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REPORT NUMBER: ITL63798  
DATE: 01/07/10  
REVISED: 02/05/10  
PREPARED FOR: B-K LIGHTING, INC.  
CATALOG NUMBER: BQ-LED-e23-20-DEGREES; SQ-LED-e23-20-DEGREES;  
VB-LED-e23-20-DEGREES

LUMINAIRE: CAST METAL WALL MOUNTING HOUSING, ONE ADJUSTABLE OPTICAL ASSEMBLY CONSISTING OF: MACHINED DIFFUSE METAL HEAT SINK, ONE CIRCUIT BOARD WITH 3 LEDS, ONE CLEAR CONICAL PLASTIC OPTIC PER LED WITH FROSTED SURFACE OPPOSITE LED, MOLDED BLACK PLASTIC OPTIC MOUNTING FRAME. FABRICATED DIFFUSE METAL LED MODULE MOUNTING BRACKETS, CAST BLACK PAINTED METAL OPTIC ASSEMBLY MOUNTING COLLAR, CLEAR FLAT LINEAR PRISMATIC GLASS LENS, CAST WHITE PAINTED METAL FACEPLATE, LENS PRISMS OUT AND VERTICAL.

LAMPS: THREE 2.5-WATT WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL PLASTIC LENS, LEDS AIMED 20-DEGREES BELOW THE HORIZON.

DRIVER: B+L TECHNOLOGIES MP10-700-AN-BK

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 20-degrees below the horizon). The luminaire was allowed to stabilize at 12 VAC 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 12 VAC 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	0.3802
Chromaticity Ordinate y	0.4025
Correlated Color Temp CCT (K)	4175
Color Rendering Index (CRI)	68
ANSI C78.377-2008 Duv	0.012
ELECTRICAL	
Input Voltage (Volts AC)	12.0
Input Current (mA AC)	970
Input Power (Watts)	8.1

Checked	<i>N Gully</i>
Approved	<i>R Bergin</i>