



apparecchio di illuminazione da parete, tavolo e terra IP20.

modelli:

minima parete con propulsore dinamico n55 e lampadina classica, decorativa o tecnica. realizzato con uno stelo in alluminio estruso diametro Ø10mm curvato, orientabile in altezza tramite sistema a carrucola, con contrappeso in ottone. supporto a parete con potenziometro lineare per dimmerazione nel lato inferiore. cablato con sorgente elettronica 2700K o 3000K Ra98 14W 1580lm. alimentatore con controllo intelligente 120-277V 50-60Hz incluso.

minima tavolo con propulsore dinamico n55 e lampadina decorativa. realizzato con uno stelo in alluminio estruso diametro Ø10mm curvato, con base 210mm. cablato con sorgente elettronica 2700K o 3000K Ra98 9,7W 1240lm, dimmerabile con potenziometro lineare. alimentatore 100-240V 50-60Hz incluso, con set di spine eu/uk/usa - jp/ccc/aus intercambiabili. cavo di alimentazione 2000mm rivestito in tessuto nero incluso.

minima terra con propulsore dinamico n55 e lampadina classica o tecnica. realizzato con una base in alluminio estruso diametro Ø16mm su cui si innesta lo stelo in estruso di alluminio diametro Ø10mm curvato, orientabile sull'asse verticale di 180°.

cablato con sorgente elettronica 2700K o 3000K Ra98 9,7W 1240lm, dimmerabile con potenziometro lineare. alimentatore 100-240V 50-60Hz incluso, con set di spine eu/uk/usa - jp/ccc/aus intercambiabili.

cavo di alimentazione 2000mm rivestito in tessuto nero incluso.

accessori: paralume in seta bianco o blu per lampadina classica hm01 o lampadina tecnica spot55, grigliata a nido d'ape, lente ellittica, vetro albarino e accessorio anti abbagliamento per lampadina tecnica spot82, trappola di luce anti abbagliamento nero solo per lampadina trasparente.

finiture: argento hacca e nero55.



IP20 rated wall, table or floor-standing light fitting for indoor use.

versions:

minima parete with propulsore dinamico n55 and classic, decorative or technical bulb. made of a diameter Ø10mm extruded aluminium bent rod that can be adjusted in height by means of a pulley system and a brass counterweight. wall mounted support with linear potentiometer for the lower part dimming. wired with 2700K or 3000K Ra98 14W 1580lm led source. 120-277V 50-60Hz electronic power supply with smart control included.

minima tavolo with propulsore dinamico n55 and decorative bulb. made of a diameter Ø10mm extruded aluminium bent rod, with 210mm base. wired with 2700K or 3000K Ra98 9.7W 1240lm led source, dimmable with linear potentiometer. 100-240V 50-60Hz power supply included with eu/uk/usa - jp/ccc/aus interchangeable plugs. 2000mm power supply cable covered in black fabric included.

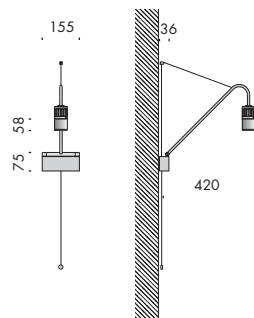
minima terra with propulsore dinamico n55 and classic or technical bulb. made of an extruded aluminium base with diameter Ø16mm angaging the extruded aluminium bent rod having a diameter Ø10mm, adjustable by 180° on the vertical axis.

wired with 2700K or 3000K Ra98 9.7W 1240lm led source, dimmable with linear potentiometer. 100-240V 50-60Hz power supply included with eu/uk/usa - jp/ccc/aus interchangeable plugs. 2000mm power supply cable covered in black fabric included.

accessories: white or blue sink lampshade for hm01 classic bulb or spot55 technical bulb, honeycomb louvre, elliptical lens, albarino glass and anti-glare fitting for spot82 technical bulb, anti-glare black light trap only for transparent bulb.

finishes: argento hacca and nero55.





minima parete spot55x37 120-277V 50-60Hz

Vb5.590.11.27 argento hacca 2700K 30° 0,6

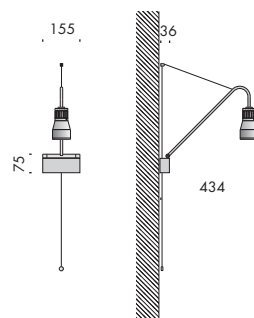
Vb5.590.12.27 nero55 2700K 30° 0,6

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb5.590.11.30 argento hacca 3000K 30° 0,6

Vb5.590.12.30 nero55 3000K 30° 0,6

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



minima parete spot82x79 120-277V 50-60Hz

Vb5.590.21.27 argento hacca 2700K 23° 0,6

Vb5.590.22.27 nero55 2700K 23° 0,6

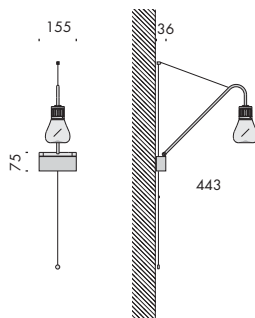
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb5.590.21.30 argento hacca 3000K 23° 0,6

Vb5.590.22.30 nero55 3000K 23° 0,6

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		





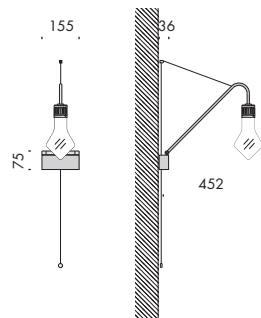
Vb5.590.31.30	argento hacca	bianco latte · milk white	3000K	0,7
Vb5.590.32.30	nero55	bianco latte · milk white	3000K	0,7

Ra	R9	ies tm-30		sdcn	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	ies19 		Ta25 °C		vita media · average life		70000 h		L80 B10	

Vb5.590.41.30	argento hacca	bianco latte · milk white	3000K	0,7
Vb5.590.42.30	nero55	bianco latte · milk white	3000K	0,7

Ra	R9	ies tm-30		sdcn	mA	V _f [min]	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19 		Ta25 °C		vita media · average life		70000 h		L80 B10	





minima parete pz03 120-277V 50-60Hz **Ai** **IP20** **Pr** **CE** **i**

Vb5.590.51.27 argento hacca trasparente · transparent 2700K 0,9

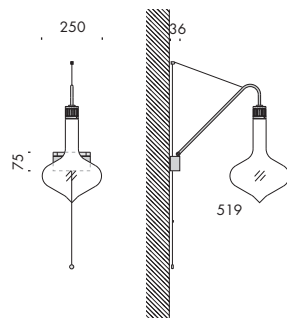
Vb5.590.52.27 nero55 trasparente · transparent 2700K 0,9

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb5.590.51.30 argento hacca trasparente · transparent 3000K 0,9

