LIGHT LABORATORY INC.
8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

NVLAP TESTING
NVLAP LAB CODE 200927-0

Report No: L231310301

Issue Date: 6/30/2023
Reference:N/A
Amendment:N/A

Report Prepared For: 1st Source Lighting
1730 Industrial Dr. Auburn CA 95603

Model Number: BAY-LHB8-6-36000-50K-DAC-U-XXX-XXX-XXX

Test: Photometric/Colorimetric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:

IESNA LM79: 2019 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2017 Specification of the Chromaticity of Solid State Lighting Products

ANSI C82.77-10:2014: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Special Test Condition: Fixture is tested with no special conditions.

Date of Tests: 6/29/23

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	4/7/25
HP Power Supply	6032A	PS-DC05-S2	--
Fluke Digital Thermometer	52K/J	MT-TP05	5/24/25
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

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General Information	
Manufacturer:	1st Source Lighting
Model Number:	BAY-LHB8-6-36000-50K-DAC-U-XXX-XXX-XXX
Driver Model Number:	TRIDONIC LC 85/700-2300/54 0-10V AUX lp EXC UNV(4 drivers)

Test Summary		
Total Lumens:	36623.00	
Efficacy:	152.09	
Color Redering Index:	84.3	
Correlated Color Temperature:	4980	
Input Voltage (VAC/60Hz):	120.00	277.04
Input Current (Amp):	2.0177	0.8773
Input Power (W):	240.80	243.04
Input Power Factor:	0.9946	0.9083
Current ATHD (%):	4.5%	13.2%

Test Condition	
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:35
Total Operating Time (Hours):	1:15

