IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

RETROLED COMPONENTS, LLC, Plaintiff,	§	Civil Case No. 6:18-cv-55-ADA
v.	§	JURY TRIAL DEMANDED
PRINCIPAL LIGHTING GROUP, LLC Defendant.	§	EXHIBIT TO RETROLED COMPONENTS, LLC'S INITIAL DISCLOSURES OF INVALIDITY

Exhibit *Huang* in view of *Cross* and *Shimamoto*

35 U.S.C. § 103 – Claim 12

US9311835	**Patent US 9,311,835 Claim Chart – *Breihof* '835**	**Exhibit *Huang* in view of *Cross* and *Shimamoto*** **35 U.S.C. §103 – Claim 12**		
Assignee:	SignComp, LLC			
Title:	Lighting mount for interior-lighted signage and method of retrofitting a lighted sign	***Huang*** **US Pub. No. 2009/0027916 A1** **Priority Date: 12/14/2005** **Filed: 7/22/2008** **Published: 1/29/2009**	***Cross*** **U.S. Pub. No.: 2004/0062041** **Filed: 9/25/2003** **Published: 4/1/2004**	***Shimamoto*** **US Patent No. 5,780,143** **Issued: 7/14/1998**
Filing Date:	2011-11-22			
Publication Date:	2016-04-12			
Inventor:	Breihof, Thomas C.			
Earliest Priority:	2010-11-24, US 61417156			

Claims:

1	Claim 1	See Narrative Contention A and its Exhibits.
12	The lamp support assembly of claim 1, wherein said elongate support member comprises a metal or a resinous plastic extrusion, and wherein said end caps comprise a non-metal material.	Dependent claim 12 is invalid as being obvious under 35 U.S.C. § 103 over *Huang* in view of *Cross* and U.S. Pat. No. 5,780,143 issued July 14, 1998 to Shimamoto et al. ("*Shimamoto*"). Claim 12 depends from claim 1. The

		anticipation of claim 1 by Huang is demonstrated above in Narrative Contention A and its exhibits. *Cross* discloses that an end cap "*is preferably fabricated from non-conductive materials*…. [para 0024, *Cross*]. All metals are conductive. Therefore, its as Cross teaches an end cap is preferably non-conductive, it must be non-metal. Consequently, the recited limitation of Claim 12, that the end caps "*comprise a non-metal*" is provided by the teachings of Cross. As to the "*elongate support metal"* comprising "*a metal or a resinous plastic extension*" the use of a circuit board in *Huang* as the "elongate support member" teaches the recited limitation of Claim 12. Even so, *Shimamoto* discloses various modes of thru-hole technologies in circuit boards and in so doing, introduces the basic technology of circuit boards as follows, "*[r]eferring to FIG. 1, a circuit board generally designated at 2 includes a board body 4 constituted by an insulating substrate 6. The insulating substrate 6 may be in any form such as paper based-phenolic resin laminated substrate, paper base-epoxy resin laminated substrate, paper base-polyesters resin laminated*

Exhibit *Huang* in view of *Cross* and *Shimamoto*

35 U.S.C. §103 – Claim 12

		substrate, glass base-epoxy resin laminated substrate, paper base-teflon resin laminated substrate, glass base-polyimide resin laminated substrate, glass base-BT (bismleimide-triazine) resin laminated substrate, or a synthetic resin substrate such as composite resin board, or a flexible substrate such as of polyimide resin or polyester resin, or a metallic insulating substrate of aluminum, steel, stainless steel and the loke coated with an expoxy resin to have electrically insulating property or a ceramic substrate." Col. 4, l. 59 – Col. 5, l. 5. *Shimamoto*. Thus, Shimamoto discloses that a circuit board, which is used in *Huang* as the elongate support member for the array of LEDs (*i.e*, the recited "*electric lamps*"), comprises a metal or resinous plastic extrusion and *Cross* discloses an end cap comprised of non-metal material (i.e., non-conductive) as recited in claim 12. Consequently, a person of ordinary skill in the art, being deemed to know the contents of *Huang*, *Cross* and *Shimamoto* would find the purported invention of claim 12 obvious, as a whole in light of those references.