



BIOLIGHT CORPORATE INTRODUCTION

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About US

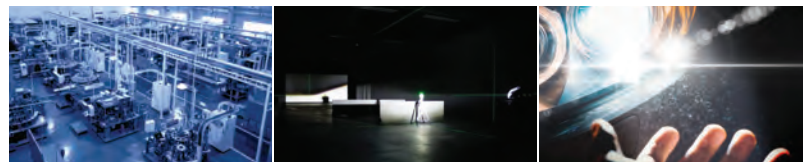


HEAD FACTORY

Company	◆ BioLight CO., LTD.
C.E.O	◆ LEE SUNG SOOK
Establishment	◆ 1993. 10
Location	◆ 46, Saneopdanji 1-ro, Eomo-myeon, Gimcheon-si, Gyeongsangbuk-do, Korea
Business	◆ Manufacturing Halogen bulb, HID[Xenon] bulb, LED bulb, General bulb
E-MAIL	◆ sns@biolightbulbs.co.kr

30 years for automotive lighting.

Biolight's production facilities can produce up to 100,000 products per day and up to 25 million products per year. All products are strictly quality controlled by an automated computer control system.



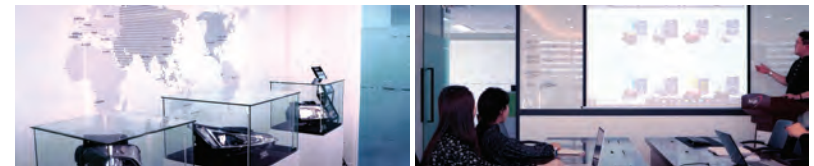
Gwangmyeong-si OFFICE

- Establishment ♦ 2020. 01
- Location ♦ 67, Saebitgongwon-ro, Gwangmyeong-si, Gyeonggi-do, Republic of Korea
- Business ♦ BioLight Sales Office
Domestic and international online marketing,
overseas marketing

We started a new challenge.

In line with the rapidly changing market, Biolight Co., Ltd. started the second step through aggressive marketing.

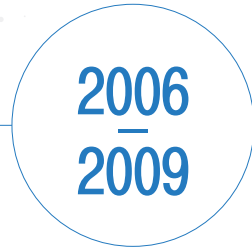
We signed a business agreement with a global shopping mall for direct sales with consumers around the world, and Biolight will lead the world market through product innovation through continuous research and development.



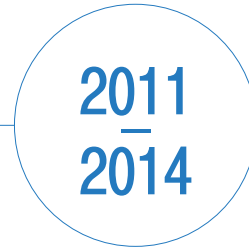
History



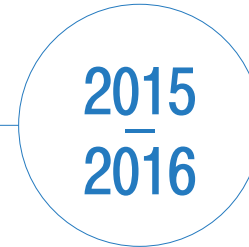
- 1993 **Found BIOLIGHT Company**
H1/ H3 Export to Europe and Supply to Philips Korea
- 1999 Converted into Corporate company
- 2001 H8/H9/H11 production line installation and mass production
- 2002 **Established Incheon factory.**



- 2006 **Installation of H7 automated production line.**
Achieve \$8.8 million in exports.
TS 16949, ISO 14001 certified.
- 2007 Preparing all the details for O.E.M. supply
E1 Qualification (COATING)
- 2008 Start to supply Volkswagen for
A/S Market.
- 2009 **Start to supply O.E.M Product to SL.**
Hyundai Motors
(AVANTE, SANTA FE)
Kia Motors
(FORTE)
Supply items : H1, H7
Start to supply BOSCH for A/S Market



- 2011 Installation of H7 2nd fully automatic production line.
- 2013 Installation of H8, H9, H11, H16 Full Automation Production Lines.
Start O.E.M supply for Ssangyong Motors.
(Korando, Actyon, Turismo, Rexton, Tivoli)
Supply items : H1, H7, H7LL, H8, H16LL
Completed Development of H16 New Product for O.E.M.
- 2014 **Completion of new factory in Gimcheon.**
Hyundai Motors
(AVANTE, i30) O.E.M supply
Supply items : H7LL, H8LL