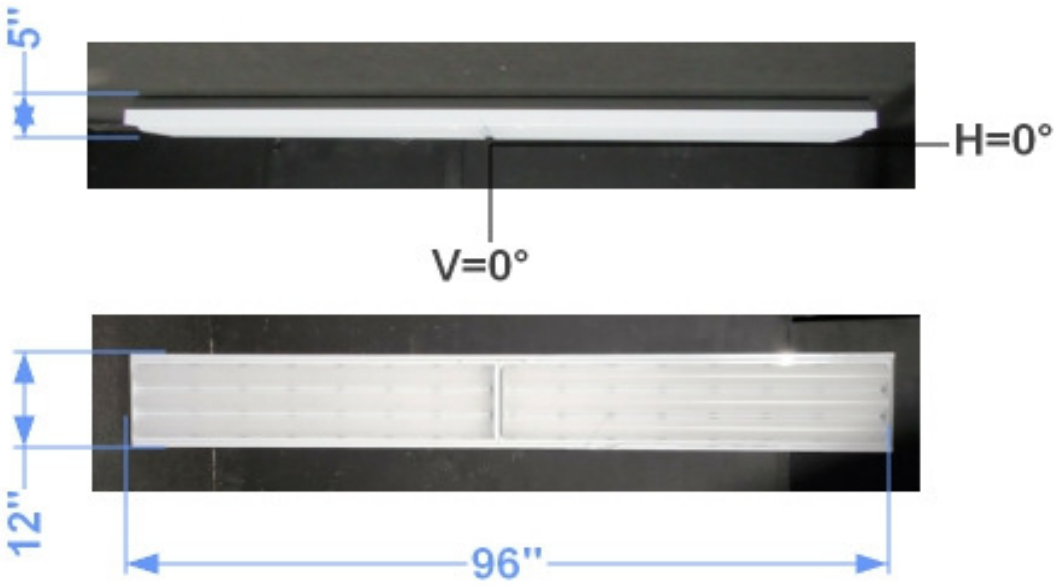

FIG. 1 LUMINAIRE

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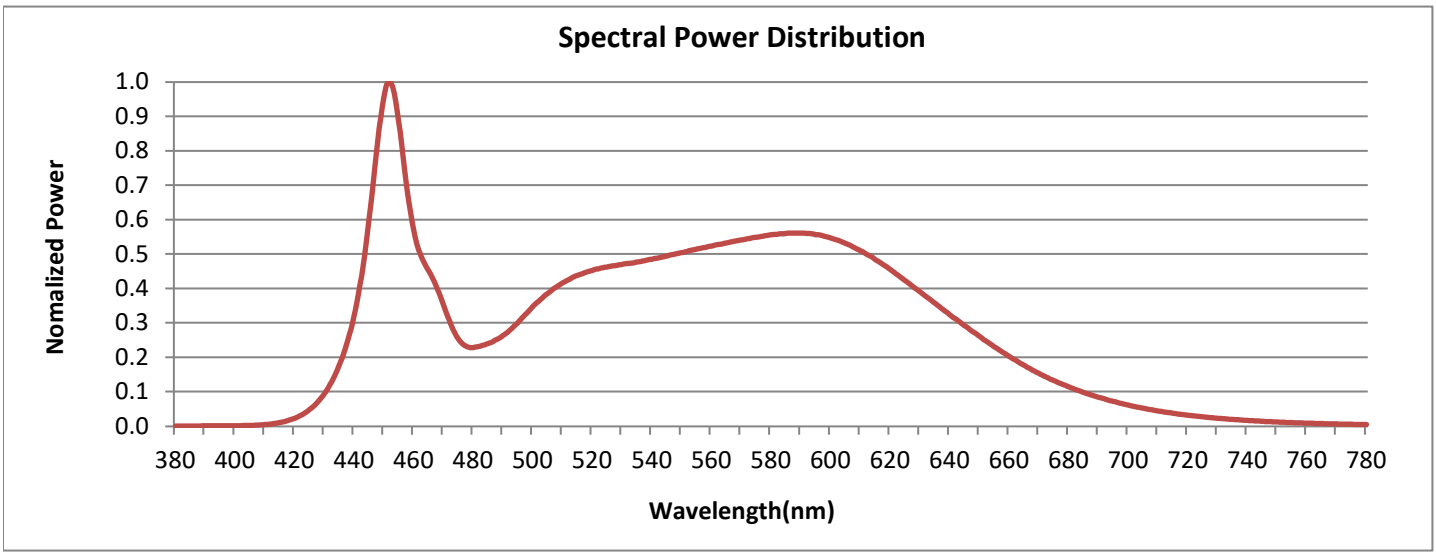
Colorimetry Test Results

