



## Technical Closed Certificate

Scope No (编号): 11.11.4

Product Name (品名): Signal lamp-front-white

Date (日期): 2016.10.18

Place (地点): Tedrail

No	Technology Closed State (技术封闭状态)		Remark (备注)
	Item (项点)	Result (结果)	
1	Data sheeting (参数)	OK	见附表 See appendix.
2	Install method (安装方式)	OK	INKA自行安装 INKA is responsible for installation.
3	Sample (样品)	OK	
4	Supplier (供应商)	OK	无锡铁联 Wuxi Tielian.
5	Specification (规格/型号)	OK	HBD-5
6	Drawing (图纸)	OK	见附表 See appendix.
7			Need COO and supply record when delivery.
8			
9			
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The technical items listed in this document are complete and sufficient, and can be used as acceptance and delivery documents for both parties.

Jiangsu Tedrail Industrial Co., Ltd.  
Signature:

王强 文强 明强  
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PT. Industri Kereta Api (Persero)  
Signature:

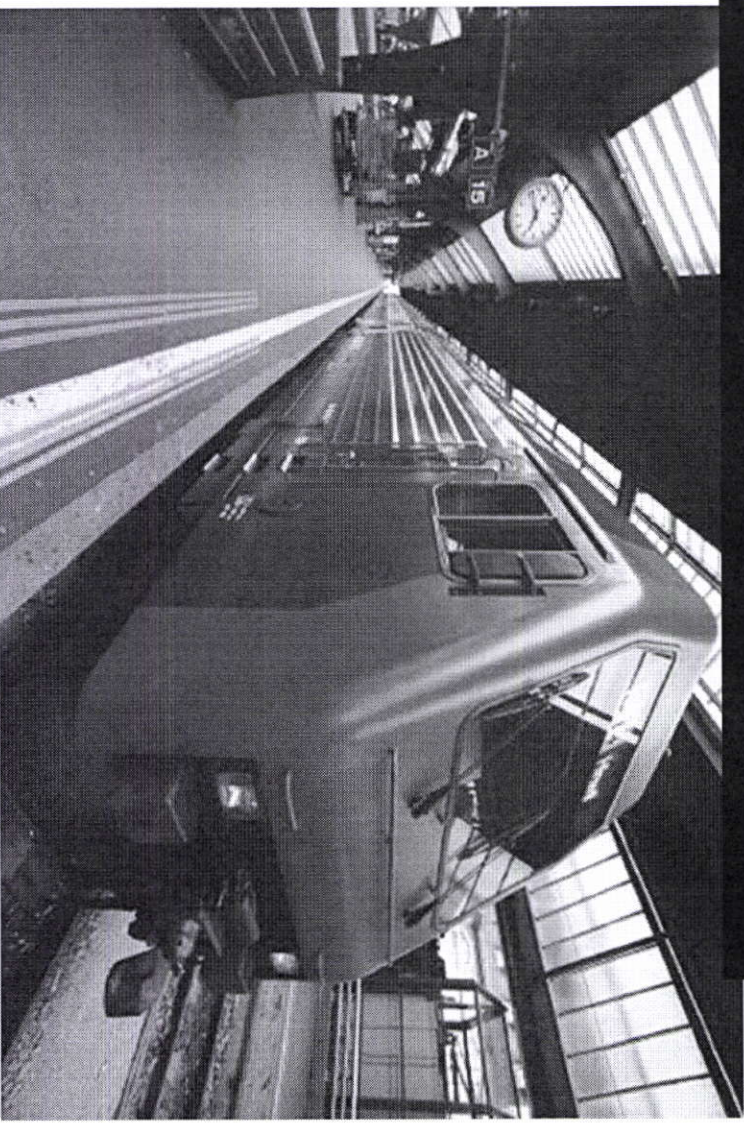
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2016

*Catalogue of lamp for railway*

# 轨道交通灯具选型推荐

——印尼机车标志灯、车内筒灯



常州市裕秀机电有限公司

Changzhou Yuxiu Electrical-Mechanical Co., Ltd.

