UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

ACCREDITED
Testing Laboratory

NVLAP LAB CODE 201042-0

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

Cast Lighting
David Beausoleil
1120A Goffle Rd
Hawthorne, NJ 07506
United States

Catalog Number

CPL2

Order Number
13587672
Test Number
13587672.05

Test Date

2020-12-09 - 2020-12-10

Prepared By

Javier Caban

Javier Caban, Technician

Approved By

Kevin Rodriguez

Kevin Rodriguez, Project Handler

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

Testing was performed in a 3-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

Luminaire Description:	Cast aluminum housing, clear plastic inner lens, white reflective inner coating, no enclosure
Lamp:	Three white LEDs
Mounting:	Pathway
Ballast/Driver:	One Cast Perimeter XCPD1 driver

Luminaire

Luminaire Characteristics

Luminous Diameter: 4.50 in.

Summary of Results

Integrating Sphere

Luminous Flux:	522.6	Lumens
Efficacy:	64.07	lm/w
CCT:	4536	K
CRI (Ra):	79.6	

Distribution

Roadway Classification:	Type II, Very Short
Cutoff Classification:	Cutoff
BUG Rating:	B0 U1 G0

Electrical Data at 17 VDC

Test Temperature:	24.4	°C
Voltage:	17.04	VDC
Current:	0.4786	A
Power:	8.157	W
Power Factor:	1.000	

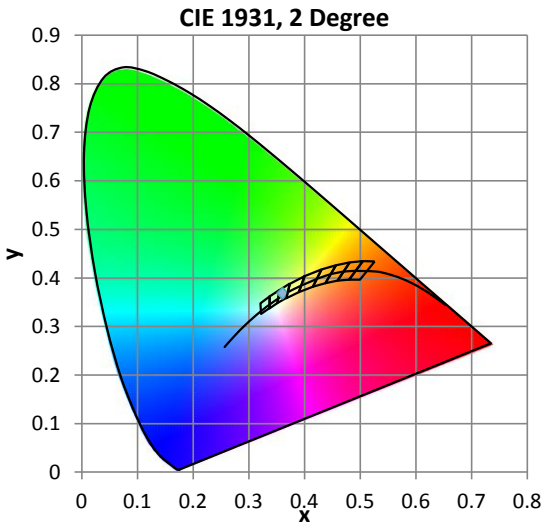
Color Quality - Integrating Sphere

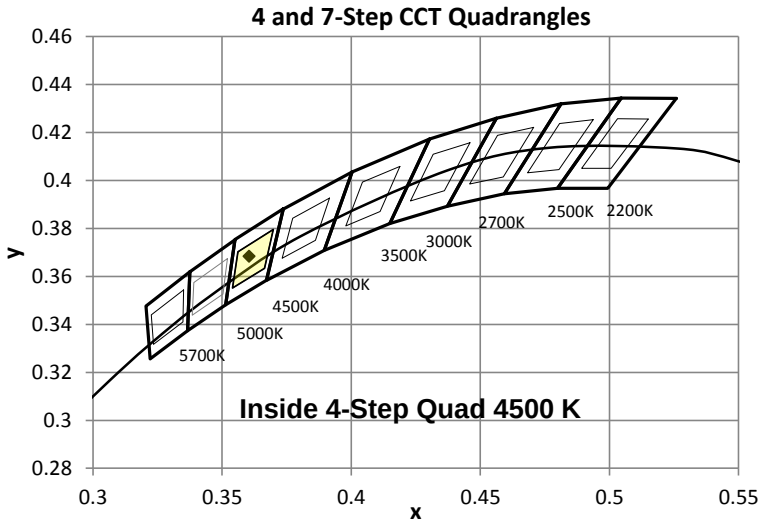
Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	17.04 VDC	0.4786 A	8.157 W	N/A	N/A	N/A

