

# VISUAL COMFORT GROUP TEST REPORT

## SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA test standard.

## MODEL NUMBER

E3SLF-LHXXX40AI

## REPORT NUMBER

104074220CHI-001

## ISSUE DATE

September 11, 2019

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

TBD

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**TEST REPORT**

**REPORT NO.:104074220CHI-001**  
**REPORT DATE: September 11, 2019**

**TEST OF ONE RECESSED LUMINAIRE**

**MODEL NO. E3SLF-LHXXX40AI**  
**LED MODEL NO. BRIDGELUX, BXRV-TR-2750G-20A0-23**  
**DRIVER MODEL NO. ELDOLED, DUAL DRIVE 561/S**

**RENDERED TO:**

**VISUAL COMFORT GROUP**  
**7400 LINDER AVE**  
**SKOKIE, IL 60077**

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-00981438-2 .

**STANDARDS USED**

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting  
ANSI NEMA ANSLG C78.377: 2015: Specifications of the Chromaticity of Solid State Lighting Products

**DESCRIPTION OF SAMPLE**

The client submitted one prototype sample of model number E3SLF-LHXXX40AI. The sample was received by Intertek on August 21, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH08212019100741-001.

**DATE OF TESTS**

September 11, 2019

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**SUMMARY**

<b>MODEL NO:</b>	E3SLF-LHXXX40AI
<b>DESCRIPTION:</b>	RECESSED LUMINAIRE

CRITERIA	RESULTS
Lumen Output (lumens)	1384.9
Input Power (W) @ 120 (VAC)	16.57
Lumen Efficacy (lm/W)	83.6
Input Power Factor (W) @ 120 (VAC)	0.964
Input Current ATHD (%) @ 120 (VAC)	15.10
Correlated Color Temperature (K)	5166
Color Rendering Index - Ra	92.6
Color Rendering - R9	60.3
DUV	0.0011
Chromaticity Coordinate (x)	0.341
Chromaticity Coordinate (y)	0.351
Chromaticity Coordinate (u')	0.209
Chromaticity Coordinate (v')	0.484

**EQUIPMENT LIST**

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Labsphere Spectroradiometer	CDS1100	CHI0091	VBV	VBV
3 Meter Sphere	SPR600	CHI0088	VBV	VBV
Elgar AC Power Supply	CW1251	146112	VBV	VBV
Sorenson DC Power Supply	XFR150-8	146846	VBV	VBV
Newport Humidity Recorder	iTHX-SD	146382	4/17/2019	4/17/2020
Yokogawa Power Meter	WT1600	146769	4/3/2019	4/3/2020
Extech K Temperature Meter	SD200	CHI0207	4/3/2019	4/3/2020

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**TEST METHODS**

**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

No seasoning was performed in accordance with IESNA LM-79.

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD**

A Spectroradiometer and integrating sphere was used to measure correlated color temperature, chromaticity coordinates, and the color rendering index for each SSL unit.

Ambient temperature was measured at a position inside the sphere. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation. Each SSL unit was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

The calibration of the sphere photometer-spectroradiometer system is traceable to the National Institute of Standards and Technology.

CCT was adjusted using a Lutron Diva DDTV 0-10V dimmer

TEST REPORT

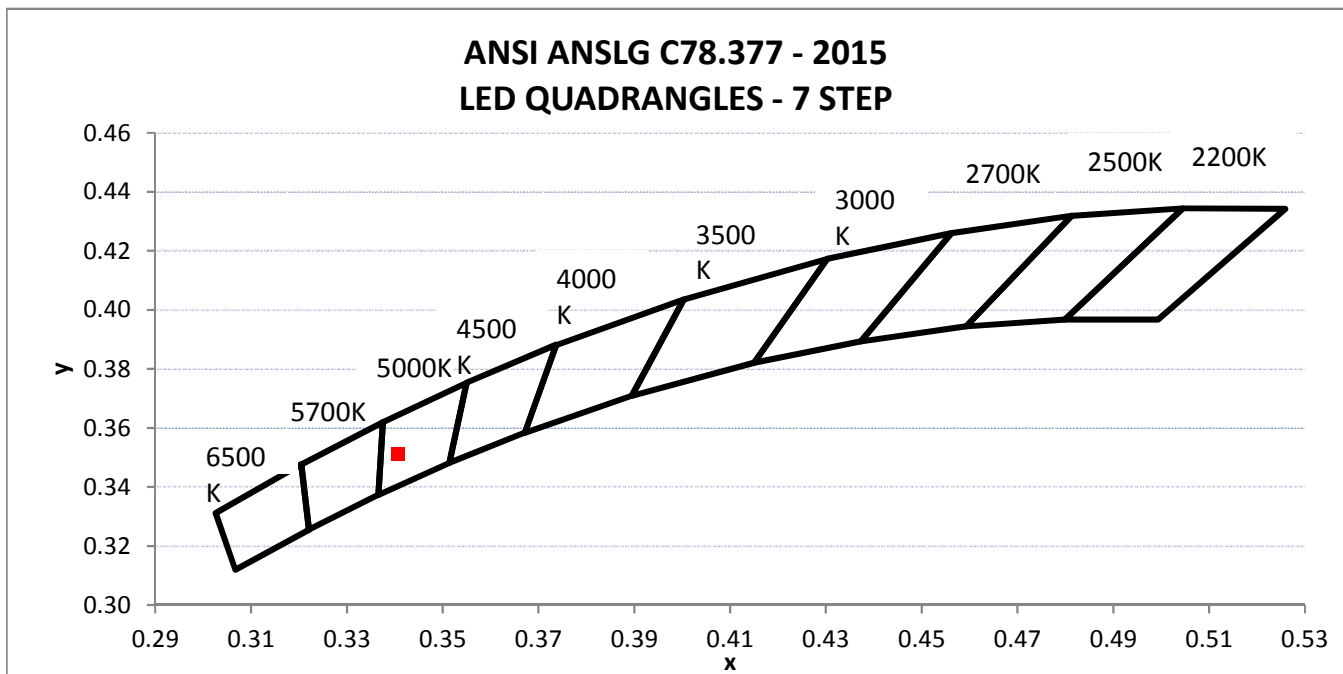
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PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD (25°C +/- 1°C)

