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

REPORT NUMBER: ITL64374
DATE: 03/12/10
PREPARED FOR: BETALED, A DIVISION OF RUUD LIGHTING

CATALOG NUMBER: PKG-EDG-5M-**-04-D-UL-WH or BXPS0504D-UW (350mA)

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 "3" 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 ITL64368.

RESULTS: (continued subsequent pages)

Checked:
Approved:

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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	4099*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3178
Chromaticity Ordinate y	0.3458
Correlated Color Temp CCT (K)	6152
Color Rendering Index (CRI)	72
ANSI C78.377-2008 Duv	0.009
ELECTRICAL	
Input Voltage (Volts AC)	240.0
Input Current (mA AC)	214
Input Power (Watts)	47.4
Total Harmonic Distortion – Current (%)	8.0
Total Harmonic Distortion – Voltage (%)	0.0
EFFICACY (Lumens/Watt)	86.5

*NOTE: The total lumen output shown on this report was obtained from photometric test ITL64368.

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	1.469	515	52.087	650	21.330
385	1.480	520	57.605	655	19.074
390	1.509	525	62.415	660	17.020
395	1.712	530	65.791	665	15.071
400	1.930	535	67.400	670	13.387
405	2.361	540	68.584	675	11.827
410	3.209	545	69.064	680	10.456
415	4.918	550	69.025	685	9.211
420	8.886	555	68.641	690	8.108
425	16.781	560	68.037	695	7.143
430	29.904	565	67.127	700	6.291
435	48.330	570	65.875	705	5.520
440	74.869	575	64.258	710	4.856
445	107.891	580	62.399	715	4.248
450	117.037	585	60.214	720	3.730
455	91.421	590	57.743	725	3.274
460	61.582	595	54.942	730	2.859
465	44.024	600	51.850	735	2.504
470	32.877	605	48.660	740	2.188
475	25.204	610	45.332	745	1.932
480	20.970	615	41.969	750	1.692
485	19.475	620	38.845	755	1.480
490	20.233	625	35.438	760	1.306
495	23.587	630	32.321	765	1.144
500	29.757	635	29.326	770	1.002
505	37.236	640	26.495	775	0.880
510	44.748	645	23.853	780	0.775