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## Photometric Test Report

Relevant Standards  
IES LM-79-2008  
ANSI C82.77-2002  
UL1598-2008

Prepared For  
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Catalog Number  
**LW30-EZ40-W5000K**

Order Number  
10924621  
Test Number  
1144020

Test Date

2015-08-19 - 2015-08-24

Prepared By

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Approved By

Kyle Spaziani, 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	Page 5
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7
In-Situ Results	Page 8

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  $4\pi$  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:** Black cast aluminum housing, prismatic glass enclosure  
**Lamp:** 1 white LED  
**Mounting:** Wall Pack  
**Ballast/Driver:** One FSP Group FSP60-ZZAE (110)U

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 2.13 in.  
Luminous Width: 11.25 in.  
Luminous Height: 7.00 in.

**Summary of Results**

**Integrating Sphere**

Luminous Flux: 4589 Lumens  
Efficacy: 106.2 lm/w  
CCT: 5023 K  
CRI (Ra): 75.6

**Distribution**

Roadway Classification: Type II, Very Short  
Cutoff Classification: Noncutoff  
BUG Rating: B1 U4 G3

**Electrical Data at 277 VAC**

Test Temperature: 25.4 °C  
Voltage: 277.0 VAC  
Current: 0.2042 A  
Power: 43.94 W  
Power Factor: 0.776  
Frequency: 60 Hz  
Current THD: 19.8 %

**In-Situ**

LED Temperature: 66.0 °C  
Driver Temperature: 48.1 °C  
Maximum LED Current: 1.111 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.



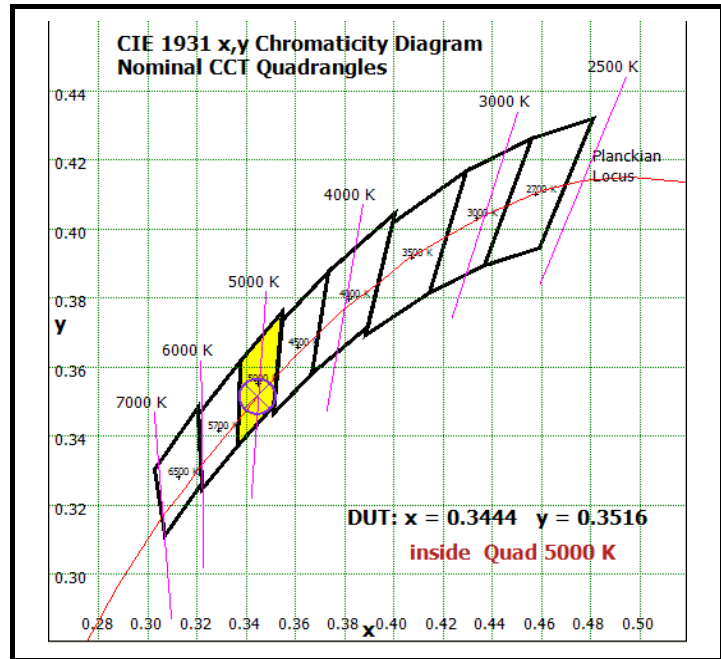
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.3660 A	43.20 W	0.983	60 Hz	5.91 %

