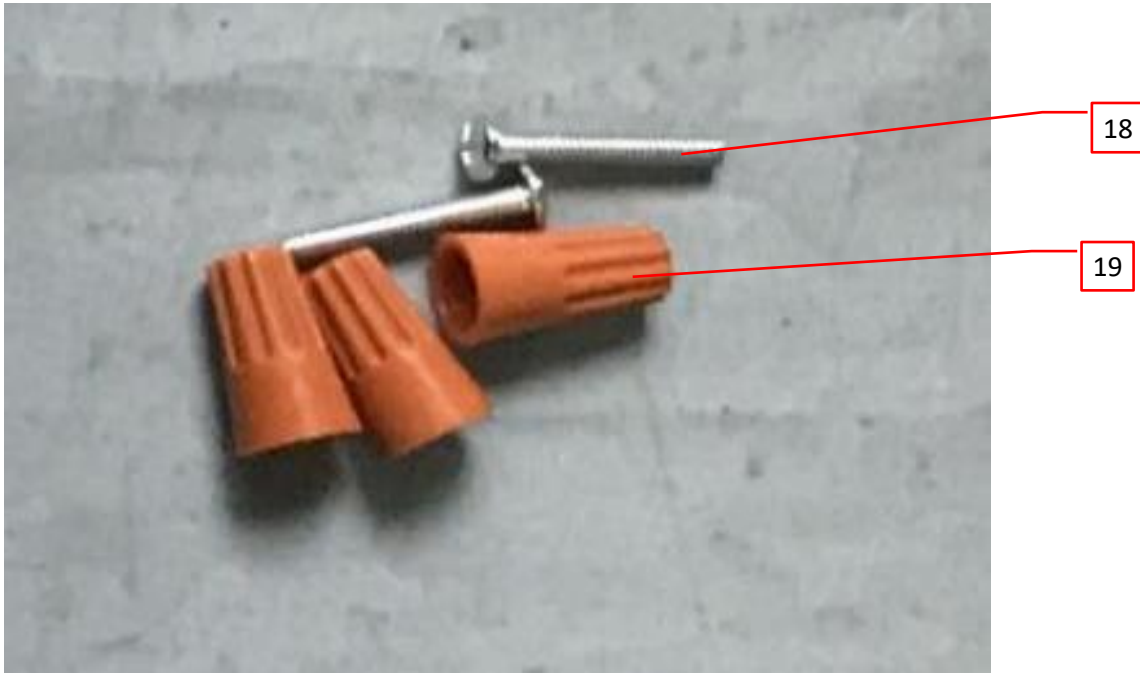
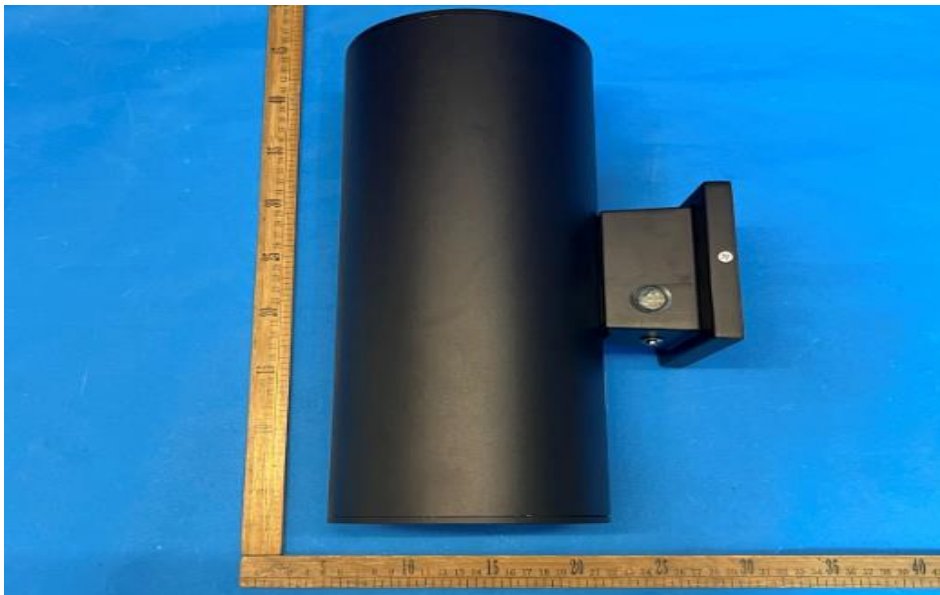


Photo 6 - External view of model WP626-CCT-XXX-XXX-XX, also represent models WP624-CCT-XXX-XXX-XX, WP622-CCT-XXX-XXX-XX.



