1.0 Reference and Address			
Report Number	24030987HKG-001 Original Issued: 25-Apr-2024		Revised: 23-Oct-2024
Standard(s)	Luminaires [UL 1598:2021 Ed.5+R:31Jan2024] Luminaires [CSA C22.2#250.0:2021 Ed.5+U1;U2]		
Applicant	Taizhou Jiaoguang Lighting Co., Ltd.	Manufacturer	**Taizhou Jiaoguang Lighting Co., Ltd.**
Address	1 Wei Er Rd., Taizhou Economic Development Zone, TAIZHOU CITY Zhejiang Province	Address	1 Wei Er Rd., Taizhou Economic Development Zone, TAIZHOU CITY Zhejiang Province
Country	China	Country	China
Contact	Pan Huixiang Lilian Wang	Contact	Pan Huixiang
Phone	86 13906588970 0576-89017122	Phone	86 13906588970
FAX	NA	FAX	NA
Email	jgtechnology@jiaoguang.com Salesdept4@jiaoguang.com	Email	jgtechnology@jiaoguang.com

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	D236D- followed by two numbers; followed by -CCT-; followed by two characters; followed by -L. 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. WP621-CCT-, WP631-CCT-, WP622-CCT- or WP632-CCT-; followed by PCR or NPC; followed by -NEM; followed by -; followed by two characters. D915-, D917-, D969-, D969Y-, D9612- or D9612Y-; followed by two numbers; followed by -CCT-; followed by two characters.

Model Similarity

For D236D-XX-CCT-XX-L:
The first "XX" represents 70, 80 or 90, means color rendering index;
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.
The "L" means low frequency flicker light source.

Model No.	Driverless LED module	No. of LEDs (LED module)	Mounting	Overall dimensions	Max. Weight (kg)
D236D-XX-CCT-XX-L	D236D	56	Ceiling	Φ186 x 12.2mm	0.21

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.

Model nomenclature:
The first "XXX" represent the specific light control function, PCR means Photocontrol (Photocell sensor), NPC means No Photocontrol (Photocell sensor).
The second "XXX" represents the Emergency power function, EM means provieded wih Emergency driver, NEM means No Emergency driver.
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.

Model No.	LED driver	No. of LEDs (LED module)	Mounting	Overall dimensions (mm)	Max. Weight (kg)
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

For D915-XX-CCT-XX, D917-XX-CCT-XX, D969-XX-CCT-XX, D969Y-XX-CCT-XX, D9612-XX-CCT-XX, D9612Y-XX-CCT-XX:
The first "XX" represents 70, 80 or 90, means color rendering index;
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.

Model No.	LED driver	No. of LEDs (LED module)	Mounting	Overall dimensions (mm)	Max. Weight (kg)
D915-XX-CCT-XX	D915	56	Ceiling	Φ140 x 17.5	0.17
D917-XX-CCT-XX	D917	84	Ceiling	Φ190 x 17.5	0.28
D969-XX-CCT-XX	D969	112	Ceiling	Φ220 x 21	0.43
D969Y-XX-CCT-XX	D969Y	112+40	Ceiling	Φ220 x 21	0.44
D9612-XX-CCT-XX	D9612	150	Ceiling	Φ295 x 21	0.72
D9612Y-XX-CCT-XX	D9612Y	150+80	Ceiling	Φ295 x 21	0.73

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
D915-XX-CCT-XX	120Vac, 50/60Hz	0.1	10
D917-XX-CCT-XX	120Vac, 50/60Hz	0.15	15
D969-XX-CCT-XX	120Vac, 50/60Hz	0.15	15
D969Y-XX-CCT-XX	120Vac, 50/60Hz	0.22	22
D9612-XX-CCT-XX	120Vac, 50/60Hz	0.28	28
D9612Y-XX-CCT-XX	120Vac, 50/60Hz	0.28	28

