OPTICAL ENERGY DESIGN & DEVICES

HercuLux Optics focuses on the design and manufacture of optics for LED lighting, LED Automotive headlamp, UV LED precision light distribution, laser ultra-short-throw projector matching screen who is a modern high-tech enterprise that provides professional secondary light distribution solutions

《2026/09 Version》



HERCULUX
LED Optics

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Regular Member

HercuLux Optics is a high-tech Specialized and Sophisticated SMEs dedicated to providing system solutions for applications such as LED lighting, UV curing, laser projection, and AOI machine vision inspection.

We have a R&D team with the background in the Institute of Optics and Electronics, Chinese Academy of Sciences, consisting of experts who have been working for decades in the fields of optics, precision optical molds and precision optical injection molding, fine chemicals and electronic control, as well as a highly efficient and passionate marketing team, which ensures fast product innovation, stable and reliable quality of the products, and fast and considerate service.

Since the start of our company, in order to address the secondary light distribution problems in many LED applications, the company has introduced products such as calculus anti-glare lens, nearly 100% efficiency of the adaptive colloidal street lamp lens, very small angle (less than 3 deg) outdoor spotlight lens, ultra-thin (thickness of less than 8mm) triple total reflection lens, the angle and spot shape of the optical lens module can be changed, efficiency of more than 90% of the zoom series, CCT changing COB can be matched full stroke high efficiency (greater than 80%) high center light intensity of the zoom optical module, MOS film, high temperature-resistant silicone materials and lens,anti-glare firefly series.

For the AOI machine vision inspection field, the introduction of photolithography plate plane shadowless light source, to fill the gaps in the domestic market; for the printing curing field, the world's first introduction of full UV (A \ B \ C) LED direct contact with the large-scale printing press curing modules and systems, not only for the printing industry to save energy, but also for the printing industry to save energy, and the printing industry to save energy. system, not only for the printing industry energy saving and environmental protection to provide a perfect solution and further enhance the printing overprint accuracy and significantly reduce the odor of printed materials due to ozone.

National High tech Enterprise - Established in 2013; Obtained the national high-tech enterprise qualification in 2014; Obtaining the national high-tech enterprise qualification in 2014 was the first enterprise in Sichuan to obtain the national high-tech enterprise qualification the following year after its establishment.

Computer Software Copyright - To ensure the perfect presentation of design theoretical values on actual products, Herculux has independently developed specialized optical conversion software and injection molding analysis precision compensation software.

Patents - The company has applied for more than 330 patents and has obtained 222 patent authorizations, including 11 authorized invention patents, 106 utility model patents, 105 appearance patents, and is currently applying for 3 PCT patents.

R & D capabilities - The R&D team of the company is composed of a team of experts with a background in the Institute of Optoelectronics, Chinese Academy of Sciences. There are 32 R&D personnel, accounting for 26.45% of the total number of employees. Among them, there are 8 full-time optical design engineers, including one senior engineer, three master's, and four undergraduate students.





Products Code Rule



HK: Herculux Optics abbreviations

WW: Lens diameter or length

HH: Lens height

AA: FWHM(beam angle)

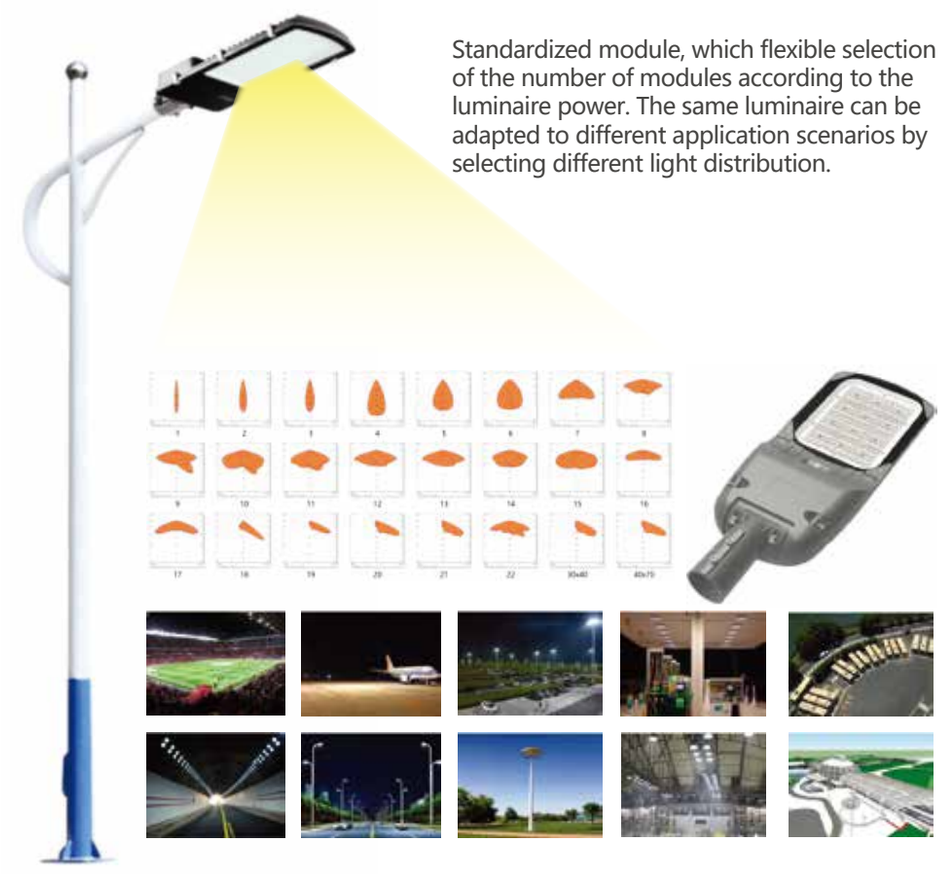
MMM: Applicable LED light source luminous surface size

N: "1" means single lens, "2" means 2 in 1, "3" means 3 in 1, and so on

YY: With or without glue, "0" means with glue, "1" means without glue

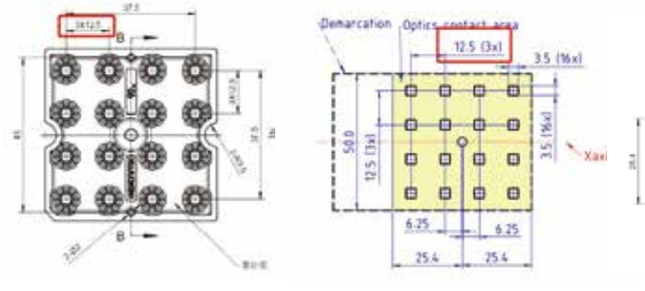
X: Emitting surface futures: "0"means mirror surface, "1"means ommateum, "2"means matte surface, "3"means cylindrical surface, "#"means other surface treatment

X: Reflective surface features: "0"means squama, "1"means single layer squama, "2"means double layer squama, "#"means no reflective surfaces



Standardized module, which flexible selection of the number of modules according to the luminaire power. The same luminaire can be adapted to different application scenarios by selecting different light distribution.

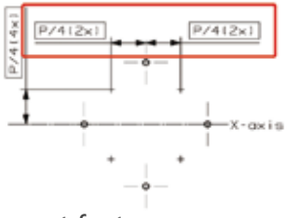
The LED,as well asthe position of the positioning columns need to meet the **EU ZHAGA standard**



Why Develop a Matrix Optical Platform?

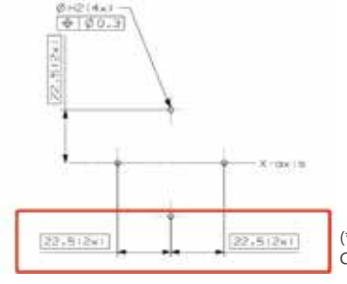
3.3.1.1.3 Position of light emitting elements

The LED Module have 4light emitting elements. The centers of the LEDs of these light emitting elements should be positions indicated by the crosses in Figure 3-4 with values of dimensions defined in Table 3-1. The shape and size of the light emitting elements is not restricted.



3.3.1.1.1 Optics alignment features

The LED Modules shall have 4 holes for Optics alignment and positions and sizes of holes shall comply with the definitions in Figure 3-2 with values of dimensions defined in Table 3-1.



(*Figure 3-2 × Positioning holes on Class 2-DA LED modules)

Matrix optical platform

ZHAGA Regular Member



4 in 1 | 6 in 1 | 8 in 1 | 12 in 1 | 16 in 1

Over 100 types of light distributions，Uniform overall dimensions：50mm*50mm

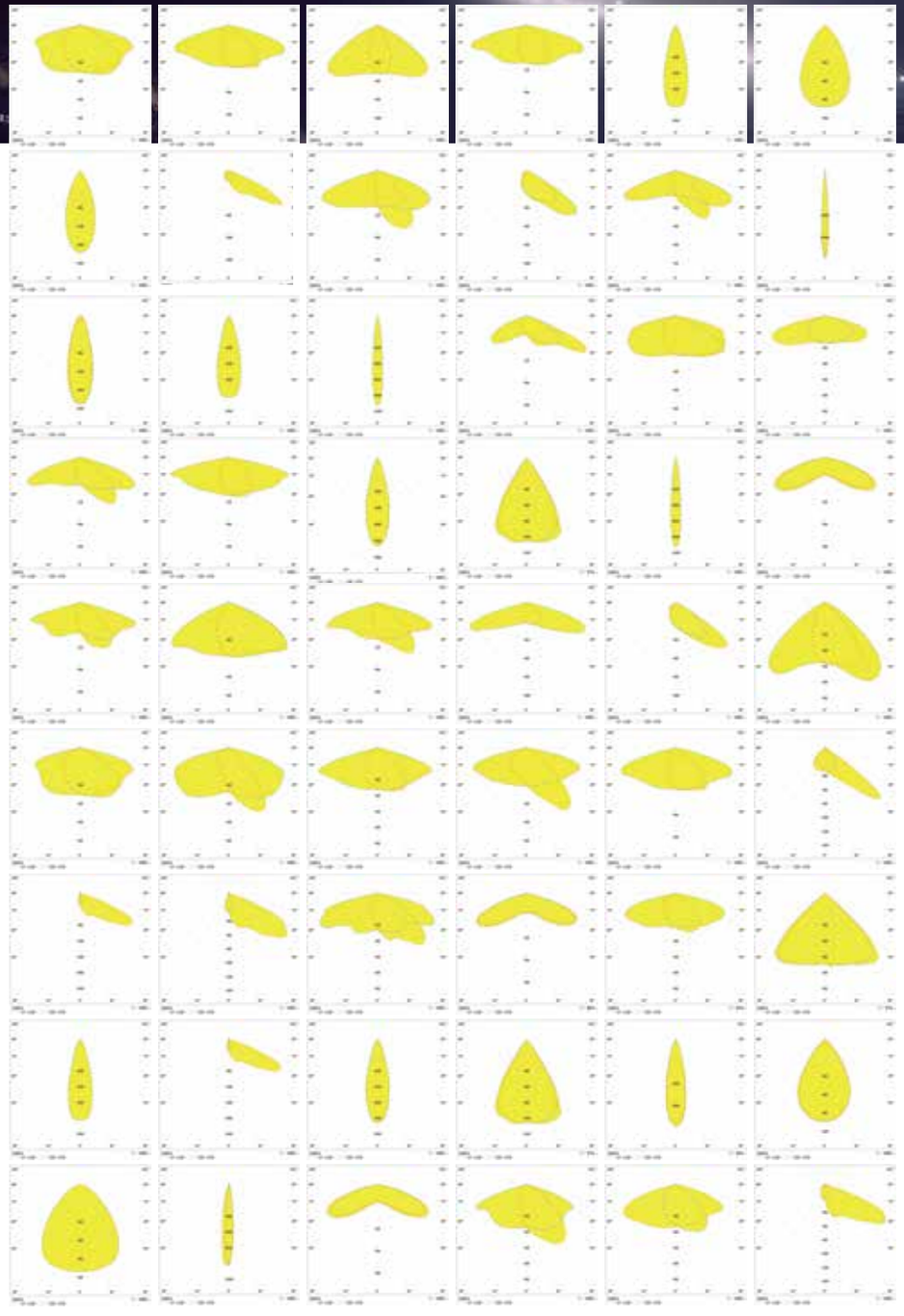
Uniform installation size：45mm

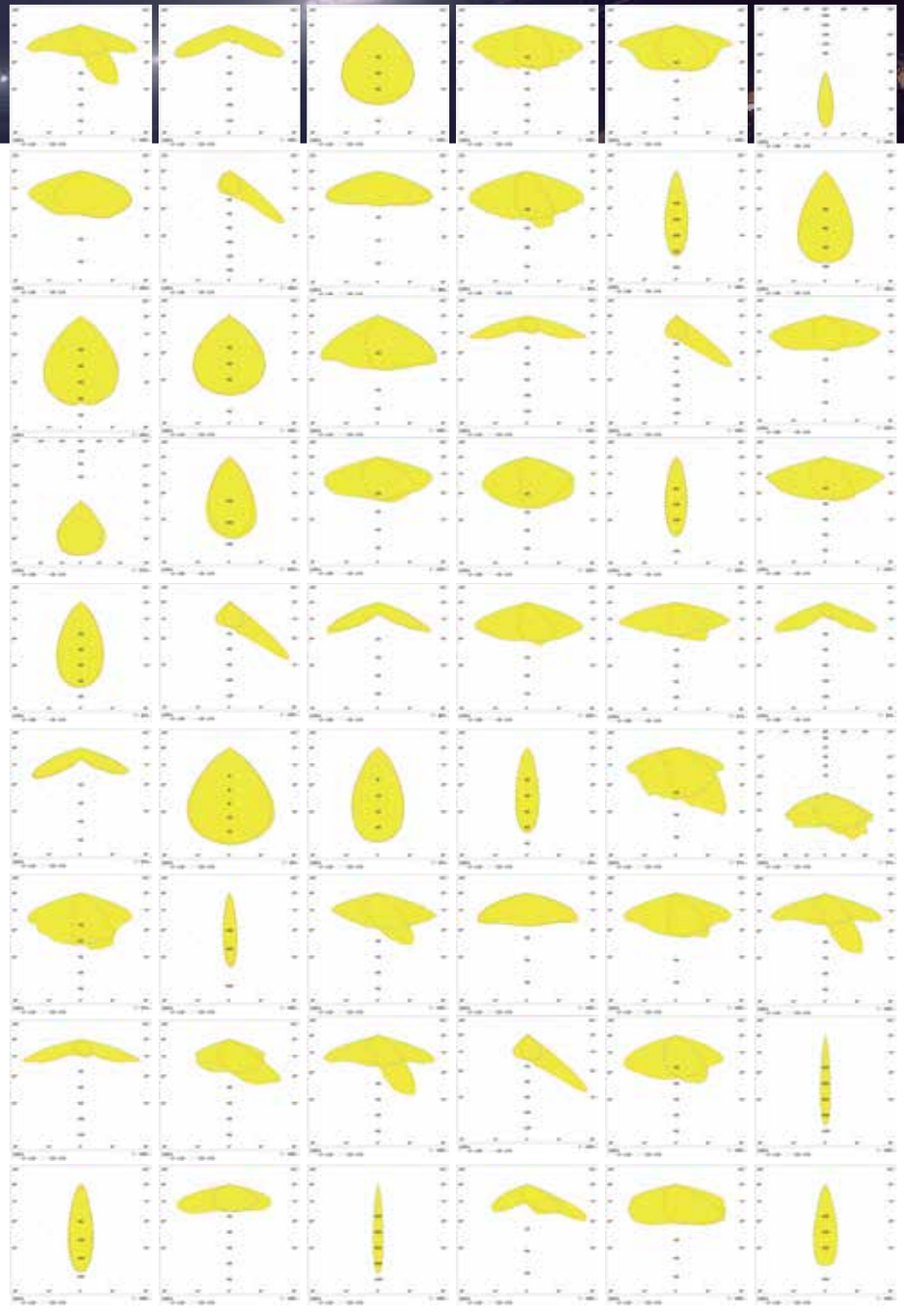
The position of the LED and the positioning column meet the ZHAGA standard.

LED Compatibility：3535 LED / 5050 LED / 7070 LED

Applications:：Roads, Tunnels, Stadiums, Docks, Industrial workshop, etc.

Matrix Optical Platform Light Distribution Diagram





MATRIX 4 IN 1

Light distribution type:

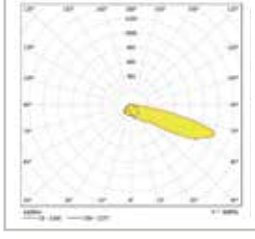
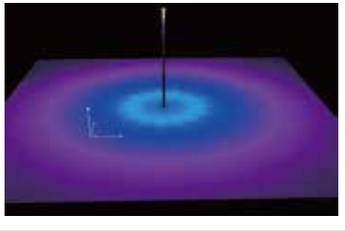
10°	25°	30°	45°
50°	60°	90°	TYPE I
TYPE II	TYPE II M C	TYPE III	TYPE IV
TYPE V	22×100°	JKR	TYPE II M
TYPE II S	9°	40×60°	TYPE II M BRA





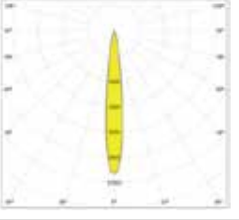

MN	1.01.44093
PN	HK-JZ-50@15-T4-VS-5050-#0-1g-4_PC HK-JZ-50@15-T4-VS-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	85%(PC) /88%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II




MN	1.01.81540
PN	HK-50@12-10-3535-02-1g-4_PC HK-50@12-10-3535-02-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535 LED
Light Distribution	10°

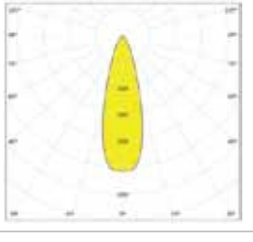
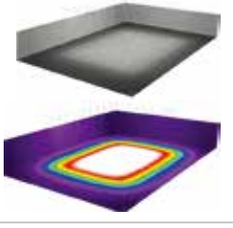





Height	25m
Mode	Four corner arrangement lights
Court uniformity	0.7

MN	1.01.6866
PN	HK-50@10-30-5050-20-1g-4_PC HK-50@10-30-5050-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	30°

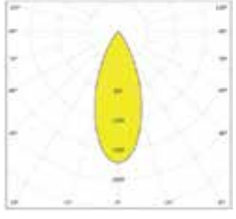


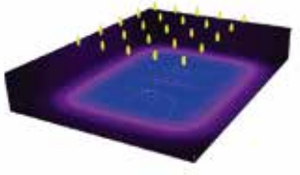



Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.23105
PN	HK-50@10-45-5050-20-1g-4_PC HK-50@10-45-5050-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	45°



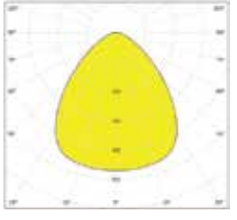


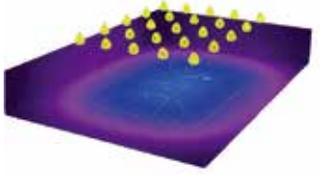


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.6868
PN	HK-50@10-90-5050-20-1g-4_PC HK-50@10-90-5050-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	90°



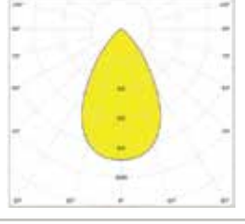


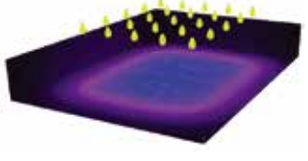


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.6867
PN	HK-50@10-60-5050-20-1g-4_PC HK-50@10-60-5050-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	60°

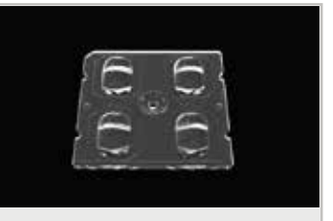


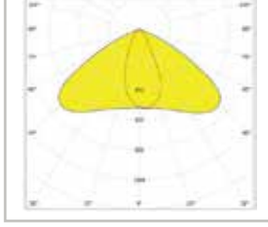


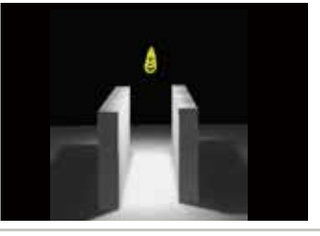


Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.6860
PN	HK-50@09-120X50-5050-#0-1g-4_PC HK-50@09-120X50-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE I 120×50°

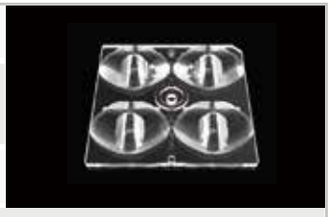


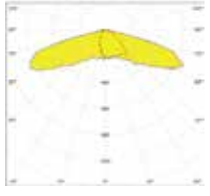




Height	7m
Mode	Top cloth lamp
Court uniformity	0.6

MN	1.02.23259
PN	HK-JZ-50@09-150X73-5050-00-1g-4-PC HK-JZ-50@09-150X73-5050-00-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	XW TYPE I 150×73°





