

Project:
Catalog Number:
Notes:

T8 LINEAR TUBE

INTERNAL DRIVER LINEAR TUBE

FEATURES

- Internal driver available with dual mode (UL Type A and Type B)
- Wide range of color temperature options available from 2700 K to 6500 K
- Flicker-free
- Operating temperature -40° F to 104° F
- IP20 Rating
- Aluminum shell and polycarbonate lens makes this tube shatter-proof, with clear and frosted lens options
- G-5 bi-pin socket
- Available in multiple lengths

REGULATORY QUALIFICATIONS

- UL certified for use in the United States and Canada
- UL 1598C, Light Emitting Diode (LED) Retrofit Luminaire Conversion Kit
- CSA C22.2 No. 250.1



APPLICATIONS

- Commercial warehouses and office spaces
- Healthcare facilities
- School buildings

Big Shine LED is an LED lighting manufacturer, a division of technology company Big Shine Worldwide, Inc. With global manufacturing centers for continuity of supply, Big Shine LED designs lighting fixtures with premium components that meet international certifications.

FIXTURE SPECIFICATIONS

ORDERING EXAMPLE: BSL-TB10-T84-2700K-140-D-F-S

FIXTURE TYPE	WATTAGE OPTIONS	T8 TUBE LENGTH	CCT OPTIONS	STANDARD BEAM ANGLE	INTERNAL DRIVER
BSL-TB	9 (2' model) 10 12 15 18	T82 (2 ft) T84 (4 ft)	2700 K 3000 K 3500 K 4000 K 4500 K 5000 K 6000 K 6500 K	140	D - Internal Driver (UL Type B)

LENS	EFFICACY
C - Clear Lens F - Frosted Lens	T - 160 lm/W H - 130 lm/W S - 190 lm/W

OTHER FIXTURE INFORMATION
- Input voltage: 100-120 Vac - Current: 50/60 Hz

OPTIONAL ACCESSORIES AVAILABLE*
Emergency battery backup, integrated or external driver available for field installation.

*Accessories sold separately.

TECHNICAL DATA

Dual Mode Internal Driver T8 10 W Tube (UL Type A) Base Model: BSL-TB10

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-C-H	13.1	2700	84	1820	138.7	20%	0.9
T84-2700K-140-C-T	13.0	2700	83	2023	155.5	20%	0.9
T84-2700K-140-F-H	13.3	2700	84	1778	133.6	20%	0.9
T84-2700K-140-F-S	13.3	2700	84	2144	160.8	20%	0.9
T84-2700K-140-F-T	13.0	2700	83	1949	149.8	20%	0.9
T84-3000K-140-C-H	13.1	3000	84	1836	139.9	20%	0.9
T84-3000K-140-C-T	13.0	3000	83	2041	156.9	20%	0.9
T84-3000K-140-F-H	13.3	3000	84	1786	134.7	20%	0.9
T84-3000K-140-F-S	13.3	3000	84	2155	162.0	20%	0.9
T84-3000K-140-F-T	13.0	3000	83	1967	151.2	20%	0.9
T84-3100K-140-C-H	13.1	3500	84	1843	140.5	20%	0.9
T84-3100K-140-C-T	13.0	3500	83	2050	157.5	20%	0.9
T84-3100K-140-F-H	13.3	3500	84	1794	135.3	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-3100K-140-F-S	13.3	3500	84	2166	162.9	20%	0.9
T84-3100K-140-F-T	13.0	3500	83	1974	151.8	20%	0.9
T84-4000K-140-C-H	13.1	4000	84	1850	141.0	20%	0.9
T84-4000K-140-C-T	13.0	4000	83	2058	158.2	20%	0.9
T84-4000K-140-F-H	13.3	4000	84	1802	135.9	20%	0.9
T84-4000K-140-F-S	13.3	4000	84	2177	163.7	20%	0.9
T84-4000K-140-F-T	13.0	4000	83	1982	152.4	20%	0.9
T84-4500K-140-C-H	13.1	4500	84	1857	141.6	20%	0.9
T84-4500K-140-C-T	13.0	4500	83	2066	158.8	20%	0.9
T84-4500K-140-F-H	13.3	4500	84	1810	136.5	20%	0.9
T84-4500K-140-F-S	13.3	4500	84	2188	164.5	20%	0.9
T84-4500K-140-F-T	13.0	4500	83	1990	153.0	20%	0.9
T84-5000K-140-C-H	13.1	5000	84	1865	142.1	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-5000K-140-C-T	13.0	5000	83	2074	159.4	20%	0.9
T84-5000K-140-F-H	13.3	5000	84	1818	137.1	20%	0.9
T84-5000K-140-F-S	13.3	5000	84	2199	165.3	20%	0.9
T84-5000K-140-F-T	13.0	5000	83	1998	153.6	20%	0.9
T84-6000K-140-C-H	13.1	6000	84	1872	142.7	20%	0.9
T84-6000K-140-C-T	13.0	6000	83	2082	160.0	20%	0.9
T84-6000K-140-F-H	13.3	6000	84	1826	137.7	20%	0.9
T84-6000K-140-F-S	13.3	6000	84	2210	166.2	20%	0.9
T84-6000K-140-F-T	13.0	6000	83	2006	154.2	20%	0.9
T84-6500K-140-C-H	13.1	6500	86	1890	144.1	20%	0.9
T84-6500K-140-C-T	13.0	6500	85	2102	161.6	20%	0.9
T84-6500K-140-F-H	13.2	6500	86	1835	138.8	20%	0.9
T84-6500K-140-F-S	13.3	6500	82	2218	167.1	20%	0.9
T84-6500K-140-F-T	13.0	6500	85	2025	155.7	20%	0.9

