Title: A Warm Light for All
Dimensions: 2m (H) x 0.5m (D) (Estimated)
Materials: Light, Electronics, Acylic/Wood
Proposal Type: Interactive Installation/Spectacle (Reusable for other events), Sponsors for lighting and controls appreciated
Concept Proposal:

A Warm Light for All is an interactive light monolith that will be placed in the middle of Purdue's Clapping Circle during the Boiler Cold Rush (BCR, SP2022) and/or Boiler Gold Rush (BGR, FA2022). During the cold winder months, stepping outside is, on most occasions a painful experience due to the strong winds, rain or snow. In contrast, the coming out of summer conjures images of night campfires and bonfires. A Warm Light for All will be a single large cylindrical lamp structure extending from the ground skywards with a black lower base encasing electronics and the light source within. The light source will be comprised either of strip RGB LEDs through the center of the tube, a flood light in the bottom casing or a combination of both. Light emanating from the lamp will be diffused through the cylinder's surface which will be patterned with laser cut curves allowing the cylindrical structure to be formed. It will measure roughly 2m (6.5ft) in height and 0.5m (20in) in diameter. With the electronics and controls within the base, the structure will be bottom heavy weighing it to the ground and weatherproofed with silicone caulk and sealant to ensure water tightness.

Without any interaction, the light emanating from the structure will be characterized by a warm, slow pulsing light Figure 1. As audiences interact with the installation, the light will gradually become warmer and brighter towards the top proportionate to the number of people surrounding or walking by it (Figure 2 and Figure 3). Sensors will be used to determine the proximity/activity with audiences and the glow will be provided with a breathing algorithm programmed into a controller that is subtle enough not to be immediately noticeable, but significant enough to be acknowledge upon inspection. Power for the lamp will have to be provided by an external source and wiring will be secured to the ground for safety.

A Warm Light for All will be a unique night light installation standing amongst the notable lit landmarks such as the Engineering Fountain and the clock tower. Unlike those landmarks, it will stand as an interactive installation encouraging interaction and symbolizing the energy and anticipation that await incoming and current students of the new academic year, a light of hope and infinite possibilities. The use of lighting in and out of buildings has been shown to be a key factor impacting mood and performance among other things. Using this lamp, and its position in the clapping circle encompassed by its low walls and mounds, this installation aims to create a metaphysical haven in the hopes of lifting people's spirits during a dreary period of the year (BCR) or evoke emotions associated with gathering around a fireplace (BGR). The greater the gathering, the light will be stoked, transforming a flame into a bonfire.

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Artist Impression (Image may not be an accurate representation of actual structure. Season will be later winter/early spring)**:**

Figure 1 – Light monolith without interaction (no viewers within proximity of the installation)

Figure 2 – Light monolith with interaction with some people. Light emanating from the monolith will be warmer and glow brighter.

Figure 3 – Brightest occurrence of the monolith with light shining warmest with most significant breathing glow.

Estimated Budget breakdown:

Material	Description	Unit Price	Quantity	Total
Clear Acrylic Sheet/ Plywood Sheets	Acrylic/Polycarbonate sheets or Plywood, estimated to be 4ft by 8ft, for laser cutting to be bend into the form of a cylinder. Laser cutting will be performed either in BIDC, AD or ADM (opposite Purdue surplus). Wood will be also used for construction of base and control housing.	$250 (Menards, Home Depot, McMaster)	4	$1000
Wooded Dowels	Large wooden dowels for the adhesion of the lights enabling the 360° distribution of light through the cylindrical structure.	$50 (Menards, Home Depot, McMaster)	2	$100
Arduino, sensors	Microcontroller for programming lights and sensors	$250 (directly from Arduino, Digi-key, etc.)	1	$250
Addressable RGB LED	Individually addressable LED lights (in strips) that allow control from one end to the other. ***Sponsors for lighting also welcomed.***	$100 (Amazon, Digi-key, external contractors)	5	$500
Miscellaneous Tooling	Tooling and materials including but not limited to: • Sandpaper • Adhesives • Batteries • Silicone Caulk • Heat Shrinkable Plastic • Wiring • Nuts and bolts	$500	1	$500
Man hours	Single individual manufacturing the structure at $12/hr	$12	50 hours	$600
			Total	$2950