

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

LULULEMON ATHLETICA CANADA INC. and LULULEMON USA INC.
Petitioners

v.

NIKE, INC.
Patent Owner

Case IPR2023-00348
Patent 10,188,930

PATENT OWNER RESPONSE UNDER 37 C.F.R. § 42.120

TABLE OF CONTENTS

	Page No.
I. INTRODUCTION	1
II. THE ‘930 PATENT	2
III. OVERVIEW OF THE PRIOR ART	6
A. Lofi	6
B. Maeueler	9
C. Kitagawa.....	11
IV. LEGAL STANDARDS	13
A. Anticipation	13
B. Obviousness.....	14
V. PERSON OF ORDINARY SKILL IN THE ART	16
VI. CLAIM CONSTRUCTION	16
A. “[first/second] athletic movement”	16
1. The inventors’ use of “athletic movement” and “athletic movements” in different embodiments shows that the inventors used “athletic movement” to refer only to a <i>single</i> athletic movement	17
2. The inventor’s lexicography of “athletic movement” shows that the term refers only to a <i>single</i> athletic movement.....	18
B. “[first/second] instructions”	21
C. “[first/second] activity data”	21
VII. LULULEMON FAILS TO SHOW THAT ANY CHALLENGED CLAIM IS UNPATENTABLE UNDER ANY OF GROUNDS 1–3	22
A. Ground 1: lululemon Fails To Demonstrate That Lofi Anticipates Claims 1 and 5–7.....	23
1. lululemon fails to show Lofi discloses “calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score” (Limitation 1C)	24

2.	lululemon fails to show Lofi discloses “calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score” (Limitation 1F).....	27
3.	lululemon fails to show Lofi discloses “wherein the first instructions and the second instructions include a predefined ordering of drills that are configured to be provided to the user during a single workout session” (Claim 7)	29
B.	Ground 2: lululemon Fails To Show The Lofi-Kitagawa Combination Renders Obvious Claims 1 and 5–7	30
1.	lululemon fails to show Lofi in view of Kitagawa discloses or suggests “calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score” (Limitation 1C)	31
2.	lululemon fails to show Lofi in view of Kitagawa teaches or suggests “calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score” (Limitation 1F).....	35
3.	lululemon fails to show a motivation to combine Lofi with Kitagawa	36
C.	Ground 3: lululemon fails to show Maeueler in view of Kitagawa renders obvious claims 1, 5–7, and 12.....	37
1.	lululemon fails to show Maeueler teaches or suggests calculating “a first combinatory fitness-athleticism score” that is “based on the first activity data” (Limitation 1C).....	38
2.	lululemon fails to show Maeueler teaches or suggests calculating a second combinatory fitness-athleticism score” that is “based on the second activity data” (Limitation 1F).....	41
a.	<i>Each of Maeueler’s tests yield only a single measurement</i>	42
b.	<i>Kitagawa does not cure the deficiencies of Maeueler</i>	44
3.	lululemon fails to show a motivation to combine Maeueler with Kitagawa	45
4.	lululemon fails to show Maeueler in view of Kitagawa discloses “wherein the first instructions and the second instructions include a plurality of drills configured to test	

	a plurality of fitness attributes of the user and a plurality of athleticism attributes of the user” (Claim 6).....	47
VIII. CONCLUSION.....		48

TABLE OF AUTHORITIES

	<u>Page(s)</u>
 <u>Cases</u>	
<i>Abbott Labs. v. Sandoz, Inc.</i> , 566 F.3d 1282 (Fed. Cir. 2009)	26
<i>Advanced Fiber Tech. v. J&L Fiber Servs.</i> , 674 F.3d 1365 (Fed. Cir. 2012)	27
<i>Allergan, Inc. v. Apotex Inc.</i> , 754 F.3d 952 (Fed. Cir. 2014)	14
<i>Arendi S.A.R.L. v. Apple Inc.</i> , 832 F.3d 1355 (Fed. Cir. 2016)	15
<i>Aug. Tech. Corp. v. Camtek, Ltd.</i> , 655 F.3d 1278 (Fed. Cir. 2011)	18
<i>Cont’l Can Co. v. Monsanto Co.</i> , 948 F.2d 1264 (Fed. Cir. 1991)	30
<i>Xerox Corp. et al. v. Bytemark, Inc.</i> , IPR2022-00624, Paper 9 (PTAB Aug. 24, 2022).....	44
<i>EiKO Global, LLC v. Blackbird Tech. LLC</i> , IPR2017-00980, Paper 16.....	44
<i>Facebook, Inc. v. Windy City Innovations, LLC</i> , 973 F.3d 1321 (Fed. Cir. 2020)	15
<i>Graham v. John Deere Co. Kan. City</i> , 383 U.S. 1 (1996).....	14
<i>In re Magnum Oil Tools Int’l, Ltd.</i> , 829 F.3d 1364 (Fed. Cir. 2016)	13
<i>Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.</i> , 821 F.3d 1359 (Fed. Cir. 2016)	15
<i>KSR Int’l Co. v. Teleflex Inc.</i> , 550 U.S. 398 (2007).....	14, 15

<i>Lupin Ltd. v. Abbott Lab’ys</i> , 484 F. Supp. 2d 448 (E.D. Va. 2007)	18
<i>Microsoft Corp. v. FG SRC, LLC</i> , 860 Fed. App’x 708 (Fed. Cir. 2021)	16
<i>Millennium Pharms., Inc. v. Sandoz Inc.</i> , 862 F.3d 1356 (Fed. Cir. 2017)	15
<i>Net MoneyIN, Inc., v. Verisign, Inc.</i> , 545 F.3d 1359 (Fed. Cir. 2008)	14, 30
<i>S.-Tek Sys., LLC v. Engineered Corrosion Sols., LLC</i> , 748 F. App’x 1003 (Fed. Cir. 2018)	47
<i>Scripps Clinic & Research Found. v. Genentech Inc.</i> , 927 F.2d 1565 (Fed. Cir. 1991)	26
<i>Sinjimoru v. Geneze Innovation Inc.</i> , IPR2021-00493, Paper 8 (PTAB July 28, 2021)	29, 33, 44
<i>Sprint Commc’ns Co. L.P. v. Comcast Cable Commc’ns LLC</i> , No. 11-2684, 2014 WL 5089402 (D. Kan. Oct. 9, 2014)	20
<i>Toro Co. v. White Consol. Indus., Inc.</i> , 199 F.3d 1295 (Fed. Cir. 1999)	18
<i>Trintec Indus., Inc. v. Top-U.S.A. Corp.</i> , 295 F.3d 1292 (Fed. Cir. 2002)	14

Statutes

35 U.S.C. § 102	13
35 U.S.C. § 103(a)	14
35 U.S.C. § 316(e)	13

Other Authorities

37 C.F.R. § 1.72(b) (2002)	22
----------------------------------	----

TABLE OF EXHIBITS

Ex. No.	Description
2001	4/10/23 Declaration of Scott McLean, Ph.D.
2002	Curriculum Vitae of Scott Mclean, Ph.D.
2003	Testimony List for Scott Mclean, Ph. D.
2004	9/22/23 Declaration of Scott McLean, Ph.D.
2005	9/7/23 Deposition Transcript of Dr. Gregory Fischer

I. INTRODUCTION

Nike, Inc. (“Nike”) is the owner of U.S. Patent No. 10,188,930 (Ex. 1001, “’930 patent”). Nike submits this Response to the Petition of lululemon Athletica Canada Inc. and lululemon USA Inc. (“lululemon”) challenging the patentability of claims 1, 5–7, and 12 of the ’930 patent (the “Challenged Claims”). lululemon has failed to demonstrate by a preponderance of the evidence that any claim of the ’930 patent is unpatentable.

The Challenged Claims recite a method of monitoring a user performing “a first athletic movement” and “a second athletic movement.” For each individual “athletic movement,” the claimed method generates a “combinatory fitness-athleticism score.” The claimed “combinatory score” includes both a “fitness sub-score” and a separate “athleticism sub-score.” Both sub-scores—and thus the combinatory score—are calculated based on data received by a sensor monitoring the user during a *single* “athletic movement” (either the “first athletic movement” or the “second athletic movement”). In other words, the claimed method involves monitoring a *single* “athletic movement” and then calculating a combinatory score that reflects a user’s fitness level *and* athleticism level—all based on that single “athletic movement.”

lululemon challenges the claims on three grounds. Ground 1 alleges anticipation by Lofi (Ex. 1002). Ground 2 alleges obviousness over Lofi in view of

Kitagawa (Ex. 1004). Ground 3 alleges obviousness over Maeueller (Ex. 1003) in view of Kitagawa.

In its Institution Decision (“DI”), the Board asked the parties to submit proposed constructions for three terms, i.e., “first athletic movement,” “first instructions,” and “first activity data,” recited in independent claim 1. Under the proper construction of these terms, lululemon has not and cannot show unpatentability of any Challenged Claim. That is because none of the cited art, either alone or in combination, teaches or suggests calculating *both* a fitness sub-score and a separate athleticism sub-score—and thus a combinatory fitness-athleticism score—based on a *single* “athletic movement.” The cited references, at best, teach the more conventional method of calculating a fitness score and an athleticism score based on *multiple* athletic movements. Because none of the cited references teach or suggest this limitation, and for other reasons discussed below, lululemon has not shown by a preponderance of the evidence that any claim of the ’930 patent is unpatentable.

II. THE ‘930 PATENT

The ’930 patent relates to “systems and methods for estimating a combined or a combinatory fitness-athleticism score comprised of a fitness sub-score and an athleticism sub-score.” Ex. 1001, 1:49–51. One example of a combinatory fitness-athleticism score, the “Fuel Print,” is shown below with a fitness sub-score (left)

and an athleticism sub-score (right).