Vb5.590.52.30 nero55 trasparente · transparent 3000K 0,9

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



minima parete rdai01 120-277V 50-60Hz **Ai** **IP20** **Pr** **CE** **i**

Vb5.590.61.27 argento hacca trasparente · transparent 2700K 1,8

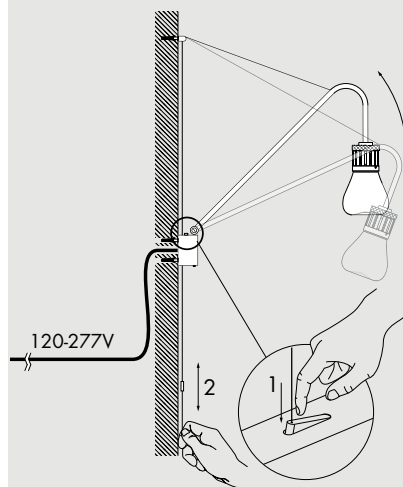
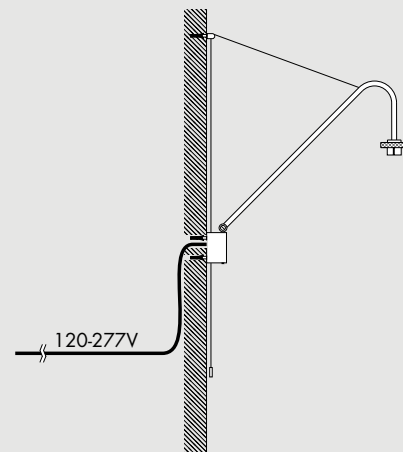
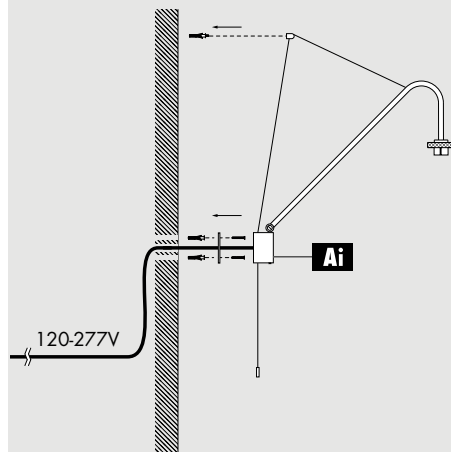
Vb5.590.62.27 nero55 trasparente · transparent 2700K 1,8

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

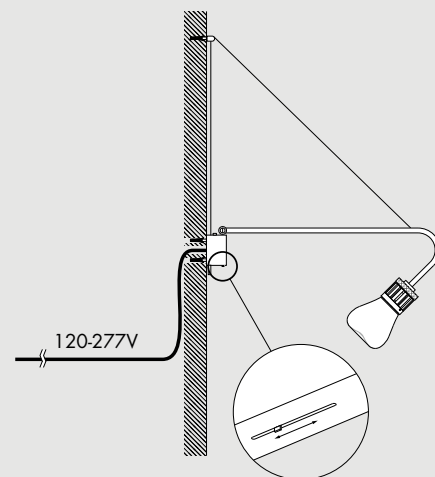
Vb5.590.61.30 argento hacca trasparente · transparent 3000K 1,8

Vb5.590.62.30 nero55 trasparente · transparent 3000K 1,8

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



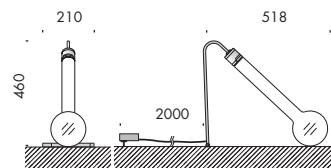
premere il pulsante di sblocco e accompagnare la discesa con il tirante
press the unlock button and drive the descent by holding the tie-rod



dimmer lineare 1-10V
slider dimmer



alimentatore elettronico con controllo intelligente
electronic power supply with intelligence control

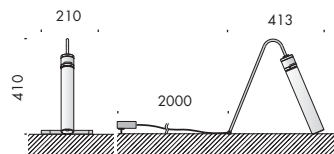


minima tavolo mn02 100-240V 50-60Hz AS IP20									
Vb2.590.01.27		argento hacca	trasparente · transparent	2700K	1,8				
Vb2.590.02.27		nero55	trasparente · transparent	2700K	1,8				
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128
xm000	les19	Ta25 °C		vita media · average life		70000 h	L80	B10	

Vb2.590.01.30 argento hacca trasparente · transparent 3000K 1,8

Vb2.590.02.30 nero55 trasparente · transparent 3000K 1,8

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128
xm001	les19	Ta25 °C		vita media · average life		70000 h	L80	B10	



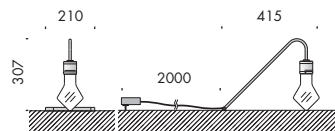
minima tavolo dc02 100-240V 50-60Hz AS IP20									
Vb2.590.11.27		argento hacca	sabbiato · sanded	2700K	1,1				
Vb2.590.12.27		nero55	sabbiato · sanded	2700K	1,1				
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128
xm000	les19	Ta25 °C		vita media · average life		70000 h	L80	B10	

Vb2.590.11.30 argento hacca sabbiato · sanded 3000K 1,1

Vb2.590.12.30 nero55 sabbiato · sanded 3000K 1,1

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128
xm001	les19	Ta25 °C		vita media · average life		70000 h	L80	B10	





minima tavolo pz03 100-240V 50-60Hz **AS** **IP20** **CE** **i**

Vb2.590.21.27 argento hacca trasparente · transparent 2700K 1

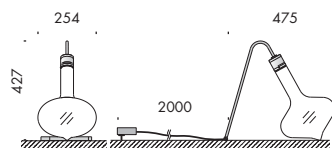
Vb2.590.22.27 nero55 trasparente · transparent 2700K 1

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb2.590.21.30 argento hacca trasparente · transparent 3000K 1

Vb2.590.22.30 nero55 trasparente · transparent 3000K 1

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



minima tavolo rdai01 100-240V 50-60Hz **AS** **IP20** **CE** **i**

Vb2.590.41.27 argento hacca trasparente · transparent 2700K 1,9

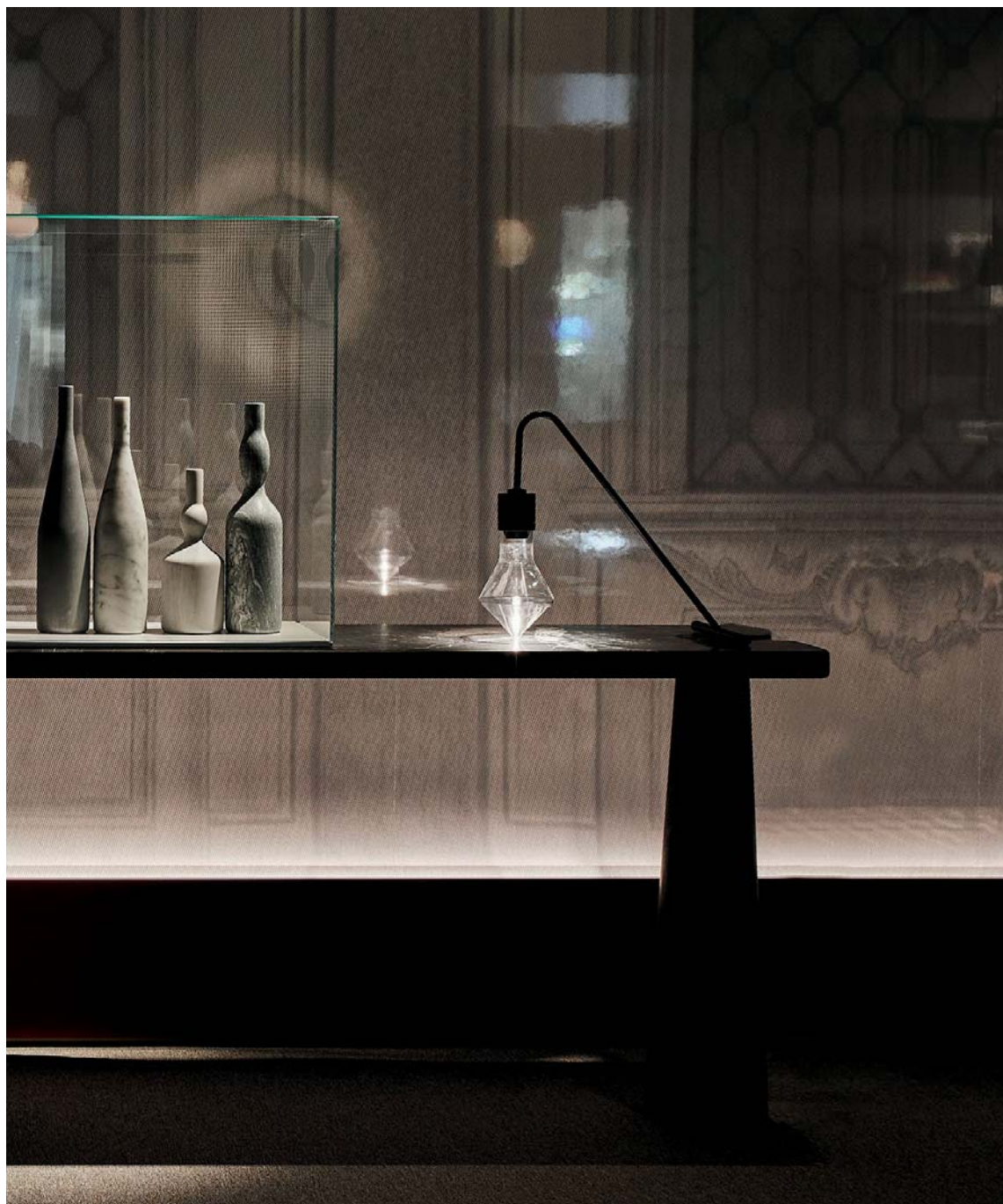
Vb2.590.42.27 nero55 trasparente · transparent 2700K 1,9

