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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IES LM-79-2008, ANSI C82.77-10-2014, IES LM-35-2002 (Withdrawn)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

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United States

Catalog Number

DI-LED-TR-e153-7°-VNSP-WHP-C-INC-MT

Order Number

14327079

Test Number

14327079.17

Test Date

2022-12-15

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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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: Circular white metal housing with glass lens
Lamp: One (1) LED
Mounting: Pendant
Ballast/Driver: Integrated

Luminaire



Luminaire Characteristics
 Luminous Diameter: 2.50 in.

Summary of Results

Integrating Sphere

Luminous Flux: 443.7 Lumens
 Efficacy: 48.02 lm/w
 CCT: 4319 K
 CRI (Ra): 79.6

Distribution

Total Luminaire Output: 450.0 Lumens
 Luminaire Efficacy: 48.4 lm/w
 Maximum Candela: 14082 Candela

Electrical Data at 120 VAC

Test Temperature: 25.1 °C
 Voltage: 120.1 VAC
 Current: 0.07875 A
 Power: 9.239 W
 Power Factor: 0.977
 Frequency: 60 Hz
 Current THD: 15.9 %

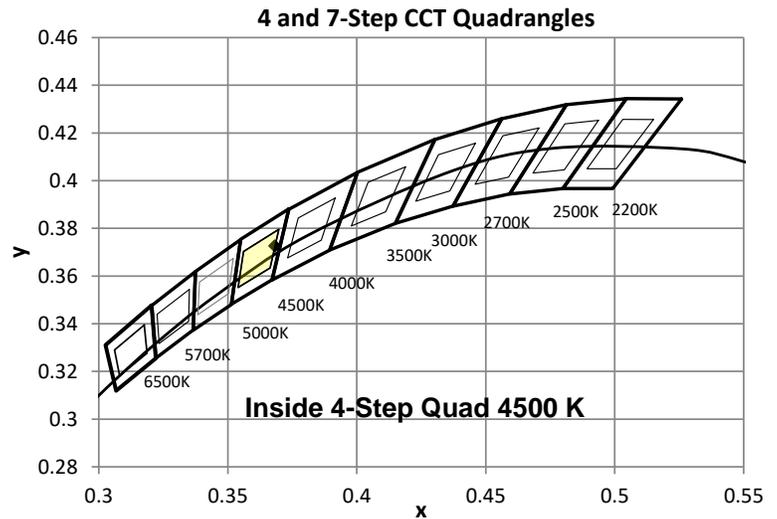
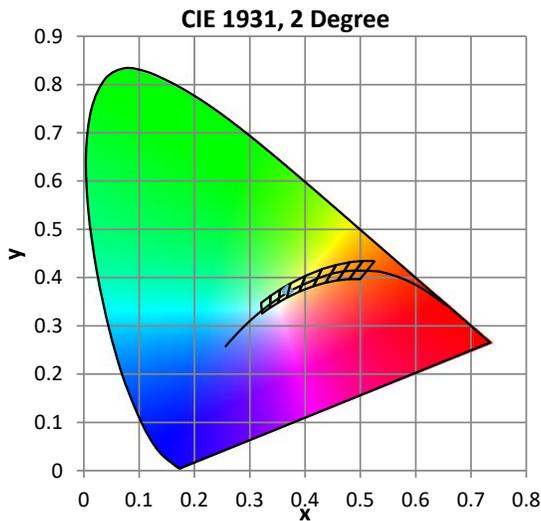
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.07875 A	9.239 W	0.977	60 Hz	15.9 %

