



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

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Page 1 of 3

REPORT NUMBER: ITL83580  
DATE: 12/08/14  
PREPARED FOR: B-K LIGHTING, INC.  
CATALOG NUMBER: K2-LED-X44-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:	Associated Power Technologies APT5040 AC Power Source	Calibration Due:
	Yokogawa WT210 Digital Power Meter #8	N/A
	Ocean Optics QE65000 Spectroradiometer	12/31/14
	ITL 2.0m Diameter Integrating Sphere S20-2, 4PI Geometry	07/14/15

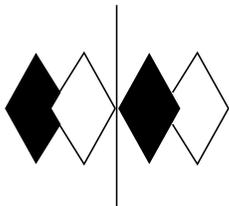
OBJECT OF TEST: Measure the Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF) to the test sample.

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	<i>N THOMAS</i>
Approved	<i>P O'CONNOR</i> Sphere Lab Supervisor



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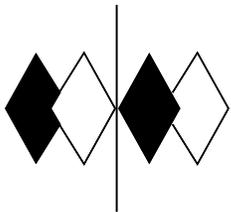


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RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4339
Chromaticity Ordinate y	0.4001
Correlated Color Temp CCT (K)	3018
Color Rendering Index (CRIa)	91
Color Rendering Index 1 (Light greyish red)	92
Color Rendering Index 2 (Dark greyish yellow)	94
Color Rendering Index 3 (Strong yellowish green)	92
Color Rendering Index 4 (Moderate yellowish green)	92
Color Rendering Index 5 (Light bluish green)	91
Color Rendering Index 6 (Light blue)	90
Color Rendering Index 7 (Light violet)	94
Color Rendering Index 8 (Light reddish purple)	87
Color Rendering Index 9 (Strong red)	68
Color Rendering Index 10 (Strong yellow)	83
Color Rendering Index 11 (Strong green)	90
Color Rendering Index 12 (Strong blue)	73
Color Rendering Index 13 (Light yellowish pink (skin))	92
Color Rendering Index 14 (Moderate olive green (leaf))	95
ANSI C78.377-2008 Duv	-0.001
ELECTRICAL FOR SPECTRORADIOMETRIC TEST	
Input Voltage (Volts AC )	120.0
Input Current (Amps AC )	0.288
Input Power (Watts)	34.1
Input Power Factor (%)	98.7



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Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.114	515	15.305	650	30.672
385	0.114	520	16.786	655	29.281
390	0.109	525	18.104	660	27.743
395	0.123	530	19.354	665	26.026
400	0.147	535	20.488	670	24.231
405	0.205	540	21.469	675	22.378
410	0.325	545	22.327	680	20.508
415	0.573	550	23.115	685	18.642
420	1.018	555	23.780	690	16.825
425	1.761	560	24.395	695	15.109
430	2.964	565	24.924	700	13.493
435	4.832	570	25.439	705	11.986
440	7.947	575	26.001	710	10.600
445	13.459	580	26.635	715	9.325
450	18.976	585	27.356	720	8.184
455	18.471	590	28.144	725	7.131
460	13.715	595	28.992	730	6.194
465	10.617	600	29.913	735	5.362
470	8.615	605	30.884	740	4.632
475	6.942	610	31.767	745	4.008
480	6.311	615	32.524	750	3.473
485	6.592	620	33.084	755	2.997
490	7.367	625	33.384	760	2.580
495	8.617	630	33.408	765	2.221
500	10.232	635	33.164	770	1.909
505	11.970	640	32.640	775	1.640
510	13.674	645	31.815	780	1.405