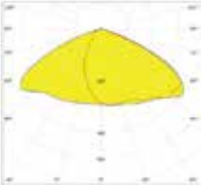


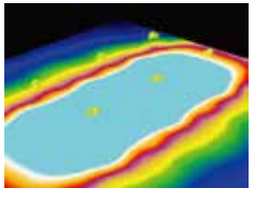
Proportion	3:1
Road width	15m (6 lanes)
Mode	Double row symmetry
Lighting type	ME4a

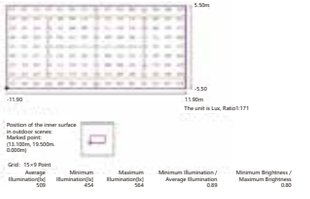
The illumination uniformity of the simulated road can reach more than 0.8

MN	1.02.23231
PN	HK-JZ-50@10-130X84-5050-00-1g-4-PC HK-JZ-50@10-130X84-5050-00-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE III 130×84°





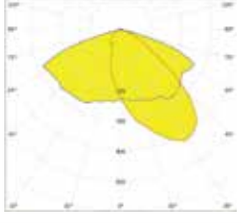


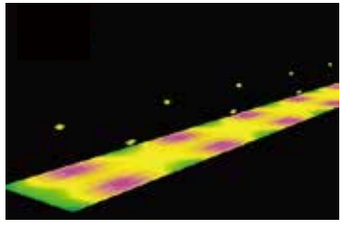


The uniformity of simulated illumination of tennis court can reach above 0.8

MN	1.02.23192
PN	HK-JZ-50@09-175X53-5050-#0-1g-4-PC HK-JZ-50@09-175X53-5050-#0-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	ME TYPE III 175×53°



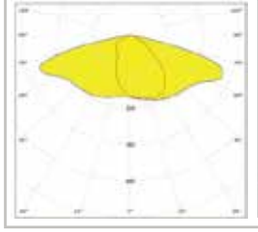


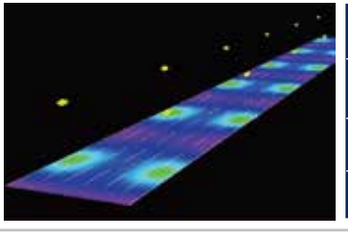


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME4a

MN	1.02.6861
PN	HK-50@09-150X65-5050-#0-1g-4_PC HK-50@09-150X65-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II 150×65°

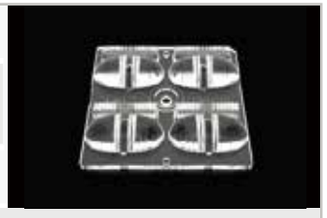


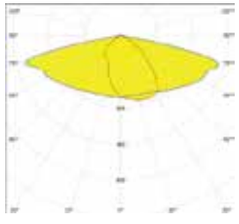


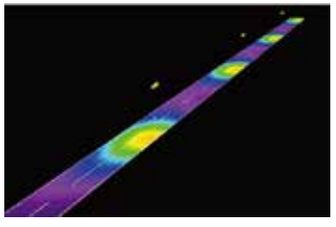


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME4a

MN	1.02.23191
PN	HK-JZ-50@09-163X76-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	SCL TYPE III 163×76°



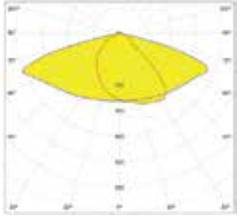


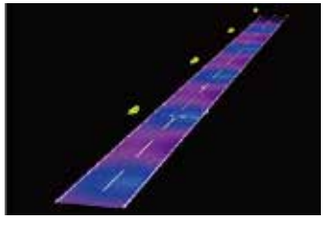


Proportion	5.5:1
Road width	7m (2 lanes)
Mode	Single-sided lower arrangement
Lighting type	ME4

MN	1.02.91957
PN	HK-50@08-150X70-5050-#0-1g-4_PC HK-50@08-150X70-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-M-C 150×70°



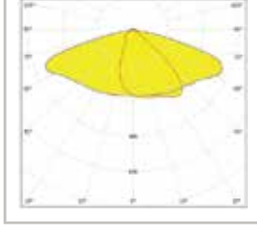


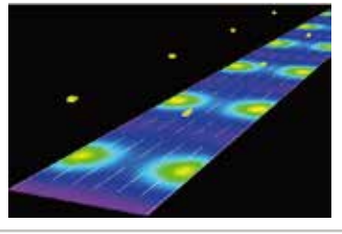


Proportion	4:1
Road width	7m (2 lanes)
Mode	Unilateral
Lighting type	ME4a

MN	1.02.92061
PN	HK-50@09-150X65-5050-#0-1g-4_PC HK-50@09-150X65-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-M-BRA 150×65°



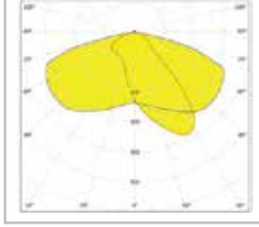


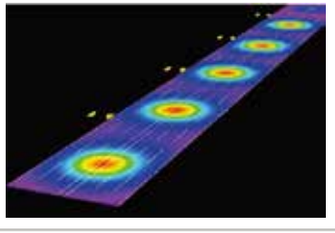


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Bidirectional symmetry
Lighting type	ME1

MN	1.02.81629
PN	HK-50@08-150X50-5050-#0-1g-4_T2-2_PC HK-50@08-150X50-5050-#0-1g-4_T2-2_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-S-2 150×50°



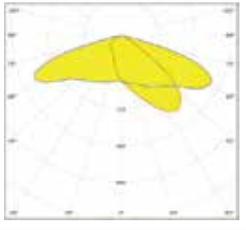


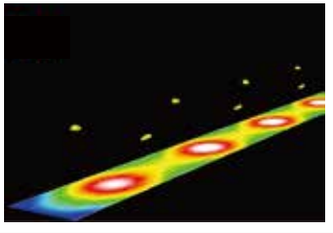


Proportion	3.5:1
Road width	21m (6 lanes)
Mode	Medial strip
Lighting type	ME2

MN	1.02.23189
PN	HK-JZ-50@10-60X148-5050-#0-1g-4_PC HK-JZ-50@10-60X148-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	WIDE2 TYPE II 60×148°



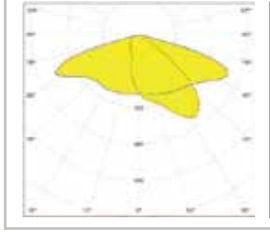


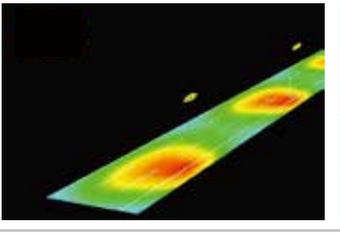


Proportion	3.2:1
Road width	14m (4 lanes)
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.23247
PN	HK-JZ-50@08-55X148-5050-00-1g-4_PC HK-JZ-50@08-55X148-5050-00-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	ME-WIDE1 TYPE II 55×148°



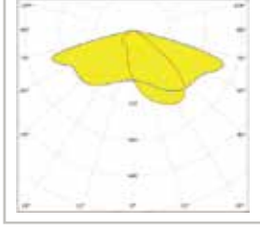


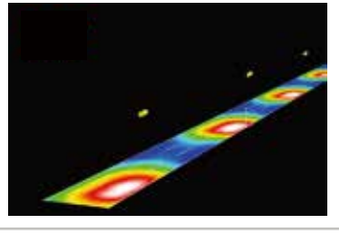


Proportion	3.6:1
Road width	10m (3 lanes)
Mode	Unilateral
Lighting type	ME3a

MN	1.02.23195
PN	HK-JZ-50@08-56X150-5050-#0-1g-4_PC HK-JZ-50@08-56X150-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	LM1 TYPE II 56×150°

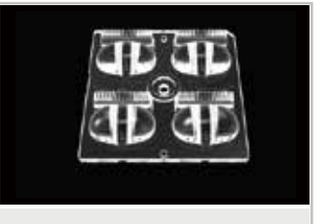


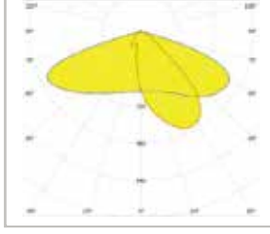


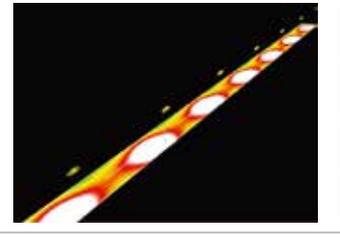


Proportion	4:1
Road width	10.5m (3 lanes)
Mode	Unilateral
Lighting type	ME3a

MN	1.02.23223
PN	HK-JZ-50@09-148X59-5050-#0-1g-4_PMMA
Material	PMMA
Efficiency	96%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II 148×59°



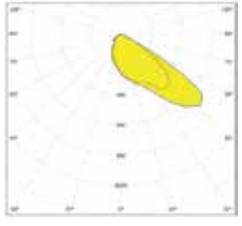


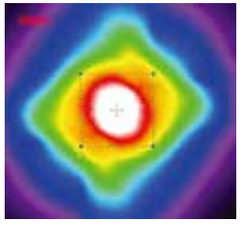


Proportion	2.78:1
Road width	7m (2 lanes)
Mode	Single-sided lower arrangement
Lighting type	ME4

MN	1.02.23268
PN	HK-JZ-50@09-40X60-5050-00-1g-4_PMMA
Material	PMMA
Efficiency	93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	PX 40×60°



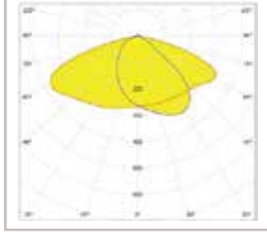


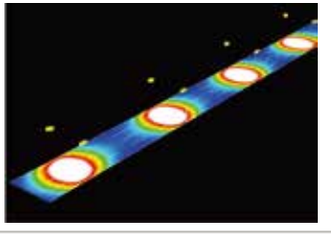


Height	6m
Mode	Diagona arrangement otlights Height
Uniformity of sidewalks	0.65

MN	1.02.71053
PN	HK-50@09-150X60-5050-#0-1g-4 T2S_PC HK-50@09-150X60-5050-#0-1g-4 T2S_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-S 150×60°



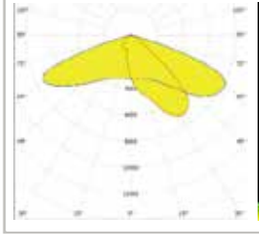


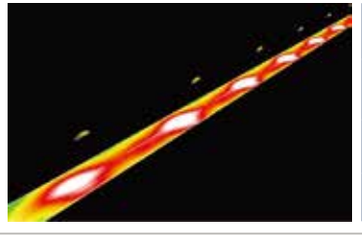


Proportion	3.75:1
Road width	14m (4 lanes)
Mode	Symmetry
Lighting type	ME1

MN	1.02.23281
PN	HK-JZ-50@10-144X54-5050-00-1g-4_PMMA
Material	PMMA
Efficiency	96%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-S 144×54°



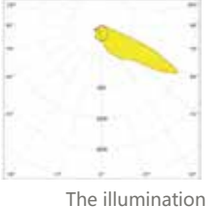


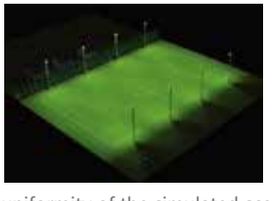


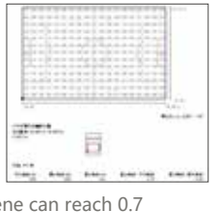
Proportion	2.78:1
Road width	7m (2 lanes)
Mode	Single-sided lower arrangement
Lighting type	ME4

MN	1.02.23126
PN	HK-JZ-50@11-90X25-5050-00-1g-4-PC HK-JZ-50@11-90X25-5050-00-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	FS3/FN TYPE III 90×25°





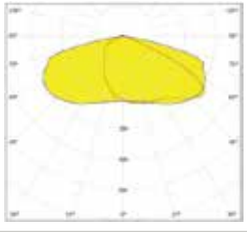


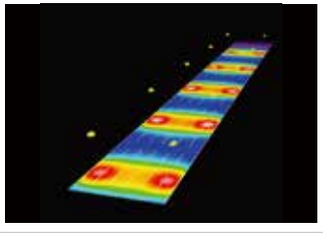


The illumination uniformity of the simulated scene can reach 0.7

MN	1.02.6862
PN	HK-50@09-150X60-5050-#0-1g-4_PC HK-50@09-150X60-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE III 150×60°



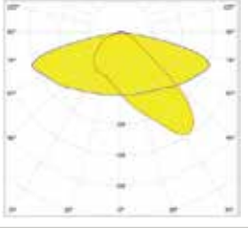


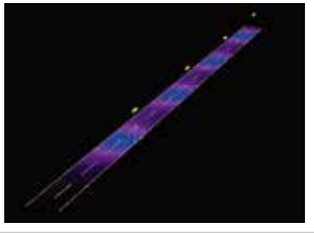


Proportion	4:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME1

MN	1.02.92017
PN	HK-50@09-150X50-5050-#0-1g-4_PC HK-50@09-150X50-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TNB TYPE III-M 150×50°



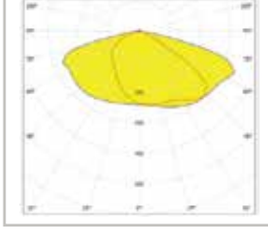


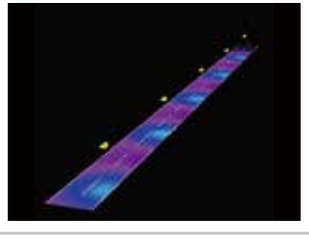


Proportion	5:1
Road width	7m (4 lanes)
Mode	Unilateral
Lighting type	ME4a

MN	1.02.71229
PN	HK-50@09-150X70-5050-#0-1g-4_T3M_PC HK-50@09-150X70-5050-#0-1g-4_T3M_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE III-M 150×70°



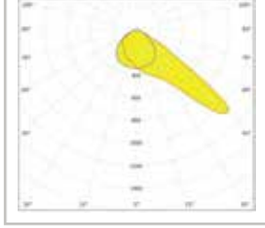


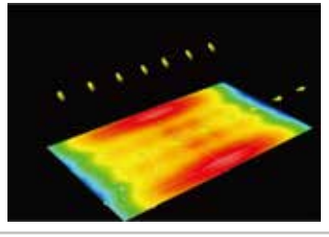


Proportion	4.5:1
Road width	7m (2 lanes)
Mode	Unilateral
Lighting type	ME4a

MN	1.02.92148
PN	HK-50@10-22X100-5050-#0-1g-4
Material	PC
Efficiency	90%(PC) without glass
LED	3535/5050 LED
Light Distribution	22×100°



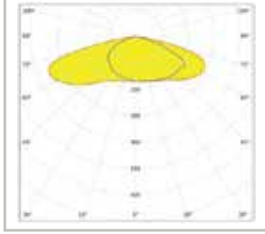




Height	7m
Mode	Bilateral symmetry
Uniformity of sidewalks	0.7

MN	1.02.6863
PN	HK-50@09-140X30-5050-#0-1g-4_PC HK-50@09-140X30-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	89%(PC) / 92%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE IV 140×30°

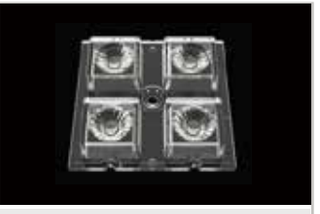


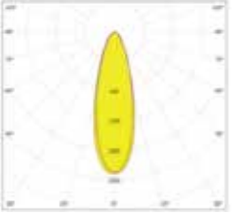




Proportion	8.75:1
Road width	11.25m (3 lanes)
Mode	Unilateral
Lighting type	DKE3

MN	1.01.71066
PN	HK-50@10-25-3535-20-1g-4_PC HK-50@10-25-3535-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535 LED
Light Distribution	25°



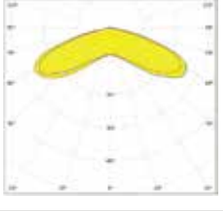


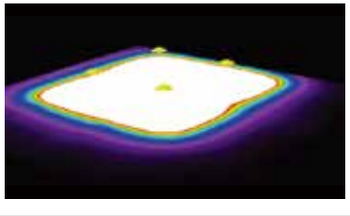


Height	12m
Mode	Lighting on top
Uniformity of sidewalks	0.7

MN	1.02.6864
PN	HK-50@09-148-5050-#0-1g-4_PC HK-50@09-148-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	89%(PC) / 92%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	VSM TYPE V 148°



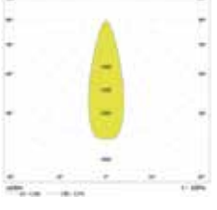


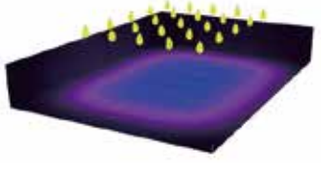


Proportion	3:1
Illumination uniformity	0.7

MN	1.01.71067
PN	HK-50@09-50-3535-20-1g-4-PC HK-50@09-50-3535-20-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	50°

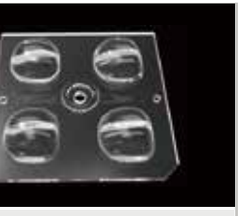


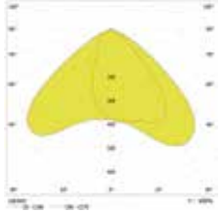


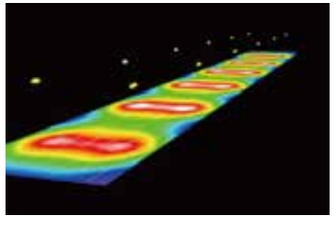


Height	12m
Mode	Lighting on top
Uniformity of sidewalks	0.7

MN	1.02.33550
PN	HK-JZ-50@10-100X60-5050-#0-1g-4-PC HK-JZ-50@10-100X60-5050-#0-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II







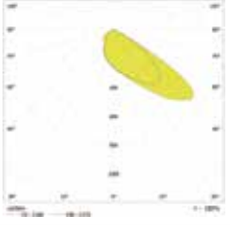
way 1:

(All lighting performance requirements are met.)