Other Ratings: NA

3.0 Product Photographs

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

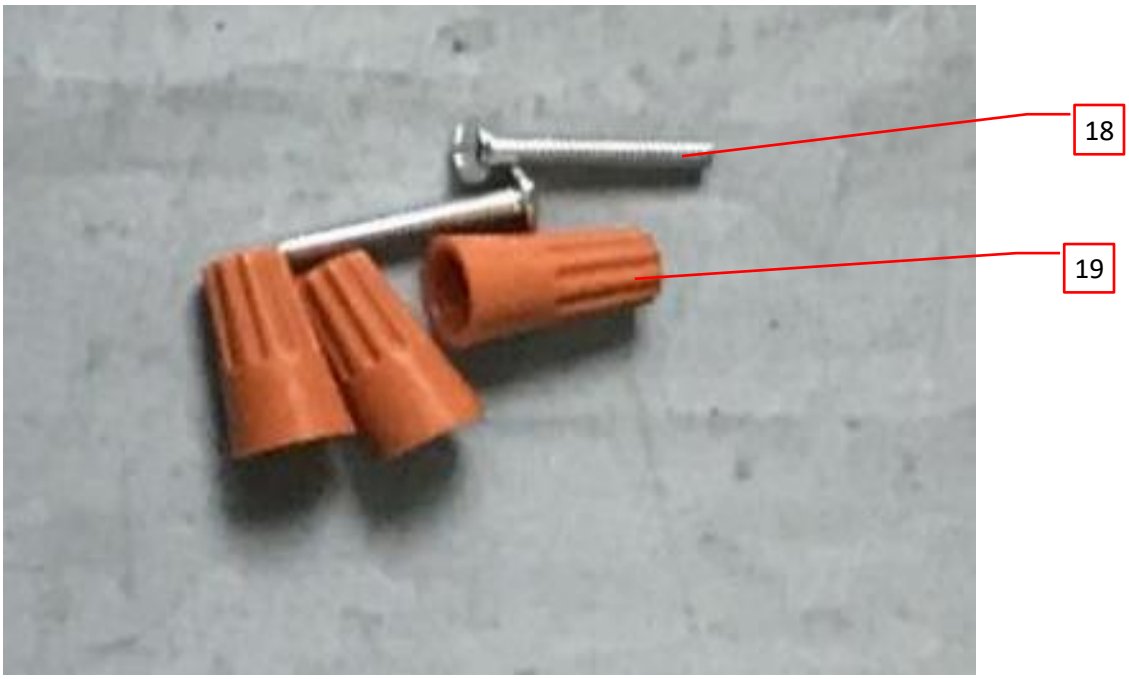
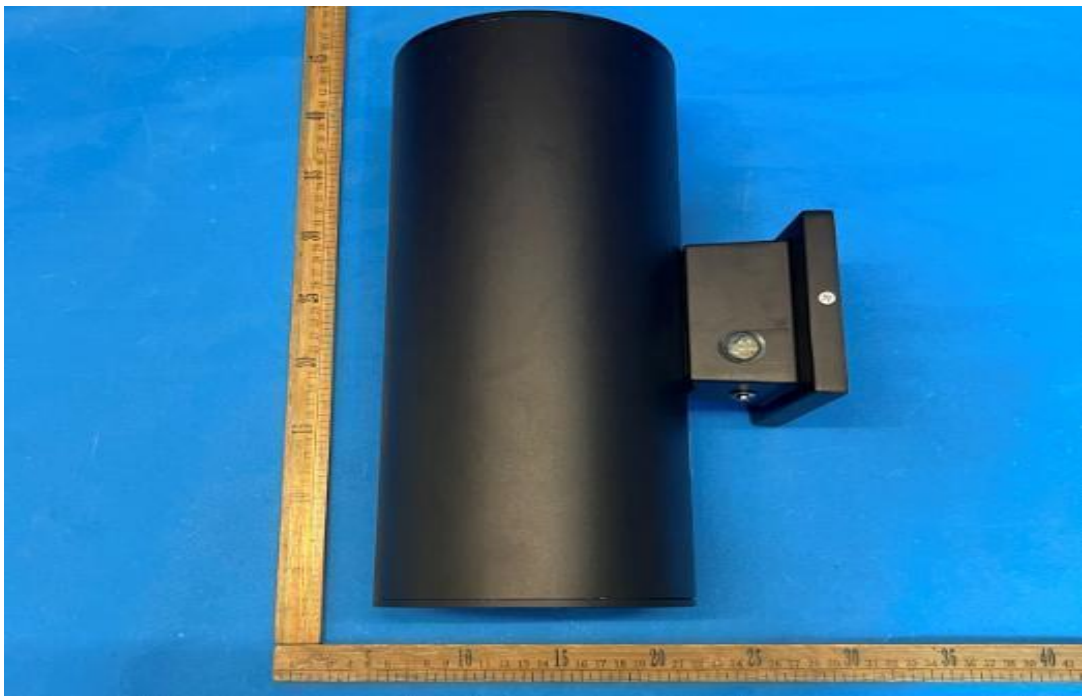


Photo 6 - External view of model WP626-CCT-XXX-XXX-XX, also represent models WP624-CCT-XXX-XXX-XX, WP622-CCT-XXX-XXX-XX.



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.

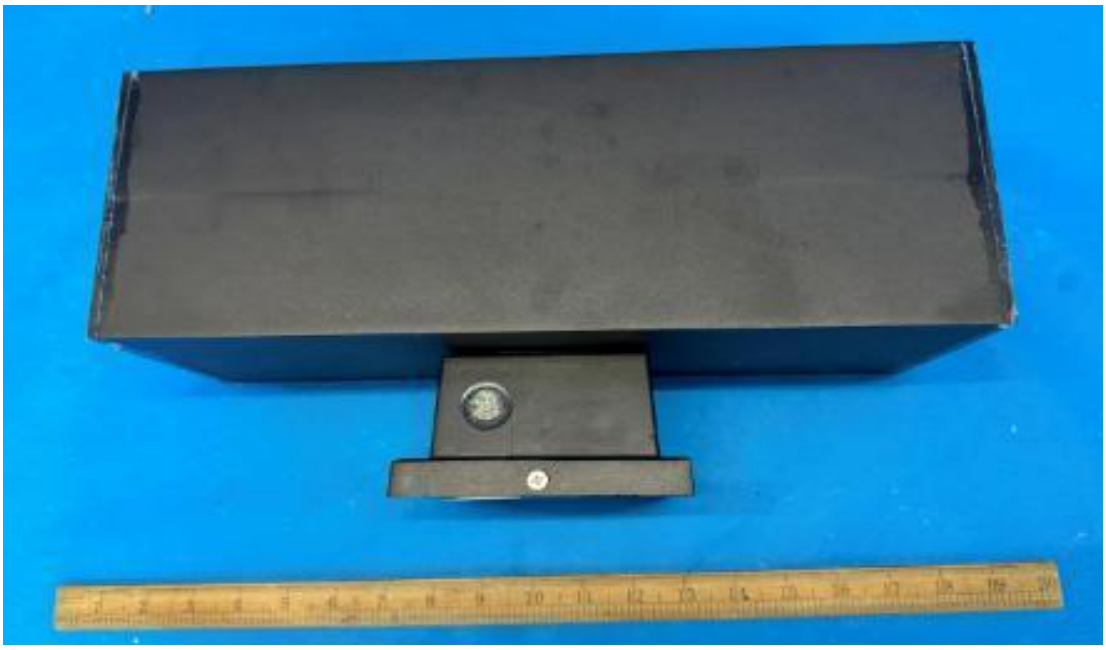


Photo 8 - External view of model WP635-CCT-XXX-XXX-XX,also represent models WP633-CCT-XXX-XXX-XX,WP631-CCT-XXX-XXX-XX.

