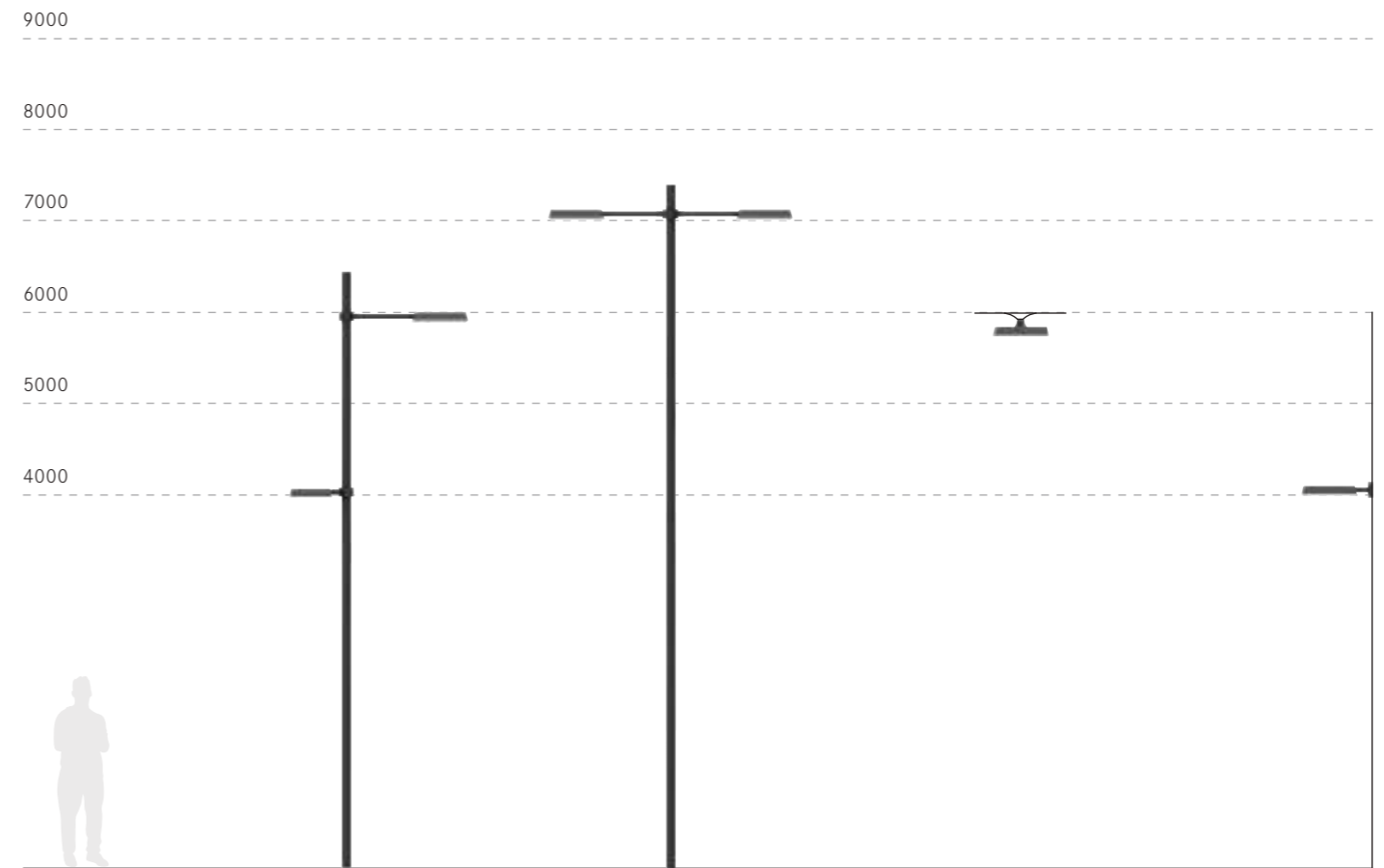
