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Allentown, PA 18106
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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
Cast Lighting
David Beausoleil
1120A Goffle Rd
Hawthorne, NJ 07506
United States

Catalog Number
CPL316
Order Number
13587672
Test Number
13587672.03

Test Date

2020-12-08 - 2020-12-09

Prepared By

Matt Finn, Technician

Approved By

Kevin Rodriguez, 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 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
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Luminaire Description: Cast aluminum housing, white reflective inner coating, no enclosure
Lamp: Eight white LEDs with optics below each
Mounting: Pathway
Ballast/Driver: Two Cast Perimeter XCPD1 drivers

Luminaire



Luminaire Characteristics

Luminous Length: 5.00 in.
Luminous Width: 8.500 in.

Summary of Results

Integrating Sphere

Luminous Flux: 2229 Lumens
Efficacy: 102.46 lm/w
CCT: 4494 K
CRI (Ra): 80.1

Distribution

Roadway Classification: Type VS, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B2 U1 G1

Electrical Data at 17 VDC

Test Temperature: 24.6 °C
Voltage: 17.05 VDC
Current: 1.276 A
Power: 21.75 W



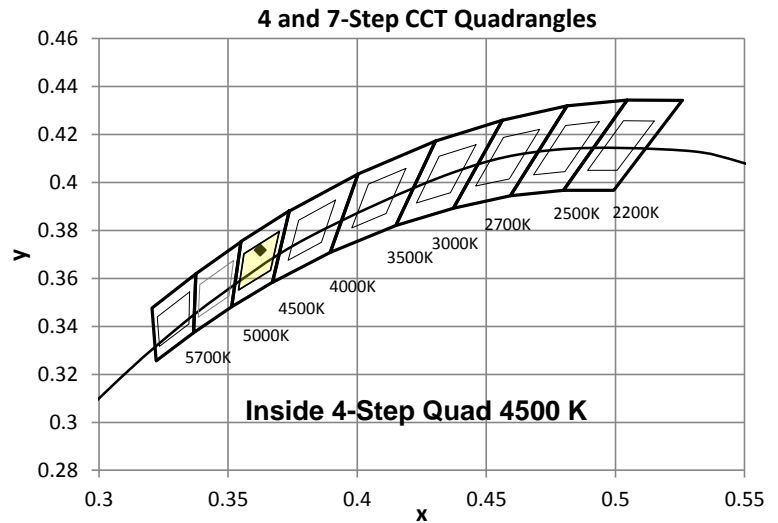
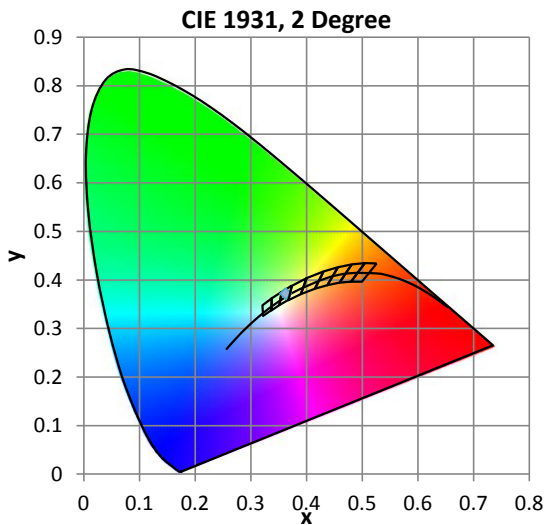
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.6 °C	17.05 VDC	1.276 A	21.75 W	N/A	N/A	N/A

