Lighting Tools Exterior

Chapter 6
Secondary reflector systems

siteco
AN OSRAM BUSINESS

21m

18m

Projectors and Floodlights

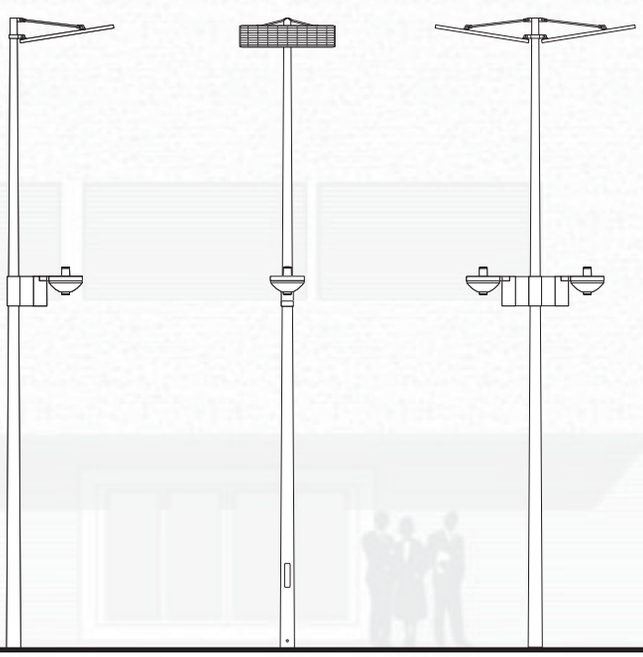
15m

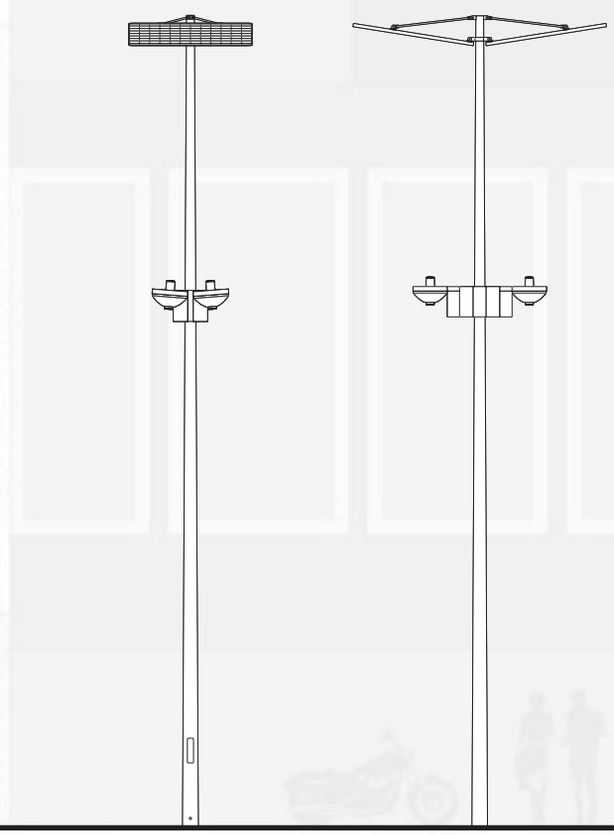
12m

9m

6m

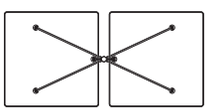
3m



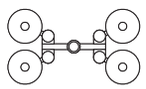


Siteco Mirrortec®
mast systems
8 m
Page 6.6

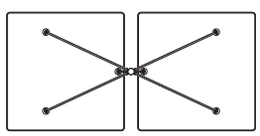
Siteco Mirrortec®
Projector 400
8 m
Page 6.6



