



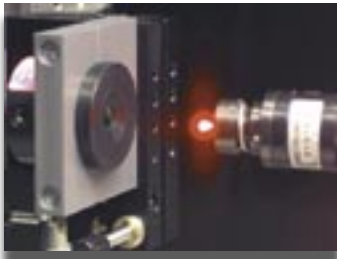
WHERE INNOVATION COMES TO LIGHT

**April 2005**

CML Innovative Technologies is leading in innovative lighting solutions; our 1800 employees are specifically dedicated to the design, production and distribution of miniature light sources and miniature lighting systems. Our worldwide operations and know-how allow us to continually exceed our customers requirements. In addition to standard products, our capabilities in innovation, design and manufacturing enable us to supply custom solutions to answer to specific requirements.

CML Innovative Technologies est leader en solutions innovantes d'éclairage ; nos 1800 collaborateurs sont dédiés à la conception, la production et la distribution de sources et de systèmes lumineux. Notre savoir-faire et nos implantations mondiales nous permettent de mieux servir nos clients et de répondre aux niveaux d'exigences les plus élevées. En complément de nos produits standards, notre maîtrise en innovation, conception et en fabrication nous permet de répondre à des exigences particulières par des produits spécifiques.

CML Innovative Technologies ist der führende Hersteller für innovative Beleuchtung ; unsere 1800 Mitarbeiter engagieren sich für die Entwicklung, die Produktion und den Vertrieb von Beleuchtungsquellen und –Systemen. Unsere Erfahrung und unsere weltweiten Standorte machen es möglich, unseren Kundenservice stets zu verbessern und auch für die höchsten Ansprüche eine optimale Lösung zu finden. Unser Know-How in Innovation, Design und Herstellung macht es uns möglich, besonderen Anforderungen mit spezifischen Produkten zu entsprechen – und das zusätzlich zu unseren Standardprodukten.



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DISCRETE LEDs



INDUSTRIAL LAMPS



COLD CATHODES



AVIATION FLUORESCENT TUBES & LAMPS



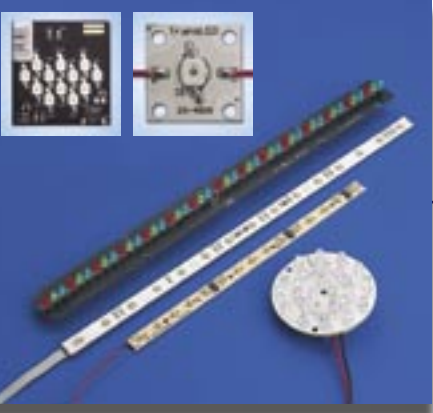
CIRCUIT BOARD INDICATORS



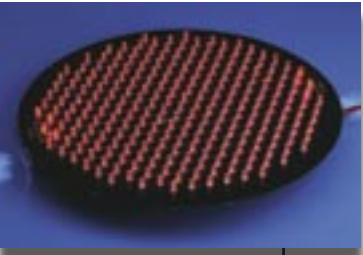
LED / LAMP INDICATORS



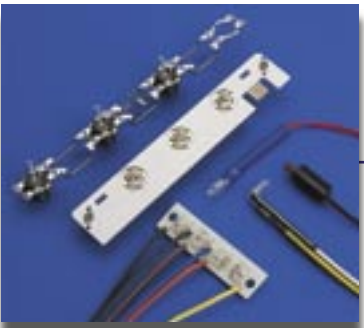
ELECTRONIC LIGHT PIPES



LED MODULES



RAILROAD LIGHTING
























CUSTOM SOLUTIONS

LEDs



CML-IT is a world leader in the manufacturing of LEDs and LED assemblies. CML offers a wide variety of products utilizing LEDs as a light source. Our line of discrete LEDs consists of both through hole and SMT products in all of the standard industry sizes including 3mm, 5mm, 0603, 0805, 1206, PLCC and many others. All CML-IT LEDs are available off-the-shelf in a wide variety of colors and intensities. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.


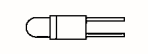
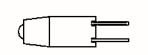
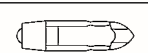

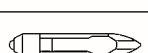
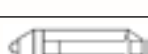
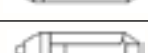
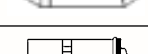

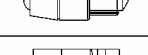
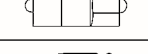



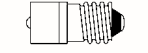


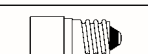

	Package	Series Number	RED				ORANGE	AMBER	YELLOW		GREEN		BLUE		WHITE	BI COLOR		TRI COLOUR	Intensity Range (mcd)	Viewing angle range (°)	
			GaP (700)	GaAlAs (660)	GaAsP (635)	AlInGaP (624-630)	AlInGaP (605-615)	GaAsP (605)	AlInGaP (590)	GaAsP (585)	AlInGaP (571-574)	GaP (555-565)	InGaN (505-525)	InGaN (466-470)	SiC (430)	InGaN	Red/Green	Yellow/Green			RGB
	Right Angle	CMD12-21 CMD11504	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	1.5 - 230	20 - 130	
	PLCC	CMD67-21 CMD67-22	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.5 - 700	60 - 130	
	0603	CMDA19 CMDA6	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.4 - 145	70 - 170	
	0805	CMDA5 CMD17-21	●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	1 - 145	30 - 170	
	1206	CMDA2 CMD15-21	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.7 - 460	20 - 170	
	1208	7016X	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	2.2 - 25	110	
	1210	7011X	—	—	—	—	—	—	—	—	—	—	—	—	—	●	●	—	3 - 100	60 - 140	
	Gull Wing	CMD28-21	●	●	●	●	●	●	●	●	●	●	—	—	—	●	●	—	0.1 - 40	125 - 150	
	Bright Angle	6200 6255	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	0.5 - 10	25	
	Gull Wing	CMD91-21/TR7 CMD95-21/TR7	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	11.5 - 2300	25 - 150	
	Yoke Bend	CMD91-21/TR9 CMD95-21/TR9	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	11.5 - 2300	25 - 150	
	Z-Bend	CMD91-21/TR10 CMD95-21/TR10	●	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—	11.5 - 2300	25 - 150	
	5mm Discrete LED	43xxH CMDxxx	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	0.1 - 10000	12 - 100	
	3mm Discrete LED	43xxF CMDxx	—	●	●	●	●	●	●	●	●	●	●	●	●	●	●	—	0.3 - 2500	22 - 180	
	Rectangular LED	CMD5-124	—	—	●	—	—	—	—	●	—	●	—	—	—	—	—	—	1 - 6	100	
	Rectangle LED	43xxR 43xxD	—	—	●	—	—	●	—	●	—	●	—	—	—	—	●	●	—	1 - 20	100 - 150
	5mm 3 leaded LED	CMD339	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	●	—	1-5	- 7
		4361H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	●	—	1.5 - 50	54 - 75
	3mm 3 leaded LED	4361L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	—	—	4 - 12	60 - 70
	3mm flat top 3 leaded	4361M	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	—	—	20 - 4	60 - 70
	1.8 x 5.3 3 leaded LED	4362D	—	—	—	—	—	—	—	—	—	—	—	—	—	—	●	—	—	0.25 - 4.5	60 - 100

● standard ○ available on request — please contact our sales representative

StarLEDs



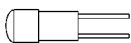

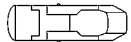
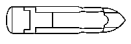
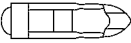
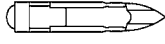
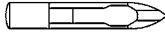








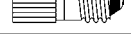
CML-IT Based LEDs are an effective alternative for based incandescent lamps. Based LEDs have a number of advantages when compared to miniature lamps. Features include a long life expectancy of up to 100,000 hours with low power consumption. Based LEDs are shock and vibration proof and come in a wide variety of colors, styles and voltages. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

