itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
INDEPENDENT TESTING LABORATORIES, INC.
3386 LONGHORN ROAD, BOULDER, CO 80302 USA
PHONE: (303)442-1255 • FAX: (303)449-5274 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL63784
DATE: 12/28/2009
REVISED: 02/03/2010
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: NS-LED-e23-NSP-12; AR-LED-TR-e23-NSP-12-C; AR-LED-RM-e23-NSP-12-C; DS-LED-e23-NSP-12; RM-LED-e23-NSP-12-C; SN-LED-e23-NSP-12-C; ST-LED-e23-NSP-12-C; SF-LED-e23-NSP-12-C; TF-LED-e23-NSP-12-C; WS-LED-e23-NSP-12; AW-LED-e23-NSP-12; SW-LED-e23-NSP-12; VS-LED-e23-NSP-12; VQ-LED-e23-NSP-12; GD-LED-e23-NSP-12; GQ-LED-e23-NSP-12; EC-LED-e23-NSP-12; ED-LED-e23-NSP-12; SM-AR-LED-e23-NSP-12-C

LUMINAIRE: MACHINED CYLINDRICAL METAL HOUSING, ONE CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR CONICAL PLASTIC OPTIC PER LED, MOLDED BLACK PLASTIC OPTIC MOUNTING FRAME, CLEAR FLAT MICRO-PRISMATIC GLASS LENS IN MACHINED WHITE PAINTED CYLINDRICAL METAL FRAME WITH UNFINISHED INTERIOR, LENS PRISMS IN.

LAMPS: THREE 2.5-WATT WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL PLASTIC LENS, LEDS AIMED AT THE HORIZON.

DRIVER: INTEGRAL

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (12VAC, 60Hz) TO THE LED DRIVER. LAMP INFORMATION PROVIDED BY CLIENT.

INSTRUMENTS: Kikusui PCR500L AC Power Source
Yokogawa WT210 Digital Power Meter
Optronic Laboratories OL770 Spectroradiometer
ITL 1.5 meter Diameter 4 pi Steradian Integrating Sphere

OBJECT OF TEST: Measure the Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data to the luminaire.

PROCEDURE: The luminaire was provided by customer and had an unknown number of burn hours. The luminaire was mounted inside the integrating sphere in a horizontal position (LEDs aimed at the horizon). The luminaire was allowed to stabilize at 12VAC input. After stabilization occurred, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data were measured with the luminaire operating in the integrating sphere. In order to measure mean performance, twenty data sets were recorded and averaged within the spectroradiometer. Readings were taken with the luminaire operating at 12VAC input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. All data are traceable to the National Institute of Standards and Technology.

RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3820
Chromaticity Ordinate y	0.3976
Correlated Color Temp CCT (K)	4102
Color Rendering Index (CRI)	68
ANSI C78.377-2008 Duv	0.009
ELECTRICAL	
Input Voltage (Volts AC)	12.0
Input Current (mA AC)	996
Input Power (Watts)	8.2

Checked *N Gully*
Approved *R Bergin*