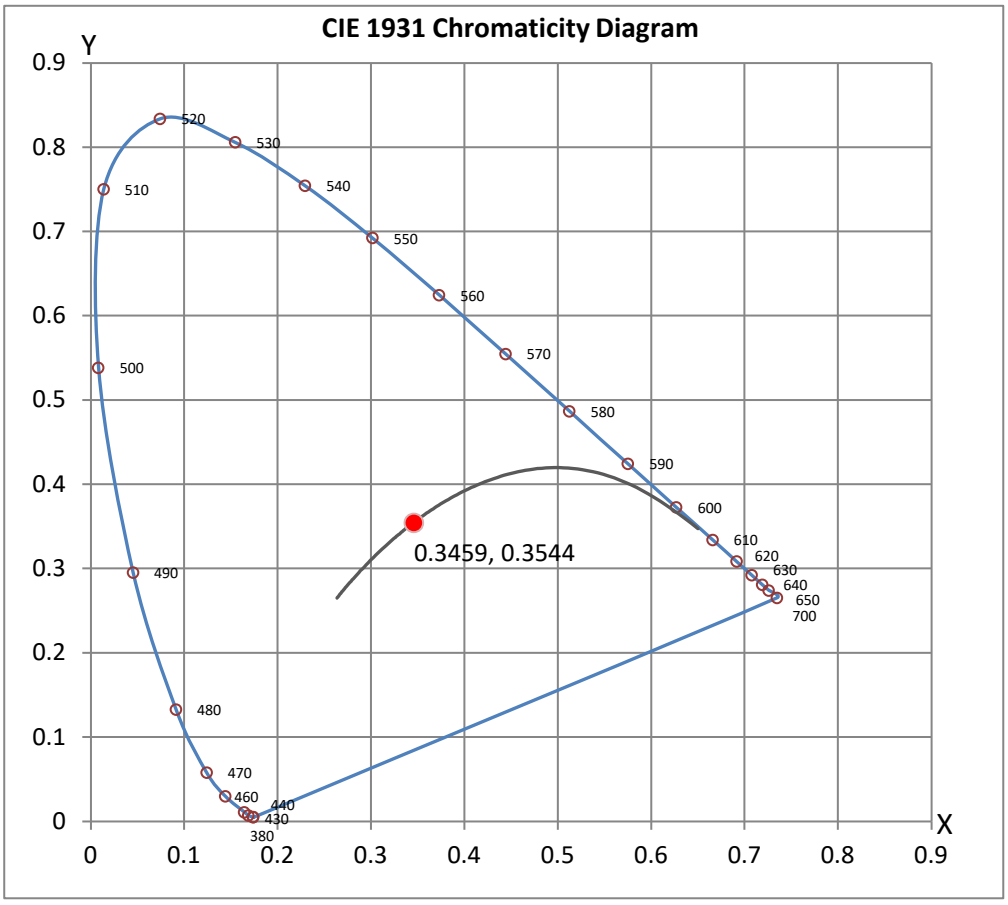


CRI & CCT

x	0.3459
y	0.3544
u'	0.2109
v'	0.4861
CRI	84.30
CCT	4980
Duv	0.00109

R Values

R1	82.70
R2	90.24
R3	94.49
R4	82.88
R5	82.74
R6	85.49
R7	87.53
R8	68.13
R9	12.40
R10	76.23
R11	82.28
R12	57.93
R13	85.01
R14	96.89
R15	77.38



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Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

The results related only to the samples as received and tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government.

Report Prepared by : Kunjan Modi

Test Report Reviewed by:

Steve Kang
Quality Assurance

**Attached are photometric data reports.*

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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L231310301.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L231310301
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 6/30/2023
[MANUFAC] 1st Source Lighting
[LUMCAT] BAY-LHB8-6-36000-50K-DAC-U-XXX-XXX-XXX
[LUMINAIRE] LED Luminaire
[BALLASTCAT] TRIDONIC LC 85/700-2300/54 0-10V AUX lp EXC UNV(4 drivers)
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC
[TEST PROCEDURE] IESNA:LM-79-19

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	36623
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	152
Total Luminaire Watts	240.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	7.80 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.06 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18203	18470	19346
55	17555	17664	19019
65	16494	17231	18810
75	13804	16715	18052
85	8724	14719	15896

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L231310301.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4435.42	N.A.	12.10
0-30	9382.31	N.A.	25.60
0-40	15307.05	N.A.	41.80
0-60	27109.35	N.A.	74.00
0-80	34778.42	N.A.	95.00
0-90	36057.49	N.A.	98.50
10-90	34905.83	N.A.	95.30
20-40	10871.62	N.A.	29.70
20-50	17004.61	N.A.	46.40
40-70	16419.63	N.A.	44.80
60-80	7669.07	N.A.	20.90
70-80	3051.74	N.A.	8.30
80-90	1279.07	N.A.	3.50
90-110	357.46	N.A.	1.00
90-120	432.17	N.A.	1.20
90-130	481.35	N.A.	1.30
90-150	555.89	N.A.	1.50
90-180	565.02	N.A.	1.50
110-180	207.56	N.A.	0.60
0-180	36622.52	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1151.66
10-20	3283.76
20-30	4946.89
30-40	5924.73
40-50	6132.99
50-60	5669.32
60-70	4617.33
70-80	3051.74
80-90	1279.07
90-100	264.00
100-110	93.46
110-120	74.71
120-130	49.18
130-140	36.00
140-150	38.54
150-160	9.14
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L231310301.IES

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101	98
1	107	102	98	93	104	100	96	92	95	92	89	91	88	86	87	85	83	80
2	97	89	81	75	94	86	80	74	83	77	72	79	74	70	76	72	69	66
3	88	77	69	62	86	76	68	61	72	66	60	69	64	59	67	62	58	55
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	59	54	49	47
5	74	61	52	45	72	60	51	45	57	50	44	55	49	43	53	47	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	48	42	38	35
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	31	43	36	30	42	35	30	40	34	30	28
9	55	42	33	28	54	41	33	28	40	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L231310301.IES

