

CALIFORNIA LAMP AND LUMINAIRE REGULATION GUIDE

Q: What is the difference between Title 20 and Title 24?

A: Title 20 and Title 24 are efficiency standards developed by the California Energy Commission (CEC). Title 20 pertains to appliances and Title 24 covers energy efficiency in buildings. Both standard sets include requirements for lamps and luminaires (fixtures). For a product to be sold in California, it must comply with the Title 20 standard. If the product will be used in a new construction, it must meet the Title 24 requirement as well.



Q: Which lighting products are affected by Title 20?

A: Two main product categories are impacted: State-Regulated LED Lamps (SLEDs) and State-Regulated Small Diameter Directional Lamps (SDDLs).

SLEDs are categorized as:

- Having an E12, E17, E26, or GU-24 base
- Producing between 200 and 2,600 lumens (products with candelabra bases produce 150+ lumens)
- Having a CCT between 2200K and 7000K and Duv between -0.012 and 0.012
- Retrofit kits with E12, E17, E26, or GU24 bases

SDDLs are categorized as:

- Operating at 12V, 24V, or 120V
- Having an E26 base or being pin-based and compliant with ANSI ANSLG C81.61-2009 (R2014)
- Having a diameter of less than 2.25"
- Producing less than 850 lumens with a wattage equivalency of less than a 75w incandescent lamp

Q: How can a SLED or SDDL be sold in California under Title 20?

A: Lamps must meet design and performance standards, certified by the CEC and listed in California's Modernized Appliance Efficiency Database System (MAEDBS) as Title 20 compliant.

Q: What is the difference between Tier 1 and Tier 2 standards in Title 20?

A: Requirements for LED lamps were introduced in two phases: Tier 1 was rolled out on January 1, 2019, and covered efficiency and performance requirements. Tier 2's effective date was July 1, 2019, and included higher general standards as well as added standards for SDDLs.



Q: What is JA8?

A: JA8 is Joint Appendix 8 in Title 24. This appendix specifies the requirements a light source such as an LED lamp or array needs to meet to be used in residential buildings.

Q: Which products are required to be JA8-certified for residential applications in California?

A: High-efficacy light sources should comply with one of the two groups below.

Light sources in this group need to be certified as JA8-compliant in order to meet the Title 24 requirements:

- LED luminaires with integral sources
- Screw-based LED lamps
- Pin-based LED lamps
- GU-24 based LED light source
- Recessed Ceiling Lights: Recessed downlights cannot be screw-based and must use an insulation contact & airtight-rated (ICAT) can

With the exception of recessed downlight luminaires, light sources in this group are automatically classified as high-efficacy and are not required to comply with JA8:

- Pin-based linear fluorescent
- Pin-based compact fluorescent
- GU-24 other than LEDs
- Inseparable SSL luminaires with colored light sources for decorative lighting
- Pulse-start metal halide
- High-pressure sodium
- Luminaires with a hardwired high-frequency generator and induction lamps
- Inseparable SSL luminaires that are installed outdoors

Q: What is the difference between residential and non-residential categories under Title 24?

A: Title 24 includes requirements for both residential and nonresidential buildings. Residential buildings are single-family homes and low-rise residential buildings with three or fewer stories. Nonresidential buildings include hotels, motels, and high-rise apartments (over three stories in height).

Q: How can compliance be achieved for nonresidential/commercial applications?

A: Nonresidential compliance can be achieved by combining control strategies for different space types (warehouses, classrooms, parking lots, etc.). Generally, as long as a lighting product meets or is outside the scope of Title 20 and can be continuously dimmed, it can be used in a nonresidential application.

