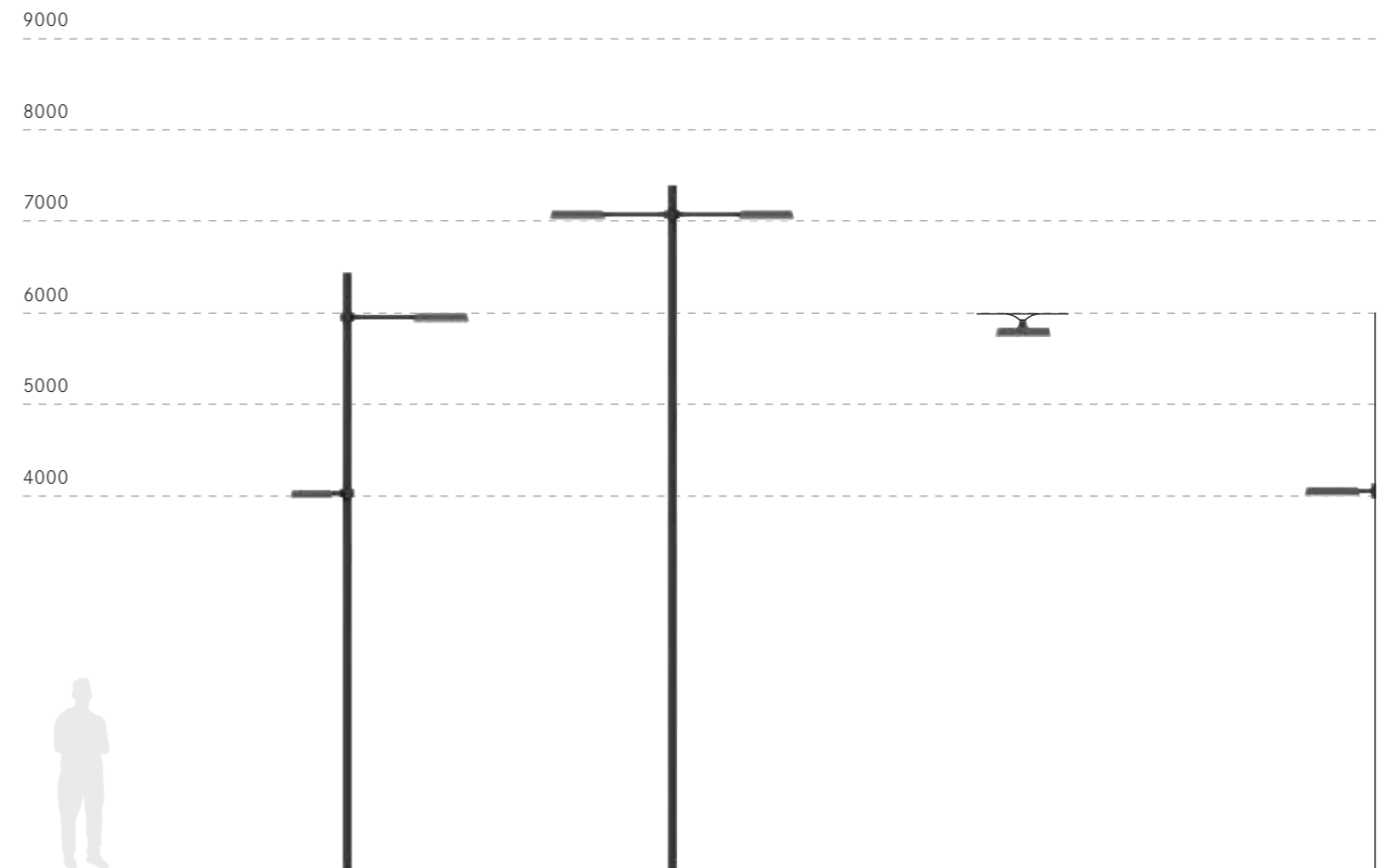