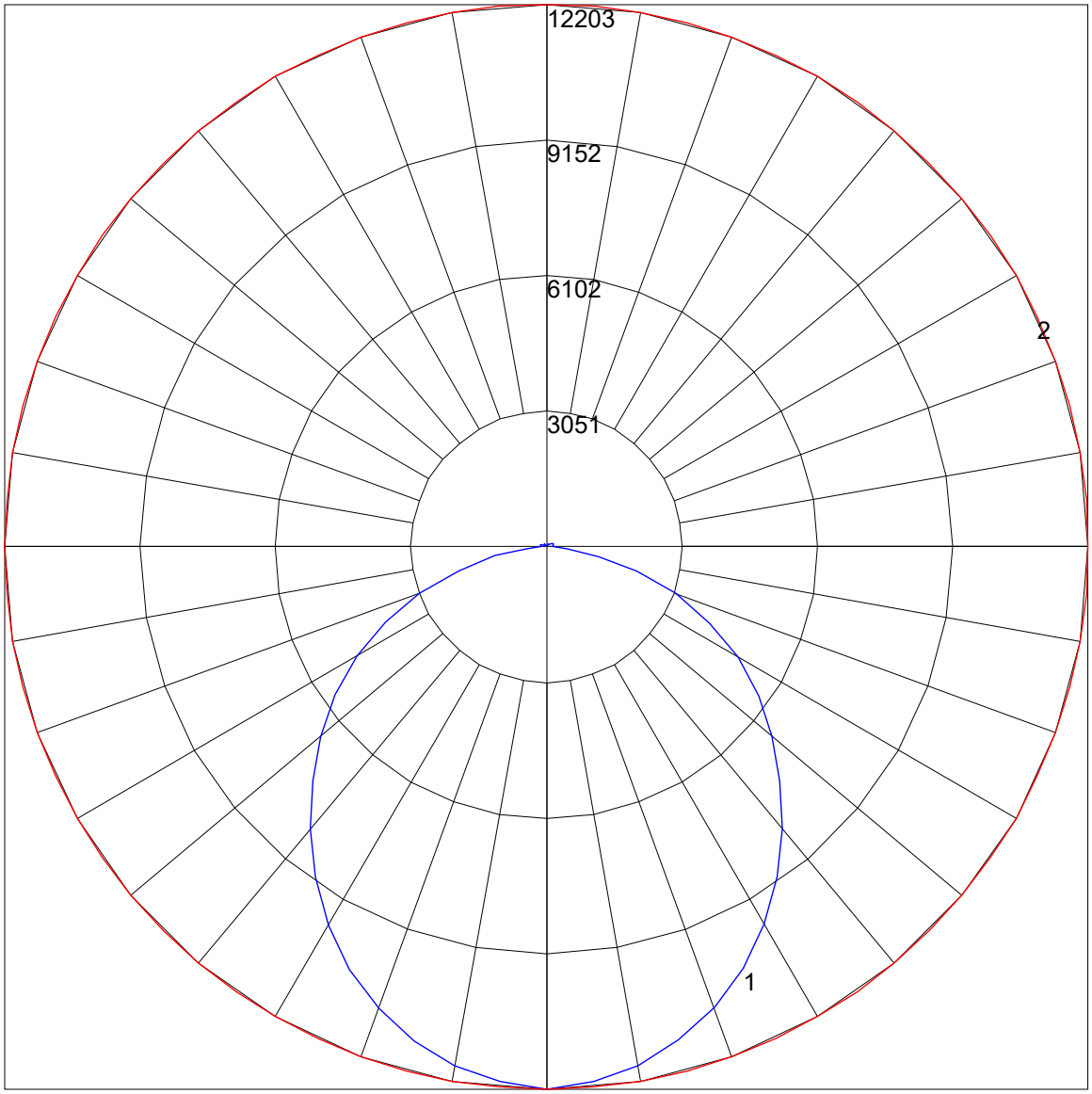
UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	21.3	22.9	21.7	23.3	23.7	22.7	24.3	23.0	24.6	25.0
	3H	23.0	24.5	23.5	24.9	25.3	24.9	26.4	25.3	26.8	27.2
	4H	23.6	25.0	24.1	25.4	25.8	25.9	27.3	26.3	27.7	28.1
	6H	24.0	25.3	24.5	25.7	26.2	26.7	28.0	27.2	28.4	28.9
	8H	24.1	25.4	24.6	25.8	26.2	27.1	28.3	27.6	28.8	29.2
	12H	24.2	25.4	24.6	25.8	26.3	27.4	28.6	27.9	29.0	29.5
4H	2H	22.2	23.6	22.6	24.0	24.4	23.2	24.6	23.6	25.0	25.4
	3H	24.1	25.3	24.6	25.8	26.2	25.7	26.9	26.2	27.3	27.8
	4H	24.9	25.9	25.3	26.4	26.9	26.8	27.9	27.3	28.4	28.9
	6H	25.4	26.3	25.9	26.8	27.3	27.9	28.8	28.4	29.3	29.8
	8H	25.5	26.4	26.0	26.9	27.4	28.3	29.2	28.8	29.7	30.2
	12H	25.6	26.4	26.1	26.9	27.4	28.7	29.5	29.2	30.0	30.5
8H	4H	25.5	26.3	26.0	26.8	27.3	27.2	28.0	27.7	28.5	29.0
	6H	26.2	26.9	26.7	27.4	27.9	28.4	29.1	28.9	29.6	30.1
	8H	26.4	27.1	26.9	27.6	28.1	28.9	29.6	29.4	30.1	30.6
	12H	26.6	27.2	27.1	27.7	28.3	29.4	30.0	30.0	30.6	31.2
12H	4H	25.6	26.4	26.1	26.9	27.4	27.2	28.0	27.7	28.5	29.0
	6H	26.4	27.0	26.9	27.5	28.1	28.4	29.1	29.0	29.6	30.2
	8H	26.7	27.3	27.2	27.8	28.4	29.0	29.6	29.6	30.1	30.7