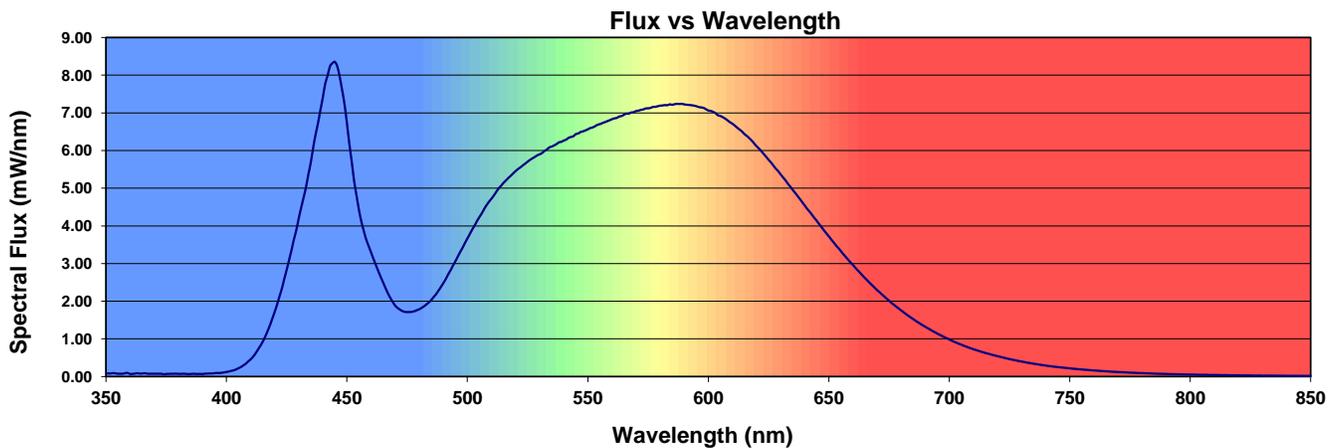
Summary of Results

Total Output:	444 Lumens	Chromaticity (x):	0.3682
Efficacy:	48.0 lm/w	Chromaticity (y):	0.3727
CCT:	4319 K	Chromaticity (u'):	0.2187
CRI (Ra):	79.6	Chromaticity (v'):	0.4980
CRI (R9):	4.0	TM-30 Rf:	80
Peak Wavelength:	445 nm	TM-30 Rg:	98
Dominant Wavelength:	577 nm	TM-30 Rcs,h1:	-12%
S/P Ratio:	1.69	Duv:	0.0019
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
79.6	78.2	83.1	87.7	81.0	78.6	77.8	84.9	65.8	4.0	60.7	80.5	61.7	78.5	93.0	71.6



Distribution - Goniophotometer

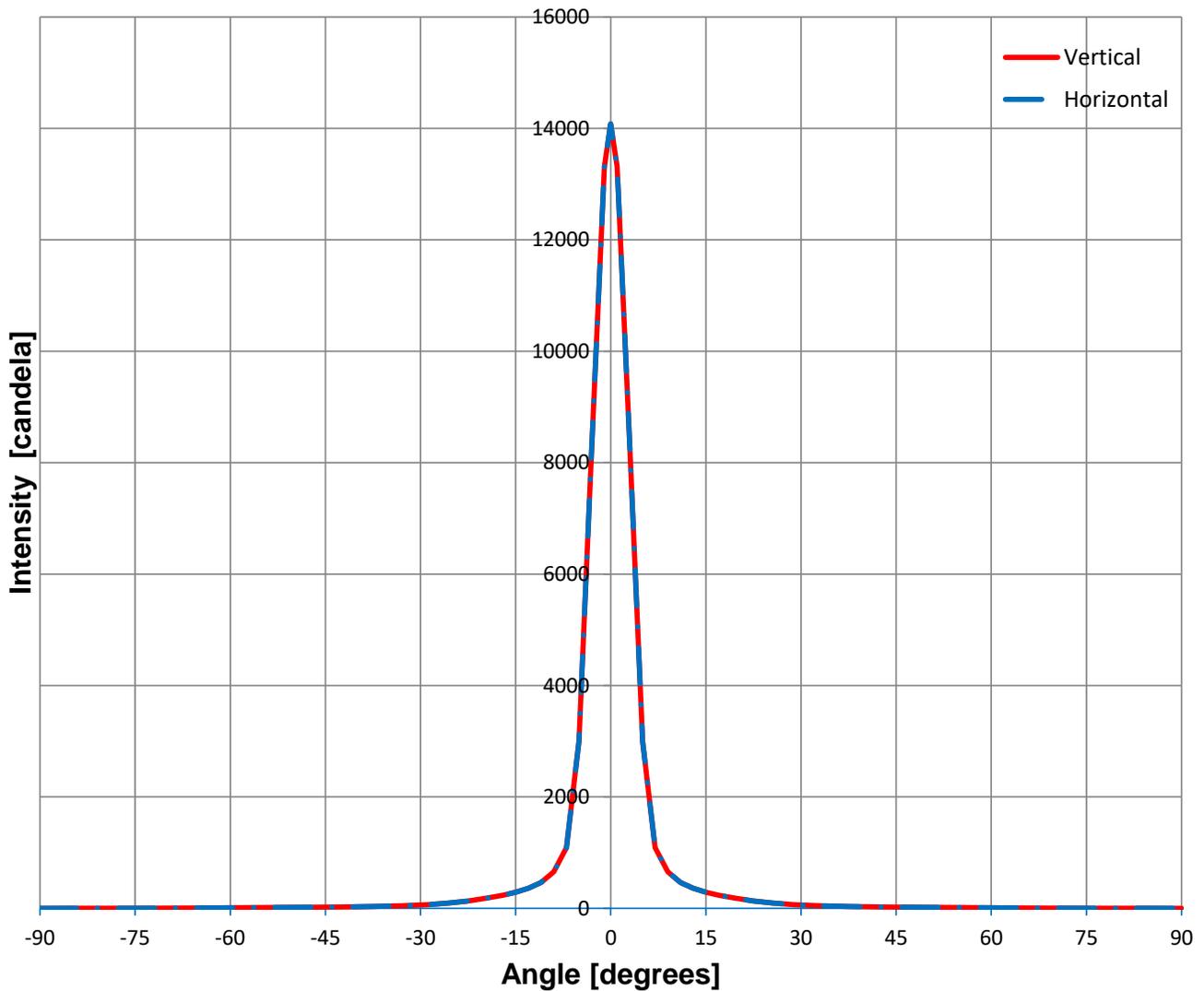
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.0 VAC	0.07954 A	9.291 W	0.973	60 Hz	19.4 %

