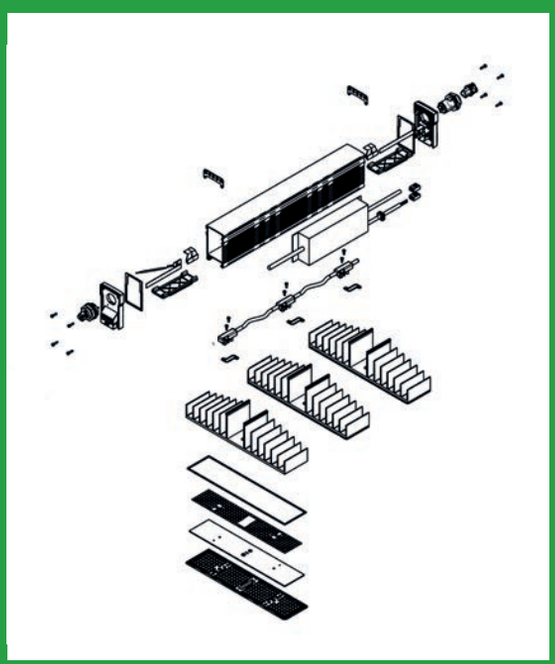
sanlight
better light, better plants

SANlight
EVO-Series

THE PEAK OF EVOLUTION

Horticultural LED-lighting

THE PEAK OF EVOLUTION
SANLIGHT EVO-SERIES

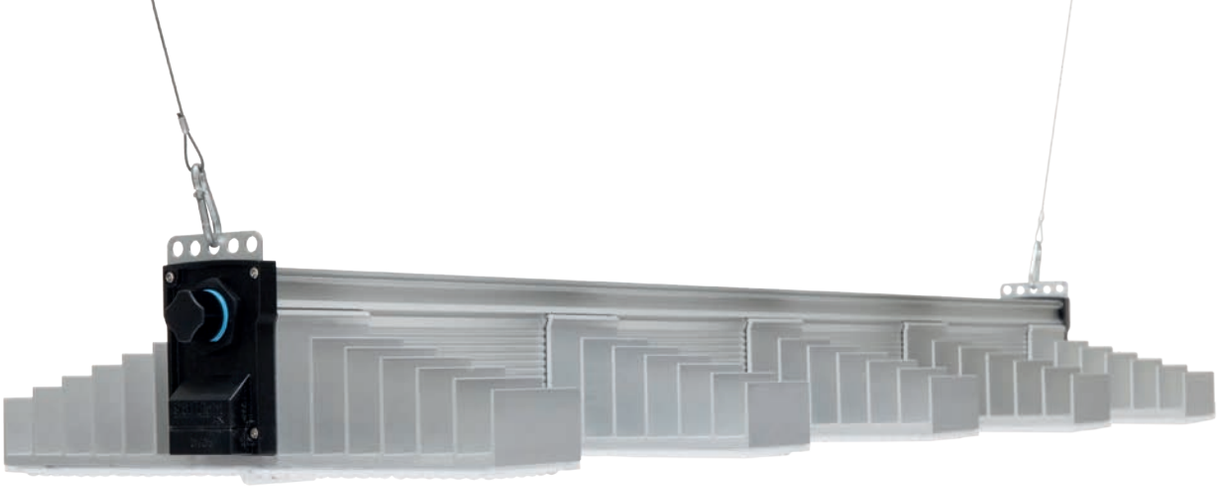


Our passionate team of engineers have spent countless hours developing the most advanced horticulture lighting system that's currently available. We have gathered empirical evidence to optimize the SANlight EVO-Series for premier indoor cultivation.

With our production in Austria, we ensure highest quality and reliability with our carefully picked high performance components, all while preserving resources from our planet earth. The EVO-Series is launched as the peak of evolution in plant lighting. Each model of the EVO-Series is designed for a sophisticated application to maximize plant performance in its unique environment.

When you choose the EVO-Series, we are convinced that you are choosing the best available product in the horticultural lighting market.

EFFICIENT
HIGH-QUALITY
RELIABLE



ADVANTAGES FOR **EVERY APPLICATION**

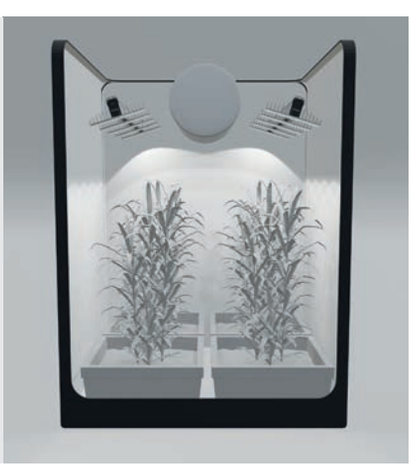
Compared to other horticulture LED luminaires, the EVO-Series stands out due to its unique design. The luminaires were developed to maximize plant performance and in order to do so, the EVO-Series took on a unique design with a slim modular construction. Our slim modular construction offers many advantages:

Individual adaptation to the plant height

Thanks to the use of at least two independent light sources, the EVO-Series offers you the advantage of being able to react to the individual plants.

Best possible utilisation of space

In many cultivation chambers, ventilation components such as activated carbon filters and fans are mounted on the ceiling. When using the EVO-Series these components can be positioned between the luminaires. This maximises the usable space in your grow room.



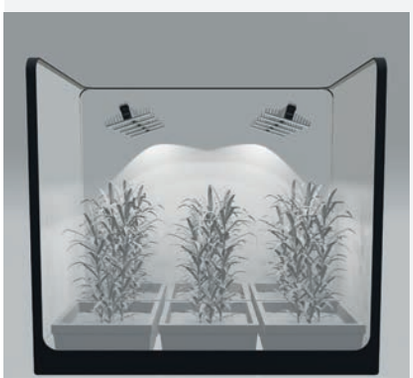
Smarter light distribution.

Diffuse light distribution

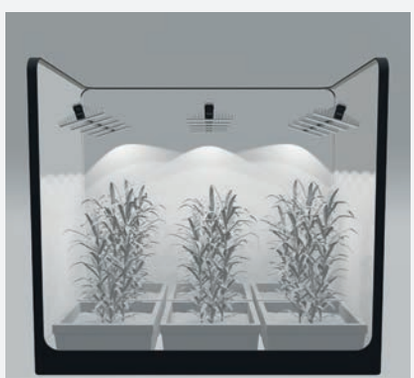
By using several luminaires, almost every position in your grow box is illuminated by two luminaires. The valuable light is distributed evenly over the whole surface, reaching the leaves from different directions and angles. Shadows are minimised and photosynthesis is maximised.

