

# STANDARD RANGE

70 mm PMMA collimator –  
HADAR70

September, 2024

# HADAR70: Main TIR lenses

Since the success of GAGGIONE's LLC66 premium silicone collimator family, we have developed 70mm PMMA collimator range with variety of snap-in window accessories. HADAR70 is supporting even larger COBs and have better 3<sup>rd</sup> party connector support

## 6 TIR designs



**HADAR70N**   **HADAR70M**   **HADAR70W**   **HADAR70L**   **HADAR70V**   **HADAR70Z**

Narrow beam  
~10°

Medium beam  
~25°

Wide beam  
~33°

Large beam  
~40°

Very large beam  
~50°

Zoom beam  
~10° - ~45°

### Holder versions:

**HADAR70H10\*** - Bender+Wirth & existing LLH66B bases

**HADAR70H41\*** & **HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black



# HADAR70: Window accessories

HADAR70 window options provides ultimate flexibility. Snap-on our window accessory on top of any HADAR70 series TIR lens to achieve the exact beam angle you want. HADAR70 snap-on window accessories are the best compromise between performance and price.

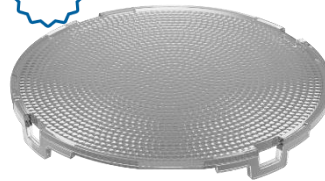
## 7 Window options to be snapped on HADAR70N



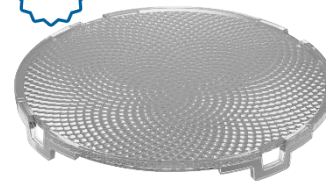
NEW



NEW



NEW



**HADAR70N**

Narrow beam  
~10°

**HADAR70WF**

~10° Frosted  
Narrow beam

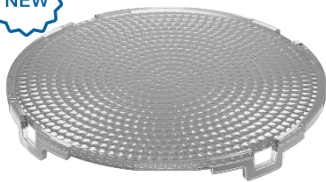
**HADAR70WM**

~25° Medium beam

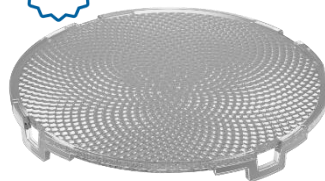
**HADAR70WW**

~30° Wide beam

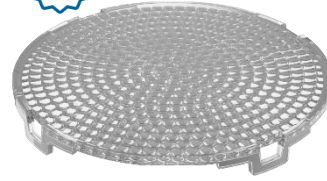
NEW



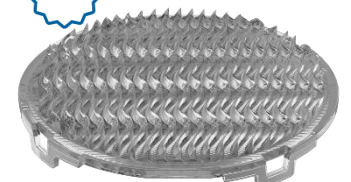
NEW



NEW



NEW



**HADAR70WL**

~40° Large beam

**HADAR70WV**

~50° Very large beam

**HADAR70WS**

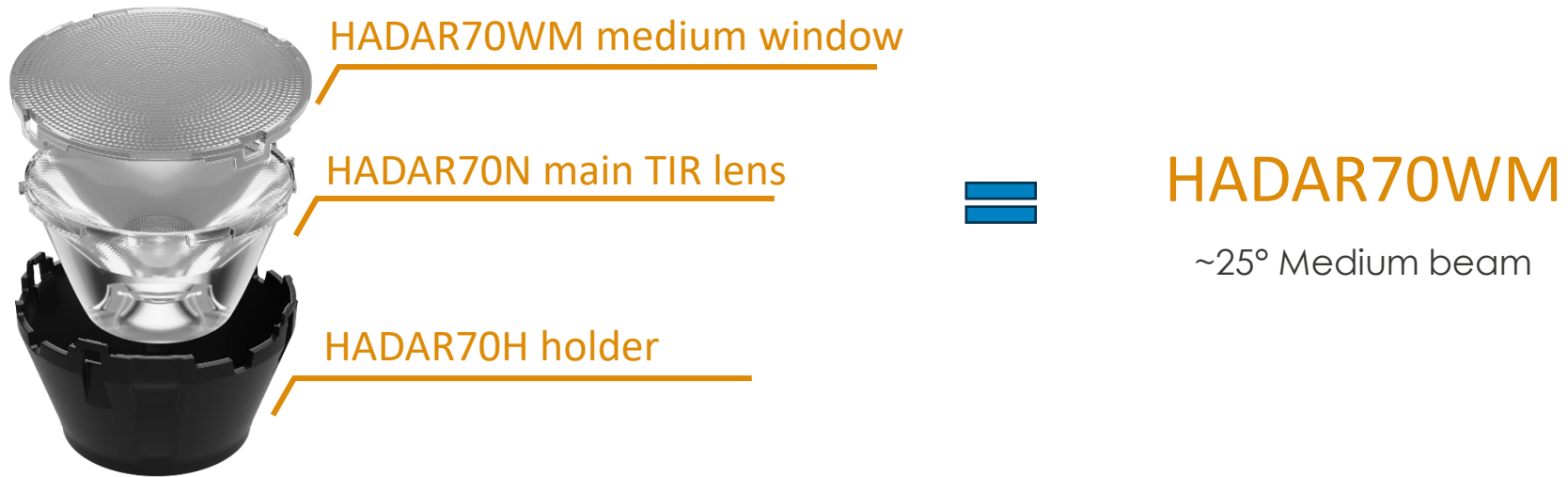
~50° Super wide beam

**HADAR70WA**

Asymmetric wall washer beam

# HADAR70: Window accessories

HADAR70 window accessories are specifically designed for manufacturers and architects desiring more flexibility. Window snaps-in to lens holder and requires main HADAR70 TIR lens



## Holder versions:

**HADAR70H10\*** - Bender+Wirth & existing LLH66B bases

**HADAR70H41\*** & **HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black





# HADAR70: applications



# LES compatibility: HADAR70 vs LLC66

LES size: From 3 mm to up to 23 mm.

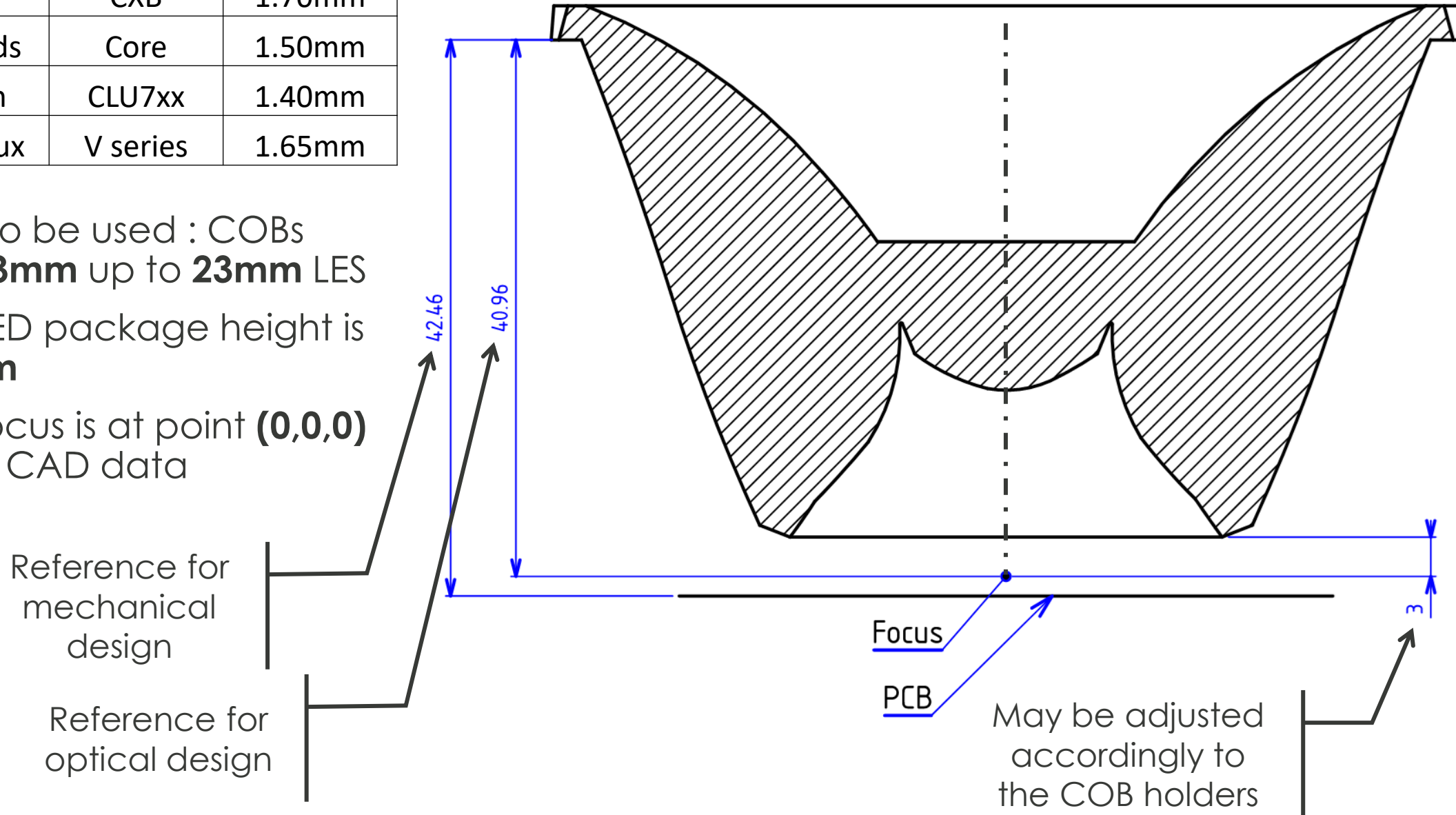
Type of LED: COBs, Cluster high Power LEDs, CSP clusters