	Series Number	Size	Base Type	Number of LEDs	Red	Green	Yellow	Blue	White	Flashing	Low voltage DC (24V, 28V)	Low voltage AC/DC (24V, 28V)	High voltage DC (130V)	High voltage AC (130V, 230V)	High voltage AC/DC (130V, 230V)	Special voltages
	15015	T-1 (3mm)	Bi-Pin	1	●	●	●	●	●	—	—	●	—	—	—	○
	15095	T-1 3/4 (6mm)	Bi-Pin	1	●	●	●	●	●	—	—	●	—	—	—	○
	15041	T5.5k	—	1	●	●	●	●	●	—	—	●	—	—	—	○
	15051	T5.5	—	1	●	●	●	●	●	—	—	●	—	—	—	○
	15071	T6.8	—	1	●	●	●	●	●	—	—	●	—	—	—	○
	15086	T-2 (7mm)	PSB	1	●	●	●	●	●	—	—	●	—	—	—	○
	15087	T-2 (7mm)	ESB	1	●	●	●	●	●	—	—	●	—	—	—	○
	15101	T-1 3/4 (6mm)	MF SX6s	1	●	●	●	●	●	—	—	●	—	—	—	○
	1511A	T-1 1/2 (5mm)	WB W2x4.6d	1	●	●	●	●	●	—	—	●	—	—	—	○
	1511B	T-3 1/4 (10mm)	WB W2.1x9.5d	1	●	●	●	●	●	—	—	●	—	—	—	○
	15121	T-1 3/4 (6mm)	MG S5.7s	1	●	●	●	●	●	—	—	●	—	—	—	○
	15161	T-2 (7x10mm)	BA7s	1	●	●	●	●	●	—	—	●	—	—	—	○
	18600* 18606*** 18608**	T-3 1/4 (10x25mm)	BA9s	1	●	●	●	●	●	—	—	●*	●**	●***	—	○
	18601* 18607*** 18609**	T-3 1/4 (10x25mm)	E10	1	●	●	●	●	●	—	—	●*	●**	●***	—	○
	18630* 18631** (18640)* (18641)**	T-5 (16x35mm)	BA15d	3 or (6)	●	●	●	●	●	—	—	●*	—	—	●**	○
	18633* 18634** (18643)* (18644)**	T-5 (16x35mm)	BA15s	3 or (6)	●	●	●	●	●	—	—	●*	—	—	●**	○
	18636* 18637** (18646)* (18647)**	T-5 (16x35mm)	E14	3 or (6)	●	●	●	●	●	—	—	●*	—	—	●**	○
	18580* 18581**	T-6 1/3 (20x46mm)	BA15d	9	●	●	●	●	●	—	—	●*	—	●**	—	○
	18680	11x39mm	—	3	●	●	●	●	●	—	—	●	—	—	—	○

● standard ○ available on request — please contact our sales representative

MultiLEDs

CML-IT Based LEDs are an effective alternative for based incandescent lamps. Based LEDs have a number of advantages when compared to miniature lamps. Features include a long life expectancy of up to 100,000 hours with low power consumption. Based LEDs are shock and vibration proof and come in a wide variety of colors, styles and voltages. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.


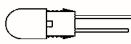
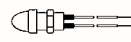

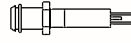
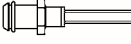
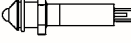
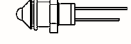


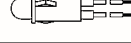

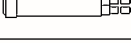
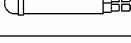
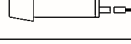

	Series Number	Size	Base Type	Number of LED Chips	Red	Green	Yellow	Blue	White	Flashing	Low voltage DC (24V, 28V)	Low voltage AC/DC (24V, 28V)	High voltage DC (130V)	High voltage AC (130V, 230V)	High voltage AC/DC (130V, 230V)	Special voltages
	15010 (15012)	T-1 (3mm)	Bi-Pin	4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15090 (15091)	T-1 3/4 (6mm)	Bi-Pin	4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15020 (15021)	T4.5		4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15030 (15031)	T4.6		4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15040 (15041)	T5.5k		4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15050 (15051)	T5.5		4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15080 (15071)	T6.8		4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15100 (15101)	T-1 3/4 (6mm)	MF SX6s	4 or (6)	●	●	●	-	-	-	●	-	-	-	-	○
	15110* (15112)* (15113)**	T-1 1/2 (5mm)	WB W2x4.6d	4 or (6)	●	●	●	-	-	-	●*	●**	-	-	-	○
	15120* (15121)* (15130)**	T-1 3/4 (6mm)	MG S5.7s	4 or (6)	●	●	●	-	-	-	●*	●**	-	-	-	○
	15140* (15139)*	T-1 1/2 (5mm)	BA5s	4 or (6)	●	●	●	-	-	-	●*	-	-	-	-	○
	15161	T-2 (7mm)	BA7s	6	●	●	●	-	-	-	●	-	-	-	-	○
	18270** 18271*	T-3 1/4 (10x21mm)	BA9s	8	●	●	●	-	-	-	●*	●**	-	-	-	○
	18310** 18311*	T-3 1/4 (10x28mm)	BA9s	8	●	●	●	-	-	●	●*	●**	-	-	-	○
	18290** 18291*	T-3 1/4 (10x21mm)	E10	8	●	●	●	-	-	-	●*	●**	-	-	-	○
	18330** 18331*	T-3 1/4 (10x28mm)	E10	8	●	●	●	-	-	-	●*	●**	-	-	-	○

● standard ○ available on request — please contact our sales representative

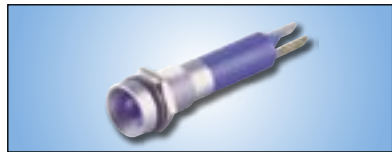


LED / Lamp Indicators

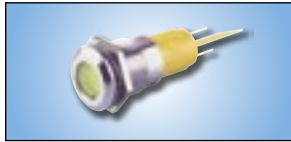
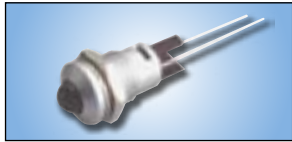
CML-IT offers panel mount indicators manufactured with LED, Neon or Incandescent light sources. These indicators are available in a number of different lens and termination styles, with voltages of 2V ~ 250V available off-the-shelf. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

	Series Number	Fixing Hole Diameter (mm)	Bezel type	Lamp Type	Red	Green	Yellow	Amber	Blue	White	Clear	Red/Green/Yellow	Infrared	Round lens	Flat Lens	Contical lens	Metal Bezel	Plastic Bezel	Without resistor	Low voltage (6V,12V, 24V, 28V)	High voltage AC (105 - 130V, 200 - 250V)	Special voltages
	5111 5110	4	Flat bezel	LED	●	●	●	●	○	○	-	○	-	●	-	-	-	●	●	-	-	-
	5200 5210	4.8	Flat bezel	LED	●	●	●	○	○	○	-	○	-	●	-	-	-	●	●	-	-	-
	6039-0004-304	4.9	Flat bezel	LED	●	●	●	○	○	○	-	○	-	●	-	-	-	●	●	-	-	-
	3990	5.5	Flat bezel	LED	●	●	●	●	○	○	-	○	-	●	-	-	-	●	●	-	-	-
	1900	6	Superflat bezel	LED	●	●	●	-	-	-	-	-	-	-	●	-	-	●	-	-	-	○
	1900			LED	●	●	●	-	-	-	-	-	-	-	●	-	-	●	-	-	-	-
	1902		Prominent bezel	LED	●	●	●	-	●	●	-	-	-	●	-	-	●	-	-	●	-	○
	1902			LED	●	●	●	-	●	●	-	-	-	●	-	-	●	-	●	-	-	-
	1903		Recessed bezel	LED	●	●	●	-	●	●	-	-	-	●	-	-	●	-	-	●	-	○
	1903			LED	●	●	●	-	●	●	-	-	-	●	-	-	●	-	●	-	-	-
	5101 5100	6.4	Flat bezel	LED	●	●	●	●	●	○	-	●	-	●	-	-	-	●	●	●	-	-
	5120	7.5	Flat bezel	LED	●	●	●	-	-	-	-	-	-	●	-	-	-	●	●	-	-	-
	2110 2195	7.9	Flat bezel	NEON INCANDESCENT LED	●	●	-	●	●	●	●	-	-	-	●	-	-	●	-	-	●	-
	2191 4304			NEON INCANDESCENT LED	●	●	-	●	●	●	●	-	-	●	-	-	-	●	-	-	●	-
	2990			INCANDESCENT	●	●	-	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-
	2191 2194			NEON INCANDESCENT LED	●	●	●	●	●	-	●	-	-	-	●	-	-	●	-	●	●	-