L_{av} [cd/m²]	UO	UI	TI [%]	SR
1.55	0.53	0.90	10	0.63
≥ 1.50	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
✓	✓	✓	✓	✓

MN	1.02.23422
PN	HK-JZ-50@09-40X60-5050-00-1g-4-R-PC HK-JZ-50@09-40X60-5050-00-1g-4-R-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	40×60°

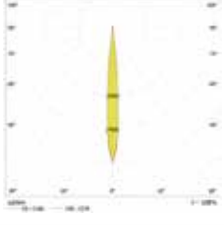






Height	5m
Mode	Lights on the same side of thesidewalk
Uniformity of sidewalks	0.65

MN	1.01.23414
PN	HK-JZ-50@16-10-3535-02-1g-4-A-PC HK-JZ-50@16-10-3535-02-1g-4-A-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535 LED
Light Distribution	9°



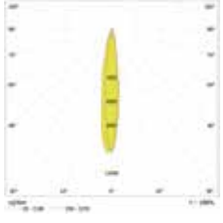


Height	25m
Mode	Four corner arrangement lights
Uniformity of sidewalks	0.7



MN	1.01.23447
PN	HK--JZ-50@14-SA10-3535-03-1g-4-PC HK--JZ-50@14-SA10-3535-03-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535 LED
Light Distribution	10°



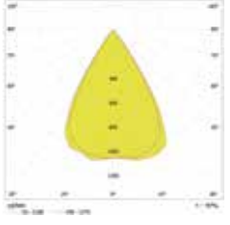


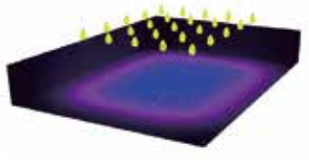


Height	25m
Mode	Four corner arrangement lights
Uniformity of sidewalks	0.7

MN	1.02.33584
PN	HK-JZ-50@14-60-7070-#0-1g-4_PC HK-JZ-50@14-60-7070-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	**7070 LED**
Light Distribution	60°



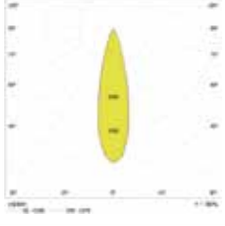


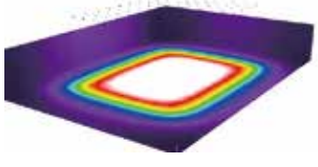


Height	12m
Mode	Upper cloth lamp
Uniformity of sidewalks	0.75

MN	1.01.33585
PN	HK-JZ-50@16-25-7070-00-1g-4_PC HK-JZ-50@16-25-7070-00-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	**7070 LED**
Light Distribution	25°



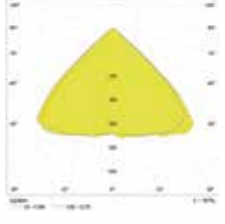


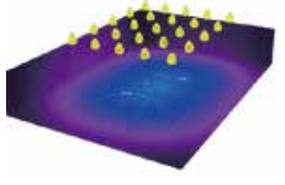


Height	12m
Mode	Lighting on top
Uniformity of sidewalks	0.7

MN	1.02.33583
PN	HK-JZ-50@10-90-7070-#0-1g-4_PC HK-JZ-50@10-90-7070-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	**7070 LED**
Light Distribution	90°



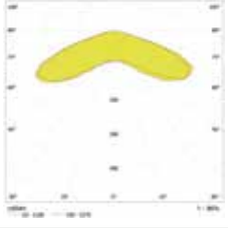


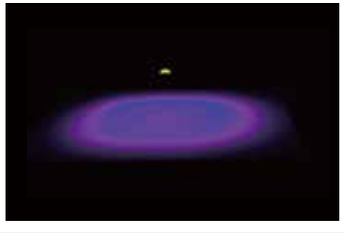


Height	12m
Mode	Upper cloth lamp
Uniformity of sidewalks	0.7

MN	1.02.33579
PN	HK-JZ-50@09-145X145-7070-#0-1g-4_PC HK-JZ-50@09-145X145-7070-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	**7070 LED**
Light Distribution	TYPE V



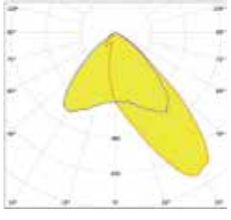


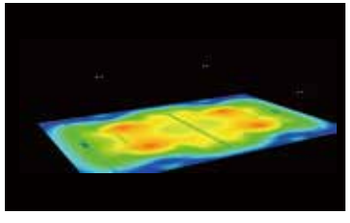


Scenario application	high-pole lamp
Height	15m
Uniformity	0.5

MN	1.02.54634
PN	HK-JZ-50@10-40X92-5050-#0-1g-4 _PC HK-JZ-50@10-40X92-5050-#0-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-VS

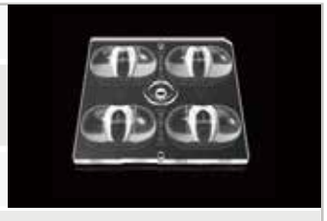


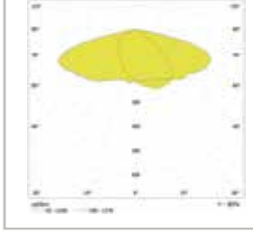


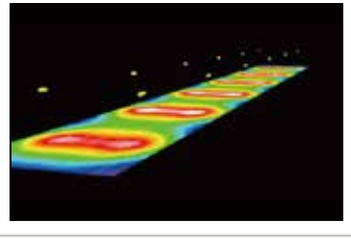


Application scenarios
Stadium lighting

MN	1.02.33552
PN	HK-JZ-50@08-150X80-7070-#0-1g-4-PC HK-JZ-50@08-150X80-7070-#0-1g-4-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	**7070 LED**
Light Distribution	TYPE II







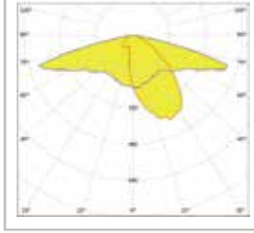
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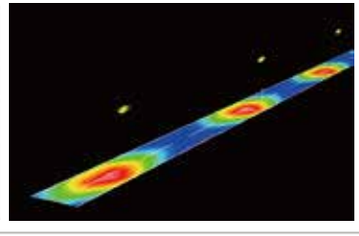
(All lighting performance requirements are met.)

$\bar{E}_m$ [cd/m²]	U0	Ul	TI [%]	SR
1.55	0.53	0.00	10	0.63
≥ 1.50	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
✓	✓	✓	✓	✓

MN	1.02.54591
PN	HK-JZ-50@10-50X152-5050-#0-1g-4 _PC HK-JZ-50@10-50X152-5050-#0-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-M

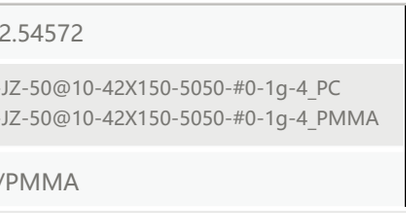


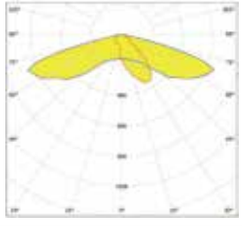


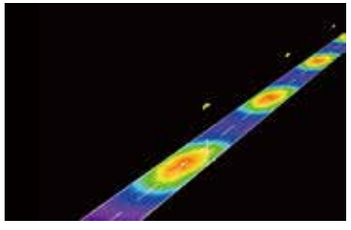


Proportion	4:1
Road width	7.5m (2 lanes)
Mode	Single-sided cloth light
Lighting type	ME2

MN	1.02.54572
PN	HK-JZ-50@10-42X150-5050-#0-1g-4_PC HK-JZ-50@10-42X150-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-M



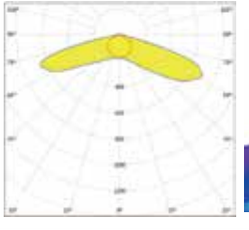


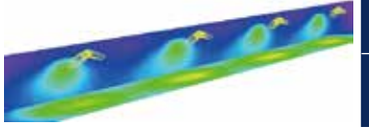


Proportion	5.5:1
Road width	7.5m (2 lanes)
Mode	Single-sided cloth light
Lighting type	Equal illuminance light distribution

MN	1.02.54499
PN	HK-JZ-50@09-124X150-5050-#0-1g-4 _PC HK-JZ-50@09-124X150-5050-#0-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE I-S



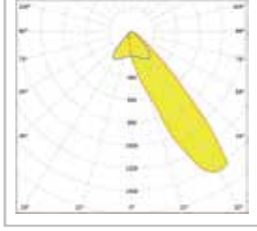


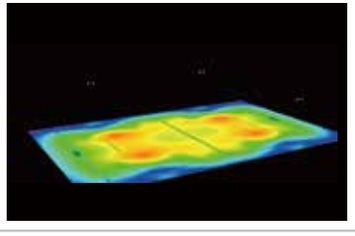


Height	3m
Spacing	10m
Application scenarios	Aisles, hanging line lights, etc

MN	1.02.54539
PN	HK-JZ-50@12-24X88-5050-#0-1g-4 _PC HK-JZ-50@12-24X88-5050-#0-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE I-VS

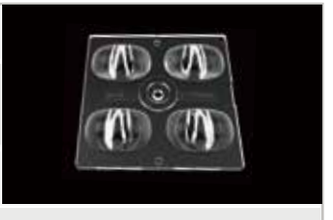


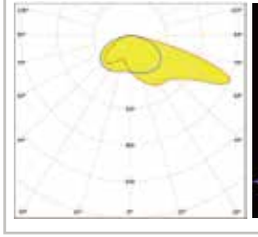


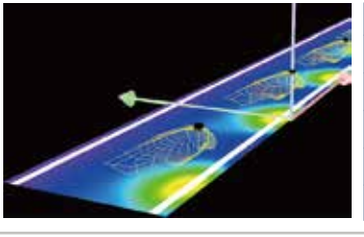


Application scenarios
Stadium lighting

MN	1.02.54494
PN	HK-JZ-50@10-144X42-5050-00-1g-4 _PC HK-JZ-50@10-144X42-5050-00-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE IV-S



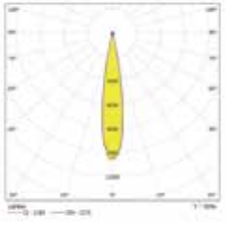


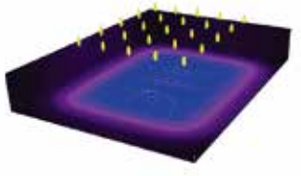


Height	1m
Spacing	4m
Road width	3m
Mode	Single-sided cloth light
Lighting type	ME1
Application scenarios	Low-level lighting, courtyard

MN	1.01.54544
PN	HK-JZ-50@16-18-5050-00-1g-4_PC HK-JZ-50@16-18-5050-00-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	18°



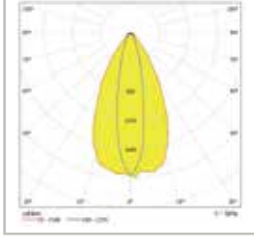


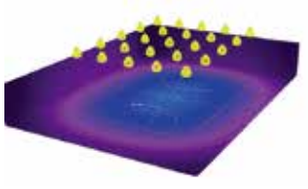


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.54497
PN	HK-JZ-50@11-20X50-5050-23-1g-4_PC HK-JZ-50@11-20X50-5050-23-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	20×50°



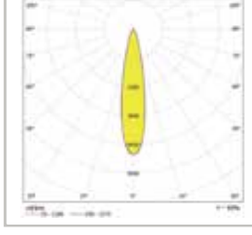


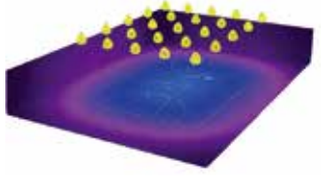


Height	7m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.54506
PN	HK-JZ-50@11-20-5050-20-1g-4_PC HK-JZ-50@11-20-5050-20-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	20°



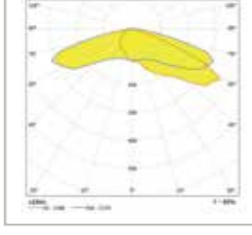


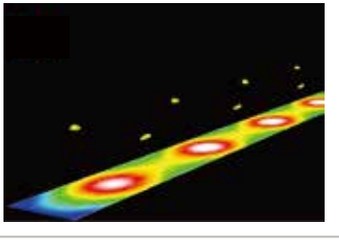


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.54575
PN	HK-JZ-50@09-152X40-5050-00-1g-4_PMMA HK-JZ-50@09-152X40-5050-00-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III



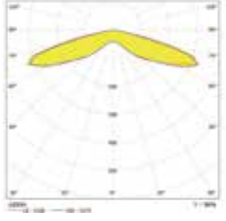




Proportion	3.2:1
Road width	14m (4 lanes)
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.54520
PN	HK-JZ-50@08-150X150-5050-#0-1g-4_PC HK-JZ-50@08-150X150-5050-#0-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE V

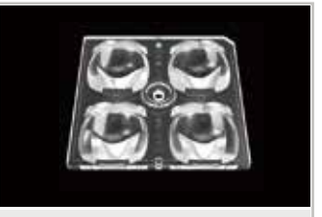


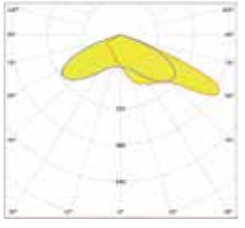


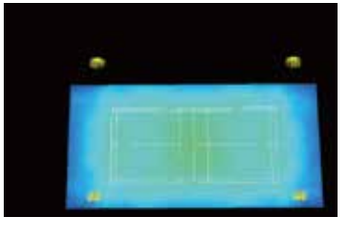


Application	high-pole lamp
Height	15m
Uniformity	0.5

MN	1.02.02568
PN	HK-50@10-22X138-5050-#0-1g-4_PMMA
Material	PMMA
Efficiency	93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III-VS



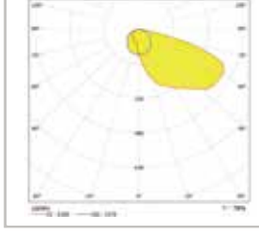


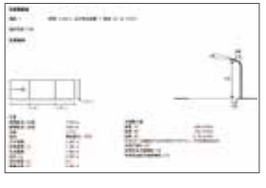


Height	11m
Lighting Arrangement	Four-corner lighting
Uniformity	0.95

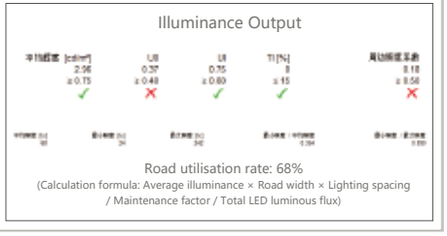
MN	1.02.54490
PN	HK-JZ-50@10-112X62-5050-00-1g-4_PC HK-JZ-50@10-112X62-5050-00-1g-4_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	112×62°





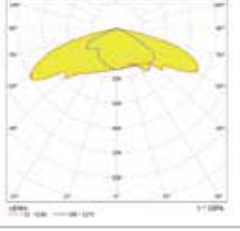


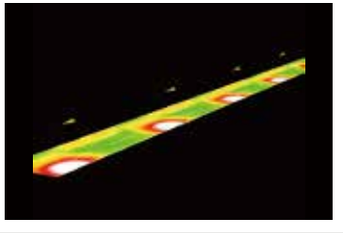
This result is based on an input luminous flux of 1500lm for the LED.



MN	1.02.23311
PN	HK-JZ-50@08-160X138-3535-00-1g-4-PMMA
Material	PMMA
Efficiency	93%(PMMA) without glass
LED	3535 LED
Light Distribution	TYPE III



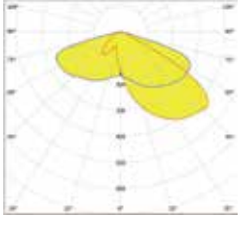


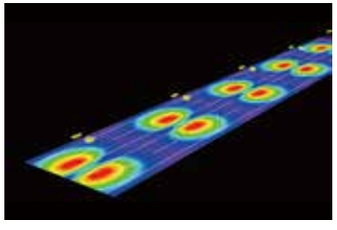


Proportion	4:1
Road width	10.5m (3 lanes)
Lighting Arrangement	Single-side Lighting Arrangement
Uniformity	0.655

MN	1.02.54655
PN	HK-JZ-50@09-54X148-5050-#0-1g-4 _PC HK-JZ-50@09-54X148-5050-#0-1g-4 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-M

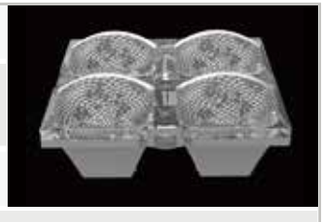


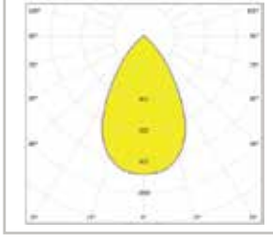


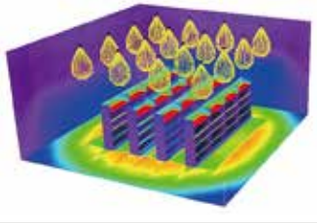


Proportion	4.3:1
Road width	9m (2 lanes)
Lighting Arrangement	Single-side Lighting Arrangement
Uniformity	ME4a

MN	1.02.54648
PN	HK-YHXK-50@23-60-4X3030-#0-1g-4_ASM
Material	PC+PMMA
Efficiency	85%
LED	5050 LED
Light Distribution	60°







Height	10m
Lighting Arrangement	Ceiling underside
Uniformity	0.8



MATRIX 4 IN 1 REFLECTOR

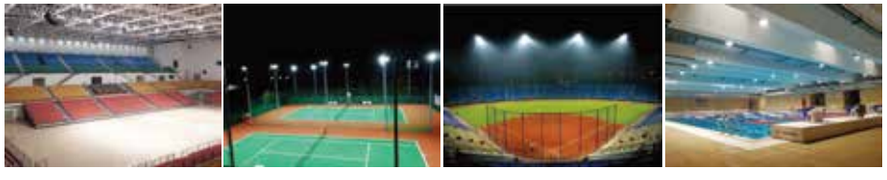
The Matrix lens has the following features:

2x2 reflector design, with low glare performance, excellent control of backward light.

1. ZHAGA Standard: The position of the LED and the positioning column meet the EU ZHAGA standard.
2. Lens Overall size: 50×50mm; Positioning column distance: 45mm
3. LED Compatibility: 3535 LED / 5050 LED
4. Light Distribution Type: More than 4 light distribution types have been developed, and will continue to develop new type in depth for different application scenarios.
5.Application: Suitable for sports lighting and stadium lighting.

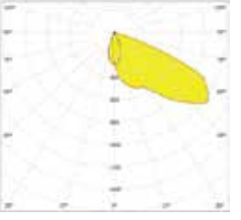
Light distribution type:

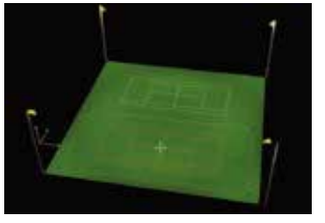
40×70°	50×40°	30×40°
TYPE II		



MN	1.08.13012
PN	HK-50@11-30X40-5050-00-1g-4
Material	Vaccum Aluminum Plating PC
Efficiency	87% without glass
LED	3535/5050 LED
Light Distribution	30°×40°



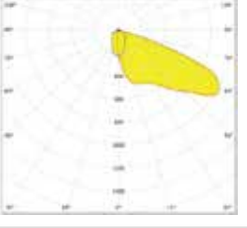


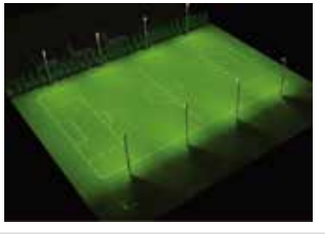


Height	15m
U0 TA (min/Ave)	0.8
U0 TA (min/max)	0.63
U0 PA (min/Ave)	0.86
U0 PA (min/max)	0.72

MN	1.08.13008
PN	HK-50@11-40X70-5050-00-1g-4
Material	Vaccum Aluminum Plating PC
Efficiency	88% without glass
LED	3535/5050 LED
Light Distribution	40°×70°



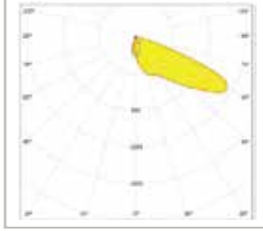


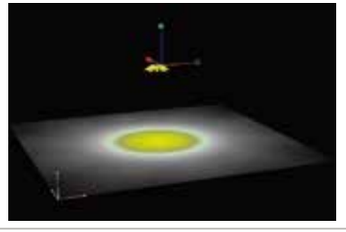


Height	20m
U0 TA (min/Ave)	0.73
U0 TA (min/max)	0.53

MN	1.08.13011
PN	HK-50@11-50X40-5050-00-1g-4
Material	Vaccum Aluminum Plating PC
Efficiency	88% without glass
LED	3535/5050 LED
Light Distribution	50°×40°



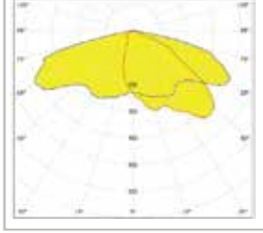




Height	15m
UO	0.6

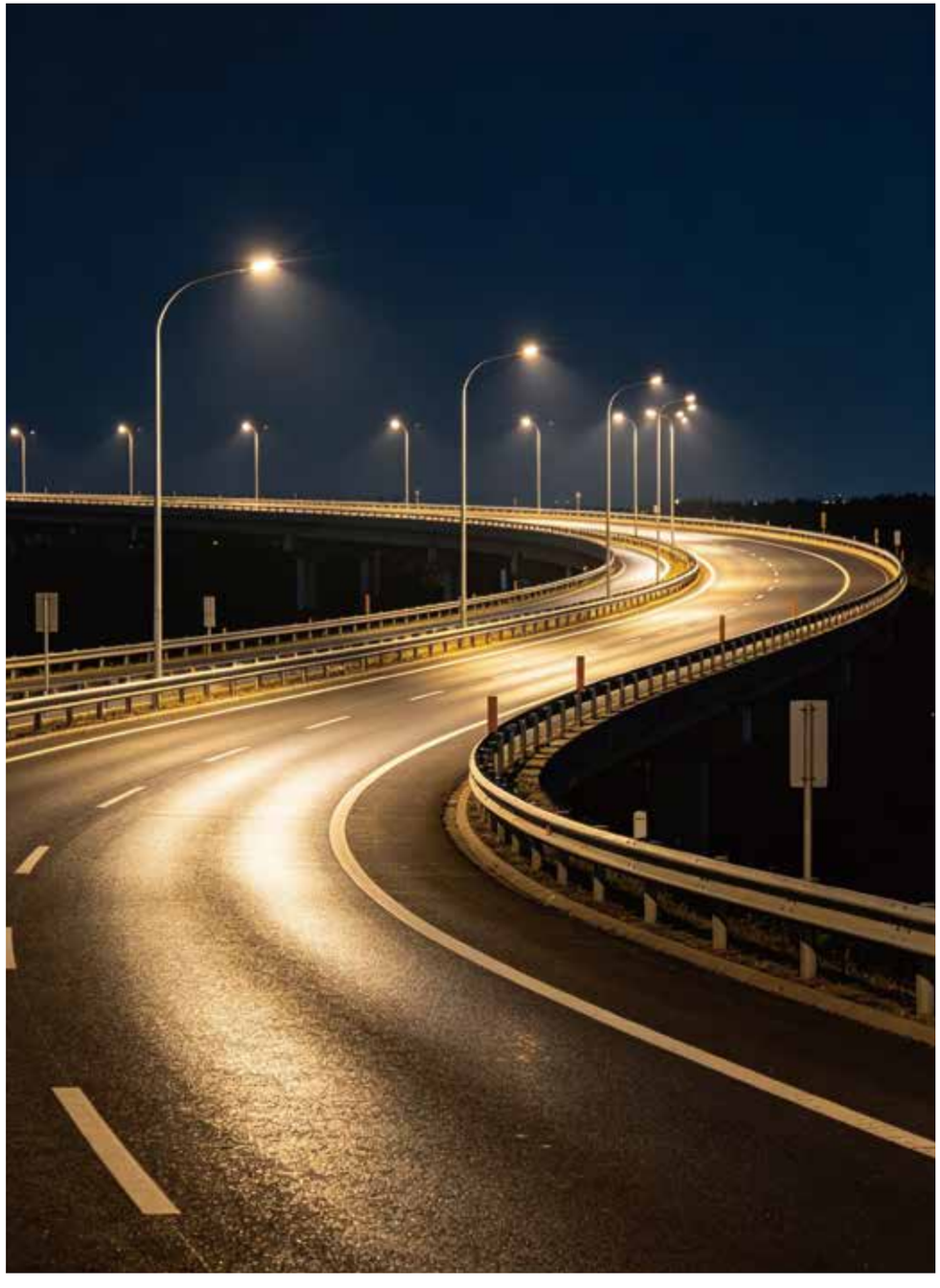
MN	1.08.13031
PN	HK-50@11-150X60-5050-00-1g-4
Material	Vaccum Aluminum Plating PC
Efficiency	86% without glass
LED	3535/5050 LED
Light Distribution	TYPE3 150°×60°







Proportion	4:1
Road width	22.5m (6 lanes)
Mode	Symmetry
Illumination level	ME2



MATRIX 6 IN 1

Lens Overall size: 50×50mm；Positioning column distance: 45mm
LED Compatibility: 3535 LED / 5050 LED
Light Distribution Type: 18 light distribution types have been developed, and will continue to develop new type in depth for different application scenarios.
Applications: Roads, Tunnels, Stadiums, Docks, Industrial workshop, etc.

