



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

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REPORT NUMBER: ITL83581  
DATE: 12/08/14  
PREPARED FOR: B-K LIGHTING, INC.  
CATALOG NUMBER: K2-LED-X45-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: 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

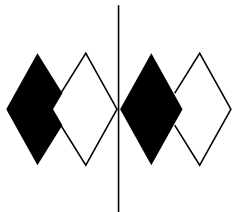
OBJECT OF TEST: Measure the Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRI<sub>a</sub>,1-14), Chromaticity Coordinates (x,y), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF) to the test sample.

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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CATALOG NUMBER: K2-LED-X45-NFL-12

RESULTS:

SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.3807
Chromaticity Ordinate y	0.3784
Correlated Color Temp CCT (K)	4004
Color Rendering Index (CRIa)	82
Color Rendering Index 1 (Light greyish red)	80
Color Rendering Index 2 (Dark greyish yellow)	86
Color Rendering Index 3 (Strong yellowish green)	91
Color Rendering Index 4 (Moderate yellowish green)	82
Color Rendering Index 5 (Light bluish green)	80
Color Rendering Index 6 (Light blue)	81
Color Rendering Index 7 (Light violet)	87
Color Rendering Index 8 (Light reddish purple)	68
Color Rendering Index 9 (Strong red)	16
Color Rendering Index 10 (Strong yellow)	67
Color Rendering Index 11 (Strong green)	80
Color Rendering Index 12 (Strong blue)	62
Color Rendering Index 13 (Light yellowish pink (skin))	81
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 )	0.293
Input Power (Watts)	34.8
Input Power Factor (%)	99.0



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RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.171	515	21.918	650	20.624
385	0.181	520	23.283	655	18.786
390	0.212	525	24.529	660	17.019
395	0.272	530	25.794	665	15.315
400	0.393	535	27.011	670	13.711
405	0.641	540	28.196	675	12.207
410	1.163	545	29.336	680	10.818
415	2.180	550	30.435	685	9.533
420	3.942	555	31.371	690	8.364
425	6.782	560	32.231	695	7.322
430	10.923	565	32.931	700	6.393
435	16.578	570	33.493	705	5.555
440	24.995	575	33.930	710	4.819
445	34.596	580	34.289	715	4.170
450	34.913	585	34.486	720	3.608
455	25.618	590	34.540	725	3.106
460	18.410	595	34.394	730	2.666
465	14.405	600	34.060	735	2.286
470	11.106	605	33.549	740	1.961
475	9.477	610	32.814	745	1.684
480	9.554	615	31.854	750	1.454
485	10.513	620	30.660	755	1.251
490	12.165	625	29.245	760	1.077
495	14.341	630	27.692	765	0.925
500	16.568	635	26.029	770	0.796
505	18.583	640	24.268	775	0.686
510	20.366	645	22.484	780	0.591

