

Test Verification of Conformity



On the basis of the referenced test report(s), the sample(s) of the below product has been found to comply with the relevant harmonized standard(s) to the directive(s) listed on this verification at the time the tests were carried out.

Applicant Name & Address : GUANGZHOU HOBART LIGHTS LIMITED
No. 1 Chuangjia Road, Baiyun District, Guangzhou City,
Guangdong Province, China, 510080

Manufacturer Name & Address : GUANGZHOU HOBART LIGHTS LIMITED
No. 1 Chuangjia Road, Baiyun District, Guangzhou City,
Guangdong Province, China, 510080

Product(s) Tested : Warning Lamp

Ratings and principal characteristics : DC 12V/24V

Model(s) : SL1-1

Variants : NA

Brand name : HOBART

Relevant Standard(s) / Specification(s) / Directive(s) : SAE J595 AUG2021
Directional Flashing Optical Warning Devices for
Authorized Emergency, Maintenance, and Service Vehicles

Verification/Report Number(s) : SQT2211062

Note 1 : This verification is part of the full test report(s) and should be read in conjunction with it.

Approved by



Technical Supervisor
02 December, 2022



Guangzhou Shuntai Quality Technical Service Co., Ltd
Room 206A, 2F, 4# Plant, No.63 Punan Road, Huangpu
District, Guangzhou, Guangdong Province, China

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TEST REPORT

Applicant Name & Address : GUANGZHOU HOBART LIGHTS LIMITED
No. 1 Chuangjia Road, Baiyun District, Guangzhou City, Guangdong Province, China, 510080

Manufacturer Name & Address : GUANGZHOU HOBART LIGHTS LIMITED
No. 1 Chuangjia Road, Baiyun District, Guangzhou City, Guangdong Province, China, 510080

Sample Description

Product : Warning Lamp
Model : SL1-1
Variants : NA
Electrical Rating : DC 12V/24V
Brand name : HOBART

Date Received : 18 November, 2022
Date Test Conducted : 21 November, 2022
Test Laboratory : Guangzhou Shuntai Quality Technical Service Co., Ltd.
Report Number : SQT2211062

Test standards : **SAE J595 AUG2021**
Directional Flashing Optical Warning Devices for Authorized
Emergency, Maintenance, and Service Vehicles

Test Result : **PASS**

Conclusion : The submitted samples complied with the above standards.

Remark : **The SQT test laboratory is officially accredited by A2LA**
(American Association for Laboratory Accreditation)

Prepared and Checked By:



Sam Ye
Project Engineer

Approved By:



Lily Li
Technical Supervisor

Signature

02 December, 2022

Issued Date



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1 TEST RESULTS SUMMARY

Classification of EUT: Components and modules

TEST DESCRIPTION	STANDARD	RESULTS
Physical Inspection	SAE J595 AUG2021	Pass
Photometric Test	SAE J595 AUG2021	Pass
Color Test	SAE J578 APR2020	Pass

Remark:

1. The symbol "N/A" in above table means Not Applicable.

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RESULTS CONCLUSION

(with Justification)

We tested the device to determine if it was in compliance with the relevant standards as marked on the Test Results Summary. We found that the unit met the requirement when tested as received.

The worst case's test data was presented in this test report.

Model: SL1-1

Variants: NA

The production units are required to conform to the initial sample as received when the units are placed on the market.

3**LABORATORY MEASUREMENTS****Configuration Information****Tested Sample Information**

Tested Model	SL1-1
Number of Tested	1 pcs
Function	Warning lamp
Standard	SAE J595 AUG2021
Class	1
Identification Code	W-1
Flash Patterns	1
Emitted Color	Yellow
Design Voltage	DC 12V/24V
Light source	12xLED, Non-replaceable light source

Test Equipment Information

Name of Equipment	Manufacturer	Model	Calibration Due
Automotive and Signal Goniophotometers	Everfine	GO-HD5	2023.07.06
High Accuracy Array Spectroradiometer	Everfine	HAAS-2000	2023.07.06
The Testing Device of Warning Lamps	Everfine	WLT-300	2023.07.10
DC Power Supply	Everfine	WY3020	2023.07.06
Illuminance Meter	Lucidbright	PMW-meter	2022.07.23

