1.0 Reference and Address			
Report Number	240300206HZH-001	Original Issued: 8-May-2024	Revised: None
Standard(s)	Luminaires [UL 1598:2021 Ed.5+R:31Jan2024] Luminaires [CSA C22.2#250.0:2021 Ed.5+U1;U2]		

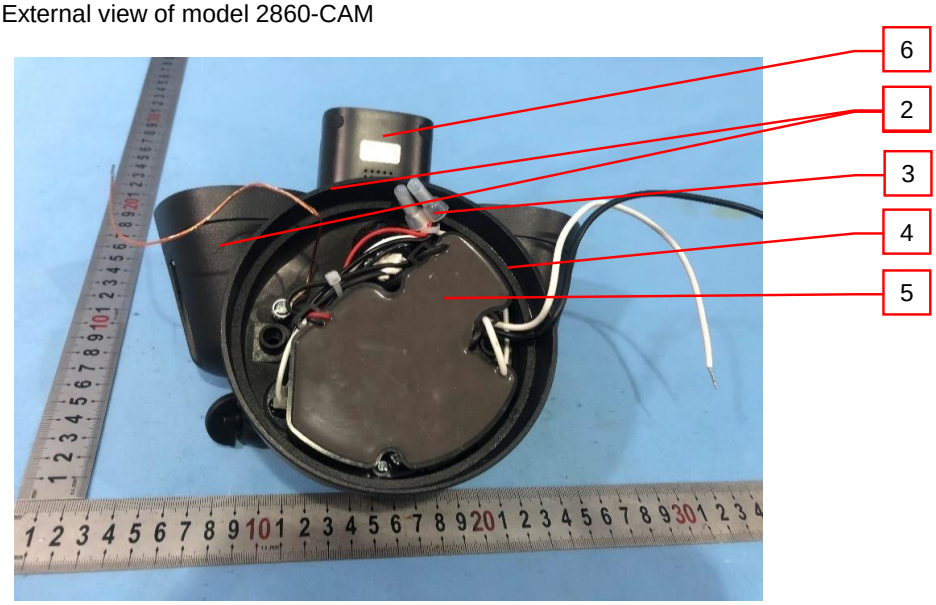
Applicant	Zhejiang Yuda Industrial Co., Ltd	Manufacturer	**Zhejiang Yuda Industrial Co., Ltd**
Address	No.1 Yuda Road, Huangjianshan Industrial Zone, Lizhou Street, YUYAO CITY, Zhejiang Province	Address	No.1 Yuda Road, Huangjianshan Industrial Zone, Lizhou Street, YUYAO CITY, Zhejiang Province
Country	China	Country	China
Contact	Dong Bangyuan	Contact	Dong Bangyuan
Phone	0574-62562801	Phone	0574-62562801
FAX	NA	FAX	NA
Email	tracy@yudalux.com	Email	tracy@yudalux.com

2.0 Product Description	
Product	LED fixed luminaire
Brand name	NA
Description	The product covered by this report is a LED fixed luminaire, intended for wet location, provided leads for supply connection. Wall-mounted surface – above 1.2 m (4 ft) from ground.
Models	2860-CAM, 2870-CAM
Model Similarity	2860-CAM, 2870-CAM are same except for shape of LED parts
Ratings	120Vac, 60Hz, 24W
Other Ratings	NA

