

2. Mr. Neister's patented technology became the foundation for the family business. Mr. Neister and his brother John Neister originally founded the company that would become HEO3 in 2005 in a small town in New Hampshire. HEO3 produces and sells lamps designed to perform Mr. Neister's patented methods of killing harmful microorganisms.

3. The global COVID-19 pandemic took the world by surprise in early 2020, but the hard work of and vision by the Neister brothers anticipated such a crisis. Their Excimer Wave Sterilray™ technology, products, and patented methods positioned HEO3 to be a global leader in UV light disinfection technology, providing sanitization devices to aid in the fight against the disease.

4. As a result of the pandemic, interest in UV light disinfection technology reached new heights. Market entrants sprung forth to capitalize on sanitization using far-UV light in the 222 nm range – including through unauthorized use of HEO3's patented technology.

5. HEO3's patented technology asserted in this case includes U.S. Patent Nos. 8,975,605 and 9,700,642, true and correct copies of which are attached hereto as Exhibits 1 and 2, respectively.

6. Defendant Far UV Technologies ("Far UV"), founded in 2016, is one such company trading on HEO3's patented technology. As described below, multiple Far UV products utilize HEO3's patented systems and methods.

7. To protect its hard-earned intellectual property rights, HEO3 sent notice letters to Far UV and third-party purchasers of infringing products, to notify them of HEO3's patents and to offer to open licensing discussions. But still Far UV refused to cease its infringing activities.

8. Not only did Far UV refuse to cease its infringement, it also posted false, misleading, and disparaging statements concerning HEO3 on its website. In its "FAQ" section, Far UV's website erroneously states that "another company" – *i.e.*, HEO3 – has made false IP claims and engaged in tortious business interference with prospective customers. *See* Ex. 3, Far UV website – FAQ, available at <https://faruv.com/faq/>. Specifically, Far UV's website states that "Far UV Technologies and others in the Industry have explained to that company [HEO3] why its claims are wrong." Far UV's website additionally states that HEO3 is "currently being sued by another industry participant [Healthe, Inc.] for making these false claims and for its tortious business interference with their prospective customers," hyperlinking an online publication about ongoing litigation. Far UV's website further urges "victim[s] of these marketing claims or practices" to contact Far UV.

9. Far UV's statements, which are untrue, disparage HEO3 and paint HEO3 as a bad actor to actual and potential customers of HEO3. Far UV's deceptive statements and willful infringement of Plaintiffs' patents are the subject of this suit.

NATURE OF THE ACTION

10. This is an action for infringement of U.S. Patent Nos. 8,975,605 (“the ’605 patent”) and 9,700,642 (“the ’642 patent”) (collectively, the “Asserted Patents”) pursuant to the Patent Laws of the United States of America, 35 U.S.C. §§ 100 *et seq.*

11. Plaintiffs also seek an injunction and damages for violation of the Lanham Act § 43(a), 15 U.S.C. § 1125(a), and tortious interference with business expectancy and unfair competition under Missouri common law.

PARTIES

12. Plaintiff HEO3 is a company organized and existing under the laws of the State of New Hampshire with its principal place of business at 30 Centre Road, Suite 6, Somersworth, NH 03878.

13. Plaintiff S. Edward Neister resides and works in the state of New Hampshire. He is the founder of HEO3 and its Chief Technology Officer.

14. On information and belief, Defendant Far UV is a corporation organized and existing under the laws of the State of Missouri with its principal place of business at 7208 Wornall Rd, Suite 210, Kansas City, MO 64114.

JURISDICTION AND VENUE

15. This Court has subject matter jurisdiction over this action under at least 28 U.S.C. §§ 1331, 1338.

16. This Court has personal jurisdiction over Far UV because it is incorporated in the State of Missouri. On information and belief, Far UV maintains its principal place of business in this District.

17. Venue is proper in this District under 28 U.S.C. §§ 1391(b)-(c) and 1400(b) because Far UV maintains its principal place of business in this District and has committed acts of infringement in this District.

FACTUAL BACKGROUND

HEO3's 222 nm UV Technology

18. HEO3 is a leading developer of disinfection equipment using 222 nm UV technology. HEO3's disinfection technology provides a safe and environmentally-sound means of disinfection using far UV-light to kill bacteria, viruses, mold, and fungi in seconds or less. It has been validated by over 40 third-party labs as having a greater than 99.99% effective kill rate.

19. HEO3's technology permits users to sterilize surfaces without harsh chemicals. Additionally, unlike more commonly used UV sterilization techniques, HEO3's technology is mercury-free and does not produce ozone – a significant advance in terms of safety and environmental impact.

20. HEO3 offers a wide range of products utilizing its 222 nm UV technology. These include, for example: luminaire fixtures; air and surface disinfection units for disinfecting ambient air and surfaces in a room; surface

disinfection rails and disinfection wands for disinfecting surfaces and air; pathogen reduction boxes for disinfecting high-touch items (such as handheld medical equipment) that can be placed inside the boxes; and airduct units for disinfecting air passing through HVAC units.

21. HEO3 does business under the tradename Far UV Sterilray™ and its products feature Mr. Neister's patented Excimer Wave Sterilray™ Technology. Customers across the globe use Excimer Wave Sterilray™ products to create safer work, home, and medical environments.

22. As described on its website, HEO3's goal is to reduce the spread of infections and the burdens of such illnesses on our healthcare system. Over the past year alone, HEO3 has been approached by numerous and diverse organizations—including NFL teams, airlines, and robotic companies that specialize in the disinfection of office spaces, military barracks, public transportation, and hospitals—that have expressed interest in using HEO3's technology to help prevent spread of COVID-19.

