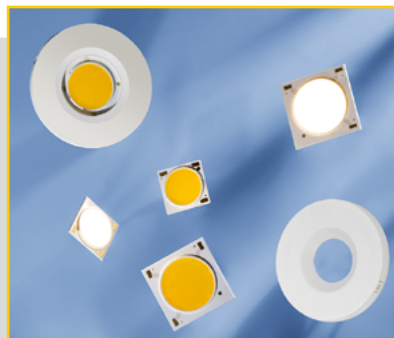


LED MODULES

LUGA SHOP GEN. 7
1000 LM TO 16,500 LM



LUGA SHOP GEN. 7 – RETAIL, INDUSTRIAL AND STREET LIGHTING

Typical Applications

DMS124***W

- Integration in reflector luminaires
- Residential lighting
- Furniture lighting

DMS125***W / DMS126***W/ DMS128***W

- Integration in reflector luminaires
- Retail lighting
- Downlights

DMS120***W / DMS12C***W / DMS18B***W

- Integration in outdoor and street luminaires
- Industrial lighting for:
 - Production halls
 - Warehouses
- Petrol station lighting
- Lighting for sports facilities



LUGA Shop Gen. 7

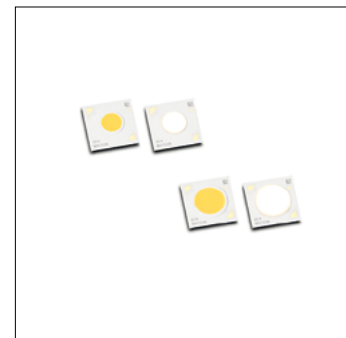
- **LONG SERVICE LIFETIME: UP TO 100,000 HOURS**
- **NARROW COLOUR TOLERANCES:
2 STEP MACADAM (CRI 85/95)**
- **HIGHLY EFFICIENT: UP TO 190 LM/W**
- **HIGH ELECTRICAL ISOLATION DUE TO
CERAMIC COB TECHNOLOGY**
- **SPECIAL COLOURS:
FOOD, PEARL WHITE AND CLEAR WHITE**



LUGA Shop Gen. 7 – up to 2500 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 13.5x13.5 mm
- Light emitting surface (LES): Ø 9 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Typ. voltage DC			Typ. power consumption		
	250 mA V	350 mA V	500 mA V	250 mA W	350 mA W	500 mA W
DMS124***W	33.4	34.3	35.5	8.4	12.0	17.8

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		at LES surface $^\circ\text{C}$ max.	Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ\text{C}$ min.	$^\circ\text{C}$ max.		$^\circ\text{C}$ min.	$^\circ\text{C}$ max.	
DMS124***W	250	-40	+115	+180	-40	+105	800
	350		+110				
	500		+105				

Operating Life

at $t_p = 65^\circ\text{C}$

Lumen maintenance	250 mA in hours	350 mA in hours	500 mA in hours
DMS124***W (at IF)			
I90/B10	88,000	83,000	77,000
I80/B10	>100,000	>100,000	>100,000
I70/B10	>100,000	>100,000	>100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 2500 lm

Optical Characteristics

at tp = 65 °C

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI Ra	Photometric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS124C27W	567239	warm white	2700	1215	146	1640	137	2225	125	120	82	827/249
DMS124C30W	567240	warm white	3000	1315	157	1770	147	2405	135	120	85	830/249
DMS124C40W	567241	neutral white	4000	1360	163	1830	152	2490	140	120	85	840/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI Ra: > 80

LUGA Shop Gen. 7 – up to 2500 lm – HiCRI

Optical Characteristics

at tp = 65 °C

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at						Typ. beam angle °	Typ. CRI Ra	Photometric code
				250 mA		350 mA		500 mA				
				lm	lm/W	lm	lm/W	lm	lm/W			
DMS124S30W	567242	warm white	3000 (below BBL)	1050	126	1415	118	1925	108	120	95	930/249
DMS124S40W	567243	neutral white	4000 (below BBL)	1150	138	1545	129	2105	119	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI Ra: > 90

