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Photometric 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
B-K Lighting INC

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Catalog Number
SQ-LT-12-LED-E72-WHP-PROTOTYPE(4000K)

Order Number
13290547
Test Number
13290547.03

Test Date

2020-06-18 - 2020-06-23

Prepared By

Austin Duff, Technician

Approved By

Eric Gaudreau, Engineering Leader

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.

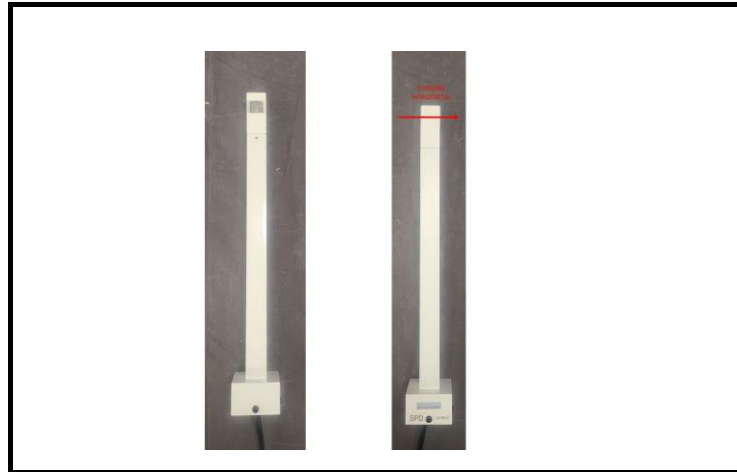
Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged
Vertical test increments are 2.5 degrees
Test distance exceeds five times the greatest luminous opening of luminaire
Test Number 13290547.03 - Page 2 of 8



Luminaire Description: White rectangular metal housing and diffuse plastic lens
Lamp: One (1) White LED
Mounting: VBD
Ballast/Driver: One (1) PowerSelect PS20U15K

Luminaire



Luminaire Characteristics

Luminous Length: 0.00 in.
1.000

Summary of Results

Integrating Sphere

Luminous Flux: 130.4 Lumens
Efficacy: 36.17 lm/w
CCT: 3991 K
CRI (Ra): 82.1

Distribution

Roadway Classification: Type II, Very Short
Cutoff Classification: Noncutoff
BUG Rating: B0 U2 G1

Electrical Data at 120 VAC

Test Temperature: 24.7 °C
Voltage: 120.0 VAC
Current: 0.05443 A
Power: 3.605 W
Power Factor: 0.552
Frequency: 60 Hz
Current THD: 151 %



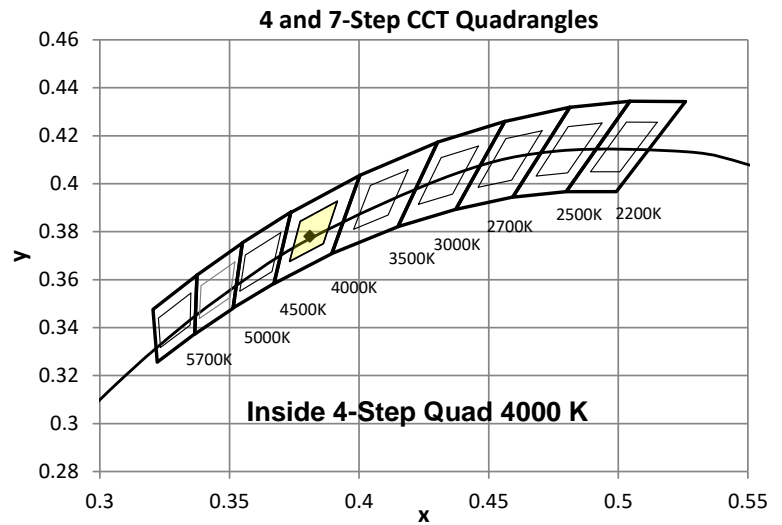
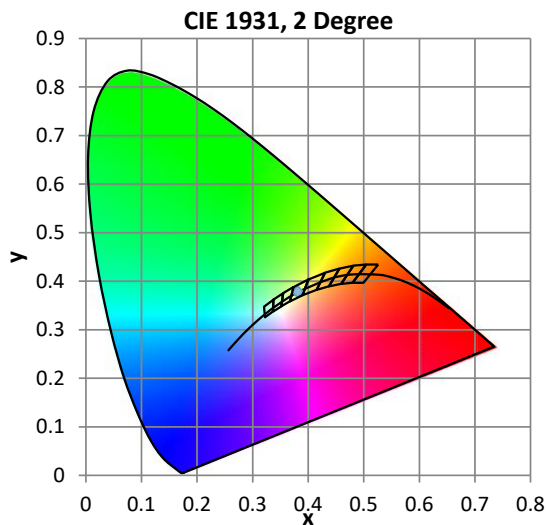
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.0 VAC	0.05443 A	3.605 W	0.552	60 Hz	151 %