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.

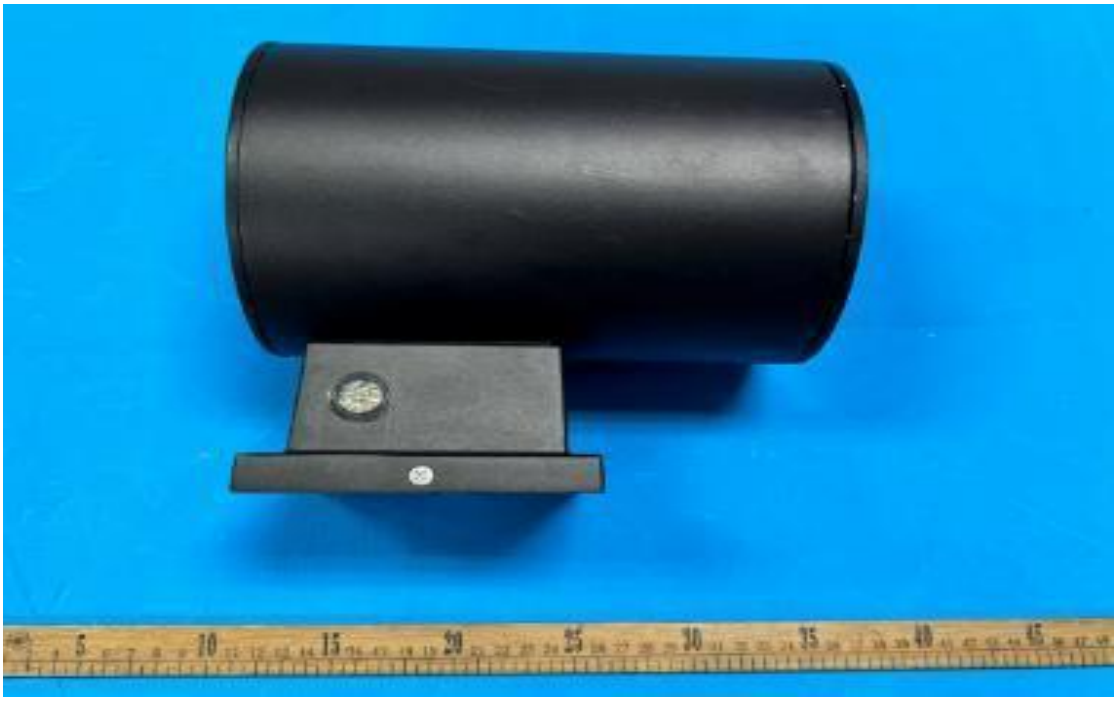


Photo 10 - Internal view of model WP626-CCT-XXX-XXX-XX,also represent models WP624-CCT-XXX-XXX-XX,WP622-CCT-XXX-XXX-XX.

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.

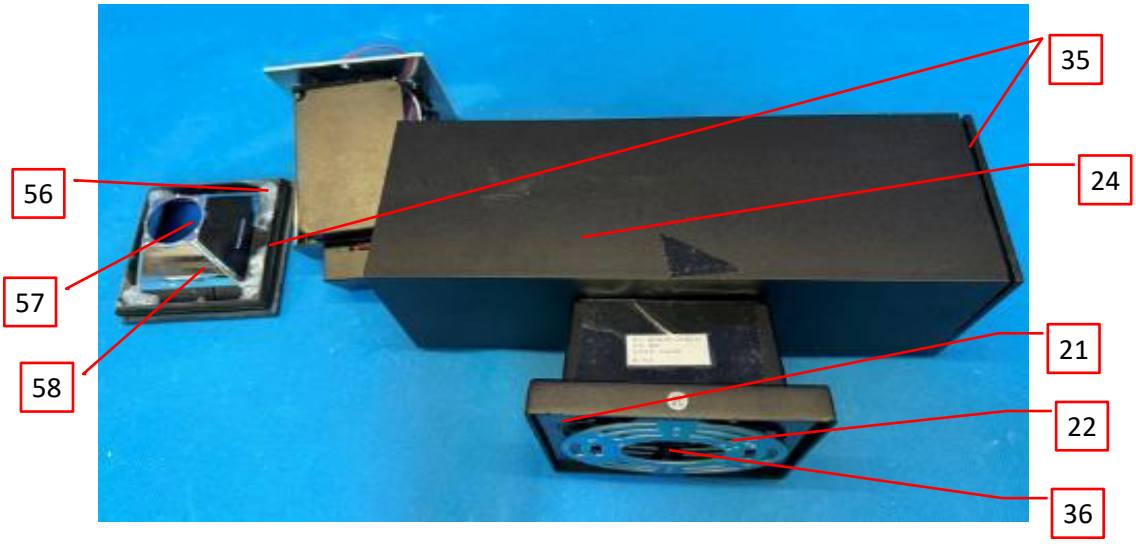
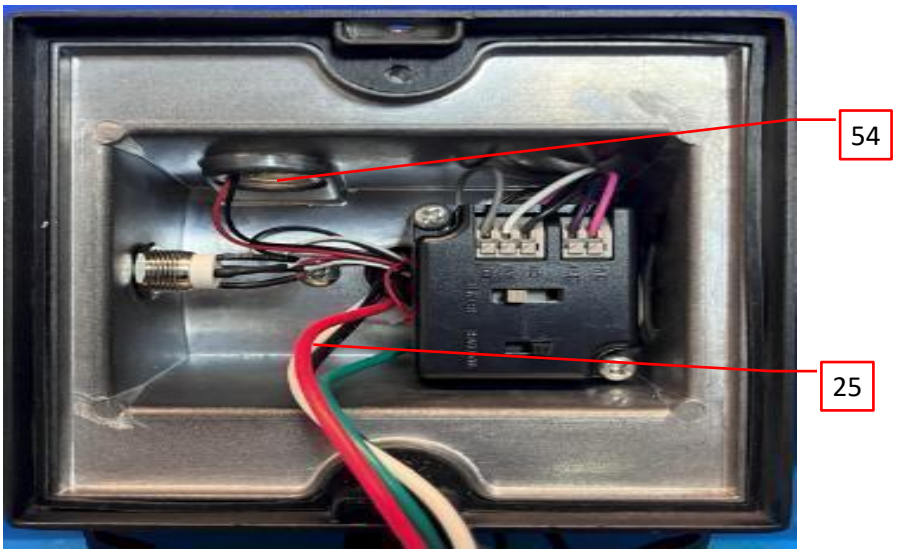