3.0 Product Photographs

Photo 7 - External view of model WP636-CCT-XXX-XXX-XX,also represent models WP634-CCT-XXX-XXX-XX,WP632-CCT-XXX-XXX-XX.

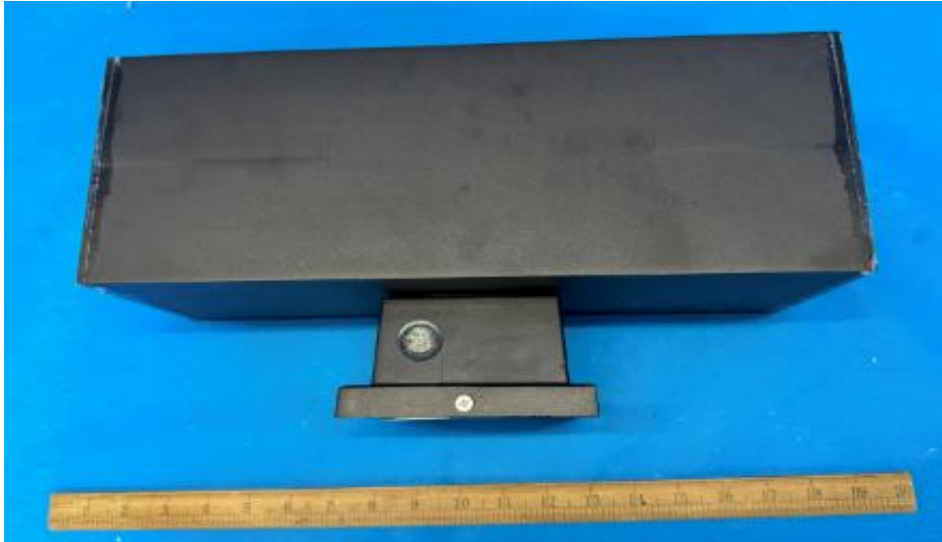


Photo 8 - External view of model WP635-CCT-XXX-XXX-XX,also represent models WP633-CCT-XXX-XXX-XX,WP631-CCT-XXX-XXX-XX.



3.0 Product Photographs

Photo 9 - External view of model WP625-CCT-XXX-XXX-XX,also represent models WP623-CCT-XXX-XXX-XX,WP621-CCT-XXX-XXX-XX.