Summary of Results

Total Lumen Output:	450.0 Lumens	Maximum Candela:	14081.5 Candela
Luminaire Efficacy:	48.4 Lumens/Watt	Maximum Angle:	0 H 0 V
Field Lumens:	209.4 Lumens	Field Angle :	13.3 H X 13.3 V
Beam Lumens:	139.6 Lumens	Beam Angle :	6.9 H X 6.9 V
Spill Light Lumens:	240.6 Lumens	IESNA Type:	1 H X 1 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	2	2	2	2	2	2	2	2	2	2	2
65.0	5	5	5	5	5	5	5	5	5	5	4
55.0	15	15	15	15	15	15	15	15	15	15	14
47.5	19	19	18	18	18	18	18	18	18	17	17
42.5	24	24	24	24	23	23	22	22	21	20	20
37.5	34	34	34	34	33	32	31	30	29	27	26
33.0	47	47	46	46	45	43	42	40	38	36	34
29.0	66	66	65	63	61	58	55	52	49	46	42
25.5	95	95	93	90	86	81	76	70	64	58	52
22.5	134	133	131	126	119	111	101	92	82	73	63
19.5	184	183	180	173	163	151	137	122	107	94	78
17.0	235	235	230	220	206	190	172	153	133	114	94
15.0	287	286	279	265	246	226	203	179	156	133	107
13.0	358	357	345	323	295	265	236	207	179	153	122
11.0	463	461	440	401	357	314	273	236	203	172	137
9.0	653	647	600	520	441	372	314	265	226	190	151
7.0	1091	1072	921	718	555	441	357	295	246	206	163
5.0	2995	2866	1916	1073	718	520	401	323	265	220	173
3.0	8251	7768	4720	1916	921	600	440	345	279	230	180
1.0	13315	12442	7768	2866	1072	647	461	357	286	235	183
0.0	14082	13315	8251	2995	1091	653	463	358	287	235	184
-1.0	13315	12442	7768	2866	1072	647	461	357	286	235	183
-3.0	8251	7768	4720	1916	921	600	440	345	279	230	180
-5.0	2995	2866	1916	1073	718	520	401	323	265	220	173
-7.0	1091	1072	921	718	555	441	357	295	246	206	163
-9.0	653	647	600	520	441	372	314	265	226	190	151
-11.0	463	461	440	401	357	314	273	236	203	172	137
-13.0	358	357	345	323	295	265	236	207	179	153	122
-15.0	287	286	279	265	246	226	203	179	156	133	107
-17.0	235	235	230	220	206	190	172	153	133	114	94
-19.5	184	183	180	173	163	151	137	122	107	94	78
-22.5	134	133	131	126	119	111	101	92	82	73	63
-25.5	95	95	93	90	86	81	76	70	64	58	52
-29.0	66	66	65	63	61	58	55	52	49	46	42
-33.0	47	47	46	46	45	43	42	40	38	36	34
-37.5	34	34	34	34	33	32	31	30	29	27	26
42.5	24	24	24	24	23	23	22	22	21	20	20
-47.5	19	19	18	18	18	18	18	18	18	17	17
-55.0	15	15	15	15	15	15	15	15	15	15	14
-65.0	5	5	5	5	5	5	5	5	5	5	4
-75.0	2	2	2	2	2	2	2	2	2	2	2
-85.0	1	1	1	1	1	1	1	1	1	1	1