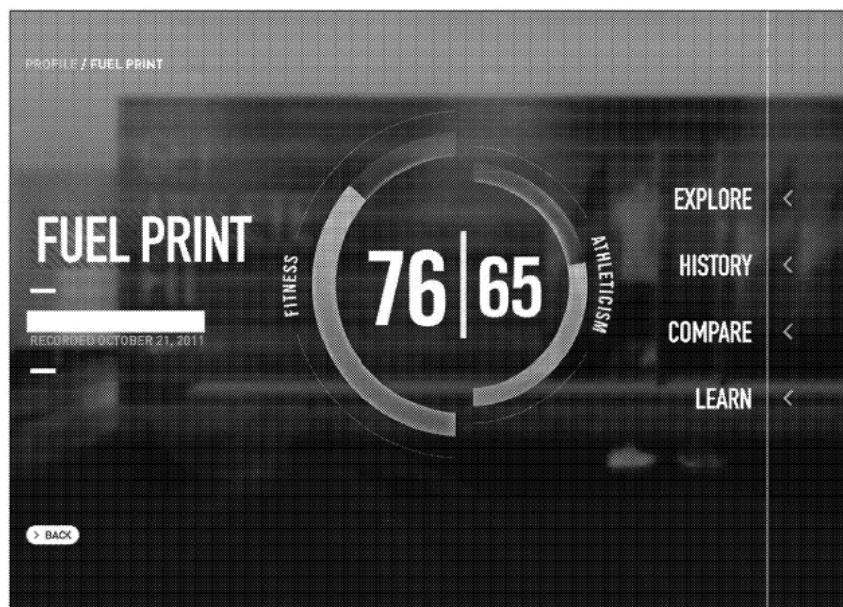


FIGURE 12

Id., Fig. 12.

In operation, the apparatus “instruct[s] a user to perform an athletic movement with predefined criteria.” *Id.*, 12:55–57; *see also id.*, 22:48–59. The apparatus monitors the user with one or more sensors while the user performs an exercise or activity, i.e., athletic movement, and determines the sub-scores and a combinatory score based on “a plurality of parameters relating to the user’s performance,” such as “form, tempo, estimated fatigue, oxygen kinetics and/or other parameters.” *Id.*, 23:7–11, 23:56–59.

The claimed method of the ’930 patent discloses determining *both* athleticism attributes *and* fitness attributes based on a single “athletic movement.” *See id.*, 23:25–7, 23:31–33. These attributes are “detected, measured, and/or calculated”

and then used to determine fitness and athleticism sub-scores, which are then used to calculate the combined fitness-athleticism sub-score. *See id.*, 23:33–36, 22:23–31. “[E]xample fitness attributes may include, but are not limited to: endurance, flexibility, strength and combinations thereof.” *Id.*, 23:36–38. “[E]xample athleticism attributes may include, but are not limited to: speed, agility, reaction, power, balance, and combinations thereof.” *Id.*, 23:39–41.

The ’930 patent defines an “athletic movement” as “includ[ing] movements relating to fitness, exercise, flexibility, including movements that may be part of one or more single and multiple participant athletic competitions, exercise routines.” *Id.*, 4:7–11. In the context of the ’930 patent specification, the term “athletic movement” is used interchangeably with the terms “exercise” or “activity.” *See e.g.*, Ex. 1001, 8:37–38 (“Device 226 may monitor athletic movements of a user, including all day activity.”); 10:19–20 (“While exercising, the system 100 may use one or more techniques to monitor user movement.”); 12:55–67 (“one or more embodiments may instruct a user to perform an athletic movement with predefined criteria” including “prompt[ing] a user to perform one or more exercises” or “a single athletic activity.”); 13:43–44 (“For a movement or series of movements (such as an exercise routine)...”); 22:51–54 (“embodiments may include prompting a first user ... to perform athletic movements, including completing at least one drill and/or exercise.”).

Claim 1 is an independent claim from which all other Challenged Claims depend. Independent claim 1 is reproduced below with limitations 1A–1I identified:

1. A computer-implemented method comprising:
 - [1A] providing first instructions to a user to perform a first athletic movement;
 - [1B] receiving, from a sensor, first activity data representing the first athletic movement;
 - [1C] calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score;
 - [1D] providing, in response to a triggering event, second instructions to the user to perform a second athletic movement;
 - [1E] receiving, from the sensor, second activity data representing the second athletic movement;
 - [1F] calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score,
 - [1G] wherein the first and the second combinatory fitness-athleticism scores each comprise a fitness sub-score and a separate athleticism sub-score of the user,
 - [1H] wherein the fitness sub-score is calculated, by the processor, using one or more of an endurance fitness attribute, a flexibility fitness attribute and a strength fitness attribute of the user, and
 - [1I] wherein the athleticism sub-score is calculated, by the processor, using one or more of a speed athleticism attribute, an agility athleticism attribute, a reaction athleticism attribute, a power athleticism attribute and a balance athleticism attribute of the user.

Id., 26:16–42.

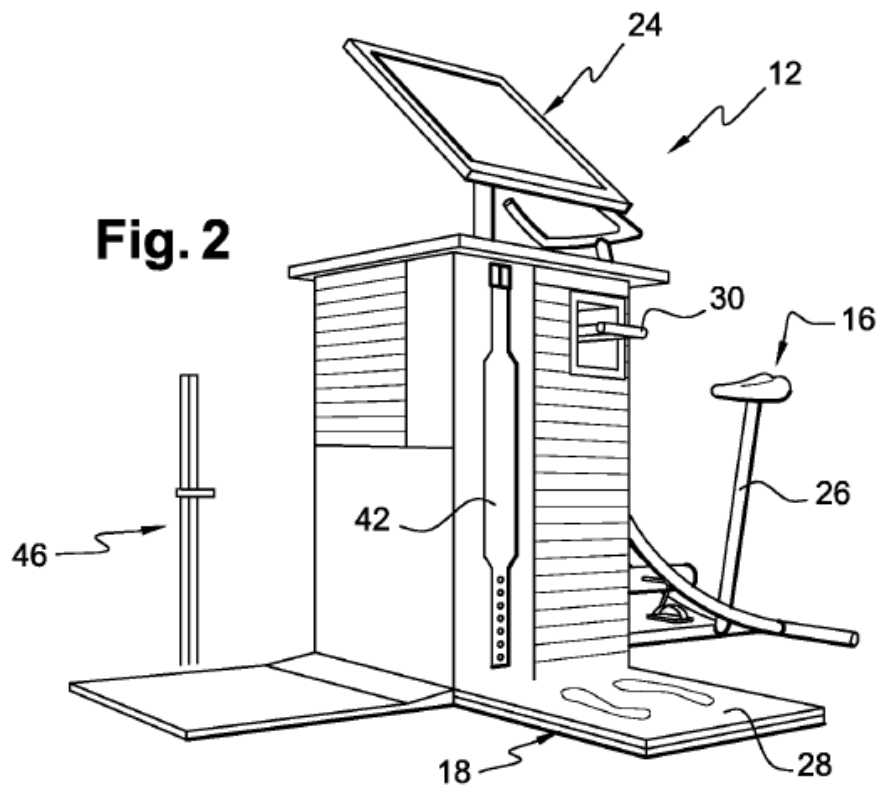
III. OVERVIEW OF THE PRIOR ART

A. Lofi

Lofi (Ex. 1002) is directed to a device that evaluates a user's physical fitness by administering a series of tests. *See* Ex. 1002, 30:1–3.¹ According to Lofi, individuals interested in their physical fitness historically relied on a “competent person” to conduct a physical evaluation because it was difficult to evaluate physical fitness “autonomously and reliably.” *See id.*, 30:4–31:12.

Lofi purports to overcome this difficulty by providing the “one-stop” device or “terminal,” shown in Figure 2 below.

¹ Nike cites to the exhibit page numbering stamped at the bottom right-hand side of the PDF of Lofi (Ex.1002). The English document begins at page 28.



Id., Fig. 2. “This terminal makes it possible, in a reduced space, to collect [] different measurements” from a person using the terminal and “facilitate[s] the evaluation of their physical fitness, autonomously and with reliability.” *Id.*, 38:18–20. To do so, the terminal prompts a user to perform a series of exercises, and measures data during the performance of those exercises to evaluate a user’s endurance, body composition, muscular strength, and coordination or motricity. *Id.*, 31:13–25. The terminal then determines a single score for each exercise by comparing the measured value with a “distribution curve corresponding to the person’s population group.” *Id.*, 31:23–25.

Lofi discloses that “terminal 12” has a “means of measurement.” *Id.*, 32:21–22. Specifically, “terminal 12” provides (1) a “means 16 of measurement of endurance”; (2) a “means 18 of measurement of body composition”; (3) a “means 20 of measurement of muscular strength”; and (4) a “means 22 of measurement of . . . coordination or motricity.” *Id.*, 32:21–26. The terminal (12) further includes a “screen 24 and/or keyboard” to enable the user to input data. *Id.*, 32:23–33:2.

Lofi’s terminal (12) instructs the user to perform a series of tests for evaluating the four categories listed above. *Id.*, 40:9–18. For example, in determining muscle strength, the device instructs the user to contract their abdominal muscles while wearing abdominal belt 42 and “[t]he belt then transmits a signal proportionate to the effort exerted by the abdominal muscles” to the device. *Id.*, 36:4–7. As another example, to measure flexibility, the device instructs the user to “stand on a heightened pedestal,” and then to “bring [a] pallet to as low as possible, bending forwards without giving way to their legs.” *Id.*, 36:20–37:4. Lofi describes other test prompts given to users such as pedaling, gripping, balancing on one foot, etc. *Id.*, 33:7–38:17.

