

# Report on Compliance with Clause 5.3.6.2.2.1 of EN 81-20:2020

(Safety rules for the construction and installation of lifts - Lifts for the transport of persons and goods Part 20: Passenger and goods passenger lifts)

**Report requested by:**

Manufacturer: **Avire Limited.**

Address: **Unit 1, The Switchback, Gardner Road,  
Maidenhead, Berkshire SL6 7RJ**

Submission By: **Parfes Mohammed (Snr. Electronics Engineer, R&D)**

Date of Request: **12<sup>th</sup> May 2015**

Date of Testing: **11<sup>th</sup> June 2015 and 5<sup>th</sup> February 2024**

**Description of Product:**

**Panachrome+ Family of light curtain systems [including]:**

- **G3510 (3D) light curtain}**
- **G3520 (3D) light curtain}**
- **G3540 (3D) light curtain}**
- **G3550 (3D) light curtain}**
- **G2510 (2D) light curtain} with controller Types G3850, G3851& G3852**
- **G2520 (2D) light curtain}**
- **G2540 (2D) light curtain}**
- **G2550 (2D) light curtain}**

The following drawings/documents have been examined:

1. **EN 81-20 Test Plan Schedule.**
2. **Product scans covering the G 3510 light curtain dated November 2023.**
3. **Panachrome+ Universal Controller data sheets and installation guide.**
4. **Avire request to include G3852 controller, dated 17/04/2023.**

**Conclusions of examination**

The documents detailed in this report have been examined and the testing detailed in this report for the light curtain products specifically mentioned has been satisfactorily completed and these light curtains detailed are found to be in compliance with EN 81-20:2020.

**Special conditions applicable to the issue of this report: None**

This Report is valid for 5 years until **9<sup>th</sup> February 2029**

Report No. **Avire-Prod-004**

BV Contract No. **21082324**

Signed: \_\_\_\_\_



Andrew Bryan – Technical Manager / Lifts

Date: **9<sup>th</sup> February 2024**

Report No. **Avire-Prod-004**

Issue date: **9<sup>th</sup> February 2024 and valid until 9<sup>th</sup> February 2029**

**1. This report is applicable to the following range of light curtains.**

Product	No. of Diodes	IP rating	Range	Fixing Arrangement	
				Dynamic	Comment
<b>G3510</b>	48	65	6 meters	Yes	No Restrictions
<b>G3520</b>	48	65	6 metres	Yes	No Restrictions
<b>G3540</b>	48	65	6 metres	Yes	No Restrictions
<b>G3550</b>	48	65	6 metres	Yes	No Restrictions
<b>G2510</b>	48	65	6 metres	Yes	No Restrictions
<b>G2520</b>	48	65	6 metres	Yes	No Restrictions
<b>G2540</b>	48	65	6 metres	Yes	No Restrictions
<b>G2550</b>	48	65	6 metres	Yes	No Restrictions

**2. The following verification/testing was carried out on the G3510 light curtain detailed in the product range at point 1. (All products contain the same printed circuit boards).**

EN 81-20 Clause	Requirement	G3510 Product
<b>5.3.6.2.2.1 b) 1)</b>	Protective device to cover at least 25mm to 1600mm above car sill <i>Verified</i>	Verified
<b>5.3.6.2.2.1 b) 2)</b>	Protective device shall be capable of detecting obstacles of minimum 50mm diameter	Passed
<b>5.3.6.2.2.1 b) 3)</b>	To counteract persistent obstructions when closing the protective device may be deactivated after predetermined time	Passed (default is 10 seconds but adjustable to 360 seconds).

**3. The following additional verification/testing was carried out on the G3510 light curtain detailed in the product range at point 1. (All products contain the same printed circuit board).**

Test No.	Test Requirement	Expected Result	Product G3510
3.1	Simulate obstruction of a top diode	Signal sent to controller to reduce kinetic energy of the doors (Relay 2)	Pass: <input checked="" type="checkbox"/>
3.2	Simulate obstruction of a bottom diode	Signal sent to controller to reduce kinetic energy of the doors (Relay 2)	Pass: <input checked="" type="checkbox"/>
3.3	Simulate obstruction of 2 adjacent diodes	Permanent Trigger Condition. Signal <b>NOT</b> sent to controller to reduce kinetic energy of the doors (Relay 2)	Pass: <input checked="" type="checkbox"/>
3.4	Simulate obstruction of up to 5 randomly distributed diodes	Signal sent to controller to reduce kinetic energy of the doors (Relay 2)	Pass: <input checked="" type="checkbox"/>
3.5	Simulate obstruction of 6 randomly distributed diodes	Permanent Trigger Condition. Signal <b>NOT</b> sent to controller to reduce kinetic energy of the doors (Relay 2)	Pass: <input checked="" type="checkbox"/>