Environment conditions

Environment temperature: 26.2 °C
Environment humidity: 45%RH

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PHYSICAL INSPECTION

MARKINGS	Lens:	--
	Housing:	SAE W3-1 22, HOBART
LENS	Material:	PC
	Shape/Dimension:	150mmx56mm38mm
	Method of mounting:	Glued
HOUSING	Material:	ADC12
	Shape/Dimension:	220mmx40mmx67
	Method of mounting to Vehicle:	Screw
Electrical wiring	Material:	Copper covered with insulation

LIGHT SOURCES USED:

FUNCTION	QUANTITY	CATEGORY	VOLTAGE
Warning lamp	12	LED	12V/24V

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PHOTOMETRIC TESTS

5.1 WARNING LAMP PHOTOMETRIC TEST

Test distance : 23.8m

Tested Sample No. : Sample 1

Test voltage : 12.8V

Optical power (Cd·s/min) Class 1-yellow					
ZONE Number	Test Point (degrees)	Photometric Requirements		Measured Value	
		Minimum	60% Minimum ⁽¹⁾	1 minute	photometric stability
I	5U-20L	960	576	4587	4494
	5U-10L	2400	1440	5277	5112
	H-20L	1440	864	6254	6238
	5D-10L	2400	1440	8291	8220
	5D-20L	960	576	6551	6155
	ZONE I	8160	---	30960	30219
II	10U-5L	960	576	2950	2993
	10U-V	2400	1440	3122	3135
	10U-5R	960	576	3086	3000
	ZONE II	4320	--	9158	9128
III	5U-5L	4800	2880	5607	5485
	H-10L	3600	2160	7890	8141
	5D-5L	4800	2880	8775	8310
	ZONE III	13200	---	22272	21936
IV	5U-V	7200	4320	7293	7186
	H-5L	9600	5760	10287	10153
	H-V	14440	8664	11461	11299
	H-5R	9600	5760	10374	10267
	5D-V	7200	4320	9854	9749
	ZONE IV	48000	---	49269	48654
V	5U-5R	4800	2880	5645	5741
	H-10R	3600	2160	8466	8212
	5D-5R	4800	2880	8799	8644
	ZONE V	13200	--	22910	22597
VI	10D-5L	960	576	4890	4902
	10D-V	2400	1440	4893	5025
	10D-5R	960	576	4939	5018
	ZONE VI	4320	---	14722	14945
VII	5U-20R	2400	1440	4381	4385
	5U-10R	960	576	5194	5379
	H-20R	1440	864	6729	6583
	5D-10R	2400	1440	7844	8064
	5D-20R	960	576	6327	6339
	ZONE VII	8160	---	30475	30750
RESULTS				PASS	PASS

(1)The measured values at each test point shall not be less than 60% of the required minimum values shown for the individual test point.

Peak luminous intensity (candela) Class 1-yellow					
ZONE Number	Test Point (degrees)	Photometric Requirements		Measured Value	
		Minimum	60% Minimum ⁽¹⁾	1 minute	photometric stability
I	5U-20L	40	24	381.1	370.2
	5U-10L	100	60	440.5	442.1
	H-20L	60	36	538	537.7
	5D-10L	100	60	677.3	680.4
	5D-20L	40	24	536.6	538.1
	ZONE I	340	---	2574	2569
II	10U-5L	40	24	246.5	248.2
	10U-V	100	60	257.9	258.4
	10U-5R	40	24	249.7	249.9
	ZONE II	180	---	754.1	756.5
III	5U-5L	200	120	453.1	457.7
	H-10L	150	90	679.6	670
	5D-5L	200	120	722.1	711.1
	ZONE III	550	---	1855	1839
IV	5U-V	300	180	483.4	479.9
	H-5L	400	240	721	720.2
	H-V	600	360	767.9	760.6
	H-5R	400	240	760.2	750.7
	5D-V	300	180	756.8	752.9
	ZONE IV	2000	---	3489	3464
V	5U-5R	200	120	485.7	479.3
	H-10R	150	90	699.8	700.3
	5D-5R	200	120	742.4	743
	ZONE V	550	---	1928	1923
VI	10D-5L	40	24	409.5	408
	10D-V	100	60	415.6	415.6
	10D-5R	40	24	414.8	409
	ZONE VI	180	---	1240	1233
VII	5U-20R	100	60	376.9	376.6
	5U-10R	40	24	440.2	442.5
	H-20R	60	36	568.9	562.6
	5D-10R	100	60	680.3	673.5
	5D-20R	40	24	540.5	528.3
	ZONE VII	340	---	2607	2584
RESULTS				PASS	PASS

(1) The measured values at each test point shall not be less than 60% of the required minimum values shown for the individual test point.