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 5500 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 19x19 mm
- Light emitting surface (LES): Ø 14 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Typ. voltage DC				Typ. power consumption			
	350 mA V	500 mA V	700 mA V	1050 mA V	350 mA W	500 mA W	700 mA W	1050 mA W
DMS125***W	33.8	34.9	36.0	–	11.8	17.5	25.2	–
DMS126***W	33.3	34.2	35.4	36.9	11.7	17.1	24.8	38.7
DMS128***W	32.7	33.4	34.3	35.6	11.4	16.7	24.0	37.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point		at LES surface $^\circ\text{C max.}$	Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ\text{C min.}$	$^\circ\text{C max.}$		$^\circ\text{C min.}$	$^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	
DMS125***W	350	–40	+120	+180	–40	+40	–40	+105	1000
	500		+115						
	700		+110						
DMS126***W	< 500	–40	+120	+180	–40	+40	–40	+105	1200
	700		+115						
	1050		+100						
DMS128***W	< 500	–40	+120	+180	–40	+40	–40	+105	1600
	700		+115						
	1050		+105						

Operating Life

at $t_p = 65^\circ\text{C}$

Lumen maintenance	350 mA in hours	500 mA in hours	700 mA in hours	350 mA in hours	500 mA in hours	700 mA in hours	1050 mA in hours
	DMS125***W (at IF)			DMS126***W (at IF)			
L90/B10	90,000	83,000	74,000	95,000	91,000	86,000	77,000
L80/B10	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000
L70/B10	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000
				DMS128***W (at IF)			
L90/B10	–	–	–	95,000	90,000	83,000	72,000
L80/B10	–	–	–	>100,000	>100,000	>100,000	>100,000
L70/B10	–	–	–	>100,000	>100,000	>100,000	>100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 5500 lm

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125C27W	567244	warm white	2700	1840	156	2515	144	3345	133	—	—	120	82	827/249
DMS125C30W	567245	warm white	3000	1985	168	2715	156	3605	143	—	—	120	85	830/249
DMS125C35W	567248	neutral white	3500	2010	170	2750	158	3650	145	—	—	120	85	835/249
DMS125C40W	567249	neutral white	4000	2055	174	2805	161	3730	148	—	—	120	85	840/249
DMS125C50W	567250	cool white	5000	2070	175	2830	162	3760	149	—	—	120	85	850/249
DMS126C27W	567256	warm white	2700	1865	160	2565	150	3430	138	4800	124	120	82	827/249
DMS126C30W	567257	warm white	3000	2010	172	2760	161	3695	149	5165	133	120	85	830/249
DMS126C30WB	567258	warm white	3000 (below BBL)	1910	164	2620	153	3510	142	4910	127	120	85	830/249
DMS126C35W	567261	neutral white	3500	2040	175	2800	164	3745	151	5240	135	120	85	835/249
DMS126C40W	567262	neutral white	4000	2075	178	2850	167	3815	154	5330	138	120	85	840/249
DMS126C40WB	567263	neutral white	4000 (below BBL)	1990	171	2730	160	3655	147	5110	132	120	85	840/249
DMS126C50W	567264	cool white	5000	2095	180	2880	168	3850	155	5385	139	120	85	850/249
DMS128C27W	567270	warm white	2700	1885	165	2595	155	3480	145	4880	131	120	82	827/249
DMS128C30W	567271	warm white	3000	2025	177	2790	167	3740	156	5250	140	120	85	830/249
DMS128C30WB	567272	warm white	3000 (below BBL)	1925	168	2650	159	3550	148	4980	133	120	85	830/249
DMS128C35W	567275	neutral white	3500	2055	180	2830	169	3790	158	5320	142	120	85	835/249
DMS128C40W	567276	neutral white	4000	2100	183	2890	173	3875	161	5430	145	120	85	840/249
DMS128C40WB	567277	neutral white	4000 (below BBL)	2005	175	2760	165	3700	154	5190	139	120	85	840/249
DMS128C50W	567278	cool white	5000	2115	185	2915	175	3905	163	5475	146	120	85	850/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI Ra: > 80