After measuring the user’s performance data during each individual test, the device compares the collected data with a “distribution curve corresponding to the [user’s] population group,” and “allocate[s] a score to the [user]” for each individual test. *Id.*, 31:23–25, 39:16. A user’s “physical fitness” score is then calculated by

averaging that user's scores for each of the individually measured criteria, i.e., body composition, endurance, muscular strength, and motricity. *Id.*, 39:17–25. Lofi's device generates only one criteria score for each test activity. *Id.*

B. Maeueler

Maeueler (Ex. 1003) is directed to “a fitness test system for determining a fitness test result that is indicative of a user's physical fitness.” Ex. 1003, [0001]. Maeueler discloses that “[i]t would be desirable to be able to use such a system in a home setting or in another setting where expert guidance is unavailable, while still maintaining a high level of confidence in the obtained results.” *Id.*, [0006]. The fitness test system includes “a computing module for accessing a collection of fitness tests” and “one or more peripheral devices . . . adapted to measure one or more input parameters.” *Id.*, [0007]. As depicted in Figure 2, Maeueler discloses three peripheral devices containing one or more sensors: a handheld computing device (20); an exercise mat (21); and a distance detecting device (22).

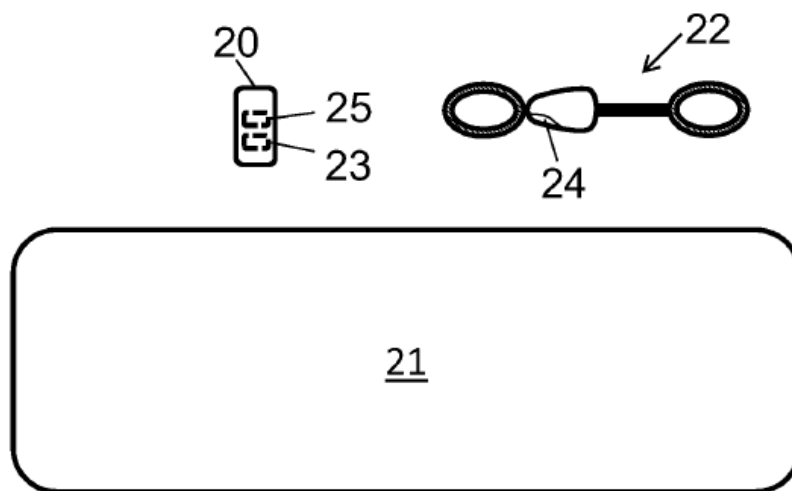


FIG. 2

Id., Fig. 2.

Maeueler's system conducts tests related to five "components of physical fitness": "cardiovascular endurance, muscle strength, flexibility, balance, and body composition." *Id.*, [0004], [0010]. To test one of these five components, Maeueler's system instructs the user to perform a single, discrete exercise. *Id.*, [0019]. As the user performs an exercise associated with a particular "component of physical fitness," a peripheral device measures "one or more input parameters" to determine a fitness test result. *Id.* For example, Maeueler discloses a run test to determine the "cardiovascular endurance." As another example, Maeueler discloses a Stork balance test to determine "balance." *Id.* at [0031], [0044]. Maeueler's system calculates only one "component of physical fitness" per exercise. *Id.* Maeueler's

system does not calculate more than one “component for physical fitness” from a single exercise. *Id.*

C. Kitagawa

Kitagawa (Ex. 1004) is directed to a “system for measuring a person’s age on the basis of his/her physical strength.” Ex. 1004, Abstract. Kitagawa discloses that a user’s physical-strength age is calculated based on the time it takes the user to complete one or more exercise courses. *See id.*, 8:43–9:20. Kitagawa does not disclose any other types of data that factor into this calculation.

Kitagawa’s system requires an exercise course including a series of obstacles and/or equipment for facilitating exercise movements “in a recreational facility.” *Id.*, 1:15–18. For example, the exercise course may feature “multiple logs . . . installed at a predetermined height” and “a structure, arranged in the middle of the passageway, that has a low ceiling.” *Id.*, 2:46–53. Or, the course may include “a meandering, upward-sloped passage way” for “climbing up and jumping down; jumping over; crawling up and running down; or climbing while avoiding obstacles.” *Id.*, 2:54–60. Kitagawa explains that “[i]t is preferable that said exercise courses be accommodated in a long dome made of polystyrene foam.” *Id.*, 3:52–53.

Kitagawa describes that the “exercise courses are formed so that the user demonstrates various physical abilities, including muscle strength at multiple portions of his/her body, flexibility of the body, balance of the body, and agility of

the body.” *Id.*, Abstract. Each of Kitagawa’s obstacle courses is characterized by a predefined (i.e. not measured or calculated) “index of the amount of exercise that a user performs.” *Id.*, 3:54–67. And each course has its own predefined index values as shown below in Table 3:

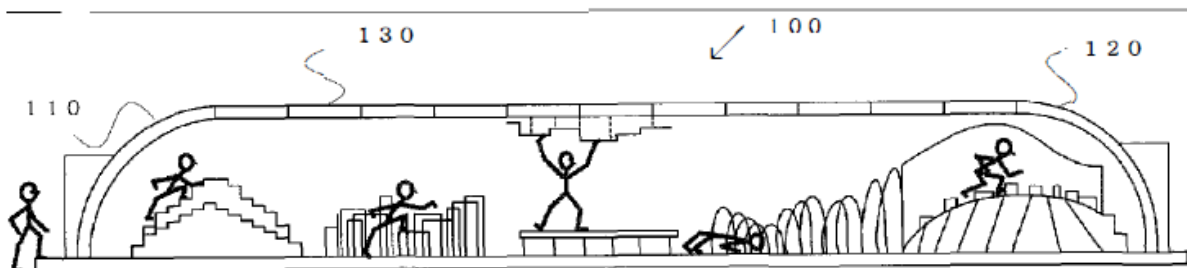
TABLE 3

Course	Legs	Arms	Flexi- bility	Balance	Agility	Intelli- gence
Log Range	6	4	9	10	4	6
Climb of Grief	7	6	6	6	8	6
Divided Pathway	7	2	9	9	9	2
Road of Torsion	7	3	6	10	5	3
Wall of Stagnation	4	8	7	7	4	4
Cave of Bones	4	5	10	7	4	4
Stretch with Hanging Rings	4	6	10	3	5	2

Id., Table 3.

An exercise course is depicted below in Figure 18. Kitagawa discloses that Figure 18 shows a “longitudinal sectional view of the inside of the long dome 100 in which the exercise courses are accommodated.”

Fig. 18



Id., Fig. 18, 13:4–6.

In operation, Kitagawa teaches that a user must first check in at a service

counter with an application to use the system. *Id.*, 8:31–42. Before performing the series of obstacles, the user measures and provides the system with certain physiological measurements, including blood pressure, pulse rate, and bending-forward distance. *Id.*, 8:31–42. These measurements aid in determining whether the user’s physical condition is good enough to participate in the course. *Id.*; *see also id.*, Fig. 2. The user is then given a stopwatch to manually record on a scorecard how long it took to complete each obstacle course. *Id.*, 8:43–52. At the completion of the course(s), the user submits the scorecard at the service counter to have his or her physical-strength age calculated. *Id.*, 8:56–61. Although Kitagawa also describes that a user records his or her pulse rate at the beginning and ending of each course, pulse rate does not factor into the calculation of physical-strength age. Pulse rate is instead used to “ensure that the user refrains from exercising excessively.” *Id.*, 8:46–49.

IV. LEGAL STANDARDS

lululemon has “the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e); *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1375 (Fed. Cir. 2016).

A. Anticipation

Anticipation under 35 U.S.C. § 102 requires proof that “the four corners of a single, prior art document describe every element of the claimed invention” in the

same specific “arrange[ment] as in the claim.” *See Net MoneyIN, Inc., v. Verisign, Inc.*, 545 F.3d 1359, 1371 (Fed. Cir. 2008). To be anticipatory, a reference must not only explicitly or inherently disclose every claimed feature, but those features must also be “arranged as in the claim.” *Id.*, 1369–71. A claim feature is only inherent if it is necessarily present. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002); *Allergan, Inc. v. Apotex Inc.*, 754 F.3d 952, 961 (Fed. Cir. 2014) (finding no inherent anticipation where something “may” happen). “[D]ifferences between the prior art reference and a claimed invention, however slight, invoke the question of obviousness, not anticipation.” *Net MoneyIN*, 545 F.3d at 1371.

B. Obviousness

Obviousness under 35 U.S.C. § 103(a) requires that “the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made” to a skilled artisan. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). An obviousness determination must be based on four factual inquiries: (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) objective indicia of nonobviousness. *Id.*, 406 (citing *Graham v. John Deere Co. Kan. City*, 383 U.S. 1, 17-18 (1996)). A party alleging obviousness is “required to place themselves in the minds of those of

ordinary skill in the relevant art at the time the invention was made, to determine whether that which is now plainly at hand would have been obvious at such earlier time.” *Millennium Pharms., Inc. v. Sandoz Inc.*, 862 F.3d 1356, 1367 (Fed. Cir. 2017) (citation omitted).

An obviousness determination “cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at 418 (“[I]t can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.”); *see also Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1342 (Fed. Cir. 2020) (affirming Board’s finding of nonobviousness where petitioner’s contentions were “based on attorney argument rather than evidence in the record”). In addition to motivation to combine, lululemon must show a reasonable expectation of success in making a prior art combination. *See Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367 (Fed. Cir. 2016).

lululemon cannot rely on conclusory statements or blanket assertions of common sense to fill gaps and missing limitations from the prior art. *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362–63 (Fed. Cir. 2016). “It is not the Board’s job to cobble together assertions from different sections of a petition or citations of various exhibits in order to infer every possible permutation of a petitioner’s arguments.”