23. HEO3's 222 nm UV technology is described and claimed in the Asserted Patents, on which Mr. Neister is the sole inventor. Mr. Neister has worked in the field of laser and UV light technology for over six decades. Mr. Neister drew on his decades of experience to develop HEO3's 222 nm UV technology claimed in the Asserted Patents.

24. Prior to Mr. Neister’s inventions, UV disinfection methods typically used light at 254 nm generated by mercury-based lamps. As described in, *e.g.*, the ’605 patent, Mr. Neister discovered that single line wavelengths emitted from an “excimer” lamp—a lamp using inert gases to generate photons at wavelengths matching the maximum absorption bands for DNA nitrogenous bases, proteins, amino acids, and other component bonds of microorganisms—could be significantly more effective than standard 254 nm photons for destroying DNA. As described in the ’605 patent, “[k]ill action times are reduced from 10’s to 100’s of seconds to times of 0.1 seconds.” Ex. 1 at 4:65-67.

25. One of the wavelengths Mr. Neister found to be particularly useful for disinfection was 222 nm, falling within the “far-UV” range. HEO3’s Excimer Wave Sterilray™ products utilize photons at this wavelength, amongst others.

26. Recognizing Mr. Neister’s discoveries, the United States Patent and Trademark Office (“USPTO”) issued the Asserted Patents. Mr. Neister is the sole inventor of the Asserted Patents and related applications that are currently pending.

Far UV’s Sterilization Products

27. In or around 2016, Far UV began manufacturing and selling products that perform Mr. Neister’s patented processes for destroying or deactivating the DNA or RNA (*i.e.*, the organic bonds and proteins) of microorganisms on substances or surfaces of the Asserted Patents.

28. Far UV makes and sells the accused Krypton Shield product. *See* Ex. 4, Far UV website – Krypton Shield, available at <https://faruv.com/disinfection-floor-lamp/>. Far UV markets it as a “portable disinfection floor lamp,” encouraging its customers to “move it to any location to disinfect your most occupied and high-traffic areas.” *Id.* Far UV’s website states the Krypton Shield product yields “over 3 log (99.9%) cumulative disinfection” and “kill[s] up to 99.9% of SARS-CoV-2 (the virus causing COVID-19), along with many other pathogens.” *Id.* Far UV describes the Krypton Shield product as using “Optical Output 222nm Wavelength (Far UV),” and states that “Far UV light (at 222nm) is a safe UV wavelength for human exposure.” *Id.*

29. Far UV makes and sells the accused Krypton-11 Product. Far UV markets it as a “disinfection light [that] can be used within any budget to increase the safety of occupants in any environment,” and as a “practical, safe, and effective disinfection method in sanitizing air and surfaces while space is occupied.” *See* Ex. 5, Far UV website – Krypton-11, available at <https://www.boeing.com/confident-travel/story.html?id=uv-wand>. Far UV’s website states the Krypton-11 product yields “over 3 log+ (99.9%) disinfection.” *Id.* Far UV describes the Krypton-11 product as using “Optical Output: 222nm Wavelength (Far UV),” and states that “Far UV (at 222nm) is a safe UV wavelength for human exposure.” *Id.*

30. Far UV makes and sells the accused Krypton-36 Product. Far UV markets it as a “disinfection light [that] can be used within any budget to increase the safety of occupants in any environment,” and as a “practical, safe, and effective disinfection method in sanitizing air and surfaces while space is occupied.” *See* Ex. 6, Far UV website – Krypton-36, available at <https://faruv.com/far-uv-disinfection-light-krypton-36/>. Far UV’s website states the Krypton-36 product yields “over 3 log+ (99.9%) disinfection.” *Id.* Far UV describes the Krypton-36 product as using “Optical Output: 222nm Wavelength (Far UV),” and states that “Far UV light (at 222nm) is a safe UV wavelength for human exposure.” *Id.*

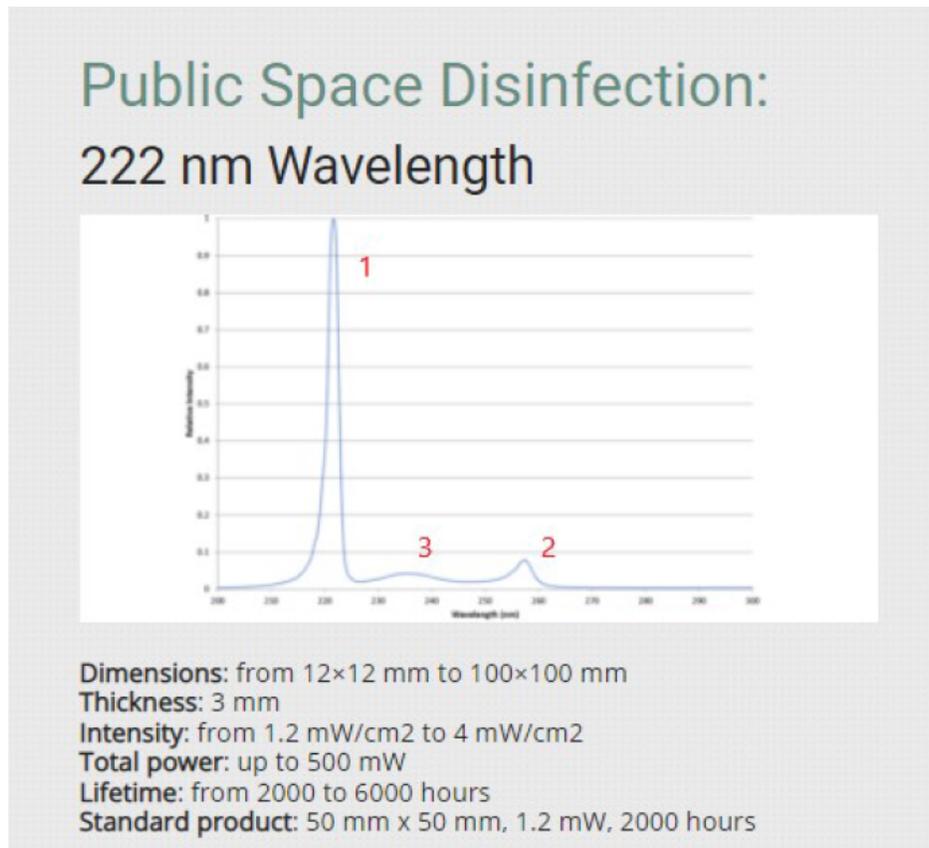
31. Far UV makes and sells the accused Krypton-M product. Far UV markets it as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” *See* Ex. 7, Far UV website – Krypton-M, available at <https://faruv.com/far-uv-disinfection-wand-krypton-m/>. Far UV’s website states the Krypton-M product “achieve[s] up to 99.9% disinfection.” *Id.* Far UV describes the Krypton-M product as using a “222nm light source.” *Id.*

32. Far UV makes and sells the accused Krypton-PLUS product. Far UV markets it as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” *See* Ex. 8, Far UV website – Krypton-PLUS, available at <https://faruv.com/far-uv-disinfection-wand-krypton-plus/>. Far UV’s website states the Krypton-PLUS product “achieve[s] up to 99.9%

disinfection.” *Id.* Far UV describes the Krypton-PLUS product as using a “222nm light source.” *Id.*

33. On information and belief, Far UV’s Krypton Shield, Krypton-11, Krypton 36, Krypton-M, and Krypton-PLUS Products (collectively, “the Accused Products”) incorporate far-UV lamps from third party Eden Park Illumination. *See, e.g.,* Ex. 9, Far UV website (listing Eden Park Illumination as a “Trusted Partner[] and Affiliation[]”), available at <https://faruv.com/>.

34. Eden Park’s website displays a graph that shows multiple UV wavelengths (peaks) are present in light from its 222 nm UV lamps:



See, e.g., Ex. 10, Eden Park website (annotations added), available at <https://edenpark.com/>.

Far UV's Willful Infringement

35. On or around June 13-15, 2018, John Neister attended the 54th APIC Annual Conference & Technical Exhibit in Minneapolis, MN ("APIC Show"). At the APIC Show, John Neister met PJ Piper, Far UV's CEO (then known as Anticipate Ventures), at Hepacart, Inc.'s ("Hepacart") booth. Mr. Piper observed two of HEO3's SterilrayTM lamps running in an exhibit of a Hepacart product. He also read a poster about HEO3's SterilrayTM Autonomous Disinfection Robot. Mr. Piper and Mr. John Neister discussed the sourcing of HEO3's lamps, and Mr. John Neister informed Mr. Piper that HEO3 manufactured its own lamps in New Hampshire. Mr. John Neister also informed Mr. Piper that HEO3 had issued patents covering its technology. Accordingly, Far UV has been on notice of the Asserted Patents at least as early as June 2018.

36. On information and belief, Far UV also gained awareness of the Asserted Patents from its current Vice President of Sales and Engineering, Mr. Michael Clark, who participated in licensing discussions with HEO3 while at another company in March 2018.

37. On June 19, 2018, Counsel for HEO3 sent a letter (attached as Exhibit 11) to Anticipate Ventures, d/b/a Far UV Technologies, identifying HEO3's issued

patents and currently pending application and notifying Far UV that its products may infringe those patents. The letter further informed Far UV that its website appeared to be improperly using a photo of a Far-UV Sterilray™ lamp. The letter also invited Far UV to “discuss licensing and/or further cooperation” to develop 222 nm technology. On the same day, Mr. John Neister sent an email (attached as Exhibit 12) to Mr. Piper including wording from the letter. Far UV did not cease its infringing activities.

38. Over the course of 2020, in the wake of the global COVID-19 pandemic, interest in and promotion of UV sterilization technology dramatically increased. Seeking to stop the unauthorized use of its technology, HEO3 sent notice letters to purchasers of infringing products to notify these end users of their own potential infringement. HEO3 has also sought to enforce its patents in a lawsuit against Healthe, Inc. (“Healthe”) (Case No. 6:20-cv-2233, pending in the Middle District of Florida), where Healthe products are alleged to infringe the Asserted Patents by utilizing Eden Park’s 222 nm lamps.

39. On March 3, 2021, counsel for Far UV sent HEO3 a letter in response to HEO3’s infringement claims. Despite the June 2018 letter and HEO3’s more recent notice letters and enforcement action, Far UV refused to engage in licensing discussions or to cease its infringement. Far UV’s willful infringement continues to this day.

Far UV's False Advertising

40. On information and belief, on or after December 8, 2020, Far UV modified its website to include false and misleading statements regarding HEO3 and its products.

41. Far UV uses its website to market its products to potential customers. Far UV and HEO3 are direct competitors and compete for the same pool of customers.

42. The "FAQ" section of Far UV's website contains a subsection entitled "# 24: What Is Far UV Technologies' Intellectual Property Position?" The first paragraph of this section states "Far UV Technologies has filed multiple utility and design patents and trademarks to protect its own innovations and brands. Far UV Technologies has also entered into a Technology and Licensing Agreement with Boeing to provide its customers the combined benefits of one of the largest Intellectual Property portfolios in the industry." Ex. 3. These sentences together create the impression that Far UV Technologies has an extensive portfolio of intellectual property.

43. In reality, searches of the USPTO patent and patent application databases reveal no patents or applications assigned to Far UV. USPTO records indicate a patent application with Mr. Piper listed as the inventor was abandoned as of October 2018.

44. With respect to the licensing agreement with Boeing, it was Boeing that licensed its intellectual property regarding a wand sterilization device to Far UV Technologies and Healthe Inc., another manufacturer. On its website, Boeing states that “[Boeing engineers] mobilized to develop a portable UV wand designed to sanitize airplane interiors.” Ex. 13 – “UV wand sanitizes the inside of an airplane,” available at <https://www.boeing.com/confident-travel/story.html?id=uv-wand>. The Boeing website further states that “Boeing recently entered into patent and technology licenses with Far UV Technologies and Healthe Inc.® Under these licenses, both companies will *produce and distribute* the commercial wand, helping airlines and potentially other industries combat the coronavirus pandemic.” *Id.* (emphasis added).

45. In the next paragraph of “FAQ” subsection “# 24: What Is Far UV Technologies’ Intellectual Property Position?” Far UV states that it is “aware of another company making broad IP claims to products on the market that use Far UV light sources . . . It is currently being sued by another industry participant *for making these false claims and for its tortious business interference with their prospective customers . . .*” Ex. 3. The website goes on to state, “If you believe *you may also have been a victim of these marketing claims or practices* from this company, please do not hesitate to let us know.” *Id.* A link is provided that includes HEO3’s name and links to a legal article identifying HEO3. *See id.*; Ex. 14 – Law.com article,

available at <https://www.law.com/radar/card/health-inc-v-high-energy-ozone-llc-d-b-a-far-uv-sterilray-et-al-37421852-0/>.

46. Far UV’s statements regarding HEO3 are inaccurate and give the false impression that (1) HEO3’s products are not protected by patent rights, (2) competing 222 nm UV sterilization products have been found to *not* infringe HEO3’s patents, and (3) HEO3 has been found liable for commercial misconduct based on its actions towards its “victims.” None of this is true. Particularly when paired with Far UV’s exaggerated description of its own intellectual property portfolio, Far UV’s misstatements paint HEO3 as a bad actor pushing subpar products – when in fact HEO3 is the innovator.

47. Far UV’s website also states that Far UV “and others in the industry have explained to [HEO3] why its claims are wrong.” Ex. 3. This language, stating that HEO3’s intellectual property claims are in fact “wrong,” and referring to statements by multiple “others in the industry” to that effect, further contributes to customer confusion. It reinforces the false impressions that HEO3’s technology is not protected by patent rights and that HEO3 is a bad actor for seeking to prevent the unauthorized use of its technology. It also indicates Far UV has been in communication with other industry players regarding its disparagement of HEO3.

COUNT I
(Infringement of U.S. Patent No. 8,975,605)

48. Plaintiffs incorporate by reference the allegations of paragraphs 1-39 as if fully set forth herein.

49. The '605 patent, entitled "Method and Apparatus for Producing a High Level of Disinfection in Air and Surfaces," was duly and legally issued by the USPTO on March 10, 2015. *See* Ex. 1.

50. Mr. Neister is the owner of all rights, title, and interest in and to the '605 patent and HEO3 is its exclusive licensee. Mr. Neister and HEO3 are entitled to sue for past and future infringement.

51. Far UV received actual notice of the '605 patent at least as early as the filing of its Complaint, and on information and belief received notice of the '605 patent at least as early as June 2018, when Mr. John Neister informed Mr. Piper of HEO3's patents at the APIC Show, and when HEO3's counsel and Mr. John Neister sent Far UV correspondence notifying Far UV of HEO3's patents.

52. Far UV has directly infringed—literally and/or under the doctrine of equivalents—the '605 patent by making, using, selling, offering for sale in the United States, and/or importing into the United States sanitization equipment that practice one or more claims of the '605 patent, including but not limited to the Accused Products.

53. For example, claim 1 of the '605 patent recites:

1. A process for destroying or deactivating the DNA organic bonds and proteins of microorganisms comprising the steps of:

generating photons of at least two single line wavelengths from a non-coherent light source selected from the group consisting of at least two wavelengths being of 222 nm, 254 nm, and 282 nm;

directing the photons to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms;

exposing the surface to be disinfected to the generated photons of at least two wavelengths, wherein the exposing achieves a ninety percent kill of microorganisms in a time period of less than one second.

54. Based upon publicly available information, the accused Krypton Shield product practices each limitation of and infringes at least claim 1 of the '605 patent. On information and belief, Far UV's Krypton Shield product uses 222 nm light sources from Eden Park Illumination, and as indicated on the Eden Park website, these produce UV light in multiple wavelengths, including 222 nm and 254 nm. *See* Exs. 4, 9-10.

55. Light from the Krypton Shield product is "direct[ed] . . . to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms." *See* Ex. 1, '605 patent at Claim 1. Far UV markets the Krypton Shield product "to disinfect your most occupied and high-traffic areas." Ex. 4.

56. On information and belief, exposure to light from the Krypton Shield product “achieves a ninety percent kill of microorganisms in a time period of less than one second.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton Shield as yielding “over 3 log (99.9%) cumulative disinfection” and “kill[ing] up to 99.9% of SARS-CoV-2 (the virus causing COVID-19), along with many other pathogens.” Ex. 4.

57. Based on publicly available information, the accused Krypton-11 product infringes at least claim 1 of the ’605 patent. On information and belief, Far UV’s Krypton-11 product uses 222 nm light sources from Eden Park Illumination, and as indicated on the Eden Park website, these produce UV light in multiple wavelengths, including 222 nm and 254 nm. *See* Exs. 5, 9-10.

58. Light from the Krypton-11 product is “direct[ed] . . . to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton-11 product as a “practical, safe, and effective disinfection method in sanitizing air and surfaces while space is occupied.” Ex. 5.

59. On information and belief, exposure to light from the Krypton-11 product “achieves a ninety percent kill of microorganisms in a time period of less than one second.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton-11 product as yielding “over 3 log+ (99.9%) disinfection.” Ex. 5.

60. Based on publicly available information, the accused Krypton-36 product infringes at least claim 1 of the '605 patent. On information and belief, Far UV's Krypton-36 product uses 222 nm light sources from Eden Park Illumination, and as indicated on the Eden Park website, these produce UV light in multiple wavelengths, including 222 nm and 254 nm. *See* Exs. 6, 9-10.

61. Light from the Krypton-36 product is "direct[ed] . . . to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms." *See* Ex. 1, '605 patent at Claim 1. Far UV markets the Krypton-36 product as a "practical, safe, and effective disinfection method in sanitizing air and surfaces while space is occupied." Ex. 6.

62. On information and belief, exposure to light from the Krypton-36 product "achieves a ninety percent kill of microorganisms in a time period of less than one second." *See* Ex. 1, '605 patent at Claim 1. Far UV markets the Krypton-36 product as yielding "over 3 log+ (99.9%) disinfection." Ex. 6.

63. Based on publicly available information, the accused Krypton-M product infringes at least claim 1 of the '605 patent. On information and belief, Far UV's Krypton-M product uses 222 nm light sources from Eden Park Illumination, and as indicated on the Eden Park website, these produce UV light in multiple wavelengths, including 222 nm and 254 nm. *See* Exs. 7, 9-10.

64. Light from the Krypton-M product is “direct[ed] . . . to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton-M product as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” Ex. 7.

65. On information and belief, exposure to light from the Krypton-M product “achieves a ninety percent kill of microorganisms in a time period of less than one second.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton M product as “achieve[ing] up to 99.9% disinfection.” Ex. 7.

66. Based on publicly available information, the accused Krypton-PLUS product infringes at least claim 1 of the ’605 patent. On information and belief, Far UV’s Krypton-PLUS product uses 222 nm light sources from Eden Park Illumination, and as indicated on the Eden Park website, these produce UV light in multiple wavelengths, including 222 nm and 254 nm. *See* Exs. 8, 9-10.

67. Light from the Krypton-M product is “direct[ed] . . . to a substance to be disinfected, whereby the photons destroy or deactivate the DNA organic bonds and proteins of microorganisms.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton-M product as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” Ex. 8.

68. On information and belief, exposure to light from the Krypton-M product “achieves a ninety percent kill of microorganisms in a time period of less than one second.” *See* Ex. 1, ’605 patent at Claim 1. Far UV markets the Krypton M product as “achieve[ing] up to 99.9% disinfection.” Ex. 8.

69. Far UV indirectly infringes the ’605 patent as provided by 35 U.S.C. § 271(b) by actively inducing others, including customers who purchase and use the Accused Products, to commit direct infringement of one or more claims of the ’605 patent.

70. Far UV’s affirmative acts of providing at least manuals, training, guides, marketing material, and/or demonstrations induces customers to use the Accused Products in a manner intended by Far UV to cause direct infringement of the ’605 patent.

71. Far UV performed the acts that constitute inducement with knowledge or at least willful blindness that the induced acts would constitute infringement. At least through the filing of this Complaint, Far UV has received actual notice that its customers directly infringe the ’605 patent and that its own acts induce such infringement. On information and belief, Far UV received actual knowledge that its customers directly infringe the ’605 patent at least as early as June 2018, when John Neister spoke with Far UV’s CEO, Mr. Piper, at the APIC Show and informed him of HEO3’s patents. On June 19, 2018, counsel for HEO3 sent Far UV a letter, and

Mr. John Neister sent Mr. Piper an email, informing Far UV of the '605 patent and Far UV's infringement.

72. Far UV also indirectly infringes the '605 patent as provided by 35 U.S.C. § 271(c) by contributing to infringement of one or more claims of the '605 patent by others, including Far UV's customers who purchase and use the Accused Products.

73. Far UV's affirmative acts of selling infringing sanitization products and providing those products to customers contribute to the infringement of the '605 patent. The Accused Products are specially made or adapted for use in infringement of the '605 patent and are not staple articles of commerce suitable for substantial noninfringing use.

74. Far UV contributed to the infringement of others with knowledge or at least willful blindness that the Accused Products are specially made or adapted for use in an infringement of the '605 patent and are not staple articles of commerce suitable for substantial noninfringing use. At least through the filing of this Complaint, and on information and belief at least as early as June 2018, Far UV has received actual notice that its acts constitute contributory infringement.

75. Far UV's infringement has been and continues to be willful and in reckless disregard for the '605 patent, without any reasonable basis for believing that it had a right to engage in the infringing conduct.

76. Far UV's continued infringement of the '605 Patent has damaged and will continue to damage Plaintiffs, who offer directly competing products. Far UV's acts have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.

COUNT II
(Infringement of U.S. Patent No. 9,700,642)

77. Plaintiffs incorporate by reference the allegations of paragraphs 1-39 and 48-76 as if fully set forth herein.

78. The '642 patent, entitled "Method and Apparatus for Sterilizing and Disinfecting Air and Surfaces and Protecting a Zone from External Microbial Contamination," was duly and legally issued by the USPTO on July 11, 2017. *See* Ex. 2.

79. Mr. Neister is the owner of all rights, title, and interest in and to the '642 patent and HEO3 is its exclusive licensee. Mr. Neister and HEO3 are entitled to sue for past and future infringement.

80. Far UV received actual notice of the '642 patent at least as early as the filing of its Complaint, and on information and belief received notice of the '642 patent at least as early as June 2018, when Mr. John Neister informed Mr. Piper of HEO3's patents at the APIC Show, and when HEO3's counsel and Mr. John Neister sent Far UV correspondence notifying Far UV of HEO3's patents.

81. Far UV has directly infringed—literally and/or under the doctrine of equivalents—the '642 patent by making, using, selling, offering for sale in the United States, and/or importing into the United States sanitization equipment that practice one or more claims of the '642 patent, including but not limited to the Accused Products.

82. For example, claim 1 of the '642 patent recites:

1. A process for destroying a DNA or RNA of a microorganism on a substance or surface comprising the steps of:

generating photons of at least one wavelength corresponding to a peak adsorption wavelength of DNA or RNA, the at least one wavelength being at least one of 222 nm and 282 nm;

directing the photons to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms; and

wherein the substance or surface to be disinfected is human or animal skin.

83. Based on publicly available information, the accused Krypton Shield product practices each limitation of and infringes at least claim 1 of the '642 patent. Far UV describes its Krypton Shield product as using a 222 nm light source. Ex. 4.

84. Light from the Krypton Shield product is “direct[ed] . . . to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.” *See* Ex. 2, '642 patent at claim 1. Far UV markets the Krypton Shield product “to disinfect your most occupied and high-traffic areas.” Ex. 4.

85. The Krypton Shield is used “wherein the substance or surface to be disinfected is human or animal skin.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets the Krypton Shield to disinfect areas that are “occupied.” Ex. 4. Accordingly, when used in “occupied” areas as directed on the Far UV website, the Krypton Shield product directs photons used for disinfection to exposed human skin.

86. Based on publicly available information, the accused Krypton-11 product infringes at least claim 1 of the ’642 patent. Far UV describes its Krypton-11 product as using a 222 nm light source. Ex. 5.

87. Light from the Krypton-11 product is “direct[ed] . . . to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets the Krypton-11 product as a “practical, safe, and effective disinfection method in sanitizing air and surfaces.” Ex. 5.

88. The Krypton-11 product is used “wherein the substance or surface to be disinfected is human or animal skin.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets the Krypton-11 product to disinfect “your most occupied and high-traffic areas.” Ex. 5. Accordingly, when used in “occupied” areas as directed on the Far UV website, the Krypton-11 product directs photons used for disinfection to exposed human skin.

89. Based on publicly available information, the accused Krypton-36 product infringes at least claim 1 of the '642 patent. Far UV describes its Krypton-36 product as using a 222 nm light source. Ex. 6.

90. Light from the Krypton-36 product is “direct[ed] . . . to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.” *See* Ex. 2, '642 patent at claim 1. Far UV markets the Krypton-36 product as a “practical, safe, and effective disinfection method in sanitizing air and surfaces.” Ex. 6.

91. The Krypton-36 product is used “wherein the substance or surface to be disinfected is human or animal skin.” *See* Ex. 2, '642 patent at claim 1. Far UV markets the Krypton-36 product as a “practical, safe, and effective disinfection method in sanitizing air and surfaces while space is occupied.” Ex. 6. Accordingly, when used in “occupied” areas as directed on the Far UV website, the Krypton-11 product directs photons used for disinfection to exposed human skin.

92. Based on publicly available information, the accused Krypton-M product infringes at least claim 1 of the '642 patent. Far UV describes its Krypton-M product as using a 222 nm light source. Ex. 7.

93. Light from the Krypton-M product is “direct[ed] . . . to the substance or surface to be disinfected, whereby the photons are selected to destroy a plurality of chemical bonds within the DNA or RNA of the microorganisms.” *See* Ex. 2, '642

patent at claim 1. Far UV markets the Krypton-M product as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” Ex. 7.

94. On information and belief, the Krypton-M product is used “wherein the substance or surface to be disinfected is human or animal skin.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets its “Krypton™ Far UV lights at 222nm” as “the first human and animal safe, practical, and effective countermeasure for the pathogens leading to infectious disease in occupied spaces.” Ex. 9. Far UV’s website also describes 222 nm light as “Safe for Humans” and states that “Krypton Far UV (222 nm) light does not penetrate beyond the outermost layer of human and/or animal skin or eyes. . . . Krypton Far UV (222 nm) . . . can sanitize occupied spaces without those risks to adverse effects to human tissue.” Ex. 15, Far UV website – Technology, available at <https://faruv.com/krypton-far-uv-222-nm/>. Accordingly, a consumer viewing Far UV’s website would be encouraged to use the Krypton-M product on human or animal skin.

95. Based on publicly available information, the accused Krypton-PLUS product infringes at least claim 1 of the ’642 patent. Far UV describes its Krypton-PLUS product as using a 222 nm light source. Ex. 8.

96. Light from the Krypton-PLUS product is “direct[ed] . . . to the substance or surface to be disinfected, whereby the photons are selected to destroy a

plurality of chemical bonds within the DNA or RNA of the microorganisms.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets the Krypton-PLUS product as a “handheld wand [that] helps prevent the spread of bacteria and pathogens by disinfecting high-touch surfaces.” Ex. 8.

97. On information and belief, the Krypton-PLUS product is used “wherein the substance or surface to be disinfected is human or animal skin.” *See* Ex. 2, ’642 patent at claim 1. Far UV markets its “Krypton™ Far UV lights at 222nm” as “the first human and animal safe, practical, and effective countermeasure for the pathogens leading to infectious disease in occupied spaces.” Ex. 9. Far UV’s website also describes 222 nm light as “Safe for Humans” and states that “Krypton Far UV (222 nm) light does not penetrate beyond the outermost layer of human and/or animal skin or eyes. . . . Krypton Far UV (222 nm) . . . can sanitize occupied spaces without those risks to adverse effects to human tissue.” Ex. 16. Accordingly, a consumer viewing Far UV’s website would be encouraged to use the Krypton-M product on human or animal skin.

98. Far UV indirectly infringes the ’642 patent as provided by 35 U.S.C. § 271(b) by actively inducing others, including customers who purchase and use the Accused Products, to commit direct infringement of one or more claims of the ’642 patent.

99. Far UV's affirmative acts of providing at least manuals, training, guides, marketing materials, and/or demonstrations induces customers to use the Accused Products in a manner intended by Far UV to cause direct infringement of the '642 patent.

100. Far UV performed the acts that constitute inducement with knowledge or at least willful blindness that the induced acts would constitute infringement. At least through the filing of this Complaint, Far UV has received actual notice that its customers directly infringe the '642 patent and that its own acts induce such infringement. On information and belief, Far UV received actual knowledge that its customers directly infringe the '642 patent at least as early as June 2018, when John Neister spoke with Far UV's CEO, Mr. Piper, and informed him of HEO3's patents. On June 19, 2018, counsel for HEO3 sent Far UV a letter, and Mr. John Neister sent Mr. Piper an email, informing Far UV of the '642 patent and Far UV's infringement.

101. Far UV also indirectly infringes the '642 patent as provided by 35 U.S.C. § 271(c) by contributing to infringement of one or more claims of the '642 patent by others, including Far UV's customers who purchase and use the Accused Products.

102. Far UV's affirmative acts of selling infringing sanitization products and providing those products to customers contribute to the infringement of the '642 patent. The Accused Products are specially made or adapted for use in infringement

of the '642 patent and are not staple articles of commerce suitable for substantial noninfringing use.

103. Far UV contributed to the infringement of others with knowledge or at least willful blindness that the Accused Products are specially made or adapted for use in an infringement of the '642 patent and are not staple articles of commerce suitable for substantial noninfringing use. At least through the filing of this Complaint, and on information and belief at least as early as June 2018, Far UV has received actual notice that its acts constitute contributory infringement.

104. Far UV's infringement has been and continues to be willful and in reckless disregard for the '642 patent, without any reasonable basis for believing that it had a right to engage in the infringing conduct.

105. Far UV's continued infringement of the '642 patent has damaged and will continue to damage Plaintiffs, who offer directly competing products. Far UV's acts have caused, and unless restrained and enjoined, will continue to cause, irreparable injury and damage to Plaintiffs for which there is no adequate remedy at law.

COUNT III

(Violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a))

106. HEO3 incorporates by reference the allegations in paragraphs 1-47 as if fully set forth herein.

107. In connection with the promotion of its own products, Far UV makes and has made statements, at least through its website, which are either literally false or, in the alternative, if not literally false, are likely to confuse or deceive consumers.

108. Far UV does mispresent and has misrepresented, at least through statements on its website, HEO3's business practices and the qualities of HEO3's and Far UV's products. For example, as described in paragraphs 39-46, HEO3's website makes untrue statements that HEO3 has made false claims regarding its intellectual property rights and has committed tortious business interference with another company's prospective customers. *See* Ex. 3. It falsely states that HEO3 has made "victims" of industry players and that HEO3's intellectual property claims "are wrong." *Id.* These misstatements create multiple negative and inaccurate impressions, including that HEO3's products are not protected by valid patents (when they are), that HEO3 is a bad actor, and —particularly when read in combination with Far UV's exaggerated description of its own intellectual property portfolio — that HEO3's products are subpar.

109. Far UV placed and maintains its false statements on its website on the Internet, in interstate commerce. The statements on Far UV's website are likely to be viewed by potential customers of both HEO3 and Far UV.

110. HEO3 and Far UV are direct competitors in the market for sterilization products. HEO3 is injured as a result of Far UV's misrepresentations through a

diversion of business and/or a loss of goodwill associated with HEO3's products and services.

111. As described in paragraphs 40-47, Far UV has made false and misleading statements of fact which are material and likely to influence the purchasing decisions of customers to switch from HEO3 to Far UV. Such statements were calculated to and have injured HEO3 by diverting sales from HEO3 to Far UV and have caused a loss of goodwill in HEO3's products.