3.0 Product Photographs

Photo 1- External view of model 2860-CAM

Photo 2- External view of model 2860-CAM



3.0 Product Photographs

Photo 3- External view of model 2860-CAM

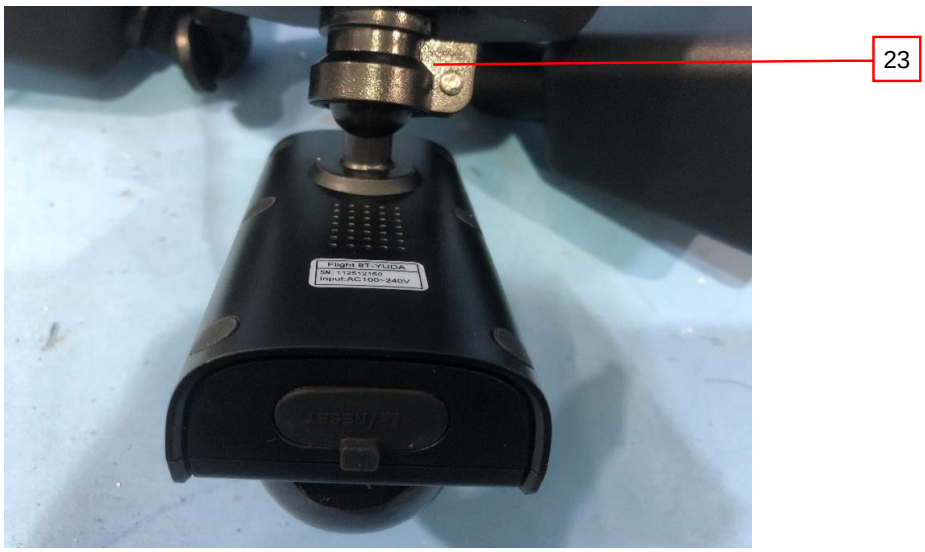


Photo 4- Internal view of model 2860-CAM

3.0 Product Photographs

Photo 5- Internal view of model 2860-CAM

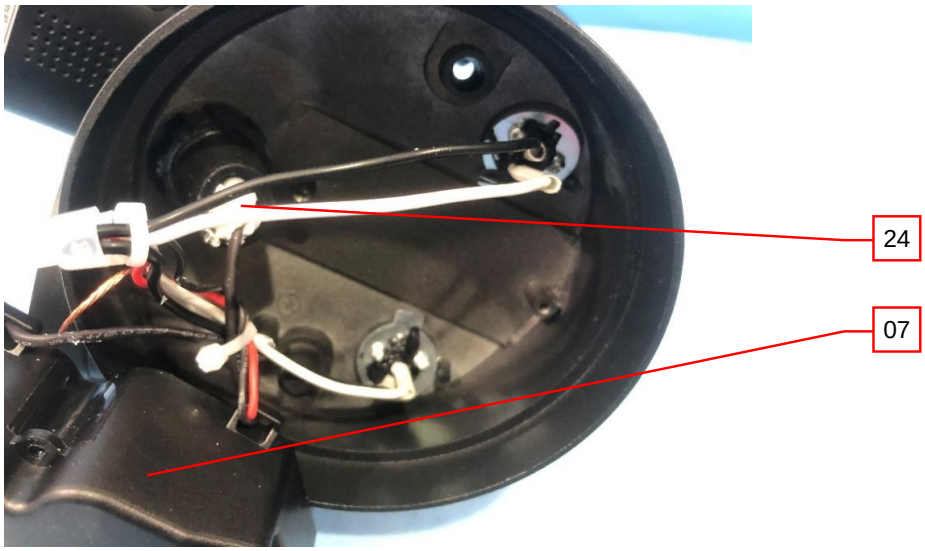
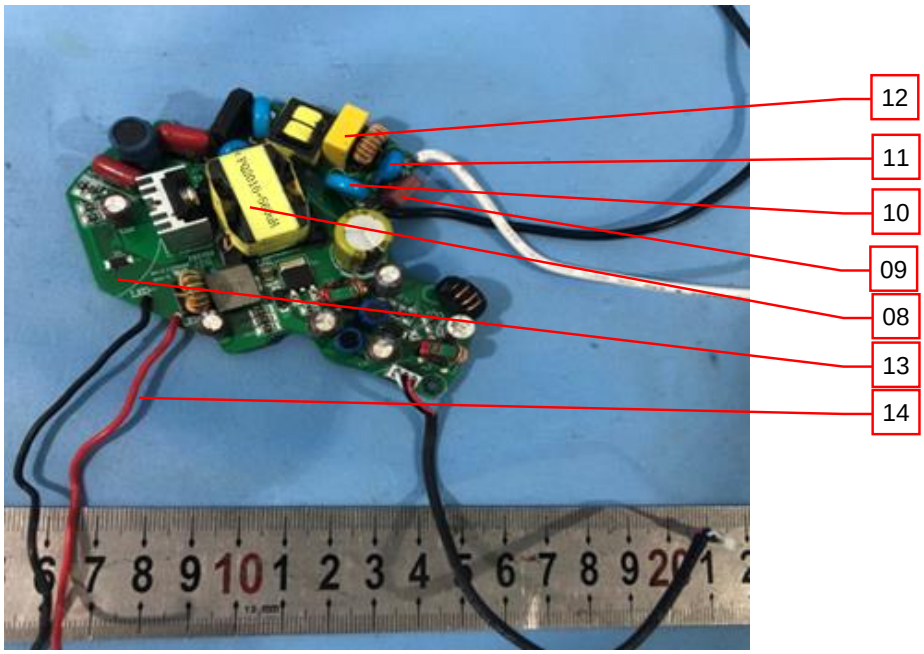


Photo 6- Driver view for 2860-CAM, 2870-CAM



3.0 Product Photographs

Photo 7- Driver view for 2860-CAM, 2870-CAM

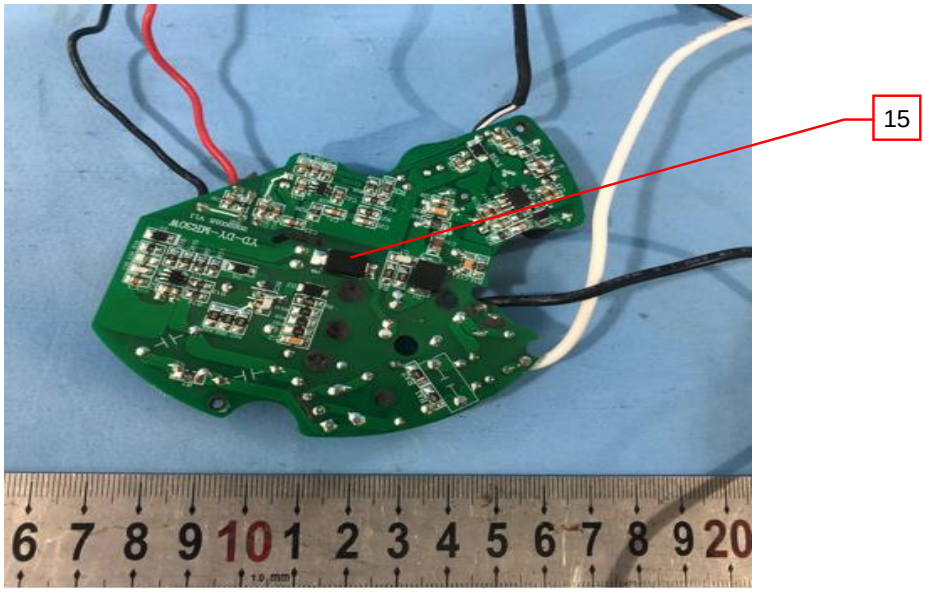
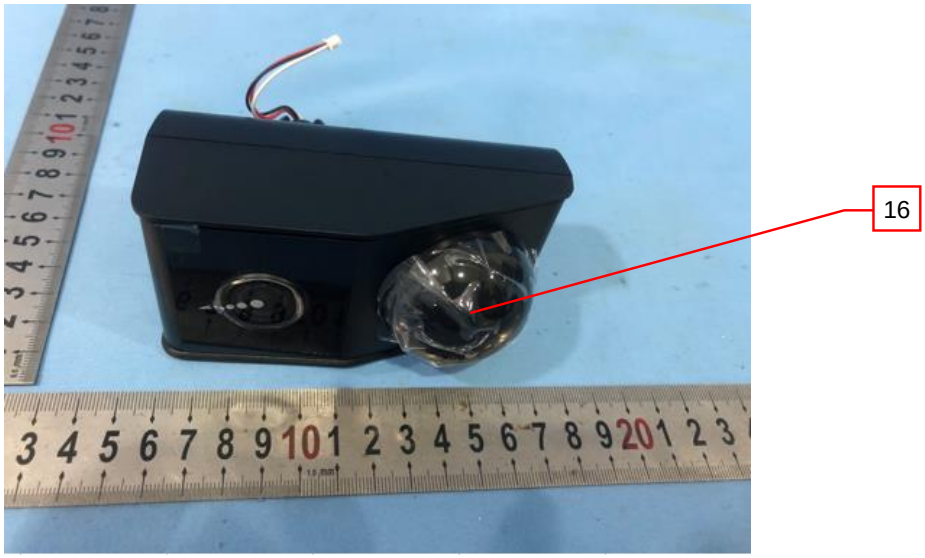