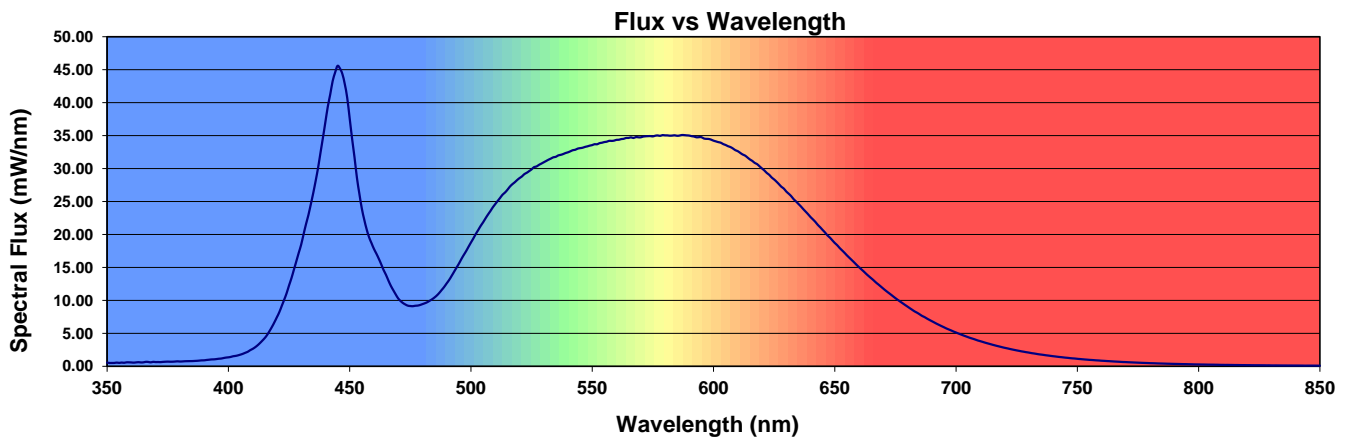
Summary of Results

Total Output:	2229 Lumens	Chromaticity (x):	0.3624
Efficacy:	102.5 lm/w	Chromaticity (y):	0.3718
CCT:	4494 K	Chromaticity (u'):	0.2151
CRI (Ra):	80.1	Chromaticity (v'):	0.4967
CRI (R9):	8.2	TM-30 Rf:	81
Peak Wavelength:	445 nm	TM-30 Rg:	99
Dominant Wavelength:	575 nm	TM-30 Rcs,h1:	-12%
S/P Ratio:	1.74	Duv:	0.0034



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80.1	78.7	83.0	86.9	81.7	78.9	77.5	86.0	68.1	8.2	60.2	80.9	59.7	78.9	92.5	72.8





Distribution - Goniophotometer

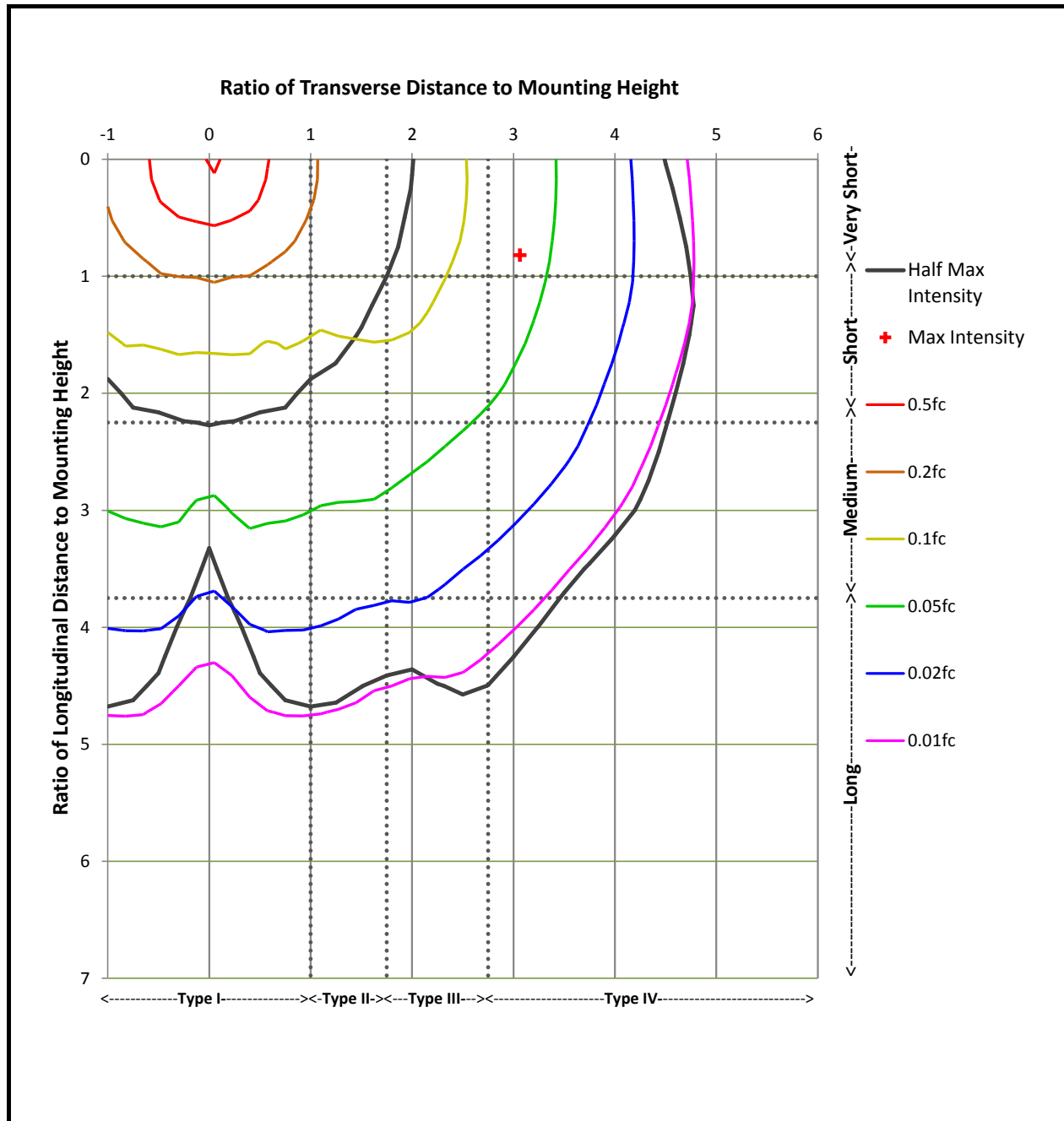
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	17.00 VDC	1.308 A	22.24 W	N/A	N/A	N/A

