



UL LLC
1075 W Lambert Rd Suite B
Brea, CA 92821

Integrating Sphere Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2017, IES TM-30-2018

Prepared For
BOYD LIGHTING FIXTURE CO
200A-A Harbor Dr
Sausalito, CA 94965
United States

Catalog Number

C-46001

Order Number

14073194

Test Number

14073194.01

Test Date

2021-11-02

Prepared By

Austin Duff, Technician

Approved By

Yilmaz Yucelidag, Project Handler

The results contained in this report pertain only to the tested sample.
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This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Luminaire Description: Rectangular black metal housing
Lamp: White LED array
Mounting: Surface – Wall
Ballast/Driver: OSRAM Oti 48/120-277/2A0 DIM-1 L AUX

Luminaire



Summary of Results

Radiant Flux:	9836 mW
Luminous Flux:	3033 lm
Luminaire Efficacy:	102.1 lm/W
CCT:	3534 K
CRI (Ra):	93.8
Chromaticity (x):	0.4026
Chromaticity (y):	0.3878
Chromaticity (u):	0.2351
Chromaticity (v):	0.3397
Duv:	0.0008

Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.1 VAC
Current:	0.2485 A
Power:	29.71 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	7.65 %

Testing was performed in a 3-meter integrating sphere using the 4 π geometry method.
Absorption correction was employed for this measurement.



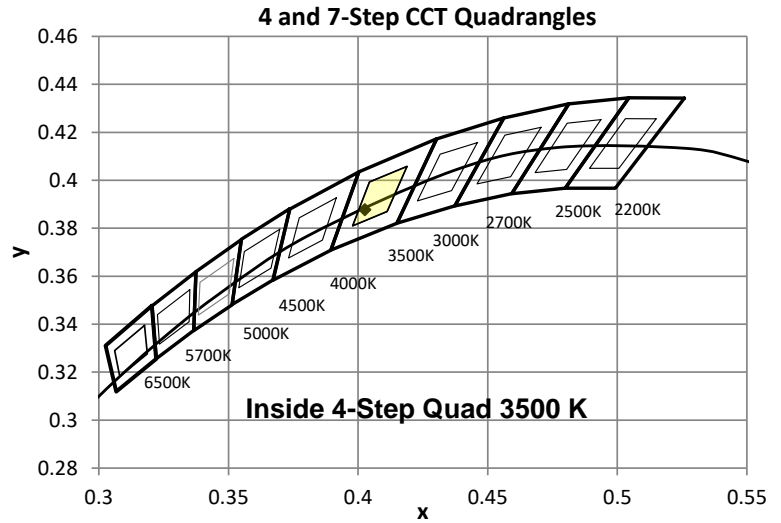
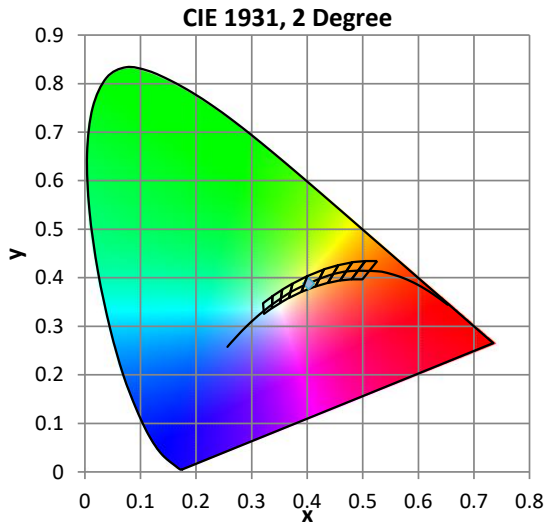
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.1 VAC	0.2485 A	29.71 W	0.996	60 Hz	7.65 %

