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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: ITL83584
DATE: 12/09/14
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: K2-LED-X48-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	0.3828
Chromaticity Ordinate y	0.3803
Correlated Color Temp CCT (K)	3963
Color Rendering Index (CRIa)	83
Color Rendering Index 1 (Light greyish red)	81
Color Rendering Index 2 (Dark greyish yellow)	88
Color Rendering Index 3 (Strong yellowish green)	93
Color Rendering Index 4 (Moderate yellowish green)	81
Color Rendering Index 5 (Light bluish green)	81
Color Rendering Index 6 (Light blue)	83
Color Rendering Index 7 (Light violet)	88
Color Rendering Index 8 (Light reddish purple)	68
Color Rendering Index 9 (Strong red)	17
Color Rendering Index 10 (Strong yellow)	71
Color Rendering Index 11 (Strong green)	78
Color Rendering Index 12 (Strong blue)	60
Color Rendering Index 13 (Light yellowish pink (skin))	82
Color Rendering Index 14 (Moderate olive green (leaf))	96
ANSI C78.377-2008 Duv	0.001
ELECTRICAL FOR SPECTRORADIOMETRIC TEST	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.354
Input Power (Watts)	42.1
Input Power Factor (%)	99.1

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.229	515	31.680	650	30.924
385	0.227	520	33.782	655	28.146
390	0.240	525	35.681	660	25.489
395	0.275	530	37.631	665	22.908
400	0.366	535	39.518	670	20.501
405	0.543	540	41.343	675	18.245
410	0.920	545	43.094	680	16.135
415	1.671	550	44.777	685	14.206
420	2.988	555	46.250	690	12.442
425	5.205	560	47.623	695	10.871
430	8.789	565	48.766	700	9.485
435	14.392	570	49.675	705	8.241
440	23.859	575	50.446	710	7.144
445	40.462	580	51.058	715	6.179
450	55.036	585	51.458	720	5.341
455	50.219	590	51.607	725	4.598
460	36.106	595	51.423	730	3.941
465	28.053	600	51.006	735	3.379
470	22.258	605	50.313	740	2.898
475	17.647	610	49.239	745	2.491
480	16.102	615	47.816	750	2.149
485	16.693	620	46.022	755	1.847
490	18.298	625	43.922	760	1.590
495	20.826	630	41.579	765	1.369
500	23.820	635	39.068	770	1.174
505	26.725	640	36.433	775	1.013
510	29.313	645	33.729	780	0.873