Summary of Results

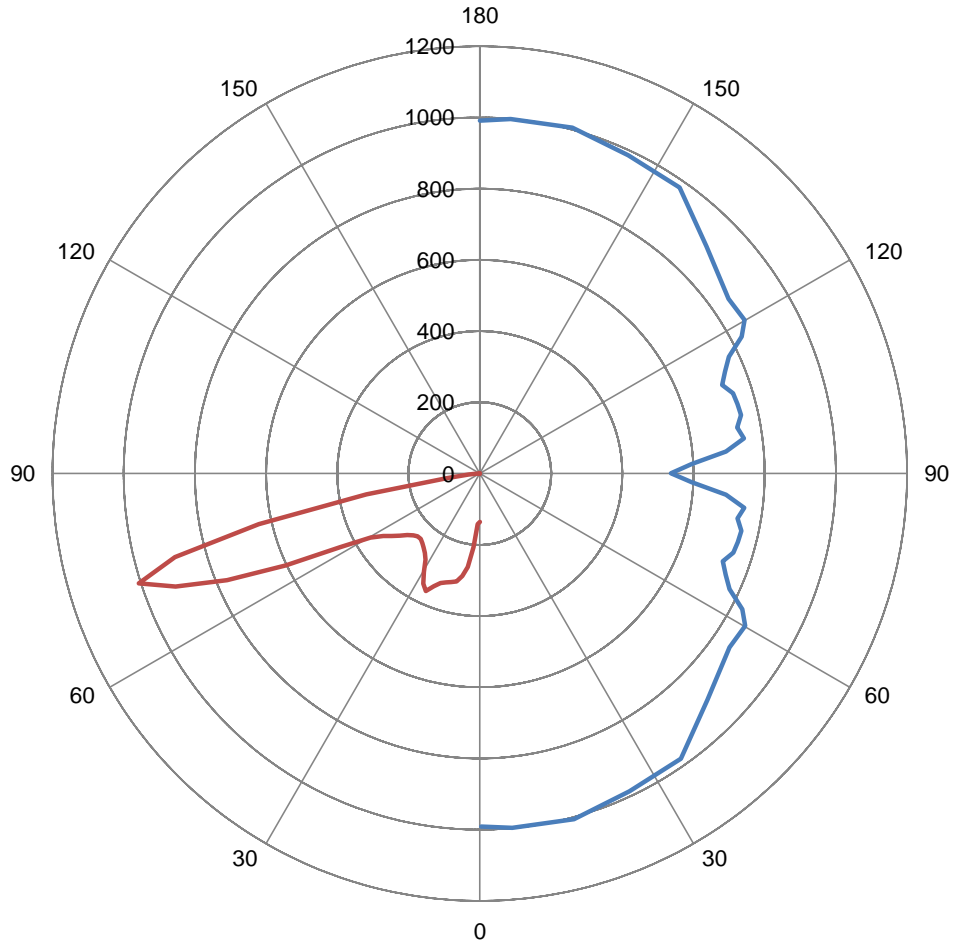
IES Roadway Classification: Type VS, Very Short	Total Lumen Output: 2300 Lumens
Cutoff Classification: Semicutoff	Luminaire Efficacy: 103.4 lm/w
BUG Rating: B2 U1 G1	Maximum Candela: 1006 Candela