Summary of Results

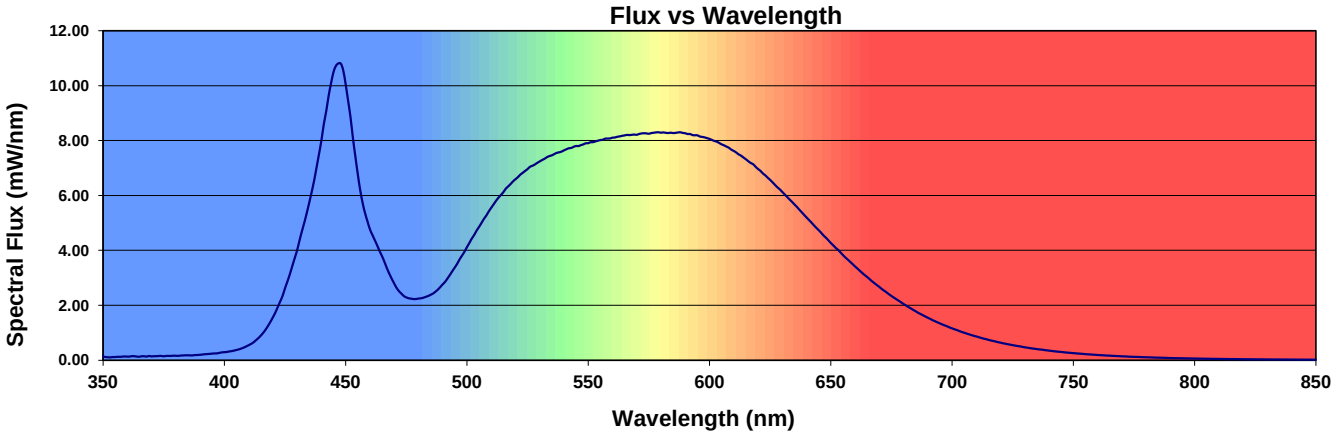
Total Output:	523	Lumens	**Chromaticity (x):**	0.3604
Efficacy:	64.1	lm/w	**Chromaticity (y):**	0.3684
CCT:	4536	K	**Chromaticity (u'):**	0.2152
CRI (Ra):	79.6		**Chromaticity (v'):**	0.4949
CRI (R9):	5.8		**TM-30 Rf:**	81
Peak Wavelength:	447	nm	**TM-30 Rg:**	98
Dominant Wavelength:	575	nm	**TM-30 Rcs,h1:**	-12%
