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| ID | Functional Safety Requirement | Allocation to Element | ASIL |
| FSR1 | The brake lamps shall be activated within 50ms of receiving a brake signal. [1, p. 5.2.22.1] | Logic Unit, Brake Pedal | D |
| FSR2 | The brake lamps shall be activated if the acceleration of the vehicle is measured to be > 1.3 m/s2 while the vehicle is in regenerative braking (one pedal) mode and shall remain activated until the acceleration is measured to be <= 1.2 m/s2. [1, p. 5.2.22.2] | Logic Unit, Driving Mode Signal | D |
| FSR3 | Faults in the logic unit or brake lamps, which would lead to an unintended activation of brake lamps, shall be detected within 50ms and a message will be displayed to the user. | Logic Unit, Brake Lamps | D |
| FSR4 | Faults in the logic unit or brake lamps, which would lead to a failure to illuminate, shall be detected within 50ms and a message will be displayed to the user. | Logic Unit, Brake Pedal, Brake Lamps | D |

# Works Cited

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| [1] | Official Journal of the European Union, "UN Regulation No 13-H – Uniform provisions concerning the approval of passenger cars with regard to braking," 24 February 2023. [Online]. Available: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:42023X0401. [Accessed 15 October 2024]. |
| [2] | Transport Canada, "Technical Standards Document No. 108, Revision 7," 4 February 2021. [Online]. Available: https://tc.canada.ca/sites/default/files/2021-02/108\_tsd\_rev\_r7.pdf. [Accessed 15 October 2024]. |