Custom Solutions

In addition to a wide range of standard products, we also offer customized solutions for our customers. Our longstanding expertise and experience in optical design and lighting product construction enables us to work together with our customers to find the optimal solution. Zhaloha

2023 CATALOGUE

When is a customized solution needed?

- No mechanical or optical suitable product on the market.
- ◆ Looking for unique design solutions and differentiation.
- ◆ To meet the specific requirements of certain applications.
- ◆ A specific material or color is required.

Why Alpha?

♦ In-house 2D and 3D designers for optical design, structural design, mold design, etc.

♦ In-house production facilities for different key components.

◆ Total engineering support from consulting - design - production - testing to support product development.

• Widely recognized in the industry as a manufacturer of high quality products.



WhatsApp

Wechat

Contact Us

Website: www.zh-alpha.com Email: Export@zh-alpha.com Mobile: 0086 13926996972

Factory Address: No.3 Industrial 3rd Road, Xinsha Village, Baijiao Town, Doumen District, Zhuhai City, GuangDong, P.R China Showroom Address: Room 2, No. 10, Lane 1, Lefeng Avenue, Caoyi Road, Guzhen Town, Zhongshan city, GuangDong, P.R China Alpha (Zhuhai) Optical Co., Ltd.

Manufacturer and Solution Provider of Optical Lens Diffuser, Led Aluminum Profile



Table of Contents

VHO WE ARE	1
actory Overview	2
Our Service	3
ENS DIFFUSERS	CO ^M 4
duidelines	Jon 6
ED Control: PMMA Matt Diffuser	10
lare Control: Microprismatic Lens	12
lare Control: TIR Lens	14
LUMINUM PROFILES	17
hotometric	19
inear: For Ambient Lighting	26
inear: For Main Lighting	38
inear: For Main Lighting-Premium	44
curved: Standard	54
urved: Customize	58
ED MODULES: Linear & Curved	63
LECTRONICS: LED Drivers & Controllers	65
LIMINAIRE SYSTEM	67

WHO WE ARE

Alpha (Zhuhai) Optical Co., Ltd. is a quality-focused preminum linear lighting solution provider and manufacturer. With 20+ years of manufacturing in plastic extrusion and 10+ years experience in lighting industry, we support the lighting manufacturers to get the optimal lighting solutions for their luminaires. Our expertise lies in our constant innovation, meticulous service, and prompt product delivery. At ALPHA, we take pride in supplying our clients with world-class and high-quality standard and custom-made linear light components.

Our clients are from 40+ countries and areas, such as the USA, Canada, Australia, Germany, Italy, Spain, Poland, India, United Arab Emirates, Mexico, Brazil etc. Great credibility and reputation has been enjoyed.



Factory Overview



Our factory have 6 PMMA extrusion production line, 16 injection molding machine, 3 CNC machine, in addition to precision engraving machine, cutting machine, bending machine, polishing machine and assembly production lines, which enables us to produce most of the key component in our own factory, with a one-stop product manufacturing capacity from raw material processing to finished product assembly

and testing, to ensure that our products can meet the various flexible needs of







www.zh-alpha.com



Aluminum Porfile Warehous





Our Service

Our business scope is not end with supply. We can save you time and money. Well-trained technical team provides customers with product design, prototype, testing, manufacture, secondary processing, assembly, printing, packaging, and shipping - all in one place. Our growing global customer base reflects our commitment to providing cutting-edge products and it is our ongoing commitment to providing professional quality service.



DiaLux Simulation









www.zh-alpha.com

LENS DIFFUSERS

Alpha factory started from the plastic extrusion: lenses and diffusers. why? because this is one of the most important parts of a luminaire, it obviously determines the quality of the luminaire. More than 100+ standard products available for different applications, discover some of them in the following pages!

Also, welcome to customize, we have always combined our plastic extrusion and lighting knowledge to create linear lighting solutions that support the lighting designers and manufacturers achieve their required lighting effect.



Mold Advantages

100% In-house R&D of mold to Lowest Cost. With our own mold room, we can provide free tooling design and lifetime tooling maintenance, which also shortens the lead time and guarantees the quality of extruded parts. Meanwhile, our extrusion experts have the experience to successfully solve the most complex extrusion designs to achieve customer satisfaction.





Material Advantages

Alpha has been using 100% high-quality granulates material from the world's leading premium manufacturers for the lens diffusers production, all REACH, RoHS, and UL certified, which guarantees consistency in material properties and ensure the best guality for your products. And we are highly experienced with an extensive variety of raw materials. Once you help us to understand your application, we will support you with a material recommendation.

Some of the cooperative brands are as below:







www.zh-alpha.com

Guidelines - Plastic Extrusion Process







Water cooling

Using the water circulation to cool the extruded profiles, and the speed of cooling determines the production speed of the product. This kind of cooling process is suitable for produce some simple PC diffuser, Tri-proof light lampshade, because the capacity is very high, can reach a ton a day. The biggest disadvantage is that due to the fast extrusion speed, there will be pulling lines on the product surface and the product dimensions are not stable.

originated in European countries, especially Germany. The air

structures profiles, but also to produce nice PMMA products, and

the product dimensions during production is very stable. The

only disadvantage is the capacity is not high.

Air cooling Using the wind to cool the extruded profiles, this cooling process cooling process has high requirements for production equipment and operators, which combines the advantages of both water cooling and oil cooling processes, not only can produce complex

Embossing

Hot embossing process is using for irregular profile, which is different from the cold embossing used by diffuser sheet. Extruded profile pass through the roller after it comes out from the mold, the pattern on the roller is pressed on the product surface before profile is completely cooled, and then the surface embossing is formed by natural cooling. It is not difficult to make an embossed profile, what is difficult is to make a pattern that can achieve the purpose of controlling the optics, which is the case with our micriprismatic lens.