- 2015 **Hyundai Motors**
(TUCSON, SANTA FE) OEM supply
Supply items : H8LL
- 2016 Installation of HB3(9005), HB4(9006), H10, HIR1, HIR2 fully automated production lines.
Hyundai Motors
(AVANTE, TUCSON, SANTA FE, SONATA)
Supply items : H7LL, H8LL
HONDA(QMDJ) Fair Audit
2016.10/10~12



2017

2017 GM approved Bulbs registration H7LL, HBL.
Hyundai Motors
(AVANTE, TUCSON, i30, SANTA FE, STAREX, PORTER, IONIQ, KONA)
Supply items : H7LL, H8LL, HB3(9005)L+, HB3(9005)HL+, HB4(9006)
Kia Motors
(BONGGO, K5)
Supply items : H7LL, H8LL, HB3(9005)L+, HB3(9005)HL+, HB4(9006)
GM
(CAPTIVA)
Supply items : H7LL
DongfengYuedaKia
Supply items : H7
HONDA(QMDJ)
OEM supply start

2018

2018 Installation of H7, HB3, HB4, H10, HIR1, HIR2 automatic lighting inspection facility for OEM.
Hyundai Motor
(SANTA FE, VELOSTER)
Supply items: H7LL, 9005HL+, H8LL
Kia Motors
(SPORTAGE)
Supply item: HB4 (9006)
SOLARIS,RIO, Hyundai Motor Company
Supply item: H7
DongfengYuedaKia
Supply item : 9006

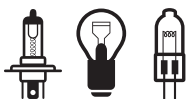
2019

2019 **Developed LED bulbs.**
[H4, H7, H8/H9/H11/H16, 9005 (HB3), 9006 (HB4), HID LED]
Hyundai Motor
(VENUE, ELANTRA, TUCSON)
Kia Motors
(NIRO, SPORTAGE, SORENTO)
Supply items : H7LL , HB3(9005)HL+ , HB4(9006) , H8LL

2020

2020 **Open of Gwang myeng Office**
Established online marketing department.
Korea Automobile Tuning organization certification of H7 / 9005 LED bulb.
Open on a AMAZON USA
Open on a AMAZON JAPAN
Open on a RAKUTEN
Open on a ALIBABA

Halogen Definition



A halogen bulb is a tungsten bulb that utilizes a chemical reaction of halogen substances by surrounding a gas containing a small amount of halogen substances.

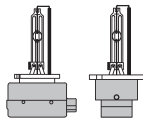
Halogen bulbs are attracting attention as economical bulbs because they are more efficient than regular bulbs, emitting less life loss and emitting brighter light. In addition, the small size of the halogen bulb makes it an efficient and design product used in related industries. In particular, halogen bulbs are bright and have a long lifespan, so they are widely used in automobile headlights and fog lights.



TYPE H1 / H3 / H4(9003/HB2) / HS1 / H7 / H8 / H9 / H11 / H8B / H9B / H11B / H10(9145) / H12(9055) / H13(9008) / H15 / H16 / H18 / H19 / HB1(9004) / HB3(9005) / HB3A(9005XS) / HB4(9006) / HB4A(9006XS) / HB5(9007) / HIR1(9011) / HIR2(9012) / H27W/1(880) / H27W/2(881) / 893/899 / 896/898 / 892/890 / 889 / 884/885/887 / 862/886/888/894 / PS19W / PS24W / PSX24W



HID Definition



HID (High Intensity Discharge) bulbs, unlike halogen bulbs that use a filament to emit light, have xenon gas and metal halide salts mixed in a thin capsule.
As the elevated gas recovers, it converts energy into light energy and emits strong light.
It is more than three times brighter than conventional light bulbs and has a semi-permanent lifespan and energy saving type.

- *Xenon gas : Activate the initial reaction so that the light turns on quickly.
- *Molybdenum electrode : arcing at anode,
- *Metal halide salt : Color determinant of bulb



TYPE D1S / D1R / D2S / D2R / D3S / D3R / D4S / D4R



LED Definition



LED stands for Light Emitting Diodes and means a light emitting diode.