● standard ○ available on request — please contact our sales representative



LED / Lamp Indicators



	Series Number	Fixing Hole Diameter (mm)	Bezel type	Lamp Type	Red	Green	Yellow	Amber	Blue	White	Clear	Red/Green/Yellow	Infrared	Round lens	Flat Lens	Conical lens	Metal Bezel	Plastic Bezel	Without resistor	Low voltage (6V,12V,24V,28V)	High voltage AC (105-130V, 208-250V)	Special voltages	
	1901 1910**	8	Superflat bezel	LED	●	●	●	—	—	—	—	●**	—	—	●	—	●	—	—	●	—	○	
	1901 1910**			LED	●	●	●	—	—	—	—	●**	—	—	●	—	●	—	●	—	—	—	—
	1904 1908 (Sunlight) 1951* 1901 (Flashing) 19TR**		Prominent bezel	LED	●	●	●	—	●	●	—	●**	—	●	—	—	●	—	—	—	●	●*	○
	1904 1906 (Flashing) 1912**			LED	●	●	●	—	●	●	—	●**	—	●	—	—	●	—	●	—	—	—	—
	1905 1909 (Sunlight) 1950* 1907 (Flashing) 19TR**		Recessed bezel	LED	●	●	●	—	●	●	—	●**	—	●	—	—	●	—	—	—	●	●*	○
	1905 1907 (Flashing) 1913**			LED	●	●	●	—	●	●	—	●**	—	●	—	—	●	—	—	●	—	—	—
	1920		With optic	LED	○	○	○	—	○	○	—	—	●	—	—	—	●	—	—	—	●	—	○
	1920			LED	○	○	○	—	○	○	—	—	●	—	—	—	●	—	●	—	—	—	—
	5400		Flat bezel	LED	●	●	●	●	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	6010 6091	9.65	Flat bezel	LED NEON	●	●	●	●	—	—	—	—	—	●	—	—	●	—	—	●	●	—	
	192D	12	Prominent bezel	LED	●	●	●	—	●	●	—	—	—	●	—	—	●	—	—	—	●	●	○
	192D			LED	●	●	●	—	—	—	—	—	—	●	—	—	—	●	—	●	—	—	—
	1030 1050	12.75	Flat bezel	NEON INCANDESCENT LED	●	●	●	●	●	●	●	—	—	●	●	—	—	●	—	—	●	●	—
	1921 192A (Sunlight) 1935* 1922 (Flashing) 1924**	14	Prominent bezel	LED	●	●	●	—	●	●	—	●**	—	●	—	—	●	—	—	—	●	●*	○
	1921 1922 (Flashing) 1924**			LED	●	●	●	—	—	—	—	●**	—	●	—	—	—	●	—	●	—	—	—
	1937 / 1940* (round lens) 1938 / 1941* (flat lens) 1939 / 1942* (conical lens)	16	Prominent bezel	LED	●	●	●	—	●	●	—	—	—	●	●	●	●	●	○	●	●*	○	
	1970 / 1973* (round lens) 1971 / 1974* (flat lens) 1972 / 1975* (conical lens)	19	Prominent bezel	LED	●	●	●	—	●	●	—	—	—	●	●	●	—	—	○	●	●*	○	
	195A / 195E* (round lens) 195B / 195F* (flat lens)	22	Prominent bezell	LED	●	●	●	—	●	●	—	—	—	●	●	—	●	●	○	●	●*	○	
	2620 2660	22,25	Flat bezel	NEON	●	●	—	●	—	●	—	—	—	—	●	●	—	●	—	—	—	—	—








CBIs

CML-IT LED Assemblies are available in both right angle and vertical package and utilize the CML-IT line of high quality LEDs. Parts range in voltage from 2V to 12V and in current from 2mA to 20mA. The UL 94V0 housings ensure proper LED alignment. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

	Package	Series Number	RED				ORANGE	AMBER	YELLOW		GREEN			BLUE		WHITE	BI COLOR		Intensity Range (mcd)	Low Current	Integral Resistor
			GaP (700)	GaAlAs (660)	GaAsP (635)	AlInGaP (630)	AlInGaP (610)	GaAsP (605)	AlInGaP (590)	GaAsP (585)	AlInGaP (574)	GaP (555-565)	InGaN (505-525)	InGaN (470)	SiC (430)	InGaN	Red/Green	Yellow/Green			
	5 mm Vertical	5300	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.0 - 160	●	●
		5341	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	5mm Rt Angle	5300	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.0 - 161	●	●
		5306	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	5mm Rt Angle 4 Array	5640	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.0 - 160	●	●
	5mm Bi Level	5390	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.0 - 160	●	●
	5mm Bi-Level	5670	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2.0 - 160	●	●
	3mm Vertical	5610	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
		5311	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	3mm Vertical 5 array	5321	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Dual Mounted	5322	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Rt Angle	5600	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
		5320	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	3mm Rt Angle 2 Array	5365	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Rt Angle Array	5360	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
		5324	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	3mm Rt Angle Array	5324	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Rt Angle Array	5326	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Bi Level	5680	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
		553-	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●				
	3mm Bi Level Array	5681	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Bi Level 2 Array	5684	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Tri Level	5693	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●
	3mm Quad Level	5694	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	1.8 - 60	●	●