ISO FootCandle Plot at 20 Feet





Maximum Plane and Cone Plots of Candela



Vertical Plane Through

15 ° Lateral

Lateral Cone Through

72.5 ° Vertical

Maximum Intensity (Candlepower):

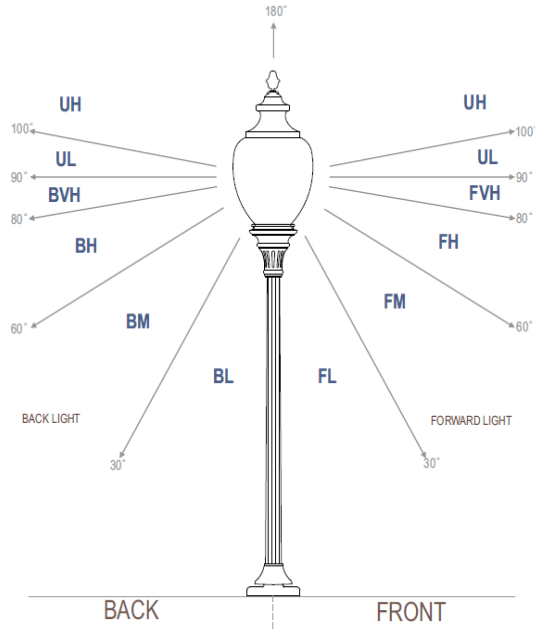
1006 Candela

Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	4.1	0.2%	60-65	204.2	8.9%	120-125	0.1	0.0%
5-10	16.6	0.7%	65-70	342.5	14.9%	125-130	0.1	0.0%
10-15	34.2	1.5%	70-75	440.4	19.1%	130-135	0.1	0.0%
15-20	51.4	2.2%	75-80	313.8	13.6%	135-140	0.1	0.0%
20-25	69.3	3.0%	80-85	92.2	4.0%	140-145	0.1	0.0%
25-30	83.6	3.6%	85-90	13.4	0.6%	145-150	0.1	0.0%
30-35	84.7	3.7%	90-95	2.0	0.1%	150-155	0.1	0.0%
35-40	87.3	3.8%	95-100	1.0	0.0%	155-160	0.1	0.0%
40-45	92.1	4.0%	100-105	0.6	0.0%	160-165	0.0	0.0%
45-50	102.2	4.4%	105-110	0.4	0.0%	165-170	0.0	0.0%
50-55	119.9	5.2%	110-115	0.3	0.0%	170-175	0.0	0.0%
55-60	143.0	6.2%	115-120	0.2	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)	129.6	5.6%
FM	(30-60)	314.6	13.7%
FH	(60-80)	650.5	28.3%
FVH	(80-90)	52.8	2.3%
BL	(0-30)	129.6	5.6%
BM	(30-60)	314.6	13.7%
BH	(60-80)	650.5	28.3%
BVH	(80-90)	52.8	2.3%
UL	(90-100)	3.0	0.1%
UH	(100-180)	2.2	0.1%
Total		2300.3	100.0%
BUG Rating	B2 U1 G1		