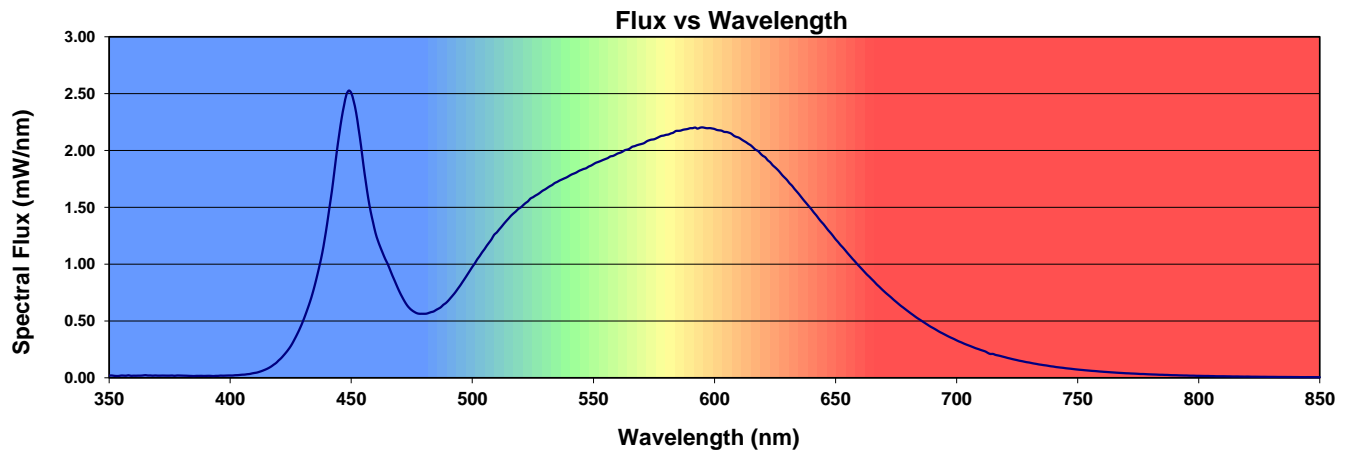
Summary of Results

Total Output:	130 Lumens	Chromaticity (x):	0.3810
Efficacy:	36.2 lm/w	Chromaticity (y):	0.3781
CCT:	3991 K	Chromaticity (u'):	0.2250
CRI (Ra):	82.1	Chromaticity (v'):	0.5023
CRI (R9):	12.6	TM-30 Rf:	83
Peak Wavelength:	449 nm	TM-30 Rg:	97
Dominant Wavelength:	579 nm	TM-30 Rcs,h1:	-11%
S/P Ratio:	1.65	Duv:	0.0004



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.1	80.8	86.9	91.2	82.1	80.4	81.6	87.0	67.1	12.6	68.4	80.4	59.6	81.9	94.9	75.3