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

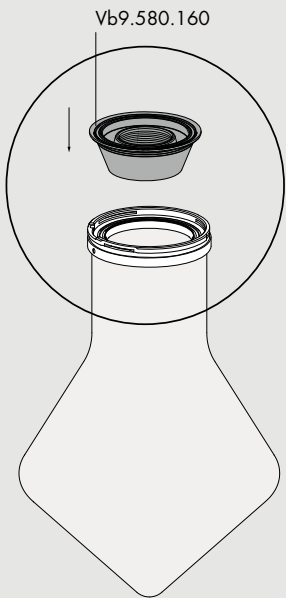
Vb2.590.41.30 argento hacca trasparente · transparent 3000K 1,9

Vb2.590.42.30 nero55 trasparente · transparent 3000K 1,9

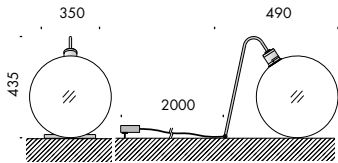
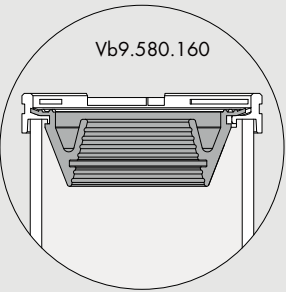
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



Vb9.580.160
solo per lampadina trasparente
only for transparent bulb



lampadina trasparente
transparent lamp



minima tavolo oma03 100-240V 50-60Hz AS IP20 PR A CE i

Vb2.590.51.27 argento hacca trasparente · transparent 2700K 2

Vb2.590.52.27 nero55 trasparente · transparent 2700K 2

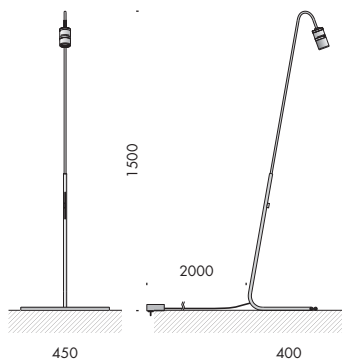
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb2.590.51.30 argento hacca trasparente · transparent 3000K 2

Vb2.590.52.30 nero55 trasparente · transparent 3000K 2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		





minima terra spot55x37 100-240V 50-60Hz **AS** **IP20** **PR** **CE** **i**

Vb4.590.11.27 argento hacca 2700K 30° 3,3

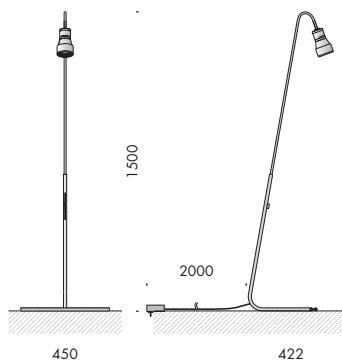
Vb4.590.12.27 nero55 2700K 30° 3,3

Ra	R9	ies tm-30		sdcn	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb4.590.11.30 argento hacca 3000K 30° 3,3

Vb4.590.12.30 nero55 3000K 30° 3,3

Ra	R9	ies tm-30		sdcn	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



minima terra spot82x79 100-240V 50-60Hz **AS** **IP20** **PR** **CE** **i**

Vb4.590.21.27 argento hacca 2700K 23° 3,3

Vb4.590.22.27 nero55 2700K 23° 3,3

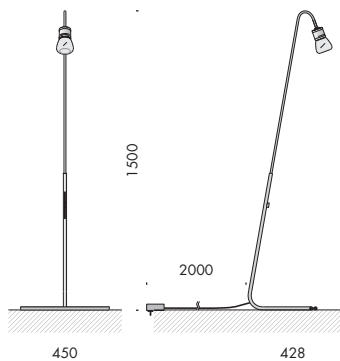
Ra	R9	ies tm-30		sdcn	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb4.590.21.30 argento hacca 3000K 23° 3,3

Vb4.590.22.30 nero55 3000K 23° 3,3

Ra	R9	ies tm-30		sdcn	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		





minima terra hm01 100-240V 50-60Hz **AS** **IP20** **PR** **CE** **i**

Vb4.590.31.27 argento hacca bianco latte · milk white 2700K 3,3

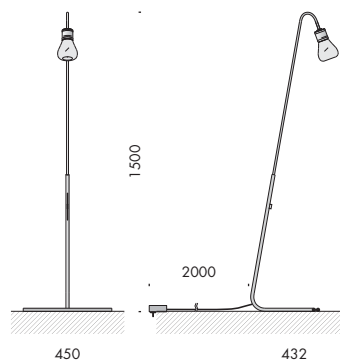
Vb4.590.32.27 nero55 bianco latte · milk white 2700K 3,3

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb4.590.31.30 argento hacca bianco latte · milk white 3000K 3,3

Vb4.590.32.30 nero55 bianco latte · milk white 3000K 3,3

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		



minima terra hm02 100-240V 50-60Hz **AS** **IP20** **PR** **CE** **i**

Vb4.590.41.27 argento hacca bianco latte · milk white 2700K 3,3

Vb4.590.42.27 nero55 bianco latte · milk white 2700K 3,3

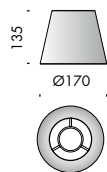
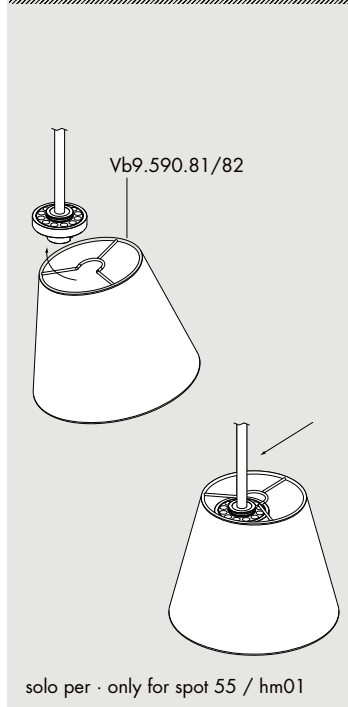
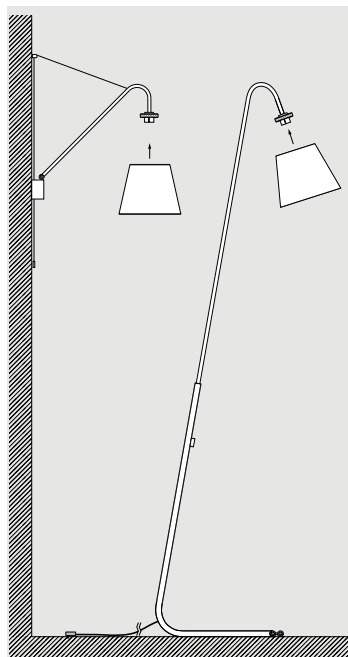
Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		