LED Compatibility	LLC66N7	LLC66M7	LLC66W7	LLC66L7	LLC66V7	LLC66Z7	HADAR
LES 3 – 9 mm	✓	✓	✓	✗	✗	✓	✓
LES 9 – 13 mm	✓	✓	✓	✗	✗	✗	✓
LES 13 – 23 mm	✓	✓	✓	✓	✓	✗	✓
Tunable white	✓	✓	✓	✓	✓	✗	✓
Dim to warm	✓	✓	✓	✓	✓	✗	✓

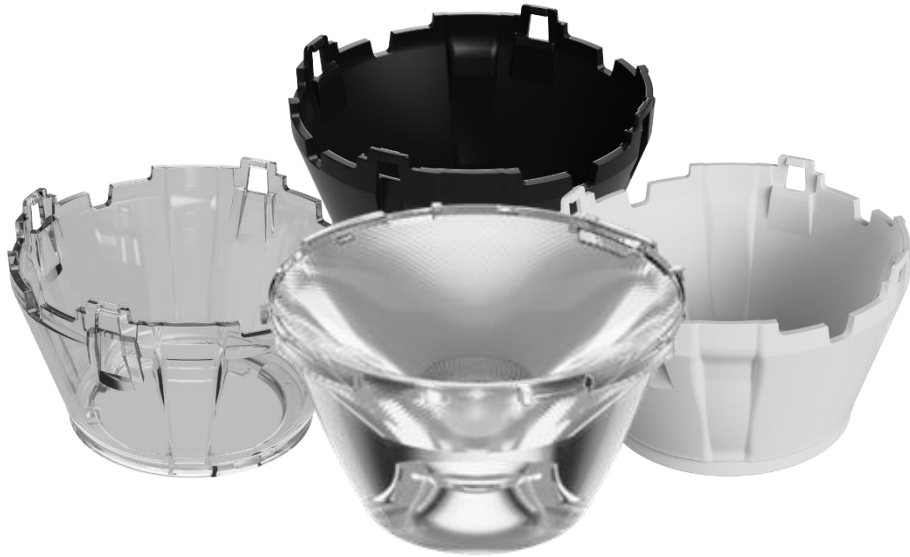
# HADAR70: 2D Drawing

Company	Brand	Thickness
Cree	CXB	1.70mm
Lumileds	Core	1.50mm
Citizen	CLU7xx	1.40mm
Bridgelux	V series	1.65mm

- LEDs to be used : COBs from **3mm** up to **23mm** LES
- The LED package height is **1.5mm**
- The focus is at point **(0,0,0)** in the CAD data

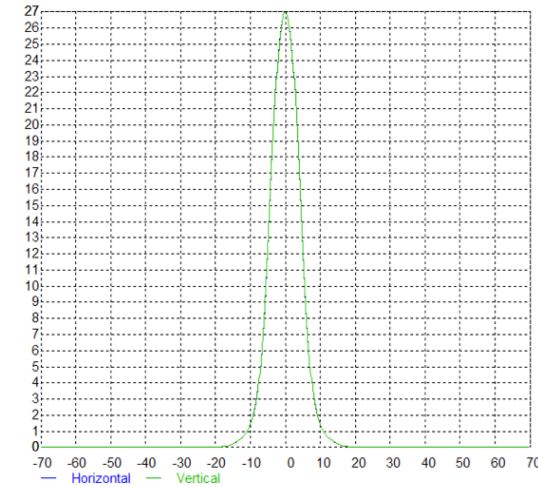
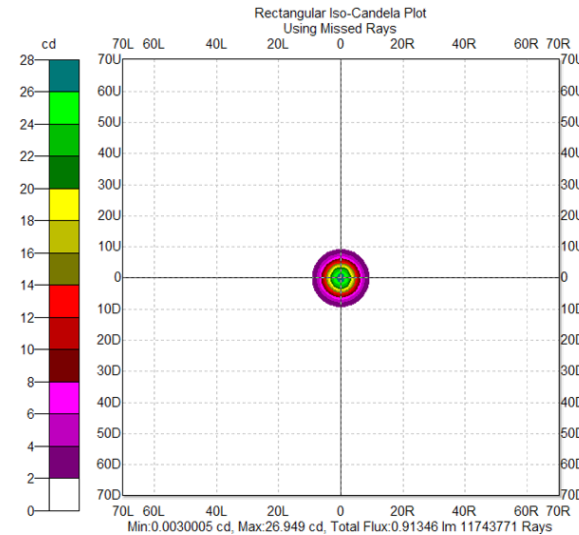


# HADAR70N: Narrow beam



## Compatibility matrix

HADAR70N	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	5.1	6.5	9.7	14.4	19.2	23.4	28.7	31.8
FTM (°)	9.4	11.5	16.2	23.4	31	38.1	47.9	54.9
Efficacy (cd/lm)	88.2	56.6	27.1	12.7	7.2	4.7	3	2.3
LOR	94 %	94 %	94 %	93%	92%	91%	89%	88%



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### Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

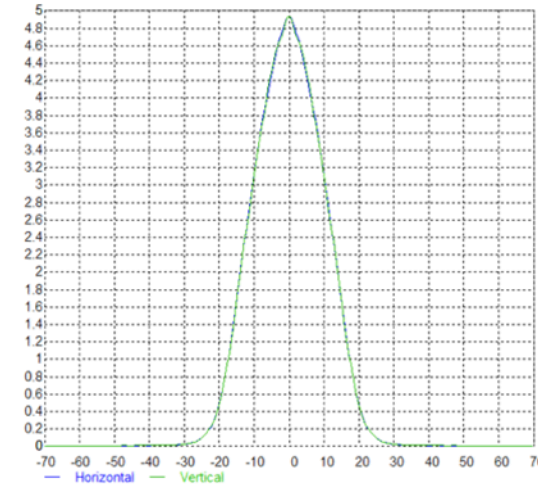
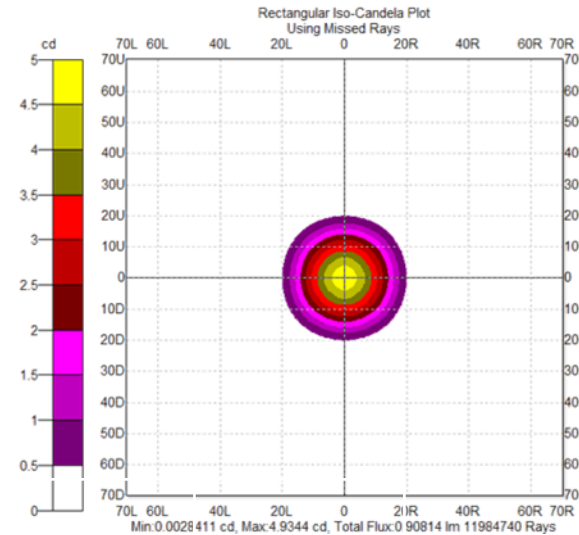