Co-Extrusion

The plastic co-extrusion process involves extruding two or more materials through a single mold so that materials merge or weld together into a single structure before cooling. It is suitable for Tri-proof light lampshade, T5, T8 or Lens and diffuser need reflector.

Guidelines - Beam Angle

The beam angle we refer to is the useful spread of light from the luminaire. It's measured from the point of maximum intensity directly under the light to where the light drops to 50% of that intensity. Anything beyond that is called spill light and the whole light distribution is called the field angle.

Example: for our 90°TIR lens AEF-ZD-013, it is 90° in 50% intensity and in horizontal angle of the luminaire.



NEMA indicates how wide or narrow the light is projected out of the light. Horizontal and vertical beam spread angles are used to distinguish NEMA types. Example: If the horizonal beam spread is 120° and the vertical beam spread is 140° , then the NEMA type is 6 x 7.

BEAM SPREAD	NEMA Type	Beam Description	Beam Projection Distance
10° to 18°	1	Very Narrow	240 feet +
18° to 29°	2	Narrow	200 to 240 feet
29° to 46°	3	Medium Narrow	175 to 200 feet
46° to 70°	4	Medium	145 to 175 feet
70° to 100°	. 5	Medium Wide	105 to 145 feet
100° to 130°	6	Wide	80 to 105 feet
130° +	7	Extra Wide	< 80 feet

Guidelines - Tolerance

During the manufacture of extruded profiles, dimensions, properties or conditions may vary within certain practical limits without significantly affecting the functionality of the equipment or process. Tolerances are specified to allow a reasonable range for imperfections and inherent variability without affecting performance. The following limit values apply according to DIN 16941-2A and 2B, unless otherwise stated in the drawing and negotiate with us.



DIN 16941-2A and 2B Standard of the Thickness Dimension DIN 16941-2A and 2B Standard of the Height Dimension

Nominal Range	Tolerance Range	Nominal Range	Tolerance Range
< 1.2 mm	± 0.2 mm	1 - 6 mm	± 0.3 mm
> 1.2 - 2.5 mm	± 0.3 mm	> 6 - 10 mm	± 0.4 mm
> 2.5 – 4.0 mm	± 0.4 mm	> 10 - 18 mm	± 0.6 mm
≥ 4.0 – 6.5 mm	± 0.5 mm	> 18 - 30 mm	± 0.8 mm
> 6.5 - 10 mm	± 0.6 mm	> 30 - 50 mm	± 1.0 mm
> 10 mm	±8%	> 50 - 80 mm	± 1.4 mm
		> 80 - 120 mm	± 1.8 mm
	-	> 120 – 180 mm	± 2.5 mm
			10°

Alpha Standard Tolerance of the Length Dimension		Special Length Tolerances Negotiated with A (which are only possible through manual rew	
Nominal Range	Tolerance Range	Nominal Range	Tolerance Range
10 - 100 mm	± 0.5 mm	20 - 500 mm	± 0.5 mm
> 100 - 200 mm	± 0.8 mm	>500 - 1'000 mm	± 1.0 mm
> 200 - 500 mm	± 1.0 mm	>1'000 - 1'500 mm	± 2.0 mm
> 500 - 1'000 mm	± 2.5 mm		
> 1'000 - 2'500 mm	± 5.0 mm		
> 2'500 - 5'000 mm	± 8.0 mm	. 8.0	
> 5'000 mm	± 0.3 %	2	
	Nominal Range 10 - 100 mm > 100 - 200 mm > 200 - 500 mm > 500 - 1'000 mm > 1'000 - 2'500 mm > 2'500 - 5'000 mm	Nominal Range Tolerance Range 10 - 100 mm ± 0.5 mm > 100 - 200 mm ± 0.8 mm > 200 - 500 mm ± 1.0 mm > 500 - 1'000 mm ± 2.5 mm > 1'000 - 2'500 mm ± 5.0 mm > 2'500 - 5'000 mm ± 8.0 mm	Nominal Range Tolerance of the Length Dimension (which are only possible if the length Dimension) Nominal Range Tolerance Range Nominal Range 10 - 100 mm ± 0.5 mm 20 - 500 mm > 100 - 200 mm ± 0.8 mm > 500 - 1'000 mm > 200 - 500 mm ± 1.0 mm > 1'000 - 1'500 mm > 500 - 1'000 mm ± 2.5 mm > 1'000 - 2'500 mm > 1'000 - 2'500 mm ± 5.0 mm > 2'500 - 5'000 mm

DIN 16941-2A and 2B Stand	lard of the Width Dimension	Special Tolerances	Negotiated with Alpha
Nominal Range	Tolerance Range	Nominal Range	Tolerance Range
0 - 3 mm	± 0.3 mm	0 - 3 mm	± 0.1 mm
> 3 - 6 mm	± 0.4 mm	> 3 - 6 mm	± 0.15 mm
> 6 - 10 mm	± 0.5 mm	> 6 - 10 mm	± 0.15 mm
≥ 10 - 18 mm	± 0.6 mm	> 10 - 18 mm	± 0.20 mm
> 18 - 30 mm	± 0.7 mm	> 18 - 30 mm	± 0.20 mm
> 30 - 50 mm	± 0.8 mm	> 30 - 50 mm	± 0.30 mm
> 50 - 80 mm	± 1.0 mm	> 50 - 80 mm	± 0.40 mm
> 80 - 120 mm	± 1.2 mm	> 80 - 120 mm	± 0.60 mm
> 120 - 180 mm	± 1.4 mm	> 120 - 180 mm	± 0.70 mm
> 180 - 250 mm	± 1.7 mm	> 180 - 250 mm	± 0.80 mm
> 250 - 320 mm	± 2.0 mm	> 250 - 320 mm	± 1.0 mm
> 320 mm	± 0.8 %	> 320 mm	± 0.4 %
			10

Noted:

1. Please know that tolerances are related to the material used, the shape of the profile and the application and can deviate from the listed values.