Photo 8- External view of Sensor/CAMERA Parts



3.0 Product Photographs

Photo 9- Internal view of Sensor/CAMERA Parts

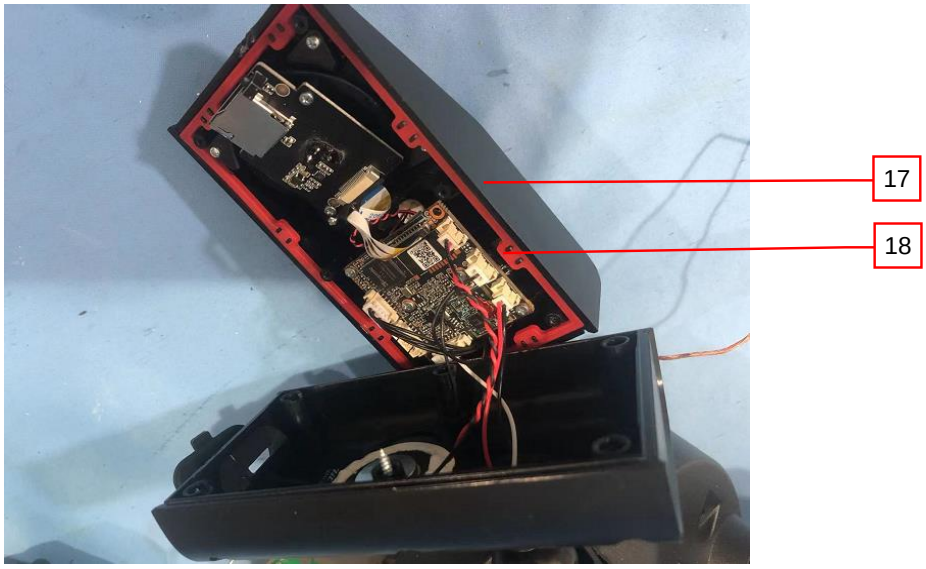
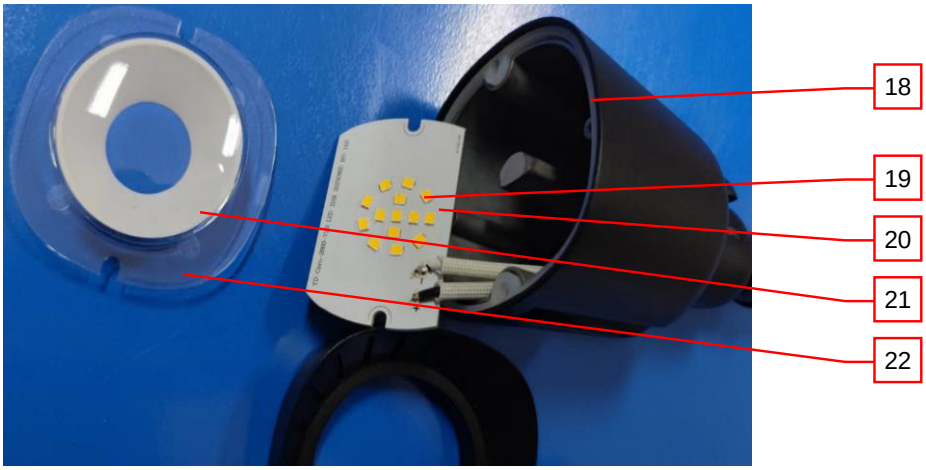


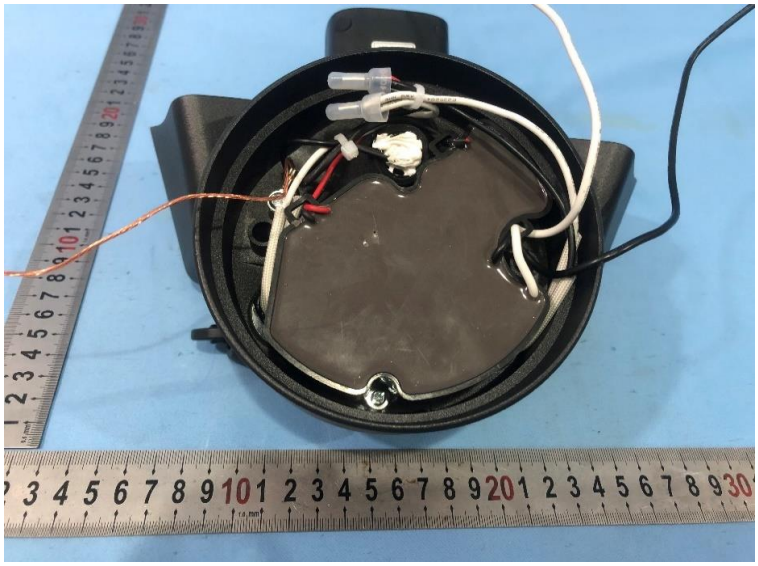
Photo 10- External view of model 2860-CAM



