

Replacements

Diode-Box SN: FE-DB1

Former LIGO name: ORSI-FE-DB operating hours: 9208 h

Income inspection

Old Laser diodes:	Power@50A [W]	Degradation [%]
LD1: <u>09293</u>	<u>4.4</u>	<u>88</u>
LD2: <u>09236</u>	<u>28.7</u>	<u>25</u>
LD3: <u>09174</u>	<u>33.2</u>	<u>12</u>
LD4: <u>81643</u>	<u>35.2</u>	<u>6</u>

Comments:

DB arrived diodes not shorted, water circuit not empty.

Overall power Supply Operating hours: 9208 h (please check also for previous reports)

Replacements

New Laser diodes:	Power@50A [W]	Wavelength
LD1: <u>RC-11884</u>	<u>36.5</u>	<u>805.6</u>
LD2: <u>RC-11927</u>	<u>35.5</u>	<u>806</u>
LD3: <u>RC-11337</u>	<u>34.8</u>	<u>806</u>
LD4: <u>RC-11775</u>	<u>33.8</u>	<u>807</u>

Lumina Power Supply I: /

Lumina Power Supply II: /

24V Power Supply: /

Comments:

Test Report

Burn IN

Diode	LD1	LD2	LD3	LD4
Current [A]	50		50	
Temperature [°C]	25	25	25	25
Power @ <u>4</u> h	78,2		75,5	
TEC Current @ <u>4</u> h	1,57	1,76	1,84	1,81
Power @ <u>115</u> h	78		75,5	
TEC Current @ <u>115</u> h	1,52	1,73	1,84	1,79

Operating time: 115 h, Power Max: 153,7 , Min: 153,3 , Average: 153,5

Data for installation:

Diode	LD1	LD2	LD3	LD4
Current [A] @ <u>33W</u>	45		46	
Temperature [°C] @ <u>80%5</u>	31	29	28,5	25

Comments:

ok.
mf
10.09.12

Prepare for shipping:

Prepare for shipping:

Check if diodes are shorted



Check electrical Safety (EN61010)

Used Tool: SECUTEST

	Measured Value	Max. Values
R_{SL}	0,049 Ω	< 0.2 Ohm
R_{ISO}	370,017 Ω	> 0,5 MOhm
U_{ISO}	525 V	~ 500 V
I_{GANC}	1,1 μA	< 0.5 mA
I_{GASF}	0,522 mA	< 3.5 mA

Test fits to the EN61010



Empty water circuit



Comments:

Controller:

MJ

Date:

10/09/2012