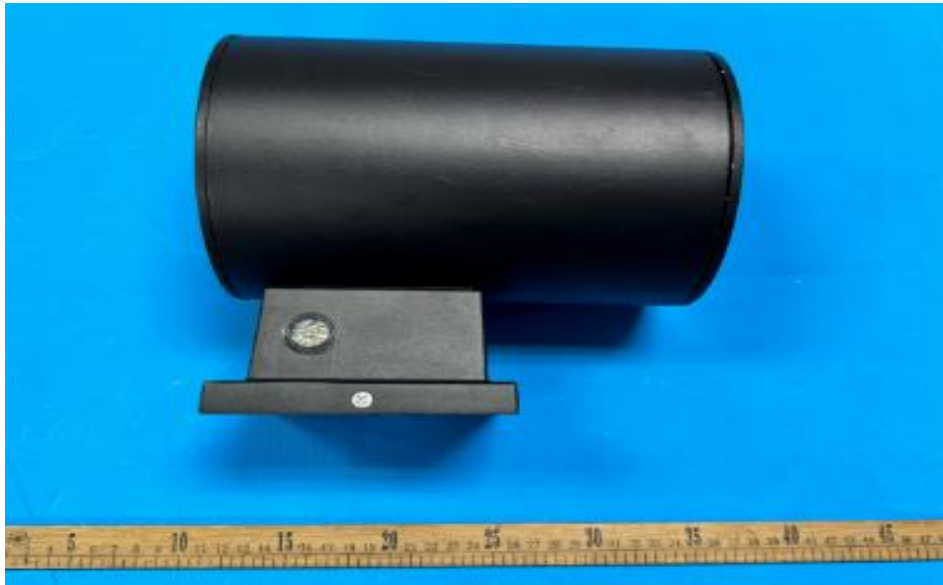


Photo 10 - Internal view of model WP626-CCT-XXX-XXX-XX,also represent models WP624-CCT-XXX-XXX-XX,WP622-CCT-XXX-XXX-XX.



3.0 Product Photographs