3.0 Product Photographs

Photo 11- External view of model 2870-CAM

Photo 12- External view of model 2870-CAM



3.0 Product Photographs

Photo 13- Internal view of LED parts for model 2870-CAM

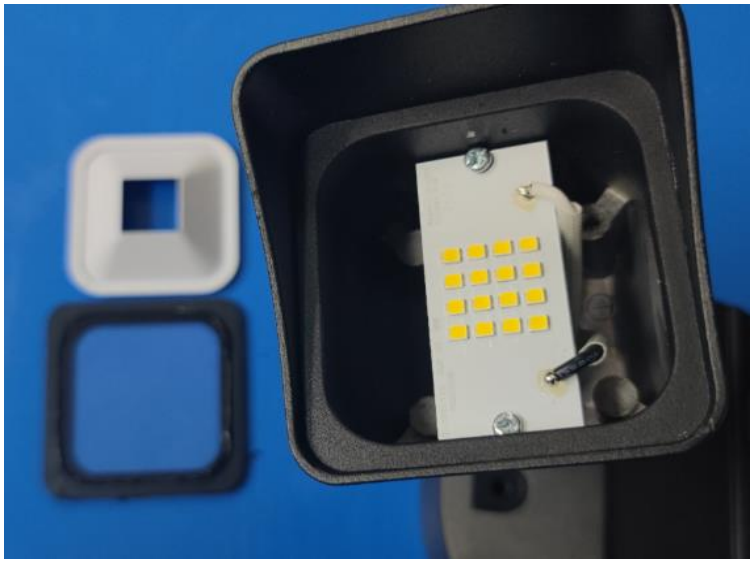
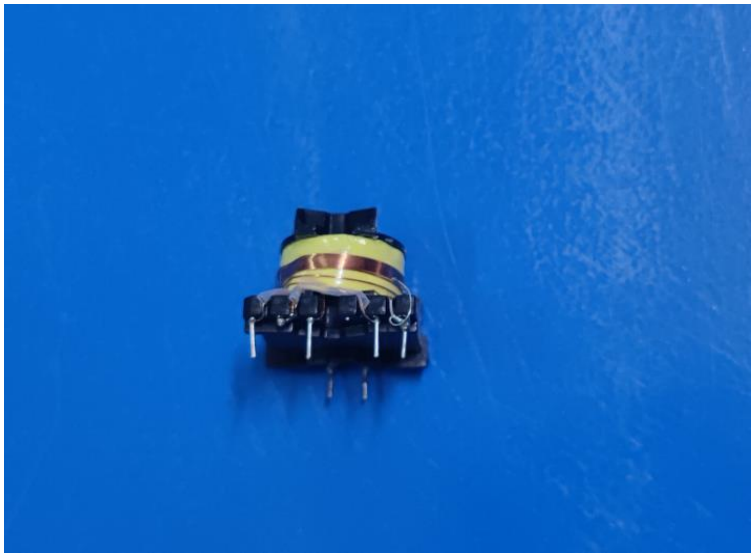
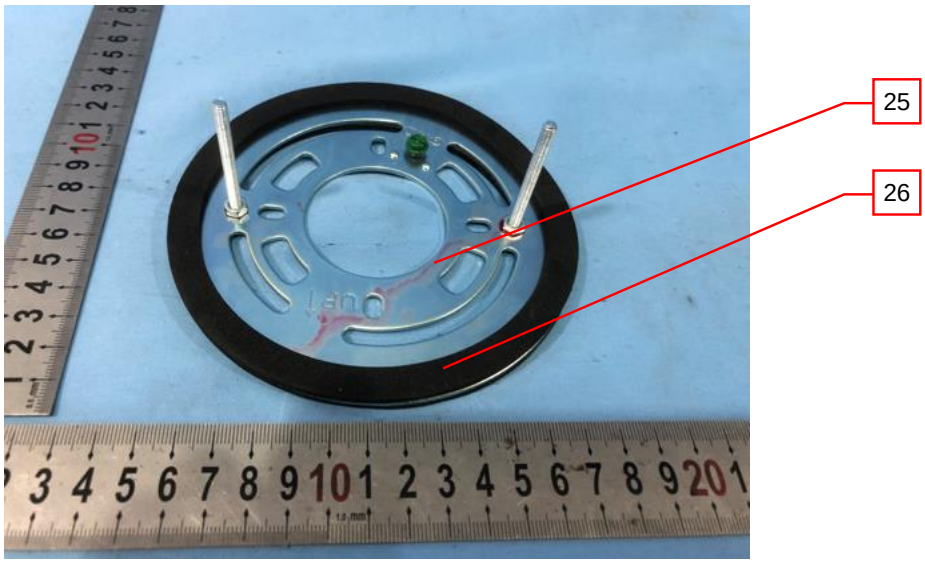