Siteco Mirrortec®
Projector 400
8 m
Page 6.6

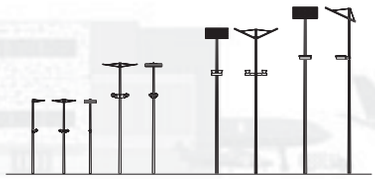


Siteco Mirrortec® Projector 400
Siteco Mirrortec® mast systems
10 m
Page 6.6

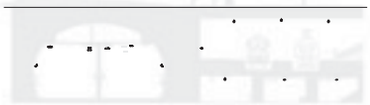


Siteco Mirrortec® mast systems
10 m
Page 6.6

6

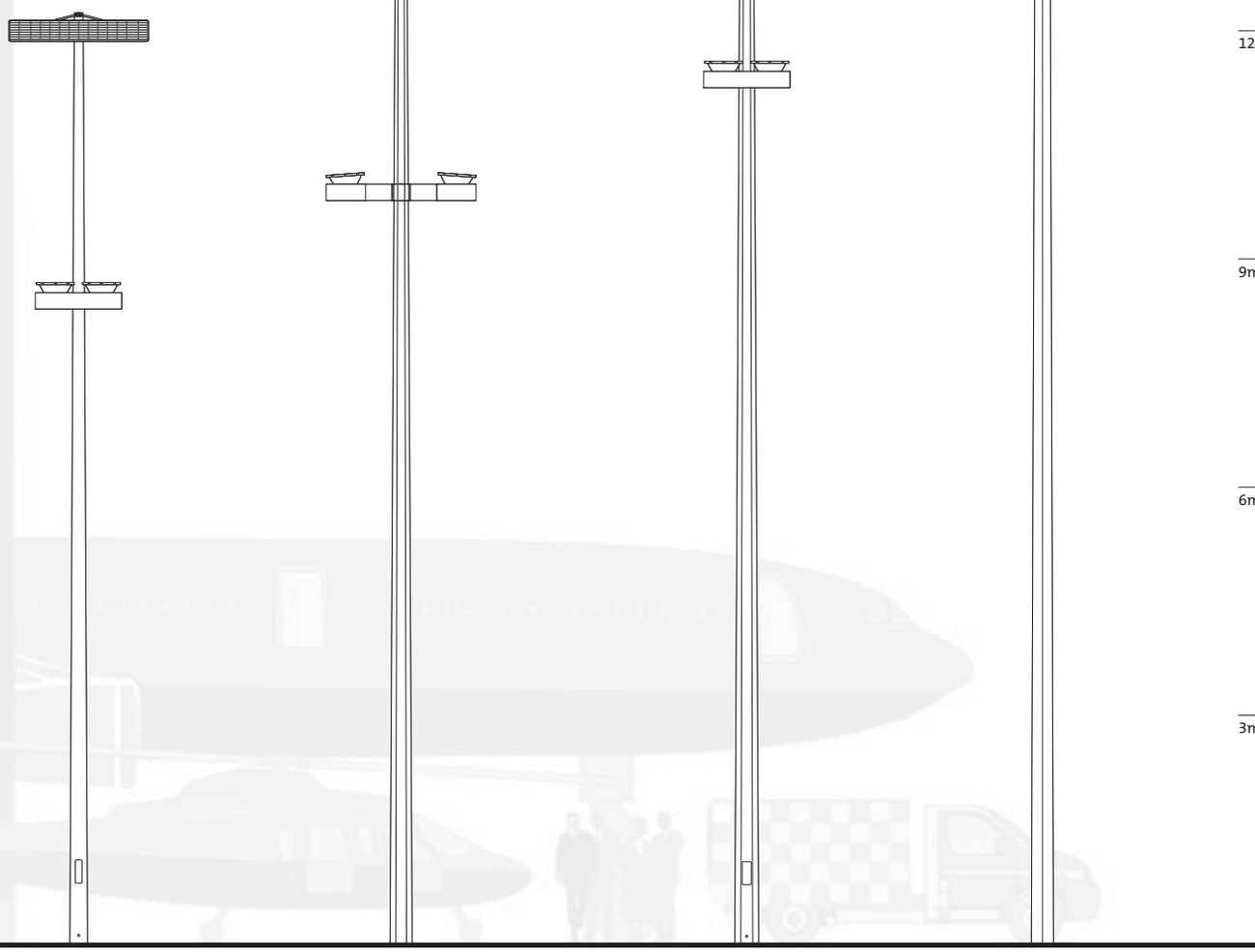


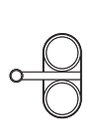
Secondary reflector systems



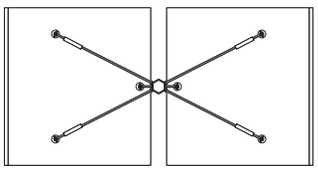
Tunnel luminaires

21m
18m
15m
12m
9m
6m
3m

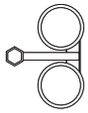




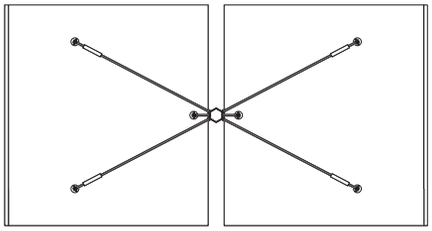
Siteco Mirrortec® Projector 1000
Siteco Mirrortec® mast systems
12 m/14 m
Page 6.8



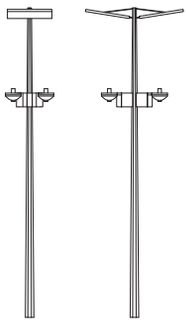
Siteco Mirrortec® mast systems
12 m/14 m
Page 6.8



Siteco Mirrortec® Projector 1000/1000 S
Siteco Mirrortec® mast systems
16 m/18 m
Page 6.8

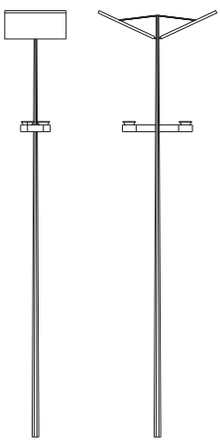


Complete systems 5NA799F



Siteco Mirrortec® mast system
Height: 8m | 10m
Page 6.6

Complete systems 5NA799S



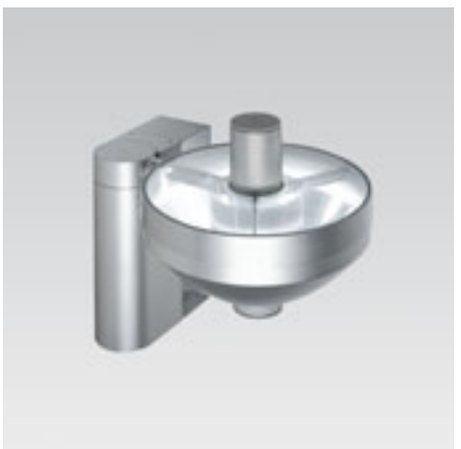
Siteco Mirrortec® mast system
Height: 12m | 14m | 16m | 18m
Page 6.8

Secondary reflector systems