2. Special tolerances are only available for some dimensions of profile cross-sections. 3. Tolerances are guide values, which is part of our general delivery and payment terms

Extension and Deformation of PMMA & PC due to Temperature

Change in temperat	ure Length(mm)	Coefficient	Deformation(m	m)Length Range(mm)
10	1000	0.00007	0.7	999.3-1000.7
20	1000	0.00007	1.4	998.6-1001.4
30	1000	0.00007	2.1	997.9-1002.1
40	1000	0.00007	2.8	997.2-1002.8

Extension and Deformation of PMMA & PC due to Humidity

Change in humidity	Length(mm)	Water Absorp	tion Deformation(m	m) Length Range(mm)
40%	1000	0.50%	0.5	1000-1000.5
60%	1000	0.80%	1	1000-1001
70%	1000	1.00%	1.4	1000-1001.4
80%	1000	1.30%	S 2	1000-1002
90%	1000	1.50%	2.7	1000-1002.7

www.zh-alpha.com

LED Control---PMMA Matt Diffuser

Alpha's PMMA Matt Diffuser is one of superior materials able to hide LEDs and diffuse light in a homogeneous way, it can transform the point light source to the area light source. The light transparency and diffusion could be produced according to applications. Black color could be offered as required.



High Efficacy: It is made of optical grade PMMA(Acrylic), the diffuse light reflection rate can reach more than 90%, significantly improving the light efficiency and reducing the lumen loss of the luminaire while keeping the LEDs hidden. The color tolerance is smaller than PC diffuser.

UV-Resistance: It is ideal for indoor direct lighting offering excellent diffusion and good transmission, also, with UV resistant property it could be used in application where exposure to UV-radiation is high, and no visible yellowing over time.

Flexible and Infinite: It is ideal for continuous and uninterrupted lighting such as corridors, halls, offices and supermarkets. It could be rolled up for easy transport and assembly. Rolls can be max 50 meters long.

Usually the LED light needs to be reflected several times on the diffuser surface to produce a consistent beam angle. Below you can see the diffuse reflection difference between the different surface finish, and it is easy to see the frosted diffuser can get the softer and more uniform light, and effectively solve the LED glare phenomenon.





Glare Control---Microprismatic Lens

Combining extrusion and embossing processes, Alpha design an anti-glare Microprismatic lens, with a particular pyramid structure imprinted on the external surface. It is made of optical grade PMMA (Acrylic), glare is reduced by its precise control of the horizontal and vertical direction. The Microprismatic Lens family is recommended to use adding a PMMA diffuser sheet on the surface facing the LEDs for uniform light hidding the hot spots and can effectively reduce glare. Standard color is transparent (Clear), milky and black could be offered as required.



UV-Resistance: With UV resistant property it could be used in application where exposure to UV-radiation is high, and no visible yellowing over time.

Flexible and Infinite: It is ideal for continuous and uninterrupted lighting such as corridors, halls, offices and supermarkets. It could be rolled up for easy transport and assembly. Rolls can be max 50 meters long.





Microprismatic Lens

Microprismatic Lens + PMMA Diffuser Sheet



Glare Control---TIR Lens

W19 and W25 series are linear extrusion lens family with precise light control, directing light exactly where it is needed. These linear optics are made of optical grade PMMA (Acrylic) and ensure an efficiency of up to 90%. They are easy to install by either pressing or sliding the lens into the luminaire housing and are offered in popular light distributions. These optics work perfectly within -40° to +90° temperature range.

W25 Series

The particular structure with linear prisms allows to control the light both in horizontal and vertical direction. They are optimized for LED 2835 and 3030, compatible with 20MM and 24MM single-row medium power ZHAGA LED modules. Standard length is 1140mm, other lengths can be customized.

Light Distribution	Dimensions(mm)	Descriptions
		Model: AEF-AEF-018 Size: W25*H5mm Beam Angle: Double Asymmetric Beam for Aisle and Shelf Lighting
		Model: AEF-AEF-021 Size: W25*H11mm Beam Angle: ~165° + 130° Extra Wide Beam for Uplighting
	7.70 [0.307] 	Model: AEF-AEF-022 Size: W25*H7.7mm Beam Angle: ~145° + 100° Extra Wide Beam for Uplighting
		Model: AEF-AEF-023 Size: W25*H5.5mm Beam Angle: ~110° + 100° Wide Beam



NOTE: Production tolerance of beam angle: ±5°. The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

15

W19 Series

They are optimized for LED 2835 and 3030, compatible with single-row medium power LED modules and LED strip lights. Standard length is 1020mm, other lengths can be customized.

Light Distributio	on Dimensions(mm)	Descriptions
	8 19.5	Model: AEF-ZD-012 Dimension: W19.5*H8mm Beam Angle: 40° Medium Narrow Beam
		Model: AEF-ZD-010 Dimension: W19.5*H8mm Beam Angle: 60° Medium Beam
		Model: AEF-ZD-013 Dimension: W19.5*H8mm Beam Angle: 90° Medium Wide Beam
	5.51 19.5	Model: AEF-ZD-014 Dimension: W19.5*H5.5mm Beam Angle: 150° Extra Wide Beam for Uplighting
	7.8	Model: AEF-AEF-011 Dimension: W19.5*H7.8mm Beam Angle: Asymmetric 35° Beam for Wall Washing
	8 19.5	Model: AEF-ZD-028 Dimension: W19.5*H8mm Beam Angle: Double Asymmetric Beam for Aisle and Shelf Lighting

NOTE: Production tolerance of beam angle: ±5°. The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value. www.zh-alpha.com

ALUMINUM PROFILES

Everyone can say that their product is the best. We do not want to only say so but to prove you, step by step, why our products are "the best of the best".