Photo 10a - Internal view of model WP634-CCT-XXX-XXX-XX,also represent models WP636-CCT-XXX-XXX-XX,WP632-CCT-XXX-XXX-XX.

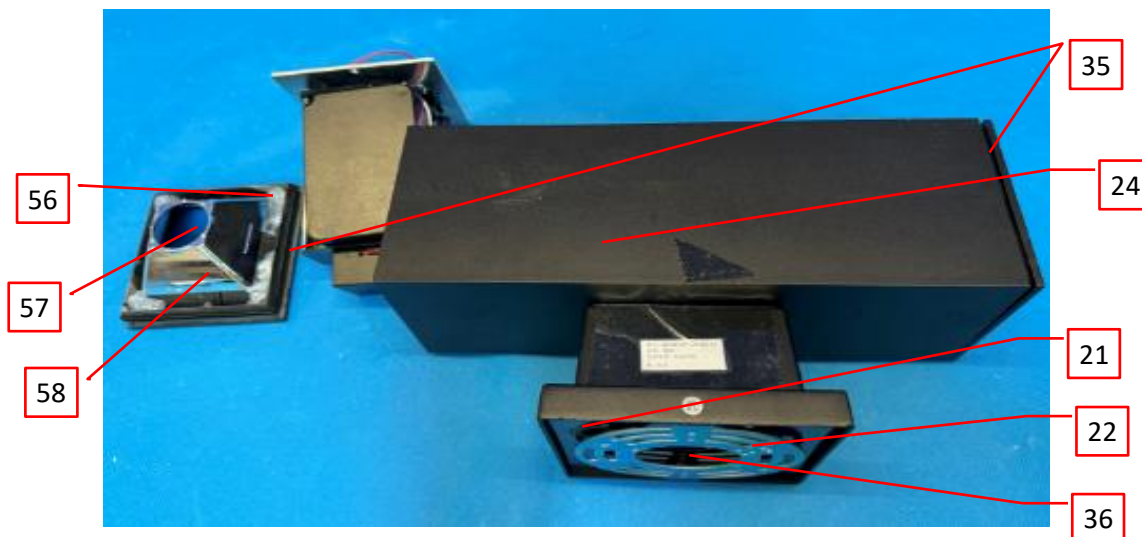
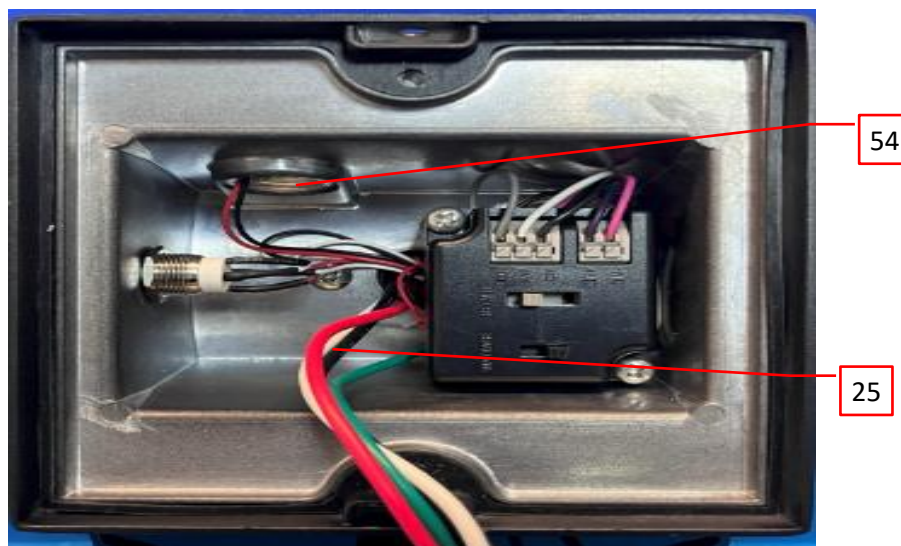