Distribution - Goniophotometer

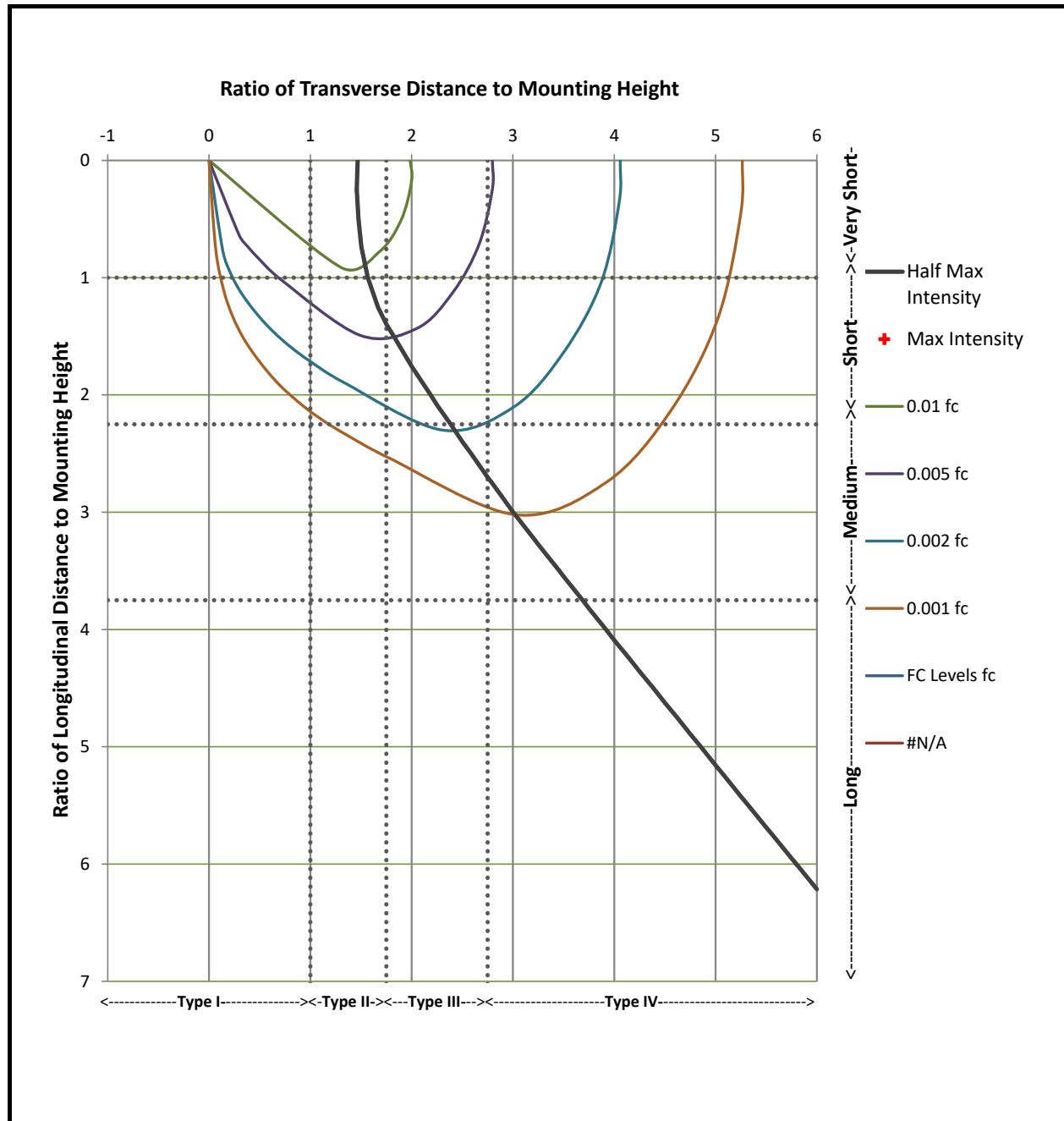
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.0 VAC	0.05392 A	3.607 W	0.557	60 Hz	149 %

Summary of Results

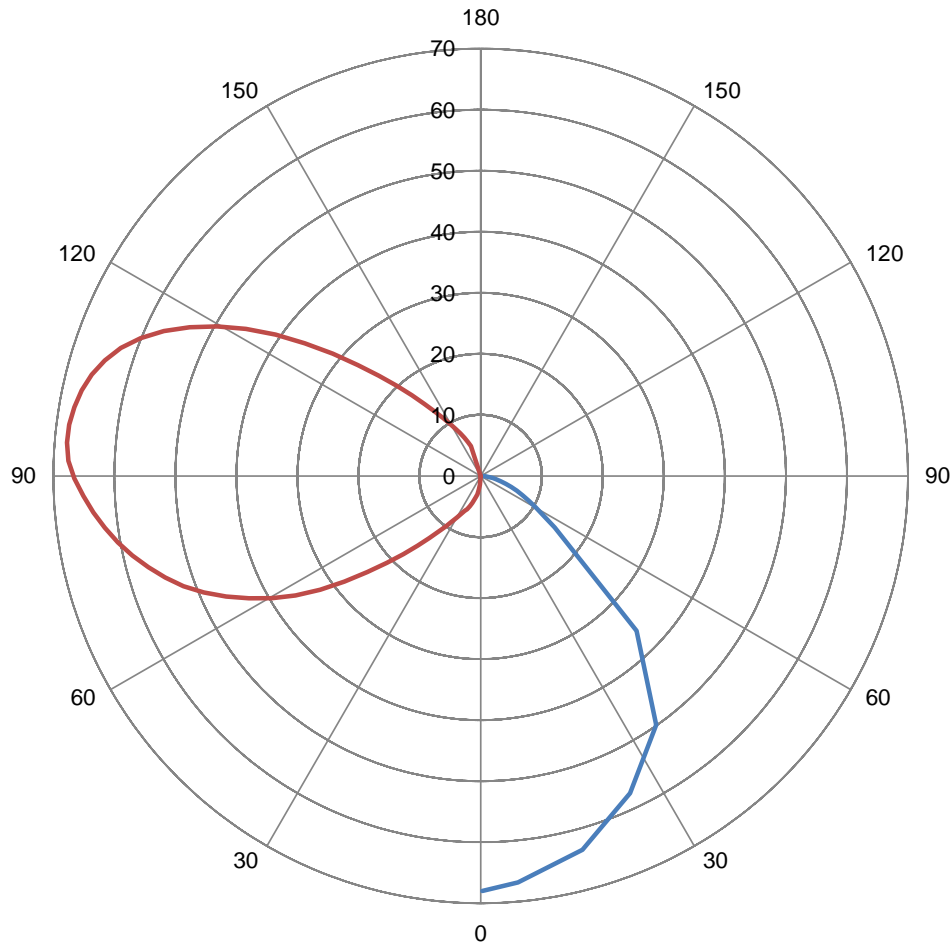
IES Roadway Classification:	Type II, Very Short	Total Lumen Output:	125 Lumens
Cutoff Classification:	Noncutoff	Luminaire Efficacy:	34.5 lm/w
BUG Rating:	B0 U2 G1	Maximum Candela:	68 Candela