Our company has a team of experienced engineers who encompass all aspects of a product such as thermal engineer, optical engineer, structural engineer, tooling engineer, electrical engineer, etc. They are responsible for our new product design development, production, tooling design and preparation, various drawings and documentation required for the project. What's more, our team built the capabilities to develop machines according to production needs.

Before our designs go ahead to production, they must pass important tests that validate the design concept in many ways. Manufacturing analysis will be performed, such as thermal management and heat dissipation to ensure the product's ability to dissipate heat in time under certain loads and certain environmental conditions, as well as the light distribution. These analyses help our customers save time and money, and ensure the physcial item meets all requirements.





www.zh-alpha.com

Finish

In addition to the regular powder coating and anodic oxidation for aluminum profile finish, electroplating, wooden coating and other finish treatments also available for customization.







Specification

Dimensions	W50xH80mm
Length	Standard: 3 Meters, other length could be offered as required
Material	6063 T5 Aluminum + PMMA
Endcap	Invisible Screw Aluminum Endcap
Light Source	up to 24 mm wide Zhaga PCBs SMD2835/3030/3535 2700-6500K
Suggested Power	Single row mid power
Aluminum Surface	Anodized Aluminum/ Black / White / Customized
Application	Office Lighting/Retail, Corridor and Shelf Lighting / Residential Lighting

Double

Asymmetric

for Direct

Asymmetric

for Direct

Optics



Mounting





Suspended Direct



Suspended Direct/Indirect

beamfor Direct



www.zh-alpha.com

145°Extra wide

beam for

Indirect



Photometric Dimensions 48.00 [1.89"] 40.00 [1.57"] <u>18.40</u> [0.72"] 24.00

Specification

VLG

Dimensions	W48xH75mm
Length	Standard: 3 Meters, other length could be offered as required
Material	6063 T5 Aluminum + PMMA + PC Grids
Endcap	Invisible Screw Aluminum Endcap
Glare Value	UGR<16
LED Modules	Vossloh-Schwabe W2.5 Light & Dark Optics and Grids
Aluminum Surface	Anodized Aluminum/ Black / White / Customized
Application	Office Lighting/Retail, Corridor and Shelf Lighting / Residential Lighting

Optics

90° Medium Wide Beam

65° Medium Beam











Specification

Dimensions	W60xH42.2mm	
Material	6063 T5 Aluminum + PMMA + Invisible Screw Aluminum Endcap	
Light Source	up to 24 mm wide Zhaga PCBs SMD2835/3030/3535 2700-6500K	
Suggested Power	Single row mid power	
Aluminum Surface	Anodized Aluminum/ Black / White / Customized	
Application	Retail, corridor and shelf lighting	
Feature	High light transmittance; Smooth beams blend	
Installation Options	Suspension	

Optics



~90°+110° Wide Beam Medium Wide Beam

Asymmetric Beam for Wall Washing







Double Asymmetric Application

www.zh-alpha.com





[0.88"]

Photometric

Specification

Dimensions	W27xH26.3mm			
Material	6063 T5 Aluminum + PMMA + Plastic Endcap			
Light Source	up to 24 mm wide Zhaga PCBs SMD2835/3030/3535 2700-6500K			
Suggested Power	Single row mid power			
Aluminum Surface	Anodized Aluminum/ Black / White / Customized			
Application	Retail, corridor and shelf lighting			
Feature	control the light both in transversal and longitudinal direction			
Installation Options	Suspension; Surface			

Optics



~145° + 100° Extra Wide Beam for Uplighting



www.zh-alpha.com



~70° + 100°

~165° + 130° Extra Wide Beam for Uplighting





~110° + 100° Wide Beam



~90° + 100°

Asymmetric

Beam for

Wall Washing

Double Asymmetric Beam for Aisle and Shelf Lighting



Medium Wide Beam





22



Specification

Dimensions	W22.6xH19.2mm
Material	6063 T5 Aluminum + PMMA + Plastic Endcap
Light Source	SMD2835/3030/3535 2700-6500K
Suggested Power	Single row mid power
Aluminum Surface	Anodized Aluminum/ Black / White / Customized
Application	Retail, corridor and shelf lighting
Feature	High light transmittance; Smooth beams blend
Installation Options	Magnet Strip / Surface Mounting Brackets

Optics





Asymmetric 35° Beam Application

www.zh-alpha.com



Dimensions W17xH19.2mm Material 6063 T5 Aluminum + PMMA + Plastic Endcap Light Source SMD2835/3030/3535 2700-6500K Suggested Power Single row mid power Aluminum Surface Anodized Aluminum/ Black / White / Customized Application Retail, corridor and shelf lighting Feature Smooth and Flexible beams blend



By changing the position of the LED carrier and Lens, avariety of beam angles of 10° / 20° / 30° / 60° / 90° can be achieved.



Installation Options Magnet Strip / Surface Mounting Brackets



10° Very Narrow Beam Application 24



Dimensions [0.43"]

Specification

Dimensions	W20xH25.5mm			
Material	6063 T5 Aluminum + PMMA + Plastic Endcap			
Light Source	SMD2835/3030/3535 2700-6500K			
Suggested Power	Single row mid power			
Aluminum Surface	Anodized Aluminum/ Black / White / Customized			
Application	Retail, corridor and shelf lighting			
Feature	High light transmittance; Smooth and Flexible beams blend			
Installation Options	Suspension; Surface			
	10° 20° 30° 60° 90° Very Narrow Narrow Beam Medium Narrow Medium Beam Medium Wide			



45

25





Beam

45





Beam





www.zh-alpha.com

Linear: For Ambient Lighting



17.2

Size:LxW23.4xH14.5mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser Size:LxW14.6xH14.5mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser Size:LxW15.8xH15.8mm

Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser

Size:LxW23.5xH12.1mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser

SizeLx:W24xH14.2mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser





AEF-KE624



AEF-KE1010A



AEF-KE1010M



AEF-KE1313





13

10

13 0.51]