Secondary reflector systems offer a range of features that make them especially attractive solutions in terms of photometrics and design with architecture. Their property of bringing light with a very high level of uniformity and precisely limited onto the surface to be illuminated is outstanding. The application breadth and possibilities for installation range from rooms with just a few square metres in indoor areas to large outdoor squares. Individual solutions always emphasise special character and atmosphere, as well as supporting the architecture in an unusual way with light and lighting.

Siteco Mirrortec® Reflector SMR 200 CA

Siteco Mirrortec® Reflector SMR 100 FA



Siteco Mirrortec® Projector 400

Siteco Mirrortec® Projector 1000 S

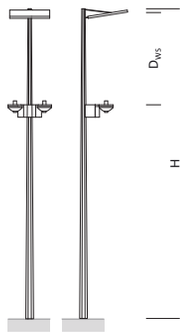
Siteco Mirrortec® Projector 1000

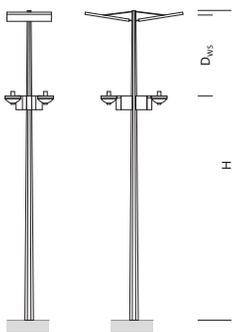
Application
Architectural lighting concepts and sophisticated lighting solutions are implemented with secondary reflector systems. The possible bandwidth extends from 20 square metre-large atria to 1200 metre-long airport halls, 6 metre-wide roads and 5400 square metre-large public squares illuminated from only one point on the side. Siteco Mirrortec® systems recommended for many such tasks, and their implementation can be discussed together with our specialists.