CBIs

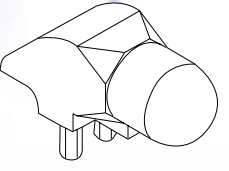
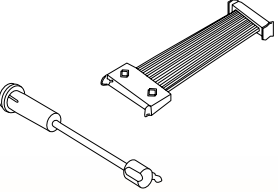
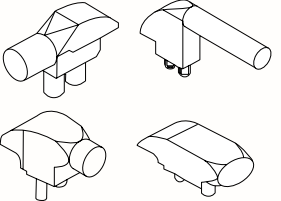
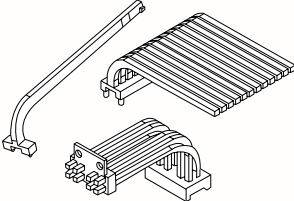
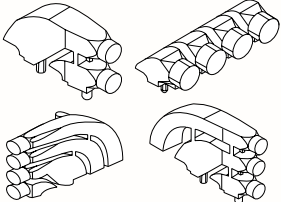
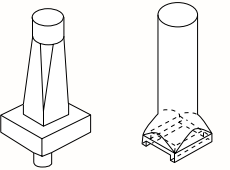
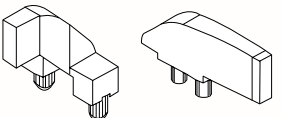
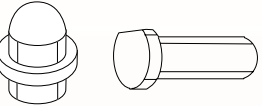
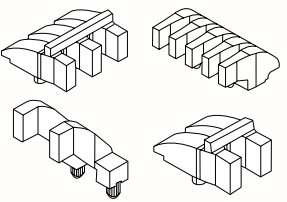
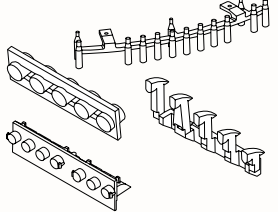
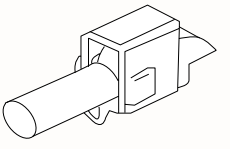
	Package	Series Number	RED				ORANGE	AMBER	YELLOW		GREEN			BLUE		WHITE	BI COLOR		Intensity Range (mcd)	Low Current	Integral Resistor
			GaP (700)	GaAlAs (660)	GaAsP (635)	AlInGaP (630)	AlInGaP (610)	GaAsP (605)	AlInGaP (590)	GaAsP (585)	AlInGaP (574)	GaP (555-565)	InGaN (505-525)	InGaN (470)	SiC (430)	InGaN	Red/Green	Yellow/Green			
	2mm Rt Angle	5350	—	●	●	●	—	—	●	●	●	●	●	—	—	—	—	—	0.5 - 5	●	●
	2mm Vertical	5370	—	●	●	●	—	—	●	●	—	—	—	—	—	—	—	—	0.5 - 5	●	●
	Rectangle Vertical	5610	—	●	●	●	—	—	●	●	●	●	●	—	—	—	●	●	1 - 16	●	—
		5630																			
	Rectangle Vertical Array	5638	—	●	●	●	—	—	●	●	●	●	●	—	—	—	●	●	1 - 16	—	—
	Rectangle Rt Angle Quad Level	5894	—	●	●	●	—	—	●	●	●	●	●	—	—	—	●	●	1 - 16	—	—
		5994																			
	Rectangle Rt Angle Two Array	5632	—	●	●	●	—	—	●	●	●	●	●	—	—	—	●	●	1 - 16	—	—
	Rectangle Rt Angle	5636	●	—	●	—	—	●	—	●	—	●	—	—	—	—	—	—	1 - 16	—	—
		5635																			

● standard ○ available on request — please contact our sales representative



Light pipes




Bright•Pipes™ Optical Lightpipes produce bright, even indication based on optical ray tracing. They conveniently and economically propagate light from SMT LEDs through angles and distances to a viewable front lens surface in order to provide an attractive, bright and even indication of equipment of function status with a minimal attenuation of light output through the optical fibers that join the base, at the LED light source, to the lens front. Custom engineered Bright•Pipes™ Optical Lightpipes for specialized applications are in constant development. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

	7511 series	Right Angle 5mm		7512 series	Flexible Light Pipes
	7511 series	Right Angle 3mm		7511 series	Over Jack Style
	7511 series	Right Angle 3mm, Multiple Position		7511 series	Vertical
	7511 series	Right Angle Rectangular		7511 series	Panel Mount
	7511 series	Right Angle Rectangular Multiple Position		7511 series	Miscellaneous And Custom
	7520 series	Surface Mount			



LED Modules


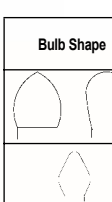
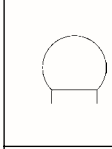
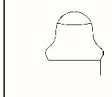

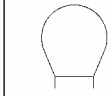
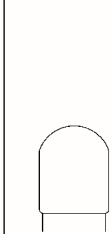
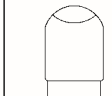
CML-IT LED Modules are available in various sizes, shapes and colors and utilize the CML-IT line of high quality LEDs. The features are easy handling, compact construction, long life span and low maintenance cost, constant current regulation and no IR & UV radiation.
The listing below contains generic product information.
Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

	Series Number	Size	Red	Amber	Yellow	Orange	Green	Blue	Cyan	White	Voltage DC per 12 inches / 300 mm	Power per 12 inches / 300mm (watt)	Radiance Angle Range (degree)	Low Brightness	Standard Brightness	High Brightness	Lum. Flux Range per ft / 300mm (lm)	Voltage 12VDC	Voltage 24VDC	Special voltages
	HELION A-SMD Back Lighting Array Module	LM-Axxx-1x1	30 x 30 mm	●	—	●	●	●	—	●	—	—	120°	—	5 LEDs (G, B, W) 9 LEDs (R, Y, O)	—	—	—	●	○
		LM-Axxx-2x2	60 x 60 mm	●	—	●	●	●	—	●	—	—	120°	—	20 LEDs (G, B, W) 36 LEDs (R, Y, O)	—	—	—	●	○
		LM-Axxx-2x4	60 x 120 mm	●	—	●	●	●	—	●	—	—	120°	—	40 LEDs (G, B, W) 72 LEDs (R, Y, O)	—	—	—	●	○
		LM-Axxx-8x12	180 x 360 mm	●	—	●	●	●	—	●	—	—	120°	—	360 LEDs (G, B, W) 648 LEDs (R, Y, O)	—	—	—	●	○
	HELION B-SMD Back Lighting Bar Module	LM-Bxxx-1	200 x 10 mm	●	—	●	●	●	—	●	—	—	120°	6 LEDs	9 LEDs	18 LEDs	—	—	●	○
		LM-Bxxx-2	400 x 10 mm	●	—	●	●	●	—	●	—	—	120°	12 LEDs	18 LEDs	36 LEDs	—	—	●	○
	HELION B-TH Back Lighting Bar Module	CMBS-6 Series	150 mm x 19 mm	●	●	—	—	●	—	●	12	1.2 - 2.4	20 - 30	—	—	16	50 to 125	●	—	—
		CMBS-12 Series	300 mm x 19 mm	●	●	—	—	●	—	●	12	2.4 - 3.6	20 - 30	—	—	32	50 to 125	●	—	—
		CMBS-18 Series	450 mm x 19 mm	●	●	—	—	●	—	●	12	3.6 - 4.8	20 - 30	—	—	48	50 to 125	●	—	—
	HELION B-TH Channel Letter Bar Module	9530CL Series	Red or Amber: 47 x 21.6 mm (1.85 x 0.85 inches) White, Blue or Green: 57.2 x 21.6 mm (2.25 x 0.85 inches)	●	●	—	—	●	—	●	12	1.8	50	—	—	4 to 6	25 to 50	●	○	○
	HELION C-SMD Back Lighting Circle Module	LM-Cxxx	45 mm diameter	●	—	●	●	●	—	●	—	—	120°	—	10 LEDs (G, B, W) 18 LEDs (R, Y, O)	—	—	—	●	○
	TransLED S-MD/HF Channel Letter Square Module	9520CL Series	25 x 25 mm (1 x 1 inches)	●	●	—	●	●	●	●	8.8 - 15.2	3.5 - 5.3	120	—	—	—	32 - 102	●	○	○
	TransLED S-MD/HF LED Modules	CM-2x Series	62 x 65 mm (2.44 x 2.55 inches)	●	—	●	—	●	●	●	—	—	120	—	—	12-18 LEDs	150 - 700	●	●	●
	TransLED S-MD/HF Channel Letter Square Module	9500CL Series 9510CL Series	30 x 30 mm (1.18 x 1.18 inches)	●	●	—	●	●	●	●	10 - 14	0.7 - 1.05	120	—	—	—	3 - 25	●	○	○

● standard ○ available on request — please contact our sales representative

Lamps






CML-IT incandescent lamps include a diverse range of configurations and performance characteristics. Configurations include the basic wire terminal and a wide variety of base styles from midget flange to intermediate screw. These lamps are an ideal light source for all applications, back-lighting, illumination, and indication. They are available in a wide range of voltages from as low as 1.5V up to as high as 240V. The listing below contains generic product information.
Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