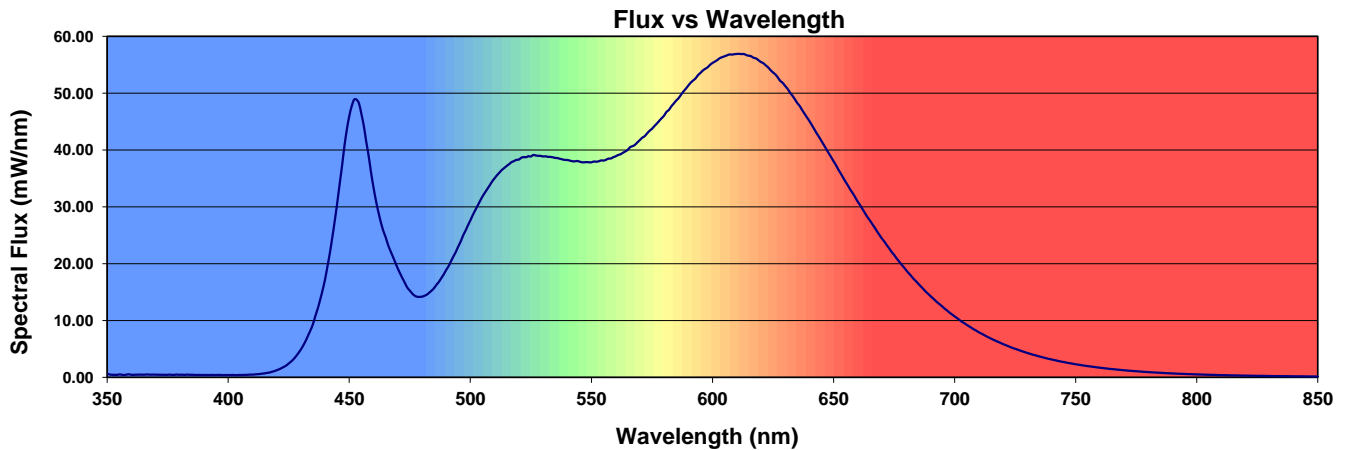
Summary of Results

Total Output:	3033 Lumens	Chromaticity (x):	0.4026
Efficacy:	102.1 lm/w	Chromaticity (y):	0.3878
CCT:	3534 K	Chromaticity (u'):	0.2351
CRI (Ra):	93.8	Chromaticity (v'):	0.5096
CRI (R9):	53.0	TM-30 Rf:	92
Peak Wavelength:	611 nm	TM-30 Rg:	99
Dominant Wavelength:	581 nm	TM-30 Rcs,h1:	-6%
S/P Ratio:	1.65	Duv:	-0.0007
M/P Ratio:	0.66 WELL Building Standard v2		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
93.8	95.3	97.4	98.5	96.2	95.4	95.9	91.4	80.5	53.0	93.7	96.0	78.9	96.5	99.1	89.5