S/P Ratio:	1.75		**Duv:**	0.0025





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	83.0	86.7	80.8	78.3	76.9	86.0	67.2	5.8	59.5	79.3	57.1	78.6	92.4	72.5



Distribution - Goniophotometer

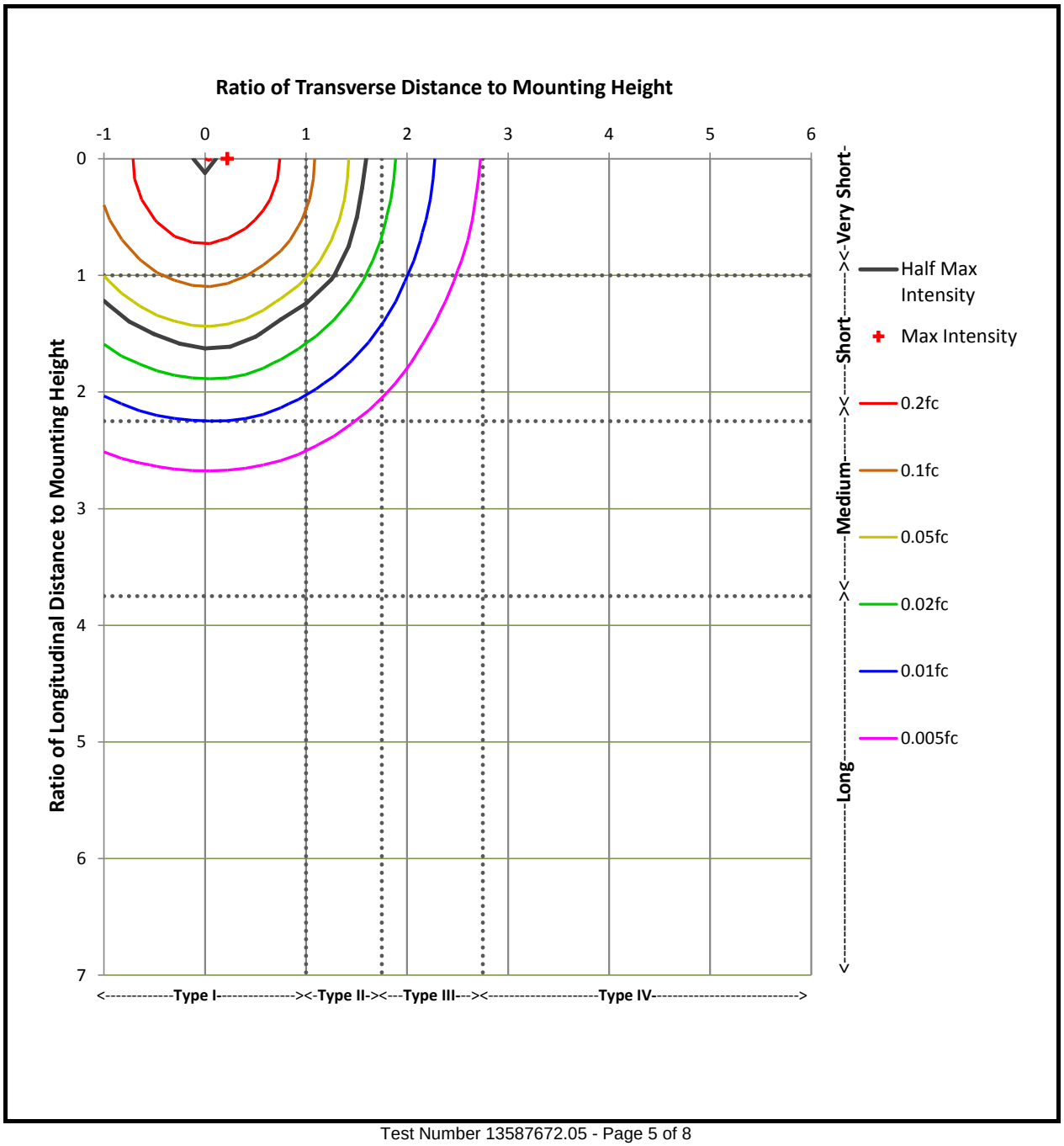
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	17.00 VDC	0.4820 A	8.194 W	N/A	N/A	N/A