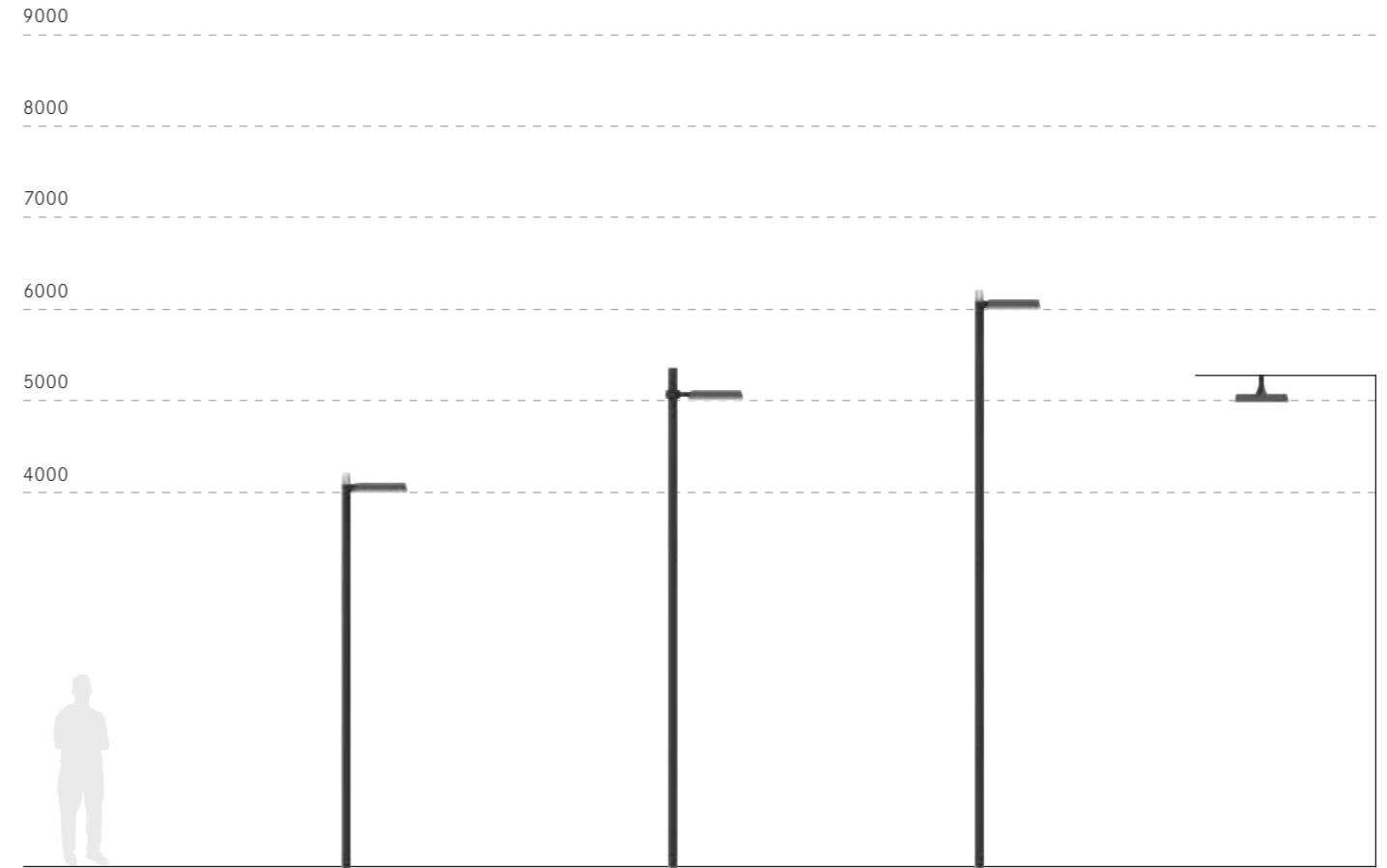