Bulb Shape	Size		Approximate diameter		Voltage range (V)	Light Output Range (lm)	Light Output Range (MSCP)	Wire Terminal	Flange Base	Groove Base	Screw Base	Bayonet Base	BI-Pin Base	Wedge Base	Slide Base	BA7s	Other Type
	Inch	mm	Inch	mm													
	B-3 1/2	—	0.445	11.3	1.9 - 12.5	1.9 - 65.7	0.15 - 5.23	—	—	—	—	—	—	—	—	—	●
	B-6	—	0.78	19.81	6 - 28	42.7 - 201	3.4 - 16	—	—	—	●	—	—	—	—	—	—
	C7	—	0.875	22.23	115 - 125	16.3 - 56.5	1.3 - 4.5	—	—	—	●	●	—	—	—	—	—
	G-2	—	0.25	6.35	7 - 28	0.83 - 4	0.066 - 0.32	—	—	—	●	—	—	—	—	—	—
	G-3 1/2	G11	0.433	11	1.25 - 28	0.5 - 25.1	0.02 - 3.5	—	—	—	●	●	—	—	—	—	●
	G-4 1/2	—	0.59	15	1.25 - 28	1.2 - 45.2	0.1 - 3.6	—	—	—	●	●	—	—	—	—	●
	G-6	—	0.75	19	6.5 - 32	20.1 - 75.4	1.6 - 6	—	—	—	●	●	—	—	—	—	—
	GTL-1 1/2	—	0.235	6	2.5	—	—	—	—	●	—	—	—	—	—	—	—
	GTL-1 3/4	—	0.235	6	2.5	—	—	●	●	—	—	—	—	—	—	—	—
	GTL-3	—	0.375	9.53	1.2 - 3.8	—	—	—	—	●	—	—	—	—	—	—	—
	R-12	—	1.546	39.26	6 - 28	—	—	—	—	—	●	—	—	—	—	—	—
	RP-11	—	1.42	36.1	5.5 - 44	263.9 - 1319.4	21 - 105	—	—	—	—	●	—	—	—	—	—
	S-6	—	0.75	19	6 - 250	—	0.95 - 4.8	—	—	—	●	●	—	—	—	—	—
	S-8	—	1.04	26.44	4 - 45	25.1 - 628.3	2 - 50	—	—	—	—	●	—	—	—	—	●
	S-11	—	1.42	36	6.2 - 28	402.1 - 628.3	32 - 50	—	—	—	—	●	—	—	—	—	—
	T-3/4	—	0.094	2.39	1.5 - 5	0.013 - 2.5	0.001 - 0.2	●	●	—	—	—	●	—	—	—	—
	T-1	T3	0.125	3.18	1.25 - 28	0.012 - 3.1	0.001 - 0.25	●	●	—	—	—	●	—	—	—	—
	T-1 1/4	T4	0.168	4.26	1.3 - 28	0.025 - 7.9	0.002 - 0.63	●	●	—	—	—	●	●	—	—	—
	T-1 1/2	T5	0.197	5	5 - 28	0.3 - 18.6	0.024 - 1.5	●	—	—	—	—	●	●	—	—	—
	T-1 3/4	T5.6	0.22	5.85	1.30 - 60	0.012 - 18.8	0.001 - 1.5	●	●	●	●	—	●	●	—	—	—
	T-2	—	0.275 - 0.325	6.99 - 8.26	4.00 - 120	—	60 - 4000 EFC (*)	●	—	—	—	●	—	—	—	●	—
	T6.5	—	0.248 - 0.263	6.3 - 6.7	6 - 24	8 - 23	0.64 - 1.8	—	—	—	—	—	—	●	—	—	—
	T-2 1/8	T6.8	0.268	6.8	6 - 24	2.5 - 8.8	0.2 - 0.7	—	—	—	—	—	—	—	—	●	—
	T7	—	0.272 - 0.279	6.9 - 7.1	12 - 24	8 - 23.5	0.64 - 1.87	—	—	—	—	—	—	●	—	—	—
	T-2 7/8	T9	0.355	9	6 - 60	2.5 - 6.3	0.2 - 0.5	—	—	—	—	●	—	—	—	—	—
	T-3 1/4	T10	0.4	10.3	1.35 - 130	1 - 84	0.08 - 6.68	—	—	—	●	●	—	●	—	—	—
	T-4 1/2	—	0.588	14.94	6.3 - 130	18.9 - 113.1	1.5 - 9	—	—	—	●	●	—	—	—	—	—
	T-5	T15	0.6	16	3.5 - 120	44 - 310	3.2 - 25	—	—	—	●	●	—	●	—	—	—
	T-6	—	0.75	19.05	60 - 150	105.5 - 119.4	8.4 - 9.5	—	—	—	●	●	—	—	—	—	—
	T-6 1/3	T20	0.787	20	12	440 - 460	35 - 36.6	—	—	—	—	—	—	●	—	—	—
	T-6 1/2	—	0.813	20.65	115 - 125	90.5 - 251.3	7.2 - 20	—	—	—	●	●	—	—	—	—	—
	T-7	—	0.875	22.23	115 - 125	100.5 - 125.6	8 - 10	—	—	—	●	●	—	—	—	—	—
	T-8	—	1.06	26.92	115 - 230	149.5 - 235	11.9 - 18.7	—	—	—	●	●	—	—	—	—	—
	TL-3/4	—	0.094	2.39	5	—	—	●	●	—	—	—	●	—	—	—	—
	TL-1	—	0.125	3.18	1.5 - 5	—	—	●	●	—	—	—	●	—	—	—	—
	TL-1 3/4	—	0.23	5.85	2.5 - 14	—	—	●	●	●	●	—	●	—	—	—	—

● standard ○ available on request — please contact our sales representative

Neon Lamps

CML-IT line of Neon lamps include, standard wire terminal lamps as well as many based options. Lamps are designed for use at line voltages of 100~125 VAC or 200~250 VAC, and come with or without resistors attached to the lamp. The leads on the lamps can also be cut and formed to custom sizes upon request. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

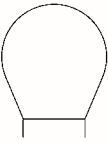
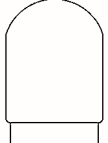
Bulb Shape	SIZE	BASE TYPES					COLOR		VOLTAGE			HOUSING	
		Wire Terminal	Midgat Flange Base	Slide Base	Bayonet Base	Screw Base	Red	Green	115VAC	230VAC	400VAC	White plastic	Clear plastic
	G-10	-	-	-	●	-	●	-	●	●	○	-	-
	S-11	-	-	-	-	●	●	-	●	●	○	-	-
	S-7	-	-	-	●	-	●	-	●	●	○	-	-
	S-14	-	-	-	●	●	●	-	●	●	○	-	-
	T-1 1/4	●	-	-	-	-	●	●	●	●	○	-	-
	T-1 3/4	●	●	-	-	-	●	●	●	●	○	-	-
	T-2	-	-	●	-	-	●	-	●	●	○	-	-
	T-3 1/4	-	-	-	●	●	●	●	●	●	○	●	●
	T4 1/2	-	-	-	-	●	●	●	●	●	○	●	●

● standard ○ available on request - please contact our sales representative



Socketed Lamps

CML-IT is the premier manufacturer of socketed lamps. Our design expertise is number one with most automotive manufacturers specifying CML-IT as OEM. These products comprise a filament lamp or LED inserted into a plastic socket. Some variants have the lamp permanently installed within the socket using welded assembly techniques for ultimate contact reliability, other types utilize wire wrap for SMD and twist and turn installation. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