LUGA Shop Gen. 7 – up to 5500 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correl. colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125C31WP	567246	pearl white	3100	1935	164	2645	152	3515	139	–	–	120	85	831/249
DMS125C32WC	567247	clear white	3200	1945	164	2655	152	3530	140	–	–	120	85	832/249
DMS125S31WP	567253	pearl white	3100	1615	137	2205	126	2930	116	–	–	120	95	931/249
DMS125S32WC	567254	clear white	3200	1625	137	2215	127	2945	117	–	–	120	95	932/249
DMS126C31WP	567259	pearl white	3100	1960	168	2690	157	3605	145	5035	130	120	85	831/249
DMS126C32WC	567260	clear white	3200	1965	169	2700	158	3615	146	5055	130	120	85	832/249
DMS126S31WP	567267	pearl white	3100	1620	139	2225	130	2980	120	4165	107	120	95	931/249
DMS126S32WC	567268	clear white	3200	1630	140	2240	131	3000	121	4190	108	120	95	932/249
DMS128C31WP	567273	pearl white	3100	1970	172	2715	163	3640	152	5105	137	120	85	831/249
DMS128C32WC	567274	clear white	3200	1985	173	2730	163	3660	152	5135	137	120	85	832/249
DMS128S31WP	567281	pearl white	3100	1650	144	2275	136	3050	127	4275	114	120	95	931/249
DMS128S32WC	567282	clear white	3200	1660	145	2285	137	3065	128	4295	115	120	95	932/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI Ra: $> 90 / > 80$

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 5500 lm – HiCRI

Optical Characteristics

at tp = 65 °C

Type	Ref. No.	Colour	Correl. colour temperature * K	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo- metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS125D27W	567251	warm white	2700	1530	129	2090	120	2780	110	–	–	120	95	927/249
DMS125S30W	567252	warm white	3000 (below BBL)	1580	134	2160	124	2870	114	–	–	120	95	930/249
DMS125S40W	567255	neutral white	4000 (below BBL)	1735	147	2365	136	3145	125	–	–	120	95	940/249
DMS126D27W	567265	warm white	2700	1535	132	2110	123	2825	114	3950	102	120	95	927/249
DMS126S30W	567266	warm white	3000 (below BBL)	1600	137	2195	128	2940	119	4110	106	120	95	930/249
DMS126S40W	567269	neutral white	4000 (below BBL)	1750	150	2400	140	3215	130	4495	116	120	95	940/249
DMS128D27W	567279	warm white	2700	1570	137	2160	129	2895	121	4065	109	120	95	927/249
DMS128S30W	567280	warm white	3000 (below BBL)	1625	142	2240	134	3005	125	4210	113	120	95	930/249
DMS128S35W	567283	neutral white	3500 (below BBL)	1720	150	2370	142	3175	132	4455	119	120	95	935/249
DMS128S40W	567284	neutral white	4000 (below BBL)	1780	156	2450	147	3280	137	4600	123	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI Ra: > 90

LUGA Shop Gen. 7 – up to 2800 lm – Food

Optical Characteristics

at tp = 65 °C

Type	Ref. No.	Colour	Correl. colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				350 mA		500 mA		700 mA		1050 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS128P19W	567224	"pink effect"	2000	920	80	1270	76	1700	71	2385	64	120	82	820/349
DMS128P40W	567225	"white effect"	4000	1085	95	1495	90	2000	83	2810	75	120	70 (sp. spec: HiGa)	740/349

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: ± 10 %

Typical Applications

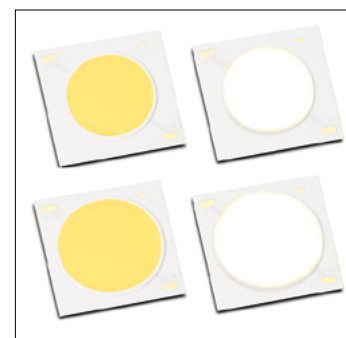
DMS128P19W 567224 "pink effect"	DMS128P40W 567225 "white effect"
• Meat	• Meat

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 16,500 lm

Technical Notes

- LED module for integration into luminaires
- Dimensions: 28x28 mm
- Light emitting surface (LES): Ø 17 mm, Ø 20 mm
- Use of external LED constant current driver



Electrical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Typ. voltage DC					Typ. power consumption				
	700 mA V	1050 mA V	1400 mA V	1700 mA V	2100 mA V	700 mA W	1050 mA W	1400 mA W	1700 mA W	2100 mA W
DMS120***W	33.7	34.9	35.9	36.6	–	23.6	36.7	50.3	62.2	–
DMS12C***W	33.1	34.1	35.0	35.7	36.4	23.2	35.8	49.1	60.7	76.5
DMS18B***W	49.3	51.0	52.4	53.3	54.5	34.5	53.6	73.3	90.6	114.4

Voltage and power tolerance: $\pm 10\%$

Maximum Ratings

Exceeding the maximum ratings can lead to reduction of service life or destruction of the modules.