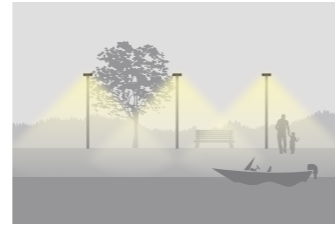
Orao

Fivep





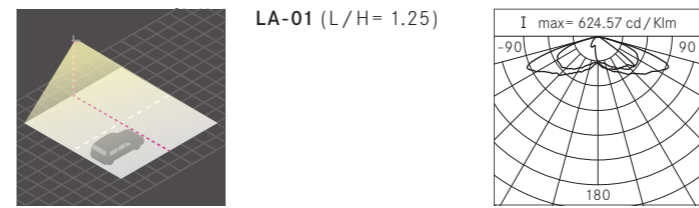
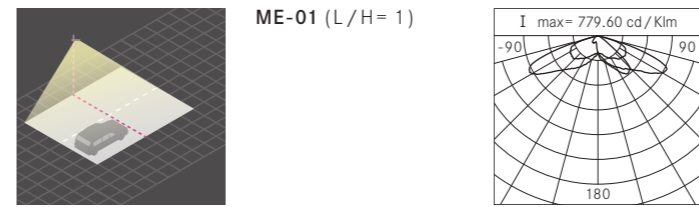
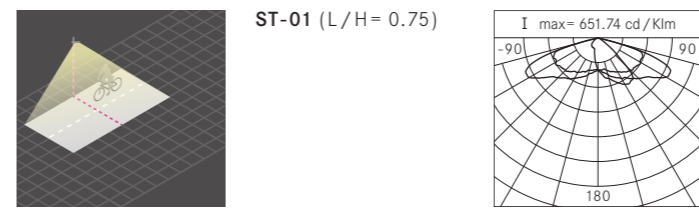
220-240V 50/60Hz	Tensione di alimentazione <i>Nominal voltage</i> Nennspannung
CL I on request CL II	Classe di isolamento elettrico <i>Electrical insulation class</i> Elektrische Isolierklasse
IP66	Grado di protezione <i>Insulation protection degree</i> Isolationsschutzgrad
IK09	Protezione contro gli urti <i>Protection against impact</i> Stoßfestigkeit
>0.90	Fattore di potenza <i>Power factor</i> Leistungsfaktor
10kV	Protezioni da sovratensioni di modo comune <i>Common mode overvoltage protection</i> Schutz vor Gleichtakt-Überspannungen
10kV	Protezioni da sovratensioni di modo differenziale <i>Differential mode overvoltage protection</i> Schutz vor Gegentakt-Überspannungen
-30°C +50°C	Temperatura ambiente <i>Ambient temperature</i> Umgebungstemperatur
Sablé100 Noir	Colori <i>Colours</i> Farben
Included	Alimentazione elettronica <i>Electronic power supply</i> Elektronische Stromversorgung
HM4 DALI Main voltage variation CLO on request Wireless on request PLC on request 1-10V on request Pilot line on request Motion detectors/ brightness on request	Illuminazione intelligente <i>Smart Lighting</i> Intelligente Beleuchtung



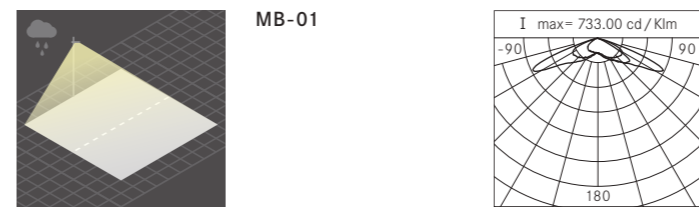
2240-15665lm	Flusso sorgente <i>Source flux</i> Lichtstrom der Lichtquelle
ULOR: 0% DLOR: 100%	Cut-Off <i>Cut-Off</i> Cut-Off
4000K 3000K	Temperatura colore <i>Colour temperature</i> Farbtemperatur

≥70 ≥80 on request	Indice di resa cromatica (CRI) <i>Colour rendering index (CRI)</i> Farbwiedergabe-Index (CRI)
>160.000h @700mA @Ta25°C TM21 L80B20	Durata di vita delle sorgenti <i>Source lifetime</i> Lebensdauer der Quellen
>160.000h @700mA @Ta25°C TM21 L80B10	

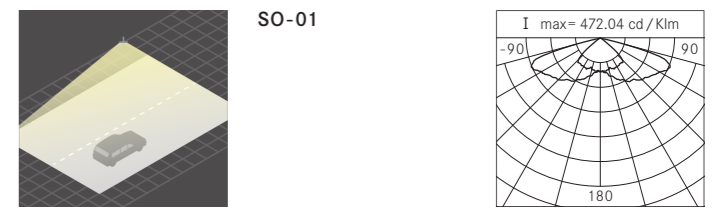
Ottiche asimmetriche stradali
Street asymmetrical optics Optik asymmetrisch straßenleuchte



