itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
NVLAP LAB CODE: 200925-0
INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA
PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL83588
DATE: 12/18/14
PREPARED FOR: B-K Lighting, Inc.
LUMINAIRE CAT NO: K2-LED-X43-NFL-12

ADDRESS: 40429 Brickyard Drive
Madera, CA 93636-9515

LUMINAIRE: Cast metal housing with unfinished brown interior finish, cast metal driver housing, machined black finished circuit board mounting block, 1 circuit board with one LED, molded white plastic LED surround, molded plastic reflector with textured semi-specular finish, clear micro-prismatic flat glass lens in machined white painted metal frame. Lens prisms in.

LAMPS: One white multi-chip light emitting diode (LED), vertical base-up.

LED DRIVER: Eldoled Ecodrive 561/S, driver has multiple leads, only line input and LED output leads connected for this test. Client states driver programmed for 1050mA output.

OBJECT OF TEST: Measure temperature of the LED in the luminaire for correlation to the LED manufacturer's lumen depreciation curves. Also measure the hot spot on the LED driver. B-K Lighting, Inc. provided direction as where to place the thermocouple on the LED. B-K Lighting, Inc. also provided direction for thermocouple placement on the LED driver. Type K thermocouples were utilized for all thermal measurements.

INSTRUMENTATION:

	Calibration Due
Kikusui PCR500L AC Power Source	NA
Yokogawa WT210 Power Analyzer	01/31/15
Omega HH802U Digital Thermometer	11/30/15

PROCEDURE: In Situ Temperature Measurement Test on surface mounted luminaire. The luminaire was mounted vertically to an in-situ wall apparatus in free air per UL 1598 specifications and the Energy Star Manufacturer's Guide for Qualifying Solid State Lighting Luminaires. After mounting, the luminaire was energized at 120VAC 60Hz input to the LED driver and allowed to stabilize in a 25 +/-1 degree Celsius free air ambient. Once stabilization was verified the LED, driver, and ambient temperatures were recorded.

RESULTS: Refer to following pages

Checked: F. Schimpfle
Approved: N. Thomas

itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
NVLAP LAB CODE: 200925-0
INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA
PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL83588
DATE: 12/18/14
PREPARED FOR: B-K Lighting, Inc.
LUMINAIRE CAT NO: K2-LED-X43-NFL-12

RESULTS: Performance Data

Thermocouple Location		Temperature in Degrees C	Temperatures Corrected to Reflect a 25°C Ambient
T_A	(ambient)	24.4	25.0
T_{LD1}	(LED1)	59.9	60.5
T_{DR}	(driver)	51.0	51.6

Luminaire Input Electrical

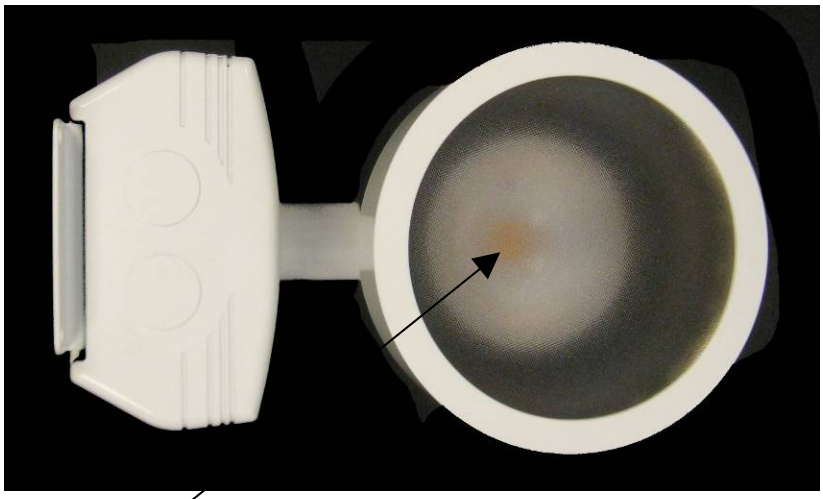
Input Voltage (Volts AC):	120.0
Input Current (Amps AC):	0.288
Input Power (Watts AC):	34.2
Input Power Factor (%):	99.0

itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
NVLAP LAB CODE: 200925-0
INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA
PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL83588
DATE: 12/18/14
PREPARED FOR: B-K Lighting, Inc.
LUMINAIRE CAT NO: K2-LED-X43-NFL-12

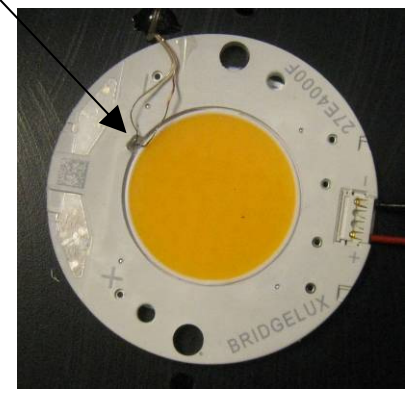
RESULTS: Photographs

LUMINAIRE
WITH LENS



LED 1

LED



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
NVLAP LAB CODE: 200925-0
INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA
PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL83588
DATE: 12/18/14
PREPARED FOR: B-K Lighting, Inc.
LUMINAIRE CAT NO: K2-LED-X43-NFL-12

RESULTS: Photographs (continued)

DRIVER

DRIVER LOCATION