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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: ITL83582
DATE: 12/08/14
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: K2-LED-X46-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)

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

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RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4565
Chromaticity Ordinate y	0.4090
Correlated Color Temp CCT (K)	2734
Color Rendering Index (CRIa)	81
Color Rendering Index 1 (Light greyish red)	78
Color Rendering Index 2 (Dark greyish yellow)	89
Color Rendering Index 3 (Strong yellowish green)	97
Color Rendering Index 4 (Moderate yellowish green)	77
Color Rendering Index 5 (Light bluish green)	78
Color Rendering Index 6 (Light blue)	87
Color Rendering Index 7 (Light violet)	82
Color Rendering Index 8 (Light reddish purple)	58
Color Rendering Index 9 (Strong red)	9
Color Rendering Index 10 (Strong yellow)	75
Color Rendering Index 11 (Strong green)	74
Color Rendering Index 12 (Strong blue)	69
Color Rendering Index 13 (Light yellowish pink (skin))	80
Color Rendering Index 14 (Moderate olive green (leaf))	99
ANSI C78.377-2008 Duv	0.000
ELECTRICAL FOR SPECTRORADIOMETRIC TEST	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.357
Input Power (Watts)	42.5
Input Power Factor (%)	99.2

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.152	515	18.678	650	36.540
385	0.152	520	20.254	655	33.434
390	0.152	525	21.840	660	30.395
395	0.165	530	23.599	665	27.436
400	0.205	535	25.456	670	24.621
405	0.286	540	27.471	675	21.959
410	0.471	545	29.646	680	19.470
415	0.814	550	31.984	685	17.168
420	1.399	555	34.390	690	15.062
425	2.332	560	36.940	695	13.175
430	3.744	565	39.496	700	11.504
435	5.858	570	42.017	705	9.991
440	9.306	575	44.499	710	8.659
445	15.486	580	46.875	715	7.491
450	21.628	585	49.026	720	6.468
455	20.949	590	50.828	725	5.550
460	15.785	595	52.225	730	4.764
465	12.803	600	53.149	735	4.072
470	10.827	605	53.626	740	3.492
475	9.069	610	53.522	745	2.996
480	8.622	615	52.848	750	2.579
485	9.240	620	51.619	755	2.210
490	10.321	625	49.849	760	1.895
495	11.837	630	47.714	765	1.629
500	13.611	635	45.252	770	1.398
505	15.385	640	42.519	775	1.200
510	17.063	645	39.618	780	1.027