Vb4.590.41.30 argento hacca bianco latte · milk white 3000K 3,3

Vb4.590.42.30 nero55 bianco latte · milk white 3000K 3,3

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19	Ta25 °C		vita media · average life		70000 h		L80 B10		





paralumi. lampshades.		☆	CE	ⓘ
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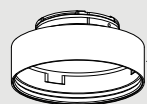
Vb9.590.81	seta bianco · white silk	0,2
Vb9.590.82	seta blu · blue silk	0,2

accessori spot82. accessories.		☆	CE	ⓘ
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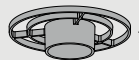
Vb9.580.86	frangiluce nido d'ape · honeycomb louvre	0,01
Vb9.580.87	lente ellittica · elliptical lens	0,05
Vb9.580.88	vetro albarino · albarino glass	0,05
Vb9.580.165	anti abbagliamento · anti-glare	0,03

accessori per lampadina trasparente. accessories for transparent bulb		☆	CE	ⓘ
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Vb9.580.160	trappola di luce antiabbagliamento nero anti-glare black light trap	0,1
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spot82



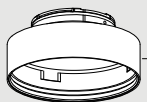
Vb9.580.165



porta accessorio incluso
accessory holder included



trappola di luce
light trap



spot82



Vb9.580.88



porta accessorio incluso
accessory holder included



Vb9.580.165

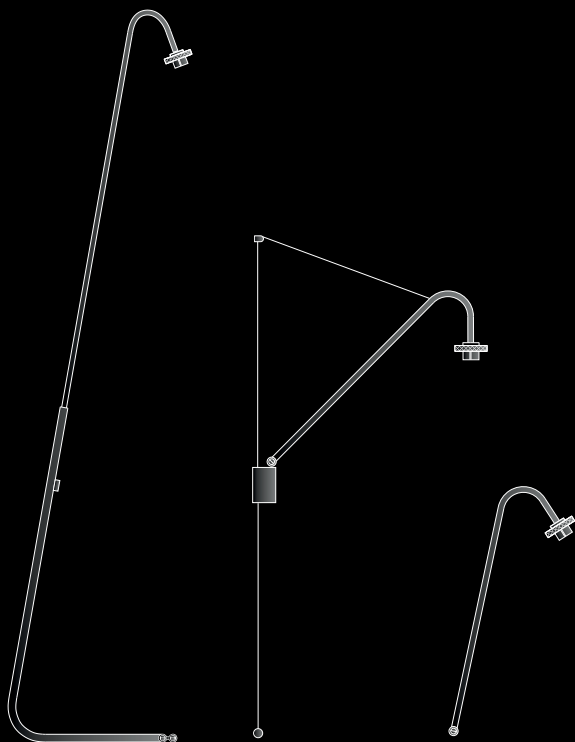


trappola di luce
light trap



Vb9.580.160
solo per lampadina trasparente
only for transparent bulb





+



+



lampadine classiche
classic bulbs



lampadine decorative
decorative bulbs



lampadine tecniche
technical bulbs

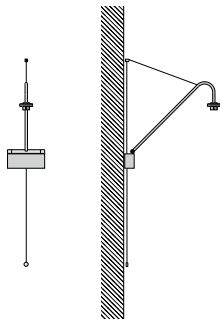
1. scegli l'interfaccia
choose the interface

2. scegli il propulsore dinamico n55
choose the propulsore dinamico n55

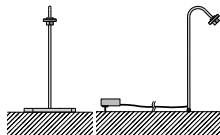
3. scegli la tua lampadina classica, decorativa e tecnica
choose your classic, decorative and technical bulb

minima

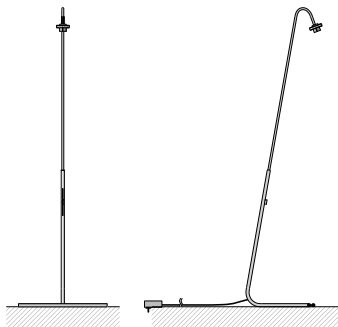
minima parete



minima tavolo



minima terra



propulsore dinamico n55

55/350e



les19 
350mA
1240 lm
9,7W
128 lm/W
A++



55/350

les19 
350mA
1240 lm
9,7W
128 lm/W
A++

55/500



les19 
500mA
1580 lm
14W
113 lm/W
A+

55/500



les9 
500mA
800 lm
13,6W
59 lm/W
A

65/500e



les19 
500mA
1580 lm
14W
113 lm/W
A+



65/700

les19 
700mA
2140 lm
19,9W
108 lm/W
A+

65/700



les9 
700mA
1110 lm
19,5W
57 lm/W
A

82/1050



les19 
1050mA
3000lm
30,5W
98 lm/W
A+

lampadina classica classic bulb

hm01

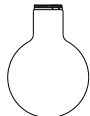


hm02

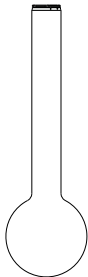


**lampadina decorativa
decorative bulb**

mn01 



mn02 



dc01 



dc02 



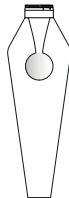
dc04



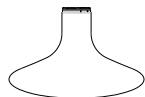
dc03



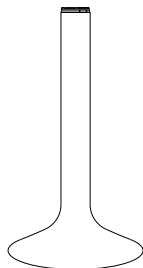
tc01 



pz01 



pz02 



pz03 



ddp01 



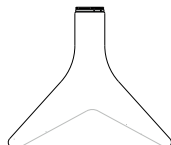
mk01 



mk02



gt01 



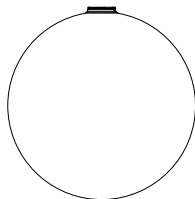
kk01 



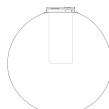
ml01 



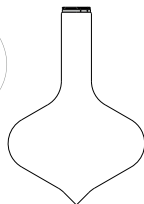
oma03 



oma02



rdai01 



li01



wm01 



ajp01 



nh02



nh01



**lampadina tecnica
technical bulb**

spot35 



les19 

87°

les9 

spot55x37 



30° 38°

18° 23° 36°

spot55x61 



36° 47°

spot82x35 



les19 

31° 42°

les9 

13° 19° 23° 35°

spot82x79 



23° 37° 46°

spot100 



les19 

16° 25° 40° 54°

les9 

10° 22°

lensoptica amP150 



les19 

22° 51°

les9 

13°

lensoptica amP180 

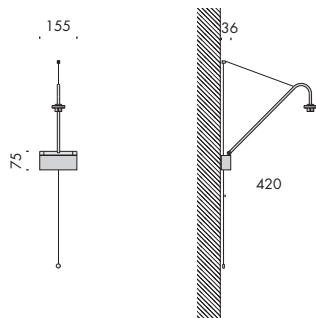


les19 

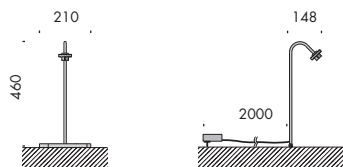
15° 41° 53° 20°x55°

les9 

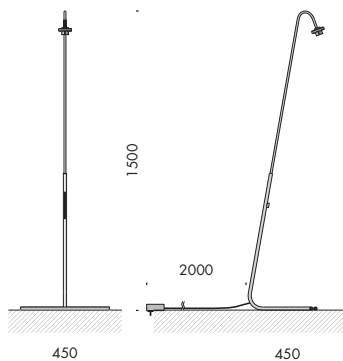
10°



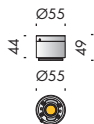
minima parete	120-277V 50-60Hz	Al	IP20	CE	i
Vb5.590.01	argento hacca				0,4
Vb5.590.02	nero55				0,4



minima tavolo	100-240V 50-60Hz	AS	IP20	CE	i
Vb2.590.03	argento hacca				1,5
Vb2.590.04	nero55				1,5



minima terra	100-240V 50-60Hz	AS	IP20	CE	i
Vb4.590.01	argento hacca				3
Vb4.590.01	nero55				3



propulsore dinamico 55/350e

 IP20

Vb9.580.150.27	argento hacca	2700K	les19 	0,2
Vb9.580.151.27	nero55	2700K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.150.30	argento hacca	3000K	les19 	0,2
Vb9.580.151.30	nero55	3000K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.150.30v	argento hacca	3000VbK	les19 	0,2
Vb9.580.151.30v	nero55	3000VbK	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 93	Rg 106	step 1	350	27,6	1240	9,7	128	A++
xm007	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		



propulsore dinamico 55/350

 IP20

Vb9.580.50.27	argento hacca	2700K	les19 	0,2
Vb9.580.51.27	nero55	2700K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm000	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.50.30	argento hacca	3000K	les19 	0,2
Vb9.580.51.30	nero55	3000K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	350	27,6	1240	9,7	128	A++
xm001	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.50.30v	argento hacca	3000VbK	les19 	0,2
Vb9.580.51.30v	nero55	3000VbK	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 93	Rg 106	step 1	350	27,6	1240	9,7	128	A++
xm007	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		



propulsore dinamico 55/500

 IP20

Vb9.580.62.27	argento hacca	2700K	les19 	0,2
Vb9.580.63.27	nero55	2700K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm000	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.62.30	argento hacca	3000K	les19 	0,2
Vb9.580.63.30	nero55	3000K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,9	1580	14,0	113	A+
xm001	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.62.30v	argento hacca	3000Vb K	les19 	0,2
Vb9.580.63.30v	nero55	3000Vb K	les19 	0,2