Type	Operating current mA	Operation temperature range at t_c point			Ambient temperature range		Storage temperature range		Max. allowed repetitive peak current mA
		$^\circ\text{C min.}$	$^\circ\text{C max.}$	at LES surface $^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	$^\circ\text{C min.}$	$^\circ\text{C max.}$	
DMS120***W	700	–40	+120	+180	–40	+40	–40	+105	2000
	1050		+110						
	1400		+105						
	1700		+95						
DMS12C***W	700	–40	+120	+180	–40	+40	–40	+105	2500
	1050		+115						
	1400		+110						
	1700		+105						
	2100		+100						
DMS18B***W	700	–40	+115	+180	–40	+40	–40	+105	2400
	1050		+110						
	1400		+100						
	1700		+95						
	2100		+85						

Operating Life

at $t_p = 65^\circ\text{C}$

Lumen maintenance	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	700 mA in hours	1050 mA in hours	1400 mA in hours	1700 mA in hours	2100 mA in hours
	DMS120***W (at IF)				DMS12C***W (at IF)				
L90/B10	90,000	83,000	75,000	67,000	94,000	89,000	83,000	78,000	72,000
L80/B10	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000
L70/B10	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000	>100,000
					DMS18B***W (at IF)				
L90/B10	–	–	–	–	87,000	81,000	73,000	67,000	58,000
L80/B10	–	–	–	–	>100,000	>100,000	>100,000	>100,000	87,000
L70/B10	–	–	–	–	>100,000	>100,000	>100,000	>100,000	>100,000

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 16,500 lm

Optical Characteristics

at tp = 65 °C

Type	Ref. No.	Colour	Correlated colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120C27W	567286	warm white	2700	3690	156	5245	143	6660	132	7765	125	—	—	120	82	827/249
DMS120C30W	567287	warm white	3000	3970	168	5650	154	7175	143	8360	134	—	—	120	85	830/249
DMS120C30WB	567288	warm white	3000 (below BBL)	3770	160	5365	146	6815	135	7940	128	—	—	120	85	830/249
DMS120C35W	567291	neutral white	3500	4030	171	5730	156	7280	145	8485	136	—	—	120	85	835/249
DMS120C40W	567292	neutral white	4000	4105	174	5840	159	7420	148	8645	139	—	—	120	85	840/249
DMS120C40WB	567293	neutral white	4000 (below BBL)	3930	167	5590	152	7100	141	8275	133	—	—	120	85	840/249
DMS120C50W	567294	cool white	5000	4150	176	5900	161	7495	149	8730	140	—	—	120	85	850/249
DMS120B50W	567295	cool white	5000	4440	188	6315	172	8020	159	9350	150	—	—	120	70	750/569
DMS12CC27W	567303	warm white	2700	3785	163	5430	152	6960	142	8190	135	9720	127	120	82	827/249
DMS12CC30W	567304	warm white	3000	4070	176	5835	163	7480	152	8805	145	10450	137	120	85	830/249
DMS12CC30WB	567305	warm white	3000 (below BBL)	3865	167	5540	155	7100	145	8360	138	9920	130	120	85	830/249
DMS12CC35W	567308	neutral white	3500	4125	178	5920	165	7585	154	8930	147	10595	138	120	85	835/249
DMS12CC40W	567309	neutral white	4000	4210	182	6040	169	7745	158	9115	150	10815	141	120	85	840/249
DMS12CC40WB	567310	neutral white	4000 (below BBL)	4025	174	5775	161	7405	151	8715	144	10340	135	120	85	840/249
DMS12CC50W	567311	cool white	5000	4250	183	6095	170	7810	159	9195	151	10910	143	120	85	850/249
DMS12CB50W	567312	cool white	5000	4555	197	6530	182	8375	171	9855	162	11695	153	120	70	750/569
DMS18BC30W	567321	warm white	3000	5750	167	8210	153	10475	143	12275	135	14450	126	120	85	830/249
DMS18BC40W	567323	neutral white	4000	5945	172	8490	159	10830	148	12690	140	14940	131	120	85	840/249
DMS18BC50W	567324	cool white	5000	6010	174	8580	160	10945	149	12825	142	15100	132	120	85	850/249
DMS18BB40W	567325	neutral white	4000	6205	180	8860	165	11300	154	13240	146	15590	136	120	70	740/349
DMS18BB50W	567326	cool white	5000	6435	186	9185	172	11720	160	13735	152	16165	141	120	70	750/569