Photo 11 - Internal view of model WP626-CCT-XXX-XXX-XX,also represent models WP636-CCT-XXX-XXX-XX,WP634-CCT-XXX-XXX-XX,WP624-CCT-XXX-XXX-XX,WP632-CCT-XXX-XXX-XX,WP622-CCT-XXX-XXX-XX.



3.0 Product Photographs

Photo 20 - External view of model WP623-CCT-XXX-XXX-XX,also represent models WP635-CCT-XXX-XXX-XX,WP625-CCT-XXX-XXX-XX,WP633-CCT-XXX-XXX-XX,WP631-CCT-XXX-XXX-XX,WP621-CCT-XXX-XXX-XX.

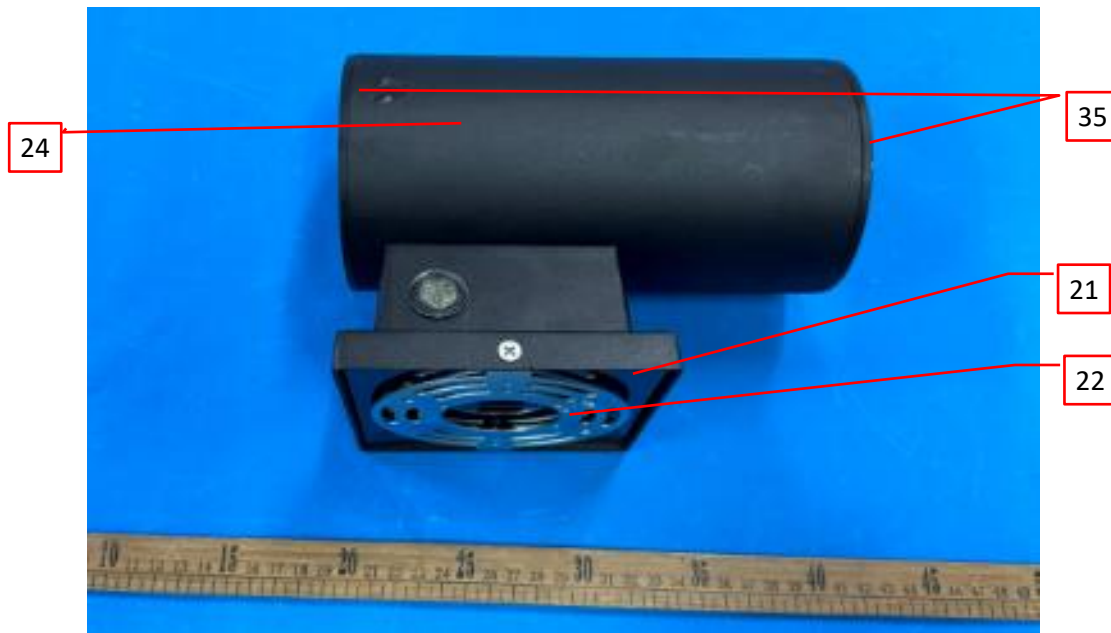
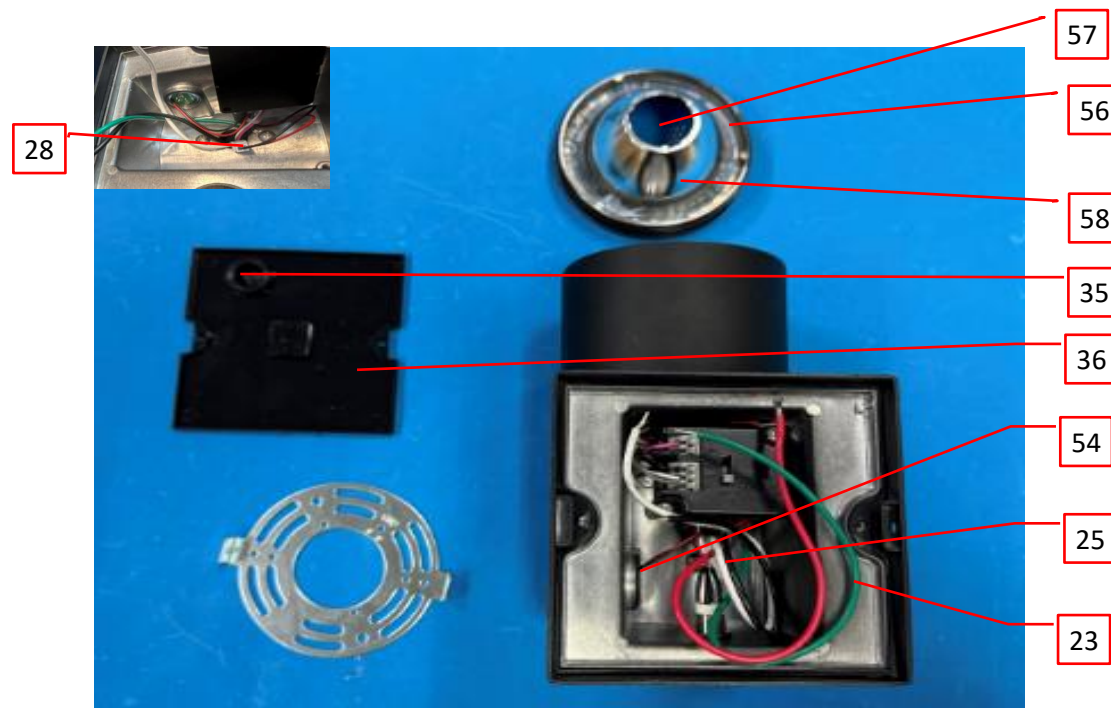