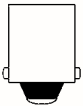
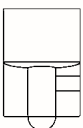
Bulb Shape	Bulb Type		Approximate diameter		Voltage range (V)	Light Output Range (lm)	Light Output Range (MSCP)	Coloured silicon caps available	PCB Twist Lock Single Contact	PCB Twist Lock Double Contact	Twist Lock With connector	Twist Lock With connector - Right Angle	Twist Lock With Wire Terminals	Twist Lock Neo-Wedge	Bi-Pin	SMD	Snap In	Other
	Inch	mm	inch	mm														
																		
		P21	1.04	26.5	6 - 24	390 - 530	31 - 42.1	-	-	-	-	●	-	-	-	-	-	-
	T-1	T3	0.125	3	5 - 14	0.9 - 3.1	0.08 - 0.25	●	-	-	-	-	-	●	●	●	-	-
	T-1 1/4	T4	0.166	4	14	3.8 - 6.3	0.3 - 0.5	●	-	-	-	-	-	●	●	●	●	-
	T-1 1/2	T5	0.197	5	6 - 28	0.8 - 23.5	0.06 - 1.87	●	●	●	-	-	●	●	●	●	-	-
	T-1 3/4	T5.6	0.22	5.6	24 - 28	4 - 13.8	0.32 - 1.1	●	●	●	-	-	-	-	-	-	-	-
	T-2	T6	0.255	6	12 - 14	5.5 - 37.7	0.44 - 3	●	-	●	-	-	-	●	-	-	-	-
	T-2 1/4	T7	0.29	7	8 - 12	16.3	1.3	-	-	●	-	-	-	-	-	-	-	-
	T-3 1/4	T10	0.393	10	6.3 - 28	11 - 84	0.65 - 6.7	-	-	●	●	-	●	-	-	-	-	-
	T-5	T15	0.6	16	6-120	75.4 - 310	3.2 - 25	-	-	●	-	-	-	-	-	-	-	-

● standard ○ available on request - please contact our sales representative



Sockets

CML-IT a world leader for the manufacture and supply of lamp sockets particularly for the automotive industry. Our sockets are designed and manufactured 'in-house' using precision injection molding and metal stamping techniques. We specialize in twist and turn sockets using push-in wedge base lamps which are automatically assembled and tested using sophisticated test and inspection equipment. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

Bulb Base Type	Bulb Type		Approximate diameter		Voltage range (V)	PCB Twist Lock Single Contact		PCB Twist Lock Double Contact		Twist Lock With connector	Twist Lock With connector - Right Angle	Twist Lock Nec-Wedge	Relampable
	Inch	mm	inch	mm									
		P21	1.04	26.5	6 - 24	—	—	—	—	●	—	—	●
	T1 1/2	T 5	0.197	5	12 - 24	●	●	—	—	—	—	●	●
	T1 3/4	T 5.6	0.22	5.6	12 - 24	●	●	—	—	—	—	—	●
	T 3 1/4	T 10	0.393	10	12 - 24	—	●	●	—	—	—	—	●
	T5	T 15	0.59	15	12 - 24	●	—	—	—	—	—	—	●

● standard ○ available on request — please contact our sales representative

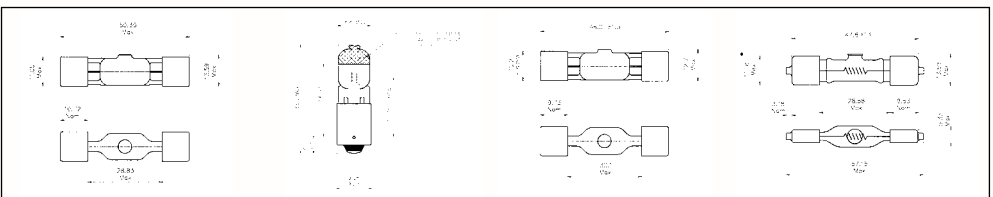


Aviation Lamps

Vertically integrated design, engineering, manufacturing, and assembly capabilities make CML responsive to the needs of aircraft manufacturers and maintenance facilities around the world. Every aviation lamp we produce is designed to meet or exceed critical requirements for light output and service life. Each design anticipates environmental, electrical, and photometric conditions for aircraft or ground support applications. And CML inspection, testing, and statistical documentation set the standard for the industry. The result is a lamp that will not only deliver top rated performance and optimum service life -- it will also cost less for you to own an operate. Choose from a broad range of styles and operating characteristics for an equally diverse range of applications. Status indicators, Instrumentation lighting, Cabin and flight deck lighting, Navigation and anti-collision lighting, and Inspection lighting. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

Aviation Halogen Aircraft Lamp

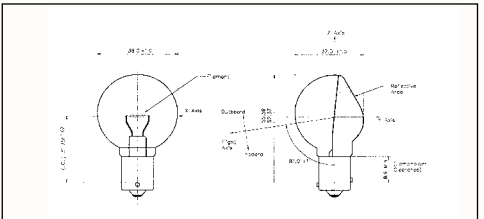
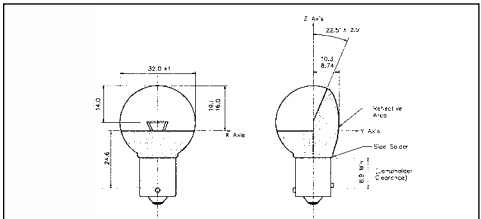
Volts (V)	Wattage (W)	Light Output Lm	Mscp	Filament shape	Life Hours	Lamp Base	Part N°
10	100	1630	130	C-8	1000	end caps	1978X
12	10	126	10	C-81	2000	bayonet BA9s	2059
28	50	750	60	CC-8	1000	end caps	8-A103
28	100	1760	140	CC-8	1000	end caps	1970X



Aviation Anti-Collision Warning Lamp

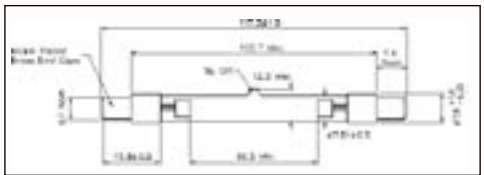


Volts (V)	Wattage (W)	Filament shape	Life Hours	Lamp Base	Part N°
28	21	CC-6	300	Bayonet BA15s	CM1524
28	26	CC-6	300	Bayonet BA15s	A-7512-24
28	40	CC-6	300	Bayonet BA15s	A-4174-24



Aviation Xenon Flashtube

Max Length mm	Max Length Inches	Rated Life Hrs	Light Output Lm	Wattage (W)	Lamp Base	Part N°
117	4,6	2000*	95cd/s@32j	40	Special End Caps	55-0331-3