* Colour tolerance: 2 MacAdam (CRI > 80) | ** Production tolerance of luminous flux and efficiency: ± 10 % | Min. CRI Ra: > 80/> 65

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 14,500 lm Pearl White / Clear White

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correl. colour temperature* K	Typ. luminous flux** and efficiency at										Typ. beam angle (°)	Typ. CRI Ra	Photo- metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120C31WP	567289	pearl white	3100	3870	164	5505	150	6995	139	8150	131	—	—	120	85	831/249
DMS120C32WC	567290	clear white	3200	3890	165	5530	151	7025	140	8185	132	—	—	120	85	832/249
DMS120S31WP	567298	pearl white	3100	3235	137	4600	125	5845	116	6815	110	—	—	120	95	931/249
DMS120S32WC	567299	clear white	3200	3255	138	4625	126	5875	117	6850	110	—	—	120	95	932/249
DMS12CC31WP	567306	pearl white	3100	3965	171	5685	159	7285	148	8575	141	10175	133	120	85	831/249
DMS12CC32WC	567307	clear white	3200	3985	172	5715	160	7325	149	8620	142	10230	134	120	85	832/249
DMS12CS31WP	567315	pearl white	3100	3355	145	4815	134	6170	126	7265	120	8620	113	120	95	931/249
DMS12CS32WC	567316	clear white	3200	3380	146	4845	135	6210	126	7310	120	8675	113	120	95	932/249
DMS18BC31WP	567322	pearl white	3100	5605	162	8000	149	10210	139	11960	132	14085	123	120	85	831/249
DMS18BS31WP	567328	pearl white	3200	4630	134	6610	123	8430	115	9880	109	11630	102	120	95	832/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI Ra: > 90 / > 80

LUGA Shop Gen. 7 – up to 13,000 lm – HiCRI

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correl. colour temperature * K	Typ. luminous flux* ** and efficiency at										Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				700 mA		1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS120D27W	567296	warm white	2700	3075	130	4375	119	5560	111	6480	104	—	—	120	95	927/249
DMS120S30W	567297	warm white	3000 (below BBL)	3195	135	4540	124	5770	115	6725	108	—	—	120	95	930/249
DMS120S35W	567300	neutral white	3500 (below BBL)	3370	143	4790	131	6090	121	7095	114	—	—	120	95	935/249
DMS120S40W	567301	neutral white	4000 (below BBL)	3485	148	4960	135	6300	125	7340	118	—	—	120	95	940/249
DMS12CD27W	567313	warm white	2700	3145	136	4515	126	5785	118	6810	112	8080	106	120	95	927/249
DMS12CS30W	567314	warm white	3000 (below BBL)	3280	142	4700	131	6030	123	7095	117	8420	110	120	95	930/249
DMS12CS35W	567317	neutral white	3500 (below BBL)	3505	151	5025	140	6440	131	7580	125	8995	118	120	95	935/249
DMS12CS40W	567318	neutral white	4000 (below BBL)	3620	156	5195	145	6655	136	7835	129	9295	122	120	95	940/249
DMS18BS30W	567327	warm white	3000 (below BBL)	4510	131	6440	120	8215	112	9625	106	11335	99	120	95	930/249
DMS18BS40W	567329	neutral white	4000 (below BBL)	4990	145	7125	133	9090	124	10655	118	12540	110	120	95	940/249

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$ | Min. CRI Ra: > 90

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7 – up to 5500 lm – Food

Optical Characteristics

at $t_p = 65^\circ\text{C}$

Type	Ref. No.	Colour	Correl. colour temperature* K	Typ. luminous flux** and efficiency at								Typ. beam angle (°)	Typ. CRI Ra	Photo-metric code
				1050 mA		1400 mA		1700 mA		2100 mA				
				lm	lm/W	lm	lm/W	lm	lm/W	lm	lm/W			
DMS12CP19W	567319	"pink effect"	2000	2645	74	3385	69	3985	66	4730	62	120	82	820/349
DMS12CP40W	567320	"white effect"	4000	3125	87	4005	82	4710	78	5590	73	120	70 (sp. spec.: HiGa)	740/349