Photo 21 - Internal view of model WP623-CCT-XXX-XXX-XX,also represent models WP635-CCT-XXX-XXX-XX,WP625-CCT-XXX-XXX-XX,WP633-CCT-XXX-XXX-XX,WP631-CCT-XXX-XXX-XX,WP621-CCT-XXX-XXX-XX.



4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
4	15	Heat Shrinkable Tube	Various	Various	600V min. 125°C. VW-1. Fully Covered E-Capacitor wires and body, extend at least 3.5mm along the E-capacitor case.	cURus
4	16	Slide switch	Various	Various	5 positions, For CCT selection during installation, contains below components (item 16a, 16b). Comply 15W Circuit power limit measurement test.	NR
4	16a	Material of Slide Switch(not shown)	Various	Various	Polyamide 66 (PA66), V-2, min. 1.5mm, 80°C.	cURus
4	16b	Internal PCB of slide Switch(not shown)	Various	Various	Single layer printed wiring board, 1mm thick min. V-0, min.130°C, min CTI=3. Comply with UL796.	cURus
4	17	Varistor (VR1,VR3)	Various	Various	Type 5, Vn=175Vdc, Min.85°C.	cURus
5	18	Mounting screws	Various	Various	Steel, machine screws, Two provided, Thread diameter 3.8mm min, 25mm long min..	NR
5	19	Twist on wire connectors	Various	Various	300V min, 105°C min, 10-22 AWG. Three pcs for field wire connection.	UL, CSA
1	20	Marking Label System (not shown)	Various	Various	90°C min., suitable for metal surface, Stuck on inside canopy, comply UL969.	UR
10, 10a, 20	21	Canopy	Various	Various	Painted or plated Die cast aluminum, Min thickness 1.1mm.	NR
10, 10a, 20	22	Mounting bracket	Various	Various	Steel, Min thickness 1.35mm. Provided with a green-headed grounding screw for bonding. Height of two raised areas of grounding terminal: 1mm min.	NR
12, 21	23	Grounding wire	Various	Various	AWM. Insulated green or green-yellow wire, 18AWG min, 300V min, 105°C min. Extended at least 150mm into outlet box for field wiring connection.	cURus
10, 10a, 20	24	Metal enclosure	Various	Various	Painted or plated Die cast aluminum, min.1.5mm thick., the wire entrance are smooth and no sharp edge, secured to canopy by screws.	NR
11, 21	25	Supply wires	Various	Various	Black and white wires.AWM, min 18 AWG, 300V min, 105°C min., for field wiring at least 150mm long to extend into outlet box.	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
17, 19, 24, 25	31	Input wire	Various	Various	AWM, 18AWG min, 300V min, 105°C min, VW-1.	cURus
17, 24, 25	32	Output wire 1	Various	Various	AWM, 26AWG min, 300V min, 105°C min, VW-1. connected to LED wires.	cURus
19	32a	Output wire 2	Various	Various	AWM, 24AWG min, 300V min, 105°C min, VW-1. connected between sensor PCB.	cURus
14, 22	33	LED PCB	Zhejiang Core Point Technology Co.,Ltd. Various	CP-1 Various	Single layer printed wiring boards, rated V-0, min. 130°C, CTI≤4. Min 1.0mm thick. Complied with UL796.	cURus
14, 22	34	LED	Various	Various	Vf: 5.8-6.4V; If: 150mA CCT:2700-6500	NR
10, 10a, 20, 29	35	Gasket	DONGJUE SILICONE (NANJING) CO LTD Various	NE-Z150 Various	Silicone Rubber (SIR), V-0, 150°C, min.2.0mm, thickness, secured with enclosure in slot by mechanically fitting or used for thread gap reinforcement.	cURus
10, 10a, 21	36	Cover plate	SABIC INNOVATIVE PLASTICS US L L C Various	940A Various	PC, V-2 min, 120°C, Min thickness 1.5mm,	UR
13	37	Enclosure for switch	TEIJIN POLYCARBONATE CHINA LTD	L-1250U(#)(f1)	PC, rated min. V-2, min. 80°C, min. 0.4mm thickness. Two pieces construction, secured together by screws, Secured to enclosure by screws.	cURus
13	38	Slide Switch 1	TEIJIN POLYCARBONATE CHINA LTD	L-1250U(#)(f1)	Secured to PCB by welding,for CCT selection. PC, rated min. V-2, min. 80°C, min. 0.4mm thickness.	cURus
13	39	Slide Switch 2	TEIJIN POLYCARBONATE CHINA LTD	L-1250U(#)(f1)	Secured to PCB by welding,for power selection. PC, rated min. V-2, min. 80°C, min. 0.4mm thickness.	cURus
13	39a	Switch internal PCB	Various	Various	Single printed wiring boards. rated min. V-0, 130°C min, CTI ≤ 4, min. 0.8 mm thick. Complied with UL796.	cURus
13	40	Terminal block	XIAMEN GHGM INDUSTRIAL TRADE CO LTD Various	GY350 (@1) Various	Rated min. 300V, 7A, 120°C, Suitable for 16-24AWG Sol. wire. Connected to 0-10V dimming and emergency Driver ouput.	cURus