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR	INPUT CURRENT ATHD (%)
AH08212019100741-001	Base Up	119.96	143.28	16.57	0.96	15.10

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1384.9	83.6	5166	92.6	60.3	0.0011

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.341	0.351	0.209	0.484



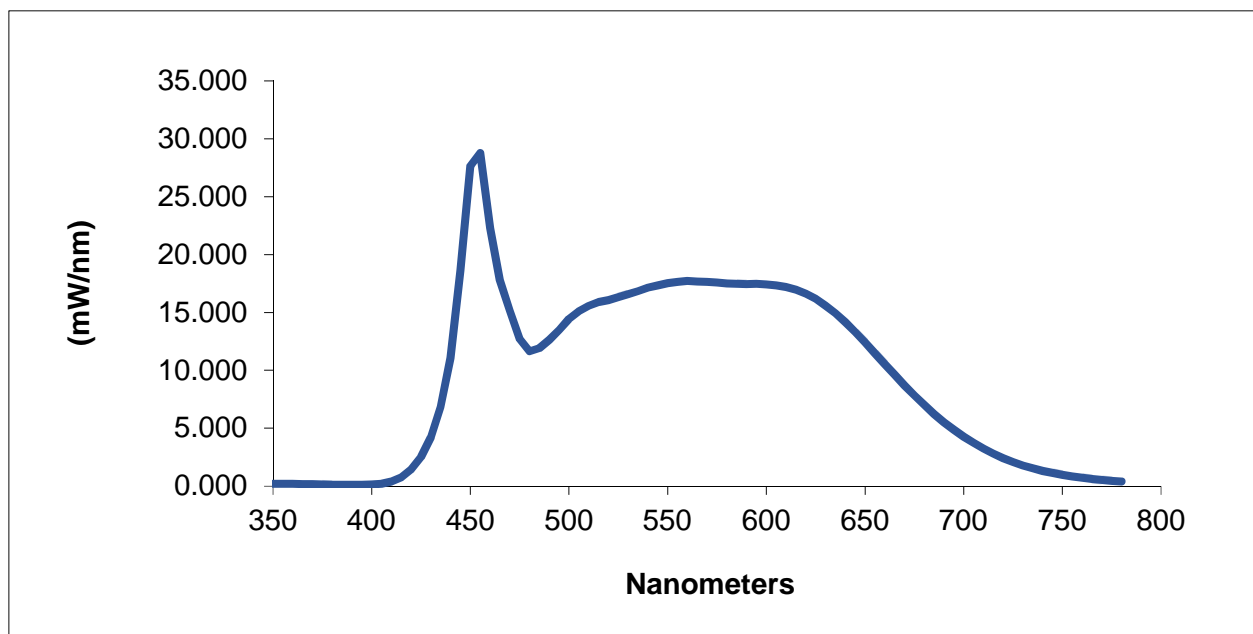
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RESULTS OF TESTS  
PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD (25°C +/- 1°C)

SPECTRAL DISTRIBUTION OVER VISIBLE WAVELENGTHS*							
nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.201	460	22.284	570	17.631	680	6.994
355	0.205	465	17.796	575	17.590	685	6.222
360	0.190	470	15.171	580	17.507	690	5.511
365	0.183	475	12.715	585	17.481	695	4.860
370	0.158	480	11.636	590	17.452	700	4.257
375	0.138	485	11.933	595	17.463	705	3.727
380	0.119	490	12.648	600	17.429	710	3.244
385	0.111	495	13.494	605	17.344	715	2.811
390	0.107	500	14.424	610	17.205	720	2.422
395	0.111	505	15.090	615	16.961	725	2.086
400	0.140	510	15.571	620	16.622	730	1.787
405	0.211	515	15.905	625	16.166	735	1.532
410	0.395	520	16.079	630	15.583	740	1.317
415	0.765	525	16.315	635	14.942	745	1.131
420	1.434	530	16.575	640	14.163	750	0.979
425	2.526	535	16.851	645	13.309	755	0.840
430	4.238	540	17.133	650	12.420	760	0.723
435	6.845	545	17.344	655	11.485	765	0.615
440	11.054	550	17.521	660	10.545	770	0.526
445	18.599	555	17.645	665	9.627	775	0.450
450	27.635	560	17.735	670	8.690	780	0.388
455	28.772	565	17.675	675	7.828		

\*Without correction of sample absorption



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**PICTURES**



**CONCLUSION**

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:

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Timothy Quigley  
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Report Reviewed By:

*Jeff Davis*

Jeff Davis  
N.A. Technical Lead  
Lighting Division

Attachments: None

**REVISION HISTORY**

JOB NUMBER	DATE OF REVISION	PROJECT HANDLER	REVIEWED BY	REVISION NOTE
None				