Report Type	Certification
Report Date	25 March 2026
Issuing Laboratory	GLI Europe B.V.
Evaluating Laboratory	Gaming Laboratories International, LLC. 600 Airport Rd. Lakewood, NJ, 08701 USA A2LA 2428.01
Recipient	Jack La International Limitada Pastor Diaz Ave, East Side of the Municipality of Garabito, Sanchez Chavarria Law Firm Province 06 Puntarenas, Canton 11 Garabito, Jaco P.O. 61101 Puntarenas, Costa Rica
Tested against Requirements	Remote Gambling and Software Technical Standards (31 October 2025) Testing Strategy for Compliance with Remote Gambling and Software Technical Standards (31 October 2025)
Jurisdiction	UK Remote
Manufacturer	Jack La International Limitada Pastor Diaz Ave, East Side of the Municipality of Garabito, Sanchez Chavarria Law Firm Province 06 Puntarenas, Canton 11 Garabito, Jaco P.O. 61101 Puntarenas, Costa Rica
Submitter	Jack La International Limitada Pastor Diaz Ave, East Side of the Municipality of Garabito, Sanchez Chavarria Law Firm Province 06 Puntarenas, Canton 11 Garabito, Jaco P.O. 61101 Puntarenas, Costa Rica
Product Name	**Jack La International RNG**
Description of the Product Tested	**libshuffling.so** As requested per submitter's letter received 17 February 2026.
Evaluation Period	09 March 2026 – 16 March 2026

RvA Registration Number of Accreditation applicable to this Report:	
Products	C577

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Internal Reference	RN-246-JLL-26-01
Result	Pass (See Comments and Conditions on the following pages)
Internal methods used reference	Random Number Generator (RNG) Analysis WI-MA-006* PC-TC-001*
	*The evaluation was conducted fully or partially by a subcontracted office. Please refer to "Evaluating Laboratories" on page 1.
Test Supervisor:	John Hischer

Technical Evaluation authorized by:

James Boje
Managing Director EMEA
Executive

RANDOMNESS REPORT FOR THE JACK LA INTERNATIONAL RNG

The intent of this report is to indicate that **GLI** has completed its evaluation of the Jack La International random number generator (RNG) provided by Jack La International Limitada.

SECTION I — SCOPE OF TESTING

GLI was provided the required materials to conduct a randomness evaluation on the Jack La International RNG. The scope of this evaluation was limited to software verification, source code review, and data analysis. The RNG was tested for its ability to randomly produce outcomes for the parameters in Section IV – Statistical Testing.
The NG_FORTUNA RNG was evaluated against the RNG-specific requirements of the technical standards listed in the first page of this report.

SECTION II — SOFTWARE VERIFICATION

Verify+ by Kobetron™ signatures for the Jack La International RNG are as follows:

File	Type	Signature
libshuffling.so	Kobe4	5F36
	MD5	849714C92050468703739E440FEB2A38
	SHA-1	3DEAA5C3ECD393D030E3F86ED553645AE350D098

Table 1. Digital Signatures

SECTION III — SOURCE CODE REVIEW

GLI received the appropriate documentation and full source code which pertains to the generation of random numbers. GLI reviewed the source code provided by tracing the path of the RNG application from the initiation of the draw to the selected output of random numbers. GLI inspected the source code, where practicable, in an attempt to find any undisclosed switches or parameters having a possible influence on randomness and fair play. GLI assessed the ability of the RNG to produce all numbers within the desired range.

RANDOMNESS REPORT FOR THE JACK LA INTERNATIONAL RNG

SECTION IV — STATISTICAL TESTING

The RNG parameters tested are listed in Table 2. GLI performed a data format check on each data set listed in order to confirm that these parameters were correctly represented in the data analyzed.
A set of numbers is said to be drawn *with replacement* if a number can be selected multiple times within the same draw. A set of numbers is said to be drawn *without replacement* if a number can only be selected once within the same draw.