Light distribution type:

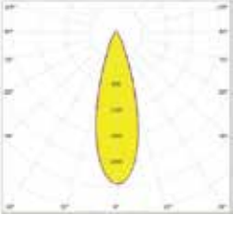
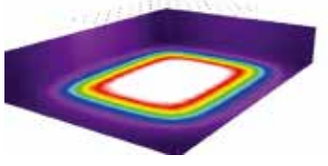
30°	60°	90°	TYPE II M
TYPE IV S	22×100°	TYPE III M	TYPE I
TYPE V	TYPE II S	TYPE III S	80×150°
120×48°			






MN	1.01.91890
PN	HK-50@10-30-5050-20-1g-6_PC HK-50@10-30-5050-20-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	30°

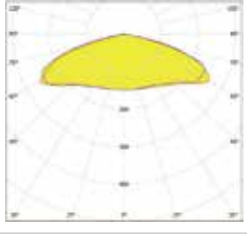
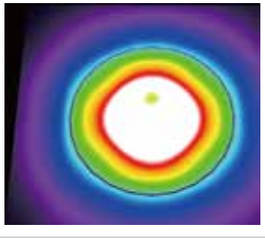


Height	12m
Mode	Upper cloth lamp
Court uniformity	0.7

MN	1.02.23078
PN	HK-JZ-50@06-150-5050-#0-1g-6_PC HK-JZ-50@06-150-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	85%(PC) / 88%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE V

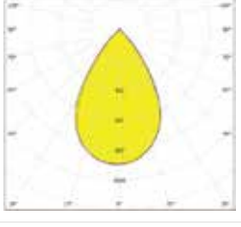
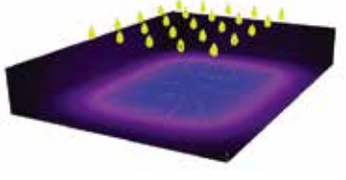


Height	10M
Mode	Upper cloth lamp
Court uniformity	0.5

MN	1.02.91812
PN	HK-50@08-60-5050-#0-1g-6_PC HK-50@08-60-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	60°

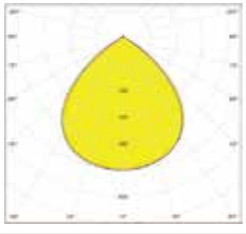


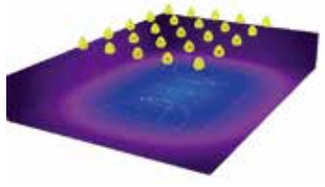



Height	12m
Mode	Upper cloth lamp
Court uniformity	0.7

MN	1.02.91813
PN	HK-50@07-90-5050-#0-1g-6_PC HK-50@07-90-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	90°



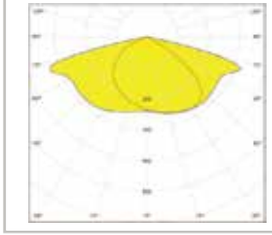


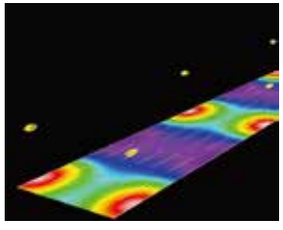


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.91827
PN	HK-50@07-96X155-5050-#0-1g-6_PC HK-50@07-96X155-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE III-M 96×155°



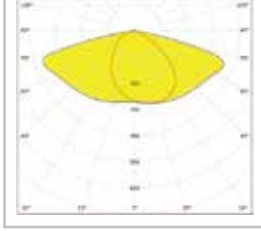


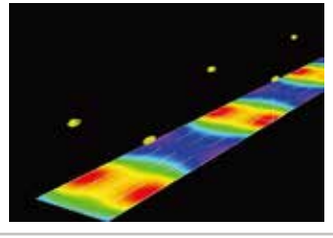


Proportion	4.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME3a

MN	1.02.91815
PN	HK-50@07-80X156-5050-#0-1g-6_PC HK-50@07-80X156-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE II-M 80×156°



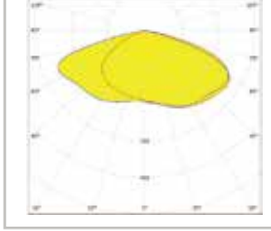


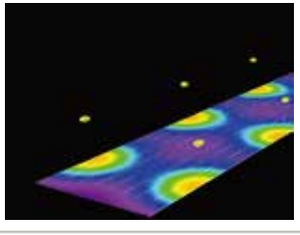


Proportion	4:1
Road width	15m (4 lanes)
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.91891
PN	HK-50@07-120X148-5050-#0-1g-6_PC HK-50@07-120X148-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	TYPE IV 120×148°



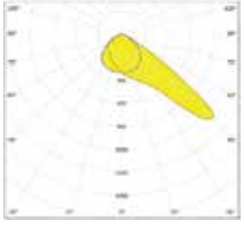


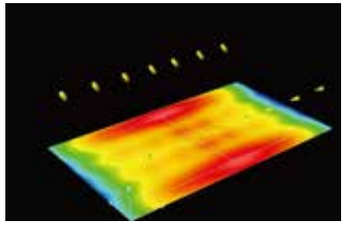


Proportion	3.5:1
Road width	30m (8 lanes)
Mode	Double row symmetry
Lighting type	ME3a

MN	1.02.91911
PN	HK-50@09-20X100-5050-#0-1g-6_PC
Material	PC
Efficiency	90%(PC) without glass
LED	3535/5050 LED
Light Distribution	20×100°

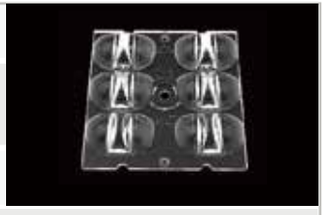


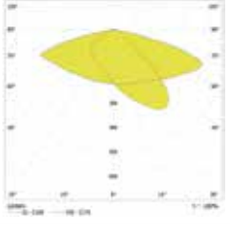


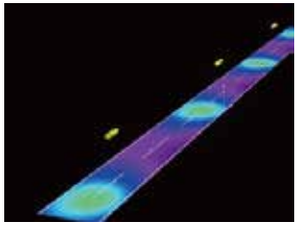


Height	7m
Mode	Bilateral symmetry
Court uniformity	0.7

MN	1.02.12725
PN	HK-50@09-150x50-5050-#0-1g-6_PC HK-50@09-150x50-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III-M



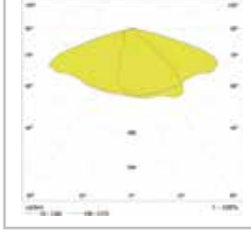


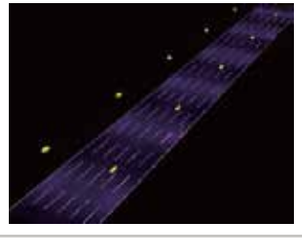


Proportion	4.375：1
Road width	7m (2 lanes)
Mode	Unilateral cloth lamp
Lighting type	ME4a

MN	1.02.23094
PN	HK-JZ-50@09-70X150-5050-#0-1g-6_PC HK-JZ-50@09-70X150-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-M-CUTOFF



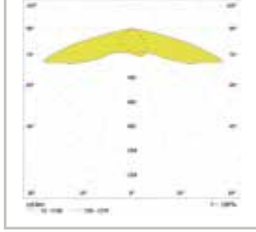


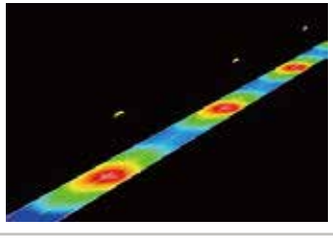


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.33511
PN	HK-JZ-50@09-100X152-5050-#0-1g-6_PC HK-JZ-50@09-100X152-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-M



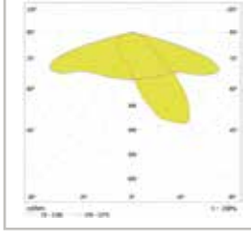


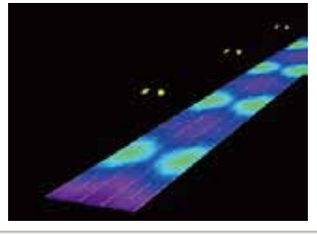


Proportion	5：1
Road width	7m (2 lanes)
Mode	Unilateral cloth lamp
Lighting type	Temporarily no illumination distribution

MN	1.02.33512
PN	HK-JZ-50@08-45X150-5050-00-1g-6_PC HK-JZ-50@08-45X150-5050-00-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II-S



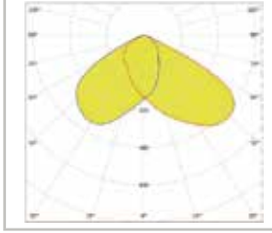


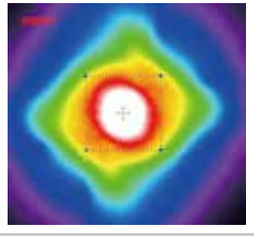


Proportion	3.5：1
Road width	14.4m (4 lanes)
Mode	Medial strip
Lighting type	ME2

MN	1.02.33696
PN	HK-JZ-50@07-65X72-5050-#0-1g-6-R
Material	PMMA
Efficiency	93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II S

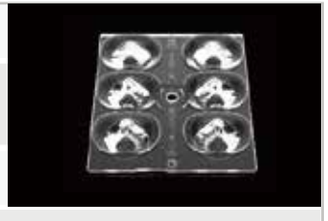


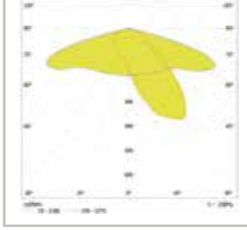


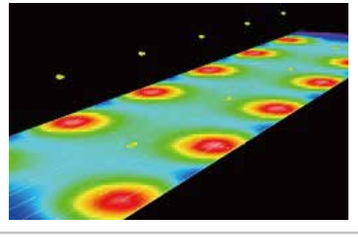


Height	5M
Mode	sidewalks, squares
Court uniformity	0.65

MN	1.02.33514
PN	HK-JZ-50@08-50X142-5050-#0-1g-6_PC HK-JZ-50@08-50X142-5050-#0-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III-S



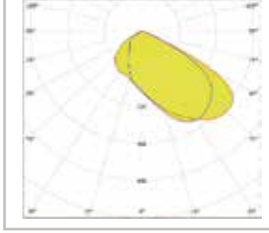


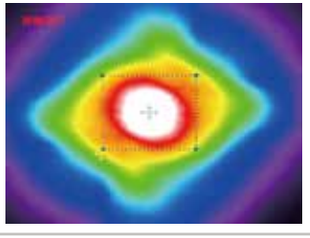


Proportion	3.2:1
Road width	42m (10 lanes)
Mode	Bilateral symmetry
Lighting type	ME1

MN	1.02.33697
PN	HK-JZ-50@07-65X72-5050-#0-1g-6-L
Material	PMMA
Efficiency	93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III S

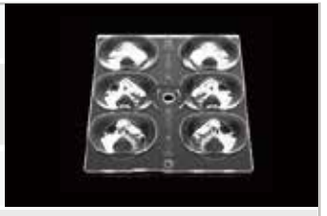


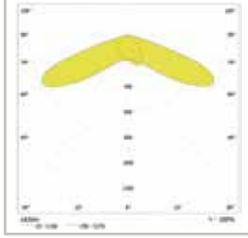


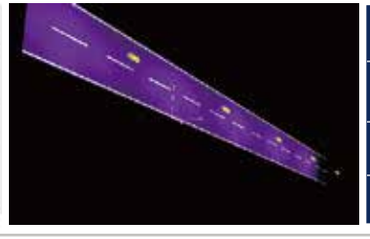


Height	5M
Mode	sidewalks, squares
Court uniformity	0.65

MN	1.02.12705
PN	HK-50@09-75X140-5050-#0-1g-6
Material	PC
Efficiency	90%(PC) without glass
LED	5050 LED
Light Distribution	TYPE I



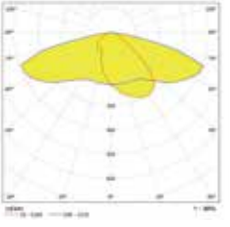


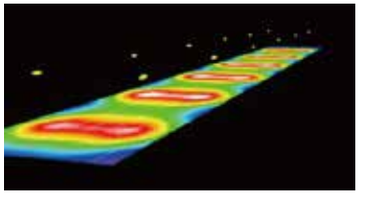


Proportion	4：1
Road width	15m（4 lanes）
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.54495
PN	HK-JZ-50@09-154X64-5050-00-1g-6_PC HK-JZ-50@09-154X64-5050-00-1g-6_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	154×64°

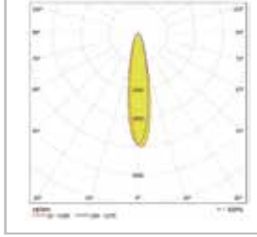








MN	1.01.33713
PN	HK-JZ-50@16-20-5050-01-1g-6
Material	PC
Efficiency	88%(PC) without glass
LED	5050 LED
Light Distribution	20°





Application:

1. Outdoor stadium lighting
2. Indoor high bay lighting
3. Flood lighting



MATRIX 8 IN 1

The Matrix lens has the following features:

Lens Overall size: 50×50mm; Positioning column distance: 45mm

LED Compatibility: 3535 LED / 5050 LED

Light Distribution Type: 8 light distribution types have been developed, and will continue to develop new type in depth for different application scenarios.

Application occasions: roads, tunnels, stadiums, docks, industrial factories.

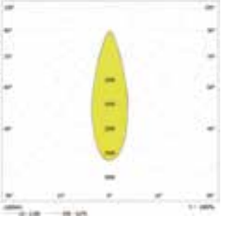
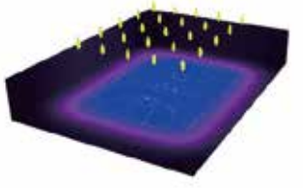
Light distribution type:

30°	60°	90°	TYPE II
TYPE II M	TYPE III S	TYPE IV S	TYPE V



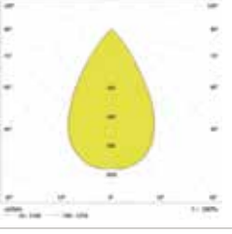
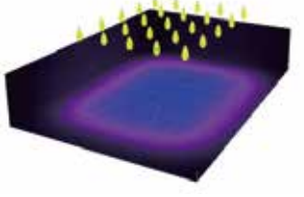



MN	1.01.33516
PN	HK-JZ-50@10-30-5050-20-1g-8_PC HK-JZ-50@10-30-5050-20-1g-8_PMMA
Material	PC/PMMA
Efficiency	90% (PC) /93% (PMMA) without glass
LED	5050 LED
Light Distribution	30°

Height	12m
Mode	Lighting on top
Court uniformity	0.75

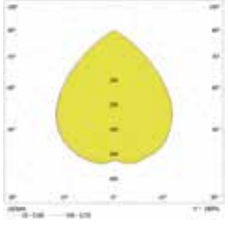
MN	1.02.33517
PN	HK-JZ-50@08-60-5050-#0-1g-8_PC HK-JZ-50@08-60-5050-#0-1g-8_PMMA
Material	PC/PMMA
Efficiency	90% (PC) /93% (PMMA) without glass
LED	5050 LED
Light Distribution	60°

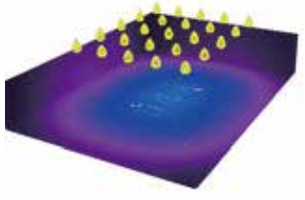



Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.33518
PN	HK-JZ-50@07-90-5050-#0-1g-8_PC HK-JZ-50@07-90-5050-#0-1g-8_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	90°

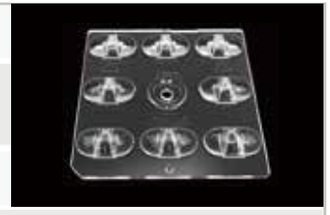


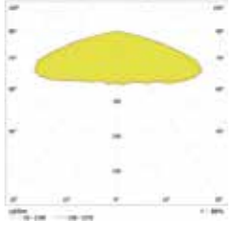


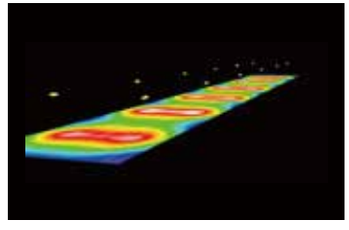


Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.33479
PN	HK-JZ-50@06-150-5050-#0-1g-8_PC HK-JZ-50@06-150-5050-#0-1g-8_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE V

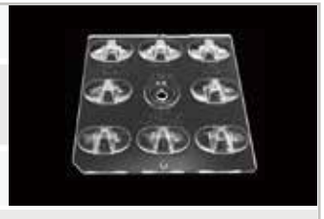


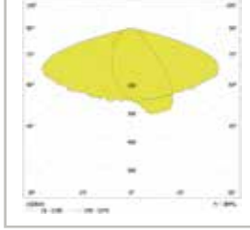


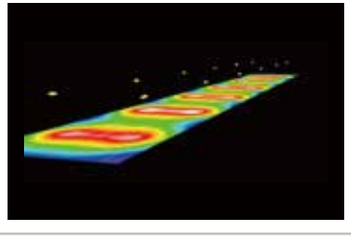




MN	1.02.33484
PN	HK-JZ-50@07-70X150-5050-#0-1g-8_PC HK-JZ-50@07-70X150-5050-#0-1g-8_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II



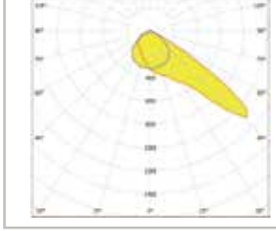


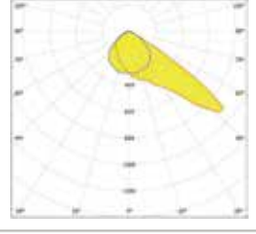




MN	1.02.43957
PN	HK-JZ-50@09-25X100-5050-#0-1g-8_PC HK-JZ-50@09-25X100-5050-#0-1g-8_PMMA
Material	PC/PMMA
Efficiency	85%(PC) / 88%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE II S



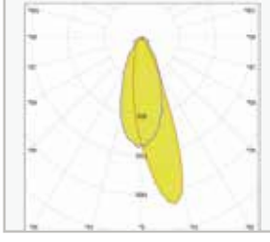


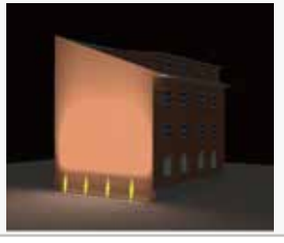


Height	7M
Mode	Bilateral symmetry
Court uniformity	0.5

MN	1.02.44292
PN	HK-YHXK-50@15-XQ-3535-#0-1g-8_ASM
Material	PC+PMMA
Efficiency	85%
LED	5050 LED
Light Distribution	TYPE II