Photo 11 - Internal view of model WP626-CCT-XXX-XXX-XX,also represent models WP636-CCT-XXX-XXX-XX,WP634-CCT-XXX-XXX-XX,WP624-CCT-XXX-XXX-XX,WP632-CCT-XXX-XXX-XX,WP622-CCT-XXX-XXX-XX.



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.

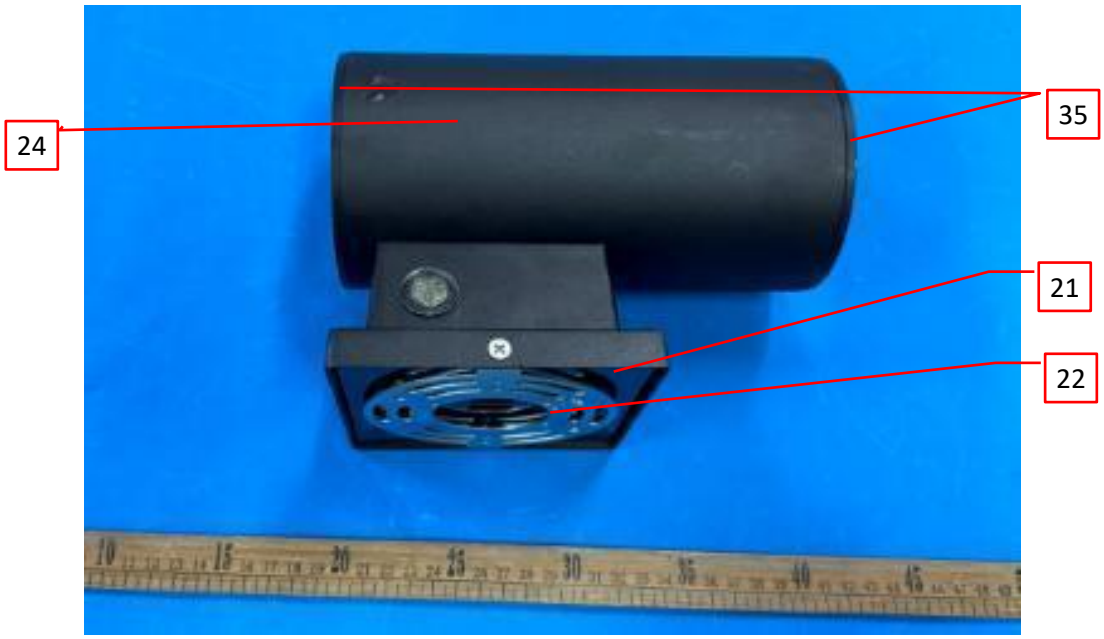
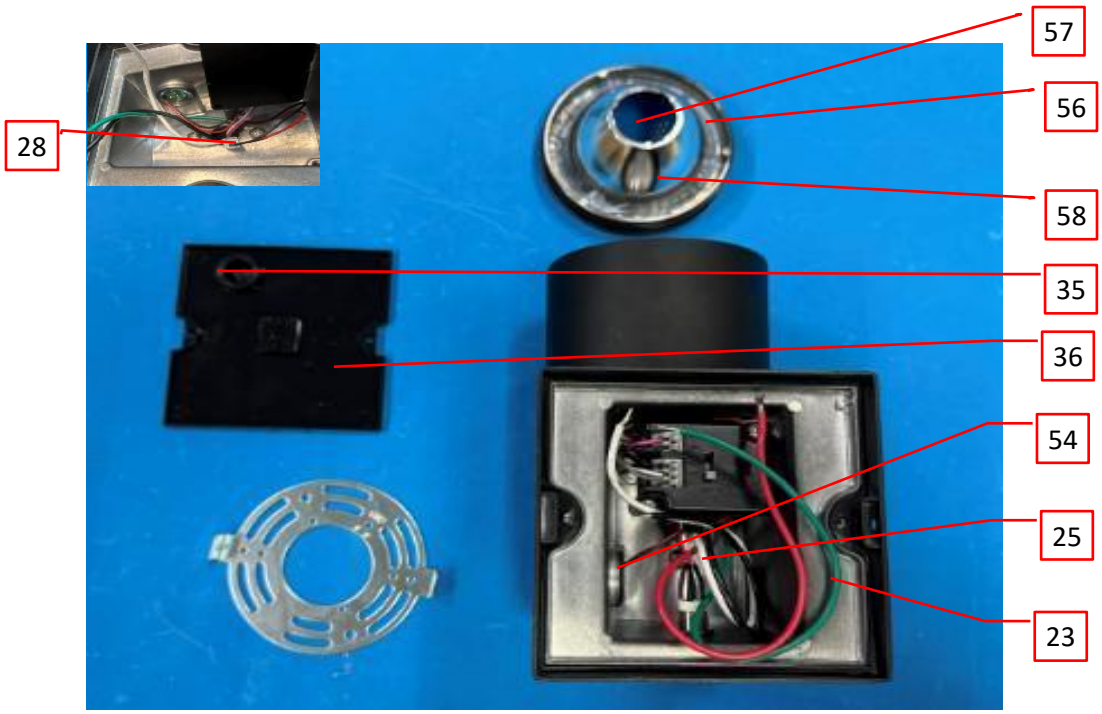


Photo 21 - Internal view of model WP623-CCT-XXX-XXX-XX,also represent models WP635-CCT-XXX-XXX-XX,WP625-CCT-XXX-XXX-XX,WP633-CCT-XXX-XXX-XX,WP631-CCT-XXX-XXX-XX,WP621-CCT-XXX-XXX-XX.