TECHNICAL DATA

Dual Mode Internal Driver T8 12 W Tube (UL Type A) Base Model: BSL-TB12

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-C-H	15.6	2700	84	2165	139.0	20%	0.9
T84-2700K-140-C-T	15.6	2700	83	2427	155.9	20%	0.9
T84-2700K-140-F-H	15.6	2700	84	2085	133.9	20%	0.9
T84-2700K-140-F-S	15.6	2700	84	2511	161.3	20%	0.9
T84-2700K-140-F-T	15.6	2700	83	2338	150.2	20%	0.9
T84-3000K-140-C-H	15.6	3000	84	2184	140.3	20%	0.9
T84-3000K-140-C-T	15.6	3000	83	2448	157.3	20%	0.9
T84-3000K-140-F-H	15.6	3000	84	2104	135.2	20%	0.9
T84-3000K-140-F-S	15.6	3000	84	2533	162.7	20%	0.9
T84-3000K-140-F-T	15.6	3000	83	2359	151.5	20%	0.9
T84-3100K-140-C-H	15.6	3500	84	2193	140.8	20%	0.9
T84-3100K-140-C-T	15.6	3500	83	2458	157.9	20%	0.9
T84-3100K-140-F-H	15.6	3500	84	2113	135.7	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-3100K-140-F-S	15.6	3500	84	2544	163.4	20%	0.9
T84-3100K-140-F-T	15.6	3500	83	2368	152.1	20%	0.9
T84-4000K-140-C-H	15.6	4000	84	2201	141.4	20%	0.9
T84-4000K-140-C-T	15.6	4000	83	2468	158.5	20%	0.9
T84-4000K-140-F-H	15.6	4000	84	2121	136.2	20%	0.9
T84-4000K-140-F-S	15.6	4000	84	2554	164.0	20%	0.9
T84-4000K-140-F-T	15.6	4000	83	2378	152.7	20%	0.9
T84-4500K-140-C-H	15.6	4500	84	2210	142.0	20%	0.9
T84-4500K-140-C-T	15.6	4500	83	2478	159.1	20%	0.9
T84-4500K-140-F-H	15.6	4500	84	2129	136.8	20%	0.9
T84-4500K-140-F-S	15.6	4500	84	2564	164.7	20%	0.9
T84-4500K-140-F-T	15.6	4500	83	2387	153.3	20%	0.9
T84-5000K-140-C-H	15.6	5000	84	2219	142.5	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-5000K-140-C-T	15.6	5000	83	2487	159.8	20%	0.9
T84-5000K-140-F-H	15.6	5000	84	2138	137.3	20%	0.9
T84-5000K-140-F-S	15.6	5000	84	2574	165.3	20%	0.9
T84-5000K-140-F-T	15.6	5000	83	2396	153.9	20%	0.9
T84-6000K-140-C-H	15.6	6000	84	2227	143.1	20%	0.9
T84-6000K-140-C-T	15.6	6000	83	2497	160.4	20%	0.9
T84-6000K-140-F-H	15.6	6000	84	2146	137.8	20%	0.9
T84-6000K-140-F-S	15.6	6000	84	2584	165.9	20%	0.9
T84-6000K-140-F-T	15.6	6000	83	2406	154.5	20%	0.9
T84-6500K-140-C-H	15.6	6500	86	2249	144.5	20%	0.9
T84-6500K-140-C-T	15.6	6500	85	2521	161.9	20%	0.9
T84-6500K-140-F-H	15.6	6500	86	2167	139.2	20%	0.9
T84-6500K-140-F-S	15.6	6500	82	2609	167.6	20%	0.9
T84-6500K-140-F-T	15.6	6500	85	2429	156.0	20%	0.9