Microsoft Corp. v. FG SRC, LLC, 860 Fed. App’x 708, 713 (Fed. Cir. 2021).

lululemon’s obviousness arguments “must be made with particularity, not opacity.”

Id.

V. PERSON OF ORDINARY SKILL IN THE ART

For purposes of this Response, Nike does not dispute lululemon’s proposed level of skill in the art. Petition, 13.

VI. CLAIM CONSTRUCTION

In its Institution Decision, the Board asked the parties to submit proposed constructions for the “first athletic movement,” “first instructions,” and “first activity data.” DI, 20. All three terms appear in claim 1 of the ’930 patent.² Nike addresses each of these limitations in turn below.

A. “[first/second] athletic movement”

Nike agrees with the Board’s observation that “the ’930 patent defines an ‘athletic movement.’” DI, 18. But Nike respectfully disagrees with the Board’s preliminary finding that “multiple ‘movements,’ exercises, or drills may constitute a ‘first athletic movement.’” DI, 19. Instead—for at least the following two reasons—the “athletic movement” recited in claim 1 of the ’930 patent refers only to a *single* “athletic movement.”

² Nike’s proposed constructions of the terms “first activity data,” “first instructions,” and “first athletic movement” apply equally to the terms “second activity data,” “second instructions,” and “second athletic movement,” respectively.

1. The inventors' use of "athletic movement" and "athletic movements" in different embodiments shows that the inventors used "athletic movement" to refer only to a *single* athletic movement

The inventors' use of the both "athletic movement" and "athletic movements" in the specification demonstrates that they intentionally used "athletic movement" to refer to only to a *single* athletic movement. The specification discloses certain embodiments including a singular "athletic movement" and other embodiments including plural "athletic movements." *Compare* Ex. 1001, 12:55–57 ("With reference again to FIG. 3, in block 304, one or more embodiments may instruct a user to perform ***an athletic movement*** with predefined criteria.") (emphasis added), *with* 22:51–54 ("[E]mbodiments may include prompting a first user, such as user 124 shown in FIG. 1, to perform ***athletic movements***, including completing at least one drill and/or exercise.") (emphasis added); Ex. 2004, ¶37. The inventors similarly distinguished between singular and plural versions of other related terms like "movement" and "exercise." For example, the specification differentiates between "a movement" and a "series of movements (such as an exercise routine)." Ex. 1001, 13:43–44. As another example, the inventors disclose embodiments that involve a "single exercise," and other embodiments that involve multiple exercises, i.e., "a first exercise" and a "second exercise":

In another embodiment, at least a first exercise may be designed to specifically test attributes of athleticism and at least a second exercise may be utilized to specifically test

attributes of fitness. In yet another embodiment, a single exercise may be utilized to measure at least one athleticism attribute and at least one fitness attribute.

Ex. 1001, 23:25–33.

A claim construction of “athletic movement” that “renders [these] differences between the singular and the plural teams superfluous” is improper. *Aug. Tech. Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1284 (Fed. Cir. 2011). The inventors clearly understood the difference between an embodiment with a single “athletic movement” and an embodiment with multiple “athletic movements.” Ex. 2004, ¶37. But in claim 1, they chose to claim the invention by using the singular “athletic movement.” *See, e.g.*, Ex. 1001, 26:17–18 (“providing first instructions to a user to perform a first athletic movement”), 26:19–20 (“receiving, from a sensor, first activity data representing the first athletic movement”). The Board should not depart from the inventors’ chosen language, which recites calculating the combinatory score based on a singular “athletic movement.” *See Lupin Ltd. v. Abbott Lab’ys*, 484 F. Supp. 2d 448, 455 (E.D. Va. 2007) (citing *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1301–1302 (Fed. Cir. 1999)).

2. The inventor’s lexicography of “athletic movement” shows that the term refers only to a *single* athletic movement

The inventors’ lexicography of “athletic movement” demonstrates that the term “athletic movement” in claim 1 refers only to a *single* athletic movement. The ’930 specification discloses:

As used herein, an “athletic movement” *includes movements* relating to fitness, exercise, flexibility, including movements that may be *part of* one or more single and multiple participant athletic competitions, exercise routines, and/or combinations thereof.

Ex. 1001, 4:7–11 (emphasis added). A POSITA reading this lexicography in view of the intrinsic record would have understood two things. First, a POSITA would have understood that the inventors defined “athletic movement” to “include” only a certain type of “movements.” Ex. 2004, ¶38. In other words, an “athletic movement” is one selected from a specific class of movements, i.e., “movements relating to fitness, exercise, flexibility.” *Id.* Second, a POSITA would have understood that the inventors defined “athletic movement” as only “part of” an “exercise routine” or “athletic competition.” *Id.* In other words, an “athletic movement” is a single movement or exercise that—when combined with one or more other “athletic movements”—may create an “exercise routine” or “exercise competition.” *Id.* For these reasons, the inventors’ lexicography confirms that an “athletic movement” as recited in claim 1 of the ’930 patent refers to a *single* “athletic movement.”

The sentence in the abstract cited by the Board does not counteract Nike’s proposed construction for this term. *See* DI, 18. The abstract of the ’930 patent states that “[t]he athletic movement may comprise a plurality of drills configured to test a plurality of fitness attributes and/or a plurality of athleticism attributes of the user.” DI, 18 (citing Ex. 1001, Abstract). As a preliminary matter, the Board should not conclude that this sentence in the abstract outweighs the many other aspects of the

specification discussed above. *See* 37 C.F.R. § 1.72(b) (2002) (“The purpose of the abstract is to enable the Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract shall not be used for interpreting the scope of the claims.”); *Sprint Commc’ns Co. L.P. v. Comcast Cable Commc’ns LLC*, No. 11-2684, 2014 WL 5089402, at *38 (D. Kan. Oct. 9, 2014) (“the abstract, by itself, has limited usefulness in interpreting the scope of the claims”). But in any event, this sentence does no more than describe a class of movements that fall within the scope of an “athletic movement”—just like the inventors’ lexicography discussed above. Ex. 2004, ¶39. At most, a POSITA would understand this sentence to mean that an athletic movement may be selected from a class of drills that are configured to test a plurality of fitness attributes and/or a plurality of athleticism attributes of the user. *Id.*

Based on the foregoing, the term “athletic movement” in claim 1, when properly viewed in light of the specification, means a *single* “athletic movement.” Ex. 2004, ¶40. The “athletic movement” of claim 1 may include a single type of exercise or athletic activity, such as running, pushups, squats, or cycling. *See* Ex. 1001, 23:61–64 (testing both endurance (i.e., fitness attribute) and power (i.e., athleticism attribute) from vertical jumps). Ex. 2004, ¶40. These individual movements may include multiple coordinated bodily movements, like the way a

runner coordinates the motions of their arms and legs. *Id.*. But a single “athletic movement” as recited in claim 1 of the ’930 patent does not include a user performing a series of different discrete “athletic movements” or exercises. *Id.*

B. “[first/second] instructions”

The term “instructions” as recited in the claims, should be given its ordinary and customary meaning. A POSITA at the relevant time would have understood the ordinary and customary meaning of this term to be “instructions provided to a user to perform an athletic movement with predefined criteria.” Ex. 2004, ¶41. Thus, instructions are provided to a user to perform a single type of exercise or activity. This proposed construction is supported by the intrinsic record and the plain language of the claims. *See, e.g.*, Ex. 1001, 12:54–67 (“[O]ne or more embodiments may instruct a user to perform an athletic movement with predefined criteria.”); 26:17–18 (“providing first instructions to a user to perform a first athletic movement”).

C. “[first/second] activity data”

The term “activity data” as recited in the claims, should be given its ordinary and customary meaning. A POSITA at the relevant time, and in light of the plain language of the claims, would have understood the ordinary and customary meaning of this term to be “data, received from a sensor, that represents the [first/second] athletic movement.” Ex. 2004, ¶42; *accord* Ex. 2005, 72:4-8. The “activity data”

recited in claim 1 must (i) derive from a *single* “athletic movement” (*see supra* Section VI.A) performed in response to “[first/second] instructions” (*see supra* Section VI.B) and (2) include separate measurements of both fitness and athleticism. This proposed construction is consistent with the intrinsic record and the plain language of the claims. *See, e.g.*, Ex. 1001, 1:57–59 (“The apparatus may include a sensor configured to capture data related to the movement of the ... user.”); 11:27–28 (“Sensor data may be received at a computer ...”); 26:19–20 (receiving, from a sensor, first activity data representing the first athletic movement”).

VII. LULULEMON FAILS TO SHOW THAT ANY CHALLENGED CLAIM IS UNPATENTABLE UNDER ANY OF GROUNDS 1–3

Under the proper constructions of “[first/second] athletic movement” and “[first/second] athletic data,” lululemon cannot show, for any Ground, that any Challenged Claim of the ’930 patent is unpatentable. Each ground suffers from the same fatal flaw: none of the cited art, either alone or in combination, teaches or suggests calculating *both* a fitness sub-score and a separate athleticism sub-score (and thus a combinatory fitness-athleticism score) from a *single* “athletic movement.” Instead, the primary references, Lofi and Maeueller, only teach the calculation of multiple scores based on a series of different exercises, i.e., *plural* athletic movements. This point of distinction is dispositive.

