

Test Report

Test report No.:

T-J0005-I0143

Date of issue:

2019-02-22

Applicant:

Bee-Fee Ltd., 27 Old Gloucester Street, WC1N 3AX
London, United Kingdom

Manufacturer:

Bee-Fee Ltd., 27 Old Gloucester Street, WC1N 3AX
London, United Kingdom

Product:

Lucky Tropics

Target device:

BF Games

Product type:

Internet games (reels)

Target device type:

Internet gaming system

Jurisdiction:

United Kingdom

Test Criteria:

Remote gambling and software technical standards June 2017.

Pages (with annexes):

14

Verdict (subject to conditions in Chapter 1):

Pass

Test report type:

Game

Subject file No.:

18000551002

Test group(s):

Payback, Software

Remarks:

N.A.

Project responsible person [signature]:

Reviewed by [signature]:

Gregor Zakrajšek

Franci Pikl



1 Conditions and settings for compliance with test criteria

Testing performed with English language setting.

Game supports various RTP variations. Only RTP variation listed in Test Report Annex: Payback ratio tests, Chapter 3 Payback ratio is approved herein. RTP variant shall be verified in settings in RGS database.

To comply with RTS 8 Auto-play functionality, server configuration (available in adminui) shall include the following setting:

```
"autoplaySpinCountLimits":[ 10, 20, 30, 40 ], //number of autospins
```

To comply with RTS 13B Reality checks functionality, server configuration (available in adminui) shall include the following setting:

```
"realityChecks":[{"caption":"RealityCheck", "interval":600, "isDefault":true}]
```

2 Protection against unauthorized access

See the corresponding platform test report(s).

3 Gaming device general properties

General device design:	Server, Linux, MongoDB
Cabinet(s):	N.A.
Available player denominations:	N.A.
Available tokenizations:	N.A.
Supported communication protocols:	N.A.
Supported progressives:	N.A.
Minimum bet (credits):	1 (per line)
Maximum bet (credits):	500 (per line)

4 Annexes

Annex / Test group	Attached [yes/no]	Remark
Functional tests	No	/
Randomness tests	No	/
Payback ratio tests	Yes	/
Software analysis	Yes	/
Device specific tests	No	/



Annex / Test group	Attached [yes/no]	Remark
Other annexes	No	/

5 Previous / transferred test reports results

N.A.

6 Additional information

The following RTS articles from Remote gambling and software technical standards, June 2017 were reviewed during testing and found compliant:

- RTS 1 Requirements 1A (before April 1, 2018), 1A (after April 1, 2018), 1B (before April 1, 2018), 1B (after April 1, 2018), 1C (after April 1, 2018): **Not applicable (IGS requirements)**
- RTS 2 Requirements 2A (before April 1, 2018), 2A (after April 1, 2018), 2B (before April 1, 2018), 2B (after April 1, 2018), 2C (after April 1, 2018), 2D: **Game compliant where applicable, see also IGS and RGS tests**
- RTS 3 Requirements 3A, 3C, 3D: **Game compliant where applicable (No virtual events)**
- RTS 4 Requirements 4A, 4B: **Game complies (No influence for time-critical events)**
- RTS 5 Requirement 5A: **Game complies**
- RTS 6 Requirement 6A: **Game complies**
- RTS 7 Requirements 7A, 7B, 7C, 7D, 7E: **Game compliant where applicable (see also RGS tests)**
- RTS 8 Requirement 8A: **Game complies**
- RTS 9 Requirements 9A, 9B: **Not applicable (No progressives configured during testing)**
- RTS 10 Requirements 10A, 10B, 10C: **Not applicable (No peer-to-peer betting; Stateless game)**
- RTS 11 Requirements 11A (before October 1, 2018), 11A (after October 1, 2018), 11B (before April 1, 2018), 11B (after April 1, 2018): **Not applicable (No peer-to-peer betting)**
- RTS 12 Requirements 12A (before April 1, 2018), 12A (after April 1, 2018), 12B: RTS 8 Requirement 8A: **Not applicable (not game related)**
- RTS 13 Requirements 13A, 13B: **Game complies**
- RTS 14 Requirement 14A: **Game complies**
- RTS 15 Requirement 15A: **Not applicable (classic internet reel game)**
- RTS 16 Requirements 16A, 16B (after October 1, 2018), 16C: **Not applicable (no peer-to-peer)**
- RTS 17 Requirement 17A: **Not applicable (no live dealer studios)**

7 Documentation references

The following documentation was used:

- User help,
- Screen capture images,
- Par sheets, Game description,
- Source code and configuration files.