ISO FootCandle Plot at 20 Feet





Maximum Plane and Cone Plots of Candela



Vertical Plane Through

0 ° Lateral

Lateral Cone Through

95 ° Vertical

Maximum Intensity (Candlepower):

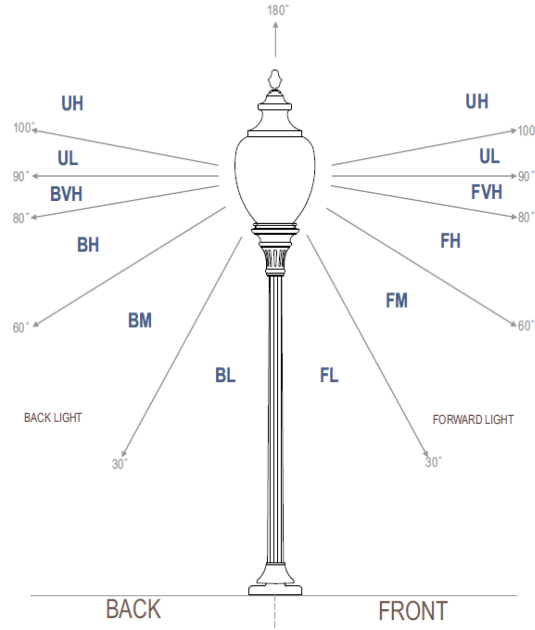
68 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.0	0.0%	60-65	5.4	4.4%	120-125	5.0	4.0%
5-10	0.1	0.0%	65-70	6.5	5.2%	125-130	3.7	3.0%
10-15	0.1	0.1%	70-75	7.3	5.9%	130-135	2.7	2.1%
15-20	0.3	0.2%	75-80	8.0	6.5%	135-140	1.9	1.5%
20-25	0.4	0.3%	80-85	8.6	6.9%	140-145	1.3	1.1%
25-30	0.6	0.5%	85-90	8.9	7.2%	145-150	0.9	0.7%
30-35	0.8	0.7%	90-95	9.1	7.3%	150-155	0.6	0.5%
35-40	1.1	0.9%	95-100	9.0	7.2%	155-160	0.4	0.3%
40-45	1.6	1.3%	100-105	8.7	7.0%	160-165	0.2	0.1%
45-50	2.2	1.8%	105-110	8.1	6.5%	165-170	0.0	0.0%
50-55	3.1	2.5%	110-115	7.3	5.9%	170-175	0.0	0.0%
55-60	4.3	3.4%	115-120	6.2	5.0%	175-180	0.0	0.0%



IES "BUG" Rating
(Back Light, Uplight, Glare)
Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	1.4	1.2%
FM	(30-60)	13.2	10.6%
FH	(60-80)	27.3	21.9%
FVH	(80-90)	17.5	14.1%
BL	(0-30)	0.0	0.0%
BM	(30-60)	0.0	0.0%
BH	(60-80)	0.0	0.0%
BVH	(80-90)	0.0	0.0%
UL	(90-100)	18.1	14.5%
UH	(100-180)	47.0	37.7%
Total		124.6	100.0%
BUG Rating	B0 U2 G1		

