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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955
INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL64903
DATE: 05/25/10
PREPARED FOR: NEXXUS LIGHTING, INC.

CATALOG NUMBER: AE26R16--60 6500K D1

LAMP: ONE R16 STYLE MEDIUM BASE LED LAMP WITH INTEGRAL LED DRIVER, MOLDED FINNED WHITE PLASTIC BODY, ONE WHITE CIRCUIT BOARD WITH 40 VERTICAL BASE-UP WHITE LIGHT EMITTING DIODES (LEDS), MULTIPLE METAL POSTS BETWEEN UPPER AND LOWER HOUSING, FROSTED FLAT PLASTIC LENS, VERTICAL BASE-UP POSITION.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LAMP.

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: Measure the Total Luminous Flux*, 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 lamp.

PROCEDURE: The lamp was provided by customer and the LEDs had an unknown number of burn hours. The lamp was mounted inside the integrating sphere with the lamp in a base up position (LEDs facing down). The lamp was allowed to stabilize at 120 VAC input. After stabilization occurred, total flux, spectral power distribution, CCT, CRI, x/y chromaticity coordinates, ANSI C78.377 Duv, and input electrical data were measured with the lamp operating in the integrating sphere. In order to measure the mean performance, multiple sets were recorded and averaged. Readings were taken with the lamp operating at 120 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: Proper calibration of integrating spheres for measuring total flux output of non-directional lamps will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of lamps with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results

RESULTS: See subsequent pages

Checked: *N Gully*
Approved: *R Bergin*

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RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	184*
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3052
Chromaticity Ordinate y	0.3156
Correlated Color Temp CCT (K)	7089
Color Rendering Index (CRI)	85
ANSI C78.377-2008 Duv	0.000
ELECTRICAL	
Input Voltage (Volts AC)	120.0
Input Current (mA AC)	24.2
Input Power (Watts)	2.69
Input Power Factor (%)	92.6
EFFICACY	
Lumens/Watt	68.4

*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional lamps will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of lamps with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.081	515	2.502	650	1.435
385	0.081	520	2.629	655	1.341
390	0.081	525	2.734	660	1.246
395	0.089	530	2.812	665	1.147
400	0.099	535	2.841	670	1.053
405	0.120	540	2.876	675	0.958
410	0.160	545	2.893	680	0.867
415	0.231	550	2.894	685	0.782
420	0.377	555	2.884	690	0.701
425	0.663	560	2.861	695	0.626
430	1.190	565	2.826	700	0.555
435	2.001	570	2.774	705	0.491
440	3.282	575	2.712	710	0.432
445	5.368	580	2.640	715	0.380
450	6.801	585	2.560	720	0.334
455	5.769	590	2.479	725	0.292
460	3.992	595	2.395	730	0.254
465	3.006	600	2.309	735	0.221
470	2.221	605	2.225	740	0.192
475	1.642	610	2.141	745	0.167
480	1.411	615	2.059	750	0.144
485	1.372	620	1.982	755	0.125
490	1.448	625	1.888	760	0.108
495	1.634	630	1.802	765	0.093
500	1.876	635	1.714	770	0.081
505	2.112	640	1.625	775	0.070
510	2.314	645	1.533	780	0.060