TITLE 20 / TITLE 24 (JA8)-LAMPS				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
35049	8BR30DIM927/GU24	√		√
35048	8BR30DIM927	√		√
35767	7.5MR16DIM/927SP10/R		√	√
35550	7MR16DIM/927SP15/R		√	√
35551	7MR16DIM/927NF25/R		√	√
35552	7MR16DIM/927FL35/R		√	√
35768	7.5MR16DIM/930SP10/R		√	√
35553	7MR16DIM/930SP15/R		√	√
35554	7MR16DIM/930NF25/R		√	√
35555	7MR16DIM/930FL35/R		√	√
35769	7.5MR16DIM/940SP10/R		√	√
35556	7MR16DIM/940FL35/R		√	√
35536	7.5MR16DIM/927SP15/R		√	√
35537	7.5MR16DIM/927NF25/R		√	√
35538	7.5MR16DIM/927FL35/R		√	√
35539	7.5MR16DIM/930SP15/R		√	√
35540	7.5MR16DIM/930NF25/R		√	√
35541	7.5MR16DIM/930FL35/R		√	√
35542	7.5MR16DIM/940FL35/R		√	√
98481	7MR16DIM/927SP15		√	√
98482	7.5MR16DIM/927NF25		√	√
98483	7.5MR16DIM/927FL35		√	√
98484	7MR16DIM/930SP15		√	√
98485	7.5MR16DIM/930NF25		√	√
98486	7.5MR16DIM/930FL35		√	√
98153	7MR16DIM/927FL35		√	√
98154	7MR16DIM/930FL35		√	√
98155	7MR16DIM/940FL35		√	
98029	8.5MR16DIM/930SP15/R		√	√
98030	8.5MR16DIM/930NF25/R		√	√
98031	8.5MR16DIM/930FL35/R		√	√
35558	5GU10DIM/927NF25		√	√
35559	5GU10DIM/927FL35		√	√
35561	5GU10DIM/930NF25		√	√
35562	5GU10DIM/930FL35		√	√
35563	5GU10DIM/940FL35		√	√
98151	5.5GU10DIM/927FL35		√	√
98152	5.5GU10DIM/930FL35		√	√
98241	3.3FB11DIM/927	√		
98242	3.3FB11DIM/927/E26	√		

TITLE 20 / TITLE 24 (JA8)-LAMPS				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
98377	3.8FG25DIM/927	√		√
98279	9FA19DIM/927	√		
98559	9A19DIM/927	√		√
98560	9A19DIM/930	√		√
98561	9A19DIM/940	√		√
98565	9A19DIM/927/GU24/R	√		√
98141	11A19DIM/927	√		√
98142	11A19DIM/930	√		√
98143	11A19DIM/940	√		√
98147	15A21DIM/927/N	√		√
98148	15A21DIM/930/N	√		√
98149	15A21DIM/940/N	√		√
98562	9A19/927/277V	√		
98563	9A19/930/277V	√		
98564	9A19/940/277V	√		
34890	6.5PAR20DIM/927SP15	√		√
34891	6.5PAR20DIM/927NF25	√		√
34892	6.5PAR20DIM/927FL40	√		√
34893	6.5PAR20DIM/930SP15	√		√
34894	6.5PAR20DIM/930NF25	√		√
34895	6.5PAR20DIM/930FL40	√		√
34896	6.5PAR20DIM/940FL40	√		√
34897	6.5PAR20DIM/930FL40/B	√		√
58107	8PAR20DIM/930SP15	√		
34898	11PAR30DIM/927SP15	√		√
34899	11PAR30DIM/927NF25	√		√
34900	11PAR30DIM/927FL40	√		√
34901	11PAR30DIM/930SP15	√		√
34902	11PAR30DIM/930NF25	√		√
34903	11PAR30DIM/930FL40	√		√
34904	11PAR30DIM/940FL40	√		√
34905	11PAR30DIM/930FL40/B	√		√
34906	11PAR30SNDIM/927SP15	√		√
34907	11PAR30SNDIM/927NF25	√		√
34908	11PAR30SNDIM/927FL40	√		√
34909	11PAR30SNDIM/930SP15	√		√
34910	11PAR30SNDIM/930NF25	√		√
34911	11PAR30SNDIM/930FL40	√		√
34912	11PAR30SNDIM/940FL40	√		√
34913	11PAR30SNDIM/930FL40/B	√		√