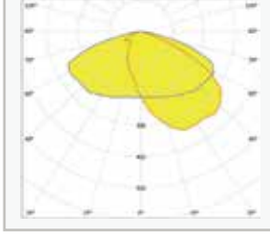


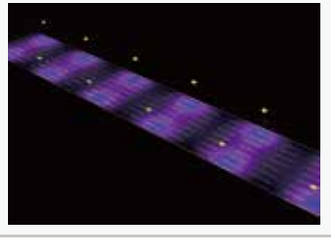


Mode	Floor-mounted
Court uniformity	0.8

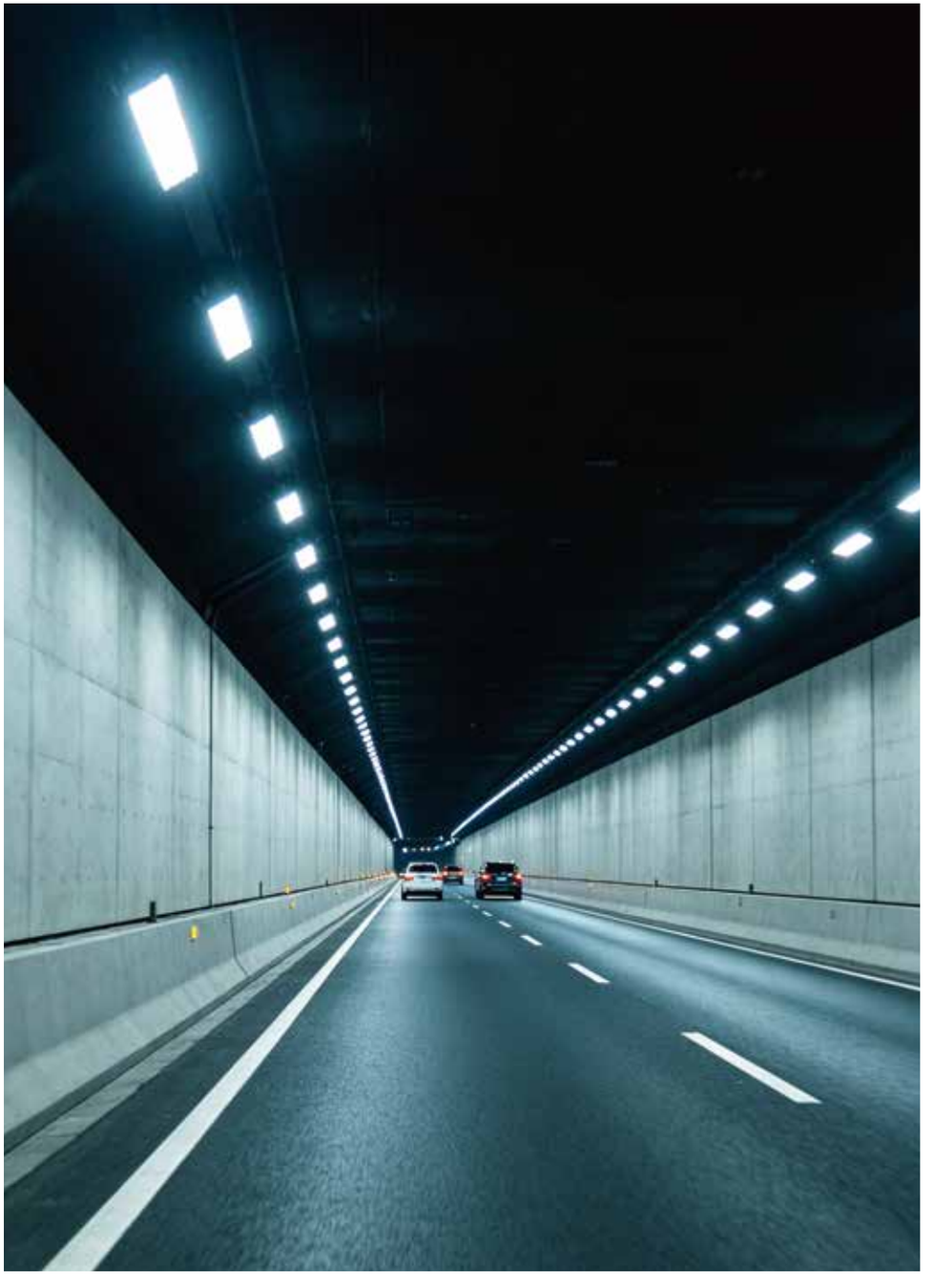
MN	1.02.44229
PN	HK-JZ-50@07-148X68-5050-#0-1g-8_PMMA
Material	PMMA
Efficiency	90%(PMMA) without glass
LED	5050 LED
Light Distribution	TYPE III







Height	10M
Mode	Two-side pposite installation
Proportion	1:3.5



MATRIX 12 IN 1

The Matrix lens has the following features:

1. Lens Overall size: 50×50mm； Positioning column distance: 45mm

2. LED Compatibility: 3030 LED / 3535 LED

3. Light Distribution Type: 10 light distribution types have been developed, and will continue to develop new type in depth for different application scenarios.

4.Application occasions: roads, tunnels, stadiums, docks, industrial factories .

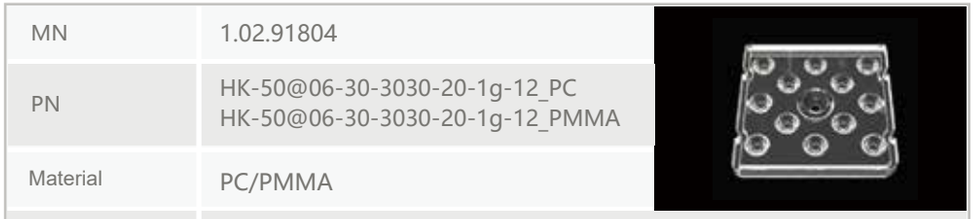
Light distribution type:

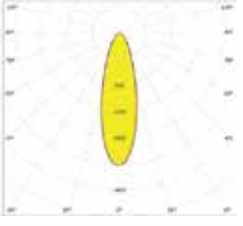
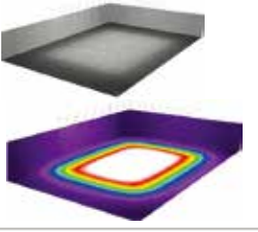
30°	60°	90°	TYPE III
TYPE II M	TYPE III S	TYPE IV S	TYPE II M COTTOFF
TYPE V	22×100°	TYPE II	50×140°






MN	1.02.91804
PN	HK-50@06-30-3030-20-1g-12_PC HK-50@06-30-3030-20-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	30°

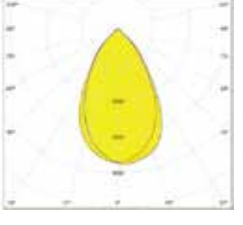
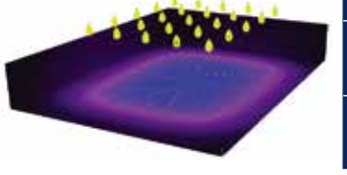


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.91748
PN	HK-50@05-60-3030-#0-1g-12_PC HK-50@05-60-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	60°

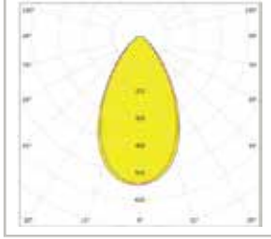


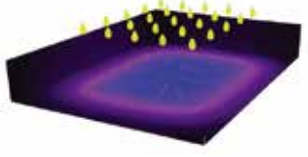



Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.01.91964
PN	HK-50@05-60-3030-#0-1g-12_PC HK-50@05-60-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	60°

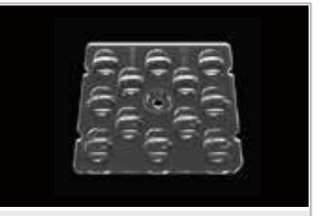


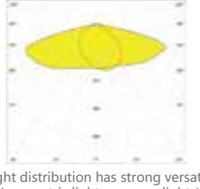




Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.91669
PN	HK-50@04-160X90-3030-#0-1g-12_PC HK-50@04-160X90-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE II 160×90°





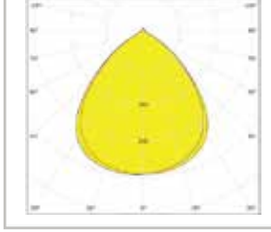


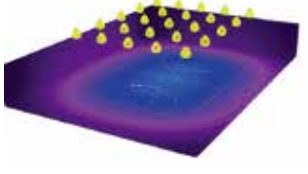
The light distribution has strong versatility, and is suitable for many roads with bilateral lights (symmetric lights or cross lights). The pole height is 8m~15m, The distance to height ratio is 1:3 to 1:4.5, which can meet the requirements of the road

Proportion	3:1
Road width	24m (6 lanes)
Mode	Double row symmetry
Lighting type	ME4a

MN	1.02.91741
PN	HK-50@05-90-3030-#0-1g-12_PC HK-50@05-90-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	90°



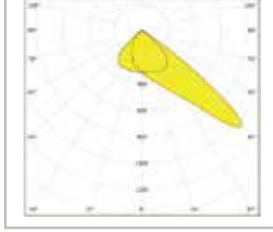


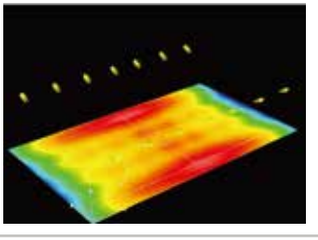


Height	7m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.92105
PN	HK-50@07-22X100-3030-#0-1g-12_PC HK-50@07-22X100-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	22×100°



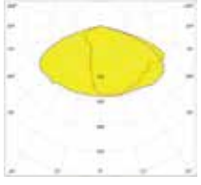


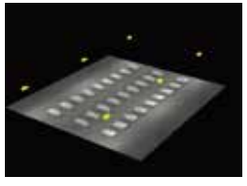


Height	7m
Mode	Bilateral symmetry
Court uniformity	0.7

MN	1.02.91793
PN	HK-50@05-90-3030-#0-1g-12_PC HK-50@05-90-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE IV 50×140°





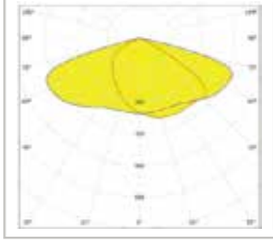


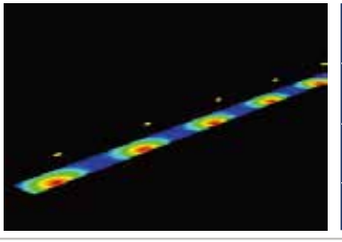


It can be used as a large-scale parking lot lamp, and the illumination uniformity can reach more than 0.6

MN	1.02.91756
PN	HK-50@05-156X75-3030-#0-1g-12_PC HK-50@05-156X75-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE III 156×75°



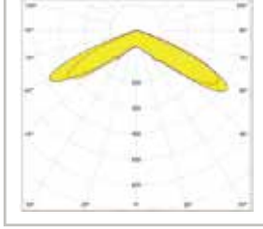


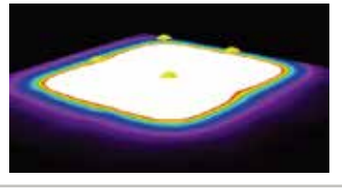


Proportion	4:1
Road width	12m (4 lanes)
Mode	Bilateral symmetry
Lighting type	ME5

MN	1.02.92172
PN	HK-50@05-135-3030-#0-1g-12_PC HK-50@05-135-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE V 135°



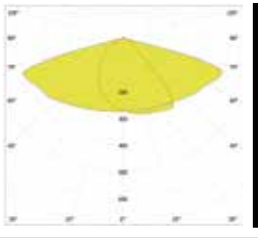


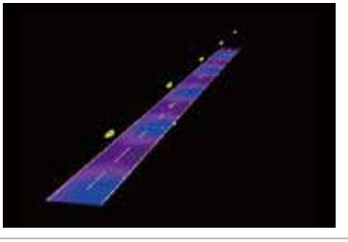


Proportion	3:1
Illumination uniformity	0.5

MN	1.02.91859
PN	HK-50@05-150X75-3030-#0-1g-12_PC HK-50@05-150X75-3030-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030 LED
Light Distribution	lumileds 3030







Proportion	4:1
Road width	7m (2 lanes)
Mode	Single Row
Lighting type	ME4a

MATRIX 16 IN 1

The Matrix lens has the following features:

1. ZHAGA Standard: The position of the LED and the positioning column meet the ZHAGA standard.

2. Lens Overall size: 50×50mm; Positioning column distance: 45mm

3. LED Compatibility: 3030 LED / 3535 LED

4. Light Distribution Type: More than 16 light distribution types have been developed, and will continue to develop new type in depth for different application scenarios.

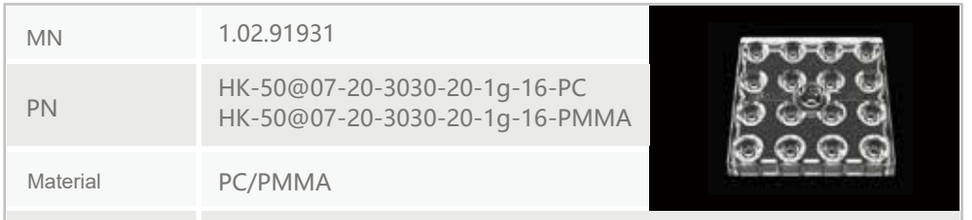
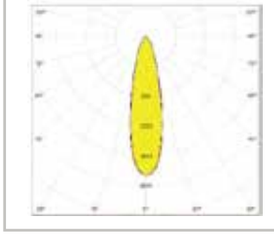
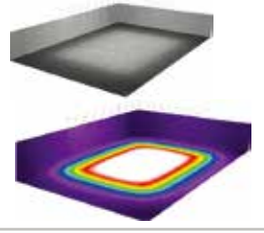
Light distribution type:

20°	30°	60°
90°	22×100°	TYPE II S
TYPE III S	TYPE IV S	TYPE V



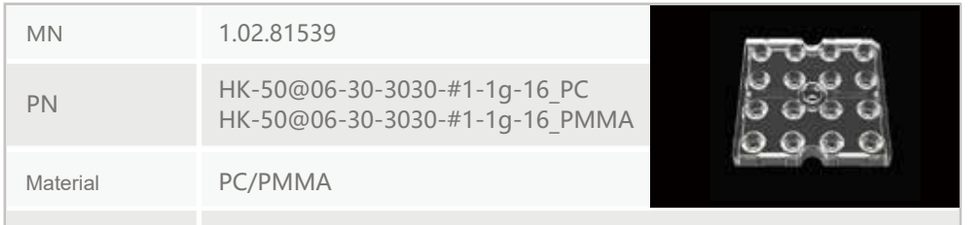
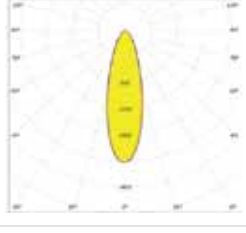
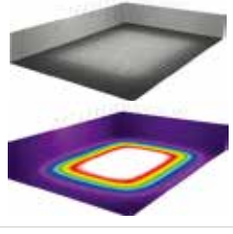



MN	1.02.91931
PN	HK-50@07-20-3030-20-1g-16-PC HK-50@07-20-3030-20-1g-16-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	20°

Height	12m
Mode	Lighting on top
Court uniformity	0.7

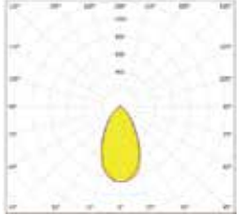
MN	1.02.81539
PN	HK-50@06-30-3030-#1-1g-16_PC HK-50@06-30-3030-#1-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	30°

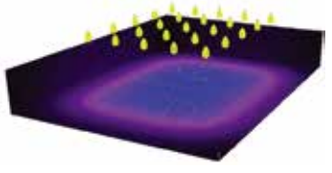




Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.81532
PN	HK-50@05-60-3030-#0-1g-16_PC HK-50@05-60-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	60°



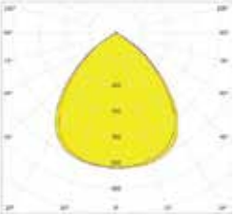


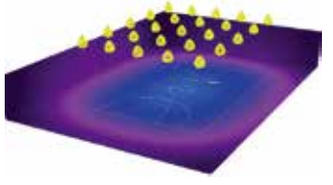


Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.81531
PN	HK-50@04-90-3030-#0-1g-16_PC HK-50@04-90-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/3030 LED
Light Distribution	90°



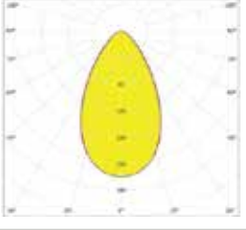


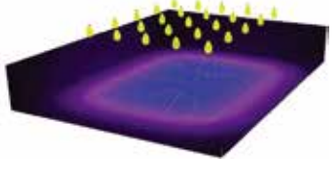


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.91965
PN	HK-50@06-60-3030-20-1g-16-PC HK-50@06-60-3030-20-1g-16-PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	60°



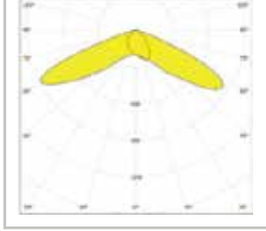




Height	12m
Mode	Lighting on top
Court uniformity	0.75

MN	1.02.81524
PN	HK-50@05-140X70-3030-#0-1g-16_PC HK-50@05-140X70-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030 LED
Light Distribution	TYPE I 140×70°

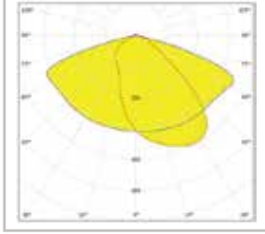


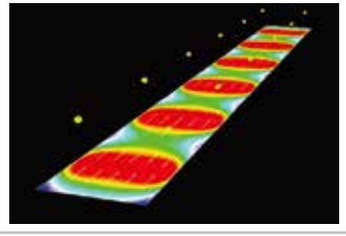




Proportion	3:1
Road width	7m (2 lanes)
Mode	Single-sided lower arrangement
Lighting type	Can meet high lighting uniformity

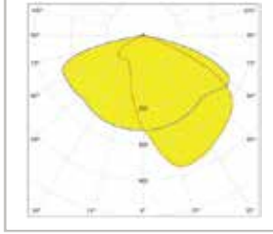
MN	1.02.81599
PN	HK-50@05-70X150-3030-#0-1g-16_PC HK-50@05-70X150-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE II 70×150°

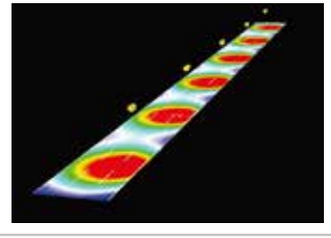




Proportion	3.5:1
Road width	22m (5 lanes)
Mode	Symmetry
Lighting type	ME1

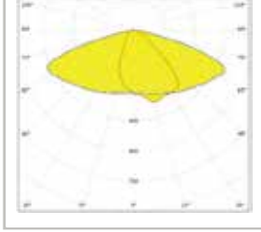
MN	1.02.81542
PN	HK-50@04-150X80-3030-#0-1g-16_PC HK-50@04-150X80-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	9%(PC) / 92%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE I 140×70°

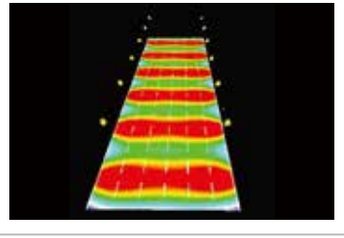




Proportion	3.5:1
Road width	11.25m (3 lanes)
Mode	Unilateral
Lighting type	ME2

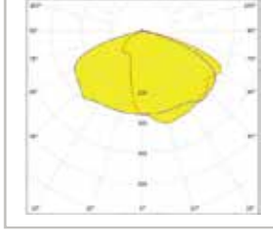
MN	1.02.23252
PN	HK-JZ-50@07-150X70-3030-#0-1g-16
Material	PMMA
Efficiency	92%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	ME TYPE II 150×70°

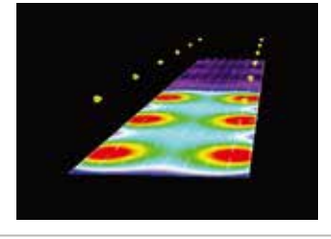




Proportion	3.5:1
Road width	22m (6 lanes)
Mode	Symmetry
Lighting type	ME1

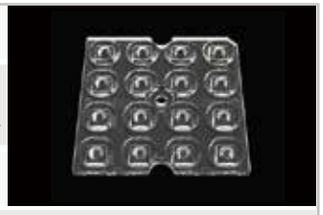
MN	1.02.81598
PN	HK-50@04-50X140-3030-#0-1g-16_PC HK-50@04-50X140-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	89%(PC) / 90%(PMMA) without glass
LED	3535/3030 LED
Light Distribution	TYPE IV 50×140°

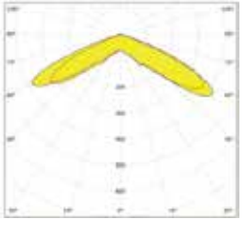




Proportion	3.5:1
Road width	28m (8 lanes)
Mode	Symmetry
Lighting type	ME1

MN	1.02.81525
PN	HK-50@04-140X140-3030-#0-1g-16_PC HK-50@04-140X140-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	TYPE V 140×140°



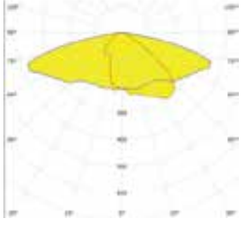


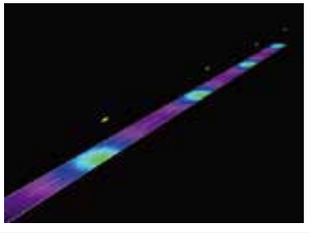


Height	high-pole lamp
Height	15m
Uniformity	0.5

MN	1.02.23271
PN	HK-JZ-50@05-157X70-3030-00-1g-16_PMMA
Material	PMMA
Efficiency	92%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	SCL TYPE II-M 157×70°



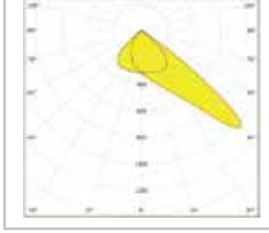


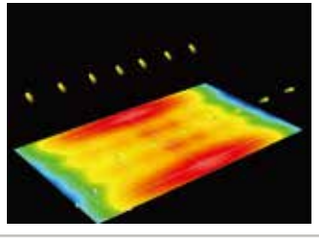


Proportion	5.5:1
Road width	7m (2 lanes)
Mode	Single-sided lower arrangement
Lighting type	ME4

MN	1.02.92106
PN	HK-50@06-22X100-3030-#0-1g-16_PC HK-50@06-22X100-3030-#0-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030/3535 LED
Light Distribution	22×100°



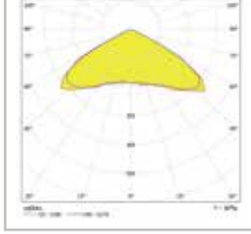




Height	7m
Mode	Bilateral symmetry
Court uniformity	0.7

MN	1.02.54471
PN	HK-JZ-50@03-120-3030-00-1g-16_PC HK-JZ-50@03-120-3030-00-1g-16_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3030 LED
Light Distribution	LUXEON 3030 ROUND



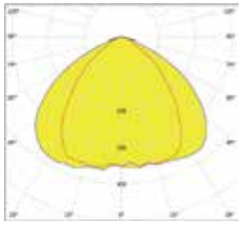


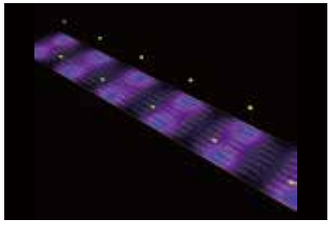


Application	high-pole lamp
Height	15m
Uniformity	0.5

MN	1.02.33690
PN	HK-JZ-50@05-120X90-3030-00-1g-16_PC
Material	PC
Efficiency	95%(PC) without glass
LED	3030 LED
Light Distribution	TYPE III







Height	10m
Mode	Two-side opposite installation
Court uniformity	1:3.5

MATRIX 24 IN 1

The Matrix lens has the following features:

1. Lens Overall size: 50×50mm; Positioning column distance: 45mm
2. LED Compatibility: 3030 LED
3. Light Distribution Type: A 60° light distribution has now been developed, and will continue to develop new type in depth for different application scenarios.
4. Applications: Roads, Tunnels, Stadiums, Docks, Industrial workshop, etc.