Vertical Angle (Degrees)

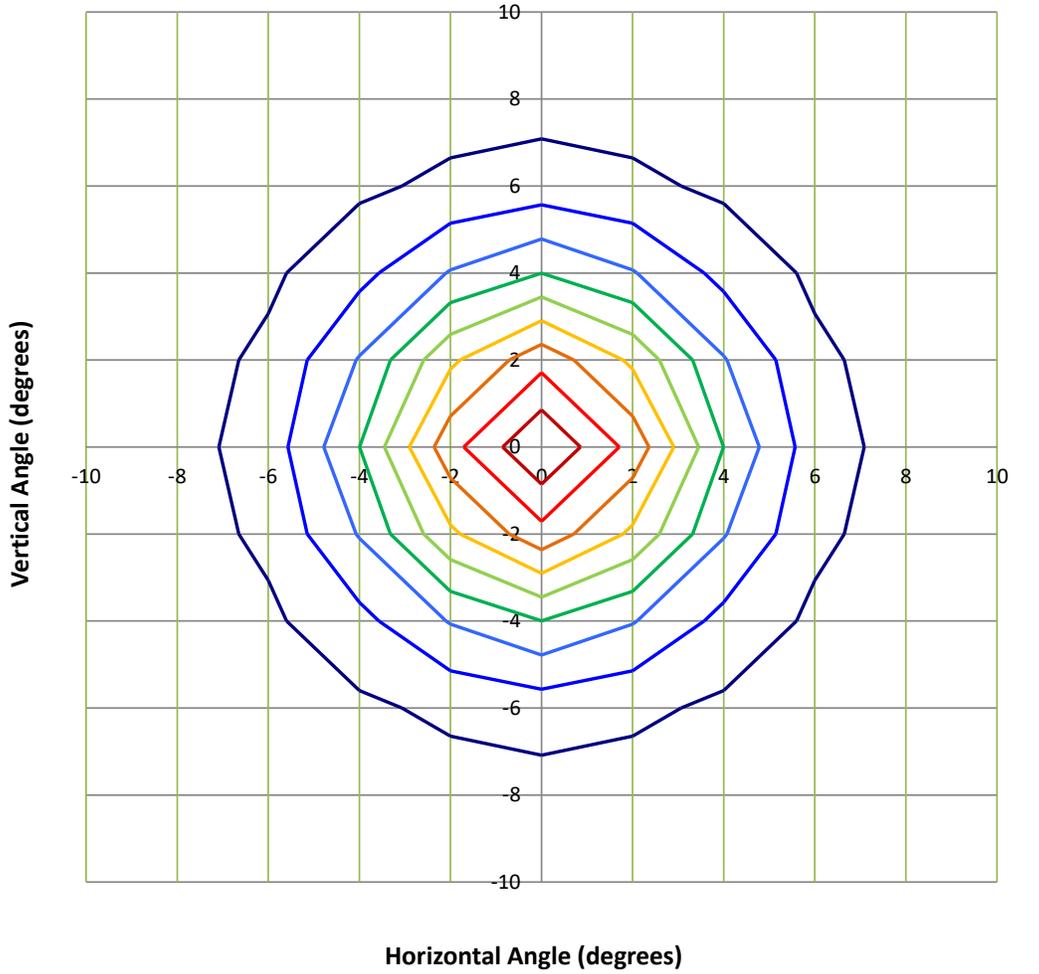


Candela Tabulation
Lateral Angle (Degrees)

