

itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL63811
DATE: 12/11/09
PREPARED FOR: BETA LIGHTING, INC.

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CATALOG NUMBER: BXAL1412C-UT (350mA)

LUMINAIRE: EXTRUDED BLACK PAINTED METAL HOUSING, FABRICATED BLACK PAINTED METAL BALLAST MOUNTING PLATE, CAST BLACK PAINTED METAL END CAPS, FORMED PERFORATED METAL TOP, SIX EXTRUDED FINNED METAL HEAT SINKS, EACH HEAT SINK CONTAINS ONE CIRCUIT BOARD WITH 20 LEDS, CAST BLACK PAINTED METAL TRIM PLATE, ONE CLEAR PLASTIC NON-INTEGRAL LENS BELOW EACH LED.

LAMPS: ONE HUNDRED TWENTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

LED DRIVER: BETA LED CE366X01R0

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (240VAC, 60Hz) TO THE LED DRIVER. CLIENT STATES LEDS HAVE BEEN SEASONED FOR A MINIMUM OF 100 HOURS.


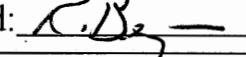
INSTRUMENTATION: Kikusui PCR500L AC Power Source
Yokogawa WT210 Digital Power Meter
Optronics OL770 Spectroradiometer
ITL 1.5 Meter Diameter 4π Steradian Integrating Sphere

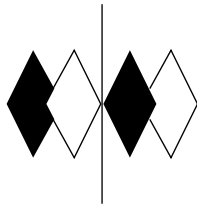
OBJECT OF TEST: Report the Absolute Flux in Lumens*, measure the Spectral Power Distribution, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and input electrical parameters to the luminaire.

PROCEDURE: The luminaire was provided by customer and the LEDs had an unknown number of burn hours. The luminaire was mounted inside the integrating sphere with the luminaire horizontal (LEDs facing down). The luminaire was allowed to stabilize at 240 VAC input. After stabilization occurred, spectral power distribution, CCT, CRI, x/y chromaticity coordinates, ANSI C78.377 Duv, and input electrical data were measured with the luminaire operating in the integrating sphere. In order to measure the mean performance, twenty data sets were recorded and averaged within the spectroradiometer. Readings were taken with the luminaire operating at 240 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.

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL63810.

RESULTS: (continued next page)

Checked: 
Approved: 



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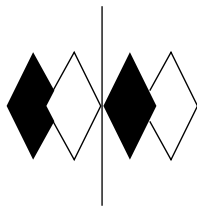
PREPARED FOR: BetaLED a Division of Ruud Lighting

CATALOG NUMBER: BXAL1412C-U(350mA)/ARE-EDG-4M-DA-12-C-UL

RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	10464*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3274
Chromaticity Ordinate y	0.3549
Correlated Color Temp CCT (K)	5713
Color Rendering Index (CRI)	73
ANSI C78.377-2008 Duv	0.009
ELECTRICAL	
Input Voltage (Volts AC)	240.0
Input Current (mA AC)	613
Input Power (Watts)	145.0
EFFICACY (Lumens/Watt)	
	72.2

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL63810.



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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	3.364	515	126.635	650	60.390
385	3.488	520	139.031	655	54.417
390	3.592	525	152.702	660	49.004
395	4.128	530	162.174	665	43.844
400	4.642	535	168.081	670	39.247
405	6.026	540	172.487	675	35.003
410	8.802	545	174.931	680	31.163
415	14.758	550	175.745	685	27.691
420	27.218	555	175.792	690	24.608
425	49.332	560	174.467	695	21.783
430	82.249	565	172.876	700	19.335
435	121.381	570	169.689	705	17.116
440	167.727	575	165.815	710	15.134
445	222.707	580	161.591	715	13.331
450	245.998	585	155.968	720	11.789
455	210.870	590	150.195	725	10.379
460	154.077	595	143.410	730	9.153
465	114.284	600	136.108	735	8.050
470	88.615	605	128.490	740	7.113
475	70.470	610	120.523	745	6.289
480	59.236	615	112.632	750	5.525
485	54.158	620	104.816	755	4.875
490	54.485	625	96.348	760	4.318
495	60.401	630	88.472	765	3.798
500	74.393	635	80.902	770	3.328
505	91.018	640	73.705	775	2.932
510	107.738	645	66.964	780	2.607