Individual setup

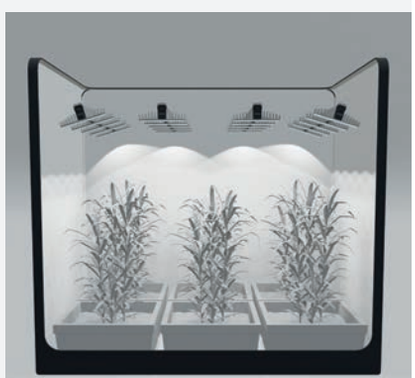
No matter what light intensity you need or how big your cultivation area is, you will always find the perfect solution with the EVO-Series. Luminaires can be positioned individually, and the beam angle can be adjusted using the Easy-Tilting-System making it possible to achieve almost any light value up to 2000 µmol/m²/s. Also, as your cultivation area grows, so can your EVO-Series because you can purchase individual luminaires at any time.



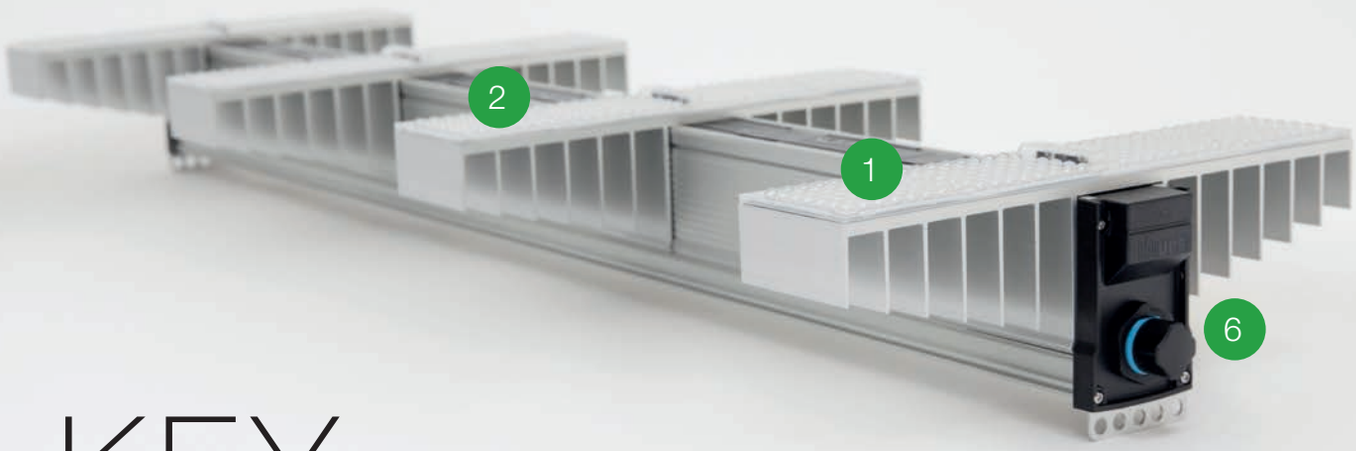
2x EVO 5-150: Ø 680 µmol/m²/s



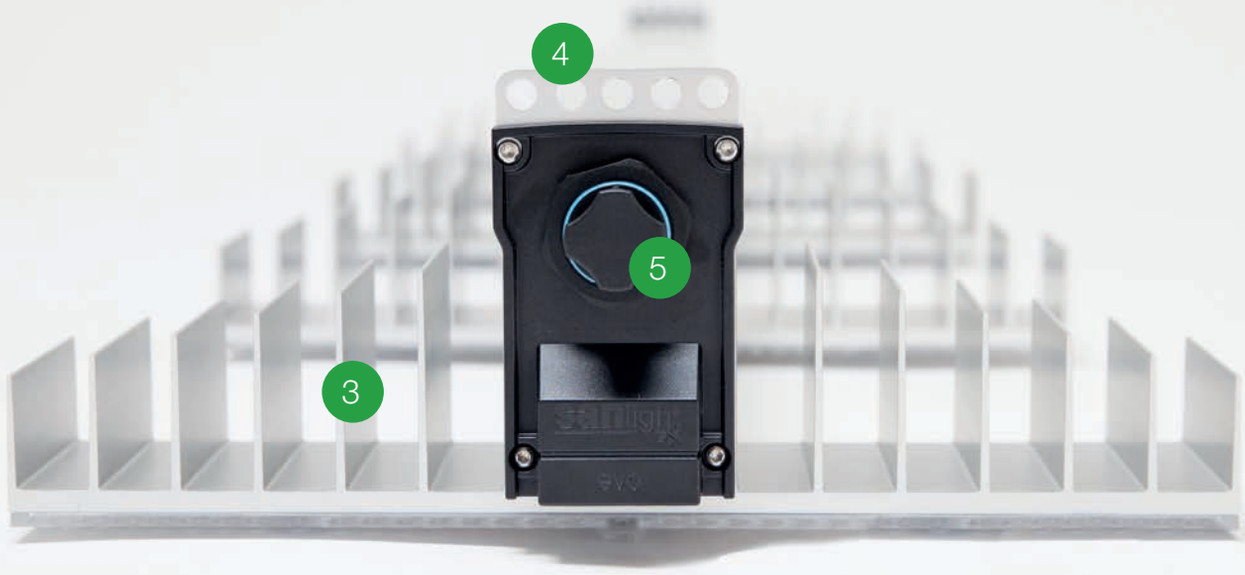
3x EVO 5-150: Ø 1040 µmol/m²/s



4x EVO 5-150: Ø 1400 µmol/m²/s



KEY **FEATURES**



1 PMMA Secondary Optics

The secondary optics, which are perfectly matched to the luminaire, direct the light to the plants and ensure even light distribution in your cultivation area. In addition, the optics reduce losses due to stray light and protects the LEDs from dirt and chemicals.

2 Most Efficient LEDs

For the EVO-Series, we have combined the world leading Osram UX3 High-Power red light with the most efficient white LEDs from Seoul Semiconductor to create a perfect light spectrum with exceptional efficiency.

3 Passive Cooling

The disproportionate heat sink ensures the coolest LED-Chip temperatures. This has a positive effect on the light output and the service life of the luminaire. Even when dirty, the heart of your EVO luminaire remains cool and efficient.