TECHNICAL DATA

Dual Mode Internal Driver T8 15 W Tube (UL Type A) Base Model: BSL-TB15

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-C-H	18.1	2700	84	2614	144.6	20%	0.9
T84-2700K-140-C-T	18.1	2700	83	2931	162.1	20%	0.9
T84-2700K-140-F-H	18.1	2700	84	2518	139.3	20%	0.9
T84-2700K-140-F-S	18.1	2700	84	3033	167.7	20%	0.9
T84-2700K-140-F-T	18.1	2700	83	2823	156.2	20%	0.9
T84-3000K-140-C-H	18.1	3000	84	2638	145.9	20%	0.9
T84-3000K-140-C-T	18.1	3000	83	2957	163.6	20%	0.9
T84-3000K-140-F-H	18.1	3000	84	2541	140.6	20%	0.9
T84-3000K-140-F-S	18.1	3000	84	3060	169.2	20%	0.9
T84-3000K-140-F-T	18.1	3000	83	2849	157.6	20%	0.9
T84-3100K-140-C-H	18.1	3500	84	2648	146.5	20%	0.9
T84-3100K-140-C-T	18.1	3500	83	2969	164.2	20%	0.9
T84-3100K-140-F-H	18.1	3500	84	2551	141.1	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-3100K-140-F-S	18.1	3500	84	3072	169.9	20%	0.9
T84-3100K-140-F-T	18.1	3500	83	2860	158.2	20%	0.9
T84-4000K-140-C-H	18.1	4000	84	2659	147.1	20%	0.9
T84-4000K-140-C-T	18.1	4000	83	2981	164.9	20%	0.9
T84-4000K-140-F-H	18.1	4000	84	2562	142.0	20%	0.9
T84-4000K-140-F-S	18.1	4000	84	3084	170.6	20%	0.9
T84-4000K-140-F-T	18.1	4000	83	2871	158.8	20%	0.9
T84-4500K-140-C-H	18.1	4500	84	2669	147.6	20%	0.9
T84-4500K-140-C-T	18.1	4500	83	2992	165.5	20%	0.9
T84-4500K-140-F-H	18.1	4500	84	2572	142.2	20%	0.9
T84-4500K-140-F-S	18.1	4500	84	3096	171.3	20%	0.9
T84-4500K-140-F-T	18.1	4500	83	2883	159.5	20%	0.9
T84-5000K-140-C-H	18.1	5000	84	2680	148.2	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-5000K-140-C-T	18.1	5000	83	3004	166.2	20%	0.9
T84-5000K-140-F-H	18.1	5000	84	2582	142.8	20%	0.9
T84-5000K-140-F-S	18.1	5000	84	3108	171.9	20%	0.9
T84-5000K-140-F-T	18.1	5000	83	2894	160.1	20%	0.9
T84-6000K-140-C-H	18.1	6000	84	2690	148.8	20%	0.9
T84-6000K-140-C-T	18.1	6000	83	3016	166.8	20%	0.9
T84-6000K-140-F-H	18.1	6000	84	2592	143.4	20%	0.9
T84-6000K-140-F-S	18.1	6000	84	3120	172.6	20%	0.9
T84-6000K-140-F-T	18.1	6000	83	2905	160.7	20%	0.9
T84-6500K-140-C-H	18.1	6500	86	2716	150.2	20%	0.9
T84-6500K-140-C-T	18.1	6500	85	3045	168.4	20%	0.9
T84-6500K-140-F-H	18.1	6500	86	2617	144.7	20%	0.9
T84-6500K-140-F-S	18.1	6500	82	3151	174.3	20%	0.9
T84-6500K-140-F-T	18.1	6500	85	2934	162.3	20%	0.9