15

[0.34]

10

10

<u>13</u> [0.51]

Accessories: Metal Clips Diffuser: Opal PC Diffuser Size:LxW15.6xH10mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips

Size:LxW17xH13mm

Diffuser: Opal PC Diffuser

Size:LxW10xH10mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser

Size:LxW13xH13mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser

www.zh-alpha.com



Linear: For Ambient Lighting

Size I xW29 7xH29 7mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PC Diffuser

Size:LxW18.6xH8.5mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser

Size:LxW14.2xH8.5mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser

<u>20</u>



Size:LxW28xH10mm Material: 6063-T5 Endcaps: Plastic White

Accessories: Metal Clips

Diffuser: Opal PMMA Matt Diffuser



AEF-KE2020AH



AEF-KE2320M



AEF-KE2320A



AEF-KE3010M





28

18.7

20

23 [0.91"]

20.6

<u>32</u> [1.26"]

20.6 [0.81"]

23

30

28.6

20

20

20

10 [0.39"]

5

Size I xW20xH20mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser

> Size:LxW28xH20mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser Size:LxW23xH20mm

> > Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser

> > Size:LxW32xH20mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser

Size:LxW30xH10mm Material: 6063-T5 Endcaps: Plastic White Accessories: Metal Clips Diffuser: Opal PMMA Matt Diffuser



AEF-KE6114



AEF-KE6114A



AEF-KE639M









33





29.3

20.5

61

56

13.4

15.4

15.4

13.4

55.4

52.5 [2.06"]

12.5

10.5

14 [0.55"]

15 [0.59"]

15.7

13.3

- Size:LxW61xH14mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PMMA Matt Diffuser
- Size:LxW61xH14mm Material: 6063-T5 Endcaps: Plastic White
 - Diffuser: Opal PMMA Matt Diffuser

Size:LxW56xH15mm Material: 6063-T5 Endcaps: Plastic White

Diffuser: Opal PC Diffuser

Size:LxW55.5xH15.7mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PC Diffuser

Size:LxW52.5xH13.3mm Material: 6063-T5

Endcaps: Plastic White

Diffuser: Opal PC Diffuser



www.zh-alpha.com

Linear: For Ambient Lighting



41

2.31"

23

AEF-KE707Y



AEF-KE601H



AEF-KEHX



AEF-KE105





41 [1.61"

г

88.5

46

86

Size:LxW52.5xH13.7mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PC Diffuser

Size:LxW50xH10mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PC Diffuser

Size:LxW52.5xH14.4mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PC Diffuser

Size:LxW55.5xH15.7mm Material: 6063-T5 Endcaps: Plastic White Diffuser: Opal PC Diffuser

Size:LxW46.9xH21.4mm Material: 6063-T5

Diffuser: Opal PMMA Matt Diffuser

www.zh-alpha.com







Accessories: Suspension Kit

Accessories: Metal Clips/ Diffuser: Opal PC Diffuser Size:LxW70.3xH24.3mm

Size:LxW30xH30mm

Material: 6063-T5

Diffuser: Opal PC Diffuser

www.zh-alpha.com



Linear: For Main Lighting

Diffuser: Opal PMMA Matt Diffuser Size: LxW50xH35mm Material: 6063-T5 Endcaps: Plastic Silver Accessories: Spring Clips Diffuser: Opal PMMA Matt Diffuser Size: LxW50xH20mm Material: 6063-T5 Endcaps: Plastic Silver Diffuser: Opal PMMA Matt Diffuser Size: LxW65xH20mm Material: 6063-T5 Endcaps: Plastic Silver Diffuser: Opal PMMA Matt Diffuser Size: LxW50xH35mm Material: 6063-T5 Endcaps: Plastic Silver Accessories: Metal Clips/ Suspension Kit Diffuser: Opal PMMA Matt Diffuser

www.zh-alpha.com

Linear: For Main Lighting







39





60 [2.36"]

70

60.2

Size: LxW65xH35mm

Material: 6063-T5

Endcaps: Plastic Silver

Accessories: Spring Clips

Diffuser: Opal PMMA Matt Diffuser



Material: 6063-T5

Endcaps: Plastic Silver Accessories: Spring Clips

Diffuser: Opal PMMA Matt Diffuser

Size: LxW70xH35mm Material: 6063-T5 Endcaps: Plastic Silver Accessories: Metal Clips/ Suspension Kit

Diffuser: Opal PMMA Matt Diffuser

www.zh-alpha.com



Linear: For Main Lighting

Linear: For Main Lighting



AEF-KE10035MH



AEF-KE10035AH



AEF-KE12035M











Size: LxW116.5xH35mm 116.5 Material: 6063-T5 35 [1.38"] Endcaps: Plastic Silver 91 [3.58] Accessories: Spring Clips 98.5 [3.88" Diffuser: Opal PMMA Matt Diffuser

120

112.5

135 [5.31"]

112.5

120

35

Size: LxW120xH35mm Material: 6063-T5 Endcaps: Plastic Silver Accessories: Metal Clips/ Suspension Kit Diffuser: Opal PMMA Matt Diffuser Size: LxW135xH35mm Material: 6063-T5 Endcaps: Plastic Silver