Combining Kitagawa with Lofi or Maeueller does not cure the deficiencies of Lofi and Maeueller. lululemon appears to recognize that neither Lofi nor Maeueller

disclose calculating both fitness and athleticism scores based on data measured from a single “athletic movement,” and thus argues that it would have been obvious to combine Kitagawa’s “simultaneous monitoring” of multiple attributes with Lofi or Maeueller. This cannot be the case because, as discussed below, Kitagawa does not simultaneously monitor multiple attributes. Kitagawa also does not use any monitored “athletic data” to calculate a user’s performance scores.

For at least these reasons and those discussed below, lululemon fails to show by a preponderance of the evidence that any ground anticipates or renders obvious any Challenged Claim.

A. Ground 1: lululemon Fails To Demonstrate That Lofi Anticipates Claims 1 and 5–7

lululemon fails to show that Lofi anticipates Claim 1, and thus any Challenged Claim, as it fails to show that Lofi discloses calculating a combinatory score based on “athletic data” representing an “athletic movement,” under the proper construction of those terms. As explained in Section VI.C above, the claimed “activity data” is derived from a single “athletic movement,” where an athletic movement is a single type of exercise or activity. Lofi merely describes a conventional method using data obtained from a series of different exercises performed by a user to generate a combinatory score. Thus, Lofi does not disclose each and every limitation of claim 1, as required for anticipation.

lululemon does not even argue that Lofi’s series of discrete exercises meets

the recited “athletic movement.” For example, lululemon’s expert instead opines—contrary to Lofi’s disclosure—that data measured from individual exercises generates both a fitness and an athleticism sub-score. For purposes of Ground 1, lululemon tacitly agreed with Nike’s construction of “athletic movement,” i.e., that it only includes a single type of exercise or athletic activity, and stretched Lofi beyond its limits to meet that construction.

lululemon further fails to show that Lofi anticipates dependent claim 7, specifically with regard to the first and second instructions including a “predefined ordering of drills.”

lululemon thus fails to show that Lofi anticipates any Challenged Claim.

1. lululemon fails to show Lofi discloses “calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score” (Limitation 1C)

lululemon fails to show by a preponderance of the evidence that Lofi discloses limitation 1C, which recites calculating a “combinatory fitness-athleticism score” based on “the first activity data.” As discussed in Section VI.C above, the “first activity data,” is “data, received from a sensor, that represents the first athletic movement.” And as further discussed in Section VI.A, a “first athletic movement,” is a *single* “athletic movement,” which consists of a single type of exercise or athletic activity. Thus, the “first activity data” in limitation 1C is measured from a *single* athletic movement, namely the “first athletic movement.” Ex. 1001, 26:17–18. That

“first activity data” is then used to calculate both a “fitness sub-score” and an “athleticism sub-score,” which are in turn used to calculate the “combinatory fitness-athleticism score.” In other words, the “first activity data” recited in claim 1 must (i) derive from a *single* “athletic movement” performed in response to the “first instructions,” and (ii) include separate measurements of both fitness and athleticism. Ex. 2004, ¶58.

The “first activity data” that lululemon identifies in Lofi is different. lululemon begins by identifying the “first athletic movement” as any *one* of the multiple distinct tests disclosed by Lofi. Petition, 16–17. For example, lululemon alleges that “pedaling represents a first athletic movement.” *Id.*, 16. As another example, lululemon alleges that the “balance test” disclosed in Lofi is “a first athletic movement.” *Id.*, 17; *see also id.*, 16 (“[e]ach of these tests qualify as a first athletic movement”); Ex. 1005, ¶¶54–59. But each of these tests is a single “athletic movement” that yields only a single measurement. The “activity data” from any one “athletic movement” of Lofi does not yield both a fitness sub-score *and* an athleticism sub-score. Rather, the “activity data” from each alleged “athletic movement” is only capable of yielding a fitness sub-score *or* an athleticism sub-score. Ex. 2004, ¶59.

lululemon relies on the expert testimony of Dr. Fischer to support its argument that Lofi yields both a fitness sub-score and an athleticism sub-score. But Dr.

Fischer’s opinions are belied by Lofi itself. For example, Dr. Fischer opines that Lofi’s 8-minute pedaling test assesses both endurance *and* power. Ex. 1005, *Id.*, ¶64. But the pedaling test measures only one attribute that is used in the calculation of an aggregate score: endurance. *See id.*, 39:16–25. Lofi never discloses a calculation of power. Ex. 2004, ¶60. In fact, Lofi never once mentions “power” anywhere in its disclosure. *See* Ex. 1002, 33:7–23. Lofi only discloses that an endurance measurement is expressed as a “maximum oxygen consumption,” using Watts as the unit of measurement. *Id.* Dr. Fischer offers a similar opinion on Lofi’s test for measuring lower limb strength. Ex. 1005, ¶50. Dr. Fischer claims that Lofi’s strength test assesses both strength *and* power. *Id.* But once again, Lofi never mentions “power.” *Id.* As a matter of law, Dr. Fischer’s testimony cannot fill these gaps in Lofi’s reference. *See Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991)) (In an anticipation analysis, “[t]he role of extrinsic evidence is to educate the decision-maker to what the reference meant to persons of ordinary skill in the field of the invention, not to fill gaps in the reference.”) (*overruled* on other grounds by *Abbott Labs. v. Sandoz, Inc.*, 566 F.3d 1282 (Fed. Cir. 2009); *see also Advanced Fiber Tech. v. J&L Fiber Servs.*, 674 F.3d 1365, 1374 (Fed. Cir. 2012).

lululemon also fails to meet its burden on this claim limitation because the “first activity data” identified by lululemon is not derived from a single “athletic

movement” performed in response to “first instructions.” Instead, the purported “first activity data” identified by lululemon is obtained by measuring a series of athletic activities performed in response to different sets of instructions. *See* Ex. 1005, ¶66 (opining that “a user may be provided with *a first set of instructions* to complete the strength test” where “corresponding activity data related to this movement is collected” and then “[u]pon completion of the strength test, a user may be *subsequently instructed* to commence a balance test”) (emphasis added). Because the activities identified by lululemon are performed in response to different instructions, they are not part of the same “athletic movement” as required by claim 1. Ex. 2004, ¶61. In other words, by responding to a different instruction at a different time, the user is performing a different “athletic movement.” *Id.* Thus, lululemon cannot show that Lofi discloses calculating “a first combinatory fitness-athleticism score” from the “first activity data.”

For all of these reasons, lululemon has not shown by a preponderance of the evidence that Lofi anticipates any Challenged Claim in Ground 1.

2. lululemon fails to show Lofi discloses “calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score” (Limitation 1F)

lululemon fails to show by a preponderance of the evidence that Lofi discloses limitation 1F, i.e., calculating a “second combinatory fitness-athleticism score” based on “the second activity data.” As discussed in Section VI.C above, the “second

activity data,” is “data, received from a sensor, that represents the second athletic movement.” And as discussed in Section VI.A, a “second athletic movement,” is a *single* “athletic movement,” which consists of a “single type of exercise or athletic activity. Thus, the “second activity data” in limitation 1F—just like the “first activity data” in limitation 1C—is measured from a *single* “athletic movement,” namely the “second athletic movement.” Ex. 1001, 26:26–27. That “second activity data” is then used to calculate both a “fitness sub-score” and an “athleticism sub-score,” which are in turn used to calculate the “second combinatory fitness-athleticism score.” *Id.*, 26:28–33. In other words—just like the “first activity data” in limitation 1C—the “second activity data” recited in claim 1 must (i) derive from a *single* “athletic movement” performed in response to “second instructions” and (ii) include separate measurements of both fitness and athleticism. Ex. 2004, ¶62.

The “second activity data” that lululemon identifies in Lofi is different because it does not include measurements of both fitness and athleticism based on a *single* “athletic movement.” As an initial matter, lululemon’s argument should be rejected because the argument is unclear and lacks particularity. lululemon does not clearly indicate whether the “second activity data” it identifies in Lofi is derived from an individual test or a series of tests. *See* Petition, 24. This alone warrants rejection of lululemon’s argument. *Sinjimoru v. Geneze Innovation Inc.*, IPR2021-00493, Paper 8 at 11 (PTAB July 28, 2021) (rejecting grounds for lack of

particularity). Setting this ambiguity aside, lululemon’s argument fails under either scenario. Each test administered by Lofi yields only a single measurement. Ex. 1002, 33:7–38:6. If lululemon’s argument relies on a single test in Lofi, the measured data from that test cannot yield both a fitness score *and* an athleticism score. Rather, the measured data from each individual test is only capable of yielding a fitness score *or* an athleticism score—not both. *See id.*; Ex. 2004, ¶63. If lululemon’s argument relies on the series of tests disclosed in Lofi—i.e., multiple athletic movements—then any data derived from that series of tests is not “based on the second activity data.” *See id.*; Ex. 2004, ¶63. For these reasons, lululemon has failed to show that Lofi discloses “calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score,” as recited in limitation 1F.

Thus, lululemon has not shown by a preponderance of the evidence that Lofi anticipates any Challenged Claim in Ground 1.

3. lululemon fails to show Lofi discloses “wherein the first instructions and the second instructions include a predefined ordering of drills that are configured to be provided to the user during a single workout session” (Claim 7)

lululemon has not shown by a preponderance of the evidence that Lofi discloses claim 7, which recites “wherein the first instructions and the second instructions include a predefined ordering of drills that are configured to be provided to the user during a single workout session.” Ex. 1001 26:61–64. Instead, lululemon argues that “Lofi teaches a series of tests in a single workout session,” and each test

has a “duration of approximately 15 minutes.” Petition, 26–27. Then, lululemon concludes that “the order of the tests is determined prior to commencing the workout session.” *Id.*, 27. But lululemon points to no disclosure in Lofi nor expert testimony on this point. *See id.*, 26–27. The reason is simple: Lofi is silent as to any particular ordering of the tests within its series of tests. Thus, lululemon has not shown that Lofi anticipates claim 7. *See Net MoneyIN*, 545 F.3d at 1371 (anticipation requires that “the four corners of a single, prior art document describe every element of the claimed invention”); *Cont’l Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) (discussing that “missing descriptive matter” in an anticipation reference must be “necessarily present.”); Ex. 2004, ¶64.