Maximum UGR = 31.2

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L231310301.IES

POLAR GRAPH



Maximum Candela = 12203 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

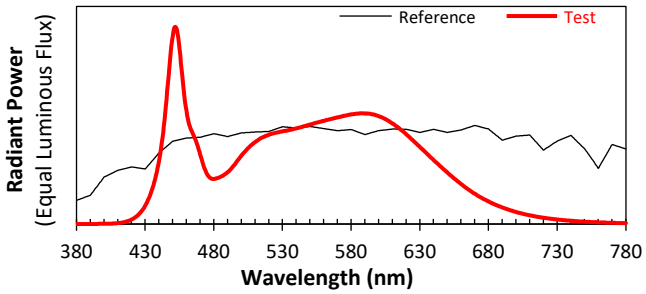
ANSI/IES TM-30-18 Color Rendition Report

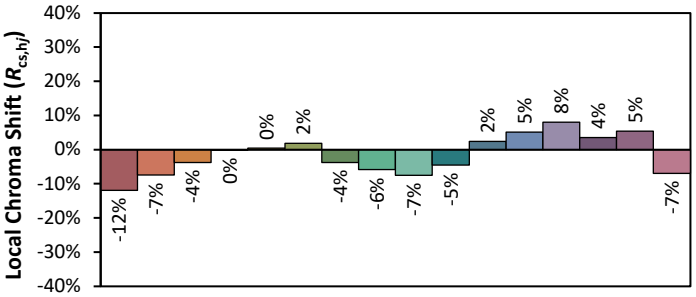
Source: L231310301

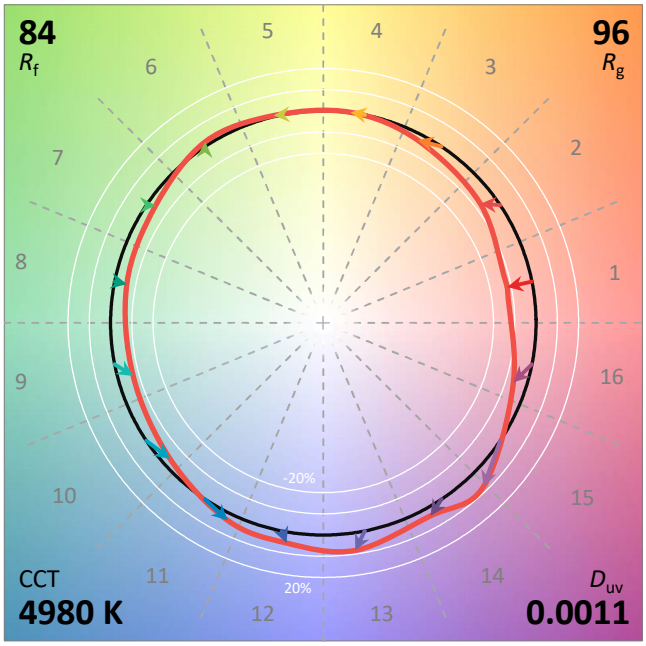
Date: 6/28/2023