* Colour tolerance: 2 MacAdam | ** Production tolerance of luminous flux and efficiency: $\pm 10\%$

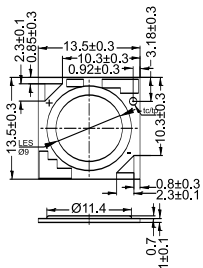
Typical Applications

DMS12CP19W 567319 "pink effect"	DMS12CP40W 567320 "white effect"
• Meat	• Meat

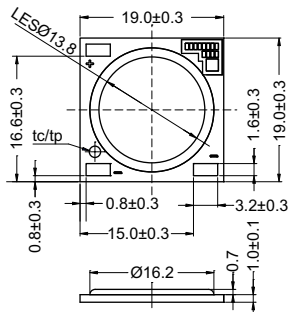
The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7

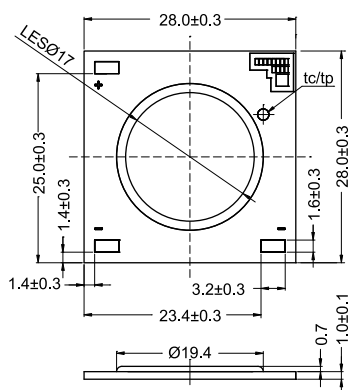
DMS124



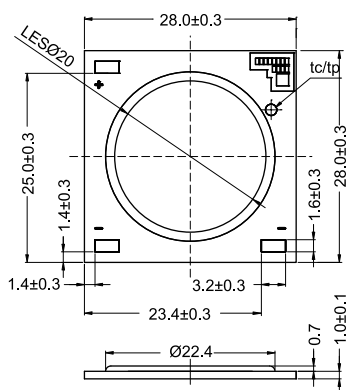
DMS125/126/128



DMS120



DMS12C / DMS18B



The clearance and creepage distances are designed for working voltages up to:

Type	Basic insulation	Reinforced insulation
DMS 124/125/126/128***H	235 V DC	60 V DC
DMS 120/12C/18B***H	330 V DC	175 V DC

Thickness of PCB is included in calculation.

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

[illegible]

* Below BBL
** Pearl White
*** Clear White

Figure 1 is a CIE 1931 chromaticity diagram showing the Black Body Locus (BBL) and the color of meat at different temperatures. The x-axis is labeled C_x and ranges from 0.35 to 0.49. The y-axis is labeled C_y and ranges from 0.30 to 0.42. The BBL is a dashed line. Two blue ellipses represent the color of meat: one at lower temperatures (labeled 'Meat') and one at higher temperatures (labeled 'S Meat'). Dotted lines connect specific temperatures to the BBL: 4190K and 3825K to the 'Meat' ellipse, and 2030K and 1920K to the 'S Meat' ellipse. A text label 'BBL = Black body locus' is present.



LUGA Shop Gen. 7

Assembly and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The LED modules are designed for operation within a casing or luminaire. Installation must be carried out in a voltage-free state (i.e. disconnection from the mains). The following advice must be observed; non-observance can result in the destruction of the LED assembly modules, fire and/or other hazards.

- ESD (electrostatic discharge) protection measures must be observed when handling and installing the LED modules. See VS's application notes on ESD protection.
- LED assembly modules must not be subjected to any undue mechanical stress, e. g.:
 - do not treat as bulk cargo
 - avoid shear and compressive forces during handling and installation
 - do not damage circuit paths
 - do not touch the yellow phosphorus layer
- The module must be fixed onto a thermally conductive surface.
- Safe operation only possible by the use of external constant current sources (I_{max}. see table "Electrical Characteristics").
- Operation only with power supply units that feature the following protection:
 - Short-circuit protection
 - Overload protection
 - Overheating protection
 - SELV (Safety Extra Low Voltage); U_{max}. ≤ 60 V
 - I_{max}. (see table "Maximum Ratings") must not be exceeded.
- When operating devices will be selected care has been taken to ensure that the maximum values (see table "Maximum Ratings") will not be exceeded.
- Please ensure the correct polarity of the leads prior to commissioning. Reversed polarity can destroy the modules.
- Safety regulations acc. to EN 60598 (or further standards) has to be observed if the maximum output voltage exceed the permitted touchable value.
- Measurement tolerances:
 - luminous flux: ± 7 %
 - voltage: ± 3 %
 - CRI: ± 1 %
- Maximum allowed number of switching cycles: 15,000
- A parallel connection of the modules is not allowed.
- To ensure problem-free operation, the specified maximum temperature at the tc point (see "Operating Life") must be observed (and measured in accordance with EN 60598-1). To satisfy this point, it may be necessary to put measures in place to ensure any heat is dissipated from the PCB to the environment.