4 Easy-Tilting-System

With our Easy-Tilting-System the luminaire can be suspended horizontally or at any angle. When used in grow boxes, it usually makes sense to hang the luminaires at a slight incline (11°). The inclined positioning, in combination with our secondary optics, ensures homogeneous and diffuses light distribution in the cultivation area. In large open spaces the loss to non-planted areas can be reduced by suspending the luminaire from the outermost eyelet (17° inclination of the luminaire).

5 Flexible and Expandable

Each luminaire in the EVO-Series has a 0-10V interface to which different types of dimming can be connected. You have the choice between the SANlight magnetic dimmer, the SANlight Bluetooth dimmer or you can dim your EVO via an external control. The matching adapter cables are available upon request.

6 IP65 Protection Against Water Jets and Dust

All luminaires of the EVO-Series comply with the IP65 protection class: water jets and dust cannot harm the EVO luminaire. In addition, the individual light modules of the EVO-Series are hermetically sealed against the outside world. This is the only way to ensure that the sensitive mid-power LEDs are adequately protected against chemicals like cleaning or pest control products. The connectors used also comply with the IP65 protection class. You will be more at ease knowing your EVO-Series products are protected against moisture and dust.

TECHNICAL **PROPERTIES**

Electrical properties		EVO 3	EVO 4	EVO 5
Typ. power consumption	[W]	190	250	320
Power factor		> 0,95		
Input voltage range	[VAC]	100 – 240/277 ~ 50/60 Hz		
Max. input current	[A@220Vac]	0,9	1,1	1,5
Typ. inrush current	[A]	65		

Further properties		EVO 3-60	EVO 3-80	EVO 3-100	EVO 4-80	EVO 4-100	EVO 4-120	EVO 5-100	EVO 5-120	EVO 5-150
Weight	[kg]	3,5	3,8	4,1	4,5	4,8	5,1	5,6	5,9	6,4
Overall length	[mm]	468	643	818	643	818	1018	818	1018	1318
Protection rating		IP65								
Ambient operating temp.	[°C]	5 – 35								
Max. relative humidity	[%]	99								
Emission wavelength	[nm]	400 – 780								
PPF*	[µmol/s]	520			696			870		
Module efficacy	[µmol/J]	> 3*								
Angle of radiation	[°]	asymmetric 90°/112°								
Warranty	[years]	3								
Light maintenance >90	[h]	90 000								

*Module efficacy in the emission wavelength range.

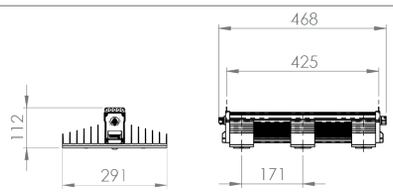
EVO-SERIES **MODELS**

The product name consists of the word EVO for evolution in horticulture lighting and two figures. **Example**: EVO 4-120 luminaire is equipped with four light modules and optimised for the side length of 120 cm.

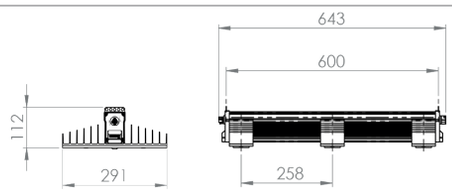
EVO **X** - **XXX**

Product Series | Number of Light Modules | Optimised for the Side Length of the Cultivation Area

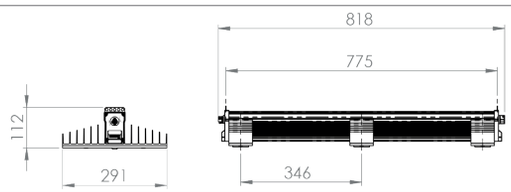
EVO 3-60
(Item-No.: AA1010)



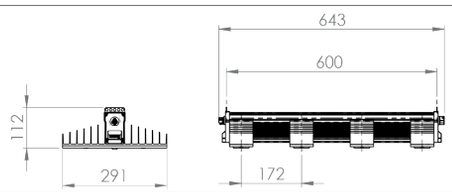
EVO 3-80
(Item-No.: AA1011)



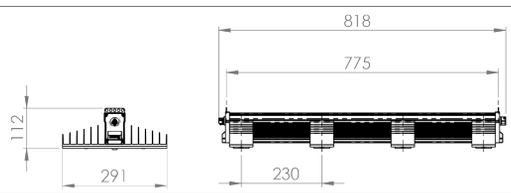
EVO 3-100
(Item-No.: AA1012)



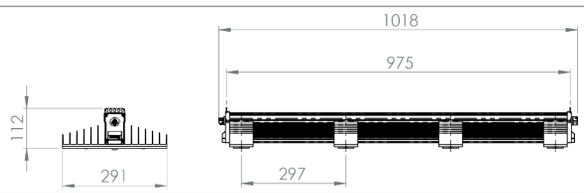
EVO 4-80
(Item-No.: AA1013)



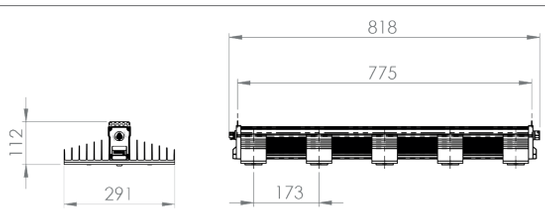
EVO 4-100
(Item-No.: AA1014)



EVO 4-120
(Item-No.: AA1015)



EVO 5-100
(Item-No.: AA1016)



EVO 5-120
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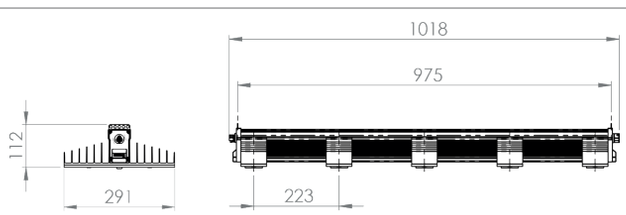
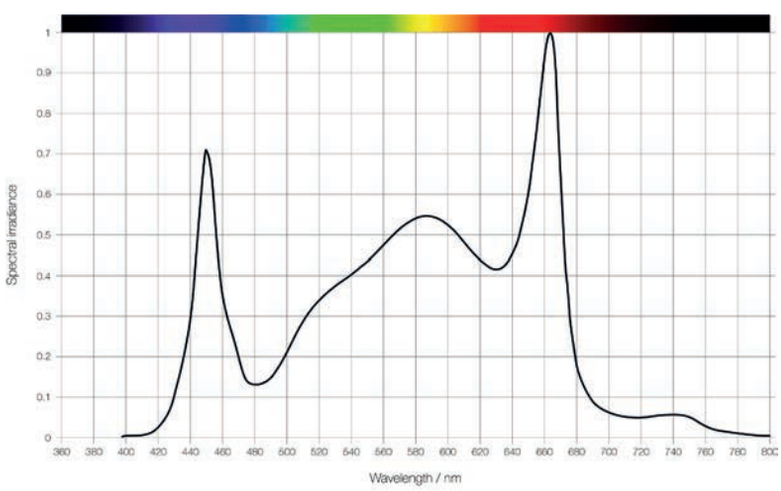