LEDs convert electrical signals into light because they emit light when an electric current passes through them.

In the beginning, it was mainly applied to brake bulbs and interior lights due to low illumination,

However, due to the development of LED light sources, highlight LEDs have been developed and are used in headlamps and headlights for highlighting. For the small size of the LED light source, it is used depending on the vehicle design.



TYPE	HALOGEN LED	H8/9/11/16 / H7 / 9005 / 9006 / H4
	HID LED	D1S/D1R / D2S/D2R / D3S/D3R / D4S/D4R
	LED MINIATURE	T10 SIDE / T10 POWER / FESTOON 31mm / FESTOON 36mm
	MOTORCYCLE LED	HS1





Challenge

ZERO! Defect rate
Quality improvement

〈 GONIOPHOTOMETER

In order to maintain the uniform quality of LED products, we have Goniophotometer, which is the most important in automotive lighting, and various lighting-related measurement test equipment.



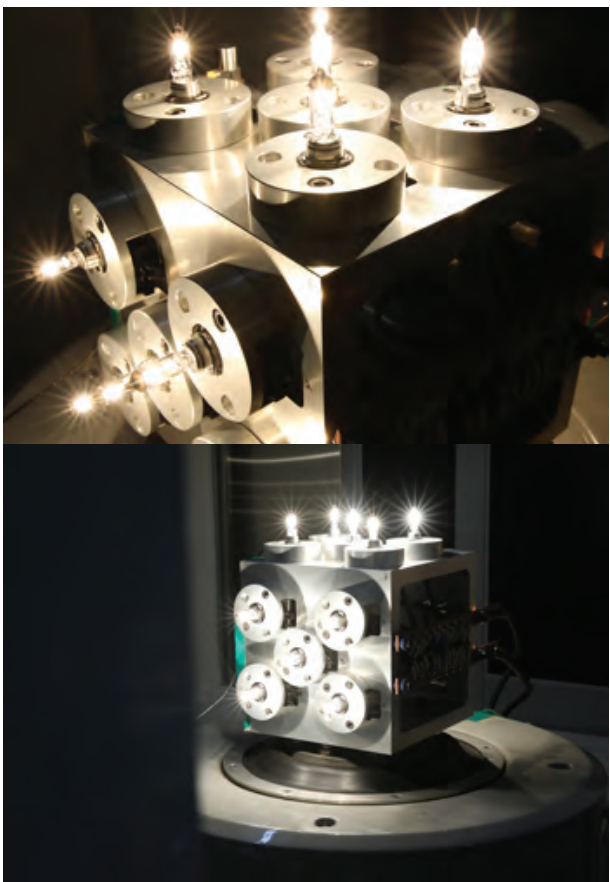
LIFETIME TEST EQUIPMENT

IEC, SAE REGULATION

Voltage Adjustment & Automatic On/Off system.

Tc : The time up to which 63.2% of number of tested lamps have ended their individual lives.

B3 : The time during which 3% of a number of tested lamps of the same type have reached the end of their individual lives.



VIBRATION TEST EQUIPMENT

Equipment that verifies the durability of the product by reproducing the complex vibration environment of the product.

- 1) Test for reproducing product damage caused by vibration
- 2) Transportation vibration and fall impact test of products
- 3) Test for durability of impact