3.0 Product Photographs

Photo 40 - External view of model D969-XX-CCT-XX and D969Y-XX-CCT-XX

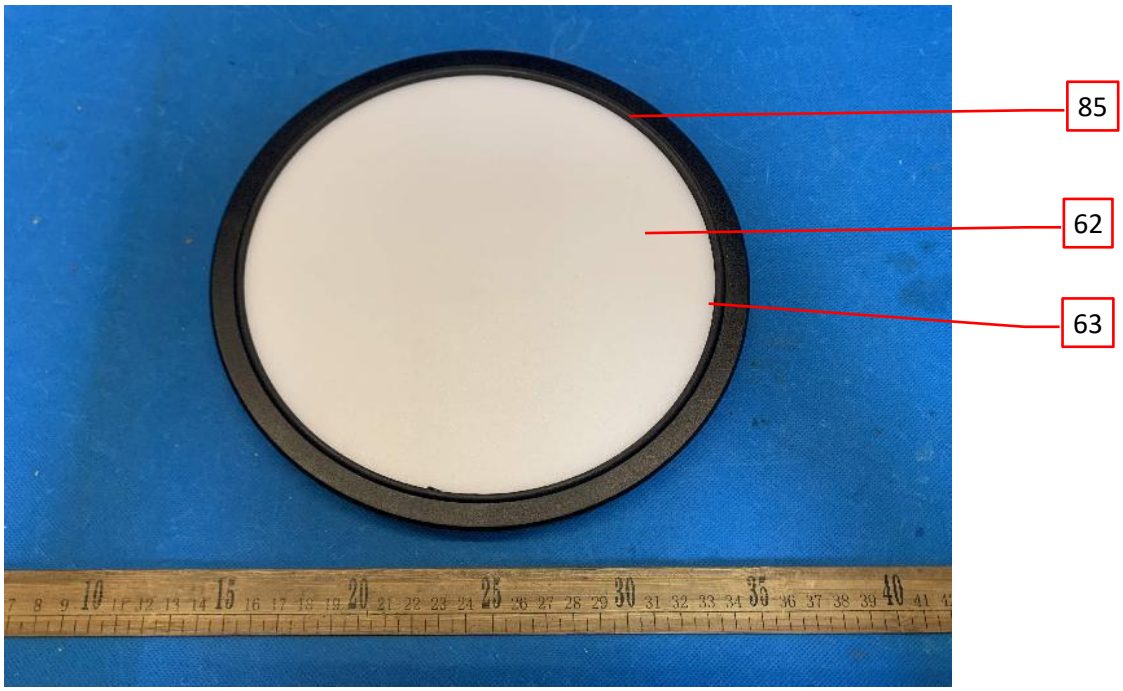
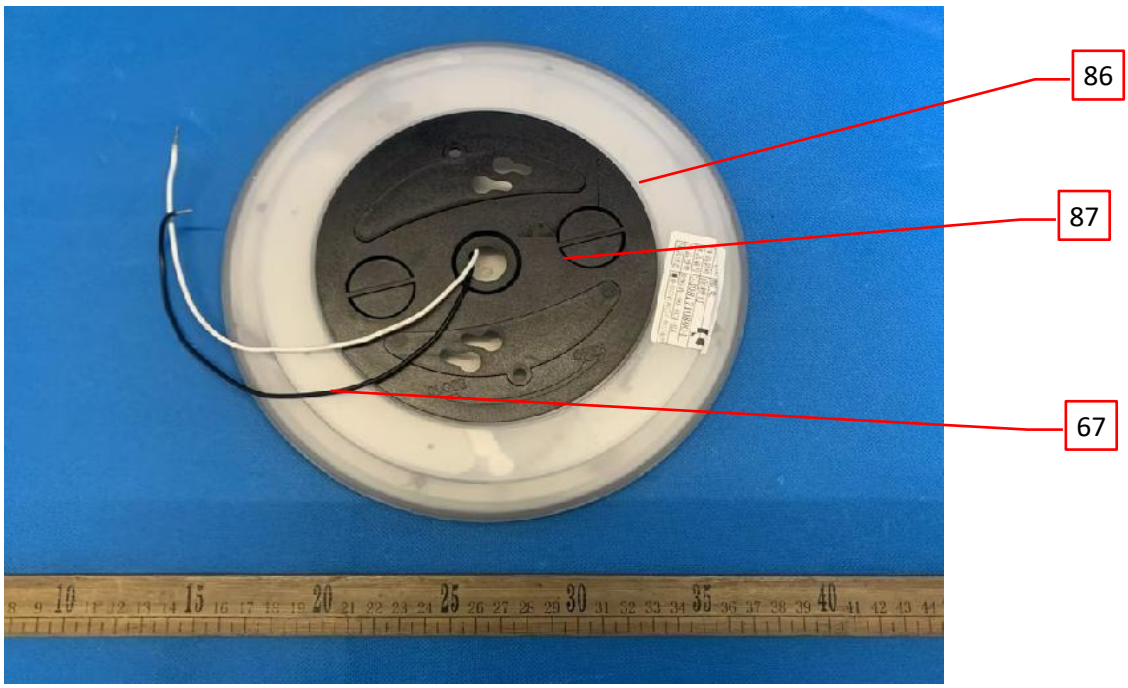