Test distance : 23.8m

Tested Sample No. : Sample 1

Test voltage : 25.6V

Optical power (Cd·s/min) Class 1-yellow					
ZONE Number	Test Point (degrees)	Photometric Requirements		Measured Value	
		Minimum	60% Minimum ⁽¹⁾	1 minute	photometric stability
I	5U-20L	960	576	4462	4376
	5U-10L	2400	1440	5183	5019
	H-20L	1440	864	6153	6139
	5D-10L	2400	1440	8111	8041
	5D-20L	960	576	6579	6188
	ZONE I	8160	---	30488	29763
II	10U-5L	960	576	2915	2953
	10U-V	2400	1440	3054	3072
	10U-5R	960	576	3105	3015
	ZONE II	4320	--	9074	9040
III	5U-5L	4800	2880	5599	5477
	H-10L	3600	2160	7781	8037
	5D-5L	4800	2880	8595	8128
	ZONE III	13200	---	21975	21642
IV	5U-V	7200	4320	7183	7076
	H-5L	9600	5760	10156	10019
	H-V	14440	8664	11337	11176
	H-5R	9600	5760	10248	10134
	5D-V	7200	4320	9739	9624
	ZONE IV	48000	---	48663	48029
V	5U-5R	4800	2880	5471	5557
	H-10R	3600	2160	8117	7863
	5D-5R	4800	2880	8523	8354
	ZONE V	13200	--	22111	21774
VI	10D-5L	960	576	4859	4871
	10D-V	2400	1440	4769	4901
	10D-5R	960	576	4689	4721
	ZONE VI	4320	---	14317	14493
VII	5U-20R	2400	1440	4263	4257
	5U-10R	960	576	4853	5033
	H-20R	1440	864	6617	6471
	5D-10R	2400	1440	7770	7990
	5D-20R	960	576	6292	6304
	ZONE VII	8160	---	29795	30055
RESULTS				PASS	PASS

(1)The measured values at each test point shall not be less than 60% of the required minimum values shown for the individual test point.

Peak luminous intensity (candela) Class 1-yellow					
ZONE Number	Test Point (degrees)	Photometric Requirements		Measured Value	
		Minimum	60% Minimum ⁽¹⁾	1 minute	photometric stability
I	5U-20L	40	24	369.6	358.7
	5U-10L	100	60	421.6	425.3
	H-20L	60	36	509.8	509.1
	5D-10L	100	60	650.4	653.4
	5D-20L	40	24	508	510.6
	ZONE I	340	---	2459	2457
II	10U-5L	40	24	232.6	234.4
	10U-V	100	60	246.5	248.6
	10U-5R	40	24	238.9	240.3
	ZONE II	180	---	718	723.3
III	5U-5L	200	120	436.5	440.5
	H-10L	150	90	658	645.4
	5D-5L	200	120	687.5	684.7
	ZONE III	550	---	1782	1771
IV	5U-V	300	180	460.5	456.9
	H-5L	400	240	687.2	682.5
	H-V	600	360	735.6	728.4
	H-5R	400	240	721.5	712
	5D-V	300	180	717.6	713.7
	ZONE IV	2000	---	3322	3294
V	5U-5R	200	120	463.5	456
	H-10R	150	90	666.3	665.3
	5D-5R	200	120	699	699.6
	ZONE V	550	---	1829	1821
VI	10D-5L	40	24	393.2	389.1
	10D-V	100	60	398.8	398.8
	10D-5R	40	24	397.5	391.4
	ZONE VI	180	---	1190	1179
VII	5U-20R	100	60	356.3	355.6
	5U-10R	40	24	419.1	421.4
	H-20R	60	36	540.7	534.4
	5D-10R	100	60	653.5	646.6
	5D-20R	40	24	523.5	508.2
	ZONE VII	340	---	2493	2466
RESULTS				PASS	PASS

(1) The measured values at each test point shall not be less than 60% of the required minimum values shown for the individual test point.