Ra	R9	ies tm-30		sdc	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 93	Rg 106	step 1	500	27,9	1580	14,0	113	A+
xm007	les19 	Ta25 °C		vita media · average life			70000 h	L80 B10		



propulsore dinamico 55/500

 IP20

Vb9.580.101.27	argento hacca	2700K	les9 	0,2
Vb9.580.102.27	nero55	2700K	les9 	0,2

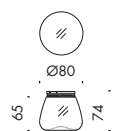
Ra	R9	ies tm-30		sdcm	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,1	800	13,6	59	A
xe000	les9 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.101.30	argento hacca	3000K	les9 	0,2
Vb9.580.102.30	nero55	3000K	les9 	0,2

Ra	R9	ies tm-30		sdcm	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 96	Rg 103	step 1	500	27,1	800	13,6	59	A
xe001	les9 	Ta25 °C		vita media · average life			70000 h	L80 B10		

Vb9.580.101.30v	argento hacca	3000VbK	les9 	0,2
Vb9.580.102.30v	nero55	3000VbK	les9 	0,2

Ra	R9	ies tm-30		sdcm	mA	V _{f (min)}	lm	W	lm/W	
98	98	Rf 93	Rg 106	step 1	500	27,1	800	13,6	59	A
xe007	les9 	Ta25 °C		vita media · average life			70000 h	L80 B10		

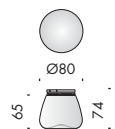


mario nanni



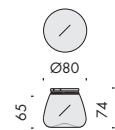
Vb9.580.01.t hm01 trasparente · transparent

0,05



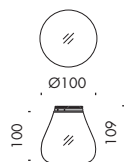
Vb9.580.01.s hm01 sabbiata · sanded

0,05



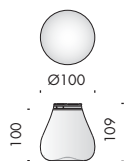
Vb9.580.01.b hm01 bianco latte · milk white

0,05



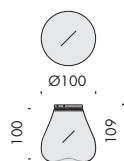
Vb9.580.02.t hm02 trasparente · transparent

0,1



Vb9.580.02.s hm02 sabbiata · sanded

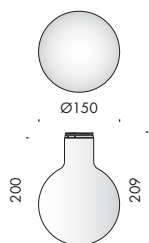
0,1



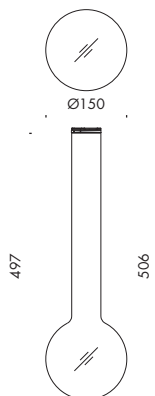
Vb9.580.02.b hm02 bianco latte · milk white

0,1

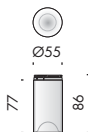




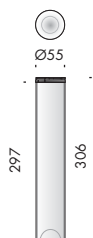
mario nanni		☆	CE	📄
Vb9.580.03.s	mn01 sabbato · sanded	0,3		



Vb9.580.04.t	mn02 trasparente · transparent	0,5		
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david chipperfield		☆	CE	📄
Vb9.580.05.s	dc01 sabbato · sanded	0,1		



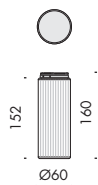
david chipperfield



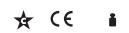
Vb9.580.06.s

dc02 sabbiato · sanded

0,3



al-jawad pike

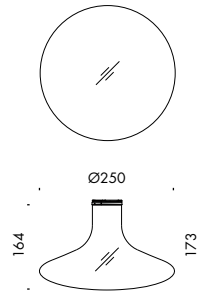


Vb9.580.18.tr

ajp01 trasparente, rigato · transparent, striped

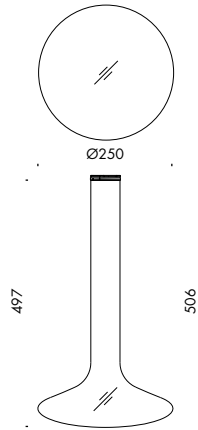
0,2



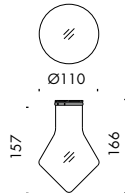


peter zumthor ★ CE ⓘ

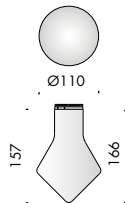
Vb9.580.08.t pz01 trasparente · transparent 0,3



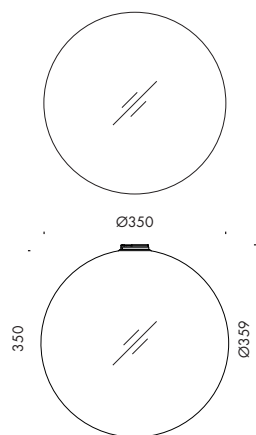
Vb9.580.10.t pz02 trasparente · transparent 0,6



Vb9.580.11.t pz03 trasparente · transparent 0,2



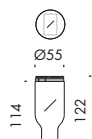
Vb9.580.11.s pz03 sabbiato · sanded 0,2



oma ☆ CE i

Vb9.580.15.t oma03 trasparente · transparent

1,4

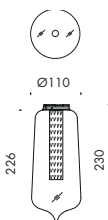


kengo kuma ☆ CE i

Vb9.580.07.c kk01 cristallo · crystal

0,3



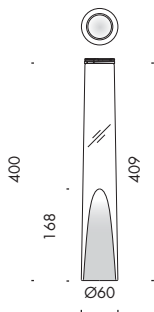


marcio kogan



Vb9.580.111.t mk01 trasparente · transparent

0,4

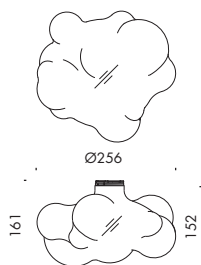


domenico de palo



Vb9.580.114.t ddp01 trasparente,sabbiato · transparent, sanded

0,5

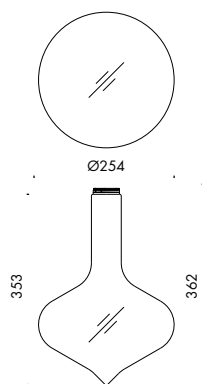


winy maas



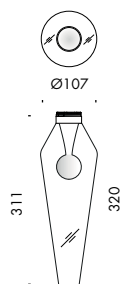
Vb9.580.09.t wm01 trasparente · transparent

0,6



rdai ☆ CE i

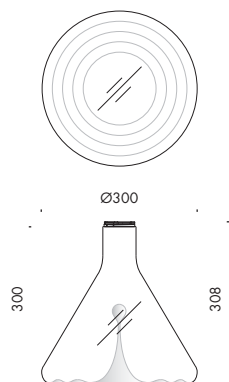
Vb9.580.12.t rdai01 trasparente · transparent 0,6



tzach cohen ☆ CE i

Vb9.580.180.ts tc01 trasparente, sabbiato · transparent, sanded 0,4





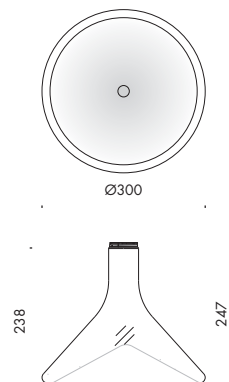
max lam



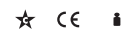
Vb9.580.13.t

ml01 trasparente · transparent

1,4



gio tirotto



Vb9.580.17.t

gt01 trasparente · transparent

1



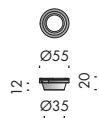
accessori per lampadina trasparente. transparent bulb accessories.



