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Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, IES LM-35-2002 (Withdrawn)
CIE 13.3-1995, CIE 15-2004, ANSI C78.377-2017
IES TM-30-2018

Prepared For
B-K Lighting INC

Daniel Carrejo
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Madera, CA 93636
United States

Catalog Number
OR-LED-e117-VNSP-WHP-9-0-YM-MT(5000K)

Order Number
14151565
Test Number
14151565.05

Test Date

2022-01-06

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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Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
Distribution Results	
Test Conditions / Summary of Results / Max. Candlepower Plot	Page 5
Candela Tabulation	Page 6
Candela Tabulation - continued	Page 7
Isocandela Diagram	Page 8
Full TM-30 Report	Page 9

Laboratory results may not be representative of field performance
Ballast factors have not been applied

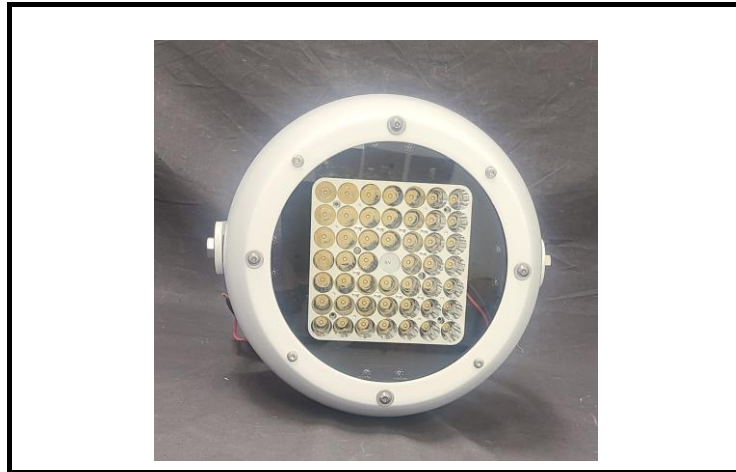
Testing was performed in a 2-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement



Luminaire Description: Formed white metal housing with glass lens
Lamp: 49 White LED with optic below
Mounting: Pole/Arm
Ballast/Driver: DELTA USCI-200140GA

Luminaire



Luminaire Characteristics
Luminous Diameter: 9.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 9209 Lumens
Efficacy: 102.66 lm/w
CCT: 5363 K
CRI (Ra): 83.2

Distribution

Total Luminaire Output: 9573 Lumens
Luminaire Efficacy: 107 lm/w
Maximum Candela: 208996 Candela

Electrical Data at 120 VAC

Test Temperature: 25.2 °C
Voltage: 120.1 VAC
Current: 0.7690 A
Power: 89.71 W
Power Factor: 0.972
Frequency: 60 Hz
Current THD: 21.8 %



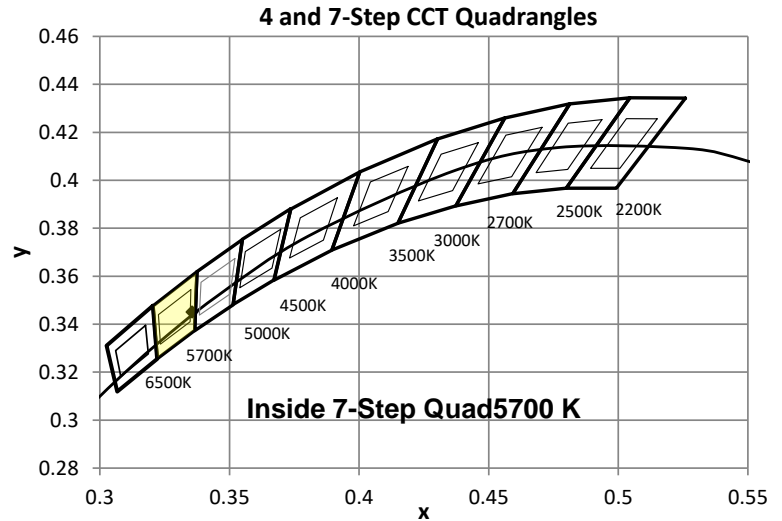
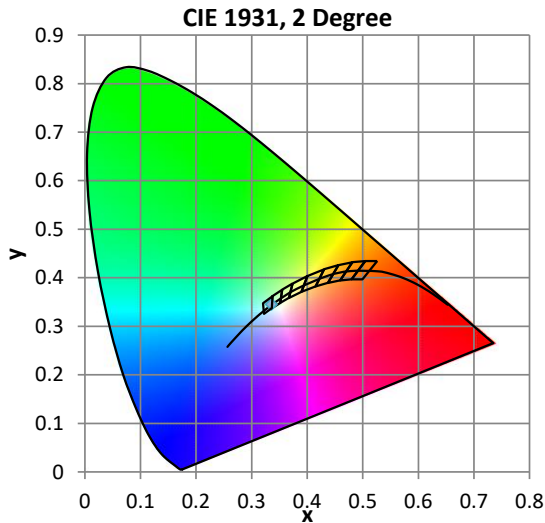
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.1 VAC	0.7690 A	89.71 W	0.972	60 Hz	21.8 %