TITLE 20 / TITLE 24 (JA8)-LAMPS				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
34916	15.5PAR38DIM/927SP15	√		√
34917	15.5PAR38DIM/927NF25	√		√
34918	15.5PAR38DIM/927FL40	√		√
34919	15.5PAR38DIM/930SP15	√		√
34920	15.5PAR38DIM/930NF25	√		√
34921	15.5PAR38DIM/930FL40	√		√
34922	15.5PAR38DIM/940FL40	√		√
34923	15.5PAR38DIM/930NF25/B	√		√
34924	15.5PAR38DIM/930FL40/B	√		√
34925	15.5PAR38DIM/930FL40/GU24	√		√
34914	11PAR30/930FL40/277V	√		
34915	11PAR30/940FL40/277V	√		
34926	15.5PAR38/930FL40/277V	√		
34927	15.5PAR38/940FL40/277V	√		
98206	19.5PAR30HO/930NF25/277V/R	√		
98207	19.5PAR30HO/940NF25/277V/R	√		
35429	19.5PAR30HO/935NF25/277V/R	√		
35430	19.5PAR30HO/935FL40/277V/R	√		
98208	19.5PAR30HO/930FL40/277V/R	√		
98209	19.5PAR30HO/940FL40/277V/R	√		
35009	19.5PAR38HODIM/940NF25/277V	√		√
35010	19.5PAR38HODIM/940FL40/277V	√		√
35004	19.5PAR38HODIM/927NF25/277V	√		√
35005	19.5PAR38HODIM/930NF25/277V	√		√
35006	19.5PAR38HODIM/930FL40/277V	√		√
35007	19.5PAR38HODIM/935NF25/277V	√		√
35008	19.5PAR38HODIM/935FL40/277V	√		√
98223	25PAR38HO/927NF25/277V	√		
98210	25PAR38HO/930NF25/277V	√		
98211	25PAR38HO/930FL40/277V	√		
98212	25PAR38HO/940NF25/277V	√		
98213	25PAR38HO/940FL40/277V	√		
35526	30PAR38HODIM/927NF25/277V	N.A.		√
35527	30PAR38HODIM/927FL40/277V	N.A.		√
35528	30PAR38HODIM/930NF25/277V	N.A.		√
35529	30PAR38HODIM/930FL40/277V	N.A.		√
35530	30PAR38HODIM/935NF25/277V	N.A.		√
35531	30PAR38HODIM/935FL40/277V	N.A.		√
35532	30PAR38HODIM/940NF25/277V	N.A.		√
35533	30PAR38HODIM/940FL40/277V	N.A.		√

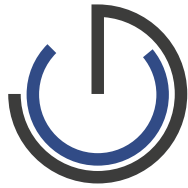
TITLE 20 / TITLE 24 (JA8)-LAMPS				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
35165	3.8G25DIM/927	√		

TITLE 20 / TITLE 24 (JA8)-FIXTURES				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
35462	3N1/5/90/CCTS/DIM120V	N.A.		√
35463	3N1/7/90/CCTS/DIM120V	N.A.		√
35464	3N1/9/90/CCTS/DIM120V	N.A.		√
35465	3N1/12/90/CCTS/DIM120V	N.A.		√
35466	3N1/5/90/CCTS/DIM010UNV	N.A.		√
35467	3N1/7/90/CCTS/DIM010UNV	N.A.		√
35468	3N1/9/90/CCTS/DIM010UNV	N.A.		√
97994	18DL6DIM/927	√		√
97995	18DL6DIM/930	√		√
97996	18DL6DIM/940	√		√
98440	GIMB1/930/FL/DIM120	N.A.		√
98441	GIMB1/940/FL/DIM120	N.A.		√
98442	GIMB2/927/FL/DIM120	N.A.		√
98443	GIMB2/930/FL/DIM120	N.A.		√
98444	GIMB2/940/FL/DIM120	N.A.		√
98571	MM2/927/FL/DIM120	N.A.		√
98572	MM2/930/FL/DIM120	N.A.		√
98573	MM2/940/FL/DIM120	N.A.		√
98104	10NCDRL4DIM/927/EXT	N.A.		√
98105	10NCDRL4DIM/930/EXT	N.A.		√
98106	10NCDRL4DIM/940/EXT	N.A.		√
98107	12NCDRL6DIM/927/EXT	N.A.		√
98108	12NCDRL6DIM/930/EXT	N.A.		√
98109	12NCDRL6DIM/940/EXT	N.A.		√
98110	24.5NCDRL8DIM/927/EXT	N.A.		√
98111	24.5NCDRL8DIM/930/EXT	N.A.		√
98112	24.5NCDRL8DIM/940/EXT	N.A.		√
98214	10NCDLR4DIM/930/277V/EXT	N.A.		√
98215	10NCDLR4DIM/935/277V/EXT	N.A.		√
98216	10NCDLR4DIM/940/277V/EXT	N.A.		√
98217	12NCDLR6DIM/930/277V/EXT	N.A.		√
98218	12NCDLR6DIM/935/277V/EXT	N.A.		√
98219	12NCDLR6DIM/940/277V/EXT	N.A.		√
98220	24.5NCDLR8DIM/930/277V/EXT	N.A.		√
98221	24.5NCDLR8DIM/935/277V/EXT	N.A.		√
98222	24.5NCDLR8DIM/940/277V/EXT	N.A.		√
97978	15SMR7DIM/927/R	N.A.		√
97979	15SMR7DIM/930/R	N.A.		√
97980	15SMR7DIM/940/R	N.A.		√
97975	15SMPS7DIM/927/R	N.A.		√
97976	15SMPS7DIM/930/R	N.A.		√