# HADAR70M: Medium beam



## Compatibility matrix

HADAR70M	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	26.2	25.4	24.5	23.3	25.3	28	32.2	33.4
FWTM (°)	37.7	38.2	39.6	42.3	46.1	51	58.2	63.4
Efficacy (cd/lm)	4.9	5	4.9	4.6	3.7	2.9	2.1	1.9
LOR	93 %	93 %	93 %	92 %	91 %	90 %	88 %	87 %



## Intensity pattern

LED: Citizen CLU702 (6mm)

### Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

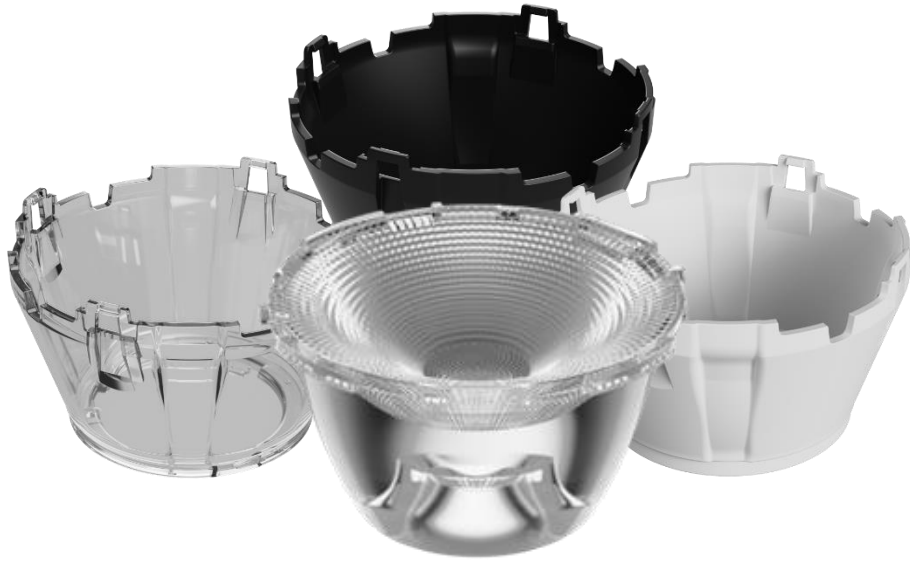
**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

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# HADAR70W: Wide beam

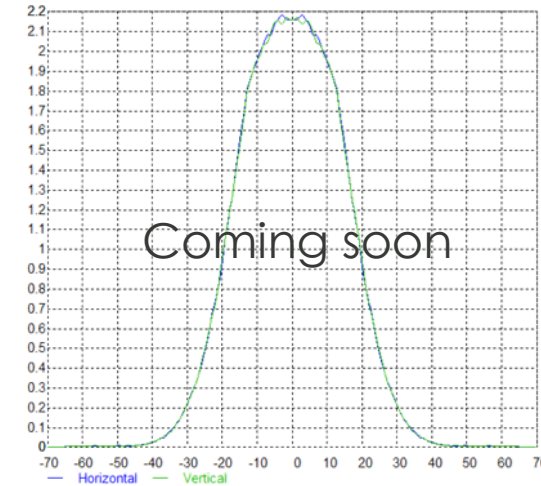
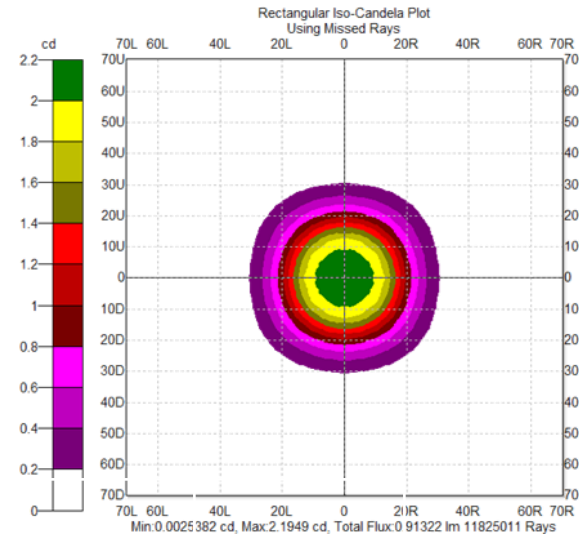


## Compatibility matrix

HADAR70W	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	32.0	32.1	32.3	33.2	35.0	36.4	38.0	40
FWTM (°)	52.4	52.8	52.7	53.5	54.8	56.7	60.3	62.3
Efficacy (cd/lm)	2.6	2.6	2.6	2.5	2.4	2.3	1.8	1.7
LOR	93 %	93 %	93 %	93 %	93 %	92 %	90 %	88 %

\*\* Note, these are based on simulated results, please [contact us](#) for measurements, simulations and compatibilities for the LED type you would like to use.

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Intensity pattern

LED: Citizen CLU702 (6mm)

### Holder versions:

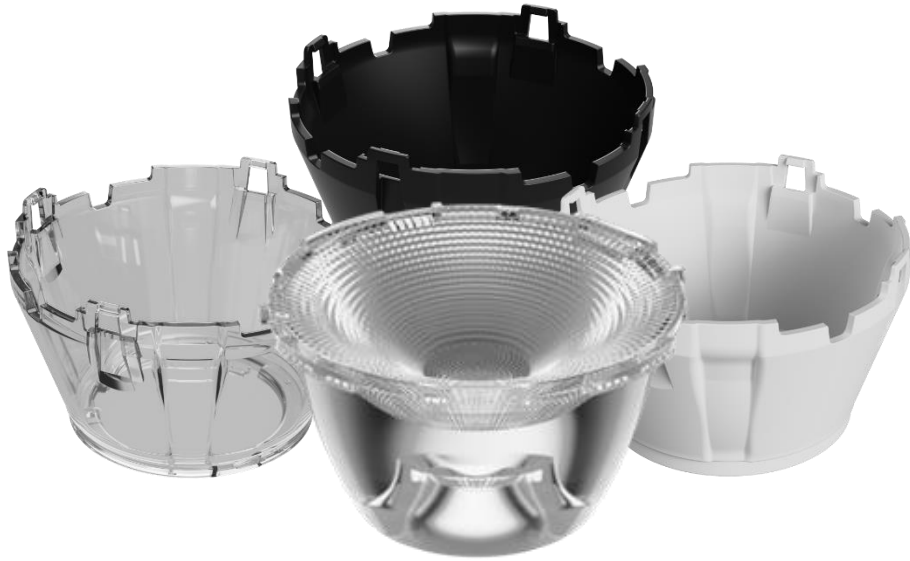
**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

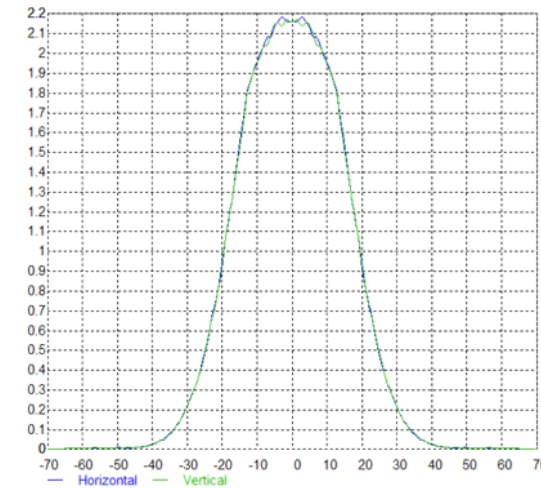
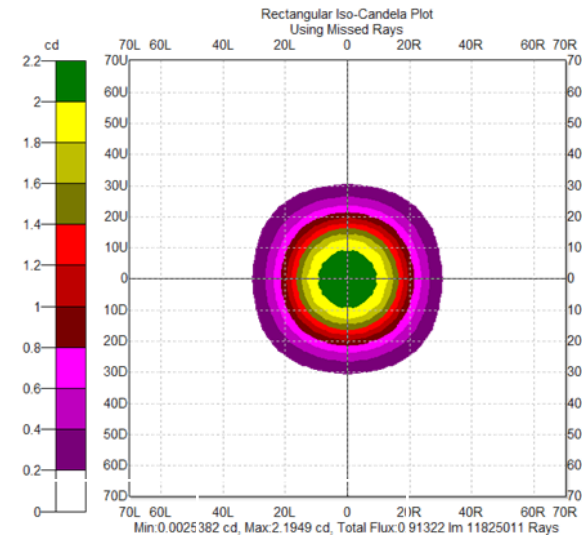
**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70L: Large beam



