

itl boulder

THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL64121

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DATE: 01/28/10

PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: ARE-EDG-2S-**-12-C-UL-BK or BXAL1212C-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 AND 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
Xitron Technologies Model 2503AH Power Analyzer
Optronics OL770 Spectroradiometer
ITL 1.5 Meter Diameter 4π Geometry Integrating Sphere

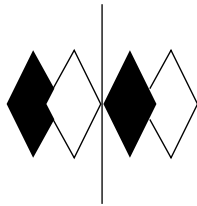
OBJECT OF TEST: Report the Absolute Flux in Lumens*, measure the Spectral Power Distribution, Correlated Color Temperature (CCT), Color Rendering Index (CRI), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and input electrical parameters including Total Harmonic Distortion (THD) to the luminaire.

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 ITL64116.

RESULTS: (continued subsequent pages)

Checked: <i>[Signature]</i>
Approved: <i>[Signature]</i>



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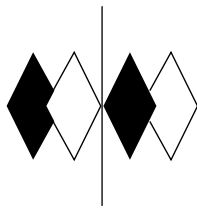
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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	11183*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3289
Chromaticity Ordinate y	0.3561
Correlated Color Temp CCT (K)	5648
Color Rendering Index (CRI)	72
ANSI C78.377-2008 Duv	0.009
ELECTRICAL	
Input Voltage (Volts AC)	240.0
Input Current (mA AC)	622
Input Power (Watts)	147.2
Total Harmonic Distortion – Current (%)	6.1
Total Harmonic Distortion – Voltage (%)	0.1
EFFICACY (Lumens/Watt)	76.0

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL64116.



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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	3.778	515	132.751	650	65.008
385	3.837	520	148.177	655	58.607
390	3.935	525	162.411	660	52.746
395	4.470	530	173.030	665	47.134
400	5.048	535	179.251	670	42.239
405	6.335	540	184.301	675	37.661
410	9.063	545	187.240	680	33.513
415	14.819	550	188.395	685	29.769
420	27.023	555	188.413	690	26.455
425	49.413	560	187.091	695	23.436
430	83.391	565	185.228	700	20.781
435	125.178	570	182.099	705	18.383
440	175.520	575	178.218	710	16.277
445	237.051	580	173.388	715	14.342
450	265.981	585	167.636	720	12.661
455	227.542	590	161.347	725	11.146
460	163.642	595	153.955	730	9.846
465	119.726	600	146.229	735	8.682
470	92.379	605	137.901	740	7.639
475	72.854	610	129.381	745	6.765
480	60.875	615	120.680	750	5.963
485	55.756	620	112.548	755	5.259
490	56.256	625	103.510	760	4.659
495	62.915	630	95.154	765	4.090
500	76.766	635	87.026	770	3.625
505	94.527	640	79.361	775	3.184
510	113.433	645	72.104	780	2.825