Photo 41- Back view of model D969-XX-CCT-XX and D969Y-XX-CCT-XX



3.0 Product Photographs

Photo 42 - External view of model D9612-XX-CCT-XX and D9612Y-XX-CCT-XX

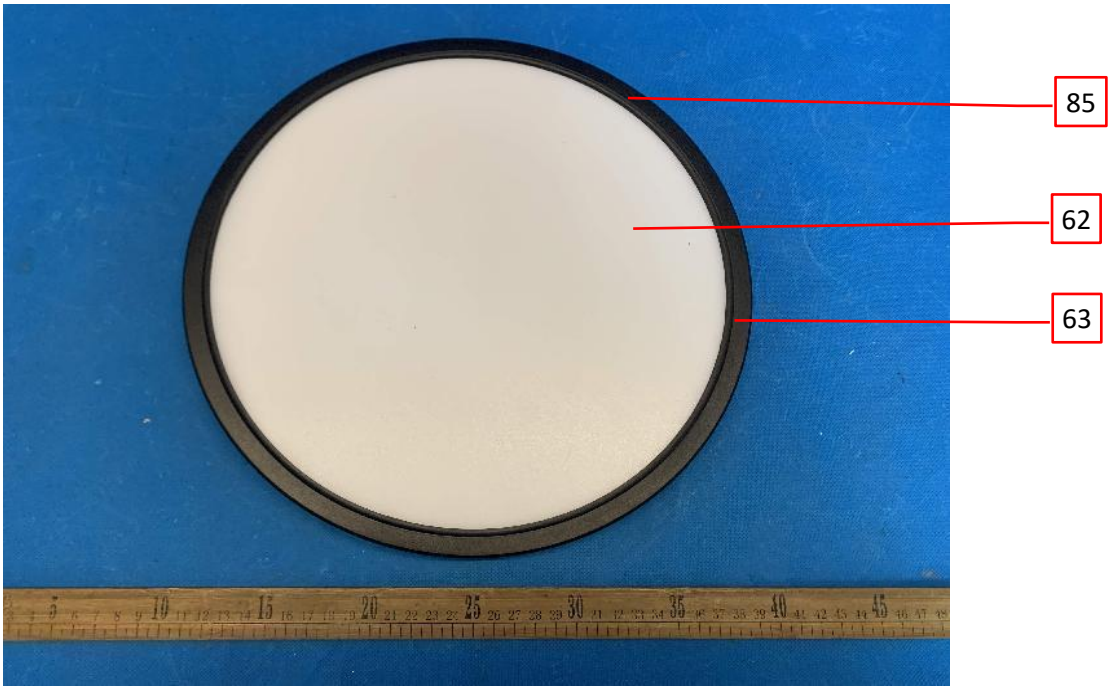
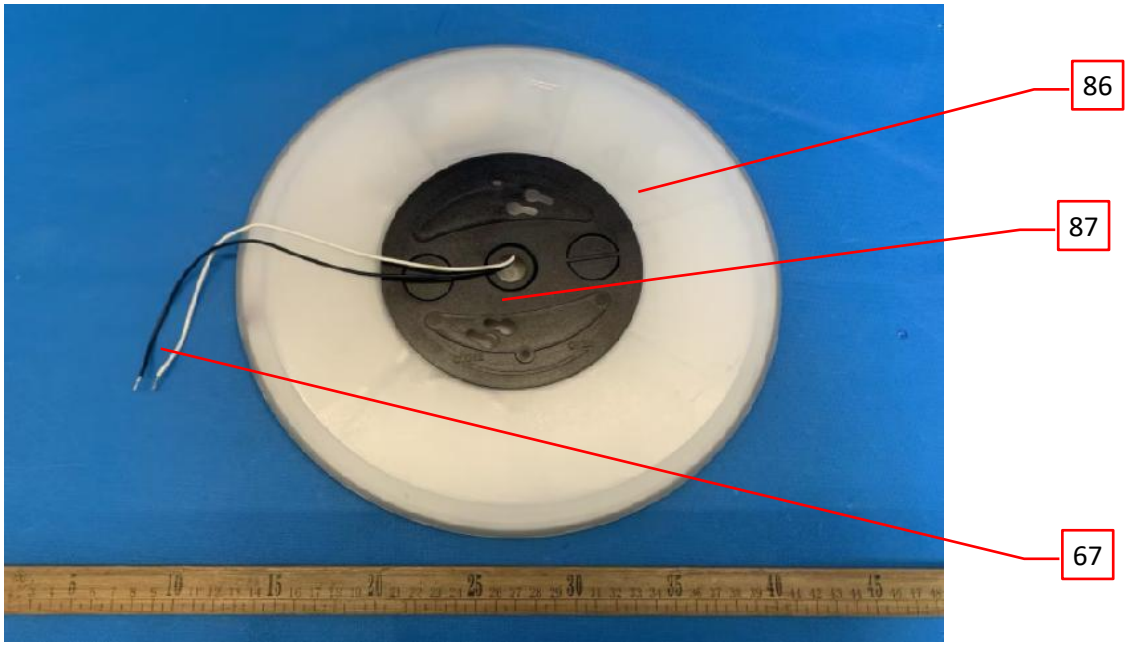
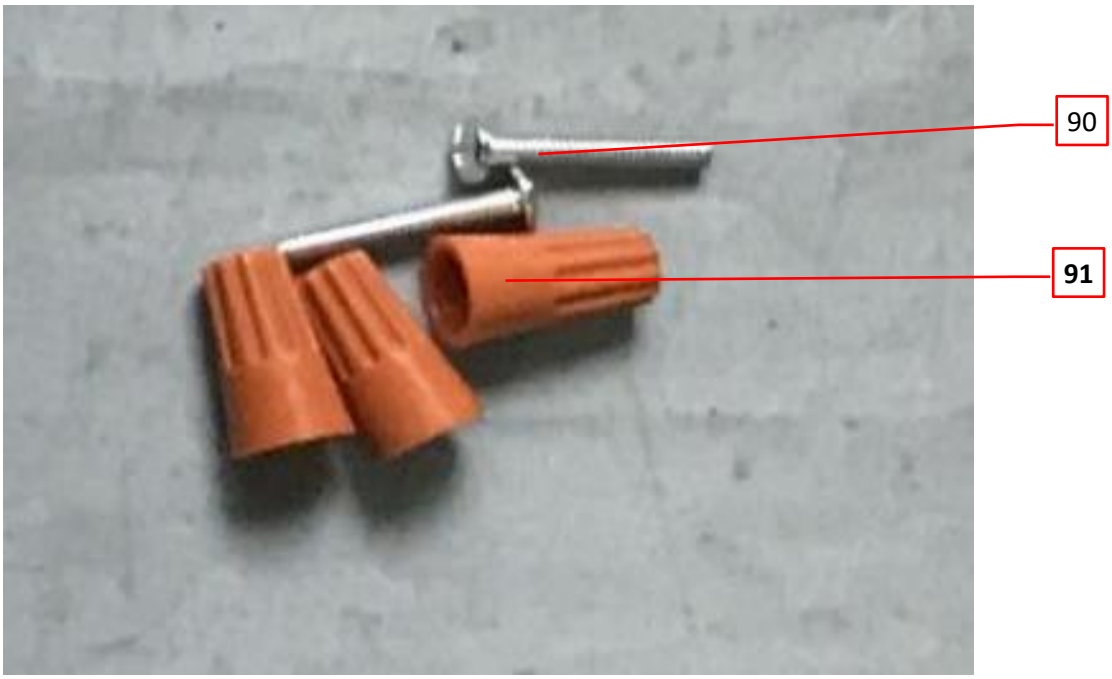