	22.5	25.5	29	33	37.5	42.5	47.5	55	65	75	85
85.0	1	1	1	1	1	1	1	1	0	0	0
75.0	2	2	1	1	1	1	1	1	1	1	0
65.0	4	4	4	3	3	2	2	2	1	1	0
55.0	14	13	11	8	7	5	4	3	2	1	1
47.5	17	16	16	15	14	11	7	4	2	1	1
42.5	19	18	17	17	16	14	11	5	2	1	1
37.5	23	21	19	18	17	16	14	7	3	1	1
33.0	30	27	24	20	18	17	15	8	3	1	1
29.0	38	33	28	24	19	17	16	11	4	1	1
25.5	45	40	33	27	21	18	16	13	4	2	1
22.5	53	45	38	30	23	19	17	14	4	2	1
19.5	63	52	42	34	26	20	17	14	4	2	1
17.0	73	58	46	36	27	20	17	15	5	2	1
15.0	82	64	49	38	29	21	18	15	5	2	1
13.0	92	70	52	40	30	22	18	15	5	2	1
11.0	101	76	55	42	31	22	18	15	5	2	1
9.0	111	81	58	43	32	23	18	15	5	2	1
7.0	119	86	61	45	33	23	18	15	5	2	1
5.0	126	90	63	46	34	24	18	15	5	2	1
3.0	131	93	65	46	34	24	18	15	5	2	1
1.0	133	95	66	47	34	24	19	15	5	2	1
0.0	134	95	66	47	34	24	19	15	5	2	1
-1.0	133	95	66	47	34	24	19	15	5	2	1
-3.0	131	93	65	46	34	24	18	15	5	2	1
-5.0	126	90	63	46	34	24	18	15	5	2	1
-7.0	119	86	61	45	33	23	18	15	5	2	1
-9.0	111	81	58	43	32	23	18	15	5	2	1
-11.0	101	76	55	42	31	22	18	15	5	2	1
-13.0	92	70	52	40	30	22	18	15	5	2	1
-15.0	82	64	49	38	29	21	18	15	5	2	1
-17.0	73	58	46	36	27	20	17	15	5	2	1
-19.5	63	52	42	34	26	20	17	14	4	2	1
-22.5	53	45	38	30	23	19	17	14	4	2	1
-25.5	45	40	33	27	21	18	16	13	4	2	1
-29.0	38	33	28	24	19	17	16	11	4	1	1
-33.0	30	27	24	20	18	17	15	8	3	1	1
-37.5	23	21	19	18	17	16	14	7	3	1	1
-42.5	19	18	17	17	16	14	11	5	2	1	1
-47.5	17	16	16	15	14	11	7	4	2	1	1
-55.0	14	13	11	8	7	5	4	3	2	1	1
-65.0	4	4	4	3	3	2	2	2	1	1	0
-75.0	2	2	1	1	1	1	1	1	1	1	0
-85.0	1	1	1	1	1	1	1	1	0	0	0

Vertical Angle (Degrees)

Isocandela Diagram (Percent of Maximum Intensity)



- 12673 cd (90%)
 — 11265 cd (80%)
 — 9857 cd (70%)
 — 8448 cd (60%)
 — 7040 cd (50%)
- 5632 cd (40%)
 — 4224 cd (30%)
 — 2816 cd (20%)
 — 1408 cd (10%)