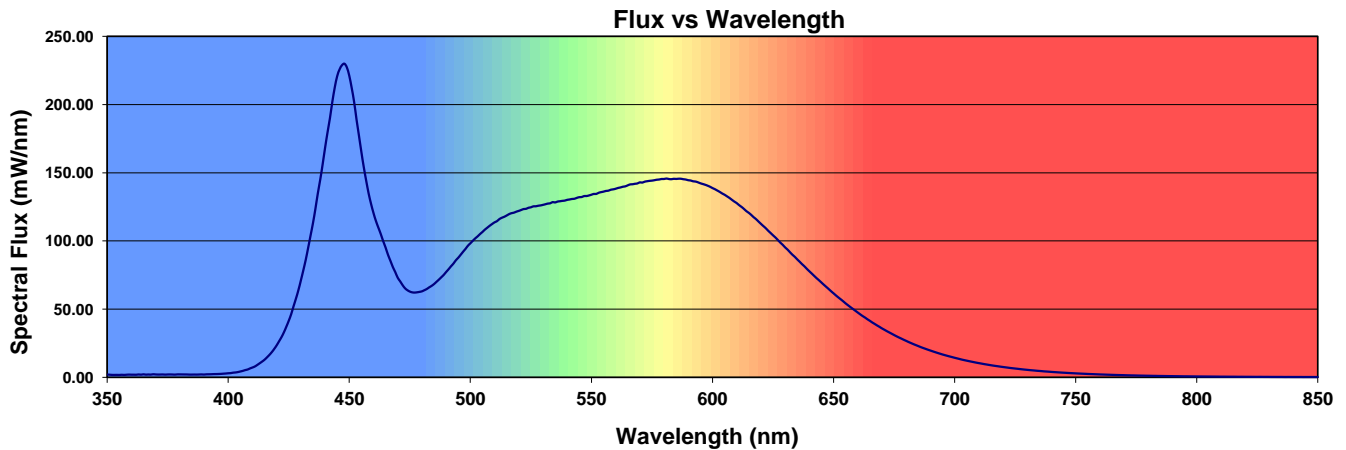
Summary of Results

Total Output:	9209 Lumens	Chromaticity (x):	0.3356
Efficacy:	102.7 lm/w	Chromaticity (y):	0.3451
CCT:	5363 K	Chromaticity (u'):	0.2075
CRI (Ra):	83.2	Chromaticity (v'):	0.4800
CRI (R9):	5.6	TM-30 Rf:	84
Peak Wavelength:	448 nm	TM-30 Rg:	97
Dominant Wavelength:	562 nm	TM-30 Rcs,h1:	-13%
S/P Ratio:	2.02	Duv:	0.0007
M/P Ratio:	0.86	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
83.2	81.9	87.3	91.6	84.4	83.5	83.3	86.0	67.7	5.6	70.4	85.0	69.4	83.0	95.5	75.6