Photo 43 - Back view of model D9612-XX-CCT-XX and D9612Y-XX-CCT-XX



3.0 Product Photographs

Photo 50 - Mounting screw of model For D915-XX-CCT-XX, D917-XX-CCT-XX, D969-XX-CCT-XX, D969Y-XX-CCT-XX, D9612-XX-CCT-XX, D9612Y-XX-CCT-XX.



6.0 Critical Features

9. Markings - The product is marked on a labeling system as described in Section 4.0 (Item 20, 60, 92) as follows: (Refer to Illustration No. 1 for format designation of marking)
   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)

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 luminiaire 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 plastic frame 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.
    "**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.

8.0 Test Summary					
Evaluation Period	11-Mar-2024 to 24-Apr-2024			Project No.	HK24030987
Sample Rec. Date	11-Mar-2024	Condition	Prototype	Sample ID.	240311102001~240311102006
Test Location	LCTECH Guangdong Testing Services Co., Ltd. (Address: LCTECH Plaza, Science Technology and Enterprise Development Center, Guangyuan Rd., Xiaolan, Zhongshan, Guangdong, 528415, P. R. China)				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					

Test Description	UL 1598:2021 Ed.5+R:18Jun2021 and CSA C22.2#250.0:2021 Ed.5+U1 Clause
Normal Temperture Test	15
Barrier Strength	17.1
Mold stress relief	17.4
Wet locations - Sprinkler test	17.5.3
Loading	17.15
Polymeric impact	17.41
Metal strength tests for reduced spacings	17.42
Dielectric voltage-withstand	18.1
Bond impedance	18.2
Articulate probe	18.4

Test Description	UL 8750:2015 Ed.2+R:07Dec2022 Clause	CSA C22.2#250.13:2022 Ed.5 Clause
Overload Test for fusible resistor	7.10.7	8.10.6
Input Test	8.2	9.2
Temperature test	8.3	9.3
Dielectric Voltage-withstand	8.6	9.4
Component failure test	8.7.2	9.5.2
Circuit power limit measurement test	8.8	9.6
Humidity exposure	8.14.1	9.12.1

8.0 Test Summary					
Evaluation Period	5-May-2024 to 1-Aug-2024			Project No.	HK24050516
Sample Rec. Date	5-May-2024	Condition	Prototype	Sample ID.	240505110001~240505110017
Test Location	LCTECH Guangdong Testing Services Co., Ltd. (Address: LCTECH Plaza, Science Technology and Enterprise Development Center, Guangyuan Rd., Xiaolan, Zhongshan, Guangdong, 528415, P. R. China)				
Test Procedure	Testing Lab				

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

The following tests were performed:

Test Description	UL 1598:2021 Ed.5+R:18Jun2021 and CSA C22.2#250.0:2021 Ed.5+U1 Clause
Normal Temperature Test - Surface wall luminaire	15
Mold stress relief	17.4
Wet locations - Rain test	17.5.2
Loading	17.15
Ground-screw assembly strength	17.39
Polymeric impact	17.41
Dielectric voltage-withstand	18.1
Bond impedance	18.2
Articulate probe	18.4

Test Description	UL 8750:2015 Ed.2+R:07Dec2022 Clause	CSA C22.2#250.13:2022 Ed.5 Clause
Input Test	8.2	9.2
Temperature test	8.3	9.3
Dielectric Voltage-withstand	8.6	9.4
Component failure test	8.7.2	9.5.2
Abnormal tests - Output loading test	8.7.3	9.5.3
Adhesive support test	8.13	9.11
Humidity exposure	8.14.1	9.12.1
Determination of low-voltage, limited-energy circuit status	8.16	A.6-A.9

Test Description	UL 773A:2016 Ed.6+R:16Jan2024 &CSA C22.2#284:2016 Ed.1/Clause
Overload Test	20
Endurance test	21
Temperature Test	22
Dielectric Voltage-Withstand Test	23
Operation test	24
Component Breakdown Test	34

8.0 Test Summary					
Evaluation Period	8-Aug-2024 to 23-Oct-2024			Project No.	HK24070038, HK24080757
Sample Rec. Date	7-Aug-2024	Condition	Prototype	Sample ID.	240817108001~240817108011
Test Location	LCTECH (ZhongShan)Testing Service Co., Ltd (Address: LCTECH Plaza, Science Technology and Enterprise Development Center, Guangyuan Rd., Xiaolan, Zhongshan, Guangdong, 528415, P. R. China)				
Test Procedure	Testing Lab				

Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.