Photo 14 -Internal view of Transformer



3.0 Product Photographs

Photo 15 - Mounting bars view



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]
1	1	Supply Leads	Various	1015	Min. 3 x 18AWG, rated min. 600V, 105°C, VW-1.	cURus
1	2	Frame	Various	Various	Die-cast aluminum with paint, min. 2.0mm thick.	NR
2	3	Wire connector	HEAVY POWER CO LTD	CE1	Rated: Min.105℃	cURus
				CE1X		cURus
				CE2		cURus
				CE2X		cURus
2	4	Driver Enclosure	IDEMITSU KOSAN CO LTD	(u)Y2200(+)(f1)	PC,V-0 min.1.5mm thick RTI: 130. fixed by screws.	cURus
2	5	Silicon	SHENZHEN SUNYES NEW MATERIAL CO LTD(E342885)	SLD-8160	silicon, V-0, HWI=0, HAI=0, RTI:150. min. 3.0mm thick. Secured to the PCB components.	cURus
2	6	CAMERA Parts	Hangzhou Meari Technology Co., Ltd	Fight 8T	Rated: 5V, Input by LVLE.	NR
5	7	LED driver	Zhejiang Yuda Industrial Co., Ltd	YD-MR-24W	Input:120V,60Hz ;Output:5V, 500mA; LED: 18V, 960mA; LVLE including item 8 to 15	See 5.0
6	8	Transformer	Ningbo tengchuan electronics co., Ltd	PQ2016-560UH 20V1.5A	Input:120V,60Hz; Output:20V, 1.5A including item 8a to 8g	NR
6	8a	Transformer insolation systems(not shown)	NINGBO TENGCHUAN ELECTRONICS CO LTD(E354138)	TC-130	Class 130(B) Electrical Insulation Systems. Based on Tai Hu 130-TM	cURus
6	8b	Multi-layer Insulated Winding Wire (not shown)	KBI COSMOLINK CO.,LTD(E213764)	TIW-M	Reinforced, 130°C.	cURus
			SUZHOU YUSHENG ELECTRONIC CO LTD(E332529)	TIW-B	Reinforced, 130°C.	cURus
			SHENZHEN KAIZHONG HEDONG NEW MATERIALS CO LTD(E357240)	TIW-B	Reinforced, 130°C.	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]
6	8c	Magnet Wire (not shown)	WUXI JUFENG COMPOUND LINE CO LTD(E206882)	MW79	2UEW155/ QA-1/155F	cURus
			NINGBO JINTIAN NEW MATERIAL CO LTD(E227047)	MW79	2UEW155/ QA-1/155F	cURus
			ZHEJIANG HONGBO TECHNOLOGY CO LTD(E221719)	MW79	2UEW155/ QA-1/155F	cURus
4	8d	Bobbin (not shown)	SUMITOMO BAKELITE CO LTD(E41429)	PM-9820	Phenolic, V-0, 150℃.	cURus
			CHANG CHUN PLASTICS CO LTD(E59481)	T375J	Phenolic, V-0, 150℃.	cURus
4	8e	Tape (not shown)	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD(E165111)	CT	0.025mm 130℃.	cURus
4	8f	Vanish (not shown)	SUZHOU TAIHU ELECTRIC ADVANCED MATERIAL CO LTD(E228349)	T-4260(a)	130℃, MW 28-C	cURus
4	8g	Tubing(not shown)	GREAT HOLDING INDUSTRIAL CO LTD(E156256)	TFL	150V 200℃	cURus
			FUREDA PLASTIC CO LTD(E254113)	FRD-TT-L	150V 200℃	cURus
6	9	Fuse	SHANGHAI FULLNESS ELECTRICAL CO LTD(E485357)	TSP	T2A/250V	cURus
			HONGHU BLUELIGHT ELECTRONIC CO LTD(E324232)	6ET	T2A/250V	cURus
6	10	CY1/CY3	JYA-NAY CO LTD	JN	Max. 2200pF, min. 250VAC, 125°C	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]
6	11	RV(1,2)	Fujian Qiaoguang Electronic Technology Co Ltd(507891)	FTR10D511KJ	MCOV:125°C	cURus
			Yu Fei Te Electronics (Nanjing) Co Ltd(E515299)	YFT-10D511K	10D511K 125°C	cURus
6	12	X2-capacitor	GUANGDONG JURCC ELECTRONICS CO LTD(E343072)	MPX/MKP	220nF,275/305/310Vac, 110°C	cURus
6	13	PCB	Various	Various	V-0, 130℃, min.1.1mm thick.	cURus
6	14	Input wire	Various	Various	Min.22AWG,105℃, 600V. Min.26AWG only for Sensor.	cURus
7	15	CY2	Sichuan Teruixiang Technology International Co Ltd(E315719)	TY	Y1, Max. 2200pF, min. 250VAC, 125°C	cURus
				TRX	Y1, Max. 2200pF, min. 250VAC, 125°C	cURus
8	16	Sensor cover	EQUISTAR CHEMICALS L P(E62552)	MP652962(f1)	HB RTI:50. min.1.5mm thick. Secured to the Sensor Enclosure by adhesive.	cURus
9	17	Enclosure	SABIC JAPAN L L C(E207780)	C2950(GG)©	PC/ABS, V-0, RTI:75. min. 1.5mm thick. Secured to the frameby screws.	cURus
9,10	18	Gasket ring	Various	Various	Silicon rubber, 1.8mm thickness	cURus
10	19	LED	Ningbo Weizhi Optoelectronics Technology Co., Ltd.	2835	18V/60mA/1W/6500K	NR
10	20	LED board	Various	Various	V-0, 130℃, min.1.0mm thick.	cURus
10	21	Reflector	CHI MEI CORPORATION	PC-115(+)	PC , V-2, HWI=4, HAI=4, RTI: 80. min. 0.4mm thick.	cURus
10	22	Lens	LG CHEM LTD(E67171)	LUPOY EF1006F(m)(f1)	PC, V-0, HWI=2, HAI=0, RTI:120. min. 2.5mm thick. Secured to the frameby screws.	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]
3	23	Joint	LG CHEM LTD(E67171)	LUPOY EF1006F(m)(f1)	PC, 5VA, HWI=2, HAI=0, RTI:120. min. 2.5mm thick. Secured to the Enclosure by screws.	cURus
5	24	Glue	Various	Various	Silicone (RTV), rated 105°C. Used to secure the wire soldering connections on LED PCB.	cURus
15	25	Mounting bars	Zhejiang Yuda Industrial Co., Ltd	Various	Plated Zinc Steel, Minimum 2mm thick, Provided with green-headed grounding screw for bonding. Height of two raised areas of grounding terminal: 1mm minimum.	NR
15	26	Pad	Jiaxing Xiuzhou District South China Craft Sign Factory	EVA	EVA, Minimum 3 mm thick.	NR
1	27	Lable (Not shown)	Various	Various	Max temp. 80℃ Min temp. -40℃ Comply with UL 969.	cURus

NOTES:

1) Not all item numbers are indicated (called out) in the photos, as their location is obvious.

2) “Various“ means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used.

3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details.

5.0 Critical Unlisted CEC Components

SUBASSEMBLY

Photo #	Item no.	Name	Manufacturer/Trademark	Type / model
5	7	LED driver	Zhejiang Yuda Industrial Co., Ltd	YD-MR-24W

Electrical Rating:	Input:120V,60Hz ;Output:5V, 500mA; LED: 18V, 960mA; LVLE	Insulation class -

Component Standard used: [UL 8750:2015 Ed.2+R:07Dec2022] and [CSA C22.2#250.13:2022 Ed.5]

COMPONENTS LIST

Photo #	Item no.	Photo #	Item no.	Photo #	Item no.	Photo #	Item no.	Photo #	Item no.
6	8	6	9	6	10	6	11	6	12
6	13	6	14	7	15				

VERIFICATION PROCESS

Frequency: **Annual**	Test Site: **CEC**	Number of samples to test: **1**

Test Name	Test Parameters
Verify Construction	Per the component descriptions noted above

6.0 Critical Features

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.

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.

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.

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.

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.