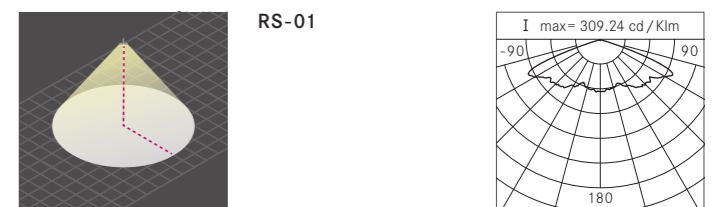
Ottiche per manto bagnato
Wet surface optics Optik asymmetrisch straßenleuchte



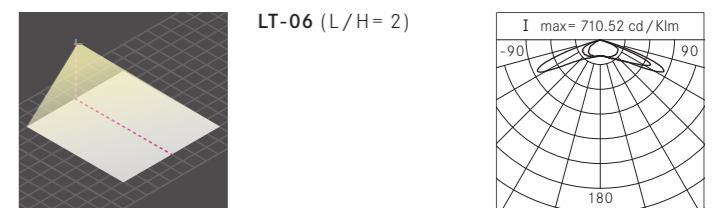
Ottiche simmetriche stradali
Street symmetrical optics Optik symmetrisch straßenleuchte



Ottiche rosimmetriche *Rotosymmetrical optics* Optik rotsymmetrisch



Ottiche asimmetriche *Asymmetrical optics* Optik asymmetrisch



L = Larghezza strada, *Street Width*, Straßenbreite
H = Altezza palo, *Pole Height*, Lichtpunkthöhe

Installazione: palo, braccio, parete, tesata, soffitto
Installation: pole, arm, wall, string, ceiling
Installation: Mast, Arm, Wand, Drahtseil, Decke

Approfondimento sistemi ottici, *Deepening optical systems*, Vertiefung optischen Systeme P. 308
Approfondimento sistemi di smart lighting, *Deepening smart lighting systems*, Vertiefung intelligenten Beleuchtungssysteme P. 310

	Schermatura sorgenti <i>Hidden Light Emitting Surfaces</i> Abschirmung der Lichtquellen		Sistema ottico multilayers <i>Multilayer optical system</i> Optisches System "Multilayer"		Ottica manto bagnato <i>Optics for wet surfaces</i> Optik für nasse Straßenbeläge
	Cut - Off <i>Cut - Off</i> Cut - Off		CRI≥80 SMCD=4 su richiesta <i>CRI≥80 SMCD=4 on request</i> CRI≥80 SMCD=4 auf Anfrage		Illuminazione intelligente <i>Smart Lighting</i> Intelligente Beleuchtung
	Maggiore efficienza energetica <i>Greater energy efficiency</i> Höhere Energieeffizienz		160.000h L80B20 L80B10 Maggiore durata vita delle sorgenti <i>Longer lifetime of sources</i> Längere Lebensdauer von Leuchtmitteln		Ta -30° C +50° C <i>Ta -30° C +50° C</i> Ta -30° C +50° C
	Elevata resistenza agli urti (IK09-IK10) <i>Maximum impact resistance (IK09-IK10)</i> Maximum Stoßfestigkeitsgrad (IK09-IK10)		Resistenza agenti chimici/atmosferici <i>Resistance to chemical/atmospheric agents</i> Widerstand chemische/atmosphärische		Resistenza sovratensioni fino a 10kV <i>Overvoltage resistance up to 10kV</i> Überspannungsfestigkeit bis 10kV
	CLO (Constant Lumen Output) <i>CLO (Constant Lumen Output)</i> CLO (Constant Lumen Output)		Precablaggio <i>Pre-wiring</i> Vorverkabelung		Sostituibilità gruppo ottico <i>Optical unit substitutability</i> Ersetzbarkeit der optischen Einheit
	Sostituibilità gruppo alimentazione <i>Power supply unit substitutability</i> Ersetzbarkeit der Versorgungseinheit		Separabilità delle componenti <i>Separable components</i> Trennbare Komponenten		



Comfort visivo

Gli innovativi sistemi ottici progettati per la linea Orao garantiscono alle persone benessere visivo, sicurezza e qualità dello spazio. Il design di Orao è stato pensato per illuminare lo spazio urbano con discrezione: le geometrie del prodotto permettono di ridurre la visibilità della sorgente per l'osservatore senza compromettere le performance fotometriche del sistema ottico. Orao è stato generato da studi ottici sull'angolo di schermatura, l'angolo tra il piano orizzontale e una retta che passa per il bordo dell'apparecchio e per il bordo della sorgente luminosa. Orao ha un angolo di schermatura di 10°. La soluzione 10° è stata scelta come il punto di equilibrio ottimale tra il miglioramento del comfort e la limitazione dell'impatto illuminotecnico. Il livello di arretramento della sorgente risponde invece ad esigenze meccaniche e termiche.