Function
Light is guided by a very narrow distribution projector onto a multi-facetted reflector and is reflected asymmetrically. Especially high light comfort is achieved by the correct selection of projector and reflector and the distance between these. In contrast to a conventional luminaire, the light source is split via the multifacetted system into individual light points with low intensity. According to observer position and size of the individual facets, light point resolution is the result. Glare is thus minimised. At the same time the high number of facets achieve a highly uniform illumination. Maintenance is facilitated with the low installation position of the projector. The reflector under normal conditions remains maintenance-free.

Technology
The diagrams and tables on the following pages offer an overview of the technology. Asymmetrical reflectors can illuminate various surfaces due to their reflection characteristics. The size of such surfaces is modified with reflector height and angle of inclination. The achievable illuminance changes with the geometry (reflector height, reflector size, inclination and projector height) and the number and lamp configurations of the projector.
The aim is always high uniformity of illuminance with low glare.

Recommended application
Because of the flexibility of Siteco Mirrortec® technology, in addition to the specified standard systems custom solutions are of course also offered. Siteco would be pleased to provide you with the necessary support.





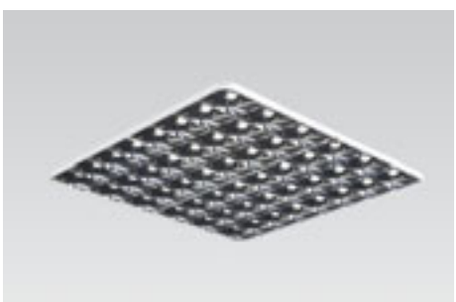
Siteco Mirrortec® system 5NA799F
with single or double-sided reflector arrangement

Siteco Mirrortec® complete system* for mounting to on-site foundation | Siteco Mirrortec® reflector SMR 100FA: ultraflat light point resolution reflector with Fresnel technology for asymmetric light distribution; Siteco Mirrortec® Projector SMW 400: patented lighting technology with inverse mounting position, parallel beam distribution | mast of galvanised steel; reflector baseplate of aluminium; projector housing of diecast aluminium, metallic grey (RAL 9006); reflector of aluminium, satin matt outer; cover of toughened safety glass
Protection rating: IP65
Insulation class: I

System constructed for:
Wind zone II
Snow zone II
Terrain category II
Safety class B

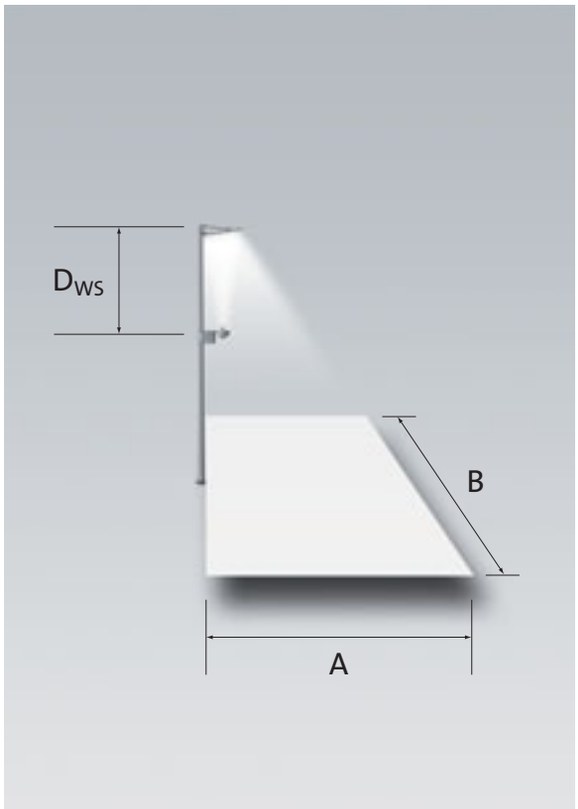
* consisting of mast incl. verifiable static analysis, secondary reflector, projector, lamps, delivery and mounting | establish statics according to local conditions and foundation on-site