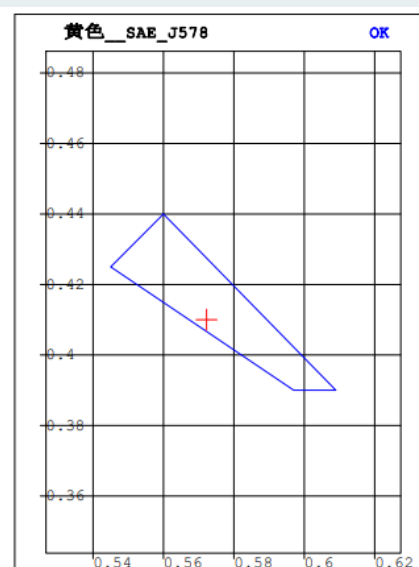
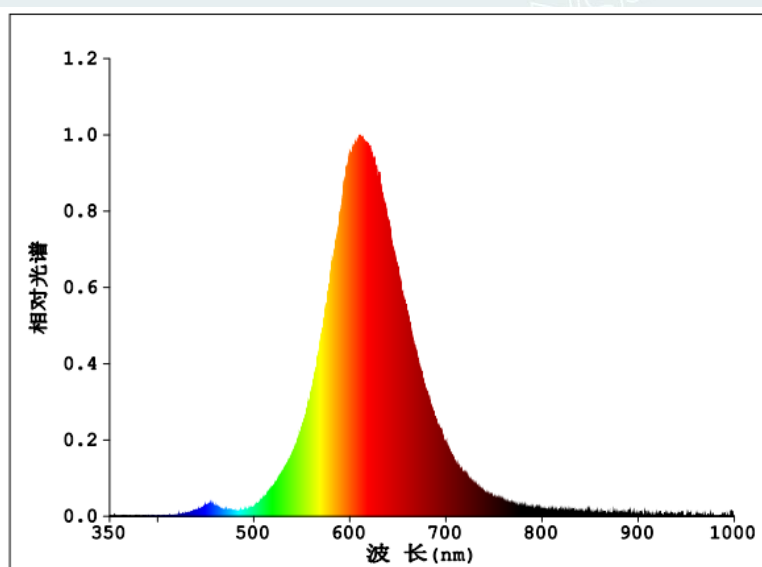
5.2 COLOR TEST

YELLOW ZONE:

The color of light emitted must fall within the following boundaries:

