

# Product Requirement

SPEC-GH T8 18W short

RL 2021-03-18

2D1 8000416 EN 00

ECM

R&D

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Title <Chinese> GH T8 18W short 产品规格书

Changes

## Changes mark (mandatory)

A	General Data (Magnetic Ballast)					
1						
2	Reference ballast					
3	frequency [Hz]:	50				
4	Ballast wattage [W]:	20				
5	Ballast voltage/ current ratio [Ω]:	270				
6	Rated ballast voltage [V]:	127				
7	Calibration current [A]:	0.370				
8	Power factor (cosΦ):	0.12				
9						
10	Lamp wattage [W]:	18 ±1.4				
11	Lamp voltage [V]:	57±7				
12	Lamp current [A]:	0.370				
13						
14	<b>Light data</b>					
15	Color:	F6500	F5000	F4000	F3000	F2700
16	Correlated Color temperature [K]:	6400	5000	4000	2940	2720
17	X	0.313	0.346	0.380	0.440	0.463
18	Y	0.337	0.359	0.380	0.403	0.420
19	SDCM:			≤5		
20	Rated Light output (base up, 25°C, 100 hrs) [lm]:	1300	1325	1350	1350	1350
21	Low tolerance light output [lm]:	1196	1219	1242	1242	1242
22	Color rendering, Rated value (Ra):	80	80	80	80	80
23	Lower limits (=Rated Values-3):	77	77	77	77	77
24	Rated Luminous efficacy [lm/W]:	72	74	75	75	75
25	Limit Luminous efficacy [lm/W]:	66	68	70	70	70
26						
27	Lumen maintenance (100h – 2000h) [%]	≥ 96				
28	Lumen maintenance (100h – 10000h) [%]	≥ 91				
29						
30	<b>Lifetime (at 15-50 °C, 220V)</b>					
31	Lifetime (50% failure, switching cycle 165' on /15' off) [h]:	15,000				
32						
33	<b>Starting and Operation</b>					
34	Max. starting time (25°C, 103.5V) [s]:	30				
35	Run up time to reach 90% light output at 25°C [s]:	120s				
36	Starting ambient temperature range (198V line voltage, with ECG) [°C]:	-20 ~ 50				
37	Operating ambient temperature range [°C]:	10 ~ 50				
38	Max. allowed temperature at cold spot [°C]:	uc				
39						
40	Rated preheat current [A]:	0.550				
41	Min. / max. preheat current [A]:	0.333 /0.800				
42	Min. open circuit voltage across starter [Vrms]:	103.5				
43	Max. open circuit voltage across lamp [Vpeak]:	400				
44	Substitute resistor for both cathodes in series [Ω]:	0.550				
45	Max. voltage across starter with lamp operating [Vrms]:	68				

46	Burning position:	universal
47		
<b>B</b>	<b>High Frequency (<math>\geq 20</math> kHz) Operation ( Preheat )</b>	
48	Lamp wattage [W]:	16
49	Lamp voltage [V]:	55
50	Lamp current [A]:	0.290
51	Rated initial lumen output [lm]:	The same as those at 50Hz
52	Lumen maintenance (100 – 2000h) [%]:	$\geq 96$
53	Lumen maintenance (100 – 10000h) [%]:	$\geq 91$
54	Lifetime: 165' on 15' off [h]:	20,000
55		
56	<b>Starting</b>	
57	Max. OCV across lamp ( $t \leq t_e$ ) [V]:	270
58	Min. OCV across lamp ( $t > t_e$ ) [V]:	280
59	Substitution resistor for each cathode at test current [ $\Omega$ ]:	12.5
60		
<b>C</b>	<b>Other Information</b>	
61	Max. diameter d [mm]:	26
62	Length A [mm]:	$580.0 \pm 1.5$
63	Length B [mm]:	$587.4 \pm 1.2$
64	Length C [mm]:	Max. 595.9
65	Base:	G13
66	Torsion between the cap and the bulb (Minimum limits) [Nm]:	2.0, unused lamps
67		0.6 (after heating treatment)
68	Mercury quantity per lamp: [mg]	3.0
69	EU Rohs Complying or not	Y
70		
71	<b>Technical Requirements</b>	
72	Safety requirements: IEC 61195, GB 18774	
73	Performance requirements: IEC 60081, GB/T 10682	