## Compatibility matrix

HADAR70W	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	39.3	38.5	39.5	39.5	40.6	42.6	43.6	44.3
FTM (°)	62.1	61.9	61.6	61.6	63.6	67.4	71.6	75
Efficacy (cd/lm)	1.9	2	2	2	1.9	1.6	1.5	1.3
LOR	93 %	93 %	93 %	93 %	92 %	92 %	90 %	88 %



## Intensity pattern

LED: Citizen CLU702 (6mm)

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### Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

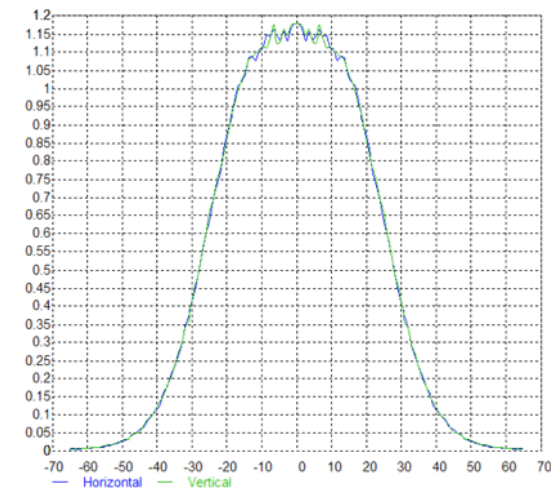
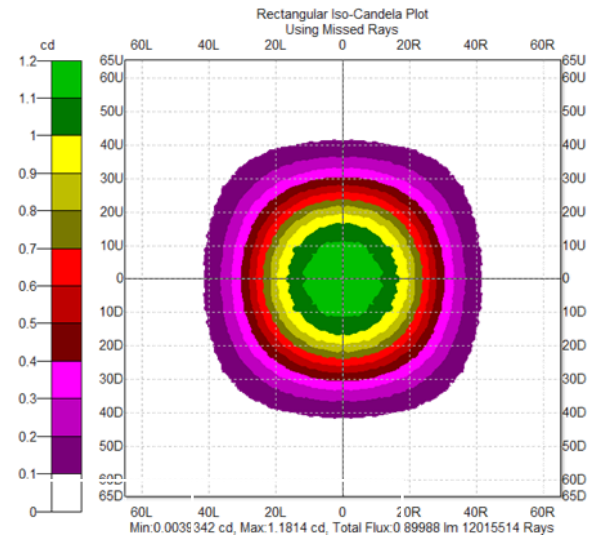
**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70V: Very Large beam



Compatibility matrix

HADAR70V	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	55.3	55.3	55.7	55.8	53.7	51.2	51.6	52.6
FTM (°)	81.4	82.1	83.4	85.2	83.9	83.3	85.6	89.6
Efficacy (cd/lm)	1.1	1.1	1	1	1.1	1.1	1.1	1
LOR	93 %	93 %	93 %	92 %	91 %	91 %	89 %	88 %



Intensity pattern

LED: Citizen CLU702 (6mm)

**Holder versions:**

- HADAR70H10\*** - Bender+Wirth and existing LLH66B bases
  - HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible
  - HADAR70H90\*** - Hekla compatible
- Holder colors:** \* 0 is clear, 1 is white, 2 is black

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# HADAR70Z: Zoom beam



\* Top lens is integrated to the lens holder, with free rotation movement of 14°

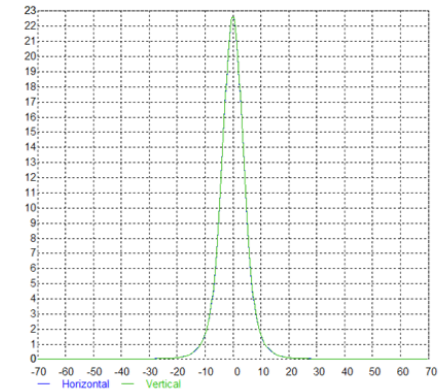
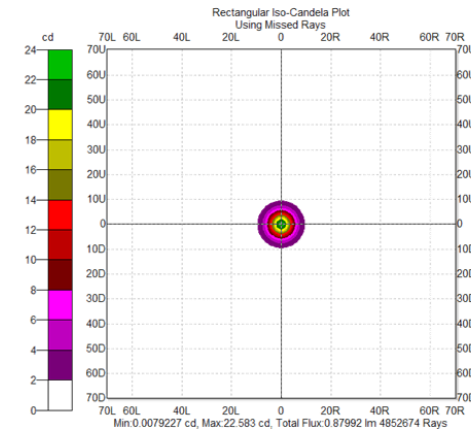
## Compatibility matrix

### HADAR70Z narrow

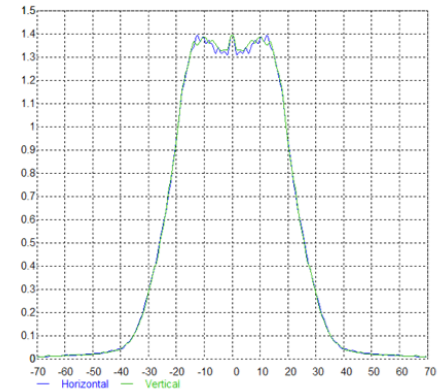
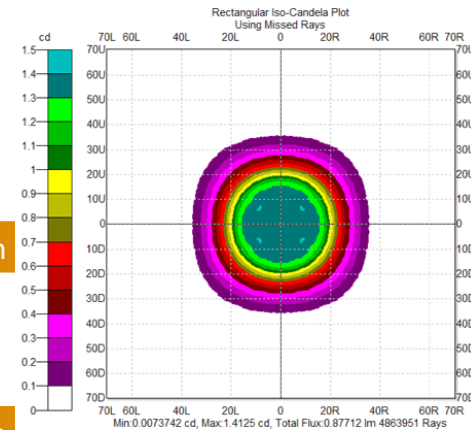
	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 22 mm
FWHM (°)	12.9	16.1	19.8	23	27.7	31.2
FWTM (°)	25.8	33.2	40.6	47.7	58.4	69.5
Efficacy (cd/lm)	10.2	6.3	4.2	3	2.1	1.6

### HADAR70Z wide

	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 22 mm
FWHM (°)	32.8	34.5	35.9	36.7	38.7	40.5
FWTM (°)	57.2	59.7	63.4	68.3	76.7	83.3
Efficacy (cd/lm)	2.2	2	1.8	1.5	1.2	1.1



Intensity pattern (narrow)



Intensity pattern (wide)

### Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

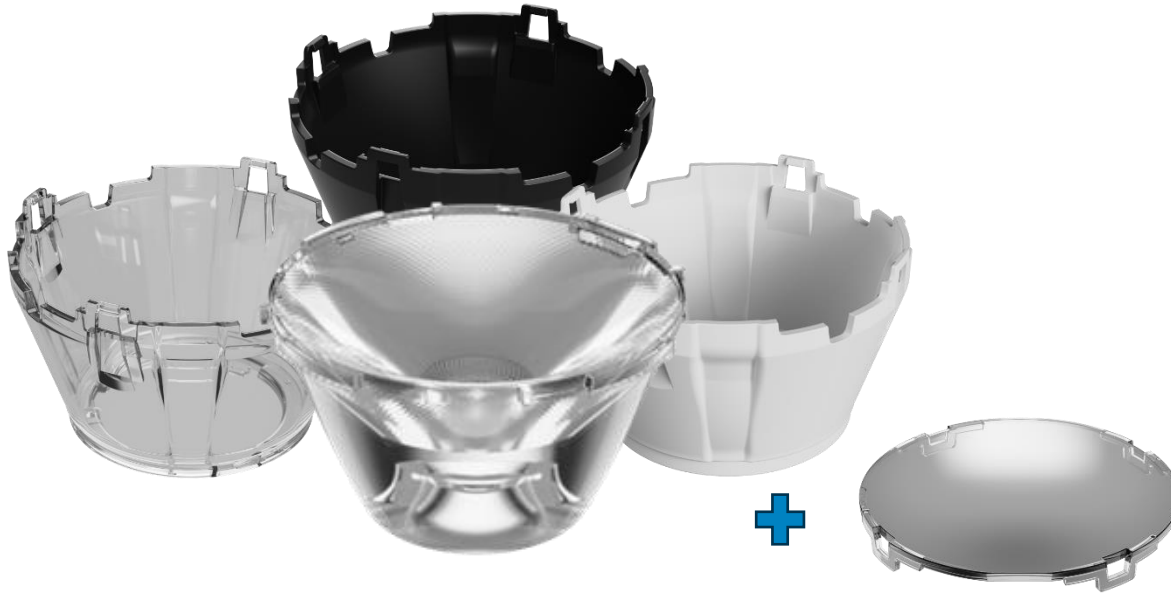
**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