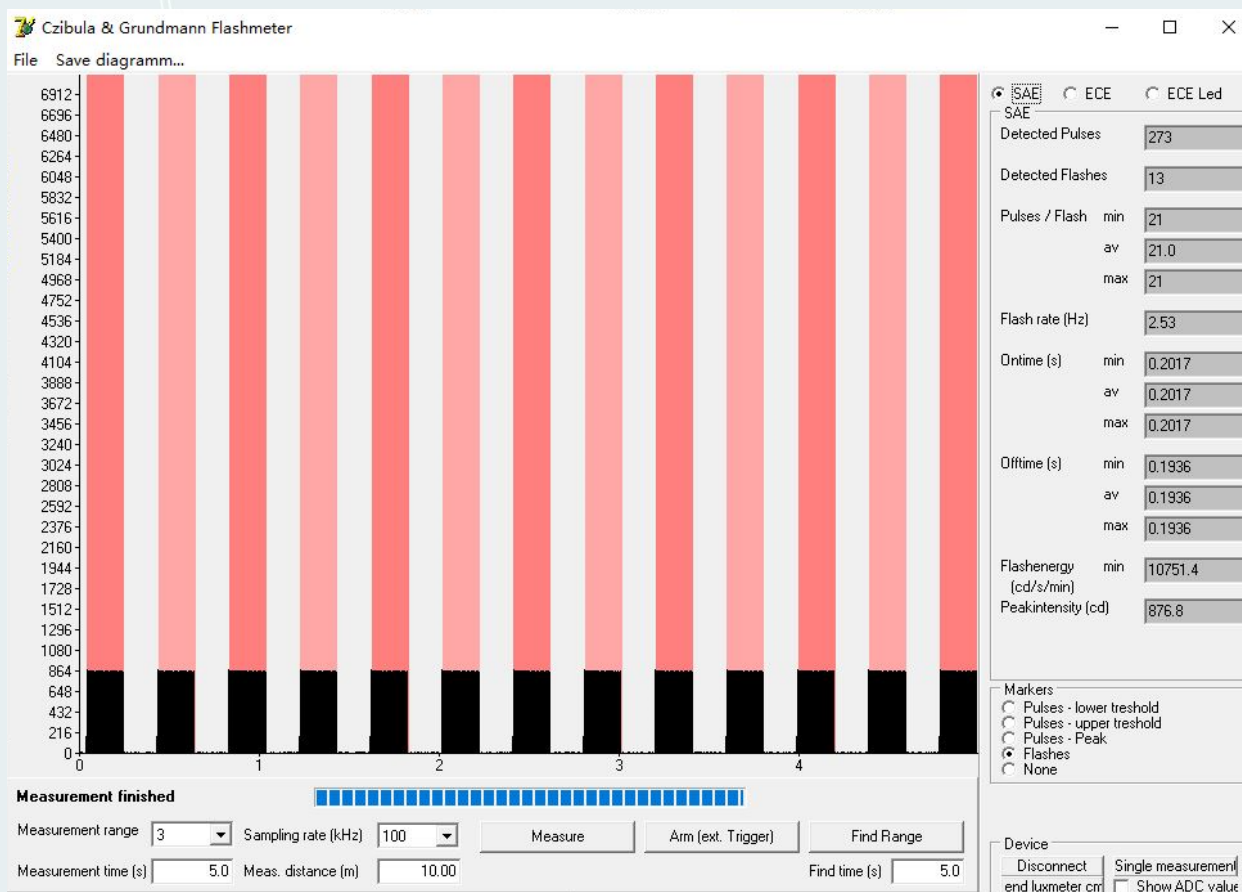
- green boundary: $y = x - 0.12$
- red boundary: $y = 0.390$
- white boundary: $y = 0.790 - 0.670x$

Tested sample	Measured Value		Results
	Coordinate x	Coordinate y	
Sample 1	0.5722	0.4100	PASS



5.3 FLASH RATE AND FLASH PATTERNS

Requirements	Measured Value	Result
Flash rate: $1 \text{ Hz} \leq f \leq 4 \text{ Hz}$	2.53 Hz	PASS
Number of pulses per flash	1 pulses	PASS
“ON” time	201.7 ms	PASS
“OFF” time: $\geq 160 \text{ ms}$	193.6 ms	PASS



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SAMPLE PHOTOS

EUT photo1



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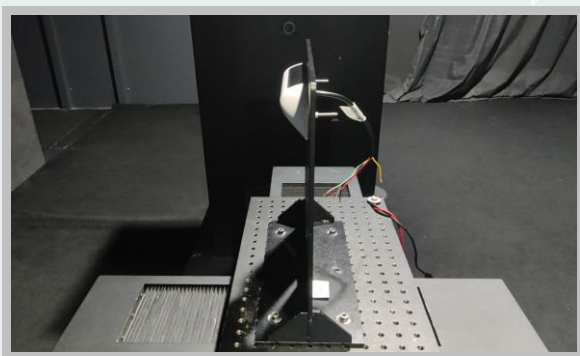
TEST SETUP PHOTOS



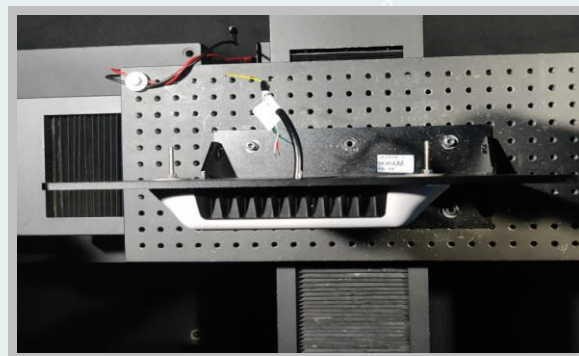
Front view



Rear view



Side view



Top view

Statement

1. The report is invalid without "special stamp for inspection and testing".
2. Failure to affix "special seal for inspection and testing" to the copy report is invalid, and some copies are invalid.
3. The report is invalid without the signature and seal of the person preparing, reviewing and approving it.
4. The report is invalid if altered.
5. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report
6. This test is only responsible for incoming samples, and the report is only valid for this test.