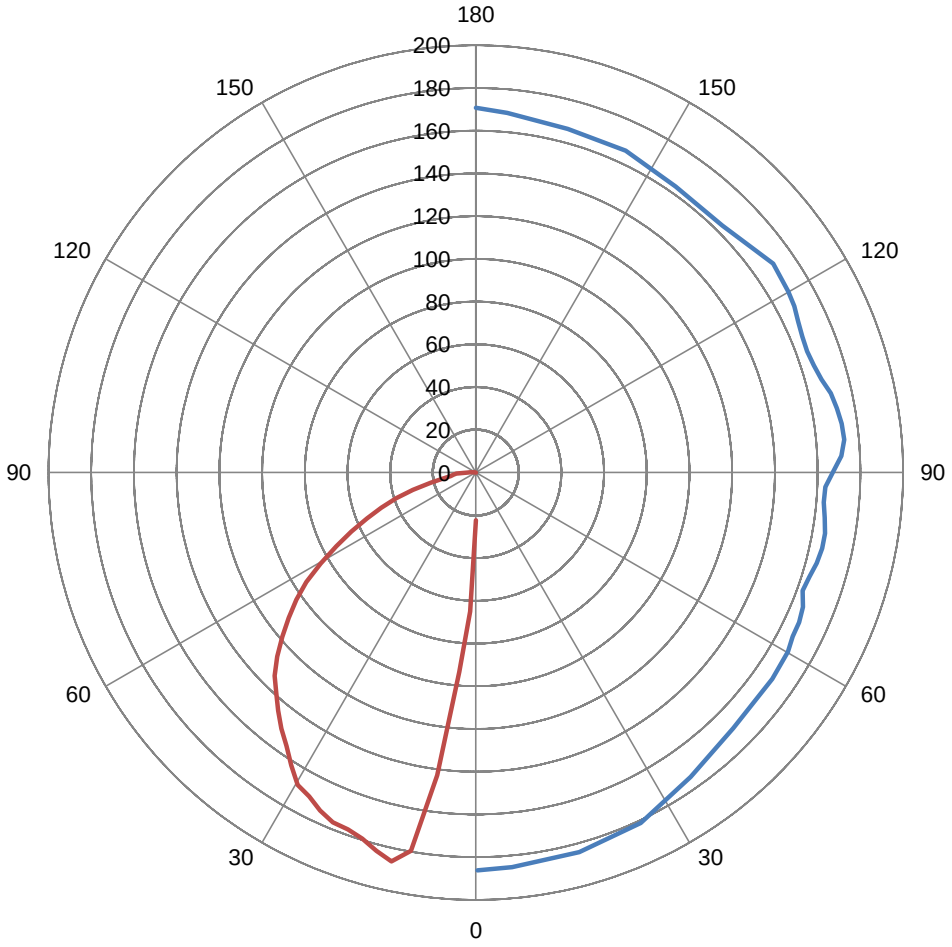
Summary of Results

IES Roadway Classification:	Type II, Very Short	**Total Lumen Output:**	529 Lumens
Cutoff Classification	Cutoff	**Luminaire Efficacy:**	64.6 lm/w
BUG Rating:	B0 U1 G0	**Maximum Candela:**	186 Candela

ISO FootCandle Plot at 20 Feet



Maximum Plane and Cone Plots of Candela



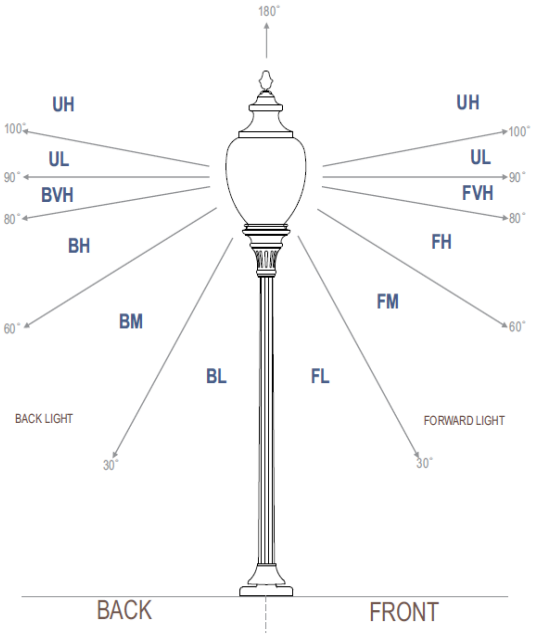
Vertical Plane Through 0 ° Lateral **Lateral Cone Through** 12.5 ° Vertical

Maximum Intensity (Candlepower): 186 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	1.4	0.3%	60-65	35.6	6.7%	120-125	0.0	0.0%
5-10	8.7	1.6%	65-70	27.0	5.1%	125-130	0.0	0.0%
10-15	19.9	3.8%	70-75	19.2	3.6%	130-135	0.0	0.0%
15-20	28.2	5.3%	75-80	11.4	2.2%	135-140	0.0	0.0%
20-25	35.4	6.7%	80-85	6.6	1.3%	140-145	0.0	0.0%
25-30	41.6	7.9%	85-90	4.2	0.8%	145-150	0.0	0.0%
30-35	45.7	8.6%	90-95	1.0	0.2%	150-155	0.0	0.0%
35-40	48.9	9.2%	95-100	0.3	0.1%	155-160	0.0	0.0%
40-45	51.0	9.6%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	51.0	9.6%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	48.5	9.2%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	43.4	8.2%	115-120	0.0	0.0%	175-180	0.0	0.0%

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

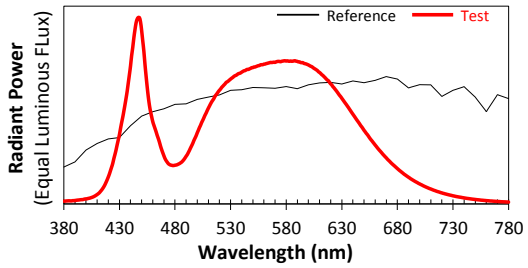


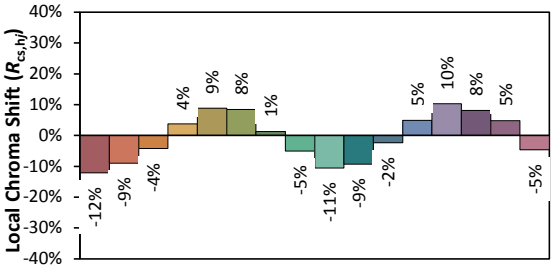
Luminaire Classification System (LCS)