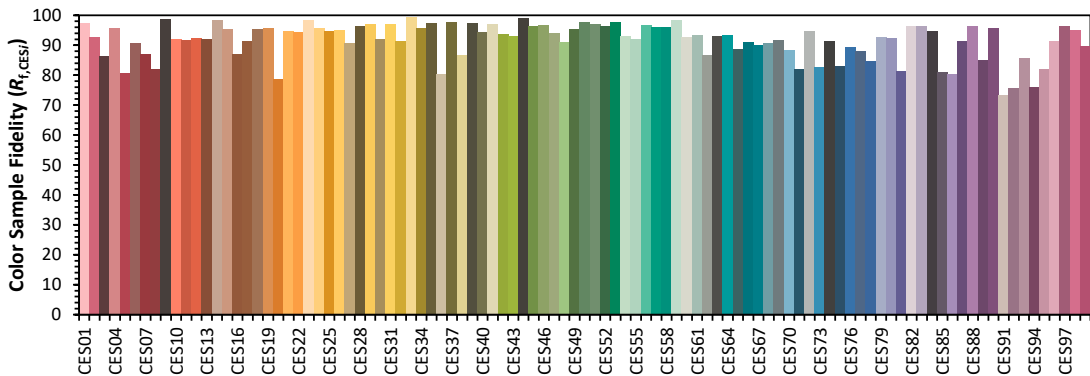
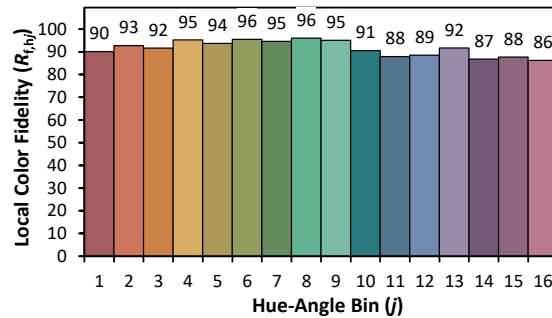
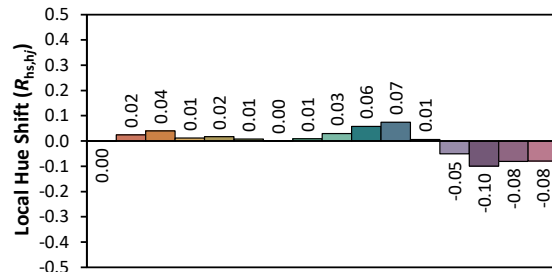
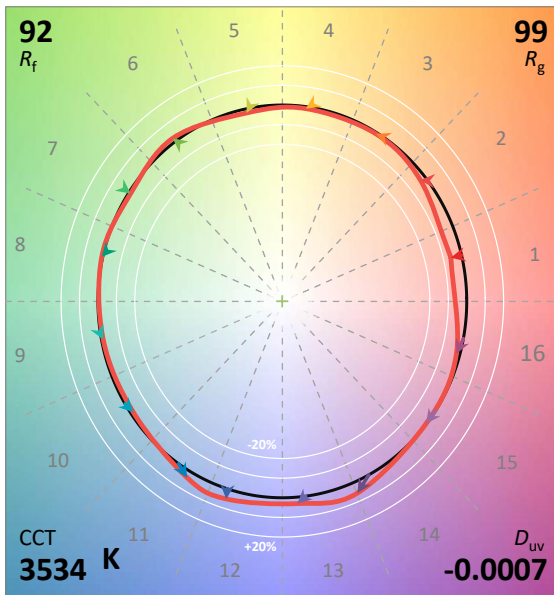
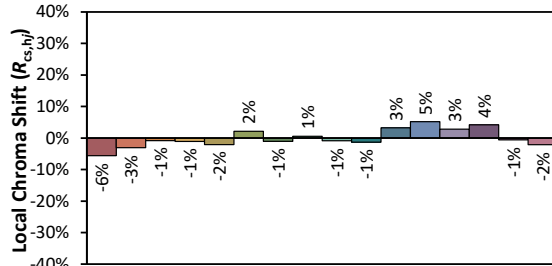
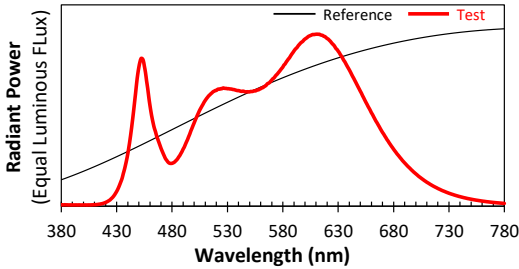
ANSI/IES TM-30-18 Color Rendition Report

Date: 2021-11-02

Manufacturer: BOYD LIGHTING FIXTURE CO

Model:

C-46001



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4026
y 0.3878
u' 0.2351
v' 0.5096

CIE 13.3-1995 (CRI)	
R _a	94
R ₉	53

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.