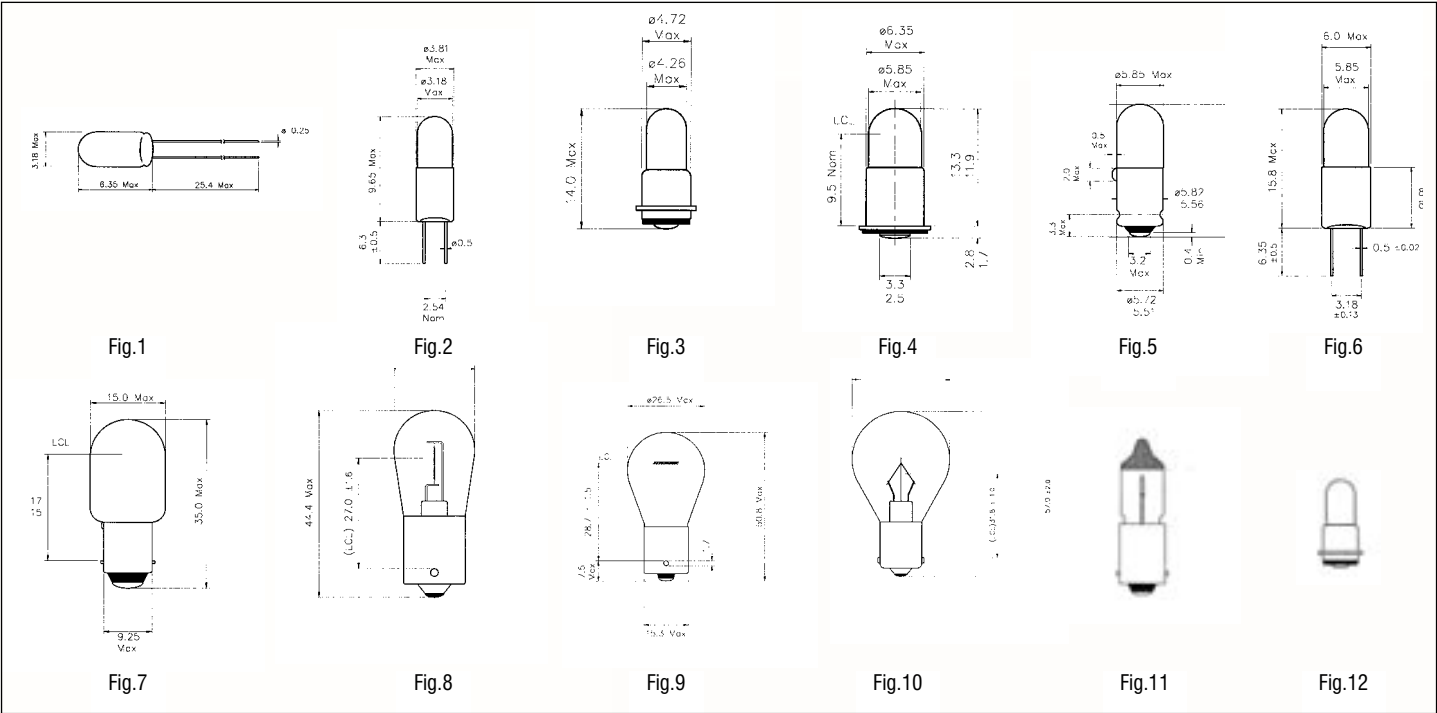


* Life defined as 9 million flashes at flash rate of 75 flashes per minute
= (9 x 106) / 75 = 120,000 min = 2000 hours.
cd/s = candelas per second. Please note the size designation is T2^{1/2} (T8).

Aviation Lamps

Aviation Incandescent Aircraft Lamp

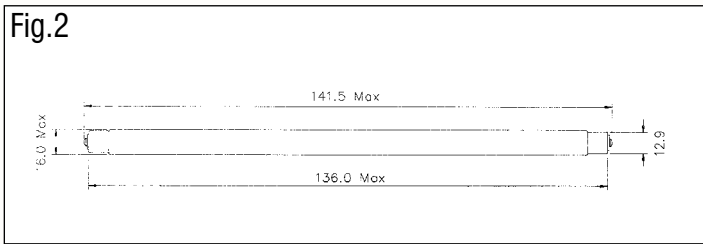
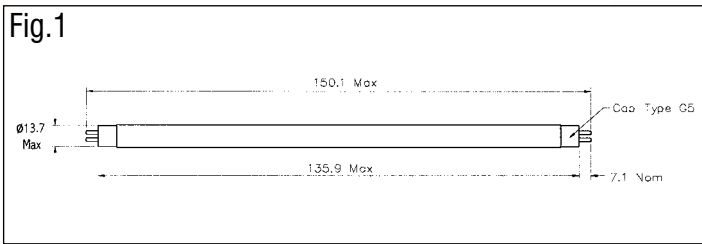
Volts (V)	Wattage	Light Output		Filament shape	Life Hours	Size	Lamp Base	Fig.	Part N°
		Lm	Mscp						
5	60mA	0,63	0,05	C-2R	40.000	T1 (T3)	Wire terminal	1	683
5	115mA	1,9	0,15	C-2R	40.000	T1 (T3)	B-Pin (2,54)	2	8-2400
28	24mA	1,9	0,15	CC-2F	4.000	T1 (T3)	B-Pin (2,54)	2	8-2402
28	50mA	3,8	0,3	C-2F	16.000	T1 1/4 (T4)	Special Midget Flange	3	737AS15
28	40mA	3,8	0,3	C-2F	7.000	T1 1/4 (T5.6)	Midget Flange, SX6s	4	387
28	40mA	4,3	0,34	C-2F	4.000	T1 3/4 (T5.6)	Midget Groove, S5.7s	5	334
28	40mA	3,8	0,3	C-2F	7.000	T1 3/4 (T5.6)	Bi-Pin (3.18)	6	7387
28	300mA	75	6	C-2F	500	T4 1/2 (T14)	Miniature Bayonet, BA9s	7	1495
28	560mA	201	16	CC-8	2.000	B-6 (B19)	Bayonet BA15s	8	1308
28	520mA	188	15	2xC-2R	300	B-6 (B19)	Bayonet BA15s	8	1309IF
28	510mA	188	15	C-2V	300	S-8 (S25)	Bayonet BA15s	9	305
28	670mA	264	21	C-2V	300	S-8 (S25)	Bayonet BA15s	9	307
28	17W	188	15	2xC-2R	1.000	S-8 (S25)	Bayonet BA15s	9	1691
28	18W	226	18	CC-8S	2.000	S-8 (S25)	Bayonet BA15s	9	2332SB
28	21W	264	21	CC-8S	2.000	S-8 (S25)	Bayonet BA15s	9	2233
28	36W	553	44	C-2V	1.000	S-11 (S35)	Bayonet BA15s	10	3011
28	800mA	264	21	C-2V	1.000	S-8 (S25)	Bayonet BA15s	9	1665
28	1020mA	402	32	2C-6	500	S-8 (S25)	Bayonet BA15s	9	1683
28	610mA	188	15	2C-2R	1000	S-8 (S25)	Bayonet BA15s	9	1691
6	2000mA	238	19	C6	50	T2 1/4 (T7)	Miniature Bayonet, BA9s	11	767
28	24mA	1,6	0,13	CC-2F	4000	T1 (T3)	Sub -midget flange	12	6839



Aviation Fluorescent Lamps

Aviation Fluorescent Lamp

Max Length Rated		Life Hrs	Light Output Lm	Wattage W	Colour	Cap	Fig. N°	Part N°
mm	inches							
T5 (Ø 16mm)								
150	6	7500	145	4	Warm White	G5, Bi-Pin	1	CM5104WW
150	6	7500	140	4	Cool White	G5, Bi-Pin	1	CM5104CW
150	6	7500	145	4	Warm White	Pinless	2	5004WW
150	6	7500	140	4	Cool White	Pinless	2	5004CW
226	9	7500	290	6	Warm White	G5, Bi-Pin	1	CM5106WW
226	9	7500	270	6	Cool White	G5, Bi-Pin	1	CM5106CW
302	12	7500	400	8	Warm White	G5, Bi-Pin	1	CM5108WW
302	12	7500	380	8	Cool White	G5, Bi-Pin	1	CM5108CW
302	12	7500	400	8	Warm White	Pinless	2	5008WW
302	12	7500	380	8	Cool White	Pinless	2	5008CW
531	21	7500	880	13	Warm White	G5, Bi-Pin	1	CM5113WW
531	21	7500	860	13	Cool White	G5, Bi-Pin	1	CM5113CW
531	21	7500	880	13	Warm White	Pinless	2	5013WW
531	21	7500	860	13	Cool White	Pinless	2	5013CW
760	30	8000	1150	18	Warm White	G5, Bi-Pin	1	18WT5-WW
760	30	8000	1150	18	Cool White	G5, Bi-Pin	1	18WT5-CW
T8 (Ø 25mm)								
909	36	14000	2200	30	Cool White	G13, Bi-Pin	1	F30W133TB
T12 (Ø 38mm)								
984	39	9000	2800	40	Warm White	G13, Bi-Pin	1	F40W1M129
984	39	9000	2800	40	Cool White	G13, Bi-Pin	1	F40W1M133