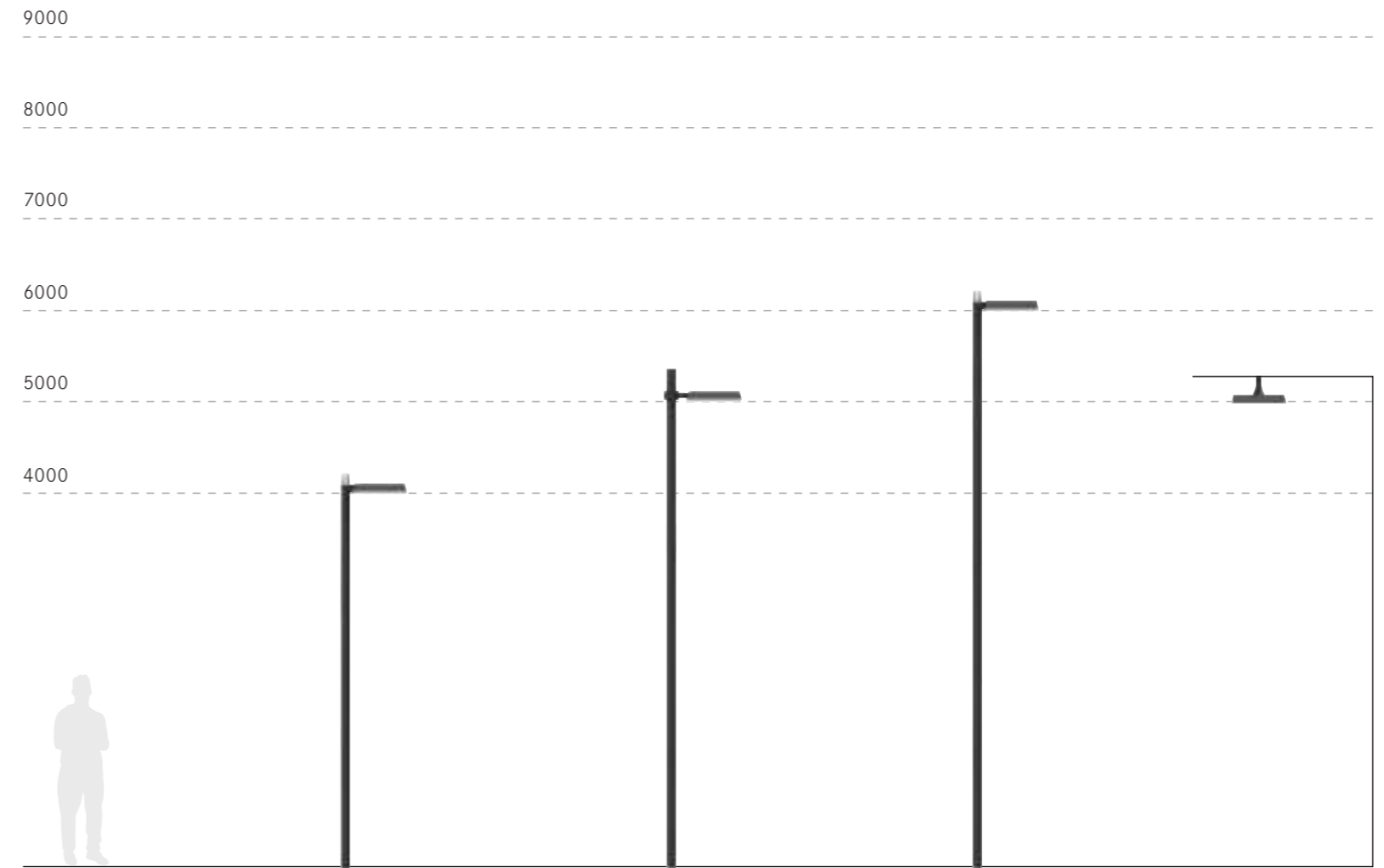