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Integrating Sphere Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, CIE 13.3-1995
CIE 15-2004, ANSI C78.377-2017, IES TM-30-2018

Prepared For
BOYD LIGHTING FIXTURE CO

200A-A Harbor Dr
Sausalito, CA 94965
United States

Catalog Number

C-46002

Order Number

14073194

Test Number

14073194.02

Test Date

2021-11-03

Prepared By

Austin Duff, Technician

Approved By

Yilmaz Yucelidag, Project Handler

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Luminaire Description: Rectangular black metal housing
Lamp: White LED array
Mounting: Surface – Wall
Ballast/Driver: OSRAM Oti 48/120-277/2A0 DIM-1 L AUX

Luminaire



Summary of Results

Radiant Flux:	13920 mW
Luminous Flux:	4286 lm
Luminaire Efficacy:	104.0 lm/W
CCT:	3541 K
CRI (Ra):	94.6
Chromaticity (x):	0.4027
Chromaticity (y):	0.3889
Chromaticity (u):	0.2347
Chromaticity (v):	0.3401
Duv:	0.0003

Test Conditions

Test Temperature:	25.2 °C
Voltage:	120.1 VAC
Current:	0.3445 A
Power:	41.23 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	7.80 %

Testing was performed in a 3-meter integrating sphere using the 4 π geometry method.
Absorption correction was employed for this measurement.



Color Quality - Integrating Sphere

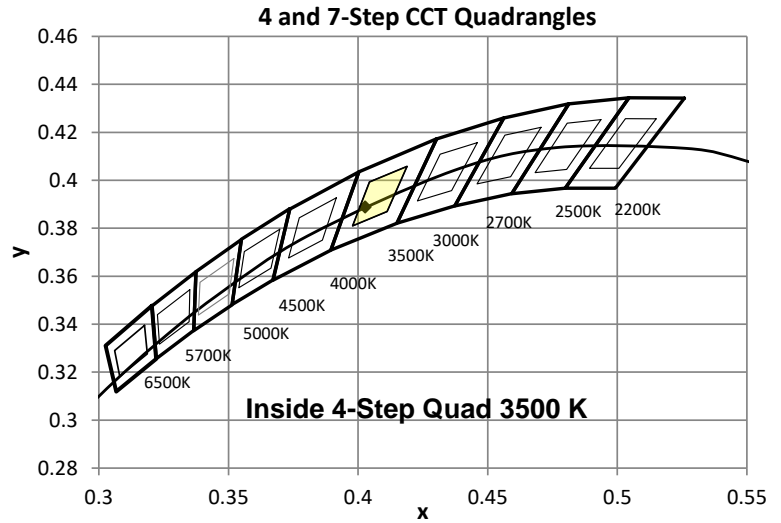
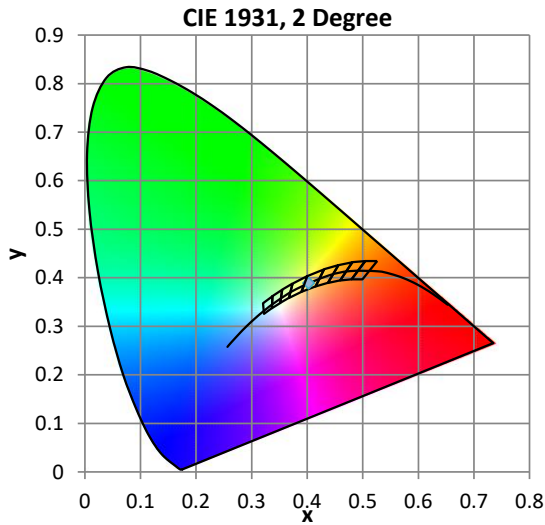
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.1 VAC	0.3445 A	41.23 W	0.997	60 Hz	7.80 %