1. Spacing - In primary circuits, 3.2mm minimum spacing are maintained through air, 6.4mm minimum spacing are maintained over surfaces of insulating material between current-carrying parts of opposite polarity and between such current-carrying parts and dead-metal parts.
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.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead.
6. Polarized Connection - This product is not provided with a polarized power supply connection. All single pole switches and fuses are connected only to the ungrounded supply circuit conductor.
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 is refer to Sec 4.0.
8. Schematics - Refer to Illustration 2, 2a, 2b in Sec. 7.0 for schematics requiring verification during Field Representative Inspection Audits to confirm the conformity of the product with the PCB layout and circuit
9. Markings - The product is marked on a labeling system as described in item no. 27 of Section 4.0.
   The product is marked as follows: Applicant's name, model number, date of manufacturing, electrical ratings. And was attached on outer surface of the product, all letters shall be 2.4mm high.
10. Cautionary Markings - The following are required:
    Warning markings for polarity
    - For Neutral conductor : "N" or "NEUTRAL"
    - For Live conductor : "L" or "LIVE"
    - For grounding conductor : "G", "GR", "GRD", "GND", "GRND", "GROUND" or grounding symbol

    others refer to Illustration 1 to 1b for details.

6.0 Critical Features
11. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. The instruction manual shall contained the following information: 1. INSTALLATION OR ASSEMBLY INSTRUCTIONS a. 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. c. Information for cord type shall included in installation instruction. d. Instructions to identify the strain relief to be used. e. Other warnings that will not lead to misuse.
12. Transformer - Supplier records must be provided that the received shipment of transformers(section 4.0 item 8) was constructed as indicated in Illustration 3. These records must be available at the factory for inspection on every received shipment.

7.0 Illustrations

Illustration 1 - Cautionary Marking

SUITABLE FOR WET LOCATIONS
CONVIENT AUX EMPLACEMENTS MOUILLÉS
CAUTION - RISK OF FIRE
ATTENTION - RISQUE D'INCENDIE
CAUTION - RISK OF SHOCK
ATTENTION - RISQUE DE CHOC

Illustration 1a - Cautionary Marking

WALL MOUNT ONLY
INSTALLATION MURALE SEULEMENT
MOUNTING ORIENTATION - (Such as this end up)
SENS DE MONTAGE [par exemple, cette extrémité vers le haut]

Illustration 1b - Cautionary Marking

CONSULT A QUALIFIED ELECTRICIAN TO ENSURE CORRECT BRANCH CIRCUIT CONDUCTOR
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
CONSULTER UN ÉLECTRICIEN QUALIFIÉ POUR VOUS ASSURER QUE LES CONDUCTEURS DE LA DÉRIVATION SONT ADÉQUATS
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

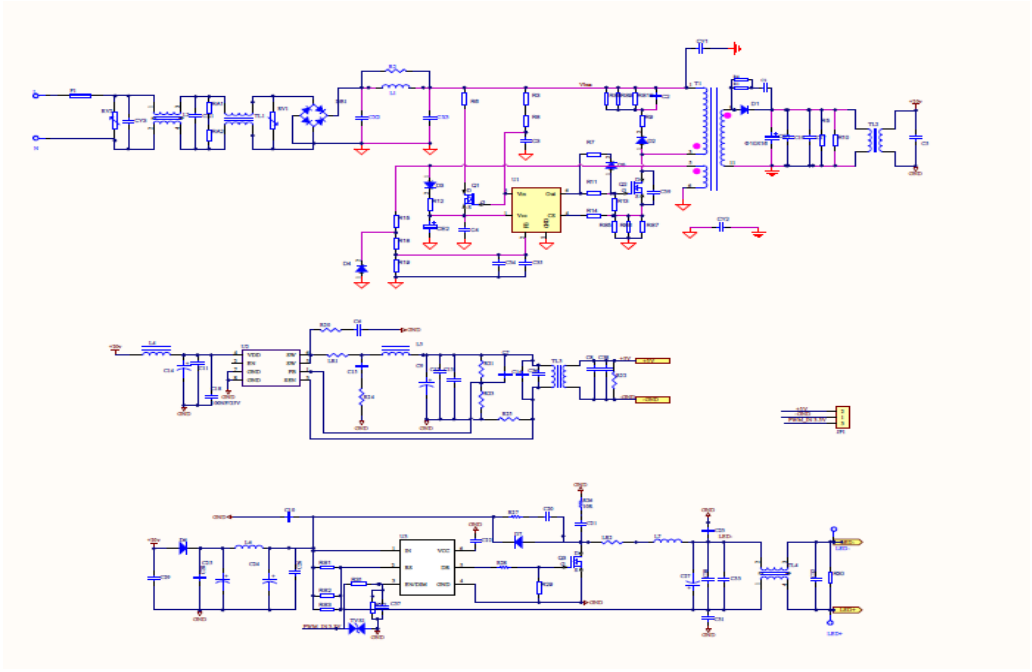
Remarks:

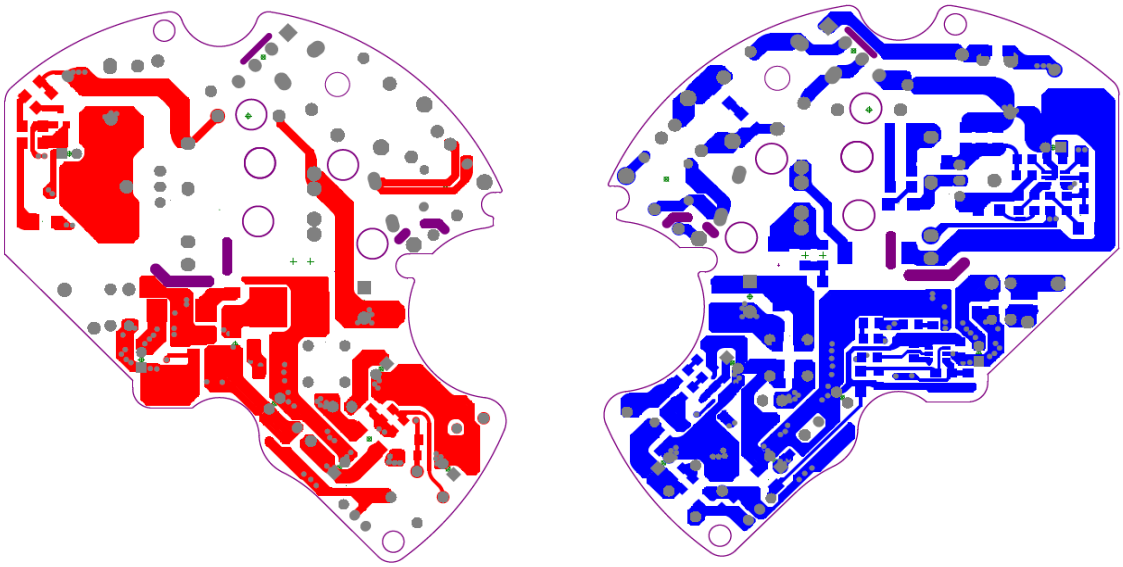
1, Illustration 1 & 1a was attached on the product visible during/after installation, all letters shall be at least 2.4mm high.