4.0 Critical Components						
Photo #	Item no. ¹	Name	Manufacturer/ trademark ²	Type / model ²	Technical data and securement means	Mark(s) of conformity ³
17, 25	43	Fuse 1(F1)	SHANGHAI FULLNESS ELECTRICAL CO LTD	TSP	Rated 300V, 1.6A for driver models WP622-D, WP623-D, WP625-D	cURus
24	43a	Fuse 2(F1)	SHANGHAI FULLNESS ELECTRICAL CO LTD	TSP	Rated 300V, 1.0A for driver models WP621-D	cURus
17	43b	Fuse 3(F1)	SHANGHAI FULLNESS ELECTRICAL CO LTD	TSP	Rated 300V, 2A for driver models WP626-D, WP624-D.	cURus
17, 24, 25	44	Y Capacitor (CY1, CY2)	HONGZHI ENTERPRISES LTD	Y	Class Y2, rated min.400V, min.125°C, 2.2nF max.	cURus
		Various	Various			
17, 24, 25	45	Varistor (MOV1)	CERGLASS MFG INC	10D511K	Type 5. Rated min. 320Vac, 125°C.	cURus
		Various	Various			
17, 25	46	Inductor (L2) 1	Various	Various	Rated 25mH. It consisted of item 46a,46b. Referred to Illustration 13 for detail.	NR
17, 24, 25	46a	Magnetic wire of L2	Various	Various	Polyurethane. 155°C min.	UR
17, 24, 25	46b	Bobbin of L2	Various	Various	Phenolic Molding Compound (PMC), rated min. V-0, 150°C, min. 0.75 mm thick.	UR
24	46c	Inductor (L2) 2	Various	Various	Rated 25mH. It consisted of item 46a,46b. Referred to Illustration 13a for detail.	NR
17	47	X Capacitor (CX1)	SHENZHEN WEIDY INDUSTRIAL DEVELOPMENT CO LTD	MKP	X2 type. Rated Max. 0.1uF. Min. 305Vac, min.110°C. For driver models WP626- D,WP624-D.	cURus
		Various	Various			
17, 24, 25	47a	X Capacitor (CX1)	SHENZHEN WEIDY INDUSTRIAL DEVELOPMENT CO LTD	MKP	X2 type. Rated Max. 0.068uF. Min. 305Vac, min.110°C. For driver models WP622-D, WP625-D, WP623-D, WP621-D.	cURus
		Various	Various			
17	48	Inductor (L1)	Various	Various	Rated 1.5mH. It consisted of item 48a-48b. Referred to Illustration 14 for detail.	NR
17, 24	48a	Magnetic wire of L1, L3	Various	Various	Polyurethane. 130°C min.	UR
17, 24	48b	Heat shrinkable tube of L1, L3	Various	Various	Rated min. 300V, min. 125°C.	UR
24, 25	48c	Inductor (L3)	Various	Various	Rated 3.3mH. It consisted of item 48a-48b. Referred to Illustration 14a for detail.	NR

6.0 Critical Features

<p>Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.</p>
<p>Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.</p>
<p>Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.</p>
<p>Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.</p>
<p>Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.</p>
<p>1. Spacing - For models rated 120V, in primary circuits, 3.2 mm minimum spacing are maintained through air and 6.4 mm over surfaces of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts or low voltage isolated circuits.</p> <p>For models rated 110-277V, in primary circuits, 6.4 mm minimum spacing are maintained through air and 9.5 mm over surfaces of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts or low voltage isolated circuits.</p>
<p>2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.</p>
<p>3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.</p>
<p>4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a metal or non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.</p>
<p>5. Grounding -All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead or the equipment grounding terminal.</p>
<p>6. Polarized Connection - This product is provided with a polarized power supply connection. All fuses are connected only to the ungrounded supply circuit conductor.</p>
<p>7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. All wiring refer to 4.0.</p>
<p>8. Schematics - Refer to Illustration No. 2,6,8,9,12 for schematics requiring verification during Field Representative Inspection Audits.</p>
<p>9. Markings -- The product is marked on a labeling system as described in Section 4.0 (Item 20, 60) as follows: (Refer to Illustration No. 1 for format designation of marking)</p> <ul style="list-style-type: none">a) Applicant name or brand name(S16-L2)b) Model no. (S16-L2)c) Date code of at least the month and year of manufacture (S16-L2), in format of YYMM, where MM & YY represents month and year.d) Input rating in volts(V), hertz(Hz), and watts(W) (S24-L3)