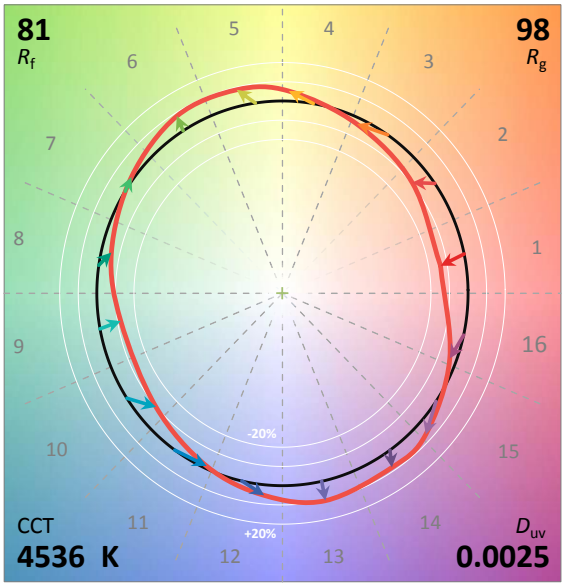
LCS	Zone	Lumens	Luminaire %
FL	(0-30)	68.6	13.0%
FM	(30-60)	145.1	27.4%
FH	(60-80)	46.7	8.8%
FVH	(80-90)	5.3	1.0%
BL	(0-30)	66.6	12.6%
BM	(30-60)	143.4	27.1%
BH	(60-80)	46.5	8.8%
BVH	(80-90)	5.5	1.0%
UL	(90-100)	1.3	0.2%
UH	(100-180)	0.0	0.0%
Total		529.0	100.0%
BUG Rating	**B0 U1 G0**		

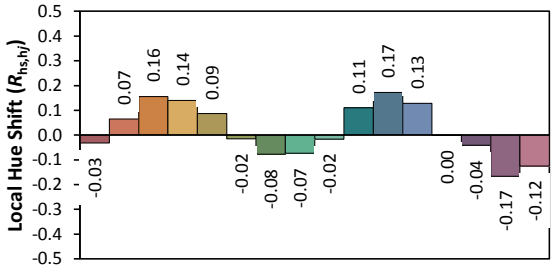
ANSI/IES TM-30-18 Color Rendition Report

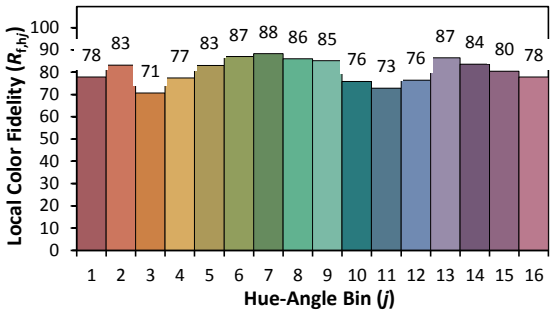
Source:	Test Number: 13587672.05	**Manufacturer:**	Cast Lighting
Date:	2020-12-09	**Model:**	CPL2

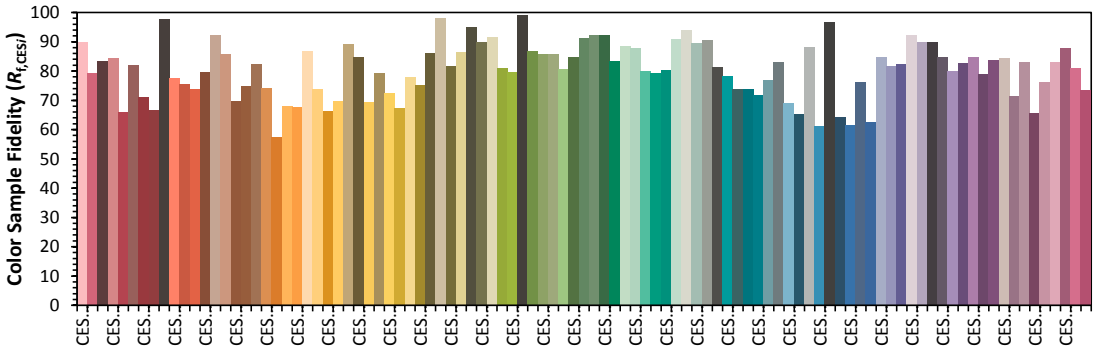












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	**0.3604**
y	**0.3684**
u'	**0.2152**
v'	**0.4949**

CIE 13.3-1995 (CRI)

R_a	80
R_9	6

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