Specification

– Freq, Range(Hz) : 0 ~ 3000

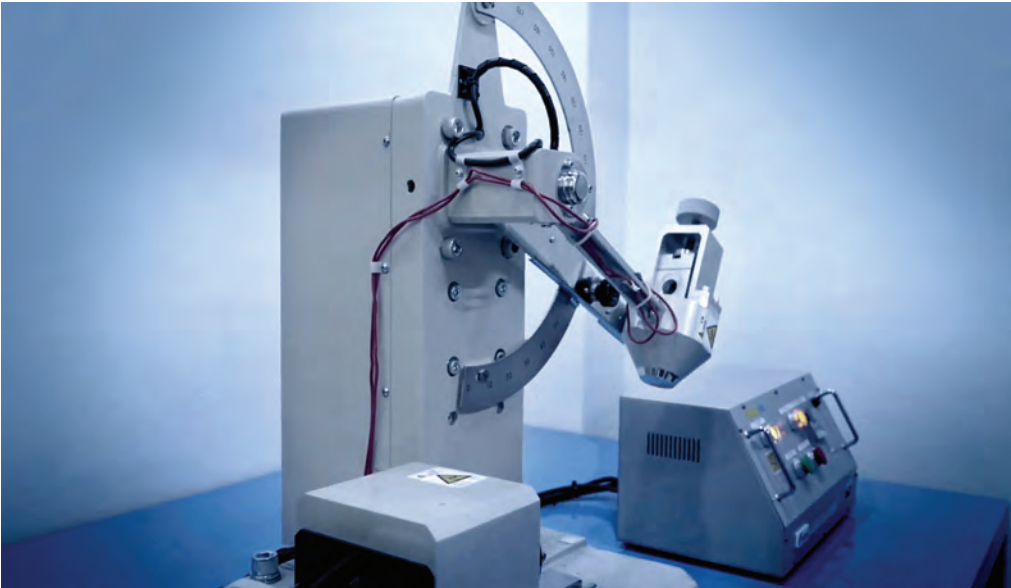
Test Range

– Max, Acceleration : 1250 m/s²

– Max, Velocity : 2.2 m/s

– Max, Displacement : 1250 m/s²

– Max, Loading Mass : 300Kg



SHOCK TEST EQUIPMENT

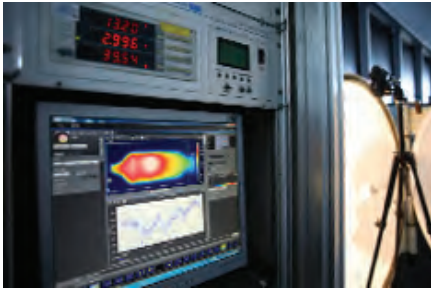
Equipment to check the durability of the bulb by reproducing the impact at random.

- Transportation Vibration and Drop Shock Test of Products.
- 50 to 50,000m/s² (5 to 5,000 G) high impact acceleration durability test.



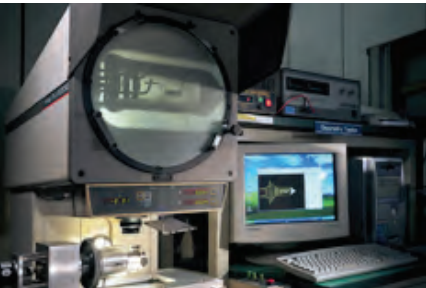
PHOTOMETRY TEST EQUIPMENT

Equipment that measures the initial voltage, current, and luminous flux under the provisions of IEC 60809/ECE regulation No.37.



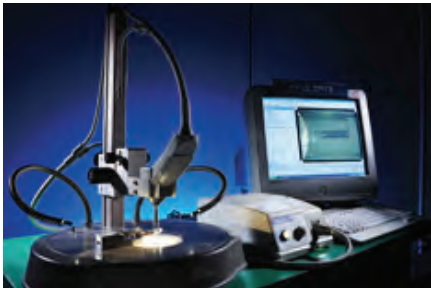
TEMPERATURE TEST CAMERA

Equipment to test the change in surface temperature of a bulb.



GEOMETRY TEST EQUIPMENT

Determine the position of the filament and the dimensions of the overall bulb according to the provisions of IEC 60809/ECE regulation No.37.

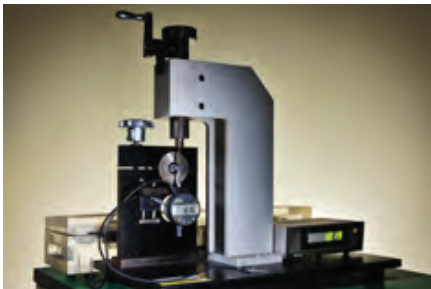


VIDEO MICRO SCOPE SYSTEM

This equipment is used for analyzing raw materials of processes, surface conditions of light bulbs, and dimensional analysis of light bulbs with a magnification of up to 300 times.

