TEST REPORT

EN 62471:2008
Photobiological safety of lamps and lamp systems

IEC TR 62778:2014
Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

Report reference No ..... :	2602Z27408E-SF
Compiled by (+ signature) ..... :	Engineer: Beck Li
Approved by (+ signature) ..... :	Team Leader:Harrison Huang
Date of issue ..... :	2026-11-12
Testing laboratory ..... :	Bay Area Compliance Laboratories Corp. (Dongguan)
Address ..... :	No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China
Testing location ..... :	Same as above
Applicant ..... :	Astera LED Technology GmbH
Address ..... :	Schatzbogen 60, 81829 Munich, Germany
Standard ..... :	EN 62471:2008 IEC TR 62778:2014
Test sample(s) received..... :	2026-11-05
Test in period..... :	2026-11-09
Procedure deviation ..... :	N.A.
Non-standard test method ..... :	N.A.
Type of test object ..... :	PlutoFresnel
Trademark ..... :	ASTERA
Model/type reference ..... :	AF80
Multiple models..... ..... :	AF80-NOBATT
Manufacturer..... ..... :	Astera Manufacturing Limited 101, 201, 301, 401, 501,Bldg.3, CLT Science & Technology Park,No.7, Ganliliu Road, Jihua Subdistrict, Longgang District,Shenzhen, Guangdong Province, P.R.China.
Rating ..... :	Input: 24Vdc, 80W.

Copy of marking plate:

None

Test item particulars

Tested lamp .....: PlutoFresnel

Tested lamp system .....:N.A.

Lamp classification group.....:EN 62471: Risk Group 1 for blue light mode and Exempt Group for white light mode
IEC TR 62778: Risk Group 1 for blue light mode and white light mode

Lamp cap .....:N.A
Bulb.....:N.A
Rated of the lamp .....:See rating
Furthermore marking on the lamp.....: N.A.
Seasoning of lamps accordingEN standard .....: No seasoning
Temperature by measurement.....:27.0°C
Information for safety use.....:N.A

Possible test case verdicts:

-test case does not apply to the test object.....:N(.A.)

-test object does meet the requirement.....:P(ass)

-test object does not meet the requirement.....:F(ail)

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a point is used as the decimal separator.
Remark:
Appendix A - IEC TR 62778
Appendix B- EUT photos

General Product Information:

"EUT" as referred in this report is PlutoFresnel, the test model is AF80. There are several emiting light mode for this product, only blue light mode and white light mode are evaluated in this report. The multiple model is same as the tested model except for whether they have batteries. The AF80 comes with batteries and the AF80-NOBATT does not.
The LED information are listed as follows:

Model No.	Manufacturer of LED	Model No. of LED	LED ratings	Quantities of LED
AF80	Shenzhen DADAO SEMICONDUCTOR Corporation Limited	G5BS1141-Dp2501 M150150	Vf=8-22V, If=960-1600mA	1pcs COB
AF80-NOBATT				

Unless otherwise specified, the model AF80 was selected to complete all tests.