TECHNICAL DATA

Dual Mode Internal Driver T8 18 W Tube (UL Type A) Base Model: BSL-TB18

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-C-H	18.3	2608	2700	83	142.6	20%	0.9
T84-2700K-140-C-T	18.3	2923	2700	83	159.8	20%	0.9
T84-2700K-140-F-H	18.4	2529	2700	83	137.4	20%	0.9
T84-2700K-140-F-S	18.3	3025	2700	84	165.4	20%	0.9
T84-2700K-140-F-T	18.3	2816	2700	83	154.0	20%	0.9
T84-3000K-140-C-H	18.3	2631	3000	83	143.9	20%	0.9
T84-3000K-140-C-T	18.3	2950	3000	83	161.3	20%	0.9
T84-3000K-140-F-H	18.4	2541	3000	83	138.5	20%	0.9
T84-3000K-140-F-S	18.3	3052	3000	84	166.9	20%	0.9
T84-3000K-140-F-T	18.3	2842	3000	83	155.4	20%	0.9
T84-3100K-140-C-H	18.3	2642	3500	83	144.4	20%	0.9
T84-3100K-140-C-T	18.3	2961	3500	83	161.9	20%	0.9
T84-3100K-140-F-H	18.4	2553	3500	83	139.1	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-3100K-140-F-S	18.3	3064	3500	84	167.5	20%	0.9
T84-3100K-140-F-T	18.3	2853	3500	83	156.0	20%	0.9
T84-4000K-140-C-H	18.3	2652	4000	83	145.0	20%	0.9
T84-4000K-140-C-T	18.3	2973	4000	83	162.6	20%	0.9
T84-4000K-140-F-H	18.4	2565	4000	83	139.8	20%	0.9
T84-4000K-140-F-S	18.3	3076	4000	84	168.2	20%	0.9
T84-4000K-140-F-T	18.3	2864	4000	83	156.6	20%	0.9
T84-4500K-140-C-H	18.3	2663	4500	83	145.6	20%	0.9
T84-4500K-140-C-T	18.3	2985	4500	83	163.2	20%	0.9
T84-4500K-140-F-H	18.4	2577	4500	83	140.4	20%	0.9
T84-4500K-140-F-S	18.3	3088	4500	84	168.9	20%	0.9
T84-4500K-140-F-T	18.3	2875	4500	83	157.2	20%	0.9
T84-5000K-140-C-H	18.3	2673	5000	83	146.1	20%	0.9

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-5000K-140-C-T	18.3	2996	5000	83	163.8	20%	0.9
T84-5000K-140-F-H	18.4	2589	5000	83	141.1	20%	0.9
T84-5000K-140-F-S	18.3	3100	5000	84	169.5	20%	0.9
T84-5000K-140-F-T	18.3	2887	5000	83	157.8	20%	0.9
T84-6000K-140-C-H	18.3	2683	6000	83	146.7	20%	0.9
T84-6000K-140-C-T	18.3	3008	6000	83	164.5	20%	0.9
T84-6000K-140-F-H	18.4	2601	6000	83	141.7	20%	0.9
T84-6000K-140-F-S	18.3	3113	6000	84	170.2	20%	0.9
T84-6000K-140-F-T	18.3	2898	6000	83	158.5	20%	0.9
T84-6500K-140-C-H	18.3	2709	6500	86	148.1	20%	0.9
T84-6500K-140-C-T	18.3	3037	6500	85	166.1	20%	0.9
T84-6500K-140-F-H	18.3	2611	6500	86	142.8	20%	0.9
T84-6500K-140-F-S	18.3	3143	6500	82	171.8	20%	0.9
T84-6500K-140-F-T	18.3	2926	6500	85	160.0	20%	0.9

TECHNICAL DATA

Internal Driver T8 10 W Tube (UL Type B) Base Model: BSL-TB10

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-D-F-H	10.6	2700	84	1442	135.9	24%	0.91
T84-2700K-140-D-F-S	10.0	2700	84	1897	190.5	24%	0.91
T84-2700K-140-D-F-T	10.1	2700	84	1555	154.2	24%	0.91
T84-3000K-140-D-F-H	10.6	3000	84	1451	137.4	24%	0.91
T84-3000K-140-D-F-S	10.0	3000	84	1918	192.6	24%	0.91
T84-3000K-140-D-F-T	10.1	3000	84	1572	155.9	24%	0.91
T84-3100K-140-D-F-H	10.6	3500	84	1460	138.3	24%	0.91
T84-3100K-140-D-F-S	10.0	3500	84	1930	193.8	24%	0.91
T84-3100K-140-D-F-T	10.1	3500	84	1582	156.8	24%	0.91
T84-4000K-140-D-F-H	10.6	4000	84	1469	139.1	24%	0.91
T84-4000K-140-D-F-S	10.0	4000	84	1943	195.1	24%	0.91
T84-4000K-140-D-F-T	10.0	4000	84	1593	157.9	24%	0.91
T84-4500K-140-D-F-H	10.6	4500	84	1478	140.0	24%	0.91