EVO 5-150
(Item-No.: AA1018)

Light Spectrum EVO-Series



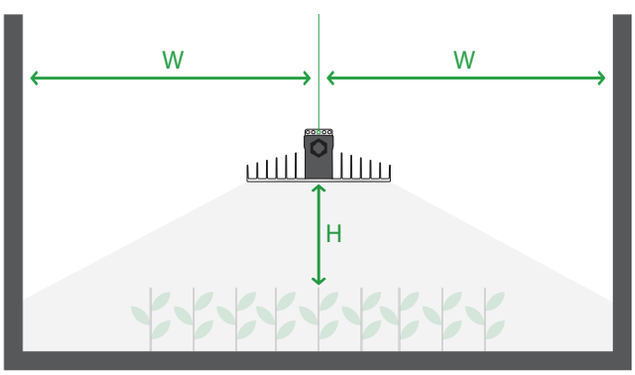
The broadband light spectrum has been tested in our laboratories in countless empirical trails, optimized and tested again. Since 2012, the spectrum not only covers the PAR range from 400 - 700 nm, additionally, the Far Red in the light spectrum allows for maximum photosynthesis rate and natural morphogenesis of your plants.

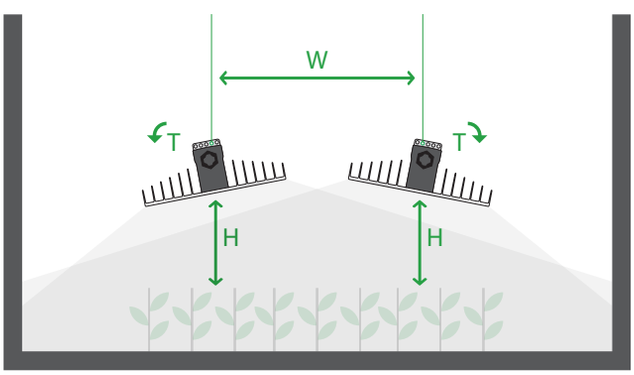
Composition of the Light Spectrum: Blue 400 nm – 499 nm = 14%; Green 500 nm – 599 nm = 37%; Red 600 nm – 699 nm = 45%; Far Red 700 nm – 750 nm = 4%

Our recommendations for your success **without** CO_2 supplementation

The light intensities of our standard recommendations are at the limit of the amount of light that plants can process without the addition of CO_2. This means that the light values are on average at approx. 900 µmol/m²/s.

The exception is our recommendation for the 150x150 cm tent with 2x EVO 5-150. This recommendation counts as a replacement of the classic 1.000W HPS luminaire.





Tent Size	Amount	Model	Height (H)	Position of Luminaire (W)	Tilting° (T)
60x60 cm	1x	EVO 3-60	40 cm	central (30 cm from the walls)	0°
80x80 cm	1x	EVO 4-80	40 cm	central (40 cm from the walls)	0°
100x100 cm	2x	EVO 3-100	30 cm	60 cm between the lights (20 cm from the walls)	11°
120x120 cm	2x	EVO 4-120	30 cm	70 cm between the lights (25 cm from the walls)	11°
150x150 cm	2x	EVO 5-150	50 cm	90 cm between the lights (30 cm from the walls)	11°

680	767	821	819	758	668
835	923	994	996	910	824
949	1048	1111	1091	1031	925
952	1025	1088	1080	1022	934
836	932	999	983	912	820
676	759	815	811	753	664

PPFDe Plot 60x60; Ø PPFDe 895 µmol/m²/s

480	590	687	750	751	678	580	472
617	736	845	922	927	835	729	607
749	888	1019	1098	1090	1002	869	732
820	967	1097	1192	1190	1085	955	805
825	977	1110	1197	1178	1095	954	807
752	888	1010	1086	1088	997	872	738
624	742	853	937	931	844	727	609
482	589	684	749	743	677	577	473

PPFDe Plot 80x80; Ø PPFDe 840 µmol/m²/s

881	891	901	906	880	867	855	876	870	866
937	960	1016	964	962	953	945	981	938	903
949	1065	1102	1056	1041	1033	1034	1064	1041	905
960	1021	1060	1050	1046	1027	1017	1047	1026	912
940	950	994	983	955	935	948	980	943	902
938	953	990	978	963	927	953	984	940	904
956	1021	1066	1043	1052	1030	1011	1054	1020	916
950	1071	1100	1060	1030	1044	1038	1065	1035	906
932	964	1010	966	950	965	943	987	934	908
878	886	890	900	874	873	861	887	875	870

PPFDe Plot 100x100; Ø PPFDe 970 µmol/m²/s

600	747	740	697	653	659	678	727	766	791	728	553
740	863	899	839	753	754	779	842	896	887	854	637
742	1012	1036	976	891	887	917	983	1050	1090	996	668
810	1074	1089	1007	937	935	936	970	1023	1064	961	667
826	1008	1069	1021	922	886	889	940	994	1016	934	679
851	1150	1076	1016	933	904	916	979	1074	1134	1014	620
890	1064	1052	988	941	918	910	973	1044	1076	984	614
831	1002	1072	1017	932	889	886	930	998	1013	940	673
806	1077	1090	996	930	942	943	977	1034	1065	958	671
745	1018	1031	981	890	894	910	984	1045	1095	990	665
737	871	902	837	751	750	783	844	898	890	862	640
582	741	760	681	655	650	687	725	802	791	734	571