Visual comfort

The innovative optical systems designed for the Orao line guarantee visual comfort, safety and enhanced quality of space. Orao has been designed to discretely illuminate public spaces. Its shape allows for reduction of the visibility of the light emitting surfaces without compromising the photometric performance of the optical system. Orao is the result of optical studies on the screening angle, the angle between the horizontal plane and a straight line that passes through the edge of the fitting and the edge of the light surface. Orao has a screening angle of 10°. The 10° solution has been chosen as an ideal balance between improvement in comfort and limitation of the impact of the lighting. The level of the recessed position of the light surface is the result of mechanical and thermal requirements.

Sehkomfort

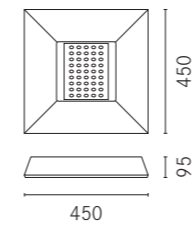
Die für die Orao-Produktreihe entworfenen innovativen Optiksysteeme garantieren den Personen Sehkomfort, Sicherheit und Qualität des Raumes. Das Orao-Design wurde konzipiert, um den städtischen Raum mit Diskretion zu beleuchten: Die Geometrien des Produktes ermöglichen es, die Sichtbarkeit der Lichtquelle für den Betrachter zu verringern, ohne die photometrischen Leistungen des Optiksysteems zu beeinträchtigen. Orao wurde durch optische Untersuchungen bezüglich des Abschirmungswinkels, des Winkels zwischen der horizontalen Ebene und einer geraden Linie, die durch den Rand des Gerätes und den Rand der Lichtquelle läuft, geschaffen. Orao hat einen Abschirmungswinkel von 10°. Die 10°-Lösung wurde als optimales Gleichgewicht zwischen der Komfortverbesserung und der Begrenzung der beleuchtungstechnischen Auswirkung gewählt. Das Maß der Zurücksetzung der Lichtquelle entspricht hingegen den mechanischen und thermischen Bedürfnissen.



220 240V	50 60Hz	CL II	IP66	IK09
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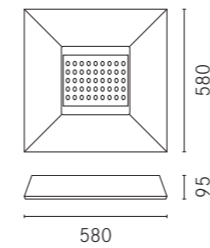


Orao brackets and poles small

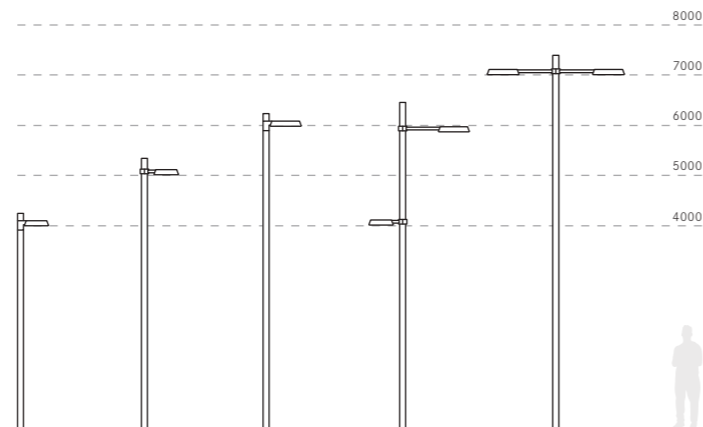


Max weight: 7.5kg
 Max exposed surface: 0.2m²
 Lateral exposed surface: 0.04m²

Orao brackets and poles medium



Max weight: 12kg
 Max exposed surface: 0.34m²
 Lateral exposed surface: 0.05m²



Orao S 01OR1	
Led (source flux) Ref. @700mA @4000K	
4025lm 24W B2	7915lm 48W C4
Led (source flux) Ref. @700mA @3000K	
3835lm 24W B2	7550lm 48W C4