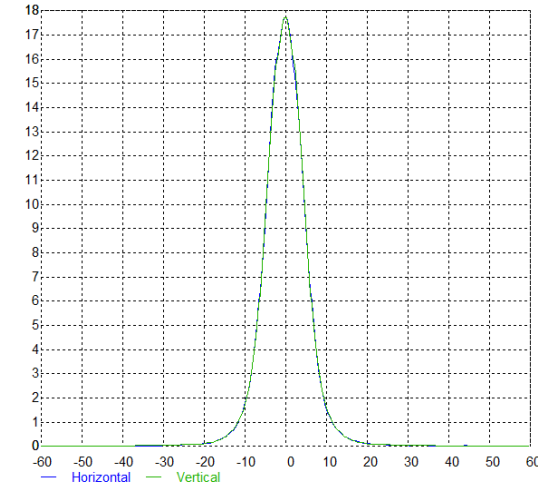
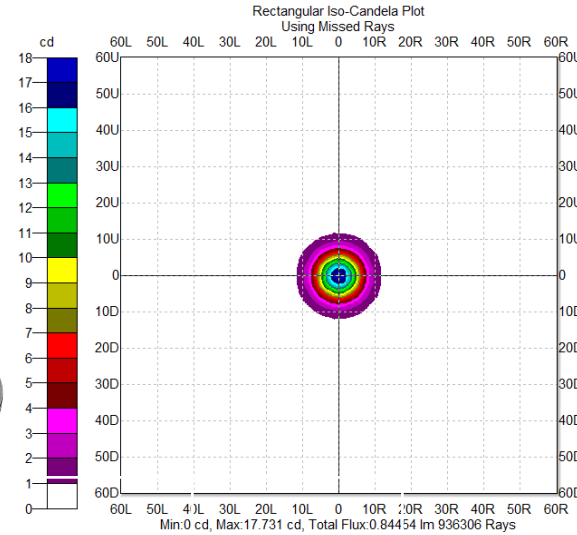
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# HADAR70WF Window: Frosted beam



Compatibility matrix



HADAR70WF	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	6.6	7.7	10.4	15	19.6	23.7	29.1	32.4
FWTM (°)	13.3	15.4	19.9	27.1	34.8	42.1	52	59.3
Efficacy (cd/lm)	38.6	29.4	17.7	9.4	5.6	3.8	2.5	1.9
LOR	90 %	89 %	89 %	89 %	88 %	87 %	85 %	83 %

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## Holder versions:

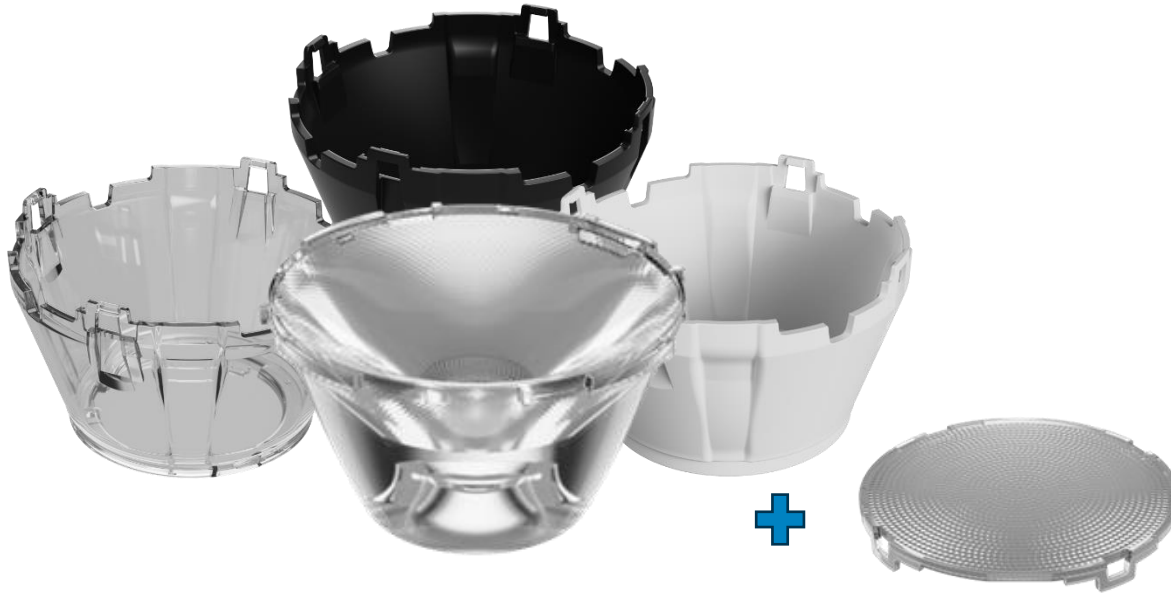
**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

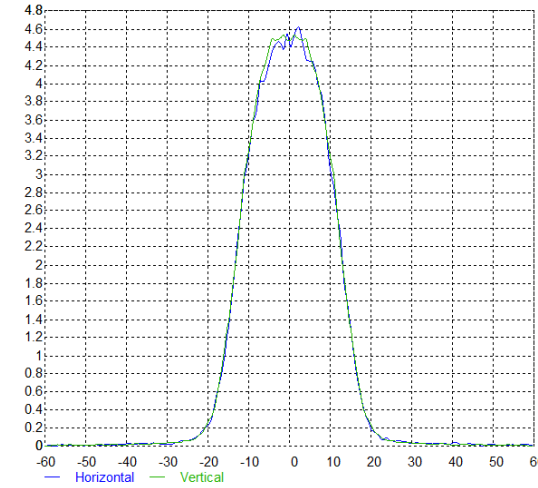
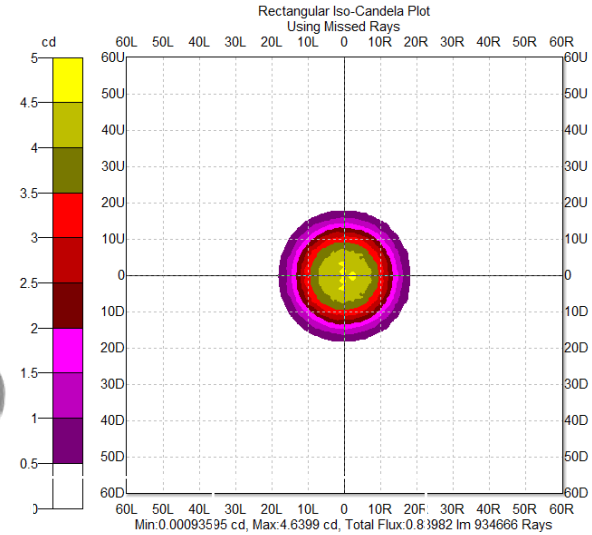
**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70WM Window: Medium beam



Compatibility matrix



HADAR70WM	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	25.7	25.5	25.4	25.5	26.5	27.7	30.7	30.7
FWTM (°)	33.5	34.5	36.8	40.9	45.5	50.6	58.1	66.2
Efficacy (cd/lm)	4.8	4.8	4.5	4.1	3.4	2.8	2.2	1.7
LOR	89 %	89 %	88 %	88 %	87 %	86 %	84 %	82 %

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## Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