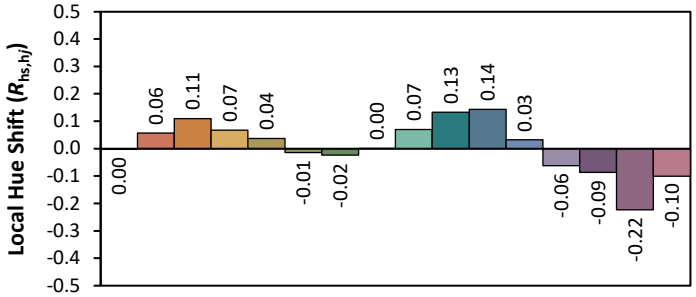
Manufacturer: 1st Source Lighting

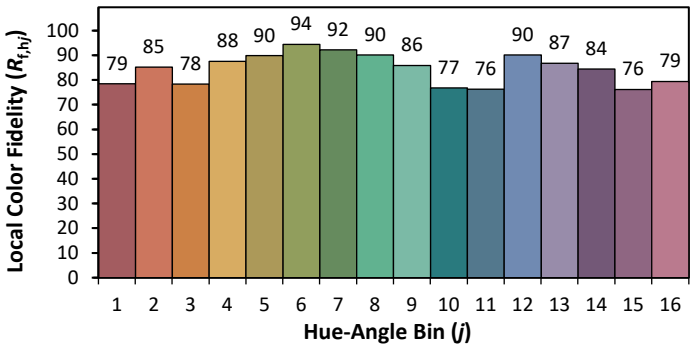
Model: BAY-LHB8-6-36000-50K-DAC-U-XXX-XXX-XXX

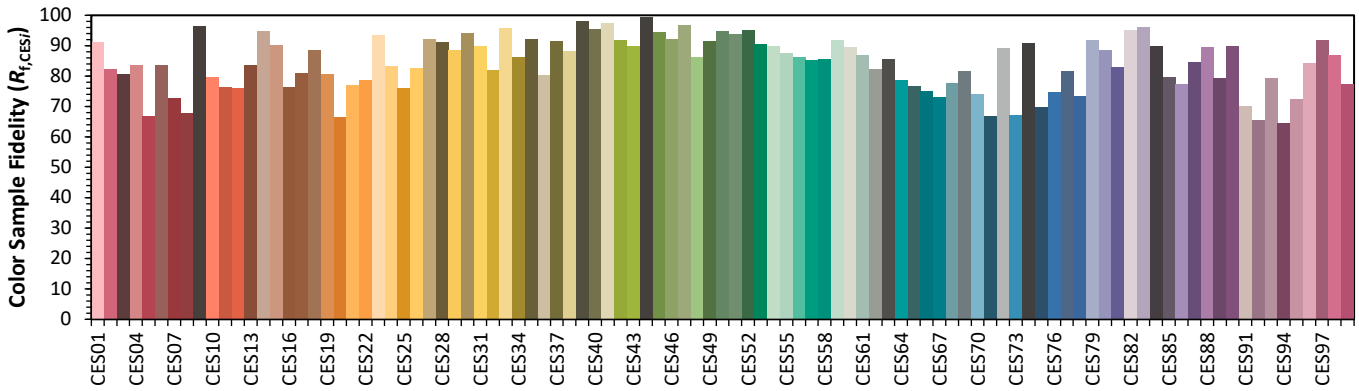












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	**0.3459**
y	**0.3544**
u'	**0.2109**
v'	**0.4861**

CIE 13.3-1995 (CRI)

R_a	84
R_9	12

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