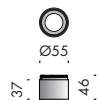
Vb9.580.160

trappola di luce antiabbagliamento nero
anti-glare black light trap

0,03

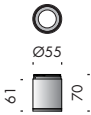


spot35		☆	CE	i
Vb9.580.21	argento hacca	87° les19 ●	0,1	
Vb9.580.22	nero55	87° les19 ●	0,1	



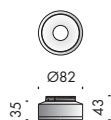
spot55x37		☆	CE	i
Vb9.580.121	argento hacca	18° les9 ●	0,1	
Vb9.580.122	nero55	18° les9 ●	0,1	
Vb9.580.123	argento hacca	23° les9 ●	30° les19 ●	0,1
Vb9.580.124	nero55	23° les9 ●	30° les19 ●	0,1
Vb9.580.125	argento hacca	36° les9 ●	38° les19 ●	0,1
Vb9.580.126	nero55	36° les9 ●	38° les19 ●	0,1





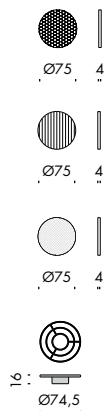
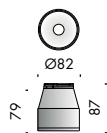
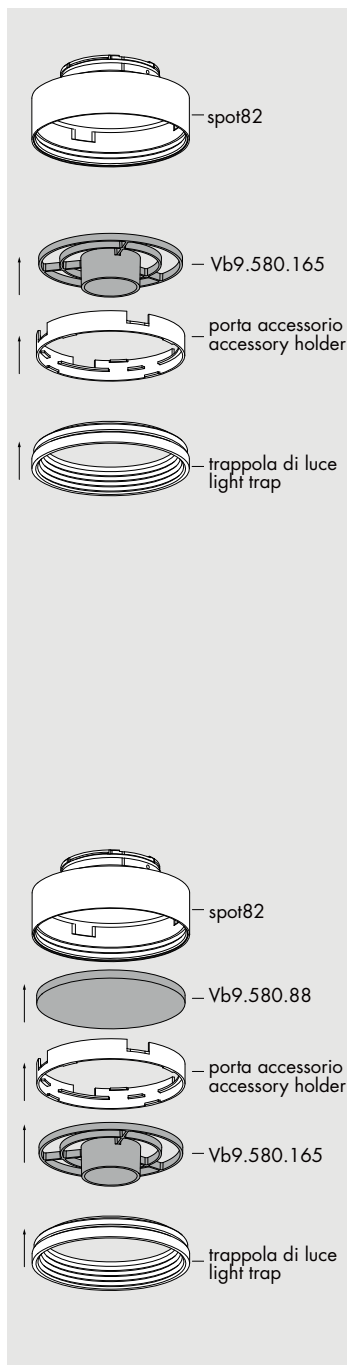
spot55x61		★	CE	i
Vb9.580.25	argento hacca	36° les19	●	0,2
Vb9.580.26	nero55	36° les19	●	0,2
Vb9.580.27	argento hacca	47° les19	●	0,2
Vb9.580.28	nero55	47° les19	●	0,2

accessori spot55. accessories.		★	CE	i
Vb9.580.91	frangiluce nido d’ape · honeycomb louvre			0,01
Vb9.580.92	lente ellittica · elliptical lens			0,04



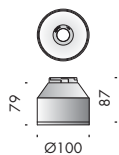
spot82x35			★	CE	ⓘ
Vb9.580.131	argento hacca	13° les9 ●	0,1		
Vb9.580.132	nero55	13° les9 ●	0,1		
Vb9.580.133	argento hacca	19° les9 ●	0,1		
Vb9.580.134	nero55	19° les9 ●	0,1		
Vb9.580.135	argento hacca	23° les9 ● 31° les19 ●	0,1		
Vb9.580.136	nero55	23° les9 ● 31° les19 ●	0,1		
Vb9.580.139	argento hacca	35° les9 ● 42° les19 ●	0,1		
Vb9.580.140	nero55	35° les9 ● 42° les19 ●	0,1		



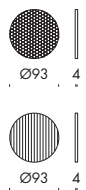


spot82x79		★	CE	i
Vb9.580.31	argento hacca	23° les19	●	0,2
Vb9.580.32	nero55	23° les19	●	0,2
Vb9.580.33	argento hacca	37° les19	●	0,2
Vb9.580.34	nero55	37° les19	●	0,2
Vb9.580.35	argento hacca	46° les19	●	0,2
Vb9.580.36	nero55	46° les19	●	0,2

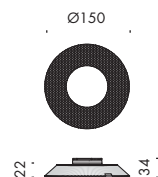
accessori spot82. accessories.		★	CE	i
Vb9.580.86	frangiluce nido d'ape · honeycomb louvre			0,01
Vb9.580.87	lente ellittica · elliptical lens			0,05
Vb9.580.88	vetro albarino · albarino glass			0,05
Vb9.580.165	anti abbagliamento · anti-glare			0,03



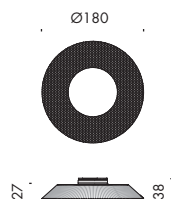
spot100			★	CE	ⓘ
Vb9.580.37	argento hacca	10° les9 ● 16° les19 ●	0,1		
Vb9.580.38	nero55	10° les9 ● 16° les19 ●	0,1		
Vb9.580.39	argento hacca	22° les9 ● 25° les19 ●	0,1		
Vb9.580.40	nero55	22° les9 ● 25° les19 ●	0,1		
Vb9.580.41	argento hacca	40° les19 ●	0,1		
Vb9.580.42	nero55	40° les19 ●	0,1		
Vb9.580.43	argento hacca	54° les19 ●	0,1		
Vb9.580.44	nero55	54° les19 ●	0,1		



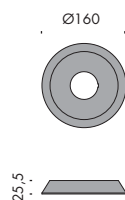
accessori spot100. accessories.			★	CE	ⓘ
Vb9.580.93	frangiluce nido d'ape · honeycomb louvre		0,01		
Vb9.580.94	lente ellittica · elliptical lens		0,05		



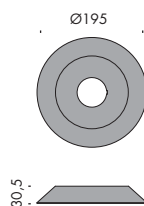
lensoptica amP150		☆	CE	i
Vb9.518.91	fascio stretto · narrow beam	13°	les9 ●	0,3
		22°	les19 ●	
Vb9.518.92	fascio largo · wide beam	51°	les19 ●	0,3



lensoptica amP180		☆	CE	i
Vb9.518.81	fascio stretto · narrow beam	10°	les9 ●	0,6
		15°	les19 ●	
Vb9.518.82	fascio medio · medium beam	41°	les19 ●	0,6
Vb9.518.83	fascio largo · wide beam	53°	les19 ●	0,6
Vb9.518.84	fascio ellittico · elliptical beam	20°x55°	les19 ●	0,6

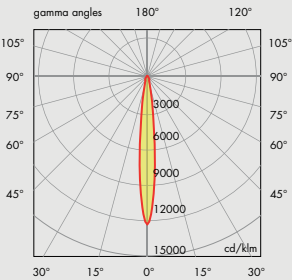


riflettore in metallo 150		☆	CE	i
Vb9.518.95.n	nero55			0,1
Vb9.518.95.h	argento hacca			0,1