B. Ground 2: lululemon Fails To Show The Lofi-Kitagawa Combination Renders Obvious Claims 1 and 5-7

lululemon has not shown that Lofi in view of Kitagawa discloses or suggests any Challenged Claim. For claim 1, the “first activity data” identified by lululemon, i.e., data collected from Lofi’s abdominal contraction test, does not yield both a fitness and an athleticism sub-score. lululemon’s combination of Kitagawa with Lofi to teach a “first combinatory fitness-athleticism score” based on the first activity data is likewise deficient. lululemon never identifies “activity data” measured in Kitagawa and used to calculate a “combinatory score.” The reason is simple: Kitagawa does not use any “activity data” to generate its “physical strength age.”

Kitagawa does not use any measured data that represents the first “athletic movement.” *See supra* § VI.C.

Further, for dependent claim 7, lululemon provides only conclusory argument without any rationale or support from expert testimony, to show that it would have been obvious to incorporate Kitagawa’s “predefined ordering of drills” into Lofi’s fitness testing process.

lululemon thus fails to show that Lofi in view of Kitagawa renders obvious any Challenged Claim.

1. lululemon fails to show Lofi in view of Kitagawa discloses or suggests “calculating with a processor, based on the first activity data, a first combinatory fitness-athleticism score” (Limitation 1C)

lululemon fails to show that Lofi in view of Kitagawa discloses or suggests limitation 1C, which recites calculating a “combinatory fitness-athleticism score” based on “the first activity data.” lululemon’s arguments fail for two reasons.

First, as described above with respect to this limitation in Ground 1, Lofi does not calculate “a first combinatory fitness-athleticism score” based on “first activity data.” *See supra*, § VI.C. The “first activity data” recited in claim 1 must (i) derive from a *single* “athletic movement” performed in response to “first instructions,” and (2) include separate measurements of both fitness and athleticism. *Id.* But the purported “first activity data” that lululemon identifies in Lofi does not serve as the basis for measuring attributes of both fitness and athleticism. In its discussion of

limitation 1B, lululemon alleges that Lofi’s “first activity data” is a signal transmitted from a belt for monitoring abdominal contractions that is “proportionate to the effort exerted by the abdominal muscles.” Petition, 30–31. But this “activity data” does not yield both a fitness sub-score *and* an athleticism sub-score. Ex. 1001 26:19–22, 26:34–42 (requiring that the fitness sub-score be calculated using one or more of an endurance, flexibility, and strength attribute, and the athleticism sub-score be calculated using one or more of speed, agility, reaction, power, and balance attributes). Rather, the “activity data” from this alleged “athletic movement” only yields a fitness sub-score: muscle strength. *See* Ex. 1002, 35:24–36:9. lululemon provides no alternatives to “activity data” for this Ground. Ex. 2004, ¶67.

lululemon then changes course with its identification of “activity data” in its argument for limitation 1C. Specifically, lululemon states that the terminal in Lofi “enables collection of ‘different measurements’ corresponding to an individual’s performance on each test (e.g., activity data).” Petition, 31–32. According to lululemon, Lofi then provides an “aggregate score corresponding . . . to the weighted average of each fitness test score.” *Id.*, 33. It is unclear whether lululemon is relying on the data from each individual test, or the data from series of tests, as constituting “activity data.” *Sinjimoru*, IPR2021-00493, Paper 8, 11 (discussing that the Board regularly denies petitions that “lack particularity”). But either way, lululemon fails to meet its burden, as it cannot show that a *single* “athletic movement” yields a

“combinatory fitness-athleticism score” for the reasons described when addressing limitation 1C for Ground 1 above. Ex. 2004, ¶68.

Second, lululemon’s proposed combination of Kitagawa with Lofi fails to cure these deficiencies. lululemon argues that “it would have been obvious to a POSITA to look to Kitagawa to incorporate simultaneous monitoring of multiple physical abilities (e.g., flexibility, balance, agility) into Lofi’s fitness tests and include Kitagawa’s pulse meter to achieve this goal.” Petition, 35–36. This assertion mischaracterizes Kitagawa, as Kitagawa does not “monitor” *any* physical abilities. Kitagawa does not monitor any physical or physiological parameters of the user *while the user is performing an exercise course*. Ex. 2004, ¶¶69–71. Rather, Kitagawa discloses pre-defined indexes of the amount of exercise performed. Ex. 1004, 2:25–40. Kitagawa’s indexes are constants stored in the memory of Kitagawa’s system that do not vary by user. *See id.*, 10: 61–65 (“Table 3 shows the amounts of exercise (shown as indexes) *to be performed* ins (sic) exercise courses 1 to 7”) (emphasis added). Thus, Kitagawa does not use “activity data,” i.e., data, received from a sensor, that represents the first athletic movement, to calculate any assessment score.

lululemon also erroneously argues that it would have been obvious to “include Kitagawa’s pulse meter” into Lofi in order to meet limitation 1[C]. Petition, 35–36. But Kitagawa does not use pulse data to calculate “physical strength age.” *See* Ex.

2005, 85:23-86:8 (Q – [Are you able] to point to anywhere in Kitagawa where the user’s blood pressure, pulse rate or the degree of which they could bend over is used to calculate the physical strength age, correct? A – As I sit here today I am not aware of a specific spot within the description of Kitagawa where all of that data is used in an equation to calculate the physical strength age.). Kitagawa describes that a user records their pulse at the beginning and ending of each exercise course. Ex. 1004, 8:43–52. But the purpose of measuring pulse rate is “to help ensure that the user refrains from exercising excessively” and to “tell whether he/she has been exercising enough.” *Id.*; Ex. 2004, ¶70. The only parameter that Kitagawa discloses is used in the calculation of “physical strength age” and/or “physical ability[ies]” is the time it takes him or her to complete the exercise course(s). Ex. 1004, 9:6–10, 11:1–4.

Completion time does not constitute “activity data” as recited in the ’930 patent’s claims. *Id.* It is not sensed by a sensor, nor does it “represent the first athletic movement.” Ex. 2004, ¶71. As discussed above in Section VI.C, “activity data” is “data, received from a sensor, that represents the first athletic movement.” If two separate users were to perform one of Kitagawa’s obstacle courses and receive the same completion times, they would receive the same score. Thus, Kitagawa’s teachings are entirely independent of a user’s individualized performance.

And practically speaking, including Kitagawa’s pulse meter in Lofi’s system would not meet this limitation. Kitagawa’s pulse meter would not be used to measure

flexibility, strength, speed, agility, reaction, power, or balance. The only attribute that could arguably be measured by pulse data is endurance. There would be no need, for example, to also measure a user's pulse as they are performing abdominal contractions. Ex. 2004, ¶72.

Thus, lululemon has not shown by a preponderance of the evidence that Lofi in view of Kitagawa discloses or suggests any Challenged Claim in Ground 2.

2. lululemon fails to show Lofi in view of Kitagawa teaches or suggests “calculating, with the processor, based on the second activity data, a second combinatory fitness-athleticism score” (Limitation 1F)

lululemon fails to show that Lofi in view of Kitagawa discloses or suggests limitation 1F, which recites calculating a “second combinatory fitness-athleticism score” based on “the second activity data.”

For the same reason discussed above with respect to limitation 1F in Ground 1, lululemon has not shown that Lofi renders obvious limitation 1F. lululemon has not met its burden to show that Lofi discloses limitation 1F because the “second activity data” that lululemon identifies in Lofi does not include separate measurements of both fitness and athleticism based on a *single* athletic movement performed in response to “second instructions,” as required by the proper construction of “second activity data.” Petition, 20–22, 24, 39–41; Ex. 2004, ¶74. These same flaws undermine any argument that Lofi renders obvious limitation 1F,

and lululemon does not present any additional arguments that Lofi renders obvious limitation 1F.

Kitagawa does not cure the deficiencies in lululemon's arguments. As discussed above in Section VII.B.1, Kitagawa does not disclose the calculation of a "combinatory fitness-athleticism score" calculated with a processor based on "activity data." Kitagawa only relies on course completion time, not any data representing a user's performance during the obstacle course. Ex. 1004, 9:6–10, 11:1–4. Thus, for the same reasons Kitagawa does not teach or suggest the calculation of a first combinatory fitness-athleticism score based on first activity data (limitation 1C), Kitagawa also doesn't teach or suggest the calculation of a "second combinatory fitness-athleticism score" based on "second activity data" (limitation 1F). Ex. 2004, ¶75.

Thus, lululemon has not shown by a preponderance of the evidence that Lofi in view of Kitagawa discloses or suggests any Challenged Claim in Ground 2.

3. lululemon fails to show a motivation to combine Lofi with Kitagawa

lululemon argues "it would have been obvious to combine Lofi's monitoring of an individual's athletic activity using sensors with Kitagawa's exercises that simultaneously assess multiple physical activity attributes with a reasonable expectation of success." Petition, 27. But a POSITA would never have looked to

Kitagawa to cure Lofi’s failure to calculate combinatory scores based on data measured from a single “athletic movement.” Ex. 2004, ¶76.