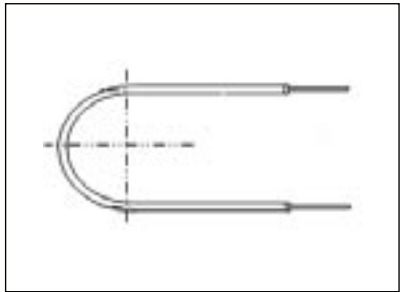
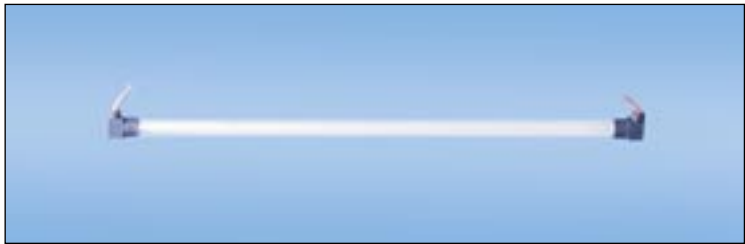


CCFLs

CML-IT range of cold cathode fluorescent lamps is proving increasingly popular where strong white light sources are required to give even light distribution over large surface areas. Small diameter tubes are highly efficient in providing reliable illumination with life time up to 50,000 hours. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

Diameter (mm)	Series Number	Overall Length (mm)	Active Length (mm)	Surface Brightness (Cd/mm ²)	Voltage (V)	Watts (W)	Bar Shape	U Shape
1.8	CCFL18	220 - 280	205 - 265	50,000	540 - 660	2.7 - 3.3	●	—
2.0	CCFL 20	40 - 150	27.5 - 135	43,000	160 - 400	0.8 - 2	●	—
2.6	CCFL 26	100 - 420	85 - 400	30,000	265 - 850	1.3 - 4.25	●	●
4.1	CCFL 41	100 - 400	75 - 375	14,000	260 - 800	1.3 - 4	●	—

● standard ○ available on request — please contact our sales representative



Inverters





These are best described as electronic ballasts providing the power source for our range of CCFL products. All CML-IT models offer low voltage DC input with long life. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of product specifications.

Inverter types	Series Number	Application	Dimensions (mm) W x L x H	CCFL Length (mm)	Input voltage	Input current (mA)	Output voltage (V)	Output Current Max. (mA)	Number of drive circuits	Operating Temp Range (°C)
	INV 1	CCFL	18 x 49 x 13	50 - 150 mm	12VDC	210 - 900	260 to 850	5	1	0 - 50
	INV 5	CCFL	18 x 49 x 13	50 - 150 mm	12VDC	210 - 900	260 to 850	5	2	0 - 50
	INV 2	CCFL	20 x 70 x 15	150 - 300 mm	12VDC	210 - 900	260 to 850	5	1	0 - 50
	INV 6	CCFL	20 x 70 x 15	150 - 300 mm	12VDC	210 - 900	260 to 850	5	2	0 - 50
	INV4	CCFL	25 x 75 x 15	300 - 420 mm	12VDC	210 - 900	260 to 850	5	1	0 - 50
	INV 8	CCFL	25 x 75 x 15	300 - 420 mm	12VDC	210 - 900	260 to 850	5	2	0 - 50
	INV 9	CCFL	18 x 49 x 13	50 - 150 mm	5VDC	210 - 900	260 to 850	5	1	0 - 50
	INV 11	CCFL	18 x 49 x 13	50 - 150 mm	5VDC	210 - 900	260 to 850	5	2	0 - 50
	INV 10	CCFL	20 x 70 x 15	150 - 280 mm	5VDC	210 - 900	260 to 850	5	1	0 - 50

Power Supply types	Series Numbers	Application	Dimensions (mm) W x L x H	Application (Watt)	Input voltage	Input current (mA)	Output voltage (VDC)	Output Current Max. (A)	Number of drive circuits	Operating Temp Range (°C)
	CMPS Series	LED BrightStrips	3.7"x1"x1.5" 94mm x 25.4 mm x 38.1mm	upto 20 Watt	100VAC - 240VAC	300mA	8 to 13.5	1.67 A	4 to 20 ft 1.2 to 6 m	0 - 50
		LED BrightStrips	9.5"x1.5"x2.4" 241mm x 38.1 mm x 61 mm	upto 60 Watt	100VAC - 240VAC	1000mA	12	5.0 A	12 to 60 ft 3.6 to 18.2 m	-20 +70
		LED BrightStrips	4"x1.25"x2" 102 mm x 32 mm x 51 mm	upto 30 Watt	100VAC - 240VAC	1000mA	12	2.5 A	6 to 30 ft 1.8 to 9.1 m	-20 +70

Light Engines



CML-IT line of LED light engines are designed to replace traditional halogen and incandescent light engines. Light engines are available in sizes ranging from 5mm up to 14mm in diameter and provide you with a large range of brightness options. Light engines are available in red, green, white, amber, yellow, blue and RGB. All light engines are designed and optimized for use with our line of rigid and flexible light guides. Custom colors and configurations are available upon request. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of our specifications.

Light Engine types	File Rigid Light Guide and Side Light Cable sizes	Series Number	Red	Amber	Green	White	Blue	RGB	Luminous Flux (Lumens) or Luminous Intensity (Cd)	Voltage (VDC)	Maximum Current (mA)	Heat Sink
		8550LE Series	●	●	●	●	●	—	25 to 122 Lumens	5.8	870	yes
		8550LE Series	—	—	—	—	—	●	6.4 to 65 Lumens	6.0	825	yes
	10 mm	8560LE Series	●	●	●	●	●	—	17 to 84 Lumens	3.2	700	yes
	12 mm	8570LE Series	●	●	●	●	●	—	23 to 65 Lumens	3.5	700	yes
	14 mm	8520LE Series	●	●	●	●	●	—	3 to 5 Lumens	2.2	150	no
		8530LE Series	●	●	●	●	●	—	3 to 10 Lumens	2.4	300	no
		8530LE Series	—	—	—	—	—	●	0.9 to 5.3 Lumens	3.6	300	no
	5mm 6.5 mm 10 mm 14 mm	8510LE Series	●	●	●	●	●	—	10 to 50 Cd	12	50 to 80	no
	5mm 6.5 mm 10 mm 14 mm	8511LE Series	●	●	●	●	●	—	10 to 50 Cd	12	50 to 80	yes
	6.5 mm 14 mm	8500LE Series	●	●	●	●	●	—	up to 10 Cd	2 - 12	30 to 50	no

● standard ○ available on request — please contact our sales representative

Light Guides

CML-IT light guides are available in two different types, rigid and flexible. Our rigid light guide is available in diameters of 5, 10 and 14mm in lengths ranging from 100mm up to 1828mm. Our flexible light guide is available in diameters of 5, 6, 10, 12 and 14mm and can be cut to specification or supplied bulk, by the meter. All of our light guides are designed to be illuminated with one or more of our standard Light Engines. Each light guide application is unique so please consult with your local CML-IT representative to discuss your specific requirements. The listing below contains generic product information. Please visit our Web site at www.cml-it.com for a more detailed listing of our specifications.

	P/N series	Diameters (mm)	Lengths
	7530 Series	5 6.5 10 14	up to 1.83 m (72 inches)
	754xSSx Series	5.5 6 6.5 10 12 14	up to 4.57 m (15 feet)





For any inquiries, please contact our sales representatives at the following coordinates:

