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# **BROKERAGE MARKETING PACKAGE**

**“LIGHT RAY CONCENTRATOR”**

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THIS OFFERING IS FOR SALE OF

**US 10788180 B2**

**Redacted Summary: Full document including market overview, exemplary players and product, and possibly EOUs available upon request. Contact: [justin@ipapproach.com](mailto:justin@ipapproach.com)**

**Justin Ehrlickman**

**October 2020**

Non-Confidential Marketing Package



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**Justin Ehrlickman | [justin@ipapproach.com](mailto:justin@ipapproach.com) | 845-558-7901**

Details of the offering and planned bidding process for purchasing the patent portfolio is outlined below:

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- The owner reserves the right to accept a bid at anytime.
- We will keep all parties who have notified us of their interest in submitting a bid, or who have submitted a bid, reasonably informed throughout the process.
- All information on interested parties — including bidder names, bid amounts, terms, and the winning bidder — will remain confidential.

Thank you for your interest in this patent portfolio sale offering.



IPApproach LLC is pleased to present the attached exclusive patents for sale “**Light ray concentrator**” which include U.S. Granted Patent **US10788180 B2** and its Foreign counterparts **CA3027431 A1**, **CN109891149 A**, **EP3472511 A1**, **MX2018015505 A** and **WO2017218716 A1** assigned to **Paul E. TANG**. The IP relates to a device and system for concentrating light by reducing the angle of light rays arriving at a wide range of incident angles to be output at a narrower range of incident angles of a transmissive optical devices.

The technology disclosed provides the following advantages:

- ✓ Indoor natural light illumination: fully functional even on cloudy days.
  - more compact, efficient, & flexible transmission of light to building's interior as compared to reflective tubes.
  - zero maintenance, Low cost, Low profile and Relaxed geometric constraints.
- ✓ Indoor agriculture: With the help of present invention, the light can be piped anywhere, the space can be,
  - arranged vertically, hence take up less space.
  - low productivity land can be used for farming.
  - carbon footprint reduction, water usage reduction, lower pesticide usage and higher yield.
  - indoor farming can be done in conventionally constructed space.
- ✓ Spot lighting : The collimator will be able to use arbitrary light sources.
  - geometric constraints are greatly relaxed by using the collimator.
- ✓ Power Generation: Present invention collimator eliminates the need for tracking, and the system is fully functional even under diffused light (i.e. clouds).



The Global Lighting market is estimated to grow **USD 115.44 Billion in 2018 and is projected to reach USD 161.58 Billion by 2026, growing at a CAGR of 4.4% during the forecast period.** Light plays a very vital role in every sector. Lighting technology is so important in daily life. Nowadays, it is helping in the production of plants, artificially.

The Global collimating lens market is estimated to grow **USD 305.47 Million in 2019, and is expected to generate revenue of around USD 453.28 Million by end of 2026, growing at a CAGR of around 5.8% during the forecast period.** Collimating lenses are optical lenses that assist in making the light parallel that enters a spectrometer unit. These lenses usually support in controlling the field of view, collection competence, and spatial resolution of their units along with arranging illumination and collection angles for sampling.

The Global Horticulture Lighting market is estimated to grow **USD 2.55 Billion in 2018 and is projected to reach USD 10.62 Billion by 2026, growing at a CAGR of 19.40% during the forecast period.** The lightings used for horticulture (garden cultivation) are referred to as horticulture lighting. Horticulture lighting induces plants growth by manipulating the light conditions according to the need of plants that helps boost the yields throughout the year.

The global Smart Indoor Lighting market is estimated to grow **USD 8802.6 million by 2026, from USD 3744.8 million in 2020, at a CAGR of 15.3% during the forecast period.** Smart indoor lighting is a technology designed for energy efficiency. Remote monitoring and automated lighting controls are driving the growth of smart lightings in residential and other indoor application segments.



S. No.	Patent No./ Application No.	Title	Priority Date	Filing Date	Expiration Date
1.	US 10788180 B2	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036



S. No.	Patent No./ Application No.	Title	Priority Date	Filing Date	Expiration Date
1.	CA 3027431 A1	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036
2.	CN 109891149 A	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036
3.	EP 3472511 A1	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036
4.	MX 2018015505 A	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036
5.	WO 2017218716 A1	Light ray concentrator	Jun 14, 2016	Jun 14, 2017	Jun 14, 2036



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# **THANK YOU!**

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