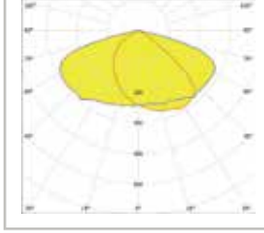


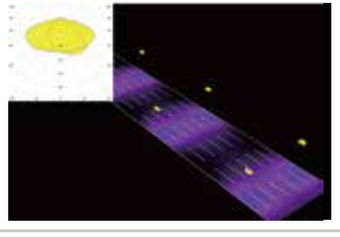




MN	1.02.33688
PN	HK-JZ-50@05-150X85-3030-00-1g-16_PC
Material	PC
Efficiency	91%(PC) without glass
LED	3030 LED
Light Distribution	TYPE II



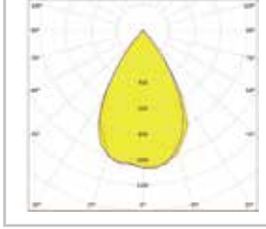


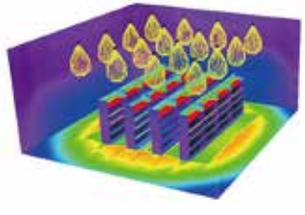


Height	10m
Mode	Two-side opposite installation
Court uniformity	1:4

MN	1.02.64773
PN	HK-JZ-50@06-60-3030-#0-1g-24_PC
Material	PC
Efficiency	90%(PC) without glass
LED	3030 LED
Light Distribution	60°

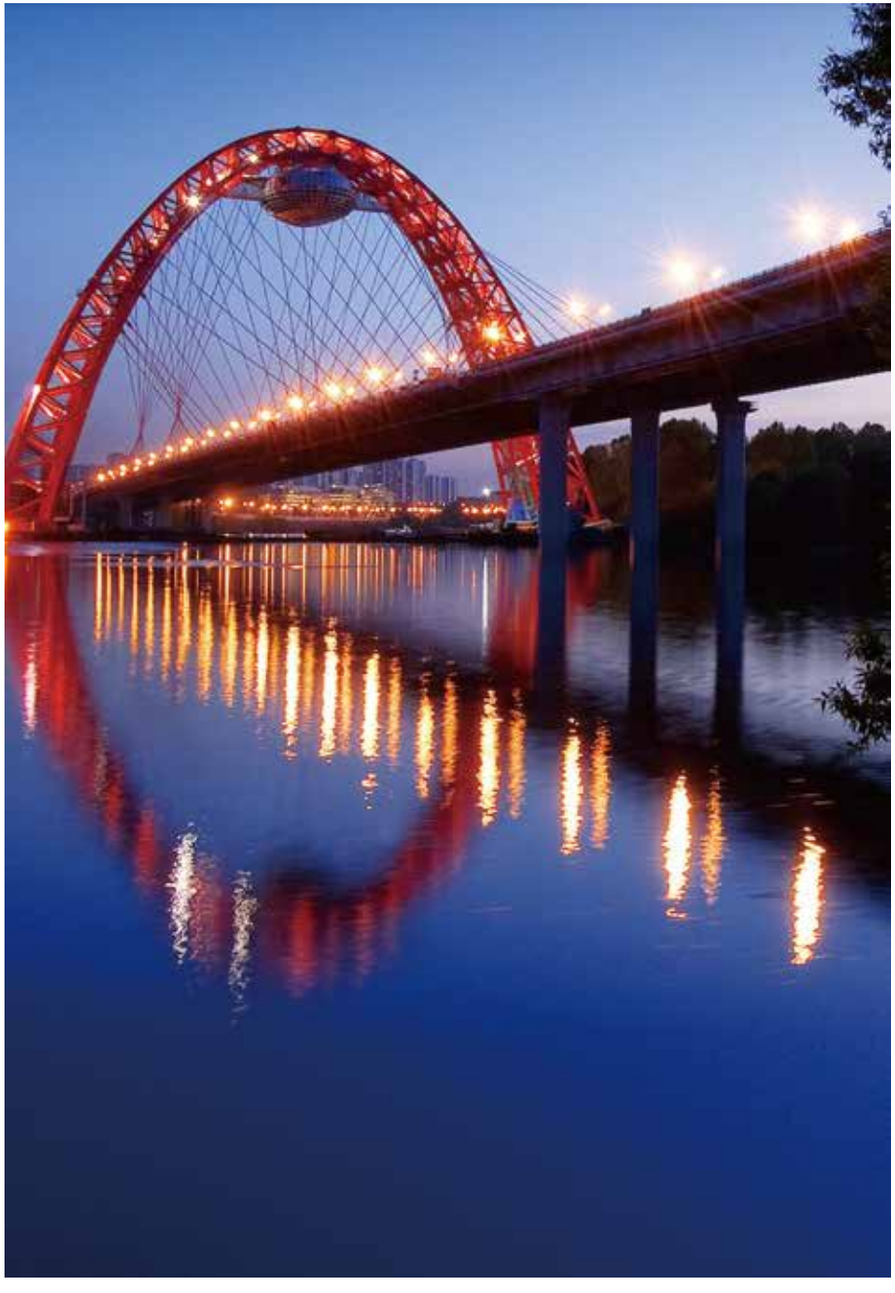




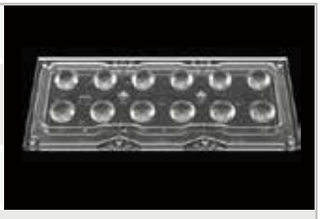


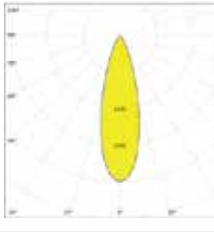
Height	12m
Mode	Ceiling Underside
Court uniformity	0.76

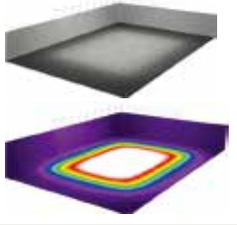
GALAXY 12 IN 1



MN	1.01.81454
PN	HK-173@12-30-5050-20-1g-12_PC HK-173@12-30-5050-20-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	30°



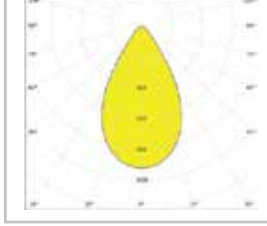


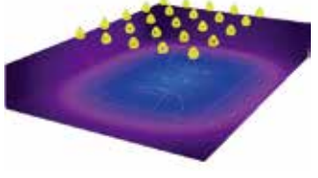


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.81455
PN	HK-173@10-60-5050-#0-1g-12_PC HK-173@10-60-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	60°



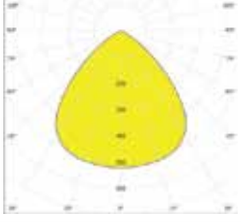


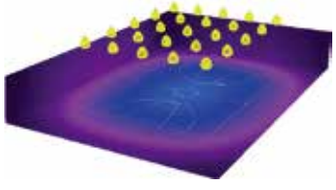


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.81456
PN	HK-173@09-90-5050-#0-1g-12_PC HK-173@09-90-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	90°



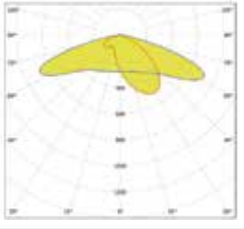


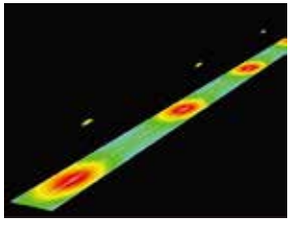


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.44022
PN	HK-YH-173@11-30X140-5050-#0-1g-12 _PC HK-YH-173@11-50X145-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE II 50×145°



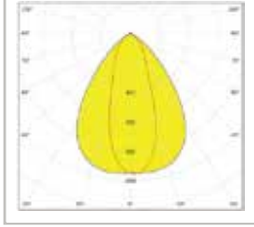


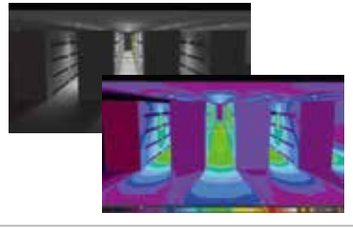


Proportion	4:1
Road width	7m (2 lanes)
Mode	Unilateral
Lighting type	0.6

MN	1.02.81467
PN	HK-173@10-40X80-5050-#0-1g-12_PC HK-173@10-40X80-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE I 40×80°



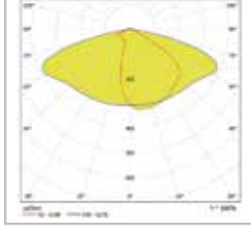


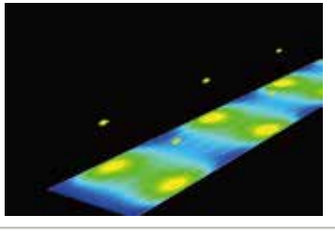


Height	2.2m
Mode	Light distribution in the middle of the aisle
Ground uniformity	0.9

MN	1.02.44020
PN	HK-YH-173@11-72X150-5050-#0-1g-12_PC HK-YH-173@11-72X150-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE II 72×150°

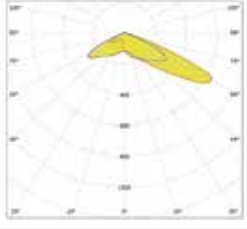


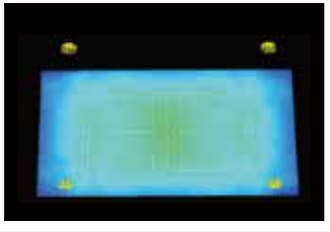




Proportion	4:1
Road width	22.5m (6 lanes)
Mode	Bidirectional symmetry
Lighting type	ME3a

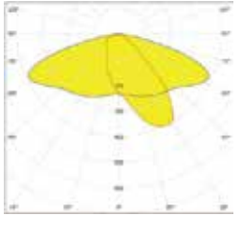
MN	1.02.44021
PN	HK-YH-173@11-72X150-5050-#0-1g-12_PC HK-YH-173@11-30X140-5050-#0-1g-12 _PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE IV 30×140°

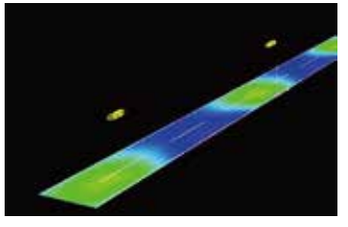




Height	11m
Mode	Four corner arrangement lights
Court uniformity	0.95

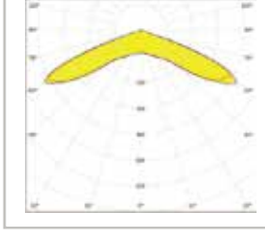
MN	1.02.91696
PN	HK-173@09-42X150-5050-#0-1g-12_PC
Material	PC
Efficiency	90%
LED	3535/5050 LED
Light Distribution	TYPE II 42×150°

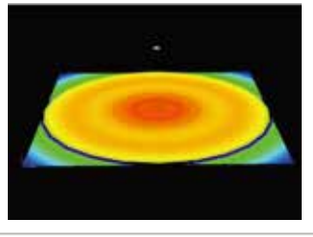




TNB Road

MN	1.02.81453
PN	HK-173@08-140-5050-#0-1g-12_PC HK-173@08-140-5050-#0-1g-12_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE V 140°

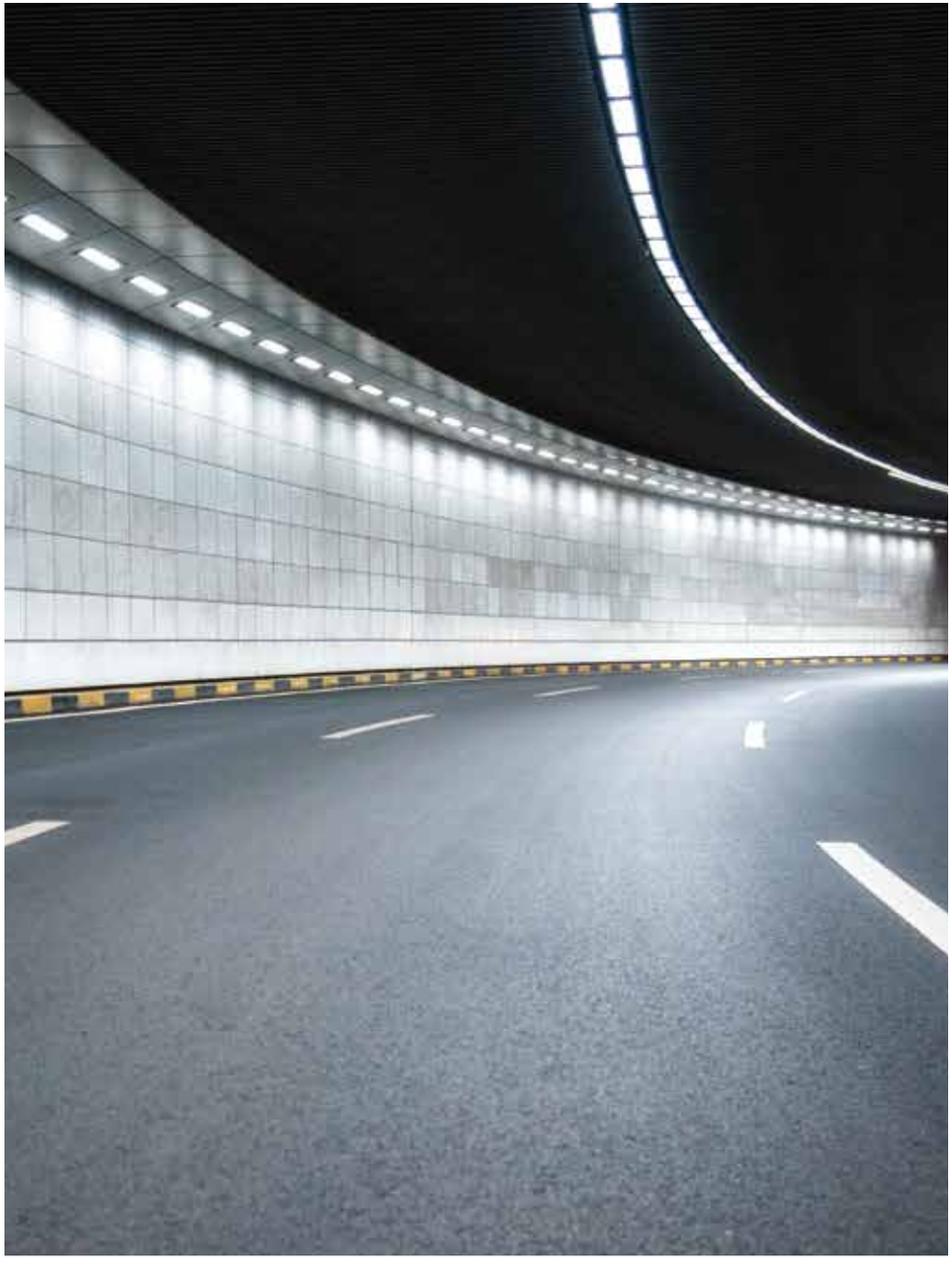




Height	25m
Mode	Center layout light
Square uniformity	0.8

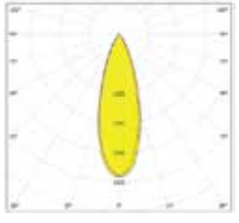


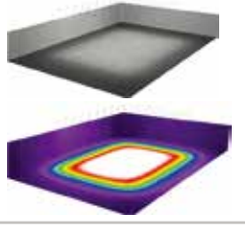
GALAXY 28 IN 1



MN	1.01.81472
PN	HK-260@11-30-5050-20-1g-28_PC HK-260@11-30-5050-20-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	30°



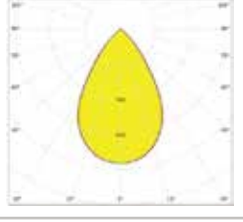


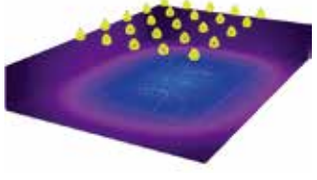


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.81448
PN	HK-260@09-60-5050-#0-1g-28_PC HK-260@09-60-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	60°



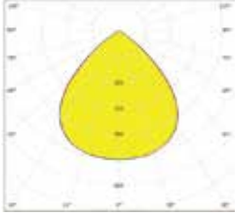


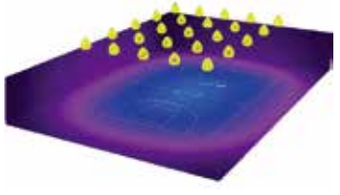


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.81447
PN	HK-260@07-90-5050-#0-1g-28_PC HK-260@07-90-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA) without glass
LED	3535/5050 LED
Light Distribution	90°

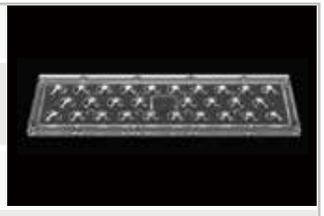


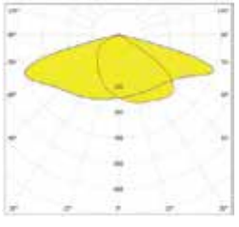


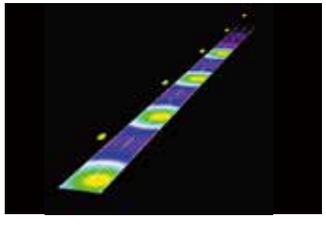


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.81420
PN	HK-260@08-150X80-5050-#0-1g-28_PC HK-260@08-150X80-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE II-M 150×80°



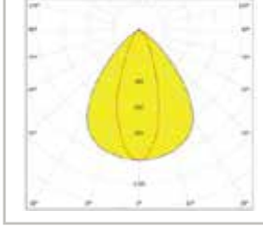


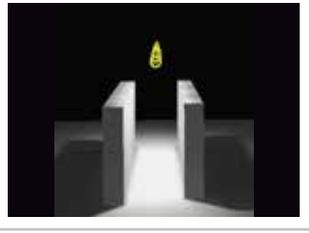


Proportion	4.5:1
Road width	7m (2 lanes)
Mode	Unilateral
Lighting type	ME3a

MN	1.02.81480
PN	HK-260@10-40X80-5050-00-1g-28_PC HK-260@10-40X80-5050-00-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE I 40×80°



