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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: ITL83579
DATE: 12/08/14
PREPARED FOR: B-K LIGHTING, INC.
CATALOG NUMBER: K2-LED-X43-NFL-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	0.4541
Chromaticity Ordinate y	0.4101
Correlated Color Temp CCT (K)	2777
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)	76
Color Rendering Index 11 (Strong green)	73
Color Rendering Index 12 (Strong blue)	68
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)	0.288
Input Power (Watts)	34.2
Input Power Factor (%)	99.0

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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.097	515	13.831	650	26.172
385	0.107	520	14.989	655	23.926
390	0.103	525	16.169	660	21.741
395	0.113	530	17.466	665	19.612
400	0.137	535	18.847	670	17.599
405	0.184	540	20.330	675	15.696
410	0.292	545	21.912	680	13.917
415	0.503	550	23.612	685	12.266
420	0.861	555	25.341	690	10.766
425	1.451	560	27.175	695	9.419
430	2.369	565	29.002	700	8.235
435	3.793	570	30.803	705	7.162
440	6.060	575	32.553	710	6.207
445	10.061	580	34.238	715	5.374
450	14.777	585	35.729	720	4.649
455	15.877	590	36.976	725	3.993
460	12.912	595	37.914	730	3.427
465	10.432	600	38.515	735	2.933
470	8.937	605	38.790	740	2.516
475	7.607	610	38.651	745	2.157
480	6.989	615	38.108	750	1.857
485	7.236	620	37.188	755	1.595
490	7.921	625	35.862	760	1.368
495	8.928	630	34.288	765	1.175
500	10.141	635	32.485	770	1.009
505	11.411	640	30.491	775	0.866
510	12.626	645	28.392	780	0.743