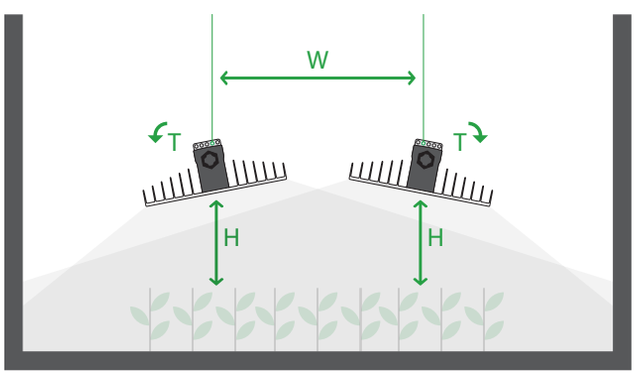
PPFDe Plot 120x120; Ø PPFDe 880 µmol/m²/s

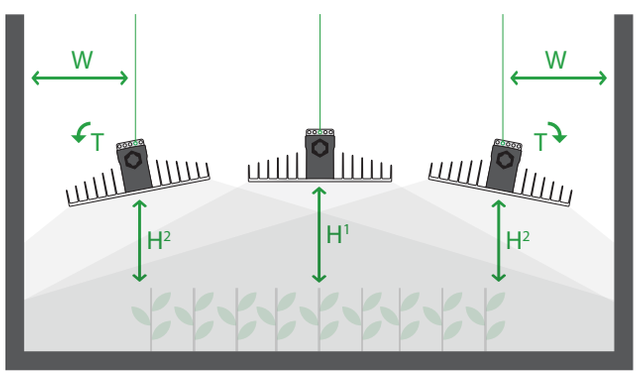
455	472	513	559	552	522	519	549	524	539	543	520	514	497	428
511	548	604	645	634	608	596	591	598	623	641	627	599	563	508
588	599	638	664	668	659	660	655	654	659	668	659	641	621	578
622	649	676	708	712	708	711	706	708	713	710	706	679	662	607
651	678	727	771	770	754	754	751	760	770	786	780	734	678	596
678	702	749	793	799	786	792	785	790	798	806	791	736	683	584
681	725	754	785	802	794	802	796	797	799	800	781	733	686	617
684	731	784	820	821	799	792	788	787	803	815	799	742	687	625
652	697	744	775	785	776	770	765	764	774	774	757	710	686	625
675	711	745	775	780	777	776	773	778	773	775	754	713	683	625
672	726	773	811	809	785	777	768	773	790	804	789	730	678	604
671	726	773	806	805	784	776	763	762	763	769	756	712	672	608
660	702	727	748	746	735	735	725	719	718	716	699	655	627	570
595	607	648	687	682	659	652	644	644	647	656	642	591	549	512
478	474	513	518	524	523	525	518	508	519	517	495	470	431	427

PPFDe Plot 150x150; Ø PPFDe 680 µmol/m²/s

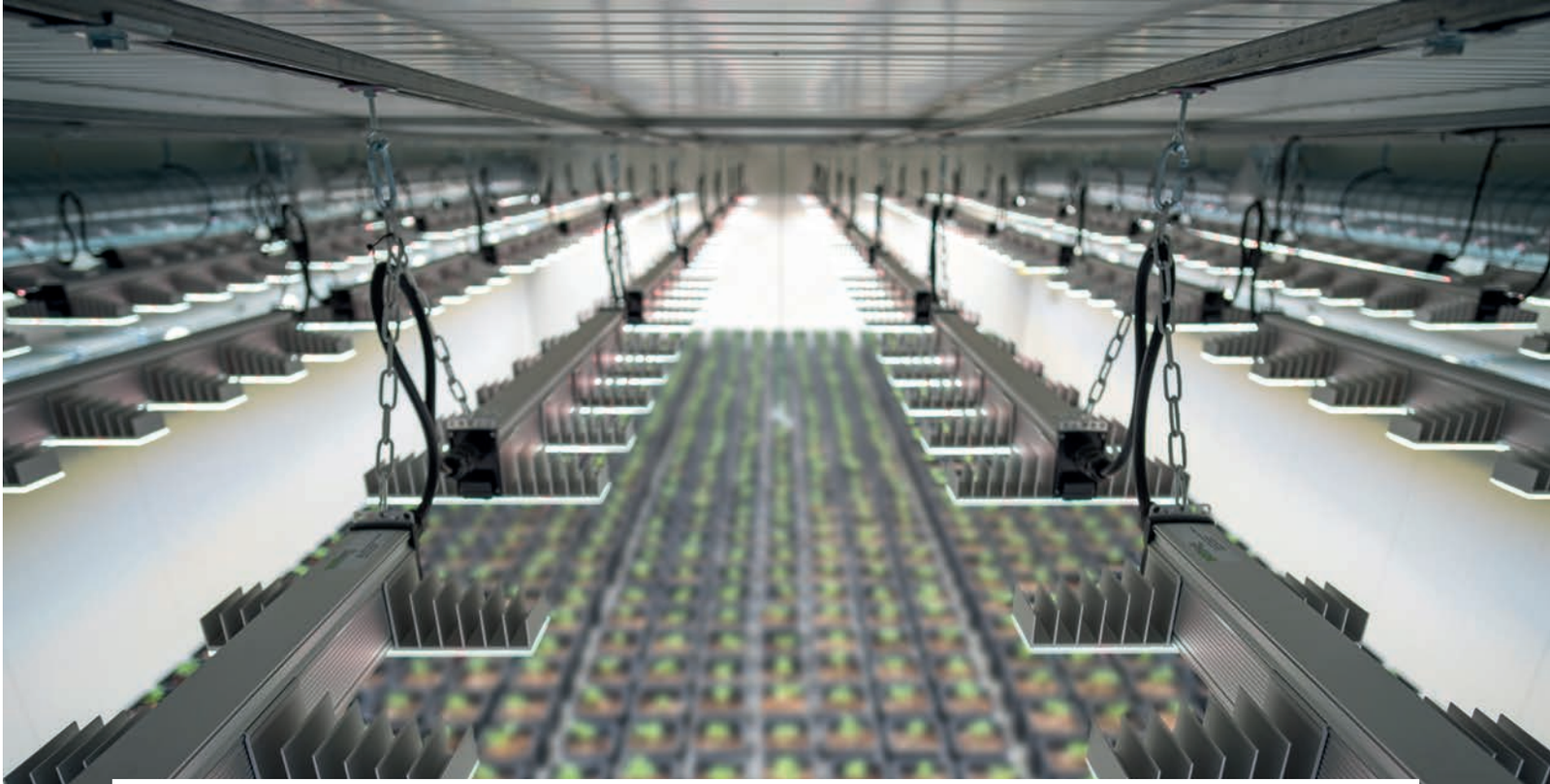
Our recommendations for cultivation **with** CO_2 supplementation

These recommendations are aimed for professionals or growers who operate their cultivation chambers with increased CO_2 levels. These setups can also be used without additional CO_2 fumigation, but then you must provide the utmost horticultural care. When everything works perfectly, you can expect above average yields per area.