Size: LxW96xH35mm

Endcaps: Plastic Silver

Accessories: Spring Clips

Diffuser: Opal PMMA Matt Diffuser

Material: 6063-T5

Accessories: Spring Clips

Diffuser: Opal PMMA Matt Diffuser

www.zh-alpha.com



Linear: For Main Lighting

Microprismatic

Suspension

Microprismatic

Lens + PMMA Sheet

Kits

Lens + PMMA Sheet

Linear: For Main Lighting



Size: LxW70xH75mm
Material: 6063-T5
Endcaps: Aluminum
Accessories: Metal Clips/
Suspension Kit
Diffuser: Opal PMMA Matt Diffuser
Size: LxW92xH75mm
Material: 6063-T5
Endcaps: Aluminum
Accessories: Spring Clips
Diffuser: Opal PMMA Matt Diffuser
Size: LxW70xH100mm
Material: 6063-T5
Endcaps: Aluminum
Accessories: Metal Clips/
Suspension Kit
Diffuser: Opal PMMA Matt Diffuser



www.zh-alpha.com



Accessories

Endcap: Plastic / Aluminum





Microprismatic

Lens + PMMA Sheet

www.zh-alpha.com

27.8

E ALMB -

78 [3.07"]

Linear: For Main Lighting-Premium



Linear: For Main Lighting-Premium



Linear: For Main Lighting-Premium



Linear: For Main Lighting-Premium



Optics

PMMA Mat

Accessories

Endcap:

Plastic /

Optics

PMMA Matt

Accessories

Endcap:

Plastic /

Optics

PMMA Matt

Accessories

Plastic /

Aluminum

Diffuser

Aluminum

AEF-PM17878M Size: LxW178xH78mm Material: 6063-T6

Installation: Suspension; Surface

Diffuser

Aluminum

AEF-PM17842A Size: LxW190xH42mm Material: 6063-T6

Installation: Recessed

Diffuser

166.4 [6.55"]

.... PI ..

166.4

178

53

AEF-PM17842M Size: LxW178xH42mm Material: 6063-T6

Installation: Suspension; Surface

Finish: Silver Anodized / Black / White / Customized

Microprismatic

Surface

Microprismatic

Surface

Microprismatic

Surface

Clips

Lens

Clips

Finish: Silver Anodized / Black / White / Customized

Lens

Clips

Finish: Silver Anodized / Black / White / Customized

Lens

Microprismatic

PMMA Sheet

Microprismatic

Microprismatic

www.zh-alpha.com

Lens + PMMA Sheet

Lens + PMMA Sheet

Lens +

Curved: Standard 1 DOWN 2 INWARD LIGHT 3 OUTWARD UP AND DOWN 5 INWARD AND OUTWARD LIGHT Shape & Details

Our curved profile offer both.

Curved: Standard

DIY Honeycomb Series



Above 8 standard curved modules are equipped with a rigid light source, can be connected with straight profile for various shapes. With a small set of modules, create an uninterrupted lighting plan anytime, anywhere, integrated with the space design.









Curved: Customize

Height: 20/35/40/75/100mm

[0.31"]

A

<u>30~100</u> 18"~3.94"]

AEF-WL020B

Diffuser: PMMA Diffuser

Can be connected with

Bend for Down Light R>100mm

30/40/50mm wide integrated

Length: 2.9/3.6/4.1M

Width: 30-150mm

aluminum profile



AEF-WL020A

Length: 2.9/3.6/4.1M Width: 30-150mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 30/40/50mm wide integrated aluminum profile



AEF-WL035B

Length: 2.9/3.6/4.1M Width: 30-150mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 40/50/ 60/70/80/90 /100/120mm wide integrated aluminum profile



AEF-WL040A

Length: 2.9/3.6/4.1M Width: 40-200mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 40/50/ 60/70/80/90/100/120/150/200mm wide integrated aluminum profile

38" 30~150 [1.38"~5.91"]

Width: 40-300MM

AEF-WL035A

Length: 2.9/3.6/4.1M Width: 30-150mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 40/50/ 60/70/80/90/100/120mm wide integrated aluminum profile



AEF-WL040B

Length: 2.9/3.6/4.1M Width: 40-200mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 40/50/60/ 70/80/90/100/120/150/200mm wide integrated aluminum profile

www.zh-alpha.com



AEF-075B

Length: 2.9/3.6/4.1M Width: 40-200mm Diffuser: PMMA Diffuser Bend for Down Light R>100mm Can be connected with 40/50/60/70/80/90/100mm wide integrated aluminum profile



Diffuser: Silicone Down Light R>180mm Inward or Outward



AEF-WL1515A

Length: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm

www.zh-alpha.com

75... 40~200

AEF-075C

Length: 2.9/3.6/4.1M Width: 40-200mm Diffuser: PMMA Diffuser Bend for Up and Down Light R>100mm



Curved: Customize

AEF-100

Length: 2.9/3.6/4.1M Width: 40-200mm Diffuser: PMMA Diffuser Bend for Up and Down Light R>100mm



10 AEF-WL1010B

8.6 [0.34"

Down Light R>180mm



AEF-WL1515B

Length: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm



AEF-WL1510B

Length: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm

[0.50

Lenath: 3.06M

Diffuser: Silicone

Inward or Outward

Light R>150mm

Down Light R>180mm



12.4

16



AEF-WL1612B

Lenath: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm





Lenath: 3.06M Diffuser: Silicone Inward or Outward Light R>150mm

Curved: Customize



AEF-WL2010A Length: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm



AEF-WL2020A Lenath: 3.06M Diffuser: Silicone Down Light R>150mm Inward or Outward Light R>120mm



AEF-WL3010A Lenath: 3.06M Diffuser: Silicone Down Light R>300mm Inward or Outward Light R>150mm



AEF-WL3030 Length: 2.9/3.6/4.1M Diffuser: Silicone/PP Down Light R>260mm Inward Light R>150mm



AEF-WL2010B Length: 3.06M Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm

[1.04"

17/ [0.69]

20 [0.79'

10.39

20

10.1

30

Light R>150mm

225

AEF-WL3530

Diffuser: Silicone/PP

Down Light R>300mm

Inward Light R>200mm

Length: 3.3M

[1.38]

[0.98]



20

17.8

[0.70"

