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INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL64373
DATE: 03/12/10
PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: PKG-EDG-5M-**-04-D-UL-WH-525 or BXPS0504D-UCW (525mA)

LUMINAIRE: EXTRUDED WHITE PAINTED METAL HOUSING WITH CAST WHITE PAINTED METAL END CAPS, FABRICATED WIRE CAGE MOUNTING ASSEMBLY, TWO EXTRUDED FINNED METAL HEAT SINKS, EACH HEAT SINK CONTAINS ONE CIRCUIT BOARD WITH 20 LEDS, CAST WHITE PAINTED METAL TRIM PLATE, ONE CLEAR NON-INTEGRAL PLASTIC LENS BELOW EACH LED. THREE FORMED WHITE PAINTED SOLID METAL TRIM PLATES.

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

LED DRIVER: BETA LED DPL-100BB A, WITH FIVE POSITION DIMMER CONTROL SWITCH.

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. DIMMER CONTROL SWITCH IN POSITION "2" FOR THIS TEST.

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

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 ITL64367.

RESULTS: (continued subsequent pages)

Checked:
Approved: R. Dez

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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	5701*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3160
Chromaticity Ordinate y	0.3421
Correlated Color Temp CCT (K)	6255
Color Rendering Index (CRI)	72
ANSI C78.377-2008 Duv	0.008
ELECTRICAL	
Input Voltage (Volts AC)	240.0
Input Current (mA AC)	306
Input Power (Watts)	70.6
Total Harmonic Distortion – Current (%)	6.1
Total Harmonic Distortion – Voltage (%)	0.0
EFFICACY (Lumens/Watt)	80.8

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL64367.

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	2.137	515	72.183	650	29.866
385	2.169	520	79.732	655	26.785
390	2.232	525	86.425	660	23.901
395	2.542	530	91.152	665	21.238
400	2.867	535	93.412	670	18.852
405	3.574	540	95.211	675	16.693
410	5.012	545	96.018	680	14.753
415	8.007	550	96.058	685	13.030
420	14.702	555	95.571	690	11.495
425	27.408	560	94.680	695	10.127
430	47.363	565	93.383	700	8.912
435	73.786	570	91.641	705	7.863
440	108.803	575	89.383	710	6.929
445	150.045	580	86.668	715	6.076
450	160.554	585	83.565	720	5.317
455	127.628	590	80.171	725	4.669
460	88.143	595	76.245	730	4.100
465	63.536	600	72.001	735	3.599
470	47.596	605	67.546	740	3.154
475	36.672	610	62.978	745	2.776
480	30.560	615	58.368	750	2.428
485	28.196	620	54.081	755	2.134
490	29.123	625	49.349	760	1.880
495	33.602	630	45.047	765	1.654
500	41.875	635	40.945	770	1.450
505	52.007	640	37.034	775	1.273
510	62.143	645	33.381	780	1.126