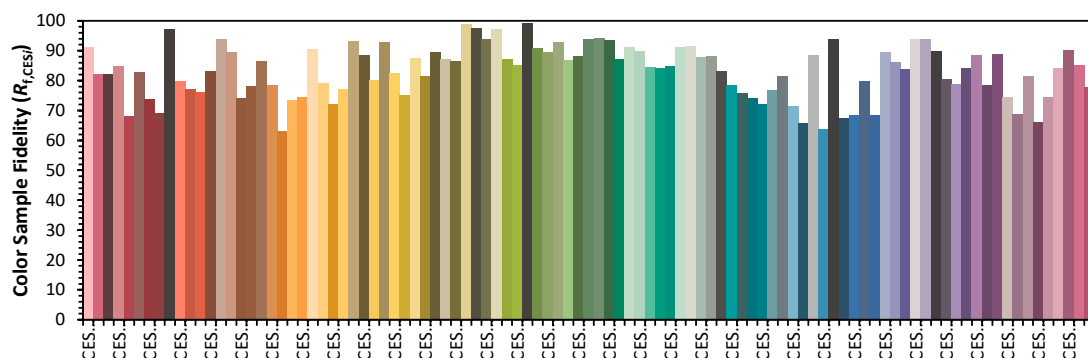
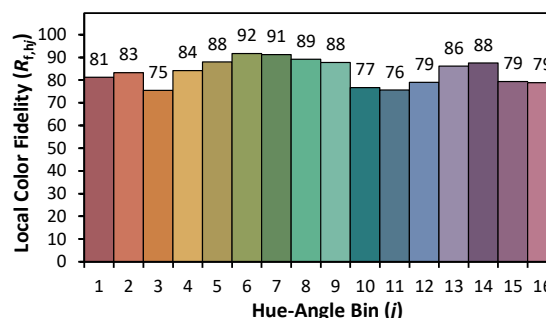
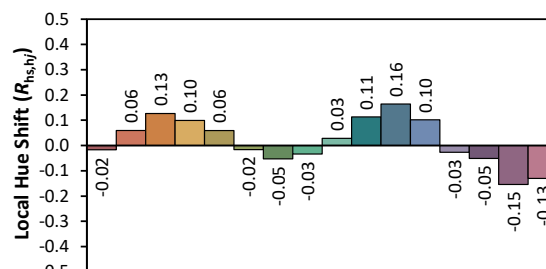
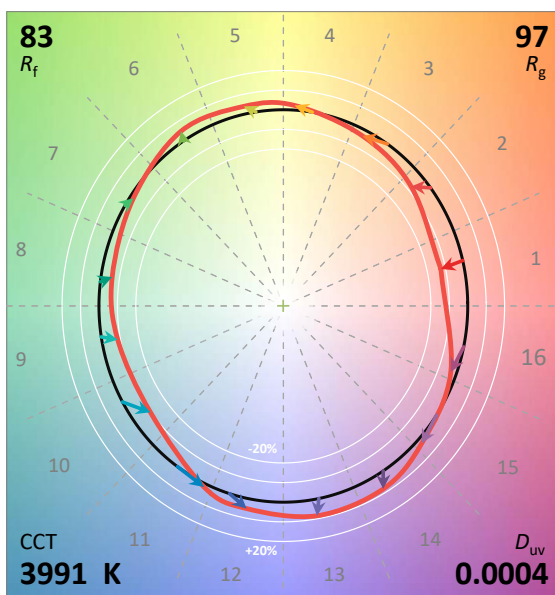
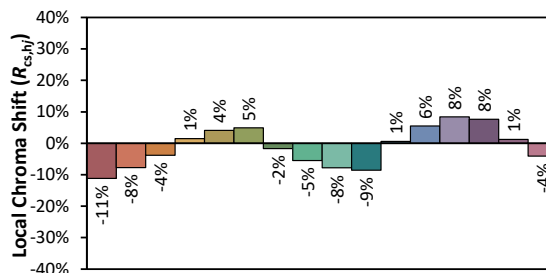
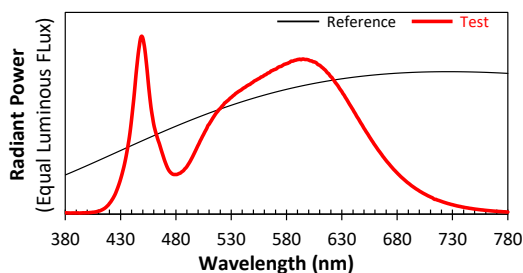
ANSI/IES TM-30-18 Color Rendition Report

Source: Test Number: 13290547.03

Manufacturer: B-K Lighting INC

Date: 2020-06-23

Model: SQ-LT-12-LED-E72-WHP-PROTOTYPE



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

x 0.3810
y 0.3781
u' 0.2250
v' 0.5023

CIE 13.3-1995
(CRI)

R_a 82
R_g 13

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