Mast height H (m)	Dimensions of reflector elements (m)	No. of projectors	Distance proj./reflector (D_{WS})	Order No.
System with single-sided reflector configuration				
8	1x SMR 100FA 0.9 x 0.9	1x SMW 400	2.5	5NA799F0801
10	1x SMR 100FA 1.2 x 1.2	2x SMW 400	3.0	5NA799F1002
System with double-sided reflector configuration				
8	2x SMR 100FA 0.9 x 0.9	2x SMW 400	2.5	5NA799F0802
10	2x SMR 100FA 1.2 x 1.2	4x SMW 400	3.0	5NA799F1004

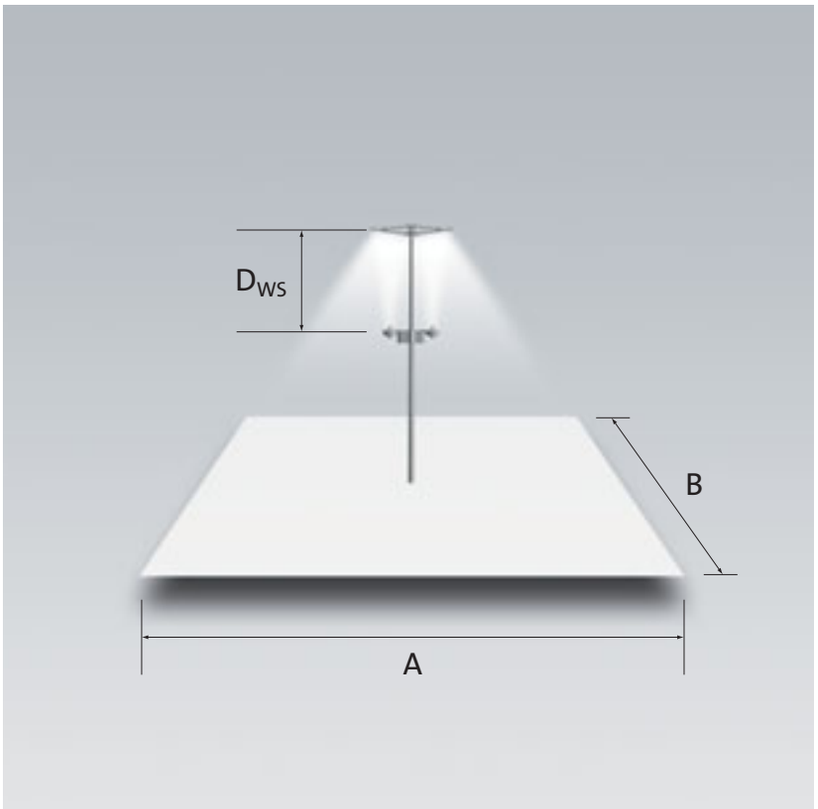


Siteco Mirrortec® Reflector SMR 100 FA

Siteco Mirrortec® Projector 400



System with single-sided reflector configuration

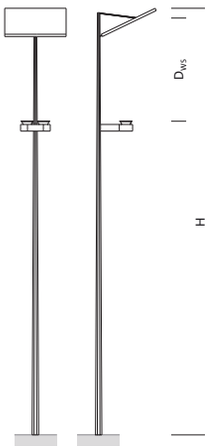


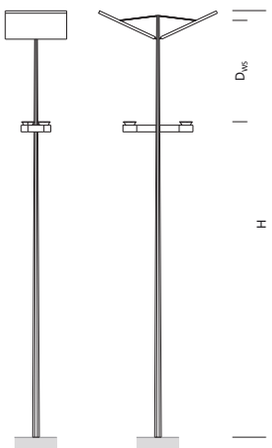
System with double-sided reflector configuration

Planning aid for Siteco Mirrortec® system 5NA799F:
Light point resolution reflector with Fresnel technology

These specifications are intended only for pre-planning.
Precise lighting planning must be carried out individually for all applications.