Distribution - Goniophotometer

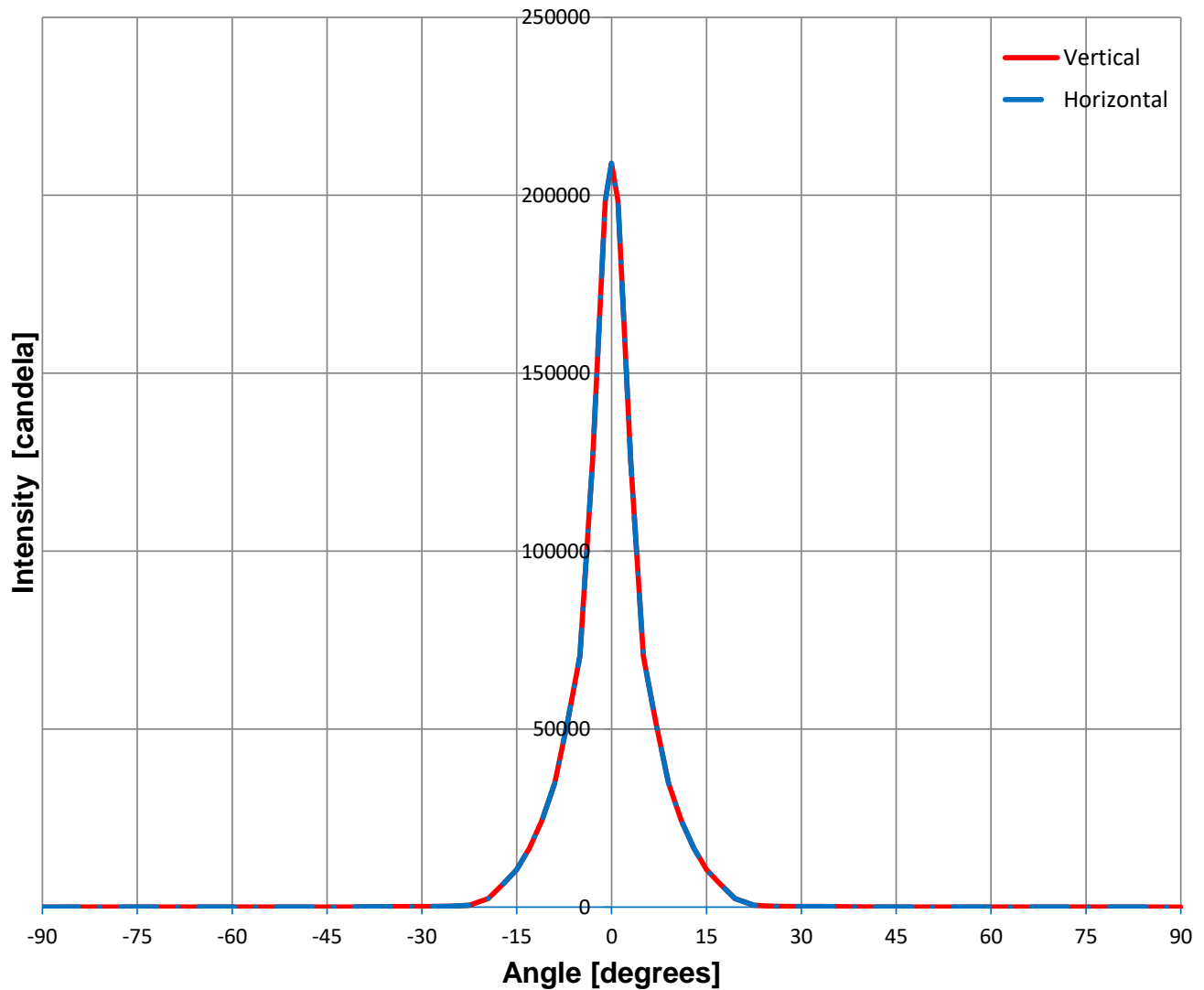
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.1 VAC	0.7695 A	89.77 W	0.971	60 Hz	21.9 %