About Quality

Quality test equipment



DEFLECTION TESTER

This equipment measures bending and deflection.



PUSH PULL GAUGE TESTER

Pulling and pushing measures the deformation of the product through testing.



DRY OVEN EQUIPMENT

Put the bulb in the oven and measure the level of harmful gas.



AIR TIGHT TEST EQUIPMENT

Testing the limit when charging halogen gas inside the bulb.



About Quality Certification



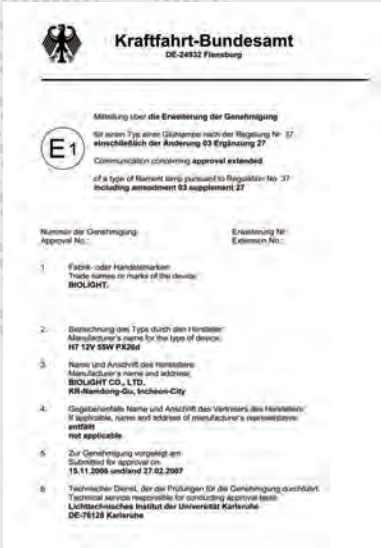
Biolight Co., Ltd. has worldwide certifications through continuous innovation.



[IATF 16949]



[ISO 14001]



[E1 Mark]



“Global competitiveness with the best quality”

Since Year of 1993, BIOLIGHT has led the automotive light bulb market with numerous quality and research results.