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-4500K-140-D-F-S	10.0	4500	84	1954	196.2	24%	0.91
T84-4500K-140-D-F-T	10.1	4500	84	1602	158.8	24%	0.91
T84-5000K-140-D-F-H	10.6	5000	84	1487	140.8	24%	0.91
T84-5000K-140-D-F-S	10.0	5000	84	1966	197.4	24%	0.91
T84-5000K-140-D-F-T	10.1	5000	84	1611	159.7	24%	0.91
T84-6000K-140-D-F-H	10.6	6000	84	1496	141.7	24%	0.91
T84-6000K-140-D-F-S	10.0	6000	84	1977	198.5	24%	0.91
T84-6000K-140-D-F-T	10.1	6000	84	1621	160.6	24%	0.91
T84-6500K-140-D-F-H	10.5	6500	85	1504	143.2	24%	0.91
T84-6500K-140-D-F-S	10.0	6500	85	2000	200.8	24%	0.91
T84-6500K-140-D-F-T	10.1	6500	85	1639	162.5	24%	0.91

TECHNICAL DATA

Internal Driver T8 12 W Tube (UL Type B) Base Model: BSL-TB12

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-D-F-H	11.8	2700	84	1611	136.3	24.8%	0.91
T84-2700K-140-D-F-S	11.8	2700	84	2259	191.1	24.8%	0.91
T84-2700K-140-D-F-T	11.8	2700	84	1827	154.6	24.8%	0.91
T84-3000K-140-D-F-H	11.8	3000	84	1629	137.8	24.8%	0.91
T84-3000K-140-D-F-S	11.8	3000	84	2284	193.2	24.8%	0.91
T84-3000K-140-D-F-T	11.8	3000	84	1847	156.3	24.8%	0.91
T84-3100K-140-D-F-H	11.8	3500	84	1639	138.6	24.8%	0.91
T84-3100K-140-D-F-S	11.8	3500	84	2297	194.4	24.8%	0.91
T84-3100K-140-D-F-T	11.8	3500	84	1858	157.2	24.8%	0.91
T84-4000K-140-D-F-H	11.8	4000	84	1650	139.6	24.8%	0.91
T84-4000K-140-D-F-S	11.8	4000	84	2313	195.7	24.8%	0.91
T84-4000K-140-D-F-T	11.8	4000	84	1871	158.3	24.8%	0.91
T84-4500K-140-D-F-H	11.8	4500	84	1660	140.4	24.8%	0.91

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-4500K-140-D-F-S	11.8	4500	84	2327	196.9	24.8%	0.91
T84-4500K-140-D-F-T	11.8	4500	84	1882	159.2	24.8%	0.91
T84-5000K-140-D-F-H	11.8	5000	84	1669	141.2	24.8%	0.91
T84-5000K-140-D-F-S	11.8	5000	84	2340	198.0	24.8%	0.91
T84-5000K-140-D-F-T	11.8	5000	84	1893	160.2	24.8%	0.91
T84-6000K-140-D-F-H	11.8	6000	84	1679	142.1	24.8%	0.91
T84-6000K-140-D-F-S	11.8	6000	84	2354	199.2	24.8%	0.91
T84-6000K-140-D-F-T	11.8	6000	84	1904	161.1	24.8%	0.91
T84-6500K-140-D-F-H	11.8	6500	85	1698	143.7	24.8%	0.91
T84-6500K-140-D-F-S	11.8	6500	85	2381	201.4	24.8%	0.91
T84-6500K-140-D-F-T	11.6	6500	85	1926	162.9	24.8%	0.91

TECHNICAL DATA

Internal Driver T8 15 W Tube (UL Type B) Base Model: BSL-TB15

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-D-F-H	15.2	2700	84	2079	137.1	24.6%	0.91
T84-2700K-140-D-F-S	15.2	2700	84	2915	192.2	24.6%	0.91
T84-2700K-140-D-F-T	15.2	2700	84	2358	155.4	24.6%	0.91
T84-3000K-140-D-F-H	15.2	3000	84	2102	138.6	24.6%	0.91
T84-3000K-140-D-F-S	15.2	3000	84	2947	194.3	24.6%	0.91
T84-3000K-140-D-F-T	15.2	3000	84	2384	157.2	24.6%	0.91
T84-3100K-140-D-F-H	15.2	3500	84	2115	139.4	24.6%	0.91
T84-3100K-140-D-F-S	15.2	3500	84	2965	195.4	24.6%	0.91
T84-3100K-140-D-F-T	15.2	3500	84	2398	158.1	24.6%	0.91
T84-4000K-140-D-F-H	15.2	4000	84	2129	140.4	24.6%	0.91
T84-4000K-140-D-F-S	15.2	4000	84	2985	196.8	24.6%	0.91
T84-4000K-140-D-F-T	15.2	4000	84	2415	159.2	24.6%	0.91
T84-4500K-140-D-F-H	15.2	4500	84	2142	141.2	24.6%	0.91