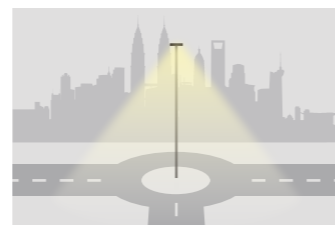
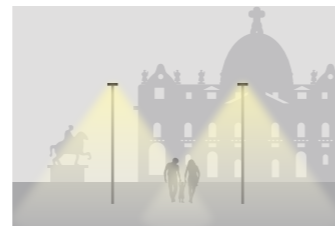
Orao

Fivep





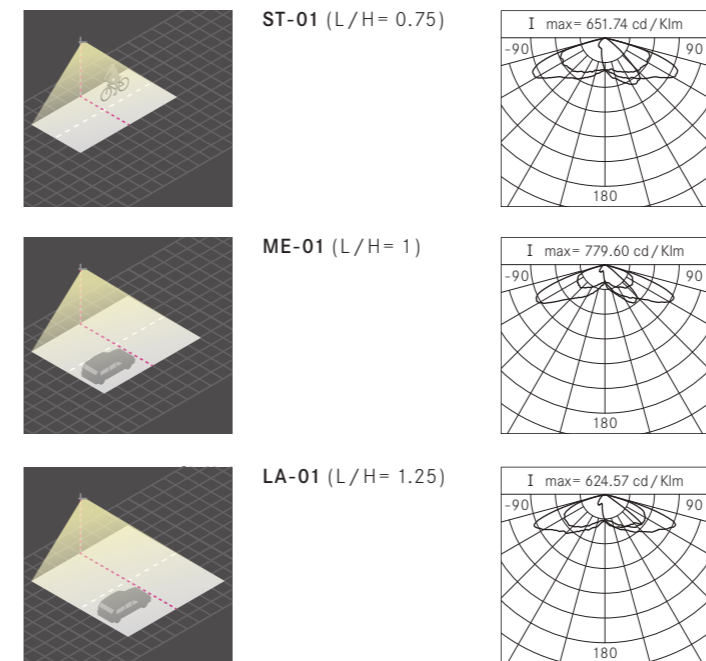
<b>220-240V</b> <b>50/60Hz</b>	Tensione di alimentazione <i>Nominal voltage</i> Nennspannung
<b>CL I on request</b> <b>CL II</b>	Classe di isolamento elettrico <i>Electrical insulation class</i> Elektrische Isolierklasse
<b>IP66</b>	Grado di protezione <i>Insulation protection degree</i> Isolationsschutzgrad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



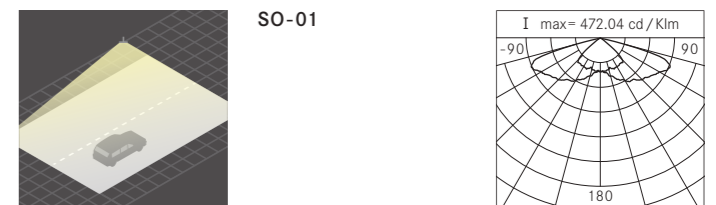
<b>2240-15665 lm</b>	Flusso sorgente <i>Source flux</i> Lichtstrom der Lichtquelle
<b>ULOR: 0%</b> <b>DLOR: 100%</b>	Cut-Off <i>Cut-Off</i> Cut-Off
<b>4000K</b> <b>3000K</b>	Temperatura colore <i>Colour temperature</i> Farbtemperatur

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

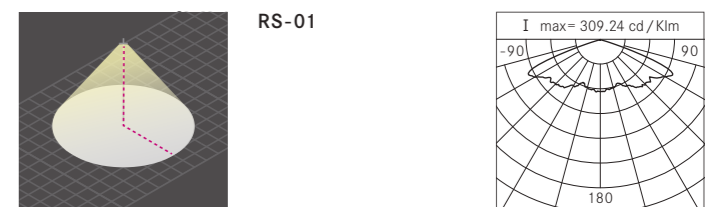
Ottiche asimmetriche stradali  
*Street asymmetrical optics* Optik asymmetrisch straßenleuchte



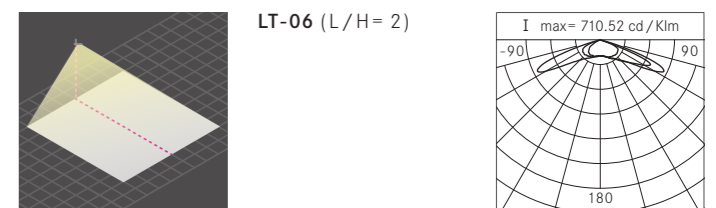
Ottiche simmetriche stradali  
*Street symmetrical optics* Optik symmetrisch straßenleuchte