Tent Size	Amount	Model	Height (H)	Position of Luminaire (W)	Tilting° (T)
80x80 cm	2x	EVO 3-80	35 cm	50 cm between the lights (15 cm from the walls)	11°
100x100 cm	2x	EVO 4-100	30 cm	60 cm between the lights (20 cm from the walls)	11°
120x120 cm	2x	EVO 5-120	30 cm	70 cm between the lights (25 cm from the walls)	11°
150x150 cm	3x	EVO 5-150	H^1 30 cm H^2 25 cm	Middle: central Outer: 20 cm from the walls	Middle: 0° Outer: 11°



862	958	1010	970	957	999	951	896
1093	1236	1331	1262	1230	1320	1272	1110
1270	1385	1433	1427	1388	1421	1435	1310
1211	1418	1531	1515	1489	1535	1430	1248
1238	1442	1558	1506	1481	1550	1454	1262
1259	1393	1432	1411	1381	1422	1420	1288
1050	1199	1291	1220	1188	1289	1234	1077
840	939	991	945	937	987	947	868

PPFDe Plot 80x80; Ø PPFDe 1.240 µmol/m²/s

990	1027	984	926	916	925	961	1055	1084	1080
1392	1288	1197	1100	1077	1087	1125	1210	1298	1343
1424	1371	1285	1210	1187	1187	1199	1267	1343	1364
1404	1444	1356	1280	1243	1233	1261	1340	1415	1448
1454	1436	1381	1278	1239	1228	1260	1340	1418	1466
1451	1439	1355	1284	1235	1232	1250	1350	1410	1460
1394	1454	1366	1268	1248	1228	1286	1335	1405	1458
1438	1365	1295	1200	1194	1180	1190	1276	1340	1367
1400	1280	1187	1110	1085	1080	1145	1230	1301	1338
998	1019	995	915	920	921	955	1061	1090	1074

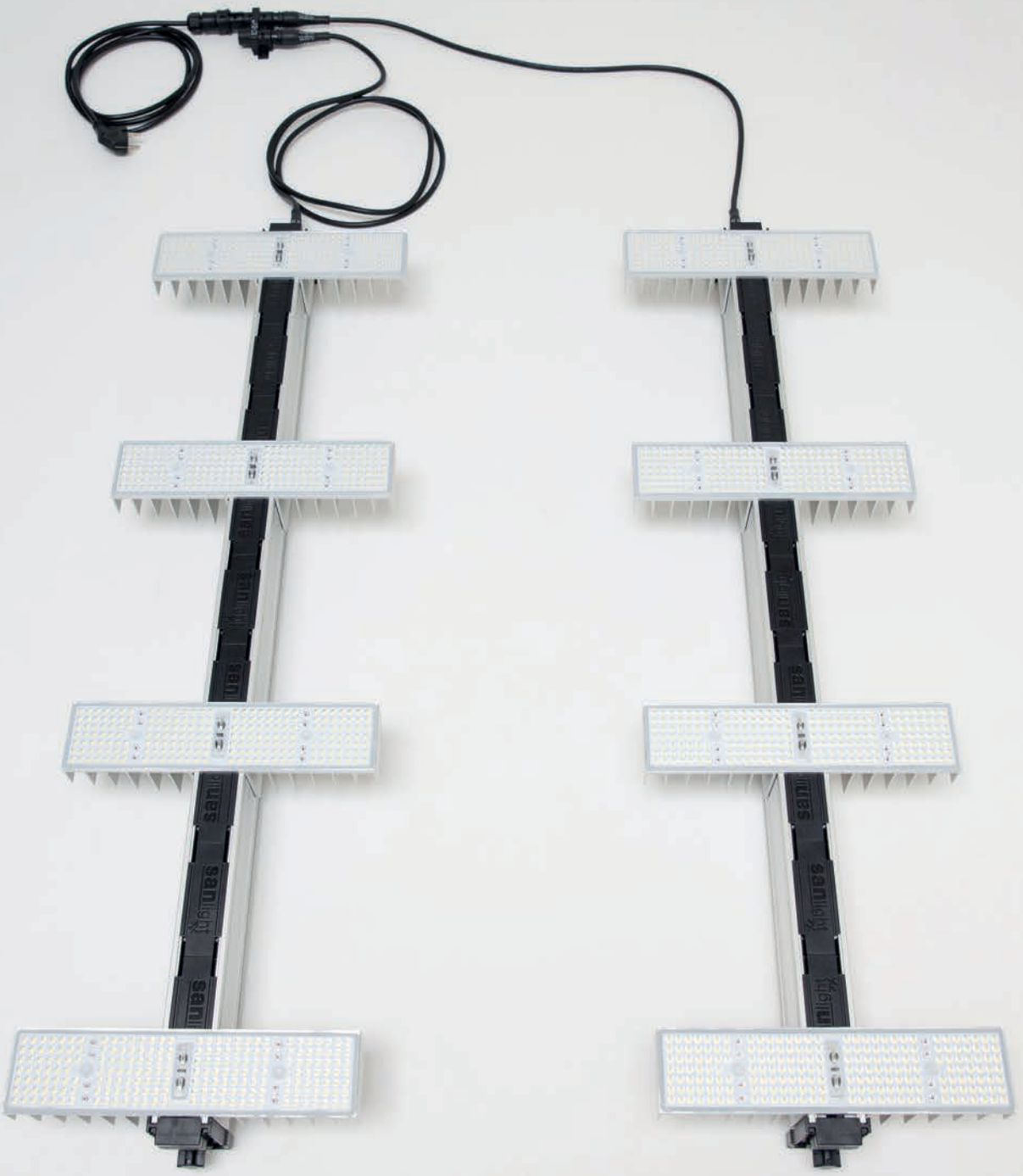
PPFDe Plot 100x100; Ø PPFDe 1.240 µmol/m²/s