TECHNICAL DATA

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-4500K-140-D-F-S	15.2	4500	84	3003	197.9	24.6%	0.91
T84-4500K-140-D-F-T	15.2	4500	84	2429	160.1	24.6%	0.91
T84-5000K-140-D-F-H	15.2	5000	84	2154	142.0	24.6%	0.91
T84-5000K-140-D-F-S	15.2	5000	84	3020	199.1	24.6%	0.91
T84-5000K-140-D-F-T	15.2	5000	84	2443	161.0	24.6%	0.91
T84-6000K-140-D-F-H	15.2	6000	84	2167	142.8	24.6%	0.91
T84-6000K-140-D-F-S	15.2	6000	84	3038	200.2	24.6%	0.91
T84-6000K-140-D-F-T	15.2	6000	84	2457	162.0	24.6%	0.91
T84-6500K-140-D-F-H	15.2	6500	85	2192	144.5	24.6%	0.91
T84-6500K-140-D-F-S	15.2	6500	85	3073	202.6	24.6%	0.91
T84-6500K-140-D-F-T	15.2	6500	85	2485	163.8	24.6%	0.91

TECHNICAL DATA

Internal Driver T8 18 W Tube (UL Type B) Base Model: BSL-TB18

SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-2700K-140-D-F-H	17.8	2700	84	2420	136.3	24.1%	0.92
T84-2700K-140-D-F-S	17.5	2400	84	3339	191.1	24.1%	0.92
T84-2700K-140-D-F-T	17.5	2700	84	2700	154.6	24.1%	0.92
T84-3000K-140-D-F-H	17.6	3000	84	2433	138.1	24.1%	0.92
T84-3000K-140-D-F-S	17.5	3000	84	3375	193.2	24.1%	0.92
T84-3000K-140-D-F-T	17.5	3000	84	2730	156.3	24.1%	0.92
T84-3100K-140-D-F-H	17.6	3500	84	2446	138.8	24.1%	0.92
T84-3100K-140-D-F-S	17.5	3500	84	3395	194.4	24.1%	0.92
T84-3100K-140-D-F-T	17.5	3500	84	2746	157.2	24.1%	0.92
T84-4000K-140-D-F-H	17.6	4000	84	2459	139.6	24.1%	0.92
T84-4000K-140-D-F-S	17.5	4000	84	3419	195.7	24.1%	0.92
T84-4000K-140-D-F-T	17.5	4000	84	2765	158.3	24.1%	0.92
T84-4500K-140-D-F-H	17.6	4500	84	2472	140.3	24.1%	0.92

TECHNICAL DATA

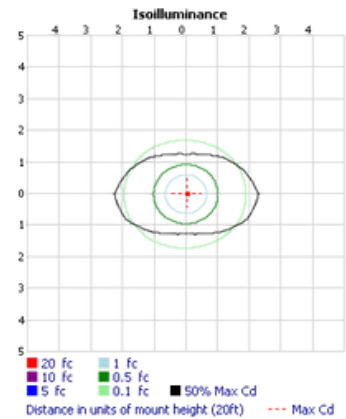
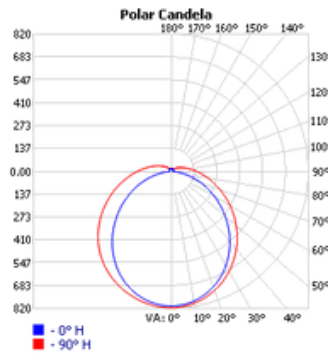
SPECIFICATION	POWER @ 120 V	CCT	CRI (Ra)	LUMEN PACKAGE (LM)	EFFICACY (LM/W)	TOTAL HARMONIC DISTORTION (%)	POWER FACTOR
T84-4500K-140-D-F-S	17.5	4500	84	3439	196.8	24.1%	0.92
T84-4500K-140-D-F-T	17.5	4500	84	2781	159.2	24.1%	0.92
T84-5000K-140-D-F-H	17.6	5000	84	2485	141.0	24.1%	0.92
T84-5000K-140-D-F-S	17.5	5000	84	3459	198.0	24.1%	0.92
T84-5000K-140-D-F-T	17.5	5000	84	2798	160.1	24.1%	0.92
T84-6000K-140-D-F-H	17.6	6000	84	2498	141.8	24.1%	0.92
T84-6000K-140-D-F-S	17.5	6000	84	3479	199.1	24.1%	0.92
T84-6000K-140-D-F-T	17.5	6000	84	2814	161.1	24.1%	0.92
T84-6500K-140-D-F-H	17.5	6500	84	2508	143.6	24.1%	0.92
T84-6500K-140-D-F-S	17.5	6500	85	3519	201.4	24.1%	0.92
T84-6500K-140-D-F-T	17.5	6500	85	2846	162.9	24.1%	0.92