Summary of Results

Total Lumen Output:	9573.2 Lumens	Maximum Candela:	208995.6 Candela
Luminaire Efficacy:	106.6 Lumens/Watt	Maximum Angle:	0 H 0 V
Field Lumens:	7125.4 Lumens	Field Angle :	23.8 H X 23.8 V
Beam Lumens:	2114.7 Lumens	Beam Angle :	7.5 H X 7.5 V
Spill Light Lumens:	2447.9 Lumens	IESNA Type:	2 H X 2 V

Maximum Candlepower Plot





Candela Tabulation

Lateral Angle (Degrees)

	0	1	3	5	7	9	11	13	15	17	19.5
85.0	1	1	1	1	1	1	1	1	1	1	1
75.0	5	5	5	5	5	5	5	5	5	5	5
65.0	10	10	10	10	10	10	10	10	10	9	9
55.0	16	16	16	16	15	15	15	15	14	14	14
47.5	23	23	23	23	23	23	22	22	21	21	20
42.5	44	44	44	43	42	41	40	38	35	31	26
37.5	91	91	88	83	75	70	63	58	54	51	47
33.0	149	149	147	144	139	134	134	134	133	115	83
29.0	192	192	191	190	187	185	182	175	163	145	134
25.5	263	262	258	248	236	221	208	197	190	184	173
22.5	515	510	466	385	351	311	282	253	225	202	189
19.5	2405	2376	2143	1740	1359	939	571	366	301	258	214
17.0	6763	6706	6252	5363	4153	2793	1704	998	509	326	258
15.0	10528	10466	9975	9016	7657	5883	3834	2107	1094	509	301
13.0	16548	16421	15418	13476	11228	9066	6822	4223	2107	998	366
11.0	24405	24217	22743	19958	16497	12712	9559	6822	3834	1704	571
9.0	34872	34565	32170	27885	22796	17643	12712	9066	5883	2793	939
7.0	51945	51239	45825	37741	29908	22796	16497	11228	7657	4153	1359
5.0	70489	69756	64343	51280	37741	27885	19958	13476	9016	5363	1740
3.0	125486	119551	84434	64343	45825	32170	22743	15418	9975	6252	2143
1.0	198510	185870	119551	69756	51239	34565	24217	16421	10466	6706	2376
0.0	208996	198510	125486	70489	51945	34872	24405	16548	10528	6763	2405
-1.0	198510	185870	119551	69756	51239	34565	24217	16421	10466	6706	2376
-3.0	125486	119551	84434	64343	45825	32170	22743	15418	9975	6252	2143
-5.0	70489	69756	64343	51280	37741	27885	19958	13476	9016	5363	1740
-7.0	51945	51239	45825	37741	29908	22796	16497	11228	7657	4153	1359
-9.0	34872	34565	32170	27885	22796	17643	12712	9066	5883	2793	939
-11.0	24405	24217	22743	19958	16497	12712	9559	6822	3834	1704	571
-13.0	16548	16421	15418	13476	11228	9066	6822	4223	2107	998	366
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-17.0	6763	6706	6252	5363	4153	2793	1704	998	509	326	258
-19.5	2405	2376	2143	1740	1359	939	571	366	301	258	214
-22.5	515	510	466	385	351	311	282	253	225	202	189
-25.5	263	262	258	248	236	221	208	197	190	184	173
-29.0	192	192	191	190	187	185	182	175	163	145	134
-33.0	149	149	147	144	139	134	134	134	133	115	83
-37.5	91	91	88	83	75	70	63	58	54	51	47
-42.5	44	44	44	43	42	41	40	38	35	31	26
-47.5	23	23	23	23	23	23	22	22	21	21	20
-55.0	16	16	16	16	15	15	15	15	14	14	14
-65.0	10	10	10	10	10	10	10	10	10	9	9
-75.0	5	5	5	5	5	5	5	5	5	5	5
-85.0	1	1	1	1	1	1	1	1	1	1	1