6.0 Critical Features

10. Cautionary Markings - The following are required:
Warning markings for location use -
1. **"SUITABLE FOR WET LOCATIONS"** & **"CONVIENT AUX EMPLACEMENTS MOUILLÉS"** (S24-L2, Verbatim) for models intended to Wet Locations (Refer to Sec. 2.0)
 2. **"MIN 90°C SUPPLY CONDUCTORS"** and **"LES FILS D'ALIMENTATION 90°C MIN"** S16-L3 and S32-L4
 3. For ceiling monuted units. **"COVERED CEILING MOUNT ONLY"** and **"INSTALLATION SUR PLAFOND COUVERT SEULEMENT"** S16-L2
 4. For wall mounted use unit: **"WALL MOUNT ONLY"** & **"INSTALLATION MURALE SEULEMENT"**(S24-L2, Verbatim)
5. For models with emergency driver function, for WP series, the second XXX=EM:
"THIS LUMINAIRE IS PROVIDED WITH A FACTORY- INSTALLED EMERGENCY LIGHTING BATTERY PACK" & **"CE LUMINAIRE EST ÉQUIPÉ EN USINE D'UNE BATTERIE DES LUMIÈRES D'URGENCE"** (S16-L2)
6. Warning markings for polarity
- For neutral conductor : **"N"**, **"NEUTRAL"**, **"W"** or **"WHITE"** (S16-L3) - It may be indicated by white wire for neutral supply wire connection.
 - For grounding conductor : **"G"**, **"GR"**, **"GRD"**, **"GND"**, **"GRND"**, **"GROUND"** or grounding symbol (S16-L3) - It may be identified by green; green with a yellow stripe; or green with a yellow tracer.
 - For dimming control conductor: Color other than white, grey, green, or green with yellow stripe.
11. Installation, Operating and Safety Instructions - The instruction manual shall contained the following information: (S16-L5)
1. **INSTALLATION OR ASSEMBLY INSTRUCTIONS**
Wiring instructions that specify the proper method of connecting the grounding means and maintaining polarity shall be included with the luminaire in a manner that will require the installer to handle the instructions during installation.
 2. The luminaire should be installed by a licensed electrician.
 3. The gap between the canopy and the mounting surface needs to be glued to prevent water from entering.
 4. Sealant Glue is needed between diffuser and canopy to prevent water from entering.
12. Carton Marking - The carton or container shall be marked with the installation warning on the outside of product carton except bottom side.
For For WP series: **"THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED"**
"CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE QUI CONNAÎT BIEN LE PRODUIT ET SON FONCTIONNEMENT AINSI QUE LES RISQUES INHÉRENTS" (S24-L4)
13. Transformer - Supplier records must be provided that indicate the received shipment of transformers was constructed as indicated in Section 4.0 item 49,50,52,52a . These records must be available at the factory for inspection on every received shipment.

7.0 Illustrations

Illustration 1 - Format Designation of Markings and Instructions

The table of the format minimum size designation (S__) for marking height and typeface is at below:

Size Designation	Letter Height		Font Size	Font typeface, upper case
	(mm)	(in)	(points)	
S16	1.6	0.062	6	Univers bold, Arial bold, Helvetica bold, Zurich BT bold
S24	2.4	0.094	10	Univers bold, Arial bold, Helvetica bold, Zurich BT bold
S32	3.2	0.125	12	Not specified
S48	4.8	0.188	19	Univers bold, Arial bold, Helvetica bold, Zurich BT Bold

The table of the format location designation (L__) for marking is at below:

Location	Description	Label exposed to a	Label exposed to a
L1	Visible during relamping, after installation	Type P	Type P
L2	Visible during installation	Type N	Type P
L3	Visible during installation and inspection of wire connections, located near the supply connections	Type N	Type P
L4	On the smallest unit package or carton	Type T	Type T
L5	On an instruction sheet or tag	Type T	Type T
L6	Visible during component replacement	Type P	Type P

Type P designates a permanent label or nameplate that is intended to remain in the applied position for the lifetime of the luminaire under conditions of normal use. It provides information required for user maintenance over the expected life of the product. It is made of metal, plastic, or other material that complies with Clause 20.1.7.

Type N designates a non-permanent label or nameplate that is intended to remain in place only for the purpose of installation. It shows the certification mark, manufacturer's identification, and product identification. It is made of paper with an adhesive backing.

Type T designates a temporary label, instruction sheet, or tag that is not required after installation. It provides installation instructions, and information not required after installation. It is made of printed matter with or without adhesive and/or attachment, and is intended to be included with, or attached to, the product.