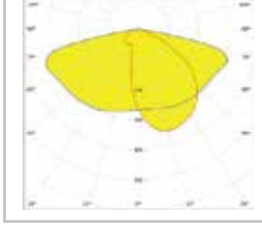


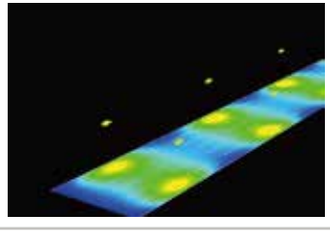


Height	7m
Mode	Top cloth lamp
Corridor uniformity	0.9

MN	1.02.81498
PN	HK-260@10-65X152-5050-#0-1g-28_PC HK-260@10-65X152-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE III 65×152°



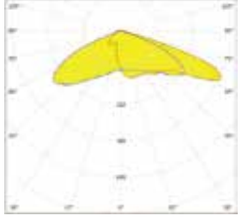


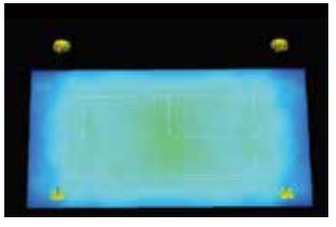


Proportion	4:1
Road width	22.5m (6 lanes)
Mode	Bidirectional symmetry
Lighting type	ME3a

MN	1.02.81492
PN	HK-260@10-30X140-5050-#0-1g-28_PC HK-260@10-30X140-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE IV 30×140°



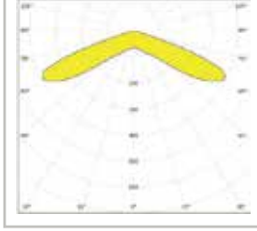


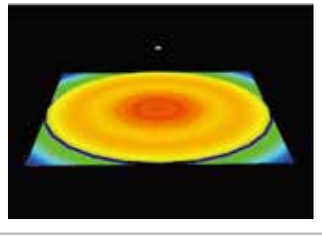


Height	11m
Mode	Four corner arrangement lights
Court uniformity	0.9

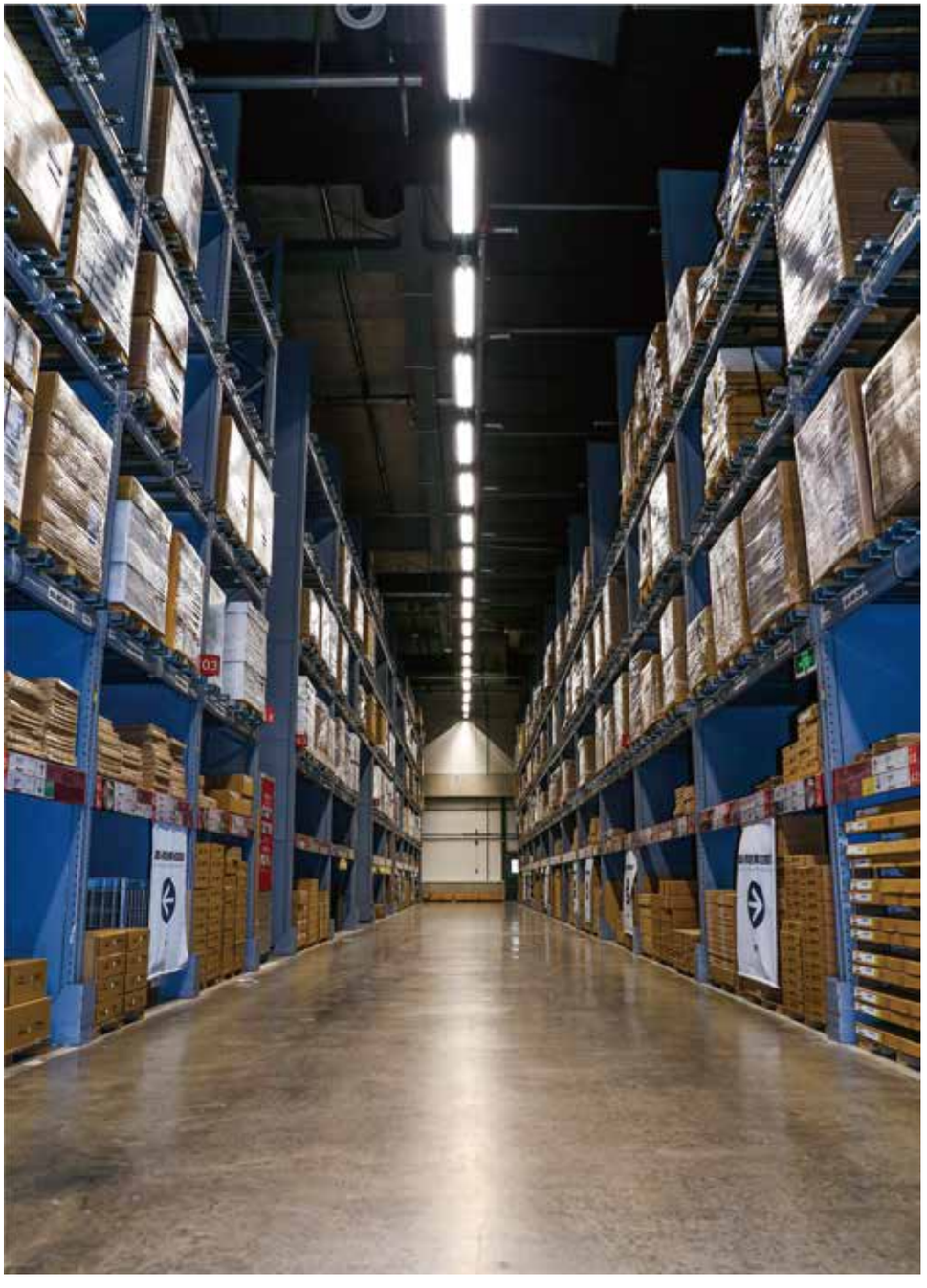
MN	1.02.81465
PN	HK-260@08-140-5050-#0-1g-28_PC HK-260@08-140-5050-#0-1g-28_PMMA
Material	PC/PMMA
Efficiency	90%(PC) / 93%(PMMA)
LED	3535/5050 LED
Light Distribution	TYPE V 140°



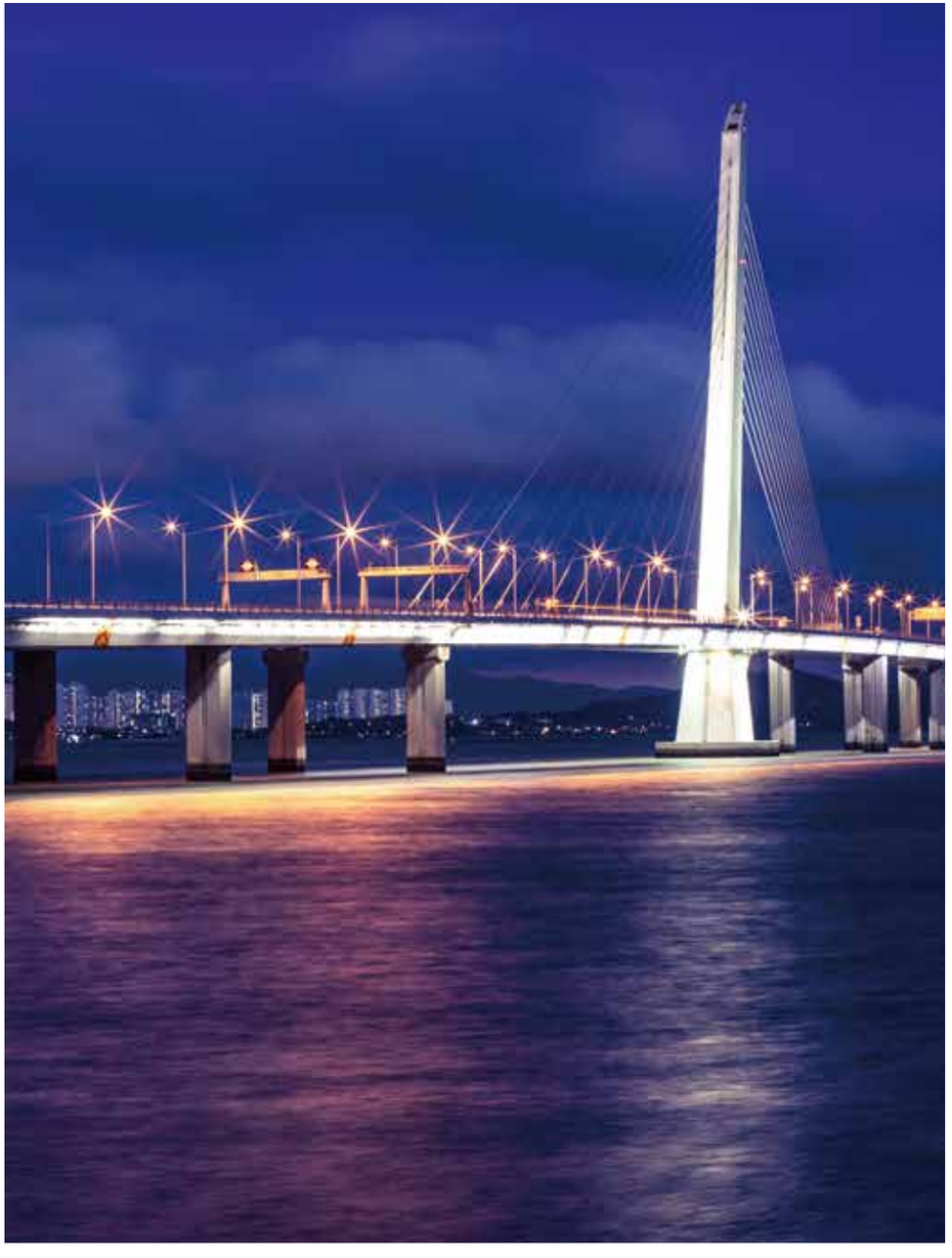




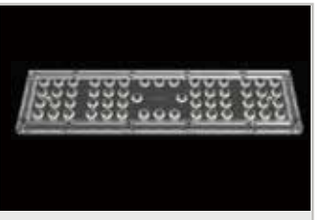
Height	25m
Mode	Center layout light
Square uniformity	0.8

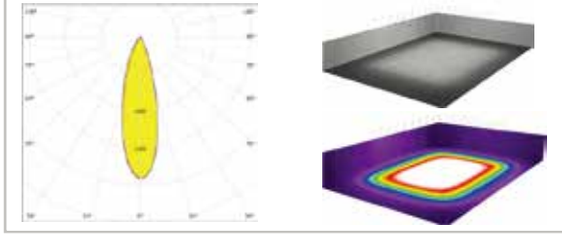


GALAXY 56 IN 1



MN	1.01.81428
PN	HK-260@09-30-3030-20-1g-56
Material	PC
Efficiency	90%(PC) without glass
LED	3030/3535 LED
Light Distribution	30°

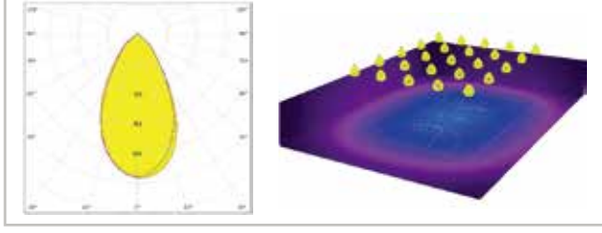




Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.81425
PN	HK-260@07-60-3030-#0-1g-56
Material	PC
Efficiency	90%(PC) without glass
LED	3030/3535 LED
Light Distribution	60°

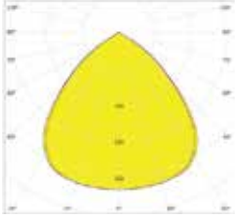


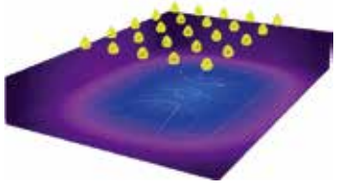


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.81426
PN	HK-260@07-90-3030-#0-1g-56
Material	PC
Efficiency	90%(PC) without glass
LED	3030/3535 LED
Light Distribution	90°



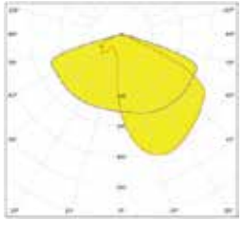


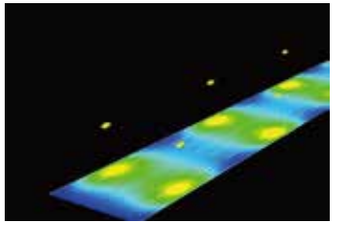


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.02.81574
PN	HK-260@07-63X150-3030-20-1g-56_PC
Material	PC
Efficiency	90%
LED	3030/3535 LED
Light Distribution	TYPE III 63×150°



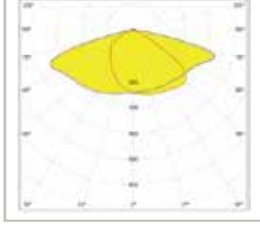


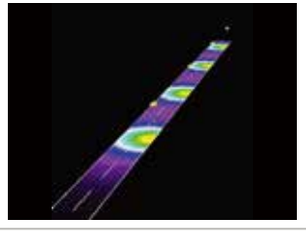


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Bidirectional symmetry
Lighting type	ME2

MN	1.02.81419
PN	HK-260@07-150X80-3030-#0-1g-56
Material	PC
Efficiency	90%
LED	3030/3535 LED
Light Distribution	TYPE II 150×80°



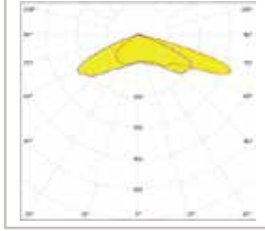


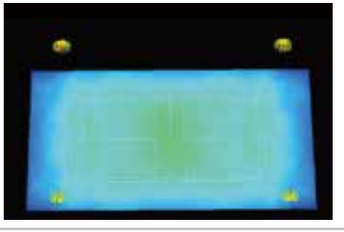


Proportion	5:1
Road width	7m (2 lanes)
Mode	Unilateral
Lighting type	ME4b

MN	1.02.81633
PN	HK-260@07-13X138-3030-#0-1g-56_PC
Material	PC
Efficiency	90%
LED	3030/3535 LED
Light Distribution	TYPE IV 13×138°

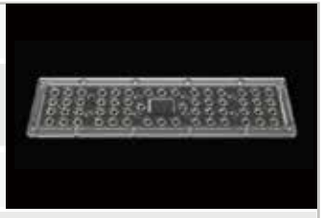


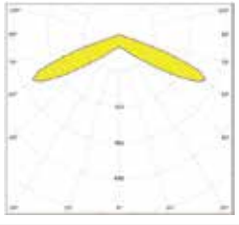


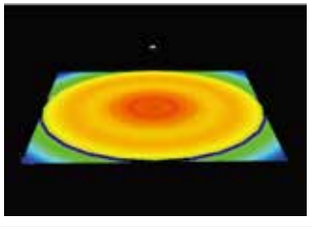


Height	11m
Mode	Four corner arrangement lights
Court uniformity	0.9

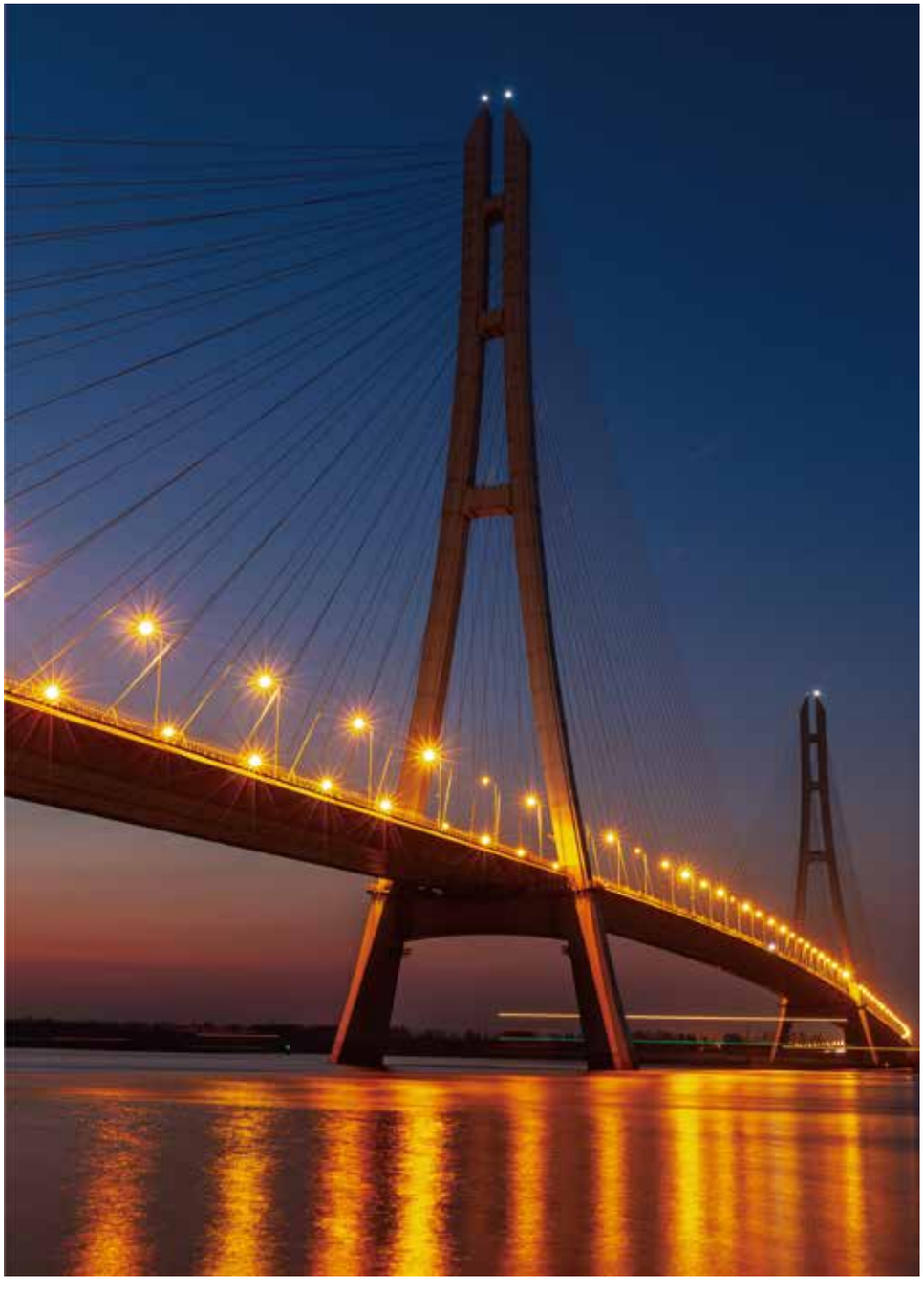
MN	1.02.81424
PN	HK-260@07-138-3030-#0-1g-56_PC
Material	PC
Efficiency	90%
LED	3030/3535 LED
Light Distribution	TYPE V 138°



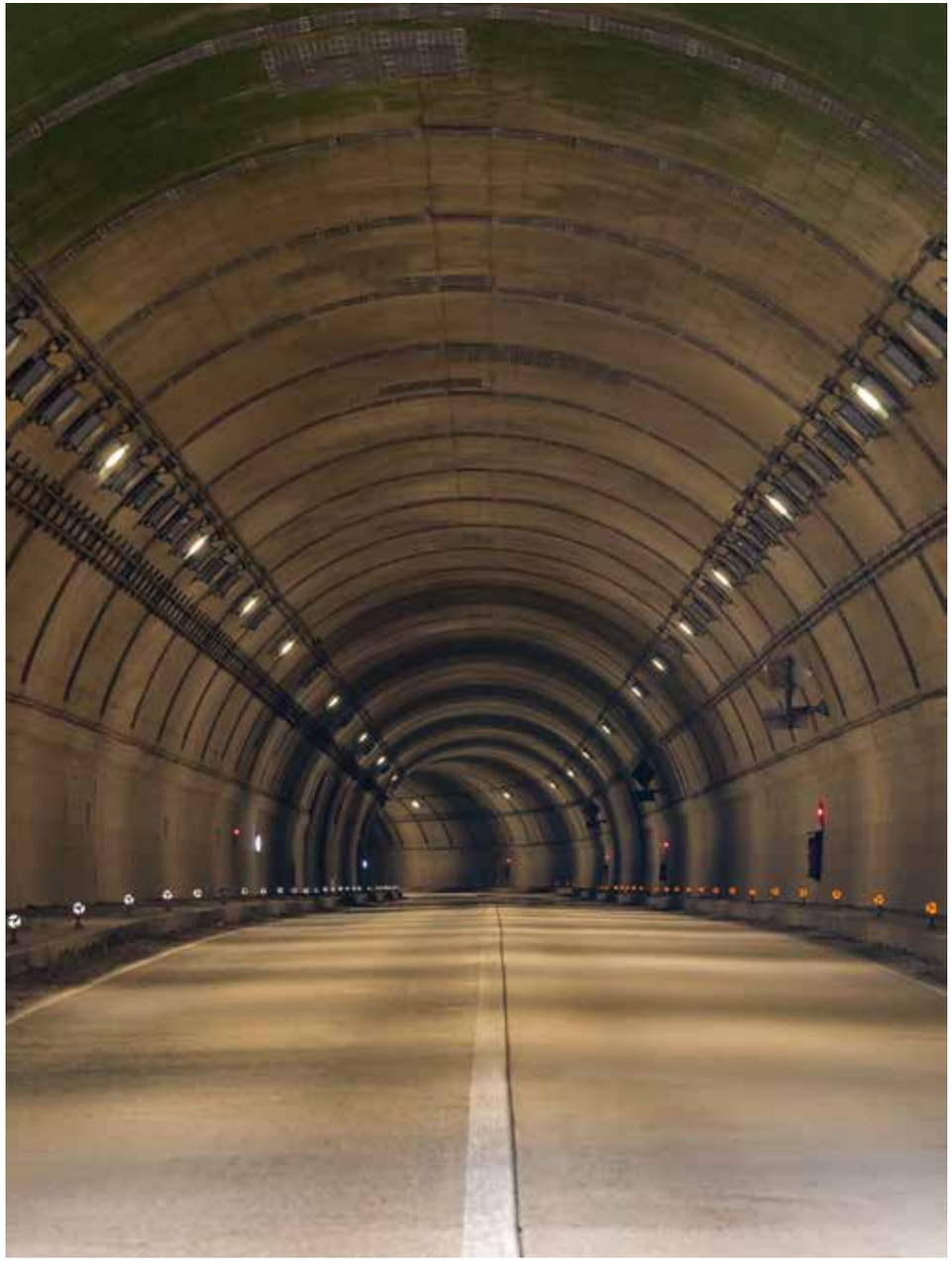




Height	25m
Mode	Center layout light
Square uniformity	0.8

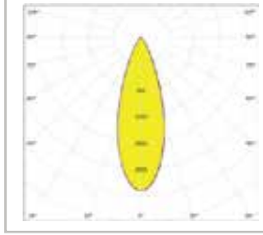


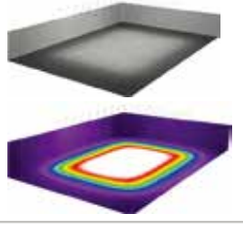
GALAXY 60 IN 1



MN	1.01.91883
PN	HK-252@09-36-3030-20-1g-60
Material	PC
Efficiency	90%(PC) without glass
LED	3030/3535 LED
Light Distribution	36°