Vertical Angle (Degrees)



Candela Tabulation

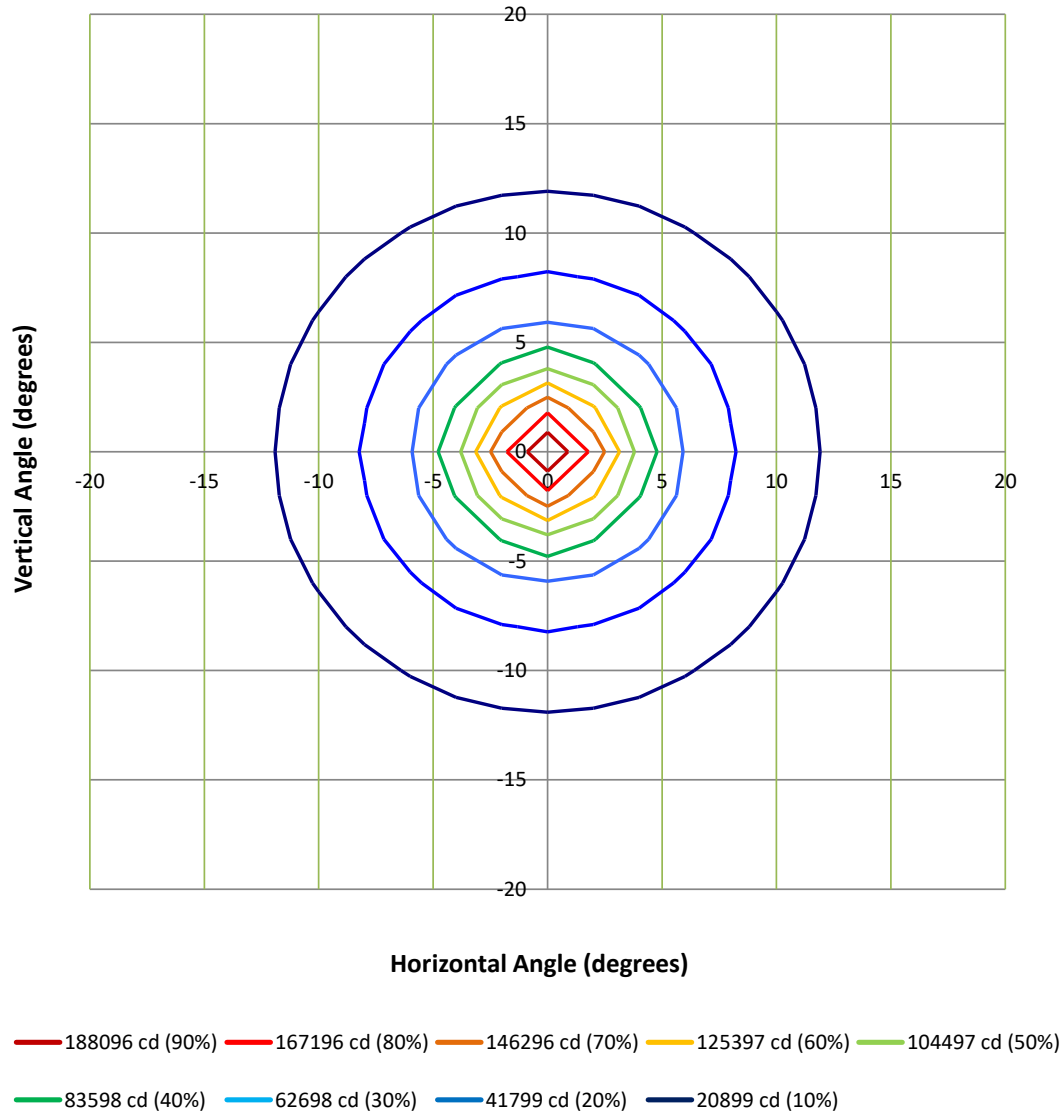
Lateral Angle (Degrees)

Vertical Angle (Degrees)