8 Other test report references

Test group	Laboratory	Test report identification and date	Remarks
Software analysis	SIQ	T-J0005-I0098, 2017-12-01	BF Gameserver (with extensions)
Randomness tests	SIQ	T-J0005-I0098, 2017-12-01	BF Gameserver (with extensions)
Functional tests	SIQ	T-J0005-I0098, 2017-12-01	BF Gameserver (with extensions)

Test report replacements and extensions may apply.

1 Description of the game

Lucky Tropics is a 5-reel, 3 row video slot with 9 paylines. The objective is to land as many identical symbols as possible along a payline. Winning combinations start on the first reel on the left (excluding SCATTER symbols) and run along an active payline to the last reel on the right. Only the highest winning combination is paid per line.

Wild_symbol

WILDs can appear on all reels and substitute for all other symbols except for the SCATTER symbol. Only one WILD can appear on each reel. WILD and SCATTER symbols cannot appear simultaneously on the same reel. Combinations using only WILD symbols can create wins. WILD symbols double the win when substituting. A win from WILD symbols only is not doubled. A win formed with more than one WILD symbol is doubled once only.

Scatter_symbol

SCATTER symbols can appear on all reels. Only one SCATTER can appear on each reel. WILD and SCATTER symbols cannot appear on the same reel. Landing three or more SCATTER symbols will trigger 15 Free Spins. It is possible to generate winnings by a combination of SCATTER symbols only.

Free spins

Landing three or more SCATTER symbols will trigger 15 Free Spins. Free spins wins are multiplied by 3. If Free Spins are re-triggered, the player unlocks 15 extra Free Spins, which are added to the current number of Free Spins. Free Spins are played using the same trigger bet and paylines that were active during the normal gameplay mode in which Free Spins were triggered. During Free Spins an alternate set of reels is used.

2 Pay-glass / artwork illustrations or photos





3 Payback ratio

3.1 Payback ratio determination method

The payback ratio value (return to player) was derived using simulation.

3.2 Payback ratio results

Crystal Mania	
Declared by manufacturer	Verified by test laboratory
97,00%	97,00%

4 Test summary

The following tests for the game were performed:

- Calculation of the payback ratio,
- Conditions and settings for compliance with test criteria,
- Verification of the information to the player.

Test Report Annex: Software analysis

Test report No.:
T-J0005-I0143
Checklist references:
T-J0005-I0143-WN404.xls
T-J0005-I0143-WN505-S-32768.xls
Test report references (if applicable):
N.A.
Internal procedure and issue:
WN204, 07 / 2019-01
Remarks:
N.A.
Date annex completed:
2019-02-22
Tested by [signature]:
Gregor Zakrajšek

1 Software identification

Software version(s): engin3, 1.1

Software components:

