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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

PHONE: (303)442-1255 • FAX: (970)535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL83583
DATE: 12/08/14
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: K2-LED-X47-FL-12

ADDRESS: 40429 BRICKYARD DRIVE
MADERA, CA 93636-9515

LUMINAIRE: CAST METAL HOUSING WITH UNFINISHED BROWN INTERIOR FINISH, CAST METAL DRIVER HOUSING, MACHINED BLACK FINISHED CIRCUIT BOARD MOUNTING BLOCK, 1 CIRCUIT BOARD WITH ONE LED, MOLDED WHITE PLASTIC LED SURROUND, MOLDED PLASTIC REFLECTOR WITH TEXTURED SEMI-SPECULAR FINISH, CLEAR MICRO-PRISMATIC FLAT GLASS LENS IN MACHINED WHITE PAINTED METAL FRAME. LENS PRISMS IN.

LAMP: ONE WHITE MULTI-CHIP LIGHT EMITTING DIODE (LED), AIMED AT THE HORIZON.

DRIVER: ELDOLED ECODRIVE 561/S, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. CLIENT STATES DRIVER PROGRAMMED FOR 1050mA OUTPUT.

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

INSTRUMENTS:

	Calibration Due:
Associated Power Technologies APT5040 AC Power Source	N/A
Yokogawa WT210 Digital Power Meter #8	12/31/14
Ocean Optics QE65000 Spectroradiometer	07/14/15
ITL 2.0m Diameter Integrating Sphere S20-2, 4PI Geometry	07/14/15

OBJECT OF TEST: Measure the Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF) to the test sample.

PROCEDURE: The test sample was provided by the customer and had an unknown number of burn hours. The test sample was mounted inside the integrating sphere and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 120VAC 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.

RESULTS: (continued subsequent pages)

THIS ITL REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.

Checked *N THOMAS*
Approved *P O'CONNOR*
Sphere Lab Supervisor

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RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4373
Chromaticity Ordinate y	0.4036
Correlated Color Temp CCT (K)	2990
Color Rendering Index (CRIa)	92
Color Rendering Index 1 (Light greyish red)	93
Color Rendering Index 2 (Dark greyish yellow)	94
Color Rendering Index 3 (Strong yellowish green)	93
Color Rendering Index 4 (Moderate yellowish green)	92
Color Rendering Index 5 (Light bluish green)	91
Color Rendering Index 6 (Light blue)	91
Color Rendering Index 7 (Light violet)	95
Color Rendering Index 8 (Light reddish purple)	88
Color Rendering Index 9 (Strong red)	70
Color Rendering Index 10 (Strong yellow)	84
Color Rendering Index 11 (Strong green)	91
Color Rendering Index 12 (Strong blue)	73
Color Rendering Index 13 (Light yellowish pink (skin))	93
Color Rendering Index 14 (Moderate olive green (leaf))	95
ANSI C78.377-2008 Duv	0.000
ELECTRICAL FOR SPECTRORADIOMETRIC TEST	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.355
Input Power (Watts)	42.2
Input Power Factor (%)	99.1

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.147	515	20.560	650	42.162
385	0.144	520	22.535	655	40.314
390	0.139	525	24.304	660	38.223
395	0.153	530	25.989	665	35.878
400	0.174	535	27.503	670	33.388
405	0.231	540	28.832	675	30.855
410	0.361	545	29.987	680	28.267
415	0.625	550	31.053	685	25.721
420	1.089	555	31.936	690	23.220
425	1.886	560	32.762	695	20.833
430	3.160	565	33.462	700	18.623
435	5.171	570	34.148	705	16.523
440	8.361	575	34.894	710	14.609
445	14.108	580	35.752	715	12.844
450	22.007	585	36.721	720	11.257
455	25.046	590	37.817	725	9.800
460	20.037	595	39.007	730	8.499
465	15.293	600	40.307	735	7.344
470	12.766	605	41.691	740	6.335
475	10.478	610	42.975	745	5.473
480	9.181	615	44.119	750	4.732
485	9.332	620	44.964	755	4.078
490	10.273	625	45.484	760	3.512
495	11.793	630	45.623	765	3.012
500	13.843	635	45.397	770	2.589
505	16.139	640	44.748	775	2.221
510	18.399	645	43.687	780	1.900