mA		
700 0	525 5	350 3
K		
4000 0	3000 9	

Optics				
ST-01 30	ME-01 32	LA-01 31	LT-06 37	MB-01 40

Colors	
Sablé100 C	

Smart Lighting	
Custom programmable virtual midnight and DALI standard HM4	

Orao M 01OR3		
Led (source flux) Ref. @700mA @4000K		
8070lm 48W C4	11960lm 72W D6	15665lm 95.5W E8
Led (source flux) Ref. @700mA @3000K		
7695lm 48W C4	11405lm 72W D6	14935lm 95.5W E8

mA		
700 0	525 5	350 3
K		
4000 0	3000 9	

Optics				
ST-01 30	ME-01 32	LA-01 31	LT-06 37	MB-01 40

Colors	
Sablé100 C	

Smart Lighting	
Custom programmable virtual midnight and DALI standard HM4	

Esempio Example Beispiel

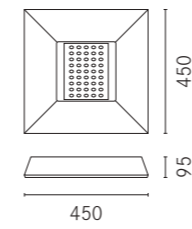
01OR2	C4	0	0	37	C	HM4
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Verifica compatibilità con pali e bracci. Check compatibility with poles and arms. Überprüfen Sie die Kompatibilität mit Masten und Armen. P. 316

220 240V	50 60Hz	CL II	IP66	IK09
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Orao string suspension small



Max weight: 7.5kg
 Max exposed surface: 0.2m²
 Lateral exposed surface: 0.04m²

Orao S
01OR2

Led (source flux) Ref. @700mA @4000K

4025lm 24W	7915lm 48W
B2	C4

Led (source flux) Ref. @700mA @3000K

3835lm 24W	7550lm 48W
B2	C4

mA

700	525	350
0	5	3

K

4000	3000
0	9

Optics

SO-01
39

Colors

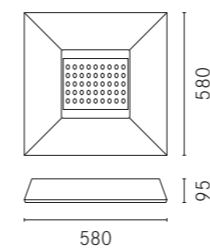
Sablé100
C

Smart Lighting

Custom programmable virtual midnight and DALI standard

HM4

Orao string suspension medium



Max weight: 12kg
 Max exposed surface: 0.34m²
 Lateral exposed surface: 0.05m²

Orao M
01OR4

Led (source flux) Ref. @700mA @4000K

8070lm 48W	11960lm 72W	15665lm 95.5W
C4	D6	E8

Led (source flux) Ref. @700mA @3000K

7695lm 48W	11405lm 72W	14935lm 95.5W
C4	D6	E8

mA

700	525	350
0	5	3

K

4000	3000
0	9

Optics

SO-01
39

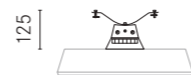
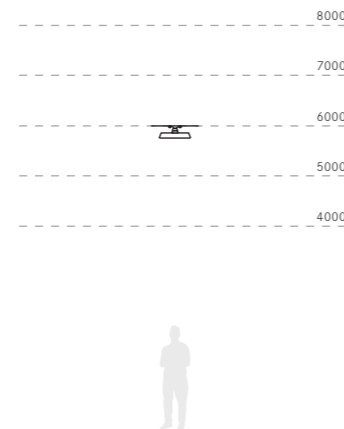
Colors

Sablé100
C

Smart Lighting

Custom programmable virtual midnight and DALI standard

HM4



Accessori Accessories Zubehör

01OR915C0 - Sablé100

B82 Kit sospensione su fune tesata

B82 Suspension kit for string

B82 Aufhängungskit auf Drahtseil

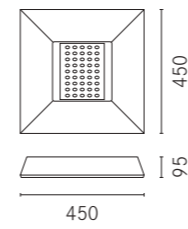
Esempio Example Beispiel

01OR2	C4	0	0	39	C	HM4
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220 240V	50 60Hz	CL II	IP66	IK09
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Orao ceiling small



Max weight: 7.5kg
 Max exposed surface: 0.2m²
 Lateral exposed surface: 0.04m²

Orao S
01OR5

Led (source flux) Ref. @700mA @4000K

4025lm 24W B2	7915lm 48W C4
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Led (source flux) Ref. @700mA @3000K