The following tests were performed:

Test Description	UL 1598:2021 Ed.5+R:31Jan2024 and CSA C22.2#250.0:2021 Ed.5+U1;U2 Clause
Normal Temperture Test - Surface ceiling luminaire	15.2
Barrier Strength	17.1
Mold stress relief	17.4
Wet locations - Sprinkler test	17.5.3
Polymeric support	17.10
Loading	17.15
Snap-in or tab-mounted parts pull test without conduit opening	17.16
Polymeric impact	17.41
Metal strength tests for reduced spacings	17.42
Dielectric voltage-withstand	18.1
Bond impedance	18.2
Articulate probe	18.4

Test Description	UL 8750:2015 Ed.2+R:7Dec2022 Clause	CSA C22.2#250.13:2020 Ed.5 Clause
Overload Test	7.10.7	8.10.6
Input test	8.2	9.2
Temperature test	8.3	9.3
Dielectric Voltage-withstand	8.6	9.4
Abnormal tests - Component failure test	8.7.2	9.5.2
Humidity exposure	8.14.1	9.12.1

8.0 Test Summary					
Evaluation Period	15-Oct-2024 to 23-Oct-2024			Project No.	HK24070038, HK24080757
Sample Rec. Date	15-Oct-2024	Condition	Prototype	Sample ID.	1001-1003
Test Location	Intertek Testing Services HK Ltd. (Address: Intertek, 2/F Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong SAR, China)				
Test Procedure	Testing Lab				
Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria.					
The following tests were performed:					
Test Description				UL 8750:2015 Ed.2+R:7Dec2022 Clause	CSA C22.2#250.13:2022 Ed.5 Clause
Limited Short Circuit test				7.10.7	8.10.6

8.1 Signatures			
A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0.			
Completed by:	Alexis Lee	Reviewed by:	Terry Lau
Title:	Lead Engineer	Title:	Supervisor
Signature:	Digitally signed by Alexis Lee Location: Intertek Testing Services Limited	Signature:	Digitally signed by Terry Lau

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
3) a control number issued by Intertek
4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, “Conforms to” shall appear with the standard number along with the word, “Standard” or “Std.” Example: “Conforms to ANSI/UL Std. XX.”

For Canadian standards, the words “Certified to CAN/CSA Standard CXX No. XX.” shall be used, or abbreviated, “Cert. to CAN/CSA Std. CXX No. XX.”

Can be used together when both standards are used.

If all standards on the ATM have the same standard title, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use. The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.

Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.

Managing CEC Location:
Intertek Testing Services Hong Kong Limited
ETL Component Evaluation Center
Unit H, 3/F., Garment Centre, 576 Castle Peak Road
Kowloon, Hong Kong
Attn: Sample Room
Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

Dielectric Voltage Withstand Test
Grounding Continuity Test
Accessible edges

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.
The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.
The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.
If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:
1 - a voltmeter in the primary circuit;
2 - a selector switch marked to indicate the test potential; or
3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.
In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Test Record

Test records shall be retained for a period of at least 6 months, and shall include test quantity, test dates, catalogue or model numbers, test results, and disposition of any non-complying products.

Products Requiring Dielectric Voltage Withstand Test:

Product	Test Voltage	Test Time
All products covered by this Report.	40-70Hz 1000V or 1200V	 1 minute 1 second
One sample from each shipment of Section 4.0 item 49,50,52,52a: Between primary circuit and secondary circuit	1554V (40-70Hz) or 2191VDC	1 minute

11.2 Grounding Continuity Test

Method

Each product listed below shall be subjected to a test to determine that there is continuity between non-current-carrying metal parts that can become energized and are accessible during user maintenance.

If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.

Test Record

Test records shall be retained for a period of at least 6 months, and shall include test quantity, test dates, catalogue or model numbers, test results, and disposition of any non-complying products.

Products Requiring Grounding Continuity Test:

All products covered by this Report.

The measured or calculated resistance between the point of connection of the grounding means and any non-current-carrying metal parts shall not exceed 0.10 Ω.

11.3 Accessible edges

Method

An enclosure, frame, or similar device shall not have accessible edges that are sharp or pointed such that they constitute a risk of injury to persons during normal installation, maintenance, and use, unless:

a) accessible edges are protected by guards or the use of handles to minimize access to sharp edges during installation or maintenance;

b) an accessible edge or portion of an accessible edge shall be required to be sharp in order to perform a working function; or

c) it is possible to avoid the hazard through proper procedures; then signs, labels, or the manufacturer's instructions shall describe the procedure to avoid the hazard during installation, maintenance, and use.

Whenever referee measurements are necessary to determine that a part as mentioned above is not sufficiently sharp to constitute a risk of injury to persons, the method described in UL 1439, Tests for Sharpness of Edges on Equipment, shall apply.

One sample of each luminaire style that contains an accessible edge that does not comply with (a), (b), or (c), shall be tested twice annually.

Test Record

Test records shall be retained for a period of at least six months, and include test quantity, test dates, catalogue or model numbers, test results, and disposition of any non-complying products.

Products Requiring Accessible edges:

All products covered by this Report.