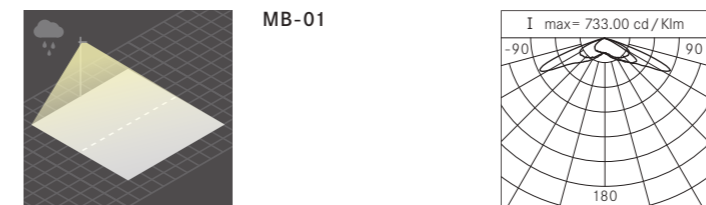
Ottiche rosimmetriche *Rotosymmetrical optics* Optik rotsymmetrisch



Ottiche asimmetriche *Asymmetrical optics* Optik asymmetrisch



Ottiche per manto bagnato  
*Wet surface optics* Optik asymmetrisch straßenleuchte



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

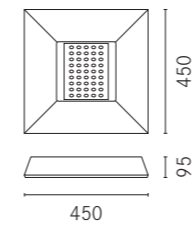
Die für die Orao-Produktreihe entworfenen innovativen Optiksysteeme garantieren den Personen Sehkomfort, Sicherheit und Qualität des Raumes. Das Orao-Design wurde konzipiert, um den städtischen Raum mit Diskretion zu beleuchten: Die Geometrien des Produktes ermöglichen es, die Sichtbarkeit der Lichtquelle 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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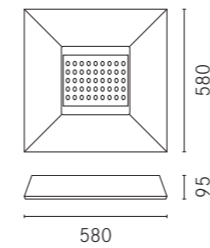


Orao brackets and poles small

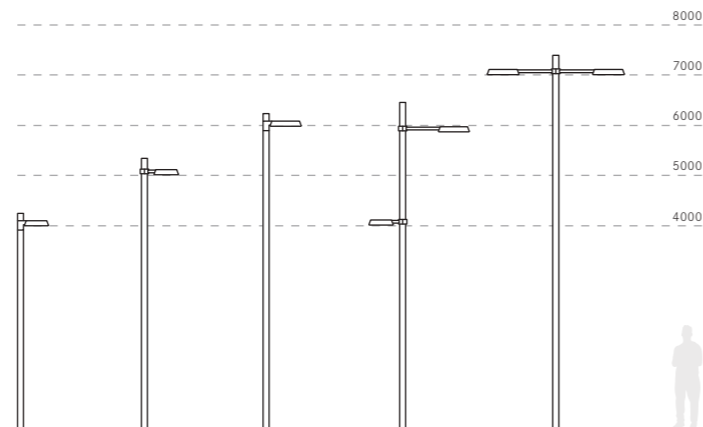


Max weight: 7.5 kg  
 Max exposed surface: 0.2m<sup>2</sup>  
 Lateral exposed surface: 0.04m<sup>2</sup>

Orao brackets and poles medium



Max weight: 12 kg  
 Max exposed surface: 0.34m<sup>2</sup>  
 Lateral exposed surface: 0.05m<sup>2</sup>



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

mA		
700 <b>0</b>	525 <b>5</b>	350 <b>3</b>
K		
4000 <b>0</b>	3000 <b>9</b>	

Optics				
ST-01 <b>30</b>	ME-01 <b>32</b>	LA-01 <b>31</b>	LT-06 <b>37</b>	MB-01 <b>40</b>

Colors	
Sablé100 <b>C</b>	

Smart Lighting	
Custom programmable virtual midnight and DALI standard <b>HM4</b>	

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

mA		
700 <b>0</b>	525 <b>5</b>	350 <b>3</b>
K		
4000 <b>0</b>	3000 <b>9</b>	

Optics				
ST-01 <b>30</b>	ME-01 <b>32</b>	LA-01 <b>31</b>	LT-06 <b>37</b>	MB-01 <b>40</b>

Colors	
Sablé100 <b>C</b>	

Smart Lighting	
Custom programmable virtual midnight and DALI standard <b>HM4</b>	

Esempio Example Beispiel

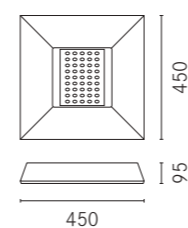
<b>01OR2</b>	<b>C4</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>C</b>	<b>HM4</b>
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Verifica compatibilità con pali e bracci. Check compatibility with poles and arms. Überprüfen Sie die Kompatibilität mit Masten und Armen. P. 316

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



Max weight: 7.5kg  
 Max exposed surface: 0.2m<sup>2</sup>  
 Lateral exposed surface: 0.04m<sup>2</sup>