Manufacturer, product ID	Description, function	Media, type	Position, circuit	Size	ID code (SHA1)	ID code (MD5)
Bee-Fee, libladychance.so, 1.3	Game library	HDD / SSD	\	165,11 KB	02741cdc6427ea05534b2e0cf1df9467c0954eb1	f200e0bbb7de8ccfc3c29231370d838c
Bee-Fee, index.html	Common game main page	HDD / SSD	\	2,64 KB	041ffe10953ed597561f5c007fbb0234ed970a0a	b417c4957fff b5c1df874fb6 d5849917
Bee-Fee, autoplay_console.css	Common game graphics file	HDD / SSD	media\common\autoplay\	1,81 KB	d65f32fa1953d3c9aa669b48832610adc83aae49	38b1a20542e167c21322b8ad2de39c89
Bee-Fee, autoplay_console.html	Common game page	HDD / SSD	media\common\autoplay\	1,25 KB	88cba579f95ed5e094596fda05cf86a2223ae2cf	94ede2336497ce1a462cb94073e15b8b
Bee-Fee, common_en.json	Common graphics configuration file	HDD / SSD	media\common\localization\	2,64 KB	7db64d69bb522dd5c8605d047ead6b28c050dd4c	a25d485eed0cfcc713fda3f72741cd10
Bee-Fee, notifications.css	Common game graphics file	HDD / SSD	media\common\notifications\	490 bytes	b2ffa78a165f4b01836778e8e4325b7a3a0da77e	76cf93d842c385095faac59d8bbe001e
Bee-Fee, notifications.html	Common game page	HDD / SSD	media\common\notifications\	104 bytes	333752f48ed9b61c43f616ec94f06239cd23c76c	df0b4e20ccee9177b36f076cc434f5b3
Bee-Fee, realitycheck.css	Common game graphics file	HDD / SSD	media\common\realitycheck\	0,92 KB	eeb91bef618501163d460b42dde7ec5bfe898606	06770f68e1db9e439993bec9e7126cf0
Bee-Fee, realitycheck.html	Common game page	HDD / SSD	media\common\realitycheck\	1,23 KB	9c68f9712471913eb962172c94de07e793fd873d	a998fce00935ad0fe50ce0c8bca33b1c
Bee-Fee, lt_bg_logo_skeleton.json	Graphics configuration file	HDD / SSD	media\games\lucky_tropics\background\spine\	489 bytes	8cc93198861968b528f53d6eb96a593b1d1b050a	54477763f5a4e3948474e3433f1304f2
Bee-Fee, lt_bg_skeleton.json	Graphics configuration file	HDD / SSD	media\games\lucky_tropics\background\spine\	31,09 KB	cd0df1c580b15e5132ca77b39a3663ea784d2a95	f67443c99a5b9e08eeb0a9d69357884b
Bee-Fee, lt_bigwin_skeleton.json	Graphics configuration file	HDD / SSD	media\games\lucky_tropics\big_win\spine\	47,1 KB	8ccf7e60678dde3d2dd03834126ae4b13c5cc745	felb98c5354e6130919b67ca901b7ed1



Manufacturer, product ID	Description, function	Media, type	Position, circuit	Size	ID code (SHA1)	ID code (MD5)
Bee-Fee, lt_dashboard.shape.s.txt	Game graphics file	HDD / SSD	media\games\ucky_tropics\dashboard\animate\images\	0,8 KB	9f646fe1b61f7112e6077115c5dadd6a63619e30	7e3eea7d3c427dea55facd00ae98584d
Bee-Fee, lt_dashboard.js	Game graphics file	HDD / SSD	media\games\ucky_tropics\dashboard\animate\	21,37 KB	278e649873f2d5b0cb31b78cb519c8be03b6497d	0f90ef1c72f94c2b3471588ac63a013e
Bee-Fee, lt_freegames_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\free_spins\spine\	103,87 KB	73e3eb5ae3608ab0581bf61b657c9a915e463e	05ac6fd9b15e812cf8e8627bde9b866f
Bee-Fee, lt_skeleton_gamble_intro_horizontal.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\gamble\spine\	32,3 KB	c8921dce21e23e6ec6f661d301412d9db195218b	9ab68749bd7ef79ec62e290fccbd4b34
Bee-Fee, lt_skeleton_gamble_intro_vertical.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\gamble\spine\	33,67 KB	614c41577bdafb4324589be7c8c4e4dd3f515028	873774c1abcb20f439b7c0c0179aa4ec
Bee-Fee, en.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\localization\	1,59 KB	c66765403557b3df9b3a933c28e19edc9c9678df	a87191af9ee2f8032c7298e84d960b82
Bee-Fee, lt_7_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	35,28 KB	baa799015dc439ff7bfb734a5fdf8ea738cde8e	f489b70b968a06972baf5f08133e420a
Bee-Fee, lt_cherry_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	22,06 KB	1f92636286c4c29d6a97badcbab07e35d74c00ed	75308746a459bdec5fb5b173c4a96731
Bee-Fee, lt_fig_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	13,91 KB	cc6dc6ee1ca0ca027e5783b13c6e68ff73e3b0b	6b4c6bcf581b4ce09b19433f4ccdebe9
Bee-Fee, lt_flower_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	18,98 KB	c27a95d45583e3c4c6f7d0353ed197625d71e4e5	a4d85e696c55ac6204a10ec31642b6e6
Bee-Fee, lt_grape_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	31,64 KB	9826ba1a072218c0765c088cc391545c9cbd7e2d	f24a7ddaa09a97f2b8500060411eb9ec
Bee-Fee, lt_kiwi_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	11,1 KB	e0aa70b88634d1e5f0a7edf9b70002f5ce67892c	ca8665362a78349171aa77c4275d9c4d
Bee-Fee, lt_lemon_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	8,56 KB	12c1809abf1bd763ea3b7414dedf1082bfc316ec	7ccde1552eb7e1ee4a79e7c5323ea830
Bee-Fee, lt_orange_skeleton.json	Graphics configuration file	HDD / SSD	media\games\ucky_tropics\reels\spine\	7,92 KB	19d17f6fc4765c8275873a682565379932e64f24	339f97d60712ffd3daa18ab4779d0221