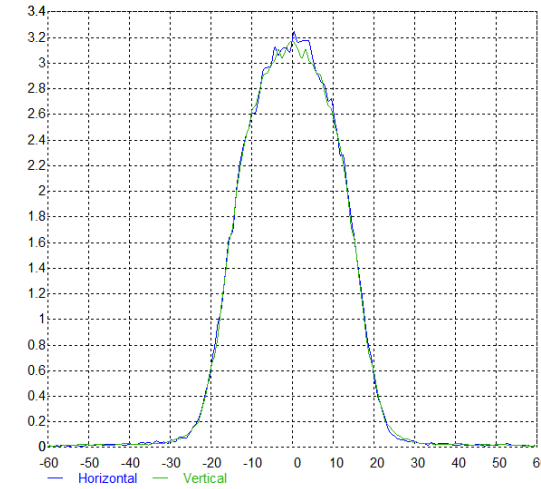
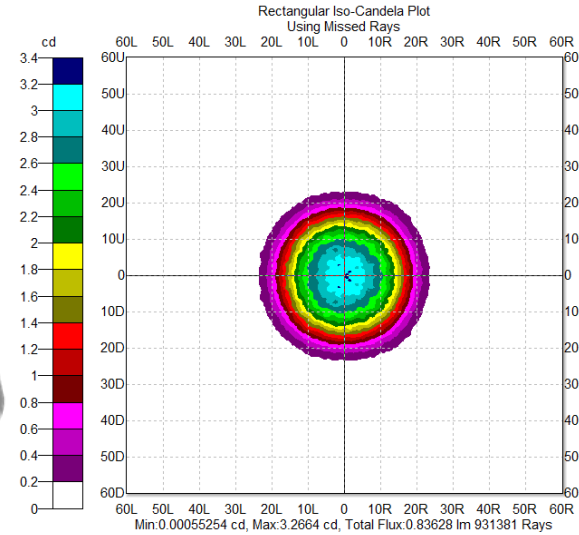
**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70WW Window: Wide beam



Compatibility matrix



HADAR70WW	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	30.9	30.6	30.9	31.9	32	33.1	34.9	37.7
FWTM (°)	40.9	41.6	43.9	48.2	52.4	57.4	64.7	71.5
Efficacy (cd/lm)	3.4	3.4	3.2	2.8	2.5	2.2	1.8	1.4
LOR	88 %	88 %	88 %	88 %	87 %	86 %	84 %	82 %

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## Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

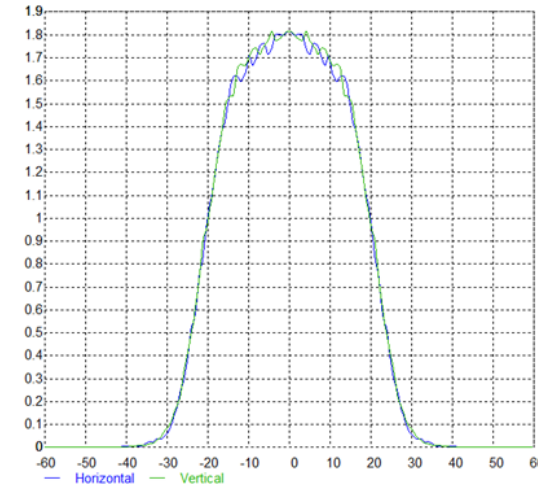
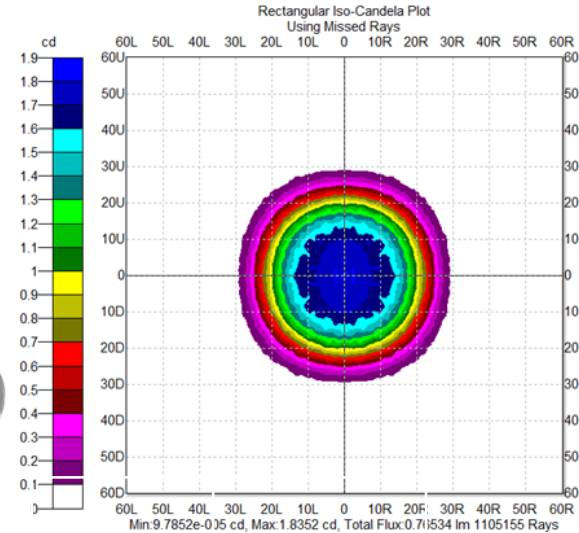
**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70WW Window: Large beam



Compatibility matrix



Intensity pattern

LED: Citizen CLU702 (6mm)

HADAR70WW	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	41.7	41.5	42.1	41.9	42.2	44.3	44.9	46.5
FWTM (°)	52.8	53.4	55.7	59.5	64	69.8	77	83.1
Efficacy (cd/lm)	1.9	1.9	1.8	1.8	1.6	1.4	1.2	1.1
LOR	88 %	88 %	88 %	87 %	87 %	86 %	83 %	82 %

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## Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\* & HADAR70H40\*** - BJB 50 & 35mm compatible

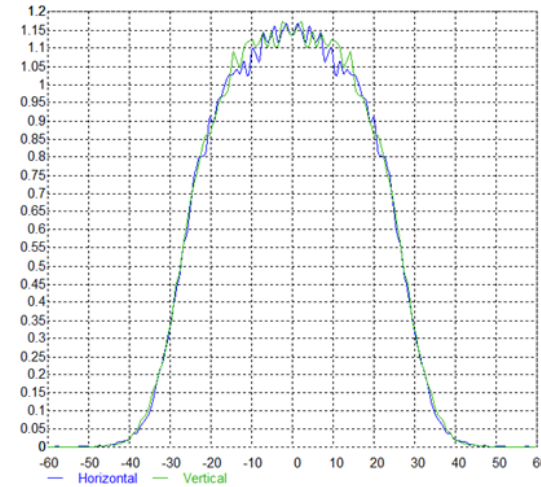
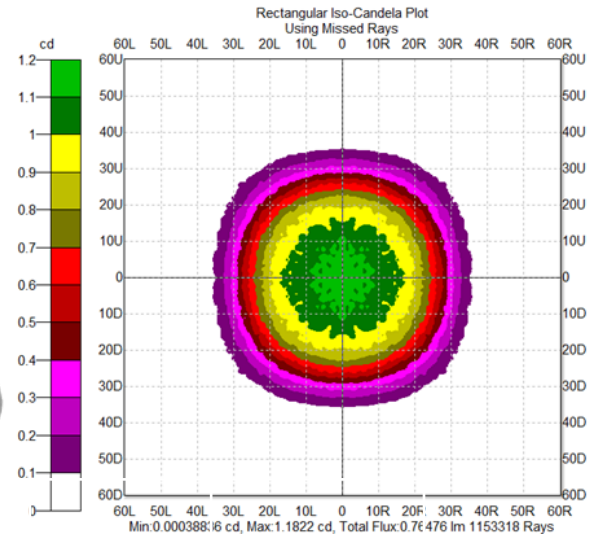
**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

# HADAR70WV Window: Very Large beam



Compatibility matrix



HADAR70WL	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	52.7	52.5	52.7	54.3	54.4	58	58.5	61.2
FWM (°)	69	69.3	71	75.1	79.6	86.2	95.1	108
Efficacy (cd/lm)	1.2	1.2	1.2	1.1	1.1	0.9	0.8	0.7
LOR	88 %	88 %	88 %	88 %	87 %	85 %	83 %	81 %

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## Holder versions:

**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\*** & **HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

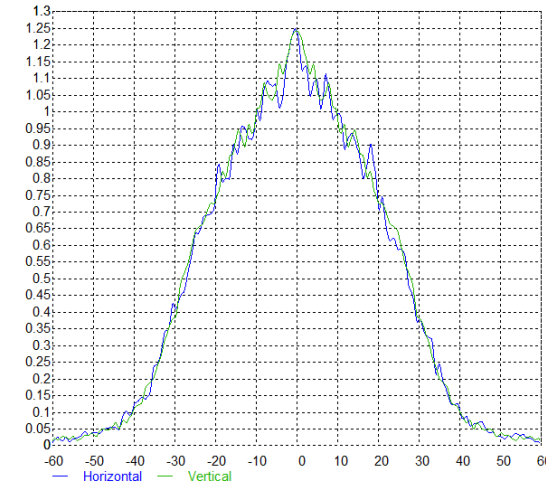
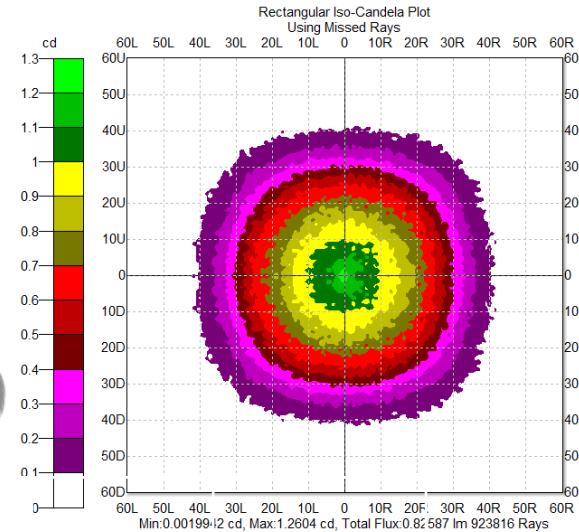
**Holder colors:** \* 0 is clear, 1 is white, 2 is black