Illuminated surface	Mean illuminance	Homogeneity	Mast height	Order No.
A x B (m)	E_m (lx)	E_{min} / E_m	H (m)	
System with single-sided reflector configuration				
15x 20	11	0.25	8	5NA799F0801
20x 25	21	0.23	10	5NA799F1002
System with double-sided reflector configuration				
30x 20	18	0.37	8	5NA799F0802
40x 25	23	0.38	10	5NA799F1004





Siteco Mirrortec® system 5NA799S
with single or double-sided reflector arrangement

Siteco Mirrortec® complete system* for mounting to on-site foundation | Siteco Mirrortec® reflector SMR 200CA: light point resolution reflector with convex free-form single facets for asymmetrical light distribution; Siteco Mirrortec® projector SMW 1000 or SMW 1000S: with aluminium reflector, highly specular, narrow distribution, with transparent cover | separate gearbox with LLCG, with parallel p.f. correction | mast of galvanised steel; ring for optical enclosure of aluminium; projector housing and ring of optical enclosure of diecast aluminium, Siteco® metallic grey (DB 702S) (only with SMW 1000); reflector of aluminium, satin matt outer; cover of neo-ceramic glass, with protective grid

Protection rating: IP65
Insulation class: I

System constructed for:
Wind zone II
Snow zone II
Terrain category II
Safety class B

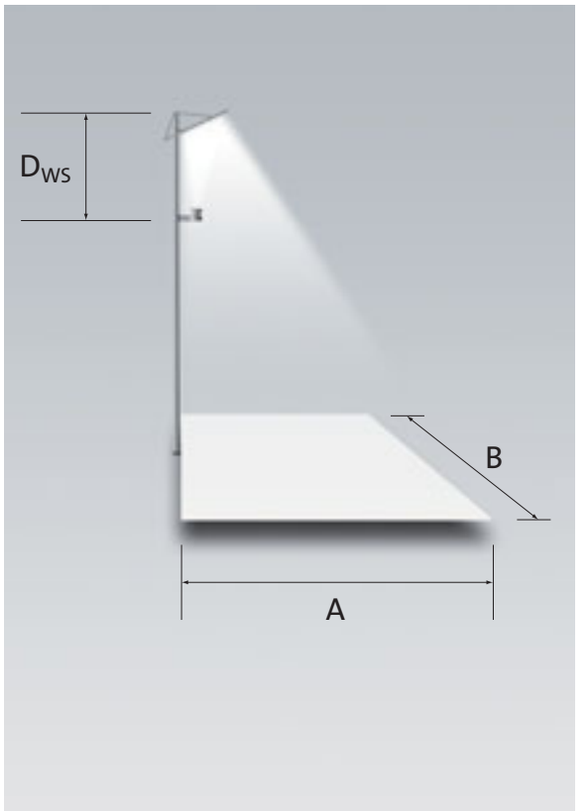
*consisting of mast incl. verifiable static analysis, secondary reflector, projector, lamps, gearbox, delivery and mounting | Establish statics according to local conditions and foundation on-site

Mast height H (m)	Dimensions of reflector elements (m)	No. of projectors	Distance proj./reflector (D_{WS})	Order No.
System with single-sided reflector configuration				
12	1x SMR 200 CA 1.6 x 1.6	1x SMW 1000	3	5NA799S1201
12	1x SMR 200 CA 1.6 x 1.6	2x SMW 1000	3	5NA799S1202
14	1x SMR 200 CA 2.0 x 2.0	1x SMW 1000	3.5	5NA799S1401
14	1x SMR 200 CA 2.0 x 2.0	2x SMW 1000	3.5	5NA799S1402
16	1x SMR 200 CA 2.4 x 2.4	2x SMW 1000	4.0	5NA799S1602
18	1x SMR 200 CA 2.8 x 2.8	2x SMW 1000 S	4.5	5NA799S1812
18	1x SMR 200 CA 2.8 x 2.8	3x SMW 1000 S	4.5	5NA799S1813
System with double-sided reflector configuration				
14	2x SMR 200 CA 2.0 x 2.0	4x SMW 1000	3.5	5NA799S1404
16	2x SMR 200 CA 2.4 x 2.4	4x SMW 1000	4.0	5NA799S1604
18	2x SMR 200 CA 2.8 x 2.8	4x SMW 1000 S	4.5	5NA799S1814