Manufacturer, product ID	Description, function	Media, type	Position, circuit	Size	ID code (SHA1)	ID code (MD5)
Bee-Fee, lt_pear_skeleton.json	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	11,04 KB	3bffb56ebae01a a1c6a8618e5745 f5a5bb001404	0331c3fde639 d5ed1e97ffa3 b233cf46
Bee-Fee, lt_pineapple_skelet on.json	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	14,46 KB	775cd79a1ad2b4 09b311ab75d34a 9b16b02665c3	08fa35cb915e 39ec1d62113b 150745c0
Bee-Fee, lt_scatter_skeleton.j son	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	29,59 KB	b23546cf24f52b 881cba12341765 71d67d515d55	a9ed2c19bbe1 eda5fed092f7 7aef63b2
Bee-Fee, lt_strawberry_skelet on.json	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	11,42 KB	04edf5f54330cb 17d03be260fa90 52698d5ed796	82be4409da72 ecb743e7d930 5f7c421e
Bee-Fee, lt_toucan_skeleton.j son	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	30,69 KB	0a9b60f3e6023d 8a6387db2d77df 464e688252cd	0932aa0b6042 017e2db85b5e 64de2374
Bee-Fee, lt_watermelon_skel eton.json	Graphics configuration file	HDD / SSD	media\games\l ucky_tropics\re els\spine\	9,86 KB	8cfd2490c9b1e3 73037e198de57c fc9a4c48a27c	a9340a3407f0 c86d728dc6aa 7203893f
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as0-jpg.jpg	Game graphics file	HDD / SSD	media\	222,91 KB	9c346945359a7f e1be96d792d53f 910ddc1aa837	3041855d3f63 311b707045c4 a47d9412
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as0-jpg.json	Graphics configuration file	HDD / SSD	media\	2,48 KB	b0d873dbeeeef84 987c94ba46c3a2 f4eee13271b3	1e3d122eddae 78d6dc7d151b afadc8ec
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as0-png.json	Graphics configuration file	HDD / SSD	media\	20,43 KB	bb813370bda713 d10d8514f8a94d 7d18a5de1b26	3c18ce95c3d2 4395a9dddde4 8d80d585
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as0-png.png	Game graphics file	HDD / SSD	media\	2,84 MB	06ef0cb74e4b15 c616bbd594e4ff 299764f1e5f9	32c28ad66c5c c34e8bd53040 d5755840
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as1-png.json	Graphics configuration file	HDD / SSD	media\	15,61 KB	a5e9dded931b3b 25334aa9e4eca7 7c692c087d08	901c3fb6a375 d56f309afbcd 3aa2bd80
Bee-Fee, media_games_luck y_tropics_lt_mobile _assets_default_atl as1-png.png	Game graphics file	HDD / SSD	media\	3,71 MB	a64dd32b3a8b0b 02d3452edbc4f1 0b0201cf04a8	88923d0c2140 c6840f62ea02 bc02b3d6