3835lm 24W B2	7550lm 48W C4
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mA

700 0	525 5	350 3
-----------------	-----------------	-----------------

K

4000 0	3000 9
------------------	------------------

Optics

RS-01 35

Colors

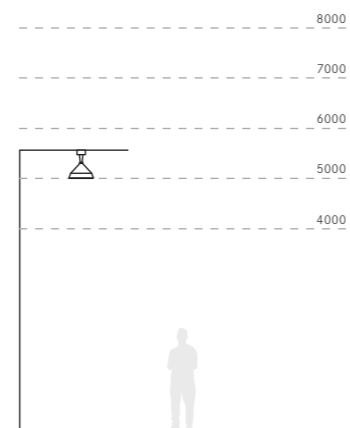
Sablé100 C

Smart Lighting

Custom programmable virtual midnight and DALI standard HM4
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Esempio *Example* Beispiel

01OR1	B2	0	0	35	C	HM4
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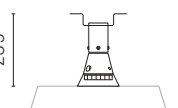
Accessori *Accessories* Zubehör

01OR910C0 - Sablé100

B105 Attacco sospensione portici

B105 Ceiling mount

B105 Deckenhalterung



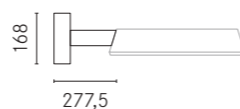
Accessori Accessories Zubehör Orao Brackets and poles small

01OR903C0 - Sablé 100

B98-P Braccio parete L 410mm

B98-P Arm for wall-mounting L 410mm

B98-P Arm für die Installation an der Wand L 410mm



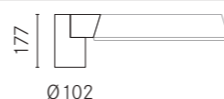
Accessori Accessories Zubehör Orao Brackets and poles

01OR901C0 - Sablé 100

B96 Attacco testa palo Ø60mm palo Ø102mm

B96 Post top kit Ø60mm for post Ø102mm

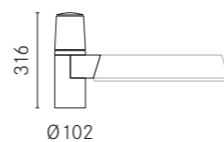
B96 Aufsatzset Ø60mm für Mast Ø102mm

**01OR902C0 - Sablé 100**

B164 Attacco testa palo Ø60mm palo Ø102mm con kit porta antenna

B164 Post top kit Ø60mm for post Ø102mm with antenna holder kit

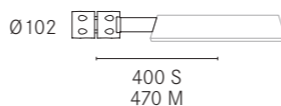
B164 Aufsatzset Ø60mm für Mast Ø102mm mit Antennenhalter-Kit

**01OR904C0 - Sablé 100**

B99 Braccio rettangolare L 400mm small/L 470mm medium palo Ø102mm

B99 Rectangular arm L 400mm small/L 470mm medium pole Ø102mm

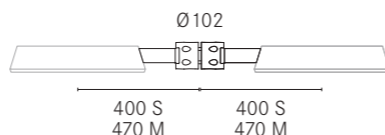
B99 Rechteckarm L 400mm small/L 470mm medium Mast Ø102mm

**01OR905C0 - Sablé 100**

B100 Braccio doppio rettangolare L 400mm small/L 470mm medium palo Ø102mm

B100 Rectangular double arm L 400mm small/L 470mm medium pole Ø102mm

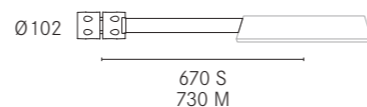
B100 Rechteckiger Doppelarm L 400mm small/L 470mm medium Mast Ø102mm

**01OR906C0 - Sablé 100**

B101 Braccio rettangolare L 670mm small/L 730mm medium palo Ø102mm

B101 Rectangular arm L 670mm small/L 730mm medium pole Ø102mm

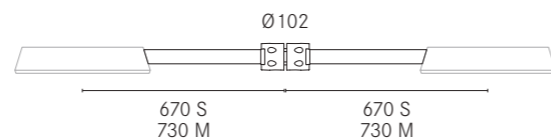
B101 Rechteckarm L 670mm small/L 730mm medium Mast Ø102mm

**01OR907C0 - Sablé 100**

B102 Braccio doppio rettangolare L 670mm small/L 730mm medium palo Ø102mm

B102 Rectangular double arm L 670mm small/L 730mm medium pole Ø102mm

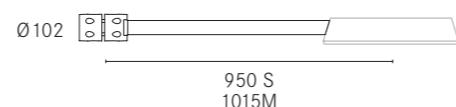
B102 Rechteckiger Doppelarm L 670mm small/L 730mm medium Mast Ø102mm