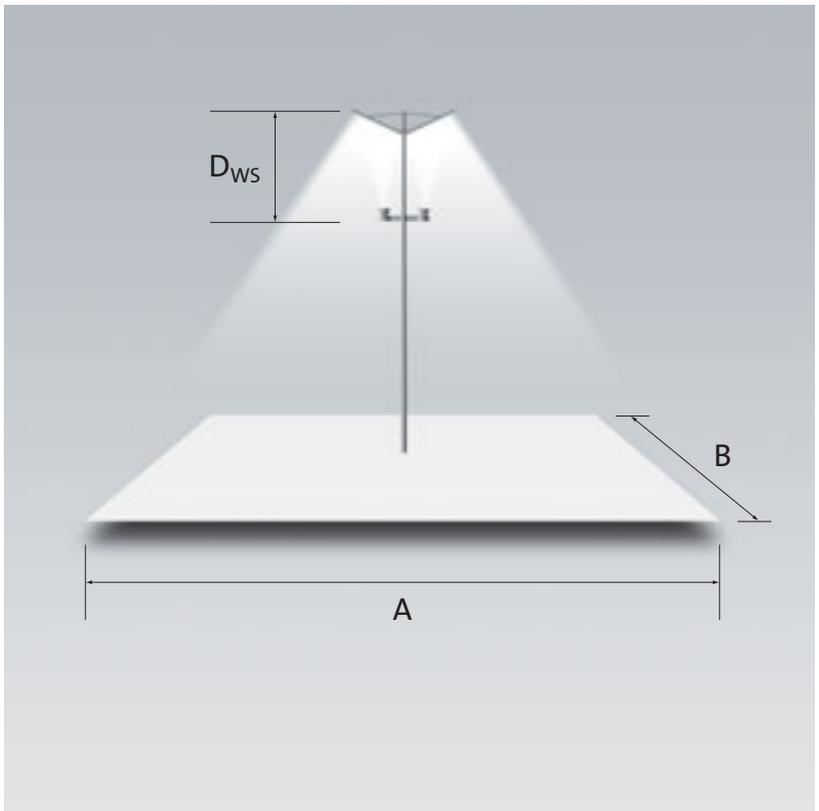

Siteco Mirrortec® Reflector SMR 200 CA


Siteco Mirrortec® Projector 1000


Siteco Mirrortec® Projector 1000 S



System with single-sided reflector configuration



System with double-sided reflector configuration

Planning aid for Siteco Mirrortec® system 5NA 799S:
Light distribution reflector with convex free-form facets

These specifications are intended only for pre-planning.
Precise lighting planning must be carried out individually for all applications.

Illuminated surface	Mean illuminance	Homogeneity	Mast height	Order No.
A x B (m)	E_m (lx)	E_{min} / E_m	H (m)	
System with single-sided reflector configuration				
40x 40	14	0.23	12	5NA799S1201
40x 35	29	0.32	12	5NA799S1202
50x 50	9	0.20	14	5NA799S1401
50x 50	19	0.20	14	5NA799S1402
50x 50	17	0.26	16	5NA799S1602
60x 60	14	0.23	18	5NA799S1812
60x 60	21	0.23	18	5NA799S1813
System with double-sided reflector configuration				
100x 50	20	0.29	14	5NA799S1404
100x 50	18	0.39	16	5NA799S1604
120x 60	18	0.49	18	5NA799S1814