Data Set	Range	Positions	Replacement
Single Deck (Without Joker)	0-51	52	No
Single Deck (With Joker)	0-52	53	No
Two Decks (Two Jokers)	0-105	106	No

Table 2. RNG Parameters

In addition to final outcome data, GLI tested raw outcomes consisting of binary output from the main RNG algorithm prior to the application of any scaling algorithms. For a summary of the statistical tests applied to each data set, see *Appendix A*. For a description of the overall test methodology and a description of each test used, see *Appendix B*.
Overall, the RNG passed the battery of tests for each configuration at the 95%, 98%, and 99% confidence levels.

SECTION V — SUMMARY

Overall Evaluation of the Random Number Generator

GLI's conclusion based upon the tests applied to the Jack La International RNG data is that this random number generator has exhibited random behavior and is suitable for the applications as described herein. If a game utilizes different RNG parameters than the ones listed in this report, the RNG should be resubmitted to test that set of parameters.

APPENDIX A: Statistical Test Summary

					Test Names	
Data Set	**Range**	**Positions**	**Replacement**	**Draws**	**Total Dist.**	**Diehard**
Single Deck (Without Joker)	0-51	52	No	25,755,000	X	
Single Deck (With Joker)	0-52	53	No	26,260,000	X	
Two Decks (Two Jokers)	0-105	106	No	58,275,000	X	
Binary	Not applicable					X

Table A 1. Tests Applied

APPENDIX B: Test Descriptions

B.1 **Definitions.** The following terms apply to the below test descriptions. Randomness Device or Random Number Generator (RNG) output may be collected multiple numbers at a time. Each set of numbers is called a draw. Each individual number has a particular order within the *draw*. This is referred to as the number *position*.

B.2 **Distribution Comparisons.** Many of the tests compare an observed numerical distribution with an expected distribution. Unless otherwise specified, this is done by means of a statistical chi-square goodness-of-fit test. The value chi-square is computed in the standard way. If k is a possible value, o_k is the observed count of that value, and e_k is the expected count:

$$\chi^2 = \sum_k \frac{(o_k - e_k)^2}{e_k}$$

In the case where expected counts are too small for accurate use of the above formula, values are 'binned' together to ensure an appropriate minimum expected count. The resultant value for chi-square is compared against the distribution for the appropriate number of degrees of freedom. Unusually high (distribution mismatch) or unusually low (insufficient randomness) chi-square values can be causes for data failure.

B.3 **Meta-testing**. Evaluation of groups of *p*-values may include a meta-test for extremity of high or low *p*-values, a meta-test for frequency of high or low *p*-values, and a meta-test for uniformity of *p*-values, as appropriate.

B.4 **Confidence Level**. The statistical tests conducted by GLI are done at a particular *confidence level*. Common confidence levels used include 95%, 98%, and 99%, depending on jurisdictional requirements, and intended use of the RNG. High confidence level testing has low risk of mistakenly failing a good RNG, but higher risk of passing a bad RNG. Lower confidence level testing has increased power of detecting bad RNGs, while also increasing the risk of false failures of good RNGs. Specifically, the confidence level represents the probability that an ideal source of randomness would pass the testing. If an RNG passes statistical tests at a given confidence level, passage at all *higher* confidence levels is implied.

B.5 **Tests**. Some tests are only applicable to certain types of data. Some tests may be applied only to a portion of the data. Some tests may require that the data be parsed, binned, or otherwise transformed, as necessitated by data format.

DieHard:

The DieHard Battery of Tests is a standard assessment of the randomness in raw outcomes generated from an RNG. The collection, designed by George Marsaglia, tests for a variety of patterns in the individual binary bits of RNG output. GLI uses a custom implementation to conduct DieHard testing.

Total Distribution:

The Total Distribution Test is a simple tally of all observed values throughout the data. This is compared with the expected distribution. Typically the expected distribution is a uniform distribution. In the case of unequal weighting of values, an appropriate discrete distribution is used.

Comments

This Report relates only to the product(s) listed.