2016-10-18

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# 印尼机车标志灯 HBD-5

Indonesia locomotive signs lights HBD-5

## ◆ 产品概述

product description

灯具采用高亮进口贴片 LED，在原有的灯具基础上亮度提高 3 倍，恒流工作，输入不区分正负极，稳定性大大提高，延长整体使用寿命。



The lamp adopts imported SMD LED, which is 3 times higher than the original lamp. The constant current work and the input do not distinguish between positive and negative, the stability is greatly improved and the whole life is prolonged.

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## ◆ 主要组成

The main components

主要由灯罩、底壳、2835 芯片等组成。

Mainly by the lampshade, the bottom shell, 2835 chips and other components

## ◆ 使用条件

Conditions of Use

环境温度：-40~+80℃。

Ambient temperature

相对湿度：不大于 95% (25℃)

Relative humidity: not more than 95%

海拔高度：不超过 4000m.

Altitude: not more than 4000M

空气压力：>70kPa

Air pressure:

## ◆ 执行标准 Implementation of standards

GB/T 21413.1-2008 铁路应用 机车车辆电气设备第1部分：一般使用条件和通用规则

Railway applications - Electrical equipment for rolling stock - Part 1: General conditions of use and general rules

TB/T 1333.2-2002 机车车辆电气设备第2部分：电工器件通用规则

Rolling stock - Part 2: General rules for electrical equipment

GB 7000.1-2003 灯具一般安全要求与试验

Lamps - General safety requirements and tests

GB/T 25119-2010 轨道交通 机车车辆电子装置

Railway applications - Electronic devices for rolling stock

GB/T 21563-2008 轨道交通 机车车辆设备 冲击和振动试验

Railway applications - Rolling stock equipment - Impact and vibration tests

TB/T 3138-2006 机车车辆阻燃材料技术条件

Technical condition of flame retardant material for rolling stock

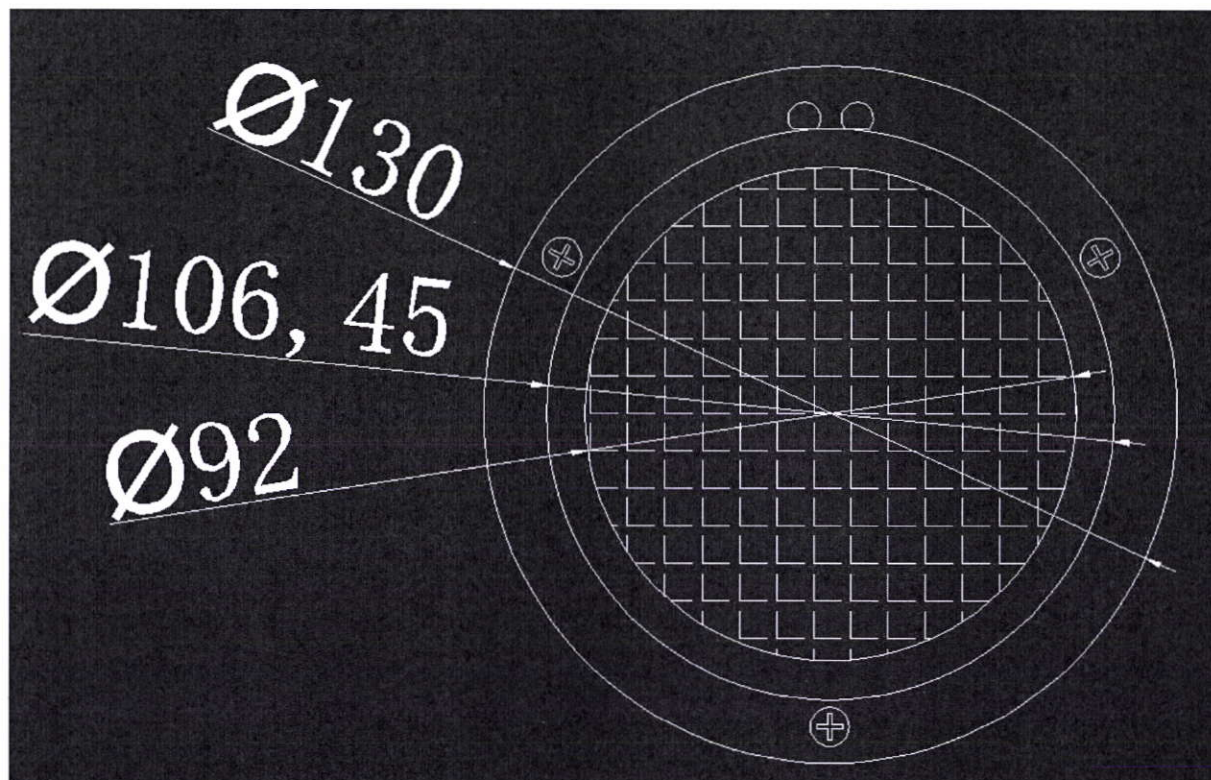
TB/T 3139-2006 机车车辆内装材料及室内空气有害物质限量

Locomotive Rolling Stock Interior Material and Indoor Air Harmful Substances

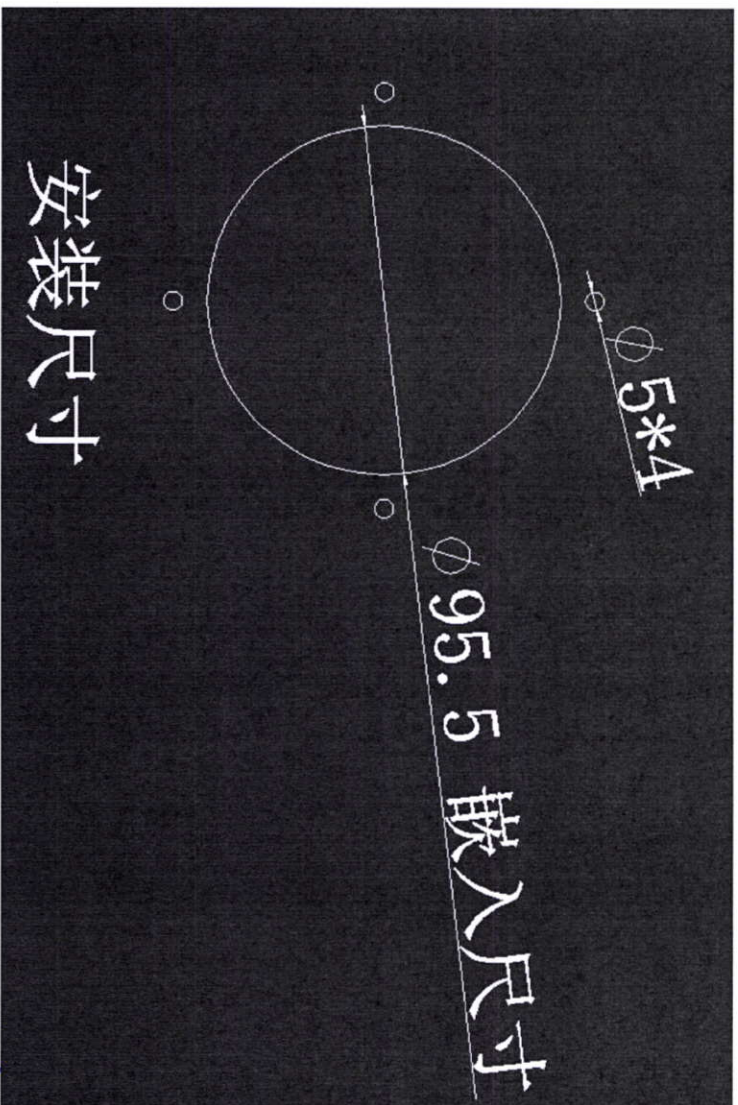
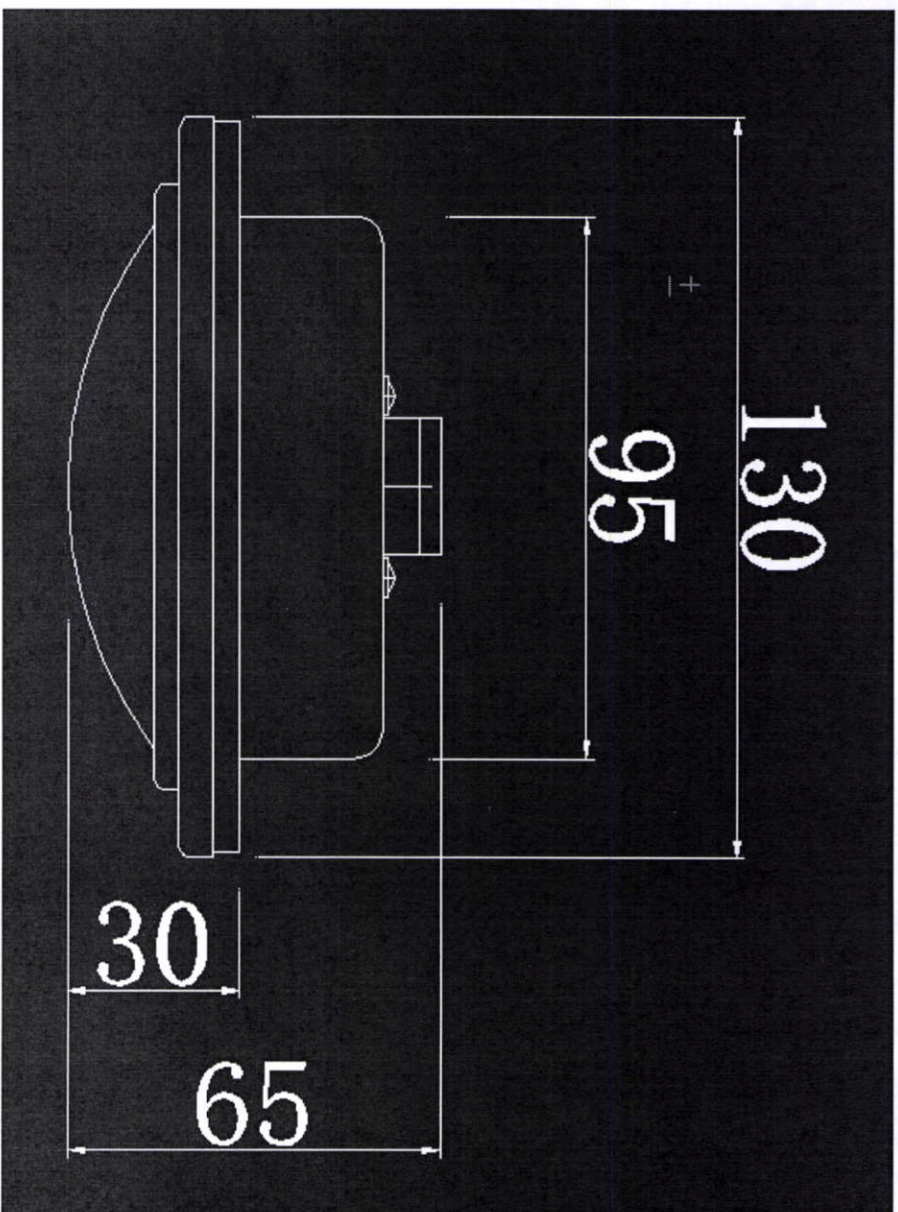
## ◆ 外形尺寸

Dimensions

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Installation dimensions

Embedded dimensions

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## ◆ 电气参数 ELECTRICAL PARAMETERS

输入电压: DC74-110V

Input voltage

功率: 5W

Power

工作电流: 45mA 正负 15%

Working current

Positive and negative

光源类型: 贴片 LED 发光二极管

Light source type: SMD LED light-emitting diodes

光源数量: 120 颗

Number of light sources: 120

LED 种类: 晶元 高亮 2835 贴片

LED type: wu'er highlight 2835 patch

色温指数: 6000-6500K

Color temperature index

光源平均 20000-30000h; 灯体寿命不小于 5 年;

Light source average

Lamp body life of not less than 5 years

发光角度: 120 度

Beam angle: 120 degrees

LED 灯板材料: 环氧板

LED light board material: epoxy board

灯罩材料: PC

Shade material: PC

功率因素: 0.95

Power Factor

驱动类型: 恒流

Drive type: constant current

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