575	771	796	750	745	746	754	783	840	878	801	569
846	1059	1056	998	939	940	956	990	1100	1145	1068	811
1019	1264	1240	1165	1118	1117	1115	1128	1205	1265	1250	920
1014	1293	1352	1310	1223	1198	1174	1228	1364	1417	1276	943
1070	1280	1354	1308	1230	1220	1208	1235	1334	1398	1290	950
1076	1300	1365	1304	1242	1230	1210	1263	1378	1440	1338	992
1081	1306	1370	1299	1251	1233	1217	1259	1380	1443	1334	984
1077	1283	1352	1301	1238	1221	1205	1240	1338	1390	1298	958
1020	1290	1361	1300	1222	1194	1177	1227	1361	1412	1271	940
1021	1280	1234	1162	1116	1118	1110	1125	1200	1263	1249	916
842	1050	1052	996	936	939	958	986	1105	1148	1065	815
570	777	795	755	740	750	754	784	842	878	801	581

PPFDe Plot 120x120; Ø PPFDe 1.100 µmol/m²/s

789	897	854	756	719	755	787	788	731	738	737	800	877	883	785
981	1076	970	949	880	899	912	900	898	852	850	922	1012	1145	981
970	1090	1047	1036	1003	1018	1033	1027	1056	1015	987	1038	1138	1194	970
1112	1239	1210	1142	1110	1118	1156	1160	1168	1109	1051	1103	1222	1254	1001
1086	1143	1113	1091	1036	1046	1056	1083	1091	1028	987	1040	1095	1144	991
1021	1168	1157	1110	1063	1052	1057	1056	1095	1053	1022	1060	1129	1113	943
1048	1269	1221	1130	1095	1112	1144	1142	1161	1112	1074	1141	1260	1246	975
1009	1174	1118	1070	1002	1039	1067	1067	1081	1025	1000	1082	1168	1233	1010
1016	1192	1145	1115	1062	1077	1097	1088	1104	1056	1016	1065	1149	1193	995
1123	1286	1248	1176	1138	1146	1144	1132	1138	1095	1050	1125	1234	1242	1008
1060	1213	1142	1121	1074	1075	1077	1058	1065	995	968	1060	1114	1182	985
1000	1191	1186	1151	1105	1102	1075	1052	1043	1006	971	1051	1125	1171	965
1031	1353	1289	1174	1147	1152	1136	1123	1095	1031	1044	1149	1270	1254	940
1011	1237	1136	1071	1036	1016	998	963	960	927	920	1063	1089	1172	950
788	892	845	755	715	760	783	784	731	732	738	802	875	884	791

PPFDe Plot 150x150; Ø PPFDe 1.040 µmol/m²/s



DAISY
CHAINABLE

Choose your setup - daisy chaining

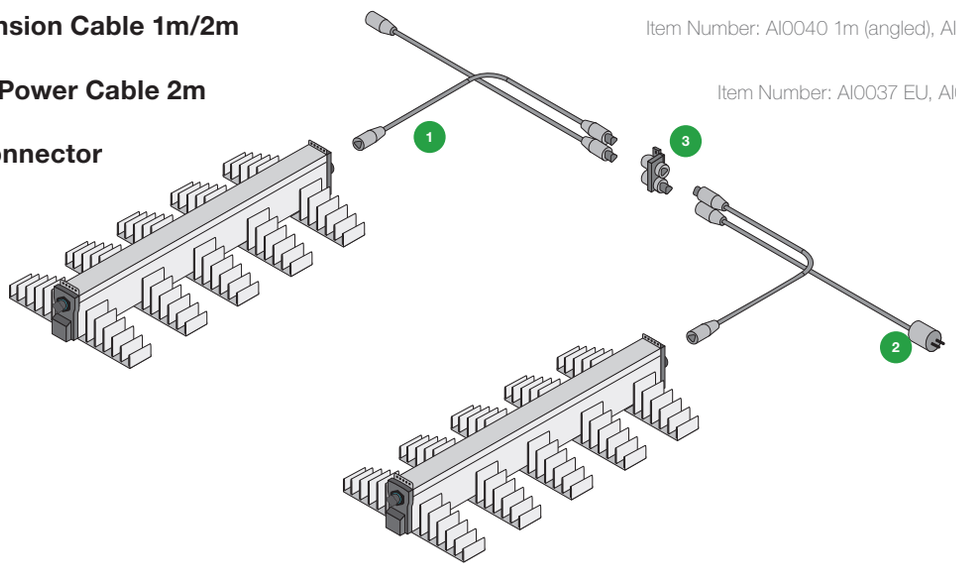
There are several different connection options available for the SANlight EVO System; therefore, we made the conscious decision not to include a power cord to every luminaire. This provides you the flexibility to build a system tailored to your needs and it's easier on your wallet. Not to mention, it protects our planet from senseless pollution and saves valuable resources. If space is limited, we recommend using angled supply cables and extension cables. Below you will find all the necessary components to operate two luminaires of the EVO-Series with one power plug. Further connection options can be found on our webpage.

All connections made with SANlight products are IP65 certified. This means that your SANlight System is protected against dust and water jets, and is safe to use in high humidity. **Warning**: To preserve IP65 protection all open connectors must be closed with the EVO Protective Cap (including open connectors of the H-Connector). The rating doesn't include wall plugs or other non-SANlight electrical connections.

1 **Extension Cable 1m/2m** — Item Number: AI0040 1m (angled), AI0022 1m, AI0023 2m