AEF-WL2015A

Diffuser: Silicone

Inward or Outward

Down Light R>180mm

Length: 3.06M

AEF-WL2020B AEF-WL2410A Lenath: 3.06M Length: 3.06M Diffuser: Silicone Diffuser: Silicone Down Light R>150mm Down Light R>300mm Inward or Outward Inward or Outward Light R>120mm Light R>150mm



AEF-WL3010B AEF-WL3020A Length: 3.06M Length: 3.06M Diffuser: Silicone Diffuser: Silicone Down Light R>300mm Down Light R>300mm Inward or Outward Inward or Outward



AEF-WL3530B Lenath: 3.3M Diffuser: Silicone/PP Down Light R>300mm Inward Light R>200mm



AEF-WL2015B Length: 3.06M

Diffuser: Silicone Down Light R>180mm Inward or Outward Light R>150mm



AEF-WL2410B Lenath: 3.06M Diffuser: Silicone Down Light R>300mm Inward or Outward Light R>150mm



AEF-WL3020B Length: 3.06M Diffuser: Silicone Down Light R>400mm Inward or Outward Light R>200mm



AEF-WL3535 Length: 2.9/3.3M Diffuser: Silicone/PP Down Light R>300mm Inward Light R>200mm



AEF-WL5035 Lenath: 3.3M Diffuser: Silicone/PP Down Light R>500mm



AEF-WL326C Length: 3.06M Diffuser: Silicone Down Light R>350mm

[1 40] 10.61" 13 0.51" 12.4

AEF-WL327C Lenath: 3.06M Diffuser: Silicone Down Light R>300mm



AEF-WL246 Length: 3.06M Diffuser: PP Down Light R>300mm



AEF-WL326 Lenath: 3.06M Diffuser: Silicone Down Light R>700mm Inward or Outward Light R>300mm



AEF-WL327 Lenath: 3.06M Diffuser: Silicone Down Light R>500mm Inward or Outward Light R>200mm



AEF-WL1346 Lenath: 1/2/3M Diffuser: Silicone Inward or Outward Light R>300mm



Length: 3.06M Diffuser: PP Down Light R>350mm

20

17.8

60.2

AEF-WL326A

Length: 3.06M

Inward or Outward

<u>55.5</u> [2.19"]

Light R>300mm

15 0.59"

14.9



15.4

AEF-WL326B Lenath: 3.06M Diffuser: Silicone Diffuser: Silicone Down Light R>700mm Down Light R>450mm



6.1

AEF-WL327A AEF-WL327B Length: 3.06M Lenath: 3.06M Diffuser: Silicone Diffuser: Silicone Down Light R>500mm Down Light R>300mm Inward or Outward Light R>200mm



AEF-WL201 Length: 3.06M Diffuser: PP Down Light R>300mm





Curved: Customize

Linear LED Modules

Optical Characteristics – CRI > 80 at tp = 50 °C Dimensions: WU-M-666: 70x20 mm WU-M-668: 140x20 mm WU-M-670: 280x20 mm WU-M-672: 560x20 mm

			1	uminous flu	x and Efficiency		
Туре	Colour (K)		350mA		500mA		
	(K)	Voltage DC	Im .	lm/W	Voltage DC	Im	lm/W
LED Line SMD Comfort Gen. 2 – W2	L07		2°C				all and a second
WU-M666-TC/STC-830	3000	5.6	350	178	5.8	490	168
WU-M666-TC/STC-840	4000	5.6	370	188	5.8	520	178
WU-M666-TC/STC-850	5000	5.6	370	188	5.8	520	178
WU-M666-TC/STC-865	6500	5.6	360	184	5.8	505	173
LED Line SMD Comfort Gen. 2 – W2	L14						
WU-M668-TC/BC/STC-830	3000	11.2	695	178	11.7	980	168
WU-M668-TC/BC/STC-840	4000	11.2	735	188	11.7	1035	178
WU-M668-TC/BC/STC-850	5000	11.2	735	188	11.7	1035	178
WU-M668-TC/BC/STC-865	6500	11.2	720	184	11.7	1010	173
LED Line SMD Comfort Gen. 2 – W2	L28						
WU-M670-TC/BC/STC-830	3000	22.4	1395	178	23.3	1960	168
WU-M670-TC/BC/STC-840	4000	22.4	1475	188	23.3	2070	178
WU-M670-TC/BC/STC-850	5000	22.4	1475	188	23.3	2070	178
WU-M670-TC/BC/STC-865	6500	22.4	1440	184	23.3	2020	173
LED Line SMD Comfort Gen. 2 – W2	L56	- Com				1X	
WU-M672-TC/BC/STC-830	3000	44.7	2790	178	46.6	3920	168
WU-M672-TC/BC/STC-840	4000	44.7	2950	188	46.6	4145	178
WU-M672-TC/BC/STC-850	5000	44.7	2950	188	46.6	4145	178
WU-M672-TC/BC/STC-865	6500	44.7	2875	184	46.6	4045	173

3000 K = warm white (WW), 4000 K = neutral white (NW), 5000 K and 6500 K = cool white (CW) Colour tolerance: 3 MacAdam | ** Production tolerance of luminous flux and efficiency: ±10%

www.zh-alpha.com

IP65 Linear LED Modules Optical Characteristics – CRI > 80 at tp = 50 °C

Dimensions: W115*L1275mm

	- Alle		Luminous flux and Efficiency 800mA		Colour	IP Rating	
Туре	Colour (K)	Voltage DC			Tolerance:		
			lm 👌	lm/W	MacAdam		
115*1275mm 3000lm 830	3000	32-34	2760	105	<5	IP65	
115*1275mm 3000lm 840	4000	32-34	2820	107	<5	IP65	
115*1275mm 3000lm 850	5000	32-34	2860	108	<5	IP65	
115*1275mm 3000lm 865	6500	32-34	2940	111	<5	IP65	

