



Report of Test

LLIA000965-003

Integrating Sphere Report

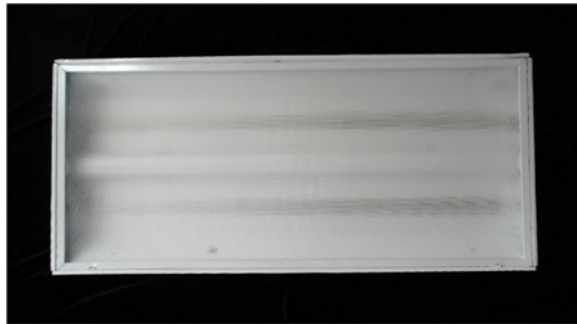
Catalog Number: KT-RKIT-2AG44-4000-850-VDIM

LED retrofit kit installed in a Lithonia 2GT8 lensed 2X4 reference troffer.

White enamel steel housing , clear prismatic plastic lens.

320 white LEDs, two KTAG-44L-1400-30-850-RJ modules with 160 LEDs each.

One Keystone Technologies KTLD-30-UV-900-VDIM-LA1 LED driver



Performance Summary

Voltage	120.0 Vac
Current	0.2380 A
Power	28.38 W
Frequency	59.97 Hz
Power Factor	0.994
Current THD	5.8 %

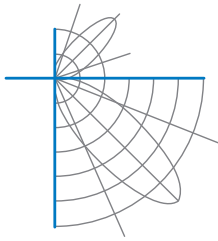
Total Luminous Flux	4040.0 lm
Efficacy	142.4 lm/W
Chromaticity (x,y)	(0.3406, 0.3505)
(u',v')	(0.2088, 0.4835)
Duv	0.0013
CCT	5174 K
CRI (Ra)	85
R9	11
TM-30: Rf	82
TM-30: Rg	94

Prepared For:

Keystone Technologies
1390 Welsh Road
North Wales, PA 19454, USA

Test date: 03/28/2016
Report date: 04/03/2018

Signed: _____



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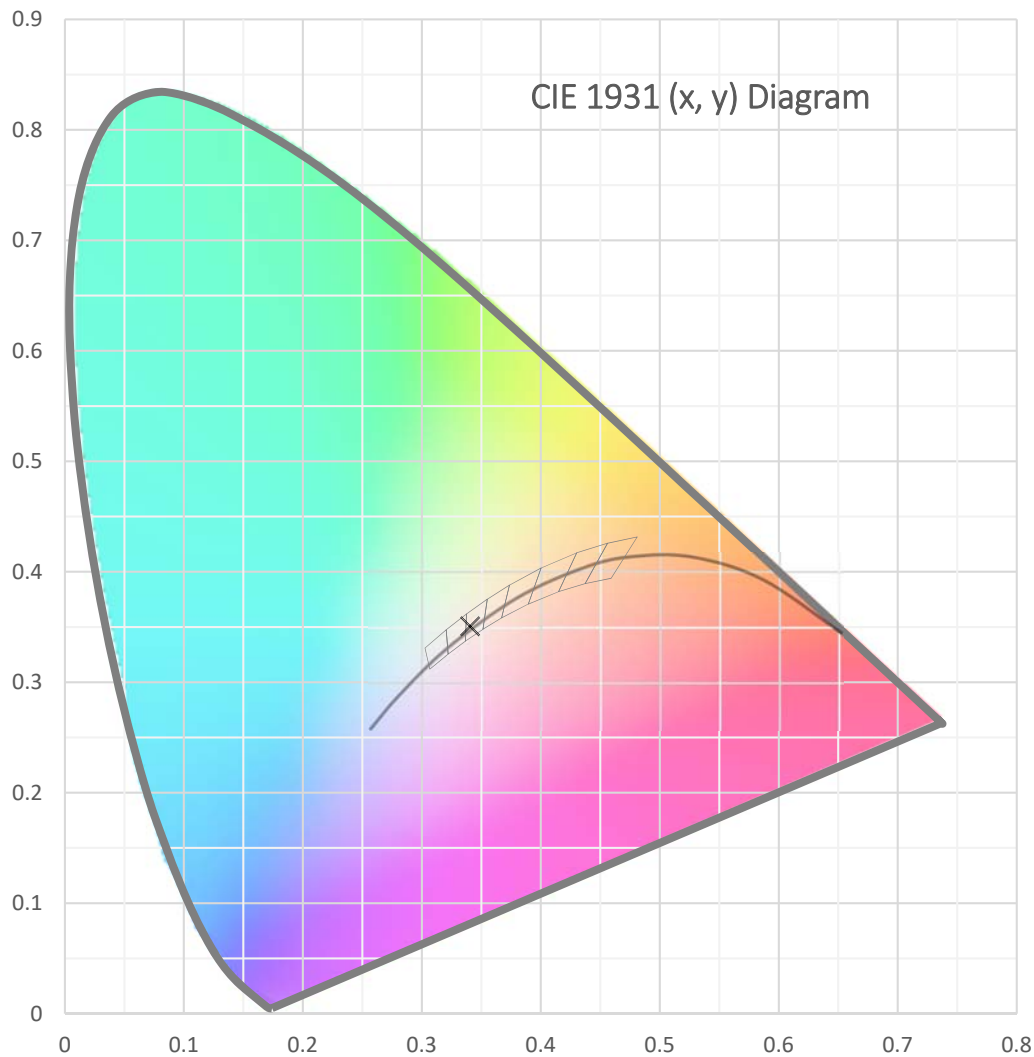
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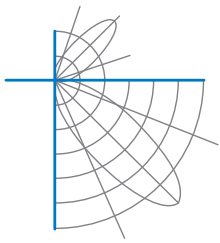
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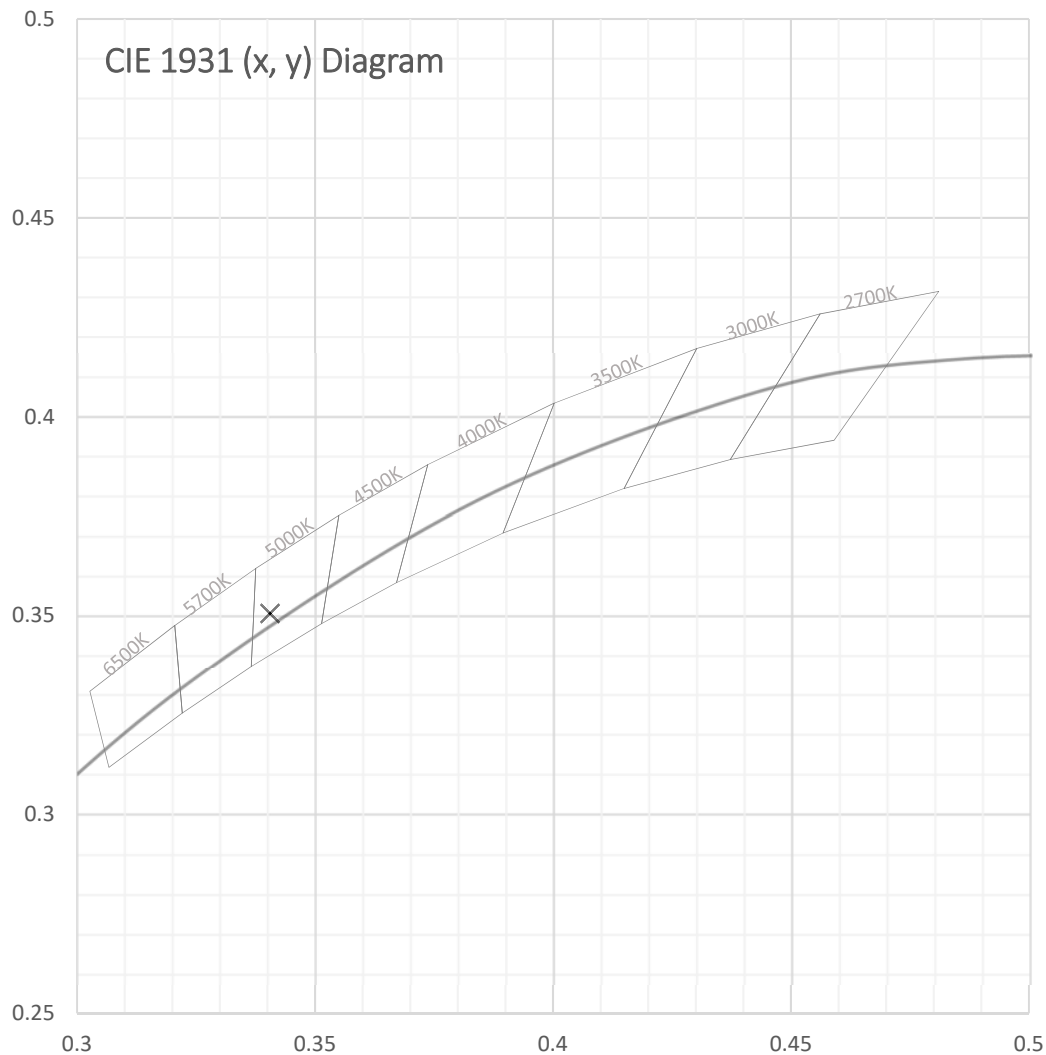
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Spectral Data