Kitagawa does not use “activity data” that is received from a sensor or based on user performance when “measuring age on the basis of physical strength.” Ex. 1004, 2:14–16. Contrary to how Dr. Fischer describes Kitagawa—a “sensing system[]” for “monitor[ing] users” that “streamline[s]” “physical fitness assessments”—Kitagawa would be more aptly described as a process for self-monitoring fitness. Ex. 1005, ¶¶125–126; Ex. 2004, ¶77. As Kitagawa describes, a user must check in at a service counter to have biometric measurements taken, and take a scorecard to record their own time as they move through the exercise courses, and then return to the counter to have their age score calculated. *See id.*, 8:30–42. Kitagawa does not use any physiological user data in the calculation of the age score. Instead, Kitagawa only compares a user’s completion time against a predefined index to arrive at a score. Thus, there would have been no reason for a POSITA, looking to use sensed data to calculate fitness and athleticism scores, to turn to Kitagawa. Ex. 2004, ¶77.

Therefore, lululemon fails to show that a POSITA would have been motivated to combine Lofi and Kitagawa.

C. Ground 3: lululemon fails to show Maeueller in view of Kitagawa renders obvious claims 1, 5-7, and 12

lululemon has not shown that Maeueller in view of Kitagawa discloses or

suggests any Challenged Claim. As with Lofi, Maeueller does not teach a method of calculating *both* a fitness sub-score and an athleticism sub-score (and as a result, a “combinatory fitness-athleticism score”) that is based on “activity data,” which is derived from a *single* “athletic movement.” As such, Maeueller fails to teach the first and second “combinatory fitness-athleticism score” recited in limitations 1C and 1F. lululemon relies on Kitagawa in the alternative to teach limitation 1F, but Kitagawa does not cure the deficiencies in Maeueller for the at least the same reasons described above in Ground 2.

lululemon further fails to show that the combination of Maeueller and Kitagawa renders claim 6 obvious because Maeueller teaches, at best, measuring a single athleticism attribute (i.e. balance).

lululemon thus fails to show that Maeueller in view of Kitagawa renders obvious any Challenged Claim.

1. lululemon fails to show Maeueller teaches or suggests calculating “a first combinatory fitness-athleticism score” that is “based on the first activity data” (Limitation 1C).

lululemon fails to show that Maeueller in view of Kitagawa discloses or suggests limitation 1C, which recites calculating a “combinatory fitness-athleticism score” based on “the first activity data.” As discussed in Section VI.C, the “first activity data,” is “data, received from a sensor, that represents the first athletic movement.” And as further discussed in Section VI.A, a “first athletic movement,”

is a *single* “athletic movement,” which consists of a *single* type of exercise or athletic activity. Thus, the “first activity data” in limitation 1C is measured from a *single* athletic movement, namely the “first athletic movement.” That “first activity data” is then used to calculate both a “fitness sub-score” and a separate “athleticism sub-score,” which are in turn used to calculate the “combinatory fitness-athleticism score.” In other words, the “first activity data” recited in claim 1 must (i) derive from a *single* “athletic movement” performed in response to “first instructions,” and (ii) include separate measurements of both fitness and athleticism. Ex. 2004, ¶80.

The “first activity data” that lululemon identifies in Maeueller is different. lululemon relies on Maeueller’s disclosure of an “aggregate fitness index” calculated from activity data gathered from *multiple* athletic movements performed in response to separate instructions. Petition, 51–52. Maeueller teaches assessing health by measuring up to five “components of fitness”: “endurance, strength, flexibility, balance, and body composition.” Ex. 1003, [0004]. Maeueller teaches that each component is assessed separately by performing separate tests in response to separate instructions. Ex. 1003, [0023] (“[T]he user may also select one or more components of physical fitness and the computing module handles the selection of suitable, representative fitness tests associated to each selected component.”). For example, Maeueller teaches the “Stork balance test” to measure balance. *Id.*, [0044]. In another example, Maeueller teaches “a run test, a walk test or a step test” to

measure cardiovascular endurance and push-ups to measure muscle strength of the upper body. *Id.*, [0031], [0037]. lululemon therefore cannot identify any teaching or suggestion in Maeueler of a “combinatory fitness-athleticism score” derived from a *single* “athletic movement” performed in response to “first instructions.” Ex. 2004, ¶81.

lululemon’s reliance on Figure 5 of Maeueler highlights the insufficiency of lululemon’s position. Petition, 51–52. Pointing to Figure 5, lululemon argues that a user of Maeueler’s system “can select two components of physical fitness to assess” such as flexibility and balance. *Id.*, 52. According to lululemon, the user in Maeueler “perform[s] the exercises associated with each test” and “receive[s] a numerical fitness test result reflecting a combination of the flexibility and balance attributes being evaluated.” Petition, 52 (citing Ex. 1005, ¶94). But Figure 5 clearly shows that the “aggregate fitness index 55” is calculated based on a series of separate exercises performed in response to separate instructions—not a *single* “athletic movement”:

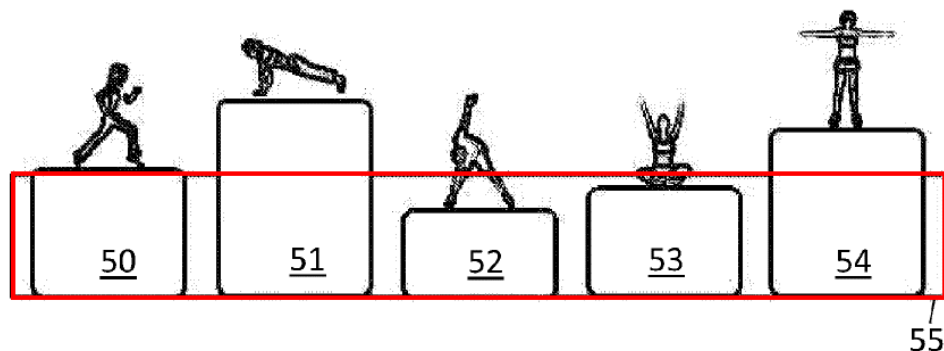


FIG. 5

Ex. 1003, Fig. 5 (annotated to show “aggregate fitness index 55”); *see also id.*, [0052] (“Each health-related component is presented by a column: cardiovascular endurance 50, muscle strength 51, flexibility 52, balance 53, body composition 54 and an aggregate fitness index 55.”). And, lululemon’s discussion of claim 1 further underscores that Maeueller uses multiple different, discrete exercises performed in response to separate instructions to generate Maeueller’s aggregate fitness index. *See* Petition at 52 (“a user can . . . perform the exercises associated with each test”), 54 (“Maeueller’s computing module receives both the collected *first activity data corresponding to the first test* (e.g., flexibility) as well as *second activity data corresponding to the second test* (e.g., balance).”); Ex. 2004, ¶82.

Thus, lululemon has not shown by a preponderance of the evidence that Maeueller in view of Kitagawa discloses or suggests any Challenged Claim in Ground 3.

2. lululemon fails to show Maeueller teaches or suggests calculating a second combinatory fitness-athleticism score” that is “based on the second activity data” (Limitation 1F)

lululemon fails to show that Maeueller in view of Kitagawa discloses or suggests limitation 1F, which recites calculating a “second combinatory fitness-athleticism score” based on “the second activity data” performed in response to “second instructions.”

As discussed in Grounds 1 and 2, the “second activity data,” as properly

construed, is “data, received from a sensor, that represents the second athletic movement.” And as discussed in Section VI.A, a “second athletic movement,” is a “*single* athletic movement, which consists of a *single* type of exercise or athletic activity.” Thus, the “second activity data” in limitation 1F—just like the “first activity data” in limitation 1C—is measured from a *single* “athletic movement,” namely the “second athletic movement.” That “second activity data” is then used to calculate both a “fitness sub-score” and an “athleticism sub-score,” which are in turn used to calculate the “combinatory fitness-athleticism score.” In other words—just like the “first activity data” in limitation 1C—the “second activity data” recited in claim 1 must (i) derive from a *single* athletic movement performed in response to “second instructions” and (ii) include separate measurements of both fitness and athleticism. Ex. 2004, ¶84.

a. Each of Maeueler’s tests yield only a single measurement

Unlike limitation 1C, where lululemon argued that the combinatory score was disclosed by two separate tests (i.e. flexibility and balance, *see* Petition, 51–52), lululemon alleges here that Maeueler’s disclosure of an exemplary endurance test teaches a first combinatory fitness-athleticism score. Petition, 55. But lululemon’s endurance test does not, by itself, yield a “combinatory fitness-athleticism score.” Ex. 2004, ¶85.

lululemon points to Maeueler’s endurance test in which “a user is instructed

to run for 12 minutes,” and alleges that “the user is monitored by one or more peripheral devices [that] collect heart rate data and speed data.” Petition, 55 (citing Ex. 1005, ¶105). According to lululemon, “Maeueler’s computing module calculates a fitness index numerical score that is a combination of the endurance and speed attributes being assessed.” *Id.* lululemon is wrong because Maeueler never teaches measuring either heart rate data or speed data during the 12-minute run test. Instead, the only “component of physical fitness” that Maeueler associates with the run test is endurance. *See* Ex. 1003, [0031]–[0036]; Ex. 2004, ¶86. And, Maeueler does not ever teach calculating a speed component as part of Maeueler’s “aggregate fitness index.” *Id.*, Fig. 5; *see also id.*, [0052]; Ex. 2004, ¶86. Thus, Maeueler’s 12-minute run test does not teach or suggest “a combinatory fitness-athleticism score” because Maeueler does not teach or suggest calculating *both* a fitness sub-score and a separate athleticism sub-score based a *single* “athletic movement” (i.e., the run test). Ex. 2004, ¶86.