- In the event of outdoor applications or applications in damp locations, care must be taken to protect LED assembly modules against humidity, splashes and jets of water. Any corrosion damage resulting from humidity or contact with condensation will not be recognised as a defect or manufacturing fault. LED assembly modules are not specially protected against foreign bodies or dust. Depending on the type of application, further protection must be ensured to prevent dust and foreign bodies from entering.
- Operating LED modules in the presence of certain chemical substances or in chemically enriched (aggressive) environments can impair module functionality or even cause total module failure. Such conditions may occur e.g. in industry and street environments. Detailed information can be found in our "Chemical Incompatibility" PDF on our website www.vossloh-schwabe.com
- The photobiological safety of the LED modules must be classified into risk groups in accordance with EN 62471
Rating in accordance with IEC / TR 62778: risk group 1
Except the following products above the mentioned luminous flux values are classified into risk group 2.



Border condition of risk group 2

Product type	Luminous flux (lm)
DMS124C40W	2280
DMS124S40W	2230
DMS125C50W	4160
DMS126C50W	4160
DMS126C40W	5370
DMS126C40WB	4860
DMS128C50W	4160
DMS128C40W	5370
DMS128C40WB	4860
DMS128C35W	7010
DMS128C32WC	6880
DMS128S40W	5250
DMS128S35W	5860
DMS120B50W	6180
DMS120C50W	6320
DMS120C40W	8150
DMS120C40WB	7380
DMS120S40W	7970
DMS12CB50W	8560
DMS12CC50W	8750
DMS12CC40W	11280
DMS12CC40WB	10210

Product type	Luminous flux (lm)
DMS18BB50W	8560
DMS18BB40W	10830
DMS18BC50W	8750
DMS18BC40W	11280
DMS18BS40W	11030

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

LUGA Shop Gen. 7

Assembly and Safety Information

- Assessment in acc. with IEC/TR 62778:
Given a clearance of more than d_{min} , within which the lighting intensity limit of E_{thr} = see table is attained, the classification goes down to Risk Group 1.

Colour type	$E_{threshold}$ (lx)
DMSxxxB50W	1430
DMSxxxC50W	1460
DMSxxxC40WB	1705
DMSxxxB40W	1810
DMSxxxS40W	1840
DMSxxxC40W	1880
DMSxxxS35W	2055
DMSxxxC35W	2460
DMSxxxS32WC	2350
DMSxxxC32WC	2415
DMSxxxS31WP	2705
DMSxxxC31WP	2705
DMSxxxC30WB	2535
DMSxxxS30W	2780
DMSxxxC30W	3275

Product Guarantee

- 5 years
- The conditions for the Product Guarantee of the Vossloh-Schwabe Group shall apply as published on our homepage (www.vossloh-schwabe.com).
We will be happy to send you these conditions upon request.

LUGA Trademark



Accessories

Reflectors:

- ACI-Lichttechnik GmbH
www.reflektor.com
- ALMECO Group
www.almecogroup.com
- Jordan Luxar GmbH & Co. KG
www.jordan-luxar.de
- JORDAN REFLEKTOREN GmbH & Co. KG
www.jordan-reflektoren.de
- LEDIL
www.ledil.com

Heat sinks with active cooling:

- AVC
www.avc-europa.de
- Nuventix, Inc.
www.nuventix.com
- Sunon
www.sunon.com
- MechaTronix
www.led-heatsink.com
- Colliance, Inc.
www.cooliance.eu

Heat sinks with passive cooling:

- AVC
www.avc-europa.de
- Fischer Elektronik GmbH & Co. KG
www.fischerelektronik.de
- Frigo Dynamics
www.frigodynamics.com
- MechaTronix
www.led-heatsink.com

LED Constant Current Drivers

Please visit our homepage for details for suitable
LED constant current drivers: www.vossloh-schwabe.com

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.