Total Radiant Flux	12.78 W
Total Luminous Flux	4040.0 Lm
Chromaticity CIE 1931 (x, y)	(0.3406, 0.3505)
Chromaticity CIE 1976 (u', v')	(0.2088, 0.4835)
Correlated Color Temperature (CCT)	5174 K
Color Rendering Index (Ra)	85
R1	84
R2	92
R3	95
R4	83
R5	84
R6	87
R7	86
R8	67
R9	11
R10	79
R11	82
R12	64
R13	86
R14	98
TM-30: Rf	82
TM-30: Rg	94
Distance from Planckian Locus (Duv)	0.0013
Scotopic/Photopic Ratio *	2.041

Electrical Data

Voltage	120.0 Vac
Current	0.2380 A
Power	28.38 W
Frequency	59.97 Hz
Power Factor	0.994
Current THD	5.8 %



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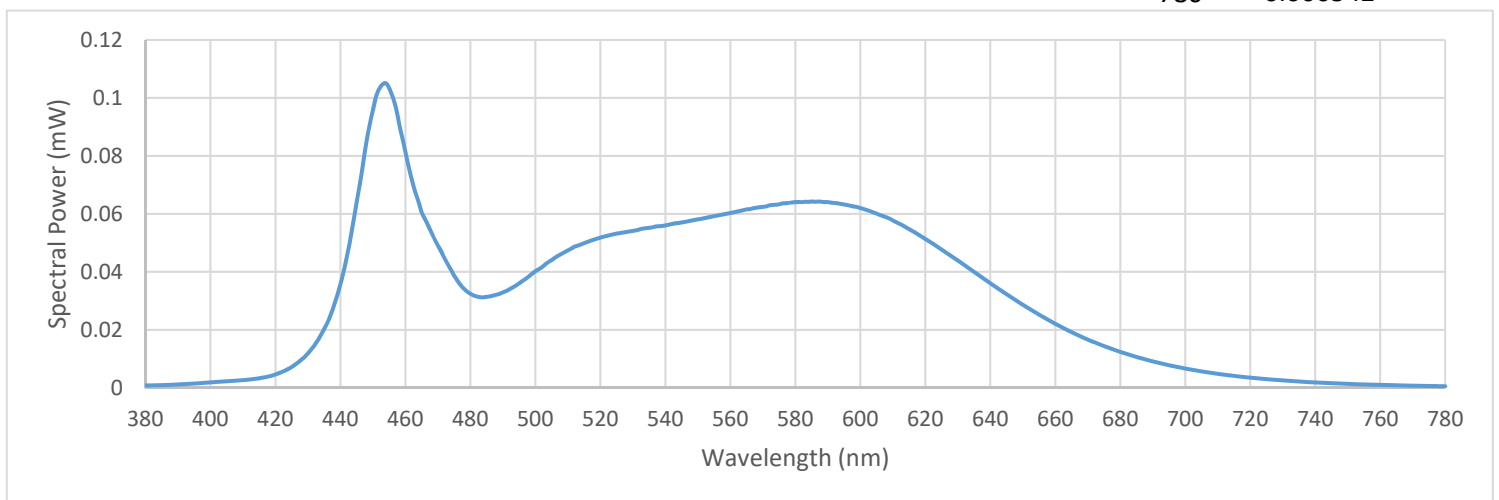
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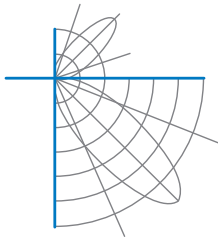
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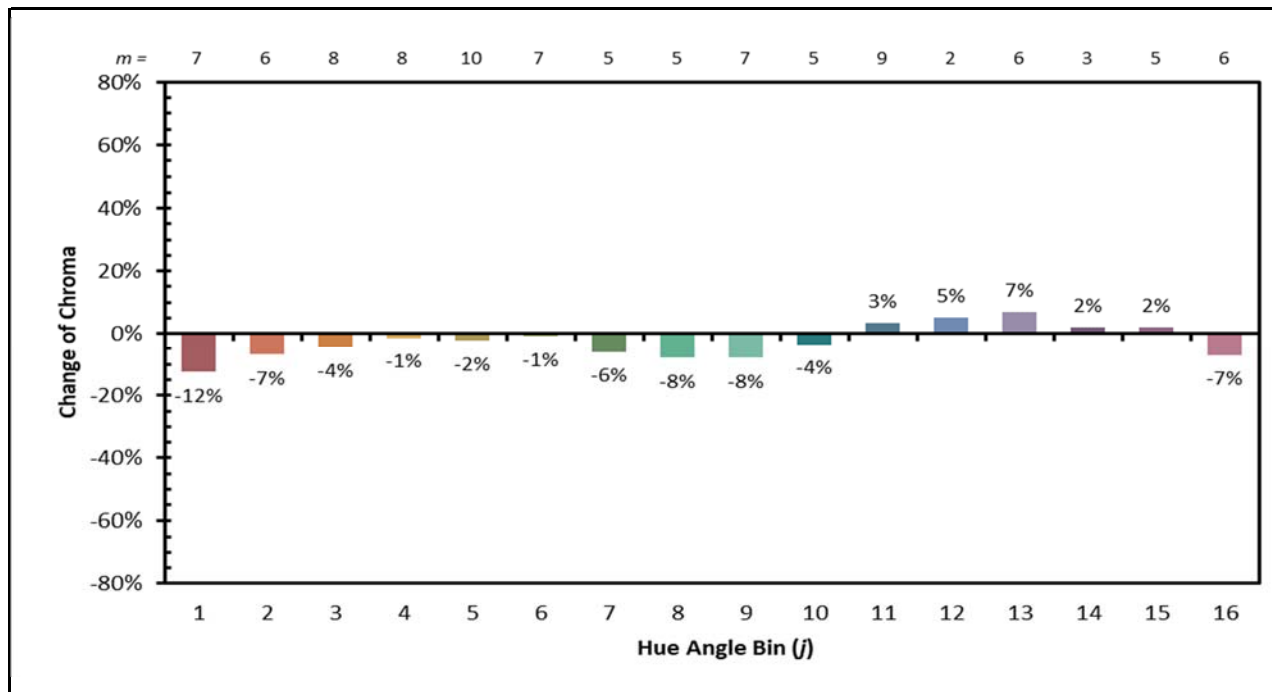
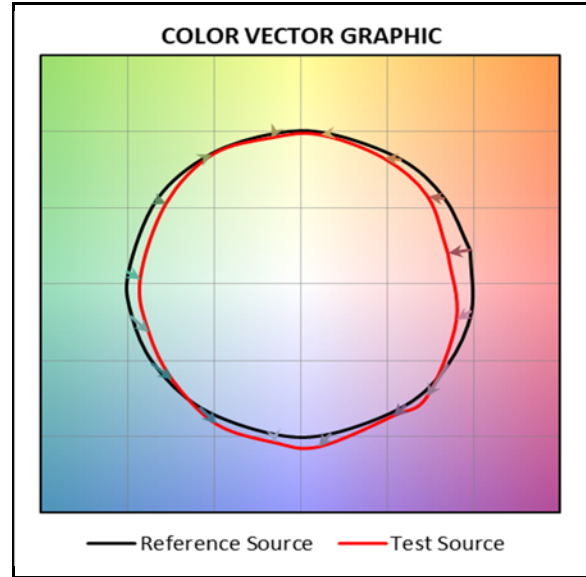
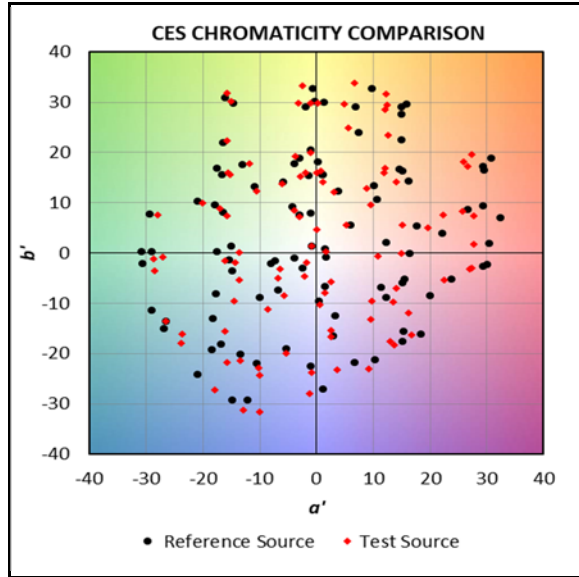
Summary Spectral Power Distribution (wavelength - nm, spectral power - mW)