The Board should disregard Dr. Fischer’s opinions concerning limitation 1F because they are merely cited in lululemon’s Petition with no further explanation. *EiKO Global, LLC v. Blackbird Tech LLC*, IPR2017-00980, Paper 16 at 23 (“Arguments that are not presented and developed in the Petition, and instead are incorporated by reference to [an expert] declaration, are not entitled to consideration.”). These include opinions that Maeueler teaches “a combination of

endurance and speed attributes,” (Petition, 55–56 (citing Ex. 1005, ¶105)) and that “[a] POSITA would understand that one or more of the tests described in Maeueller would be clustered in groups” (Ex. 1005, ¶105). According to Dr. Fischer, a group of several different tests would then be equivalent to a single “athletic movement.” *Id.* But Maeueller never discusses clustering its tests in groups. Dr. Fischer’s opinions should also be disregarded because they are conclusory. *See e.g., Xerox Corp. et al. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15–16 (PTAB Aug. 24, 2022) (precedential); *Sinjimoru*, IPR2021-00493, Paper 8 at 11. For example, rather than citing to Maeueller or providing other evidence to support his opinion that the tests described in Maeueller would be clustered in groups, Dr. Fischer merely concludes that “[d]oing so would be obvious.” Ex. 1005, ¶105.

b. Kitagawa does not cure the deficiencies of Maeueller

lululemon relies on Kitagawa in the alternative to satisfy limitation 1F. *See* Petition, 56–58. But Kitagawa does not cure the deficiencies in Maeueller because Kitagawa also fails to teach or suggest a method of calculating *both* a fitness sub-score and an athleticism sub-score (and as a result, a second “combinatory fitness-athleticism score”) based on a *single* “second athletic movement. Ex. 2004, ¶87. As discussed above, the “second activity data” recited in claim 1 must (i) derive from a *single* athletic movement performed in response to “second instructions” and (ii) include separate measurements of both fitness and athleticism.

lululemon fails to identify sub-scores based on a *single*, “second athletic movement.” lululemon points to Table 3 of Kitagawa as allegedly teaching “a second combinatory fitness-athleticism score.” *See* Petition, 57–58. lululemon alleges that the collection of “indexes” disclosed in Table 3 represent multiple fitness and athleticism sub-scores. *Id.*, 56 (citing Ex. 1004, 2:33–36). lululemon mischaracterizes Kitagawa. Kitagawa’s “indexes” are not fitness and athleticism sub-scores for two reasons. First, Kitagawa’s indexes are not “based on the second activity data” as recited in claim limitation 1F. As discussed above in Section VII.B.1, Kitagawa’s indexes are not based on any activity data because they are not based on any measured parameter at all. Ex. 2004, ¶88. Second, the indexes are not based on a *single* “second athletic movement.” Instead, Kitagawa’s indexes are representative of the amount of exercise to be performed when a user completes an *entire* exercise course. *See id.*, 10: 61–65; Ex. 2004, ¶88.

Thus, lululemon has not shown by a preponderance of the evidence that Maeueller in view of Kitagawa discloses or suggests any Challenged Claim in Ground 2.

3. lululemon fails to show a motivation to combine Maeueller with Kitagawa

Even if Kitagawa did cure the deficiencies of Maeueller (it does not), lululemon fails to show that a POSITA would have been motivated to combine Maeueller and Kitagawa to arrive at claim 1 for at least two reasons.

First, as discussed in Ground 2, Kitagawa does not use “activity data” that is received from a sensor or based on user performance when “measuring age on the basis of physical strength.” Ex. 1004, 2:14–16; Ex. 2004, ¶90. Kitagawa teaches that a user must check in at a service counter to have biometric measurements taken, and take a scorecard to record their own time as they move through the exercise courses, and then return to the counter to have their age score calculated. *See id.*, 8:30–42. Kitagawa does not use any physiological user data in the calculation of the age score. Instead, Kitagawa only compares a user’s completion time against an index to arrive at a score. Ex. 2004, ¶90. Thus, two users having different performances would obtain the same age score if they complete the obstacle course in the same time. *Id.*

Second, the proposed combination is redundant because Maeueler already solves the problem that lululemon relies on Kitagawa to solve. Ex. 2004, ¶91. The Board has held that a POSITA would not be motivated to combine references if the proposed combination is redundant. *S.-Tek Sys., LLC v. Engineered Corrosion Sols., LLC*, 748 F. App’x 1003, 1007 (Fed. Cir. 2018). lululemon alleges that “it would have been obvious to a POSITA to look to Kitagawa and incorporate Kitagawa’s simultaneous monitoring of multiple physical abilities . . . into Maeueler” and that a POSITA would have done so “[i]n order to more comprehensively understand which components need improvement.” Petition, 57–58 (citing Ex. 1005, ¶136). Kitagawa’s failure to monitor any activity notwithstanding, Maeueler already does

this. Maeueler monitors a user performing exercises so that it can “assist the user in deciding upon a direction for further workout.” *See* Maeueler, [0010]. Thus, the proposed combination is redundant because Maeueler already helps the user “to more comprehensively understand which components need improvement.” *Petition*, 57–58 (citing *Ex. 1005*, ¶136); *Ex. 2004*, ¶91.

Therefore, lululemon fails to show that a POSITA would have been motivated to combine Maeueler and Kitagawa.

4. lululemon fails to show Maeueler in view of Kitagawa discloses “wherein the first instructions and the second instructions include a plurality of drills configured to test a plurality of fitness attributes of the user and a plurality of athleticism attributes of the user” (Claim 6)

lululemon fails to show by a preponderance of the evidence that Maeueler in view of Kitagawa discloses claim 6, which recites “wherein the first instructions and the second instructions include a plurality of drills configured to test a plurality of fitness attributes of the user and a plurality of athleticism attributes of the user.” lululemon fails to show that Maeueler discloses “a plurality of athleticism attributes of the user.” Instead, lululemon identifies only a single athleticism attribute—balance. lululemon alleges that “Maeueler provides instructions for a plurality of drills, such as strength, flexibility, endurance, and balance drills.” *Petition*, 62. The ’930 patent defines strength, flexibility, and endurance as fitness attributes. *See Ex. 1001*, 26:34–37 (“wherein the fitness sub-score is calculated, by the processor,

using one or more of an endurance fitness attribute, a flexibility fitness attribute and a strength fitness attribute of the user.”). lululemon therefore only points to a single athleticism attribute, not “a plurality of athleticism attributes of the user” as recited in claim 6. Thus, lululemon has not shown that Maeucler teaches claim 6. Ex. 2004, ¶93.

VIII. CONCLUSION

lululemon fails to prove by a preponderance of the evidence that any of claims 1, 5–7, or 12 of the ’930 patent are unpatentable. Nike requests that the Board enter a final written decision affirming the patentability of those claims.

Dated: September 22, 2023

Respectfully Submitted,

/s/ Christopher J. Renk

Christopher J. Renk (Reg. No. 33,761)

Michael J. Harris (Reg. No. 62,957)

Aaron P. Bowling (Reg. No. 67,311)

Arnold & Porter Kaye Scholer LLP

Chicago, IL 60602-42310

Tel: (312) 583-2300

Fax: (312) 583-2360

Email: chris.renk@arnoldporter.com

michael.harris@arnoldporter.com

aaron.bowling@arnoldporter.com

Jessica C. Kaiser (Reg. No. 58,937)

Arnold & Porter Kaye Scholer LLP

1144 15th St. Ste. 3100

Denver, CO 80202

Telephone: (303) 863-1000

Emails: jessica.kaiser@arnoldporter.com

David C. McMullen, PhD (Reg. No. 69,922)

Lindsey C. Staubach (Reg. No. 76,738)

Arnold & Porter Kaye Scholer LLP

601 Massachusetts Ave., NW

Washington, D.C. 20001

Telephone: (202) 942-5000

Email: david.mcmullen@arnoldporter.com

lindsey.staubach@arnoldporter.com

Counsel for Patent Owner,

Nike, Inc.

CERTIFICATE OF COMPLIANCE

The undersigned certifies that this response complies with the type-volume limitations of 37 C.F.R. § 42.24(a)(1)(i). This response (including figure labels and annotations) contains 10,499 words as calculated by the “Word Count” feature of Microsoft Office 365 Word application, the word processing program used to create it, and manual counting of the annotations in the figures.

The undersigned further certifies that this response complies with the typeface requirements of 37 C.F.R. § 42.6(a)(2)(ii) and typestyle requirements of 37 C.F.R. § 42.6(a)(2)(iii). This response has been prepared in a proportionally spaced typeface using Microsoft Office 365 Word application in Times New Roman 14 point font.

/s/ Christopher J. Renk
Christopher J. Renk (Reg. No. 33,761)
Arnold & Porter Kaye Scholer LLP
Chicago, IL 60602-42310
Tel: (312) 583-2300
Fax: (312) 583-2360
Email: chris.renk@arnoldporter.com

CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§42.6(e)(4)(i) *et seq.* and 42.105(b), the undersigned Certifies that on September 22, 2023, a true and entire copy of this **RESPONSE OF PATENT OWNER NIKE, INC TO IPR2023-00348**, and all supporting exhibits, were served via e-mail to the Petitioner by serving the correspondence address of record, indicated below.

Forrest McClellen (Reg. No. 76,533)
MORRISON & FOERSTER LLP
425 Market Street
San Francisco, CA 94105-2482
fmcclellen@mofo.com
lululemon-nike-IPR@mofo.com

Mehran Arjomand (Reg. No. 48,231)
Alex S. Yap (Reg. No. 60,609)
Jean Nguyen (Reg. No. 71,051)
MORRISON & FOERSTER LLP
707 Wilshire Boulevard, Suite 6000
Los Angeles, CA 90017-3542
marjomand@mofo.com
ayap@mofo.com
jnguyen@mofo.com

/s/ Timothy Haugh
Timothy Haugh