112. HEO3's false and misleading advertising has caused and, unless enjoined, will continue to cause: (a) confusion, deception, and mistake among the customers whose purchasing decisions are likely to be affected by Far UV's false and misleading claims about HEO3's business practices and the qualities of HEO3's and Far UV's products; (b) HEO3 to suffer loss of goodwill, sales, and profits; (c) Far UV to unfairly enjoy sales and profits to which they are not entitled; and (d) irreparable harm to HEO3.

113. By its conduct in violation of the Lanham Act, Far UV has unfairly competed with HEO3 and continues to compete unfairly with HEO3.

114. Far UV has willfully and deliberately violated Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), warranting an award of treble damages and attorney's fees under 15 U.S.C. § 1117(a) as this is an exceptional case.

115. HEO3 has no adequate remedy at law for Far UV's continuing acts of false advertising.

COUNT IV
(Unfair Competition under Missouri Common Law)

116. HEO3 incorporates by reference the allegations in paragraphs 1-47 and 107-116 as though fully set forth herein.

117. Far UV has made, at least through its website, false and misleading statements likely to deceive the ordinary consumer and cause customers to switch from HEO3 to Far UV. For example, Far UV makes and has made misrepresentations concerning HEO3's business practices and the qualities of HEO3's and Far UV's products.

118. HEO3 and Far UV are direct competitors in the market for sterilization products. Far UV's statements were calculated to and have injured HEO3 by diverting sales from HEO3 to Far UV and have caused a loss of goodwill in HEO3's products.

119. By its conduct, Far UV has unfairly competed with HEO3 and continues to compete unfairly with HEO3. HEO3 has no adequate remedy at law for Far UV's continuing acts of unfair competition.

COUNT V
**(Tortious Interference with Business
Expectancy under Missouri Common Law)**

120. HEO3 incorporates by reference the allegations in paragraphs 1-48 and 107-120 as though fully set forth herein.

121. HEO3 has valid business relationships and expectancies with its customers and prospective customers.

122. At all relevant times, HEO3 had contracts with its customers and valid expectancies that it would have future contracts and relationships with these customers based on its prior dealings with them. HEO3 also had valid expectancies that it would have future contracts and relationships with these customers and prospective customers based on the increased interest 222nm sterilization technology following the COVID-19 pandemic and inquiries HEO3 has received over the past year

123. At all relevant times, by virtue of its work in the same industry, Far UV had knowledge of HEO3's contracts and/or business relationships and expectancies with its customers and prospective customers. On its website, Far UV states that "others in the industry have explained to [HEO3] why its claims are wrong," demonstrating that Far UV actively communicates with industry players and is aware of competitors in the market and their business relationships.

124. Far UV has intentionally interfered with HEO3's contracts and/or business relationships and expectancies at least by disparaging HEO3 on its website and thereby inducing customers and prospective customers to stop doing business with Far UV.

125. Far UV's actions were without justification because they used improper means for their interference. Far UV interfered with HEO3's contracts and business expectancies through the use of false and misleading statements in violation of, *inter alia*, the Lanham Act § 43(a).

126. HEO3 has suffered and/or will suffer severe economic harm and other intangible consequences including re-establishing customer relationships; loss of customers; or other negative effects on HEO3's business relationships.

127. Far UV has acted with an evil motive and/or reckless indifference to HEO3's rights such that Far UV is also liable for punitive damages.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request the following relief:

- a) For entry of judgment by this Court against Far UV and in favor of Plaintiffs in all respects, including that:
 1. Far UV has and continues to directly infringe and/or indirectly infringe, by way of inducement and/or contributory infringement, the Asserted Patents;

2. Far UV's infringement of the Asserted Patents was and continues to be willful;
 3. Far UV has willfully engaged in false and misleading activities in violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a);
 4. Far UV has engaged in deceptive practices constituting unfair competition and tortious interference with business expectancy under Missouri common law; and
- b) An Order permanently enjoining Far UV, its officers, agents, servants, employee, and attorneys, all parent, subsidiary, and affiliate corporations and other related business entities, and all other persons or entities acting in concert, participation, or in privy with one or more of them, and their successors and assigns, from infringing, contributing to the infringement of, or inducing others to infringe the Asserted Patents;
 - c) For damages arising from Far UV's infringement of the Asserted Patents, together with pre-judgment and post-judgment interest, and that such damages be trebled as provided by 35 U.S.C. § 284;
 - d) An Order declaring that Plaintiffs are the prevailing parties and that this is an exceptional case, awarding Plaintiffs their costs, expenses, disbursements, and reasonable attorney fees under 35 U.S.C. § 285 and all other applicable statutes, rules, and common law; and

- e) An Order requiring Far UV to remove false and misleading statements concerning HEO3 from its website and any other locations;
- f) An Order enjoining Far UV from making future false and misleading statements concerning HEO3;
- g) For damages under 15 U.S.C. § 1117 for the Lanham Act violations in an amount equal to (i) Far UV's profits from its false advertising, (ii) damages HEO3 has sustained due to Far UV's conduct, and (iii) the costs of this action;
- h) Finding that this case involves willful conduct and thereby awarding HEO3, under 15 U.S.C. § 1117(b), (i) up to three times the amount of actual damages and (ii) attorneys' fees;
- i) For damages arising from Far UV's unfair competition and tortious interference under Missouri common law, punitive damages, and attorneys' fees to the extent permitted by law;
- j) Such other and further relief as this Court may deem just and proper.

DEMAND FOR JURY TRIAL

Plaintiffs respectfully request a trial by jury on all issues triable thereby.

DATED this 17th day of May, 2021

Respectfully submitted,

/s/Michael D. Pospisil

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submitted*