ANSI/IES TM-30-18 Color Rendition Report

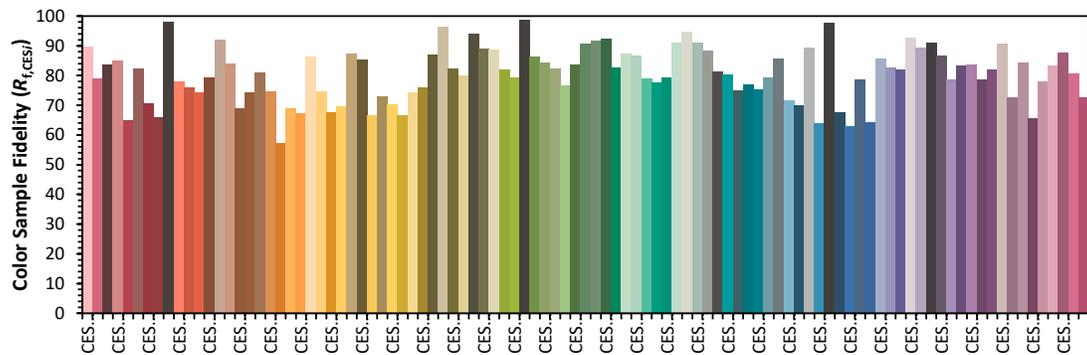
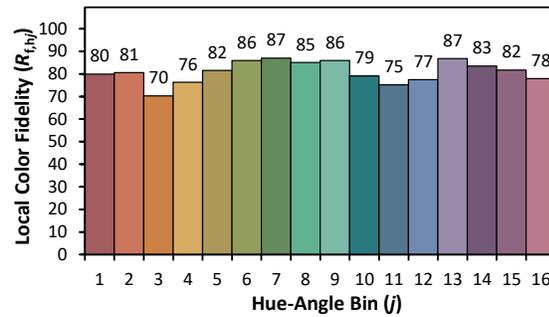
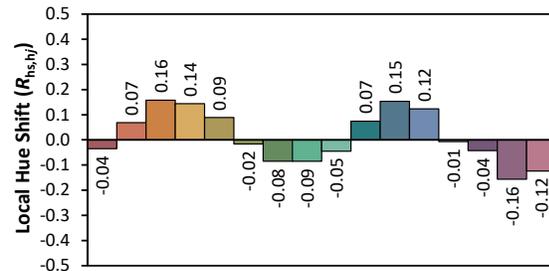
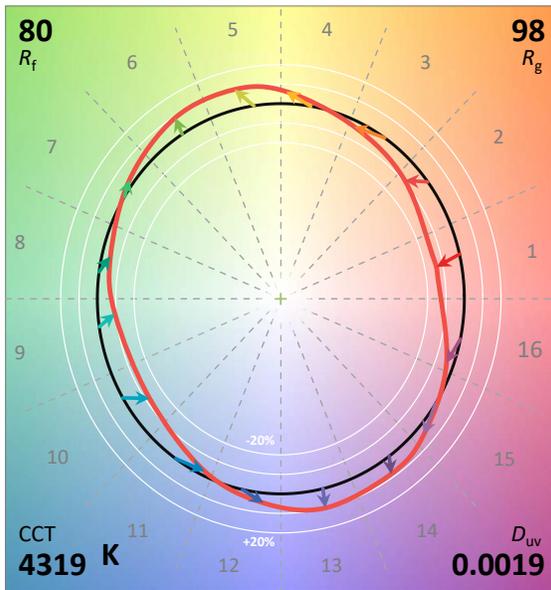
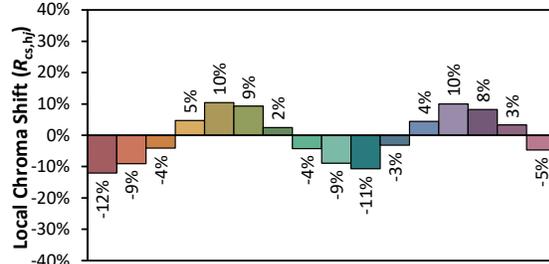
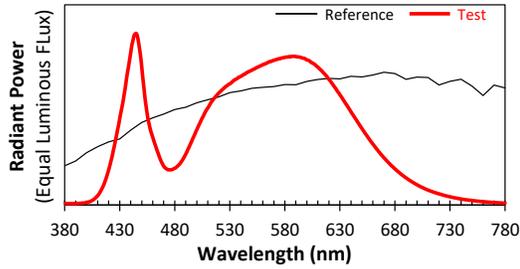
Date: 2022-12-15

Manufacturer:

B-K Lighting INC

Model:

DI-LED-TR-e153-7°-VNSP-WHP-C-INC-MT



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

x 0.3682
y 0.3727
u' 0.2187
v' 0.4980

CIE 13.3-1995 (CRI)	
R _a	80
R _g	4

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