3000 K = warm white (WW), 4000 K = neutral white (NW), 5000 K and 6500 K = cool white (CW) Colour tolerance: 5 MacAdam | ** Production tolerance of luminous flux and efficiency: ±10%





LED Module for W80mm Circular profile

				,		,	
Profile Diameter(mm)	1000mm	1400mm	1800mm	2050mm	2200mm	2500mm	3600mm
Arc length(mm)	1/4	1/5	1/6	1/8	1/8	1/8	1/12
Power(W)	11.2	13.5	6	13.5	13.5	14.4	14.4
Input Votage(V)	45	45	60	54	54	48	48
Input Current(mA)	250	300	100	250	250	300	300
Light Output(Im)	1344	1620	720	1620	1620	1728	1728
Color Temperature(K)		U.S.	3000K/-	4000K/5000I	6500K</td <td></td> <td>1</td>		1
CRI	j.	NULL.	F	Ra>80/ Ra>9	0		
LED Type		SMD 2835					
LED Brand	Osram						
www.zh-alpha.co	om		<i>(</i>),	, V			64

LED Drivers

Whether you need a basic non-dimmable driver, or a driver that will provide smooth and flicker-free dimming, Alpha has you covered with some of the most trusted brands in the industry.

Constant Current







Series: ComforLine DIP Switch L Mains voltage: 220–240 V ±10% Voltage output: 198-264V Dimming range: 1 to 100 % Size: 280x30x21mm IP20, Protection class I

Constant Voltage



Series: LRS Max output(W): 50/75/100/150/350W Mains voltage: 100V-264V/AC Voltage output: DC12/24/48V IP20, Protection class I

www.zh-alpha.com

www.zh-alpha.com





Blu2Light is a wireless light management system based on Bluetooth® MESH technology.

It enables convenient, simple and wireless lighting control via apps using mobile devices. In that way, connectivity of DALI, DMX, LED drivers, sensors and room control can be realised.

Using a gateway and an open protocol, the system can be used for a wide range of IoT applications.

Luminaire System

Standard lighting fixtures, equipped with rigid LED light source, endcaps and a wire suspension system. Each of below modules can function as independant lighting fixture, also can be combined into any configuration. Installation is easy and requires no special tools. Each module has a suspension height adjustment. Lighting fixtures are designed for main or decorative lighting inside buildings.

General Specification

Finish: Black, White or Customized Material: Extruded 6063 Aluminum Diffuser Material: PMMA Mouting Type: Suspended, steel wire Suspension height adjustment: Yes IP protection rating: IP20

Electrical Specification

Color Temperature: 3000K/4000K/5000K/6500K CRI: Ra>80/ Ra>90 Dimming: DALI, 0-10v or Non-dimming

WAVE-01



1870lm
85lm/W
22W
1100mm
427mm
W50xH75mm





St. Contraction of the second s	

WAVE-02	
Luminous Flux of the Fixture	2465lm
Maximum Luminous Efficacy	85lm/W
Power	29W
Length(A)	1144mm
Width(B)	522mm
Profile Dimensions	W50xH75mm



	A	
B		
	Alpha.	



3pcs to have a D1800mm Circular WAVE-03 Luminous Flux of the Fixture 2465lm Maximum Luminous Efficacy 85lm/W 29W Power Length(A) 1559mm Width(B) 490mm **Profile Dimensions** W80x75mm

WAVE-04	4pcs to have a D2050mm Circular			
Luminous Flux	of the Fixture		2040lm	
Maximum Lur	ninous Efficacy	Colli	85lm/W	
Power	, dia		24W	
Length(A)	A. A.		1025mm	
Width(B)	and the second s		1025mm	
Profile Dimen	sions		W80xH75mm	
			<u></u>	

WAVE-05	4pcs to have a D2200mm Circular		
Luminous Flux of the Fixture		2550lm	
Maximum Luminous Efficacy		85lm/W	
Power		30W	
Length(A)		1250mm	
Width(B)		1250mm	
Profile Dimensions		W80xH75mm	



A	
	B
_	A
do.	



WAVE-06	4pcs to have a D2500mm Circular		
Luminous Flux of the Fixture		2210m	
Maximum Luminous Efficacy		85lm/W	
Power		26W	
Length(A)	St.	1100mm	
Width(B)		1100mm	
Profile Dimensions		W80xH75mm	

WAVE-07	6pcs to have a D3600mm Circular	
Luminous Flux o	of the Fixture	2465m
Maximum Luminous Efficacy		85lm/W
Power	1	29W
Length(A)	- Maria	1559mm
Width(B)		940mm
Profile Dimensio	ons	W80xH75mm

CIRCULAR-01	
Luminous Flux of the Fixture	3910m
Maximum Luminous Efficacy	85lm/W
Power	46W
Length(A)	1000mm
Width(B)	1000mm
Profile Dimensions	W80xH75mm

CIRCULAR-02		
Luminous Flux of the Fixture	1	5610lm
Maximum Luminous Efficacy	AN AN	85lm/W
Power		66W
Length(A)		1400mm
Width(B)		1400mm
Profile Dimensions		W80xH75mm
		-h alaha aam

www.zh-alpha.com



LINEAR-01

1425lm	
95lm/w	
15W	
560mm	
314mm	
W48xH78mm	



A	1
	8

Length(A)

Width(B)

LINEAR-02	
Luminous Flux of the Fixture	1900lm
Maximum Luminous Efficacy	95lm/W
Power	20W
Length(A)	437mm
Width(B)	437mm
Profile Dimensions	W48xH78mm
MOON-01	
Luminous Flux of the Fixture	1200lm
Maximum Luminous Efficacy	80lm/W
Power	15W
Length(A)	311mm
Width(B)	445mm
	්
BUBBLE-01	
Luminous Flux of the Fixture	960lm
Maximum Luminous Efficacy	80lm/w
Power	12W

www.zh-alpha.com

200mm

200mm