2, Illustration 1b was attached on the smallest unit package or carton, all letters shall be at least 2.4mm high.

7.0 Illustrations

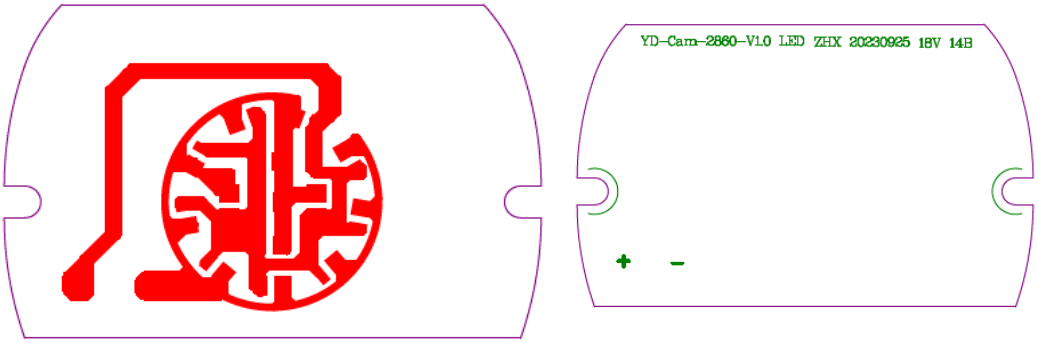
Illustration 2 - Main PCB schematic diagram and PCB Layout

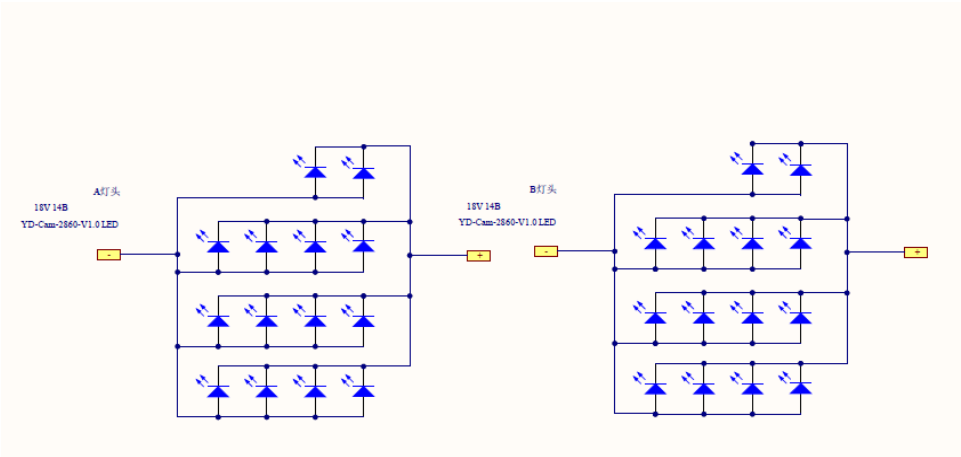




7.0 Illustrations

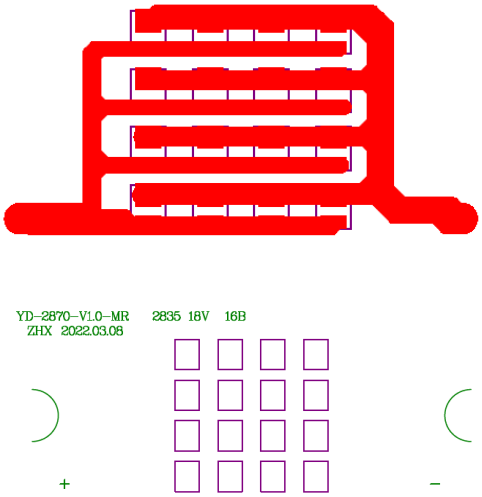
Illustration 2a - LED schematic diagram and PCB Layout for 2860-CAM

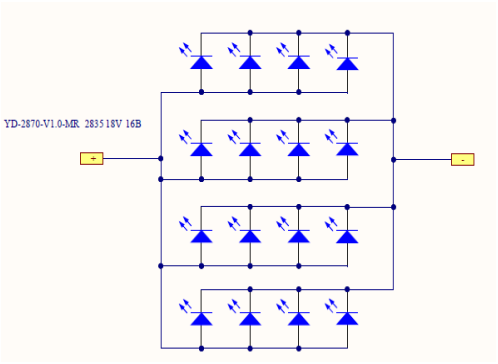




7.0 Illustrations

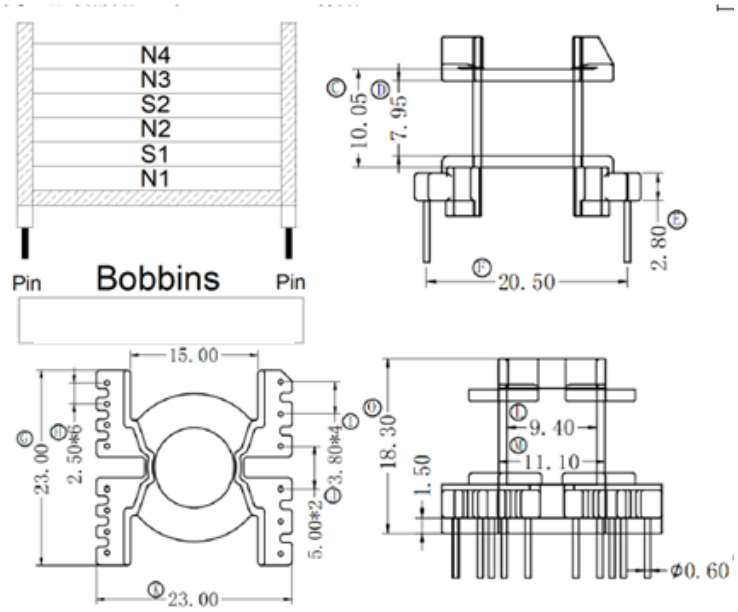
Illustration 2b - LED schematic diagram and PCB Layout for 2870-CAM