Orao S  
**01OR2**

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

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

3835lm 24W <b>B2</b>	7550lm 48W <b>C4</b>
-------------------------	-------------------------

mA

700 <b>0</b>	525 <b>5</b>	350 <b>3</b>
-----------------	-----------------	-----------------

K

4000 <b>0</b>	3000 <b>9</b>
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Optics

SO-01 <b>39</b>
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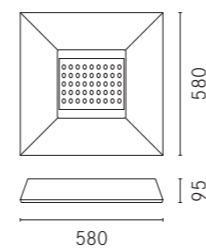
Colors

Sablé100 <b>C</b>
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Smart Lighting

Custom programmable virtual midnight and DALI standard <b>HM4</b>
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Orao string suspension medium



Max weight: 12kg  
 Max exposed surface: 0.34m<sup>2</sup>  
 Lateral exposed surface: 0.05m<sup>2</sup>

Orao M  
**01OR4**

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

8070lm 48W <b>C4</b>	11960lm 72W <b>D6</b>	15665lm 95.5W <b>E8</b>
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Led (source flux) Ref. @700mA @3000K

7695lm 48W <b>C4</b>	11405lm 72W <b>D6</b>	14935lm 95.5W <b>E8</b>
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mA

700 <b>0</b>	525 <b>5</b>	350 <b>3</b>
-----------------	-----------------	-----------------

K

4000 <b>0</b>	3000 <b>9</b>
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Optics

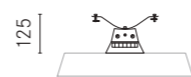
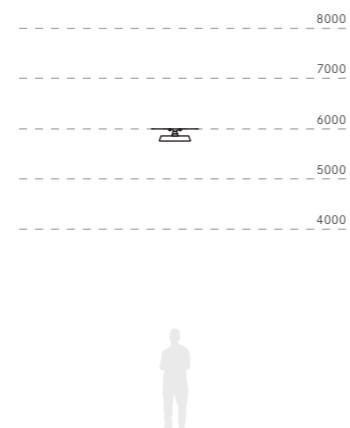
SO-01 <b>39</b>
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Colors

Sablé100 <b>C</b>
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Smart Lighting

Custom programmable virtual midnight and DALI standard <b>HM4</b>
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Accessori Accessories Zubehör

**01OR915C0 - Sablé100**

B82 Kit sospensione su fune tesata  
 B82 Suspension kit for string  
 B82 Aufhängungskit auf Drahtseil

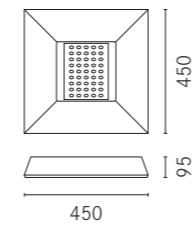
Esempio Example Beispiel

<b>01OR2</b>	<b>C4</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>C</b>	<b>HM4</b>
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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: 0.2m<sup>2</sup>  
 Lateral exposed surface: 0.04m<sup>2</sup>

Orao S  
**01OR5**

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

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

3835lm 24W <b>B2</b>	7550lm 48W <b>C4</b>
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mA

700 <b>0</b>	525 <b>5</b>	350 <b>3</b>
-----------------	-----------------	-----------------

K

4000 <b>0</b>	3000 <b>9</b>
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Optics

RS-01 <b>35</b>
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Colors

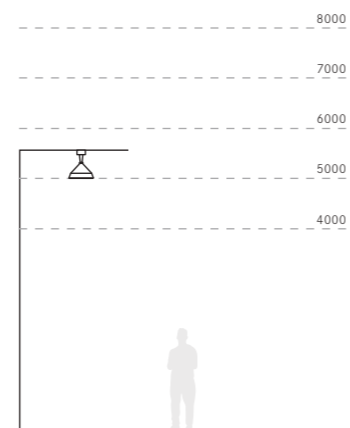
Sablé100 <b>C</b>
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Smart Lighting

Custom programmable virtual midnight and DALI standard <b>HM4</b>
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Esempio *Example* Beispiel

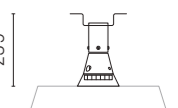
<b>01OR1</b>	<b>B2</b>	<b>0</b>	<b>0</b>	<b>35</b>	<b>C</b>	<b>HM4</b>
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Accessori *Accessories* Zubehör