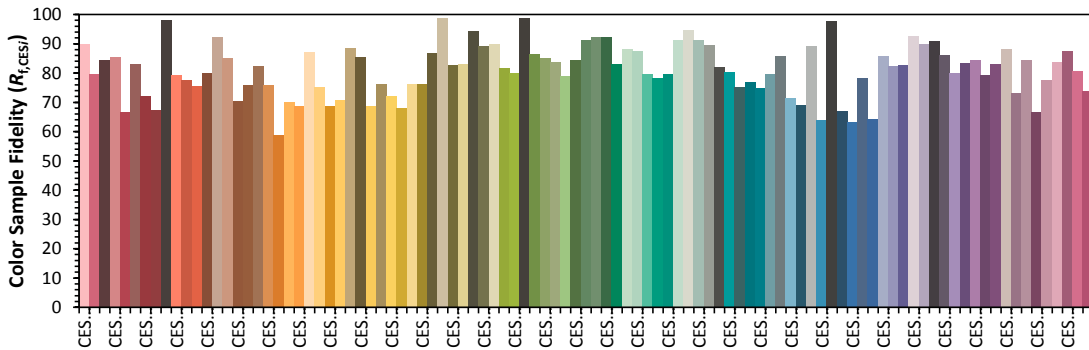
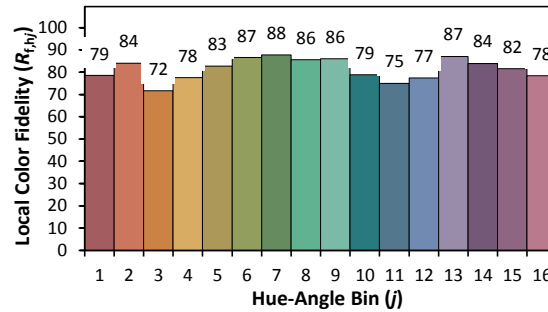
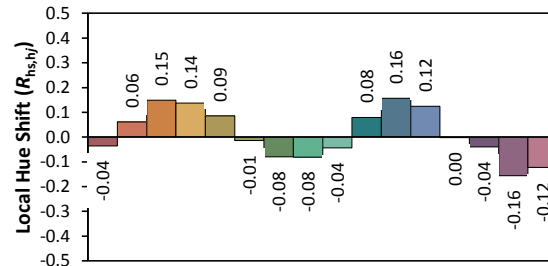
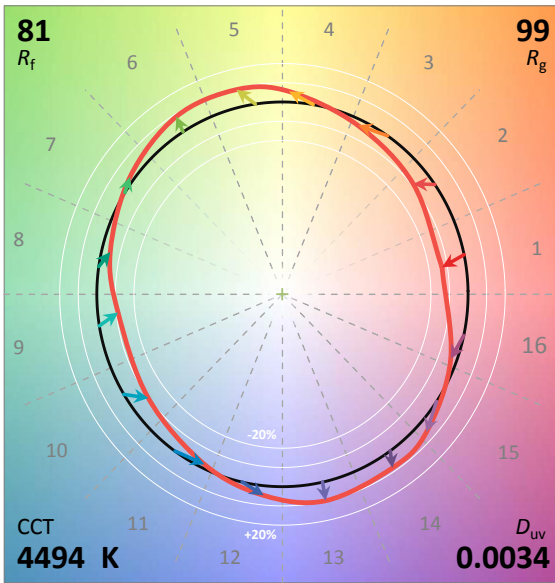
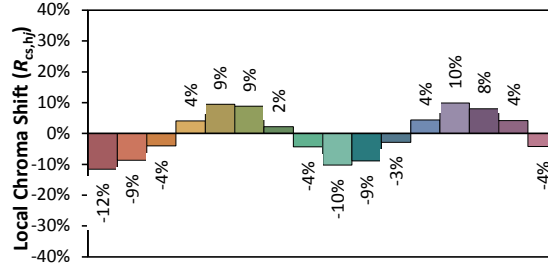
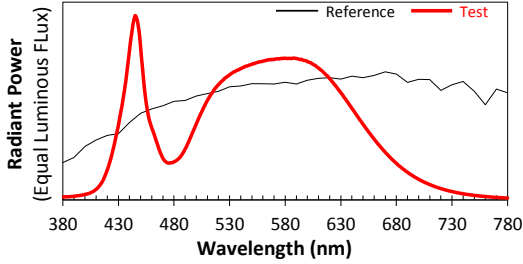
ANSI/IES TM-30-18 Color Rendition Report

Source: Test Number: 13587672.03

Manufacturer: Cast Lighting

Date: 2020-12-09

Model: CPL316



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

x **0.3624**
 y **0.3718**
 u' **0.2151**
 v' **0.4967**

CIE 13.3-1995 (CRI)	
R_a	80
R_g	8

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