	22.5	25.5	29	33	37.5	42.5	47.5	55	65	75	85
85.0	1	1	1	1	1	0	0	0	0	0	0
75.0	5	5	4	4	4	3	3	2	1	0	0
65.0	9	9	9	8	8	7	6	5	3	1	0
55.0	13	13	12	12	11	10	9	7	5	2	0
47.5	19	17	16	15	14	12	11	9	6	3	0
42.5	24	22	20	18	16	14	12	10	7	3	0
37.5	43	37	26	22	19	16	14	11	8	4	1
33.0	59	50	43	30	22	18	15	12	8	4	1
29.0	130	80	53	43	26	20	16	12	9	4	1
25.5	141	134	80	50	37	22	17	13	9	5	1
22.5	176	141	130	59	43	24	19	13	9	5	1
19.5	189	173	134	83	47	26	20	14	9	5	1
17.0	202	184	145	115	51	31	21	14	9	5	1
15.0	225	190	163	133	54	35	21	14	10	5	1
13.0	253	197	175	134	58	38	22	15	10	5	1
11.0	282	208	182	134	63	40	22	15	10	5	1
9.0	311	221	185	134	70	41	23	15	10	5	1
7.0	351	236	187	139	75	42	23	15	10	5	1
5.0	385	248	190	144	83	43	23	16	10	5	1
3.0	466	258	191	147	88	44	23	16	10	5	1
1.0	510	262	192	149	91	44	23	16	10	5	1
0.0	515	263	192	149	91	44	23	16	10	5	1
-1.0	510	262	192	149	91	44	23	16	10	5	1
-3.0	466	258	191	147	88	44	23	16	10	5	1
-5.0	385	248	190	144	83	43	23	16	10	5	1
-7.0	351	236	187	139	75	42	23	15	10	5	1
-9.0	311	221	185	134	70	41	23	15	10	5	1
-11.0	282	208	182	134	63	40	22	15	10	5	1
-13.0	253	197	175	134	58	38	22	15	10	5	1
-15.0	225	190	163	133	54	35	21	14	10	5	1
-17.0	202	184	145	115	51	31	21	14	9	5	1
-19.5	189	173	134	83	47	26	20	14	9	5	1
-22.5	176	141	130	59	43	24	19	13	9	5	1
-25.5	141	134	80	50	37	22	17	13	9	5	1
-29.0	130	80	53	43	26	20	16	12	9	4	1
-33.0	59	50	43	30	22	18	15	12	8	4	1
-37.5	43	37	26	22	19	16	14	11	8	4	1
-42.5	24	22	20	18	16	14	12	10	7	3	0
-47.5	19	17	16	15	14	12	11	9	6	3	0
-55.0	13	13	12	12	11	10	9	7	5	2	0
-65.0	9	9	9	8	8	7	6	5	3	1	0
-75.0	5	5	4	4	4	3	3	2	1	0	0
-85.0	1	1	1	1	1	0	0	0	0	0	0



Isocandela Diagram (Percent of Maximum Intensity)