Manufacturer, product ID	Description, function	Media, type	Position, circuit	Size	ID code (SHA1)	ID code (MD5)
Bee-Fee, media_games_lucky_tropics_lt_mobile_assets_default_atlas2-png.json	Graphics configuration file	HDD / SSD	media\	32,31 KB	3636cb9e7a7435 d10801ef01825d 4dd343d7648d	1b02a18f962f 86b58ac6dfbb d724a86f
Bee-Fee, media_games_lucky_tropics_lt_mobile_assets_default_atlas2-png.png	Game graphics file	HDD / SSD	media\	2,98 MB	8983915ea71358 66418e970c3e88 44cf5e30877f	e599f6dae1b2 efd7751885c4 c26a4099
Bee-Fee, media_games_lucky_tropics_lt_mobile_en_assets_default_atlas0-png.json	Graphics configuration file	HDD / SSD	media\	3,12 KB	3bb687b569e199 f0483f660b2b5d ab8b74faf9a7	08f7da53f189 a19e051e5d86 78919a62
Bee-Fee, media_games_lucky_tropics_lt_mobile_en_assets_default_atlas0-png.png	Game graphics file	HDD / SSD	media\	0,83 MB	a66f3fc59e486e 6dcf8f789f3597 f487024cb3dc	8babc514df38 ab4351ee31e0 d21d897f
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas0-jpg.jpg	Game graphics file	HDD / SSD	media\	380,88 KB	393236ffed1110 b9170ab87ac3f9 b5bbb3b8a846	2306b3834483 808ee6f8daf3 0a875d07
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas0-jpg.json	Graphics configuration file	HDD / SSD	media\	3,05 KB	3be16234d809a6 1986a28b571c2e 99c7d8f4a544	5521e0466517 00cf59335873 af2d829a
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas0-png.json	Graphics configuration file	HDD / SSD	media\	33,67 KB	e7fc5b1b8324c6 6280fc1ece3ecb 6681ba22fe85	b90a1ff389d0 748624165abe 18d27def
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas0-png.png	Game graphics file	HDD / SSD	media\	11,99 MB	a79328f63bd99e b6895cc714a35e 01c3377ac198	9e02bf9bd74e cd20e6ee2525 fd25c3ae
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas1-png.json	Graphics configuration file	HDD / SSD	media\	34,6 KB	586639d25f694c ade64004c2002b c2b71e341f90	168e7ed62485 9b3898abd4bc 15789c1d
Bee-Fee, media_games_lucky_tropics_lt_web_assets_default_atlas1-png.png	Game graphics file	HDD / SSD	media\	5,8 MB	91c4572391733d 8782f9539e3835 f3a2b08b6370	ec360db5efba cc72f86bfae0 d0501cfe

Manufacturer, product ID	Description, function	Media, type	Position, circuit	Size	ID code (SHA1)	ID code (MD5)
Bee-Fee, media_games_lucky_tropics_lt_web_en_assets_default_atlas0-png.json	Graphics configuration file	HDD / SSD	media\	2,29 KB	9bc9e929257b293476ae2d9240c14590e6016414	fed197b2ea3e4184128f6ed5976c48b8
Bee-Fee, media_games_lucky_tropics_lt_web_en_assets_default_atlas0-png.png	Game graphics file	HDD / SSD	media\	1,34 MB	3044ae55f2856a0b6bffd34842338389bfe6b6d	b4e04f2aab52beedf91a7f92a6fa95fc
Bee-Fee, media_games_lucky_tropics_lt_mobile.js	Game graphics file	HDD / SSD	\	380,44 KB	18ac9053bad627c53ddd0b434d940aa58143b77a	4f90bd228c9dbbc426055a13cd2fdcc0
Bee-Fee, media_games_lucky_tropics_lt_mobile_assets.json	Graphics configuration file	HDD / SSD	\	11,73 KB	d51878b3610698ba3d252d069dcc7eb24db847b7	fc9b663d45f99ff38e7306191c8c26c4
Bee-Fee, media_games_lucky_tropics_lt_mobile_en_assets.json	Graphics configuration file	HDD / SSD	\	185 bytes	10767ce45a965697a2b513019f526711546f096c	e4b31301a6542e8531139558ac05a6fe
Bee-Fee, media_games_lucky_tropics_lt_web.js	Game graphics file	HDD / SSD	\	316,01 KB	016331978da00d3e1437c5684e31536d291690b3	9a8116783378db02cd4e56d0c4c9cc51
Bee-Fee, media_games_lucky_tropics_lt_web_assets.json	Graphics configuration file	HDD / SSD	\	11,79 KB	b42fc3a174113bd1327612c78533eb7a8230fe15	49d469db6f75265bc250eb795d7e9af4
Bee-Fee, media_games_lucky_tropics_lt_web_en_assets.json	Graphics configuration file	HDD / SSD	\	179 bytes	9c2b11775f71b22c7eb8e03c35030c201410d8b2	5ee7592b8b2fcad3eec5ffcd8788a7

2 Test summary

Software analysis for the game was performed:

- Source code analysis:
 - o Jurisdiction independent tests: software review.
 - o Jurisdiction dependent tests.
- Binary code authentication.
- Archiving and depositing.