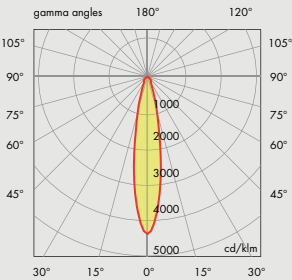


riflettore in metallo 180		☆	CE	i
Vb9.518.96.n	nero55			0,1
Vb9.518.96.h	argento hacca			0,1

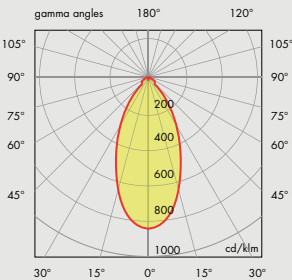
lensoptica amP150 13° les9 ●
fascio stretto · narrow beam



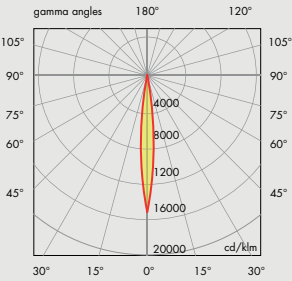
lensoptica amP150 22° les19 ●
fascio stretto · narrow beam



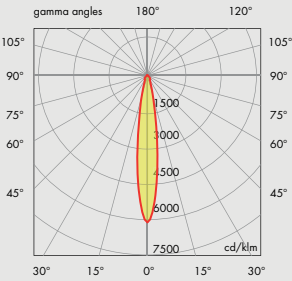
lensoptica amP150 51° les19 ●
fascio largo · wide beam



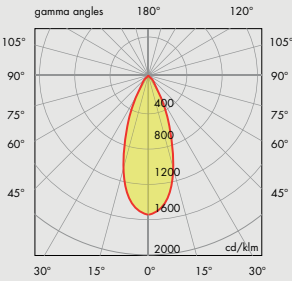
lensoptica amP180 10° les9 ●
fascio stretto · narrow beam



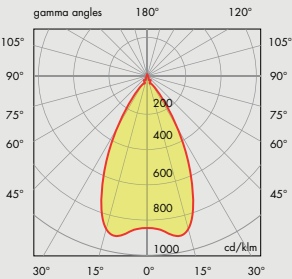
lensoptica amP180 15° les19 ●
fascio stretto · narrow beam



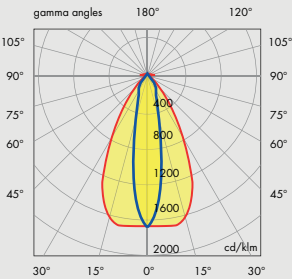
lensoptica amP180 41° les19 ●
fascio medio · medium beam



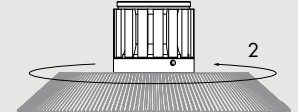
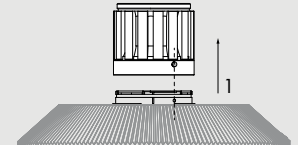
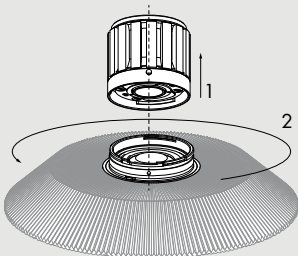
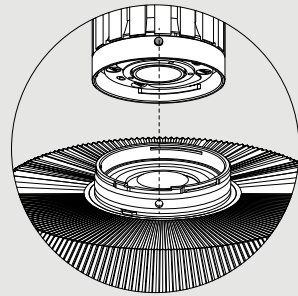
lensoptica amP180 53° les19 ●
fascio largo · wide beam



lensoptica amP180 20°x55° les19 ●
fascio ellittico · elliptical beam



lensoptica amP
installazione · mounting





lensoptica amP150
fascio stretto · narrow beam



lensoptica amP150
fascio largo · wide beam



lensoptica amP180
fascio stretto · narrow beam



lensoptica amP180
fascio medio · medium beam



lensoptica amP180
fascio largo · wide beam



lensoptica amP180
fascio ellittico · elliptical beam

lensoptica amP è il risultato di una ricerca sviluppata da Viabizzuno su progetto david chipperfield architects con lo studio internazionale di ingegneria arup per fornire alle sorgenti luminose elettroniche un'ottica ad alta efficienza in grado di avere sia una luce concentrata che diffusa. L'alta efficienza viene ottenuta utilizzando un materiale ad altissima trasparenza, il polimetilmetacrilato, per mezzo di prismi catadiottrici progettati per riflettere e trasmettere la luce minimizzando le perdite per assorbimento: tali elementi riflettono verso il basso il 90% del flusso luminoso incidente e ne trasmettono il 10% garantendo così una percentuale di emissione indiretta, non ottenibile con il riflettore in metallo.

la matrice di microlenti regola in modo preciso l'ampiezza angolare del fascio luminoso.

l'ampia superficie emittente garantisce un alto comfort visivo e UGR<19.

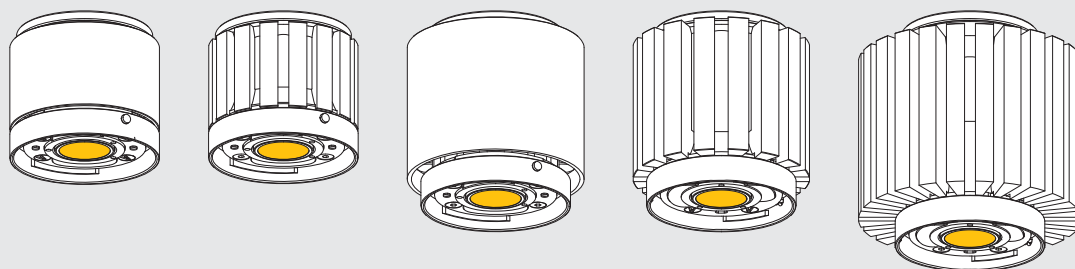
lensoptica amP is the result of a long research and development process made by Viabizzuno on a david chipperfield architects with arup, international engineering studio, design to provide electronic light sources with a high efficiency optics that can have either a focused and a diffuse light.

high efficiency is achieved thanks to a very high transparent material, i.e. polymethyl methacrylate, by means of catadioptric prisms specifically designed to reflect and transmit light reducing losses due to absorption: these elements, reflect 90% of the incident light flow downwards and transmit 10% of it, assuring this way a percentage of indirect emission which could not be reached with metal reflector.

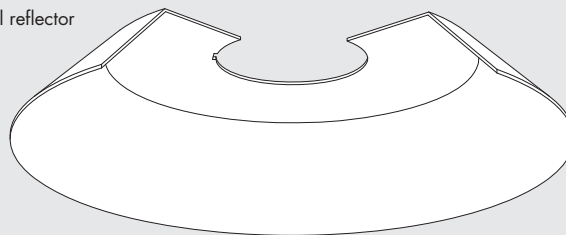
the microlens array precisely regulates the angular amplitude of the light beam.

the large emitter surface limits luminance, ensuring high visual comfort and UGR<19.