**01OR910C0 - Sablé100**

B105 Attacco sospensione portici  
*B105 Ceiling mount*  
 B105 Deckenhalterung



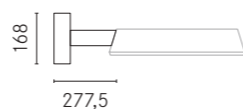
## Accessori Accessories Zubehör Orao Brackets and poles small

**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



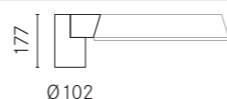
## Accessori Accessories Zubehör Orao Brackets and poles

**01OR901C0 - Sablé 100**

B96 Attacco testa palo Ø60mm palo Ø102mm

*B96 Post top kit Ø60mm for post Ø102mm*

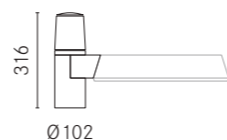
B96 Aufsatzset Ø60mm für Mast Ø102mm

**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*

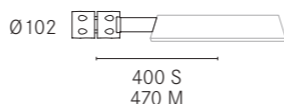
B164 Aufsatzset Ø60mm für Mast Ø102mm mit Antennenhalter-Kit

**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*

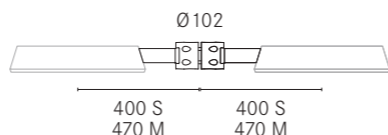
B99 Rechteckarm L 400mm small/L 470mm medium Mast Ø102mm

**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*

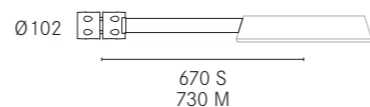
B100 Rechteckiger Doppelarm L 400mm small/L 470mm medium Mast Ø102mm

**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*

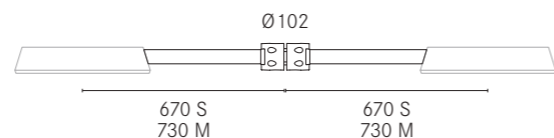
B101 Rechteckarm L 670mm small/L 730mm medium Mast Ø102mm

**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*

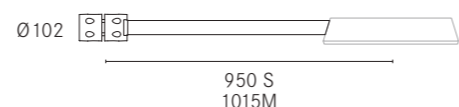
B102 Rechteckiger Doppelarm L 670mm small/L 730mm medium Mast Ø102mm

**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

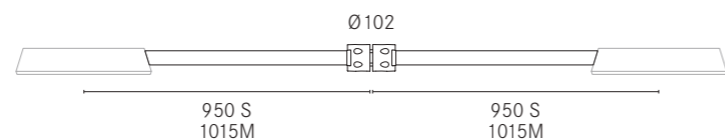
**01OR909C0 - Sablé 100**

B104 Braccio doppio rettangolare

L 950mm small/L 1015mm medium palo Ø102mm

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

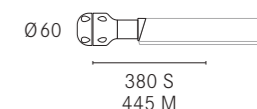
B104 Rechteckiger Doppelarm L 950mm small/L 1015mm medium Mast Ø102mm

**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*

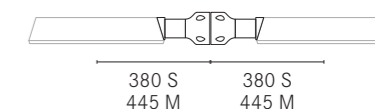
B106 Rohrarm L 380mm small/L 445mm medium Mast Ø60-76mm

**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*

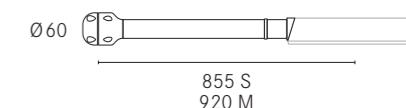
B107 Doppelrohrarm L 380mm small/L 445mm medium Mast Ø60-76mm

**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

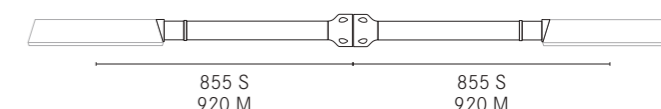
**01OR914C0 - Sablé 100**

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*

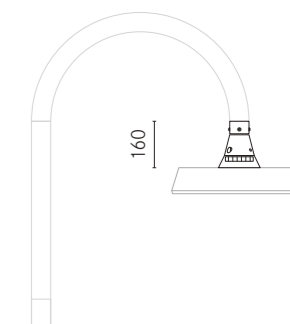
B109 Doppelrohrarm L 855mm small/L 920mm medium Mast Ø60-76mm

**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



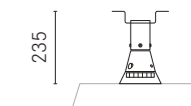
## Accessori Accessories Zubehör Orao Ceiling

**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