# HADAR70WS Window: Super wide beam



Compatibility matrix



HADAR70WS	LES 3 mm	LES 4 mm	LES 6 mm	LES 9 mm	LES 12 mm	LES 15 mm	LES 19 mm	LES 23 mm
FWHM (°)	45.7	47.8	49.5	51.2	54.9	57.3	60.1	65.7
FWTM (°)	74.4	75.9	78.4	82.1	87.5	93.7	107.3	116.5
Efficacy (cd/lm)	1.4	1.4	1.3	1.2	1	0.9	0.7	0.6
LOR	88 %	88 %	87 %	87 %	86 %	85 %	83 %	81 %

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## Holder versions:

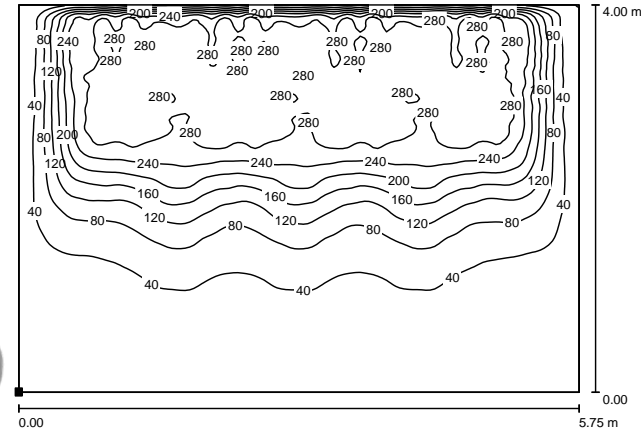
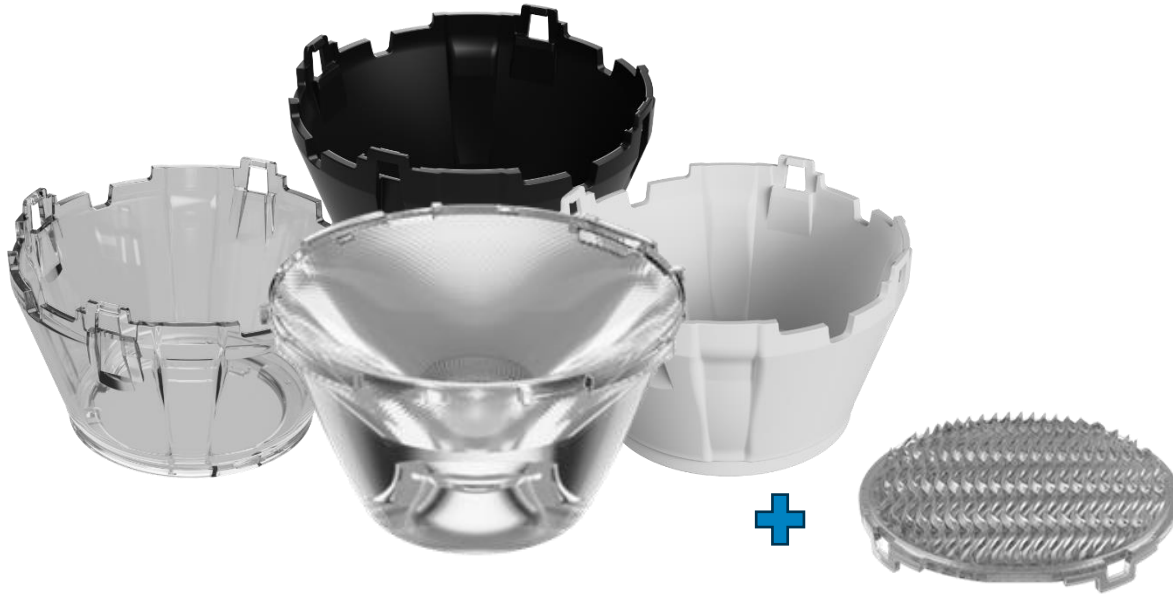
**HADAR70H10\*** - Bender+Wirth and existing LLH66B bases

**HADAR70H41\*** & **HADAR70H40\*** - BJB 50 & 35mm compatible

**HADAR70H90\*** - Hekla compatible

**Holder colors:** \* 0 is clear, 1 is white, 2 is black

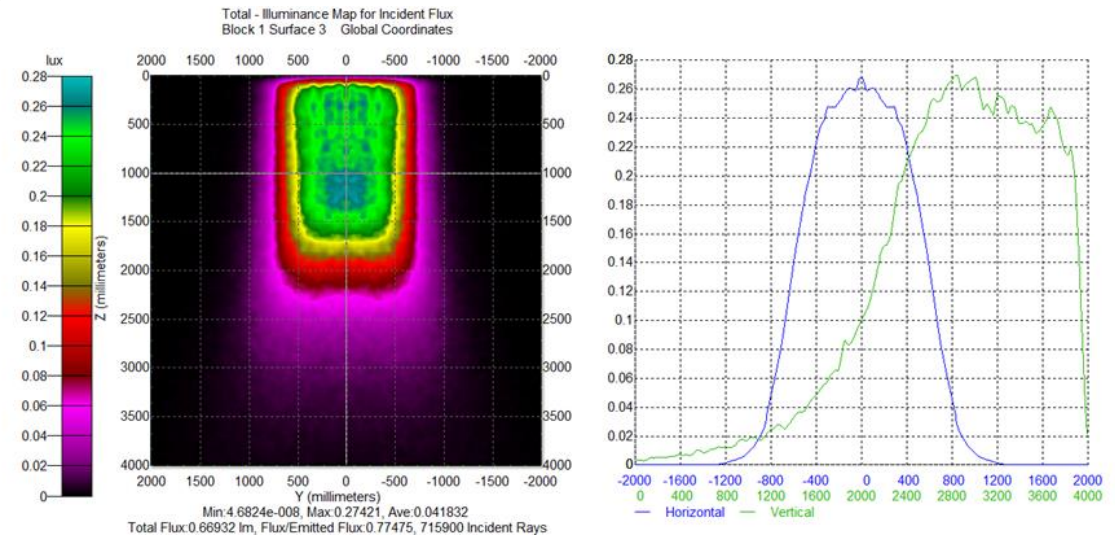
# HADAR70WA Window: Asymmetric beam



- Dialux simulation, four optics
- 1000 lumens per LED
- Distance to the wall 1 m
- Optics spacing 1.25 m

## Compatibility matrix

HADAR70WA LES 6 – 23 mm  
FWHM (°) Asym.



## Intensity pattern

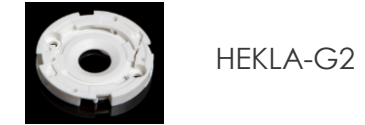
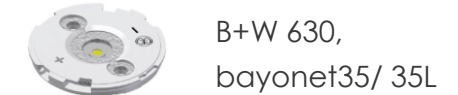
LED: Citizen CLU702 (6mm)

[Visit the product page on our website](#)

# HADAR70: lens holders & compatibility



Holder reference	Compatibility
HARAD70H10*	Bender + Wirth (with LLH66*)
HADAR70H40*	BJB 35 mm and B+W Bayonet35
HADAR70H41*	BJB 50 mm and B+W Bayonet50
HADAR70H90*	HEKLA-K & HEKLA-G2



\* : colors : 0 is clear, 1 is white, 2 is black

Other colors might be available, please [contact us](#) if needed.