TITLE 20 / TITLE 24 (JA8)-FIXTURES				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
97977	15SMPS7DIM/940/R	N.A.		√
34966	CLK6/927/DIM120V	N.A.		√
34967	CLK6/930/DIM120V	N.A.		√
34968	CLK6/940/DIM120V	N.A.		√
34963	CLK6HO/927/DIM120V	N.A.		√
34964	CLK6HO/930/DIM120V	N.A.		√
34965	CLK6HO/940/DIM120V	N.A.		√
98498	CLKSEN6/10MIN/927/120V	N.A.		√
98499	CLKSEN6/10MIN/930/120V	N.A.		√
98500	CLKSEN6/10MIN/940/120V	N.A.		√
35013	ATM/L6/927/FL/DIM120	N.A.		√
35014	ATM/L6/930/FL/DIM120	N.A.		√
35015	ATM/L6/940/FL/DIM120	N.A.		√
35016	ATM/L6/927/NR/DIM120	N.A.		√
35017	ATM/L6/930/NR/DIM120	N.A.		√
35018	ATM/L6/940/NR/DIM120	N.A.		√
35019	ATM/L10/927/FL/DIM120	N.A.		√
35020	ATM/L10/930/FL/DIM120	N.A.		√
35021	ATM/L10/940/FL/DIM120	N.A.		√
35022	ATM/L10/927/NR/DIM120	N.A.		√
35023	ATM/L10/930/NR/DIM120	N.A.		√
35024	ATM/L10/940/NR/DIM120	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/H/WH	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/H/BL	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/H/SV	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/H/WH	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/H/BL	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/H/SV	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/H/WH	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/H/BL	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/H/SV	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/J/WH	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/J/BL	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/J/SV	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/J/WH	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/J/BL	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/J/SV	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/J/WH	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/J/BL	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/J/SV	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/L/WH	N.A.		√

TITLE 20 / TITLE 24 (JA8)-FIXTURES				
Product	Model	TITLE 20		TITLE 24 (JA8)
		SLED	SDDL	
		TIER II		
MTO	ORB/S/9xx/yy/DIM120V/L/BL	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/L/SV	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/L/WH	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/L/BL	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/L/SV	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/L/WH	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/L/BL	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/L/SV	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/CM/WH	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/CM/BL	N.A.		√
MTO	ORB/S/9xx/yy/DIM120V/CM/SV	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/CM/WH	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/CM/BL	N.A.		√
MTO	ORB/M/9xx/yy/DIM120V/CM/SV	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/CM/WH	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/CM/BL	N.A.		√
MTO	ORB/L/9xx/yy/DIM120V/CM/SV	N.A.		√

TITLE 20 - EM DRIVERS		
Product	Model	TITLE 20
34959	10EMDRIVER	√
98003	23EMDRIVER	√



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