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*****End of Page*****

ANNEX 1: INFORMATION DOCUMENT

FIRST APPLICATION DATE: 01/12/2022

1. Specification data

Type	SL1-1	
Variants	/	
Trade name or mark	HOBART	
Function	Warning lamp	
Color	Yellow	
Applicable Regulation(SAE)	SAE J595 AUG2021	
Class	Class 1	
Flash Patterns	1 pulse in one flash	
Number and category of light sources	12xLED, Non-replaceable light source	
Rated	Voltage	12V/24V
	Wattage	4W
Location of marking	Trade Mark	HOBART
	SAE Mark	SAE W-1 22*
SAE Mark	On the housing	
Remark	“*” means: Identification numerals and letters shall be at least 3 mm high, except that markings 2 mm high may be used on lenses containing less than 12.5 cm ² of area.	

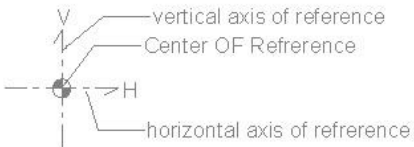
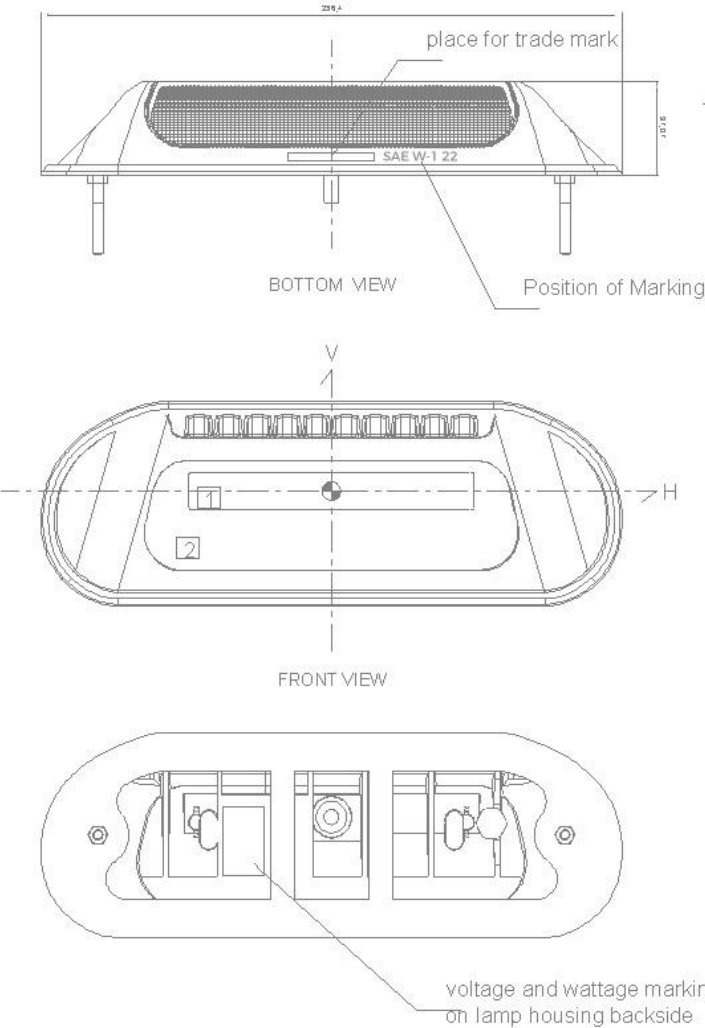
2. Construction and material

LENS	Material:	PC
	Shape/Dimension:	150mmx56mm38mm
	Method of mounting:	Glued
HOUSING	Material:	ADC12
	Shape/Dimension:	220mmx40mmx67mm
	Method of mounting to Vehicle:	Screw
Electrical wiring	Material:	Copper covered with insulation

3. Name and address of manufacturer

Guangzhou Hobart Lights Limited

No. 1 Chuangjia Road, Baiyun District, Guangzhou City, Guangdong Province, People's



Approval Mark: SAE W-1 Z2

1 -warning lighting

Function	Color
Ground	black
reversing	red
warning light	yellow
alternate	white
synchronous	green