Holder reference	Connector/Base	Product code	Diameter	Screw distance	PCB footprint	COB (LES)	Remarks
HADAR70H90*	Bender+Wirth	<a href="#">630, Bayonet50</a>	ø50	35 mm	All		
HADAR70H40*	Bender+Wirth	<a href="#">630, Bayonet35 / 35L</a>	ø35	25 mm	All		
HADAR70H40*	BJB	<a href="#">47.360.1010.50</a>	ø35	25 mm	19 x 19	up to 14.5	up to CLL03x
HADAR70H40*	BJB	<a href="#">47.360.1020.50</a>	ø35	25 mm	13.5 x 13.5	up to 12.2	
HADAR70H41*	BJB	47.319.2030.50	ø50	35 mm	19 x 19	up to 14.5	up to CLU038
HADAR70H41*	BJB	<a href="#">47.319.2026.50</a>	ø50	35 mm	28 x 28	up to 22	up to CLU048
HARAD70H10*	GAGGIONE	LLH66*	ø47	35 mm	All		B+W, TE, Bridgelux, Xicato
HADAR70H90*	LEDiL	<a href="#">Hekla-G2-H</a>	ø44	35 mm	16 x 19	14	
HADAR70H90*	LEDiL	<a href="#">Hekla-G2-I</a>	ø44	35 mm	19 x 19	14.5	up to CLL03x
HADAR70H90*	LEDiL	<a href="#">Hekla-G2-C</a>	ø44	35 mm	13.5 x 13.5	12.2	
HADAR70H90*	LEDiL	<a href="#">Hekla-G2-D</a>	ø44	35 mm	15.85 x 15.85	12.2	
HADAR70H90*	LEDiL	<a href="#">Hekla-G2-J</a>	ø44	35 mm	13.35 x 13.35	7.5	
HADAR70H90*	LEDiL	Hekla-K	ø44	35 mm	B+W Type L8	many	

# HADAR70: set (lens + holder assembled)

Holder color	Compatibility	Narrow HADAR70N	Medium HADAR70M	Wide HADAR70W	Large HADAR70L	Very Large HADAR70V	Zoom HADAR70Z
clear holder	LLH66 + bender & wirth	SHADAR70N100	SHADAR70M100	SHADAR70W100	SHADAR70L100	SHADAR70V100	SHADAR70Z100
white holder	LLH66 + bender & wirth	SHADAR70N101	SHADAR70M101	SHADAR70W101	SHADAR70L101	SHADAR70V101	SHADAR70Z101
black holder	LLH66 + bender & wirth	SHADAR70N102	SHADAR70M102	SHADAR70W102	SHADAR70L102	SHADAR70V102	SHADAR70Z102
clear holder	BJB 35 solderless connector	SHADAR70N400	SHADAR70M400	SHADAR70W400	SHADAR70L400	SHADAR70V400	SHADAR70Z400
white holder	BJB 35 solderless connector	SHADAR70N401	SHADAR70M401	SHADAR70W401	SHADAR70L401	SHADAR70V401	SHADAR70Z401
black holder	BJB 35 solderless conenctor	SHADAR70N402	SHADAR70M402	SHADAR70W402	SHADAR70L402	SHADAR70V402	SHADAR70Z402
clear holder	BJB 50 solderless connector	SHADAR70N410	SHADAR70M410	SHADAR70W410	SHADAR70L410	SHADAR70V410	SHADAR70Z410
white holder	BJB 50 solderless connector	SHADAR70N411	SHADAR70M411	SHADAR70W411	SHADAR70L411	SHADAR70V411	SHADAR70Z411
black holder	BJB 50 solderless conenctor	SHADAR70N412	SHADAR70M412	SHADAR70W412	SHADAR70L412	SHADAR70V412	SHADAR70Z412
clear holder	HEKLA-K and HEKLA-G2	SHADAR70N900	SHADAR70M900	SHADAR70W900	SHADAR70L900	SHADAR70V900	SHADAR70Z900
white holder	HEKLA-K and HEKLA-G2	SHADAR70N901	SHADAR70M901	SHADAR70W901	SHADAR70L901	SHADAR70V901	SHADAR70Z901
black holder	HEKLA-K and HEKLA-G2	SHADAR70N902	SHADAR70M902	SHADAR70W902	SHADAR70L902	SHADAR70V902	SHADAR70Z902

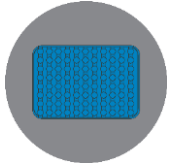
# HADAR70: set (lens + holder + window)

Holder color	Compatibility	Frosted Window HADAR70WF	Medium Window HADAR70WM	Wide Window HADAR70WW	Large Window HADAR70WL	Very Large Window HADAR70WV	Super Wide Window HADAR70WS	Asymmetric Window HADAR70WA
clear holder	LLH66 + Bender & Wirth	SHADAR70NWF100	SHADAR70NWM100	SHADAR70NWW100	SHADAR70NWL100	SHADAR70N WV100	SHADAR70NWS100	SHADAR70NWA100
white holder	LLH66 + Bender & Wirth	SHADAR70NWF101	SHADAR70NWM101	SHADAR70NWW101	SHADAR70NWL101	SHADAR70N WV101	SHADAR70NWS101	SHADAR70NWA101
black holder	LLH66 + Bender & Wirth	SHADAR70NWF102	SHADAR70NWM102	SHADAR70NWW102	SHADAR70NWL102	SHADAR70N WV102	SHADAR70NWS102	SHADAR70NWA102
clear holder	BJB 35 solderless connector	SHADAR70NWF400	SHADAR70NWM400	SHADAR70NWW400	SHADAR70NWL400	SHADAR70N WV400	SHADAR70NWS400	SHADAR70NWA400
white holder	BJB 35 solderless connector	SHADAR70NWF401	SHADAR70NWM401	SHADAR70NWW401	SHADAR70NWL401	SHADAR70N WV401	SHADAR70NWS401	SHADAR70NWA401
black holder	BJB 35 solderless connector	SHADAR70NWF402	SHADAR70NWM402	SHADAR70NWW402	SHADAR70NWL402	SHADAR70N WV402	SHADAR70NWS402	SHADAR70NWA402
clear holder	BJB 50 solderless connector	SHADAR70NWF410	SHADAR70NWM410	SHADAR70NWW410	SHADAR70NWL410	SHADAR70N WV410	SHADAR70NWS410	SHADAR70NWA410
white holder	BJB 50 solderless connector	SHADAR70NWF411	SHADAR70NWM411	SHADAR70NWW411	SHADAR70NWL411	SHADAR70N WV411	SHADAR70NWS411	SHADAR70NWA411
black holder	BJB 50 solderless connector	SHADAR70NWF412	SHADAR70NWM412	SHADAR70NWW412	SHADAR70NWL412	SHADAR70N WV412	SHADAR70NWS412	SHADAR70NWA412
clear holder	HEKLA-K and HEKLA-G2	SHADAR70NWF900	SHADAR70NWM900	SHADAR70NWW900	SHADAR70NWL900	SHADAR70N WV900	SHADAR70NWS900	SHADAR70NWA900
white holder	HEKLA-K and HEKLA-G2	SHADAR70NWF901	SHADAR70NWM901	SHADAR70NWW901	SHADAR70NWL901	SHADAR70N WV901	SHADAR70NWS901	SHADAR70NWA901
black holder	HEKLA-K and HEKLA-G2	SHADAR70NWF902	SHADAR70NWM902	SHADAR70NWW902	SHADAR70NWL902	SHADAR70N WV902	SHADAR70NWS902	SHADAR70NWA902



# HADAR70: Packaging

## HADAR70 Main TIR lens

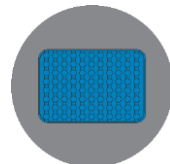


4 thermoformed trays with 12 parts each



48 parts  
Box: A13 – 400x300x200 mm  
Weight: 4.7 kg

## HADAR70W Window

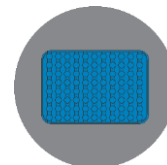


6 layers with 8 parts each



48 parts  
Box: 300x200x120 mm  
Weight: 0.8 kg

## HADAR70Z Zoom Window



6 layers with 8 parts each



48 parts  
Box: 300 x 200 x 200 mm  
Weight: 1.0 kg