Summary of Results

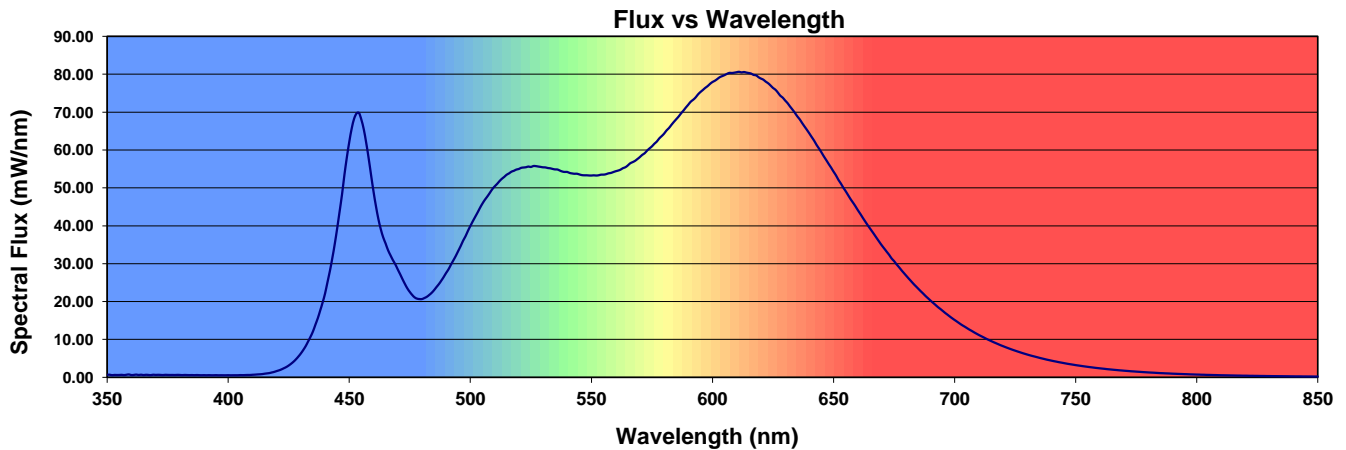
Total Output:	4286 Lumens	Chromaticity (x):	0.4027
Efficacy:	104.0 lm/w	Chromaticity (y):	0.3889
CCT:	3541 K	Chromaticity (u'):	0.2347
CRI (Ra):	94.6	Chromaticity (v'):	0.5101
CRI (R9):	56.3	TM-30 Rf:	92
Peak Wavelength:	612 nm	TM-30 Rg:	99
Dominant Wavelength:	581 nm	TM-30 Rcs,h1:	-5%
S/P Ratio:	1.66	Duv:	-0.0002
M/P Ratio:	0.67		

WELL Building Standard v2



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
94.6	96.3	98.1	98.9	97.4	96.4	96.2	91.9	81.8	56.3	95.5	95.9	79.2	97.6	99.2	90.5