PHOTOMETRIC DATA

Photometric Data

Sample: BSL-TB18-T84 | Specification: Frosted

Lamp output: 2753.7 lm
Input wattage: 18 W
Max Cd: 815.9 at Horizontal: 270°,
Vertical: 1°
Efficiency: 100%



PHOTOMETRIC DATA

Spectrum Test Results

Tested Sample: BSL-TB10-T84 | Specification: 10 W 4000 K*

Test Conditions

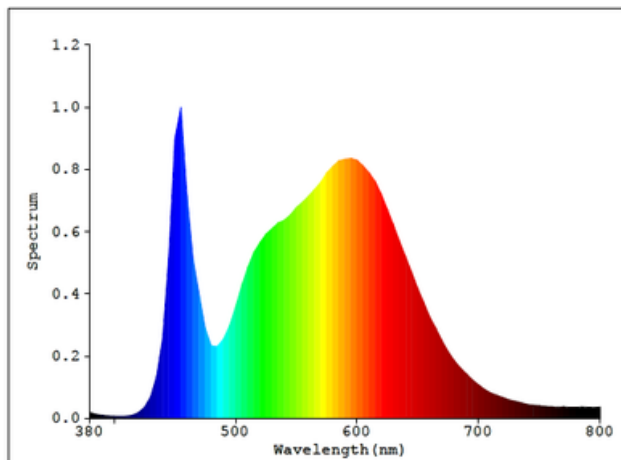
Date: 2023-12-07

Temperature: 25.3° C (77.54° F)

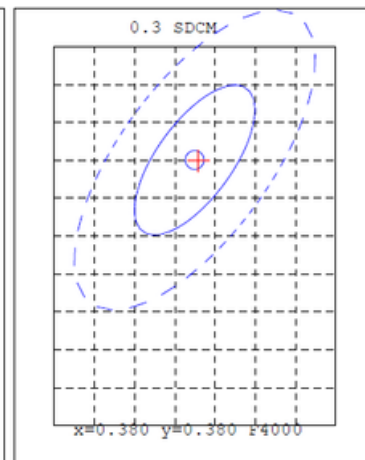
Wavelength Range: 380 nm - 800 nm

Relative Humidity: 65%

Spectrum



Spectral Distribution



CIE1931 Chromaticity Diagram

Colorimetric Parameters

Chromaticity Coordinates:

$x = 0.3804$ $y = 0.3799$ $u' = 0.2238$ $v' = 0.5029$ $DuV = 1.47e-03$

Dominant Peak Wavelength (λ_d) = 578.2 nm Purity = 28.2%

Peak Wavelength (λ_p) = 455.0 nm

CCT = 4024 K CRI = 82.4

R1 = 81	R2 = 89	R3 = 95	R4 = 80	R5 = 80	R6 = 84	R7 = 86	R8 = 64
R9 = 6	R10 = 74	R11 = 79	R12 = 56	R13 = 83	R14 = 97	R15 = 74	

Photometric & Radiometric Parameters

Luminous Flux = 1736.2 lm Efficacy = 167.8 lm/W

Electrical Parameters

Voltage = 121.0 V Current = 0.0881A Power = 10.35 W Power Factor = 0.9700

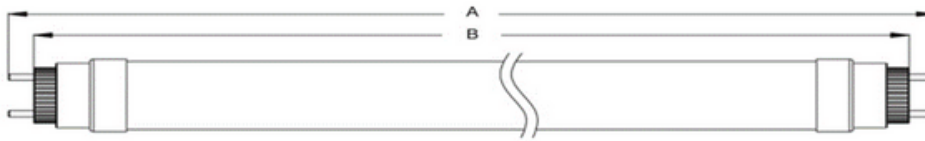
*Full LM-79 test report available upon request to Big Shine LED.

DIMENSIONAL DATA

BSL-TB[XX]-T84

Product dimensions: 4" x 4" x 24"

Luminaire weight: 3 lbs



	2 ft tube	4ft tube
A	23.7"	47.7"
B	23.14"	45.1"

*Images not to scale.

WARRANTY



Big Shine LED products are covered by a five-year limited warranty against defects in materials. A fixture is considered defective if 10% or more of the LED fixture's components have failed. Visit our website to learn more about our product warranty: bigshineled.com/resources.

Covered Under Warranty:

Warranty Length: 5 years from purchase date (or installed date in some cases)

Coverage: Manufacturer defects in materials

Repair or Replacement: Big Shine LED may determine to repair or replace the product.