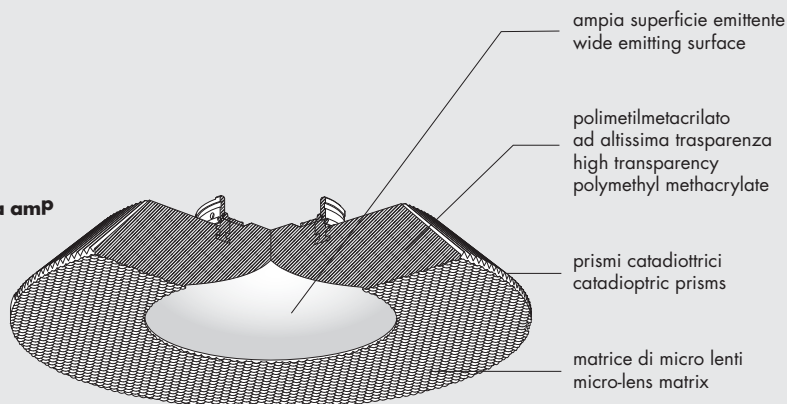
propulsore dinamico n55

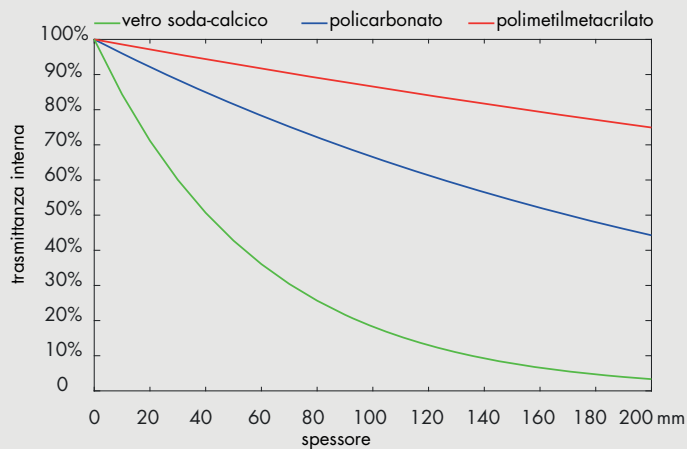


riflettore in metallo · metal reflector



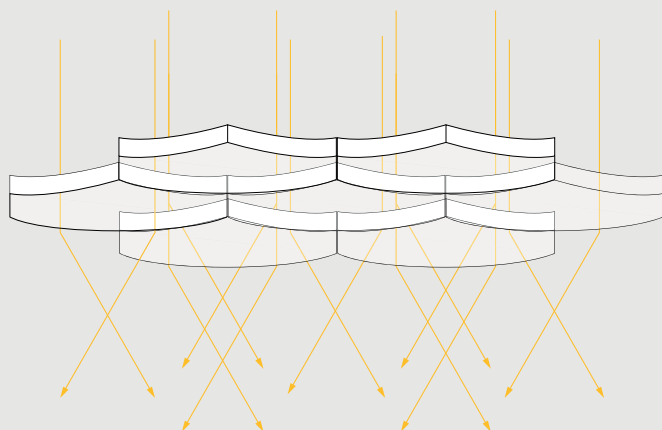
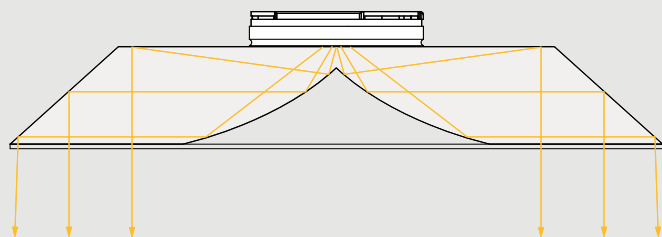
lensoptica amP





la trasmittanza interna (T) di un materiale trasparente è determinata dallo spessore (x) e dal coefficiente d'assorbimento del materiale stesso (α) secondo la legge di lambert-beer $T_{(x)} = e^{-\alpha x}$
 the internal transmittance of a transparent material (T) is determined by the thickness (x) and by the absorbing coefficient of the material itself (α) due to lambert-beer law $T_{(x)} = e^{-\alpha x}$

materiale	coefficiente d'assorbimento α
vetro soda calcalico	0,017 mm ⁻¹
poli carbonato	0,004 mm ⁻¹
polimetilmetacrilato	0,0014 mm ⁻¹



lensoptica amP è allo stesso tempo una lente e un riflettore, perché i raggi di luce subiscono rifrazione e riflessione totale interna. per questa caratteristica tecnica riesce a coniugare alta efficienza e accurato controllo direzionale della luce.
lensoptica amP is both a lens and a reflector at the same time, because the rays of light undergo refraction and total internal reflection. for this technical charactrestic it combines high efficiency and accurate directional control of light.

la superficie emittente di **lensoptica amP** è dotata di una matrice di microlenti. ogni microlente riceve un fascio collimato e in funzione della curvatura ne allarga l'apertura angolare in modo controllato. la sovrapposizione dei contributi delle singole microlenti produce una distribuzione d'illuminamento uniforme.

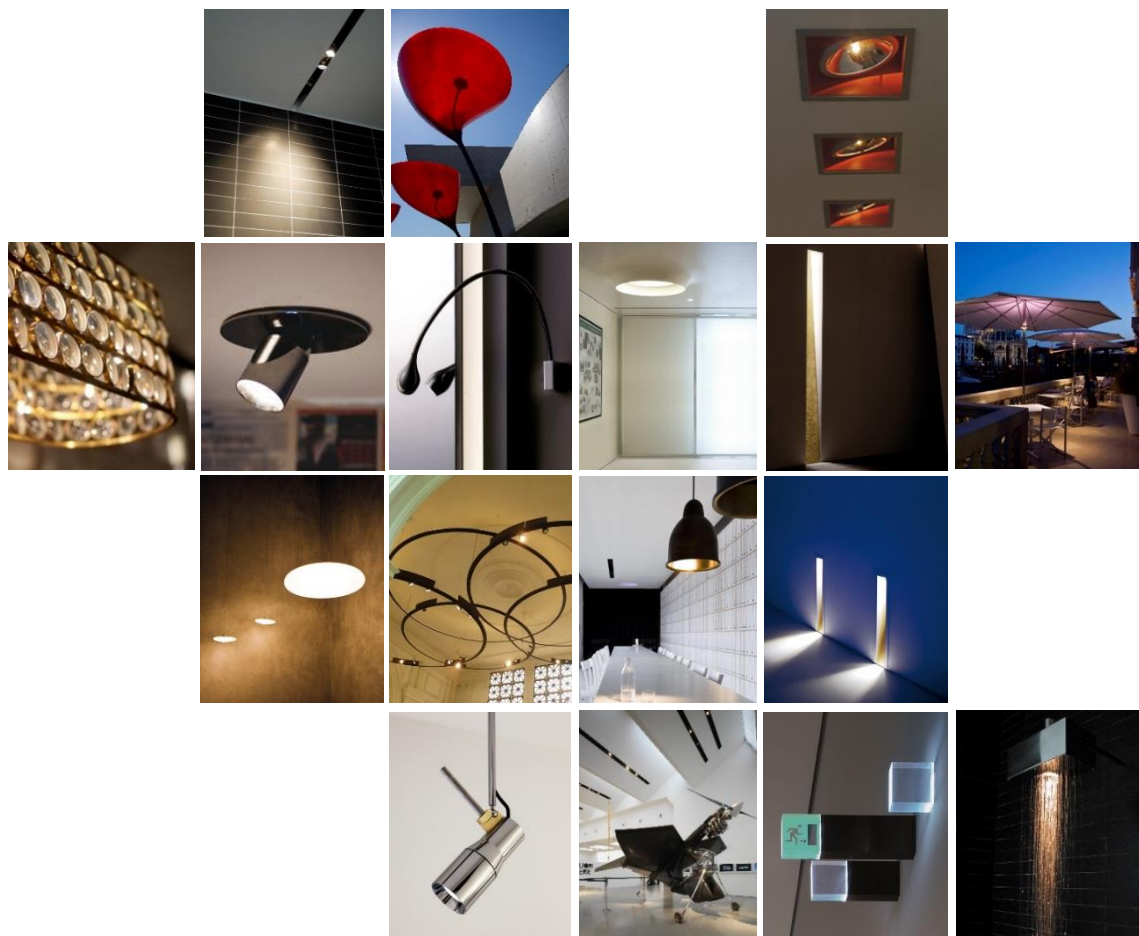
le **lensoptica amP** si suddividono in quattro categorie di apertura angolare del fascio: stretto, medio, largo ed ellittico. il valore esatto dell'angolo dipende dal diametro della sorgente.

lensoptica amP emitter surface is equipped with a microlens array. each microlens receives a collimated beam and according to its curvature it enlarges the angular opening in a controlled way. the overlap of the emissions of each microlens creates a uniform distribution of illumination.

lensoptica amP are divided into four categories based on the angular opening of the beam: narrow, medium, wide and elliptical. the exact value of the angle depends on the source diameter.







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