380	0.000812	480	0.032485	580	0.064058	680	0.012369
385	0.000901	485	0.031403	585	0.064270	685	0.010650
390	0.001129	490	0.032858	590	0.064088	690	0.009121
395	0.001447	495	0.036014	595	0.063268	695	0.007767
400	0.001862	500	0.040216	600	0.061972	700	0.006651
405	0.002251	505	0.044060	605	0.060101	705	0.005650
410	0.002640	510	0.047416	610	0.057728	710	0.004803
415	0.003268	515	0.049935	615	0.054776	715	0.004109
420	0.004591	520	0.051845	620	0.051318	720	0.003494
425	0.007159	525	0.053212	625	0.047709	725	0.002973
430	0.011958	530	0.054158	630	0.043874	730	0.002537
435	0.020354	535	0.055214	635	0.040069	735	0.002157
440	0.035574	540	0.056050	640	0.036074	740	0.001836
445	0.064087	545	0.057032	645	0.032329	745	0.001567
450	0.095877	550	0.058112	650	0.028624	750	0.001345
455	0.103417	555	0.059274	655	0.025164	755	0.001146
460	0.081551	560	0.060261	660	0.022127	760	0.000991
465	0.060525	565	0.061550	665	0.019193	765	0.000855
470	0.049069	570	0.062441	670	0.016623	770	0.000732
475	0.038689	575	0.063274	675	0.014398	775	0.000627
						780	0.000542





IES TM-30 Summary





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Test Equipment Configuration: LightLab International Allentown 2m Integrating Sphere
Measurements acquired using a Labsphere CDS 2600 spectroradiometer
Testing was performed using 4 π geometry

Test Temperature: 25.4 °C

Test Procedure: Tested in accordance with the applicable sections of:
LM-79-08, LM-78-07, LM-58-13, ANSI_ANSLG C78.377-2015,
ANSI C82-77-10:2014, TM-30-15

Significance: The laboratory has not participated in the selection of samples to be tested.
All testing is performed on the understanding that the significance of the report
is limited to the extent that the test sample is representative of production units.

Notes: The measurements and other derived quantities contained in this report
are based on the absolute data as measured.

Prorating the performance of the sample for the use of other component
combinations (such as lamp / LED / Ballast / driver), or for use in different
environmental conditions than that tested, may produce erroneous results.

This report is free of erasures and corrections

This report may contain data that are not covered by the NVLAP accreditation.
Quantities marked with * are not covered.