**01OR908C0 - Sablé 100**

B103 Braccio rettangolare L 950mm small/L 1015mm medium palo Ø102mm

B103 Rectangular arm L 950mm small/L 1015mm medium pole Ø102mm

B103 Rechteckarm L 950mm small/L 1015mm medium Mast Ø102mm

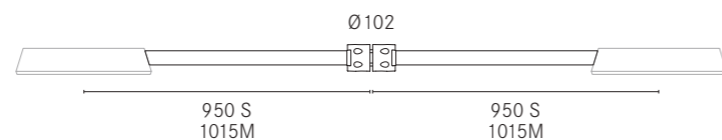
**01OR909C0 - Sablé 100**

B104 Braccio doppio rettangolare

L 950mm small/L 1015mm medium palo Ø102mm

*B104 Rectangular double arm**L 950mm small/L 1015mm medium pole Ø102mm*

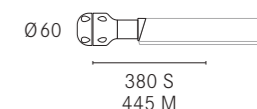
B104 Rechteckiger Doppelarm L 950mm small/L 1015mm medium Mast Ø102mm

**01OR911C0 - Sablé 100**

B106 Braccio tubolare L 380mm small/L 445mm medium palo Ø60-76mm

B106 Tubular arm L 380mm small/L 445mm medium pole Ø60-76mm

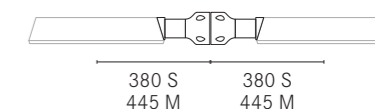
B106 Rohrarm L 380mm small/L 445mm medium Mast Ø60-76mm

**01OR912C0 - Sablé 100**

B107 Braccio tubolare doppio L 380mm small/L 445mm medium palo Ø60-76mm

B107 Tubular double arm L 380mm small/L 445mm medium pole Ø60-76mm

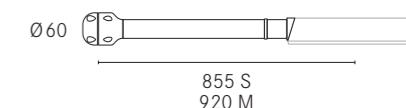
B107 Doppelrohrarm L 380mm small/L 445mm medium Mast Ø60-76mm

**01OR913C0 - Sablé 100**

B108 Braccio tubolare L 855mm small/L 920mm medium palo Ø60-76mm

B108 Tubular arm L 855mm small/L 920mm medium pole Ø60-76mm

B108 Rohrarm L 855mm small/L 920mm medium Mast Ø60-76mm

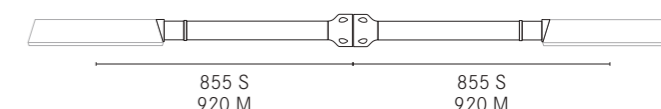
**01OR914C0 - Sablé 100**

B109 Braccio tubolare doppio L 855mm small

/L 920mm medium palo Ø60-76mm

B109 Tubular double arm L 855mm small/L 920mm medium pole Ø60-76mm

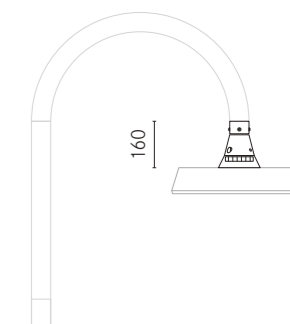
B109 Doppelrohrarm L 855mm small/L 920mm medium Mast Ø60-76mm

**01OR916C0 - Sablé 100**

B83 Attacco sospensione pastorale

B83 Kit for pastoral suspension

B83 Kit für pastorale Suspension



Accessori Accessories Zubehör Orao String suspension

01OR915C0 - Sablé 100

B82 Kit sospensione su fune tesata

B82 Suspension kit for string

B82 Aufhängungskit auf Drahtseil



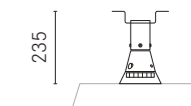
Accessori Accessories Zubehör Orao Ceiling

01OR910C0 - Sablé 100

B105 Attacco sospensione portici

B105 Ceiling mount

B105 Deckenhalterung



Accessori Accessories Zubehör Orao

06KS909C0 - Sablé 100

B89 Connettore 4 vie

B89 4-way connector

B89 4-Wege-Stecker