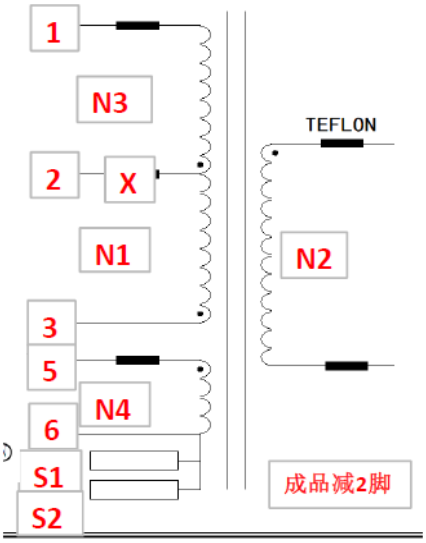




7.0 Illustrations

Illustration 3 - Specification of transformer





8.0 Test Summary					
Evaluation Period	2024-03-07 to 2024-04-20			Project No.	240300206HZH
Sample Rec. Date	7-Mar-2024	Condition	Prototype	Sample ID.	1240307-07-***
Test Location	Intertek Testing Services Zhejiang Ltd. Hangzhou branch 4th floor,Building 4#,No.22,22nd Street, Qiantang District, Hangzhou, China 310018				
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] /Clause	[CSA C22.2#250.0:2021 Ed.5+U1;U2] /Clause
Normal temperature test	15	15
Mold stress relief	17.4	17.4
Wet locations	17.5	17.5
Loading	17.15	17.15
Movable joint rotation	17.19	-
Movable joint torsion and pull	17.20	-
Ground-screw assembly strength	17.39	17.39
Polymeric impact test	17.41	17.41
Dielectric voltage-withstand	18.1	18.1
Bonding circuit impedance	18.2	18.2

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 test	8.6	9.4
Leakage current measurement test	8.9	9.7
Environmental test - Humidity Exposure test	8.14.1	9.12.1

Test Description	UL 62368-1:2019 Ed.3+R:22Oct2021 and CSA C22.2#62368-1:2019 Ed.3+U1 /Clause	
Classification of electrical energy sources	5.2	-
Accessibility to electrical energy sources and safeguards (Accessibility test)	5.3.2	-
Determination of working voltage test	5.4.1.8	-
Clearances and creepage distances measurement	5.4.2, 5.4.3	-
Distance through insulation measurements	5.4.4.2	-
Electric strength test	5.4.9	-
Measurement of touch current	5.7.2.1	-
Earthed accessible part test	5.7.5	-
Electrical Power Source (PS) measurements for classification	6.2.2	-
Determination of Potential Ignition Sources (Arcing PIS)	6.2.3.1	-
Determination of Potential Ignition Sources (Resistive PIS)	6.2.3.2	-
Wall or ceiling mount loading test	8.7	-
Input test	B.2.5	-
Steady force test	T.5	-
Enclosure impact test	T.6	-

8.0 Test Summary		
Components CAMERA Reviewer	Jerry Hu	-

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:	Jason Yang	Reviewed by:	Patrick Chen
Title:	Engineer	Title:	Reviewer
Signature:		Signature:	

9.0 Correlation Page For Multiple Listings	
The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.	
BASIC LISTEE	Zhejiang Yuda Industrial Co., Ltd
Address	No.1 Yuda Road, Huangjianshan Industrial Zone, Lizhou Street, YUYAO CITY, Zhejiang Province
Country	China
Product	LED fixed luminaire

MULTIPLE LISTEE 1	ROWAN ELECTRIC APPLIANCE LLC
Address	ASCENT WAY, 28407
Country	USA
Brand Name	R.W.FLAME
ASSOCIATED MANUFACTURER	Zhejiang Yuda Industrial Co., Ltd
Address	No.1 Yuda Road, Huangjianshan Industrial Zone, Lizhou Street, YUYAO CITY, Zhejiang Province
Country	China

MULTIPLE LISTEE 1 MODELS	BASIC LISTEE MODELS
3171-BLACK-RW	2870-CAM
3161-BLACK-RW	2860-CAM

MULTIPLE LISTEE 2	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 2 MODELS	BASIC LISTEE MODELS

MULTIPLE LISTEE 3	None
Address	
Country	
Brand Name	
ASSOCIATED MANUFACTURER	
Address	
Country	

MULTIPLE LISTEE 3 MODELS	BASIC LISTEE MODELS

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

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 Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Emiliana Zhou
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
Continuity of Grounding Connection Test

11.1 Dielectric Voltage Withstand Test

Method

Each device shall withstand without electrical breakdown, as a routine production-line 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 wiring, including connected components, and accessible dead metal parts of a portable luminaire that are likely to become energized, including those parts that are accessible only during relamping. 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.

Products Requiring Dielectric Voltage Withstand Test:

Product	**Test Voltage**	**Test Time**
All products covered by this Report.	1200V	1s
Transformer - One sample from each shipment of Section 4.0 item 8:	**Test Voltage**	**Test Time**
Between primary circuit and secondary output	2500V	1 minute
Between secondary circuit and core	2500V	1 minute

11.2 Grounding continuity

Method

A grounding continuity test shall be performed on luminaires with:
(a) non-current-carrying metal parts that can become energized and are accessible during user maintenance; or
(b) snap-in lampholders with integral grounding means.
The testing shall be performed as follows: at least once per quarter.

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

Products Requiring Grounding continuity Test:

All products covered by this Report.

12.0 Revision Summary

The following changes are in compliance with the declaration of Section 8.1:

Date/ Proj # Site ID	Project Handler/ Reviewer	Section	Item	Description of Change
				None