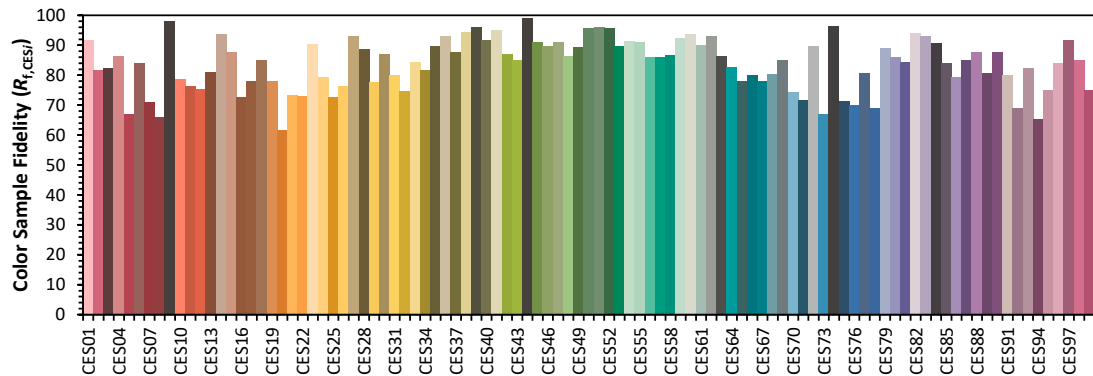
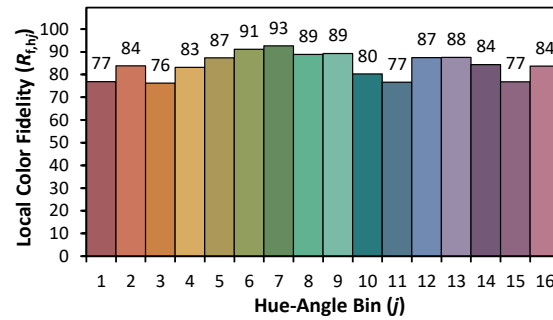
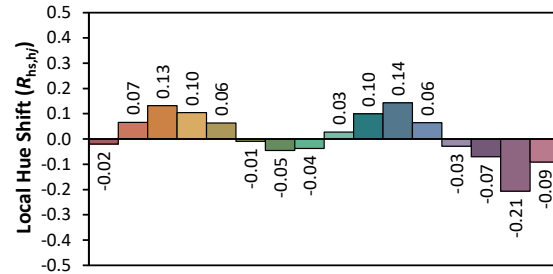
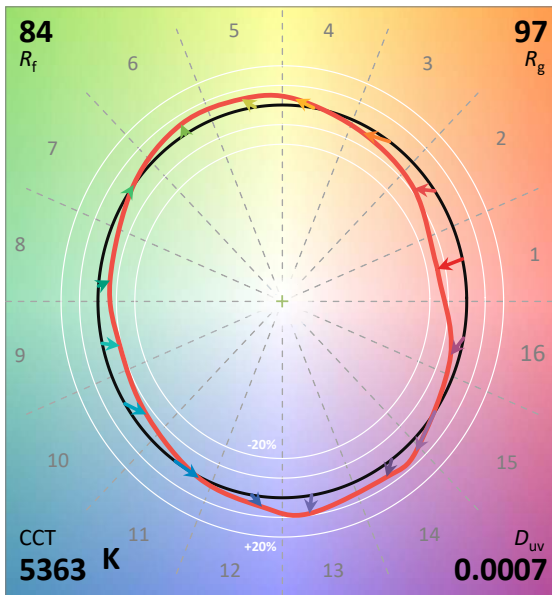
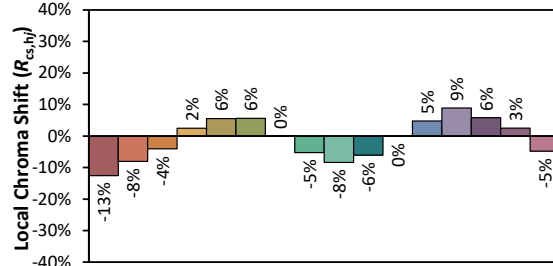
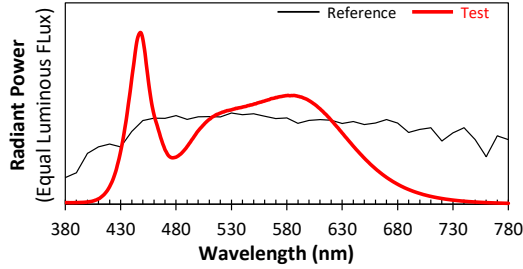
ANSI/IES TM-30-18 Color Rendition Report

Date: 2022-01-06

Manufacturer: B-K Lighting INC

Model:

OR-LED-e117-VNSP-WHP-9-0-YM-MT(5000K)



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

x 0.3356
 y 0.3451
 u' 0.2075
 v' 0.4800

CIE 13.3-1995
(CRI)
 R_a 83
 R_g 6

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