Not Covered Under Warranty:

- Damage caused by misuse, accidents, weather, improper installation, or unauthorized repairs.
- Using the product for something other than its intended purpose.

Visit our website to read the terms and conditions of our product warranty at bigshineled.com/resources.

How to Submit a Warranty Claim:

To submit a warranty claim, visit our website at bigshineled.com or contact us at (845) 444-5255.

LED PREVENTATIVE MAINTENANCE

Implementing a preventative maintenance plan helps ensure optimal performance and longevity of LED lighting systems through regular inspections and upkeep. Here are some steps to take to keep LED lighting systems in good working condition, prevent malfunction, and extend their lifespan.

I. Maintenance schedule: The frequency of maintenance tasks will depend on the specific lighting system, its environment, and usage. As a general rule, LED fixtures should be inspected and cleaned at least once every six months. Tasks should be performed more frequently in high-traffic areas or in environments with excessive dust and debris.

II. Record keeping: It is also important to keep accurate records of all maintenance tasks performed on the lighting system. This information can be used to track the performance of the system, identify any trends or patterns, and schedule future maintenance tasks.

For a more detailed preventative maintenance plan, visit the Resource Center in our website at bigshineled.com/resources.

DEFINITIONS

LM-80 Testing

The LM-80 test method that measures the lumen maintenance, or long-term light output, of an LED light source over a period of time. Big Shine LED fixtures are tested at three different temperatures for at least 6,000 hours and up to 10,000 hours. By measuring the LED's light output at regular intervals during this extended period, the LM-80 test can determine how the performance of the LED degrades over its lifespan. To obtain test results for individual Big Shine LED fixtures, visit our website or contact us at info@bigshineled.com.

TM-21 Method

TM-21 is a method for projecting the lumen maintenance and lifespan of an LED light source based on data collected from LM-80 testing. The data collected during the LM-80 testing must show a stable trend in lumen maintenance. The TM-21 calculates a decay rate based on the data, which shows how quickly the LED's brightness is diminishing over time. The TM-21 sets a limit on how far the projected lifespan can be estimated based on the LM-80 data. The lifespan cannot exceed six times the duration of the LM-80 testing. The extrapolation limit ensures that predictions made by the TM-21 are based on solid data and do not exceed too far beyond the actual testing period.

L70 Rating

The L70 is a measure of an LED's longevity. It represents the time it takes for the LED's brightness or lumen output to drop to 70% of its original level. In other words, it estimates how long the LED will last before it dims significantly.

L90 Rating

The L90 rating is similar to the L70 rating, but it measures a different level of light output maintenance in LEDs. This measures the time it takes for an LED light source to decrease to 90% of its original brightness or lumen output. It's a stricter standard compared to the L70 because it represents a higher level of light output maintenance. This rating is important for applications where higher light levels must be maintained for a longer period of time.

Total Harmonic Distortion (THD)

The Total Harmonic Distortion is a measure of the distortion in the electrical current caused by non-linear loads. THD is expressed as a percentage and represents the deviation of the current waveform from a perfect sinusoidal wave. Lower THD percentages in LED improve energy efficiency as the fixture has less wasted energy. It also extends the life of the LED fixture and other connected devices in a building's electrical system as less heat is generated in the electrical wiring and components, reducing the risk of overheating. Lower THD also improves power quality, causes less interference and enhances the reliability of the entire electrical system. To better understand the benefits of lower THD in LED fixtures, visit our website at bigshineled.com.

Power Factor

A higher power factor in LED fixtures means the fixture uses electrical power more efficiently. Less power is wasted in the form of reactive power, so the lighting system consumes less electricity overall. A higher power factor also improves the overall power quality of the electrical system, resulting in a more stable and consistent power supply, which benefits other devices connected to the same electrical network. Other benefits include reducing the load on the electrical grid, reducing heat generation, and enhancing the lifespan of all equipment on the system. For more details on power factor, visit our website at bigshineled.com.

Efficacy

The efficacy in an LED fixture refers to how efficiently the light converts electrical power into visible light. It's typically measured in lumens per watt, indicating how much light is produced for each watt of electricity used.

Luminous Flux

Luminous flux is the total amount of visible light emitted by a light source, measured in lumens. It represents the overall brightness of the light produced.

Dominant Peak Wavelength

It represents the wavelength that contributes most to the perceived color of the light source.

Full Width at Half Maximum (FWHM)

It is a measure of the spectral bandwidth of a light source. Specifically, it is the width of the spectral curve at half of its maximum intensity. A narrower FWHM indicates a more focused spectral distribution, while a wider FWHM suggests a broader spectral distribution.