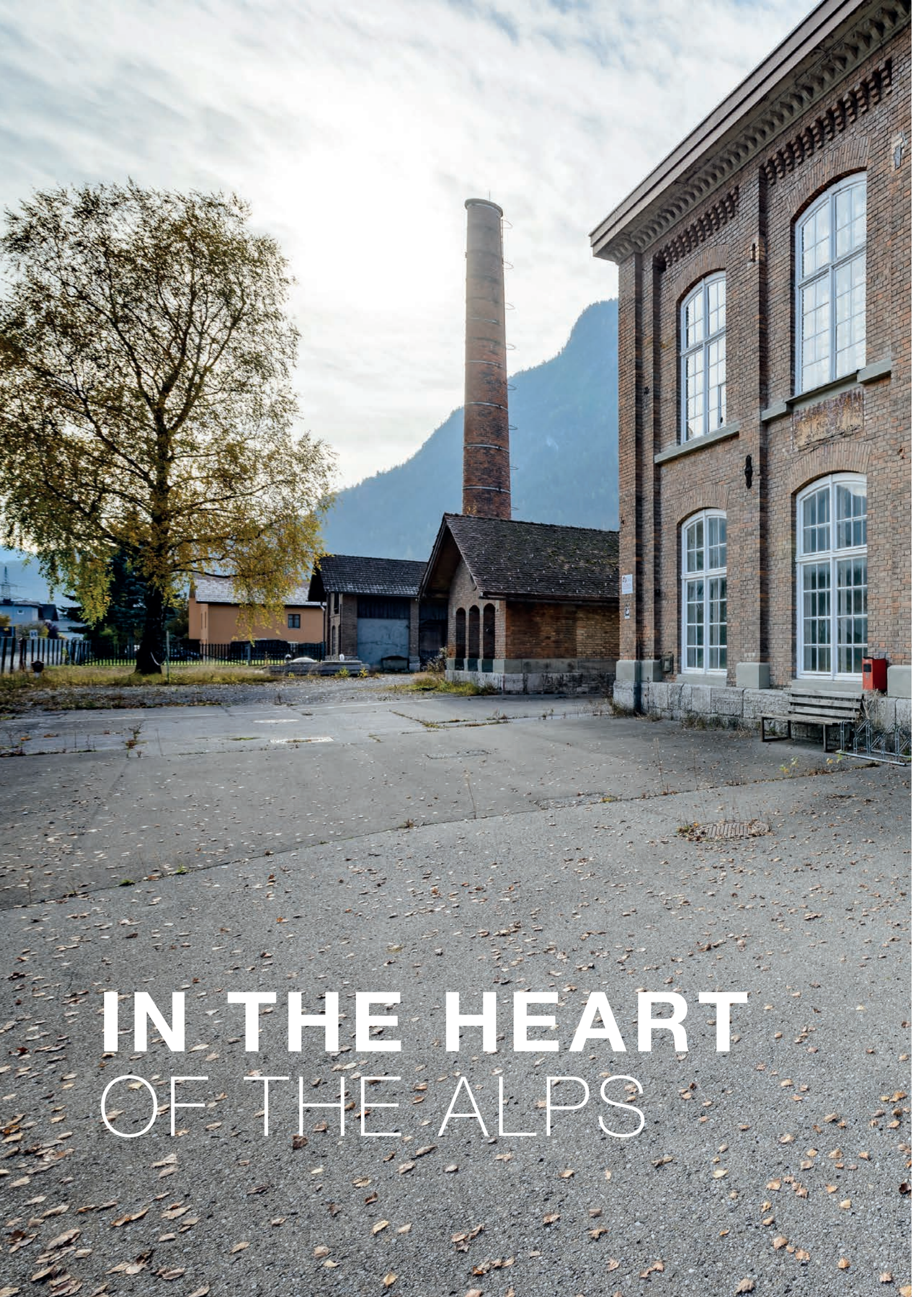
2 **EVO Power Cable 2m** — Item Number: AI0037 EU, AI0038 CH, AI0039 UK

3 **H-Connector** — Item Number: AI0018



Required accessories for different cultivation areas

Area size	Recommended luminaire	Amount luminaires	Power cable	Power cable angled	H-Connector	Extension cable 1m	Extension cable 2m	Angled extension cable 1m	Protective cap
Item-No.			AI0024	AI0037	AI0018	AI0022	AI0023	AI0040	AI0021
60x60 cm	EVO 3-60	1		1					
80x80 cm	EVO 4-80	1		1					
100x100 cm	EVO 3-100	2	1		1			2	1
120x120 cm	EVO 4-120	2	1		1			2	1
150x150 cm	EVO 5-150	2	1		1			2	1
240x240 cm	EVO 4-120	4	1		2	1		4	1



IN THE HEART OF THE ALPS

SANlight stands for quality, reliability and maximum efficiency.

SANlight GmbH is an innovative Austrian company based in Vorarlberg. Founded in 2012, the name SANlight stands for the best efficiency and reliable quality when it comes to plant lighting.

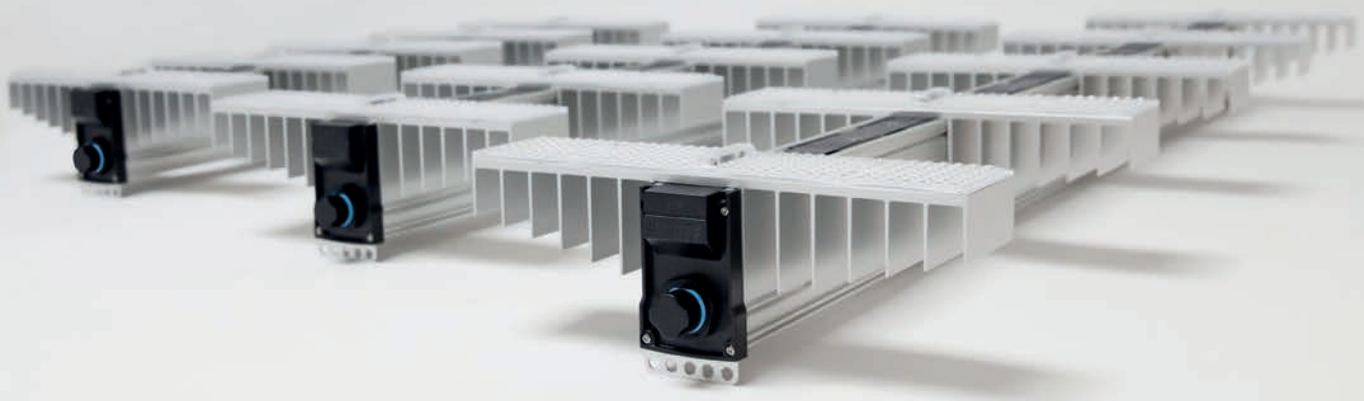
Production
In combination with our automated production lines and regional employees, we can ensure the best quality and value at attractive prices.

Research and Development
We have six fully automated phytotrons with 16 m² of usable space each, an open plant laboratory and our own light laboratory where we can create and develop LED luminaires that are ahead of our time and convince through best performance.

Market-leading and Trend-setting products
We see it as our duty as market leaders to provide the best products and to constantly develop them further to ensure the best possible efficiency, longevity, and quality. Whether you are a corporate customer or a private gardener, with the purchase of SANlight products, you are choosing more than quality and reliability, you are choosing a company that cares.

Proximity to the Customer
Our production and development site in Central Europe ensures short delivery times and direct multilingual support. Warranty and repairs are also handled in a timely manner. If you have any questions or concerns, please don't hesitate to contact us. Our support team will gladly take care of your concerns.

sanlight
better light, better plants



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