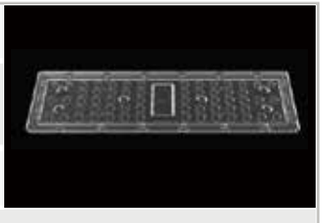


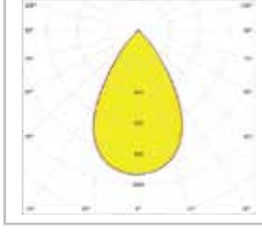


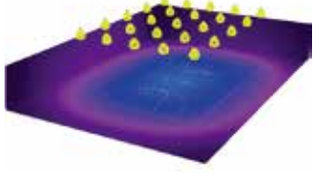


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.91884
PN	HK-252@07-60-3030-#0-1g-60
Material	PC
Efficiency	90%(PC) without glass
LED	3030/3535 LED
Light Distribution	60°



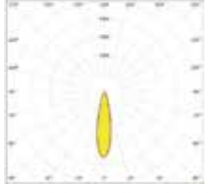


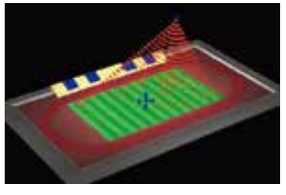


Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.91882
PN	HK-252@09-24-3030-20-1g-60
Material	PC
Efficiency	90%（PC） without glass
LED	3030/3535 LED
Light Distribution	24°



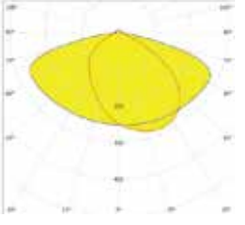


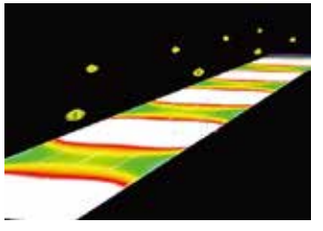


It can be used for stadium lighting, plaza lighting, wharf lighting, etc

MN	1.02.91803
PN	HK-252@07-150X70-3030-#0-1g-60
Material	PC
Efficiency	90%（PC） without glass
LED	3030/3535 LED
Light Distribution	TYPE II 150×70°



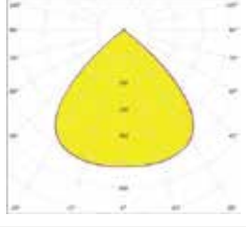


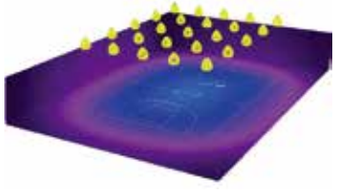


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME4a

MN	1.01.91885
PN	HK-252@07-90-3030-#0-1g-60
Material	PC
Efficiency	90%（PC） without glass
LED	3030/3535 LED
Light Distribution	90°



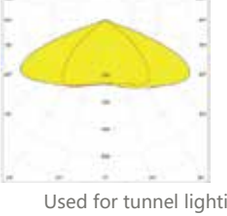




Height	12m
Mode	Lighting on top
Court uniformity	0.7

MN	1.01.91886
PN	HK-252@07-135X100-3030-#0-1g-60_PC HK-252@07-135X100-3030-#0-1g-60_PMMA
Material	PC/PMMA
Efficiency	90%（PC）/ 93%（PMMA）
LED	3535/5050 LED
Light Distribution	135×100°



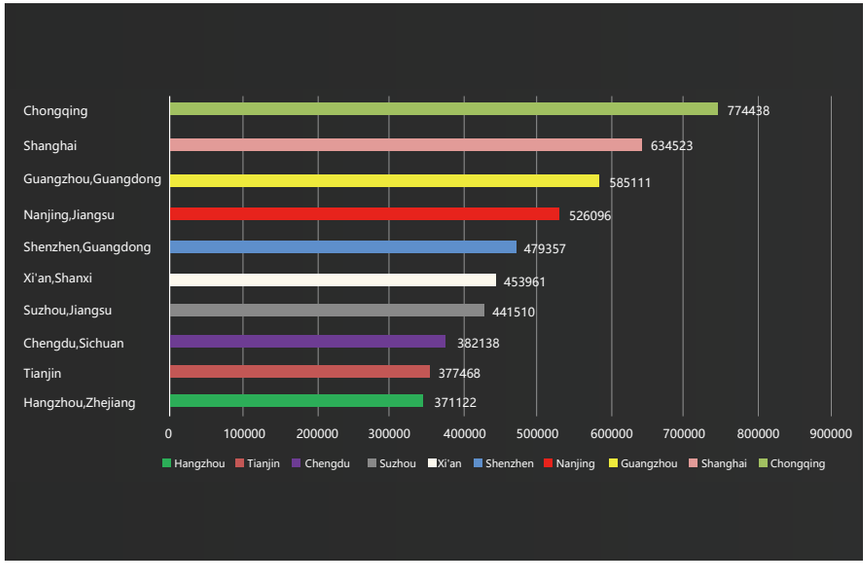






Used for tunnel lighting, which can achieve high uniformity requirements

Let's Start With Some Data



According to the information from the Ministry of Housing and Urban-Rural Development, if we add up the street lights in the 10 largest cities in China, there are a total of 5 million street lights, each of which is calculated at 150W and lights up for 12 hours a day.

The annual electricity consumption is

5000000*0.15*12*365=3285000000 KW/h

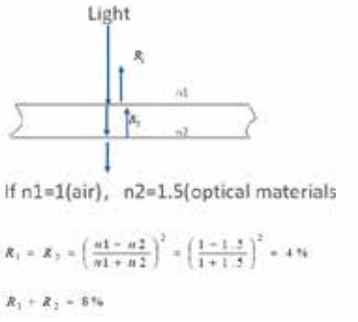
In the case of thermal power generation, it needs to consume 1095000 tons of anthracite, and the corresponding carbon dioxide emission is

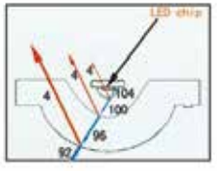
3413115 tons.

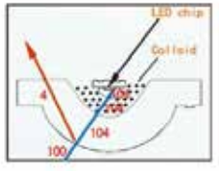
After using the Hengkun adaptive colloid technology, the carbon dioxide emission can be reduced to 3413115*0.08=273049 tons (excluding the carbon dioxide produced by the saved 8 points of lighting materials)

Air zero interval-Adaptive colloid technology

When light passes through two materials with different reflectivity, different reflections will occur, resulting in loss of light energy. This loss is about 8%, so the efficiency of a common lens is 90-92%







Self-adaptive colloid, luminous efficiency increase 8%

Conventional optical VS Dispensing optical

According to the calculation of lighting 12 hours a day, the annual power saving of a single lamp is 35KW/h. Assuming that there are 100,000 lamps in the city, the total electricity saving is 3,500,000 KW/h. If one kilogram of standard coal generates 3 kWh of electricity, It can save 1,166 tons of coal every year.

According to the best anthracite 95% efficiency standard, the carbon emissions of 3,117kg per ton can save 3,634 tons of carbon emissions.

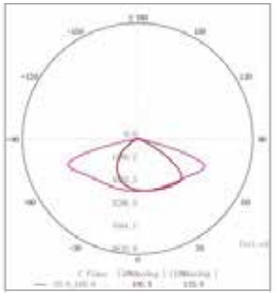
	Constant light flux	Power	consumption/year
Using dispensing technology	17000	100W	438KW/h
Not using dispensing technology	17000	108W	473.04KW/h

Real Road Data

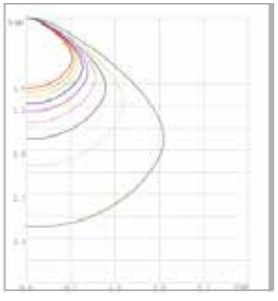
Light source parameters	Lamp parameters	
Nominal luminous flux of light source（1m）：17092.0001m	Nominal luminous flux of lamp（1m）：17092.246	Downward luminous flux and proportion：16817.7361m 98.39%
Nominal power of light source（W）：	Nominal power of lamp（%）：100.00	Upward luminous flux and proportion：274.5101m 1.61%
Light source rated voltage（V）：	Luminaire energy efficiency ratio（1m/w）：169.903	76*Flashing area（m2）：
Measured power of light source（w）：100.600	Maximum bright light（cd）：8830.859	Not suitable for glare：0.000
Number of light sources in the lamp：1	Maximum light intensity（*）：C＝295.0 Y＝72.0	IES classification：Type IV
Measured electrical parameters of light source（V,A,PF）：22.3.0.465	Rate peak angle（50% Imax）：L＝35.5，R＝78.1	Long axis classification：Very Short
Light source size（w*L*H）：0.05a*-0.050a*0.000m	Diffusion angle（10% Imax）：156.4（*）	Cutoff light classification：Cutoff

Luminaire energy efficiency ratio(1m/w):	169.903
Maximum Strong Light(cd):	8830.859

C plane light distribution curve



Isoilluminance curve in CO space



The light efficiency of Liyang street lamp using HercuLux photoelectric dispensing technology is actually 170LM /W, and the light flux reaches 17000LM at 100W.

List of Assessment Scopes

2 Evaluation area Road 2

Length：35.000m，Width：11.250m

Grid：12×9

Appurtenant street environment factors: Road 2

Tar：R3，Q0：0.070

Selected Illumination Level：ME2

(All photometric requirements have been met)

Calculated actual data:	Average brightness【cd/m²】	UO	UI	TI【%】	Peripheral illuminance coefficient
Data set by level:	1.54	0.73	0.88	10	0.84
Satisfied/ not satisfied:	≥1.50	≥0.40	≥0.70	≤10	≥0.50

3 Evaluation area Sidewalk 1

Length：35.000m，Width：4.000m

Grid：12×3

Appurtenant street environment factors: Sidewalk1

Selected Illumination Level：S1

Additional ES illumination level (hemispheric illumination)：ES4

(All photometric requirements have been met)
(Some photometric requirements are not met)

Calculated actual data:	Minimum illumination【lx】	Minimum illuminance【lx】	Minimum illuminance (half-cylindrical illuminance)
Data set by level:	18.03	8.64	3.19
Satisfied/ not satisfied:	≥15.00	≥5.00	≥3.00

4 Evaluation area Sidewalk 1

Length：35.000m，Width：4.000m

Grid：12×3

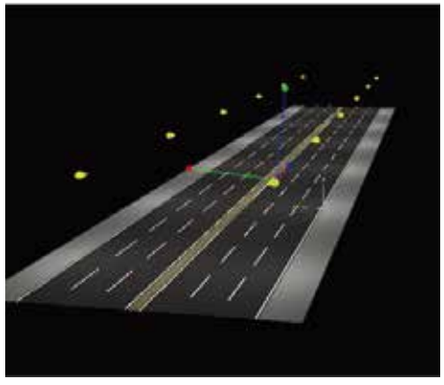
Appurtenant street environment factors: Sidewalk1

Selected Illumination Level：S1

Additional ES illumination level (hemispheric illumination)：ES4

(All photometric requirements have been met)
(Some photometric requirements are not met)

Calculated actual data:	Minimum illumination【lx】	Minimum illuminance【lx】	Minimum illuminance (half-cylindrical illuminance)
Data set by level:	18.03	8.64	3.17
Satisfied/ not satisfied:	≥15.00	≥5.00	≥3.00



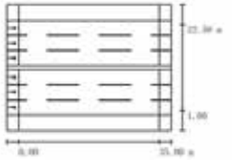
In urban road lighting, most roads have wider sidewalks or side roads.We simulate and compare a practical case of Liyang Optoelectronics. The road is a two-way 6-lane with an isolation belt, and there are 4M sidewalks on each side. It is a typical urban expressway. In this road, we use 100W lamps to meet the road ME2 illuminance standard, the sidewalk S1 level.

Street cross-section

Sidewalk 2	(width：4.000m)
road 2	(width：11.250m，Number of running paths：3，柏油：R3，q0：0.070)
Island of separation 1	(width：1.000m，height：0.000m)
road 1	(width：11.250m，Number of running paths：3，柏油：R3，q0：0.070)
Sidewalk 1	(width：4.000m)

Maintenance factor：0.90

Lamp arrangement



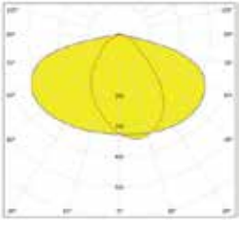
If we use a non-dispensing lamp in the same situation, the required power is 108W. In this case, we not only need to increase the energy consumption by 8%, but also need to match a higher drive power for the 8% luminous flux. , larger heat dissipation area and corresponding lamp weight. Therefore, we not only reduce energy consumption by 8%, but also save 8% in lighting materials, achieving a 16% reduction in energy consumption and in line with the concept of sustainable development. 。

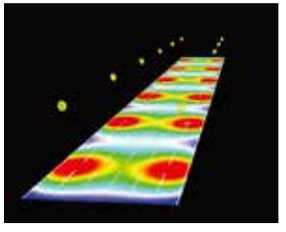
TURBINE



MN	1.02.02514
PN	HK-260@09-150X70-5050-#0-0g-28-V
Material	PC
Efficiency	98%(PC) without glass
LED	5050 LED
Light Distribution	LUXEON 5050 ROUND



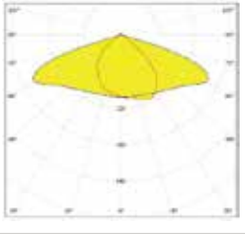


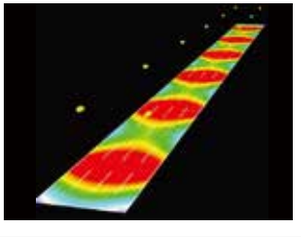


Proportion	3.5:1
Road width	22.5m (6 lanes)
Mode	Double row symmetry
Lighting type	ME2

MN	1.02.92130
PN	HK-173@08-150X100-5050-#0-0g-12
Material	PC
Efficiency	98%(PC) without glass
LED	5050 LED
Light Distribution	LUXEON 5050 ROUND



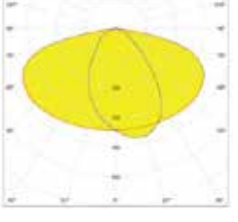


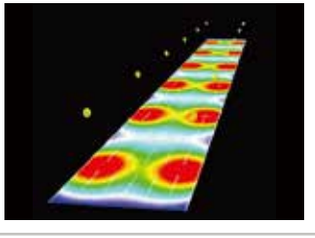


Proportion	3.5:1
Road width	14m (4 lanes)
Mode	Double row symmetry
Lighting type	ME4b

MN	1.02.71179
PN	HK-260@09-150X70-5050-#0-0g-28
Material	PC
Efficiency	98%(PC) without glass
LED	5050 LED
Light Distribution	LUXEON 5050 ROUND







Proportion	3.5:1
Road width	20m (6 lanes)
Mode	Double row symmetry
Lighting type	ME2

CUSTOMIZED SOLUTIONS

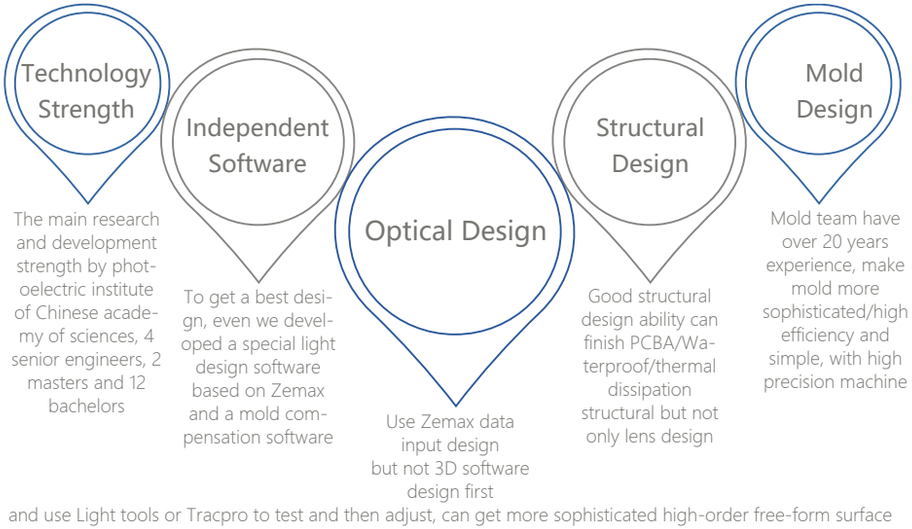
In addition to the standard mold products introduced in the catalogue, HercuLux can also provide customized solution services. With a professional design team and a complete industrial chain, tailor-made for customers, seeking the best solution for the project.

Extended Polynomial Lens

The Extended Polynomial surface shape is defined by:

$$z = \frac{cr^2}{1+\sqrt{1-(1+k)c^2r^2}} + \sum_{i=1}^{N} A_i E_i(x,y).$$

HercuLux adopts imaging optical design software: ZEmax to do data input level design to achieve more accurate chip level design.



and use Light tools or Tracpro to test and then adjust, can get more sophisticated high-order free-form surface

Quick response for Design: Optical design → Structural design → Optical simulation → Mold assess → Injection molding analysis

Optical design, structural design, mold design, injection molding production, quality inspection, HercuLux has a complete industrial chain to ensure that optical products can be independently controlled in each link, so that product quality, appearance, performance and other aspects are the best state!

Custom Process

Kindly provide detail requirements:

1. Lens size requirement; 2. Optical requirement(FWHM),Target IES will be better; 3. Lens Efficiency; 4. Assembly drawing sharing; 5. LED; 6. Material: PC or PMMA; 7. Application; 8. Other special information.

Optical Design Report:

Our R&D will process to optical designing according to your optical requirement, designing in 2-5 days and we will share you the design report.

Structure Design:

If you are satisfied with the optical report, we could process to structure designing. Please kindly provide the assembly drawing, structure drawing and any file is helpful for us to design structure.

Structure Confirm:

Confirm the structure (Step file): 1. Whether the lens structure conflict with the PCB; 2. Whether the lens structure conflict with the Lamp's structure; 3. Whether the lens structure conflict with the component location; 4. etc.

Quotation:

Quotation for Mold and product: 1. It depends on the mold size and its complexity; 2. Quotation includes Test Mold fee and Final Mold fee and price for unit product. (Test Mold is not absolutely necessary, it is according to the complexity of the mold.)

Customer PO Arrangement:

After you confirm the quotation, please kindly share your PO.

PI and Payment Arrangement:

We will arrange PI and we process to payment issue. After payment is done, we will process to mold producion.

Mold Production:

We need 30-35 working days to produce the mold, then will send you the samples which mold produce when the mold finished.

Confirm The Simples:

Whether the simples is same with the optical design and structure design.

Mass Producion: If the samples checking is OK, Procedure as below,1. Your mass order; 2. Our PI arrangement; 3. Your payment arrangement; 4. Mass producion。

Self-built 20000 m² HercuLux park



More than 100 precision injection machines



Complete mold processing chain with a constant temp precision processing area



Self-built PC Vaccum Aluminum Plating workshop, One Spraying Production Line, Two Vacuum Plating Machine, 100000 Level Purification Workshop