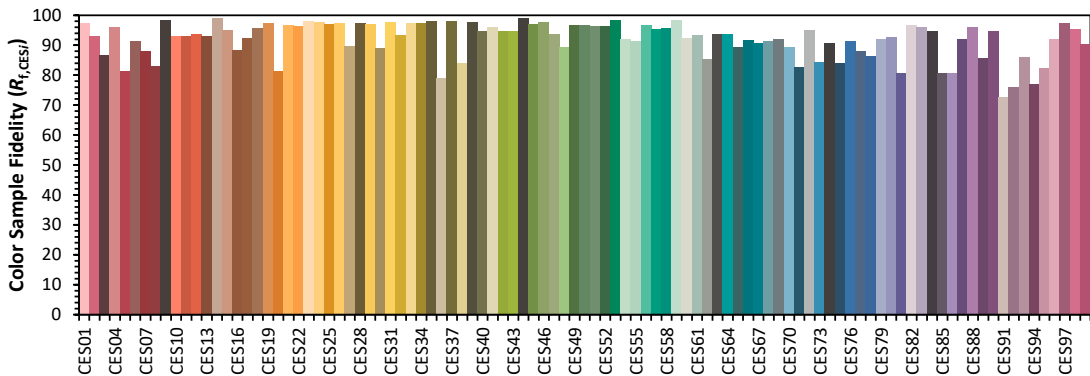
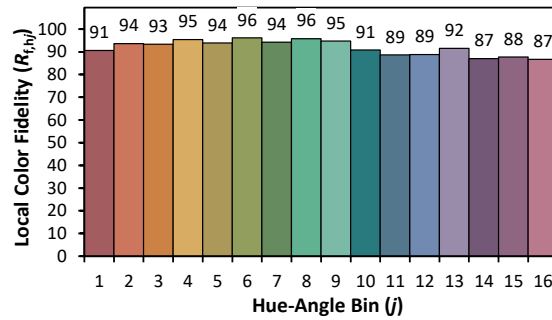
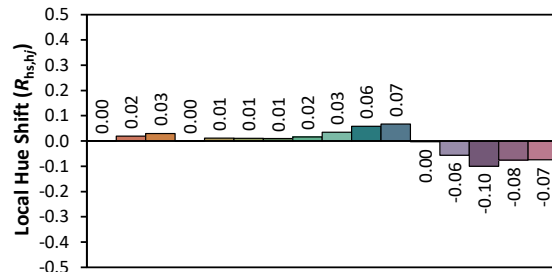
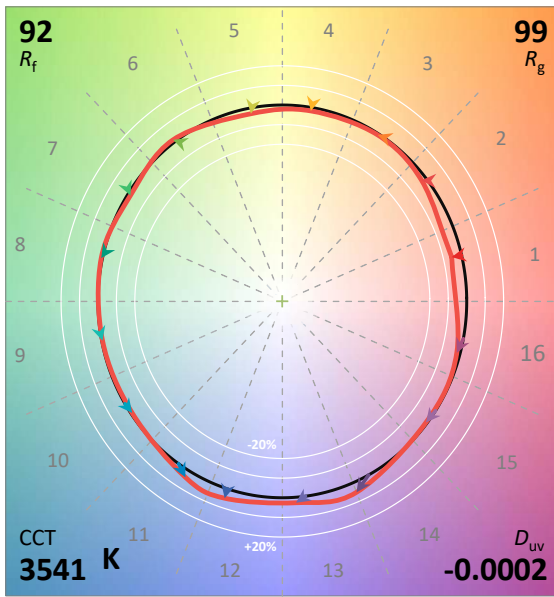
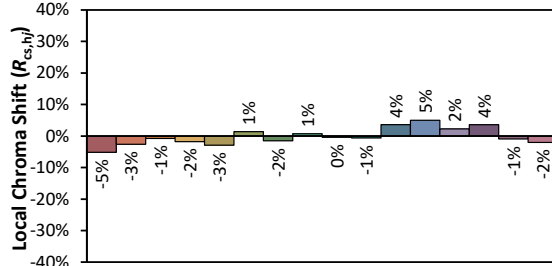
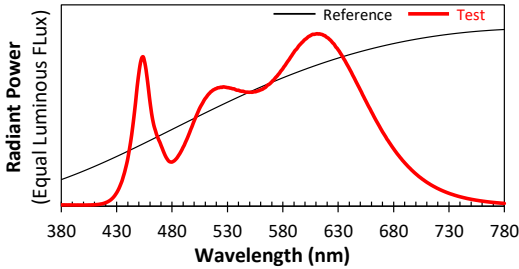
ANSI/IES TM-30-18 Color Rendition Report

Date: 2021-11-03

Manufacturer: BOYD LIGHTING FIXTURE CO

Model:

C-46002



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x **0.4027**
 y **0.3889**
 u' **0.2347**
 v' **0.5101**

CIE 13.3-1995 (CRI)	
R _a	95
R ₉	56

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.