Annual Production **25,600,000**

Export Country **47**

Annual Export Amount **\$8,600,000**



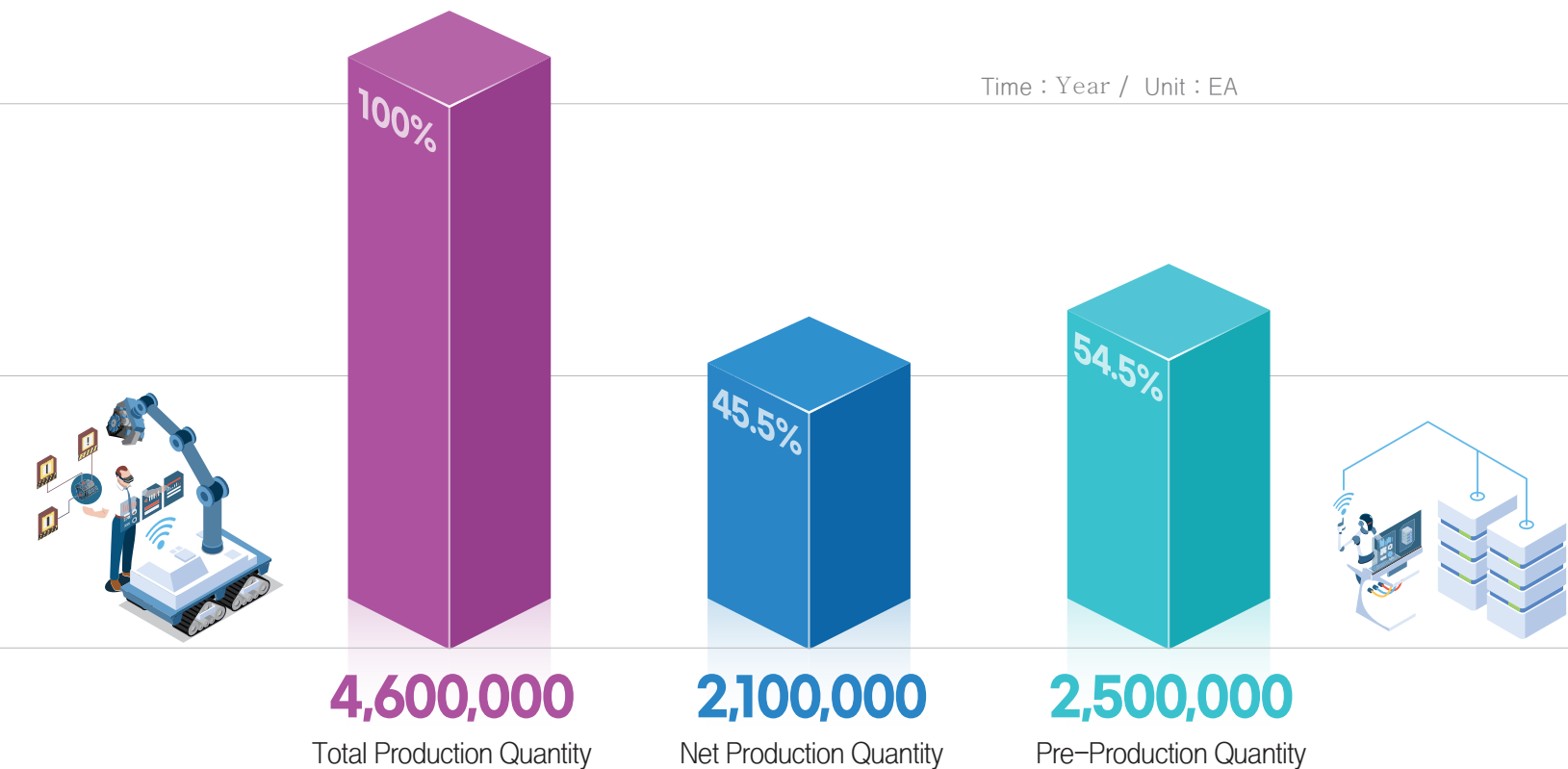
Sales & Export Status

Production Capacity


















Biolight Co., Ltd. has sufficient reserve production capacity to respond to any demand with optimized automated production facilities.

Monthly capacity



More value than customers expectation!

BIOLIGHT Co., Ltd are working with major customers to realize the value of owners around the world.

 Volkswagen	 STANLEY	 General Motors	 FUSO
 HYUNDAI MOBIS	 HYUNDAI IHL	 SL	 ams
 HONDA	 MINDA	 IKCO	 SAIPA
 BOSCH	 LUMAX	 TYC	



H1 12V 55W

REXTON Q200
KORANDO C C210
KORANDO C C250
KORANDO C C300
TURISMO A155
REXTON Y292
G4 REXTON Y400
TIVOLI X100



H4 12V 60/55W

KORANDO S Q150

SOLARIS HCr
RIO FB
i30 PD
IONIQ AE
STAREX TQ PE
VOLOSTER JS
SPORT Q200
G4 REXTON Y400
TIVOLI X100
VENUE QX



H7 12V 55W

ENCINO OS_c
K3 ND
i30 GD
AVANTE (ELANTRA) MD
AVANTE (ELANTRA) AD
TUCSON TL
SANTAFE DM PE
KONA OS
KORANDO C C210
KORANDO C C250
KORANDO C C300
TURISMO A155
REXTON Y292



H8 12V 35W

i30 GD
AVANTE (ELANTRA) MD
TUCSON TL
TUCSON TL F/L
SONATA LF
SANTAFE DM PE
SANTAFE TM
STAREX TQ PE
KONA OS
PORTER HR
BONGGO PU
K5 JF
REXTON Y292



H16 12V 19W

SPORT Q200
KORANDO C C210
KORANDO C C250
KORANDO C C300
TURISMO A155
G4 REXTON Y400
TIVOLI X100
TIVOLI X150



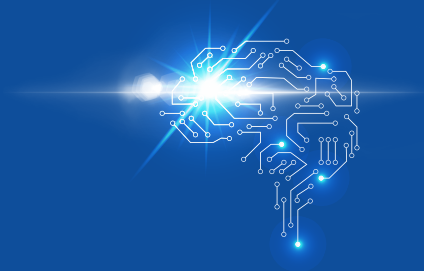
HB3(9005) 12V 60W HL+

i30 PD
AVANTE (ELANTRA) AD F/L
AVANTE (ELANTRA) AD
TUCSON TL F/L
IONIQ AE
SANTAFE TM
VENUE QX
SPORTAGE QLe
NIRO DE



HB4(9006) 12V 51W

i30 PD
AVANTE (ELANTRA) AD
SPORTAGE QL
KX3 KC
NIRO DE PE



"CREATION"

Always comes from actions