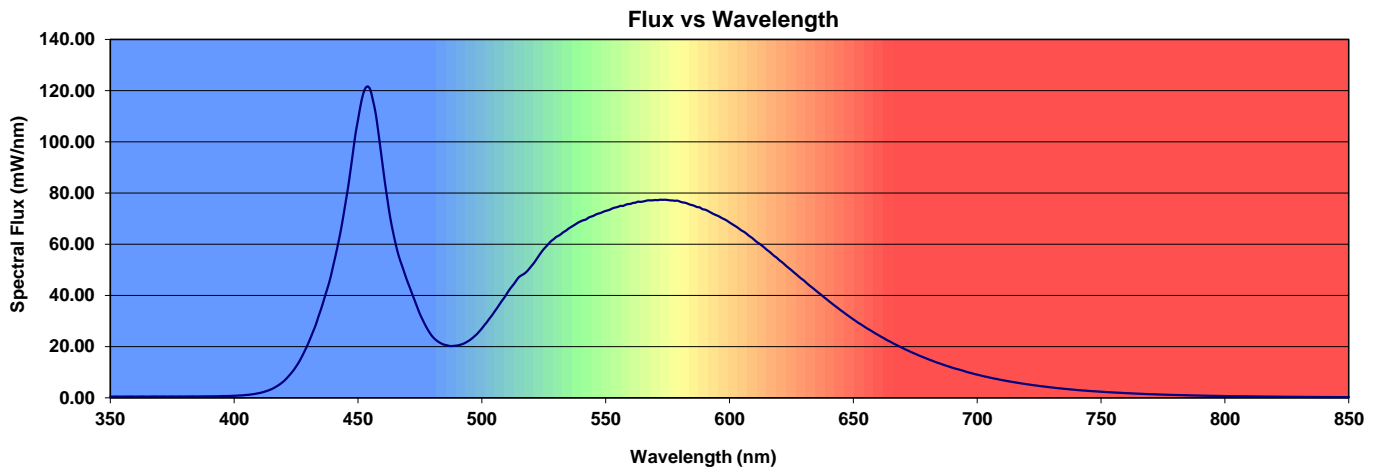
### Summary of Results

<b>Total Output:</b>	4589 Lumens
<b>Efficacy:</b>	106.2 lm/w
<b>CCT:</b>	5023 K
<b>CRI (Ra):</b>	75.6
<b>CRI (R9):</b>	-16.0
Chromaticity (x):	0.3444
Chromaticity (y):	0.3516
Chromaticity (u):	0.2110
Chromaticity (v):	0.3230
Chromaticity (u')	0.2110
Chromaticity (v')	0.4846
Duv:	0.0005



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
75.6	73.1	82.2	86.3	73.6	73.1	73.3	83.5	59.7	-16.0	55.1	68.6	47.2	75.1	92.2





## Distribution - Goniophotometer

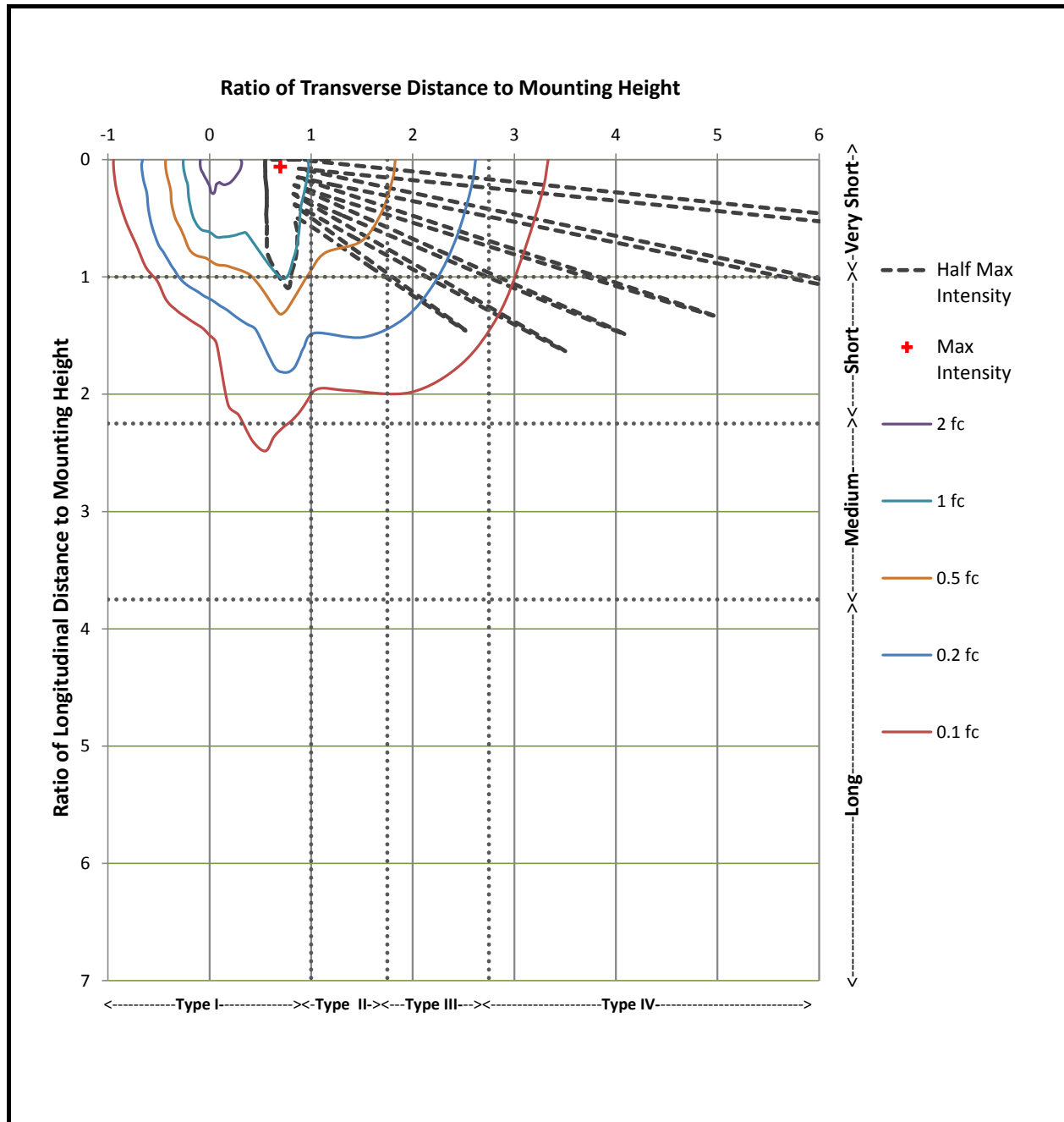
### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.0 VAC	0.3663 A	43.26 W	0.984	60 Hz	5.88 %

### Summary of Results

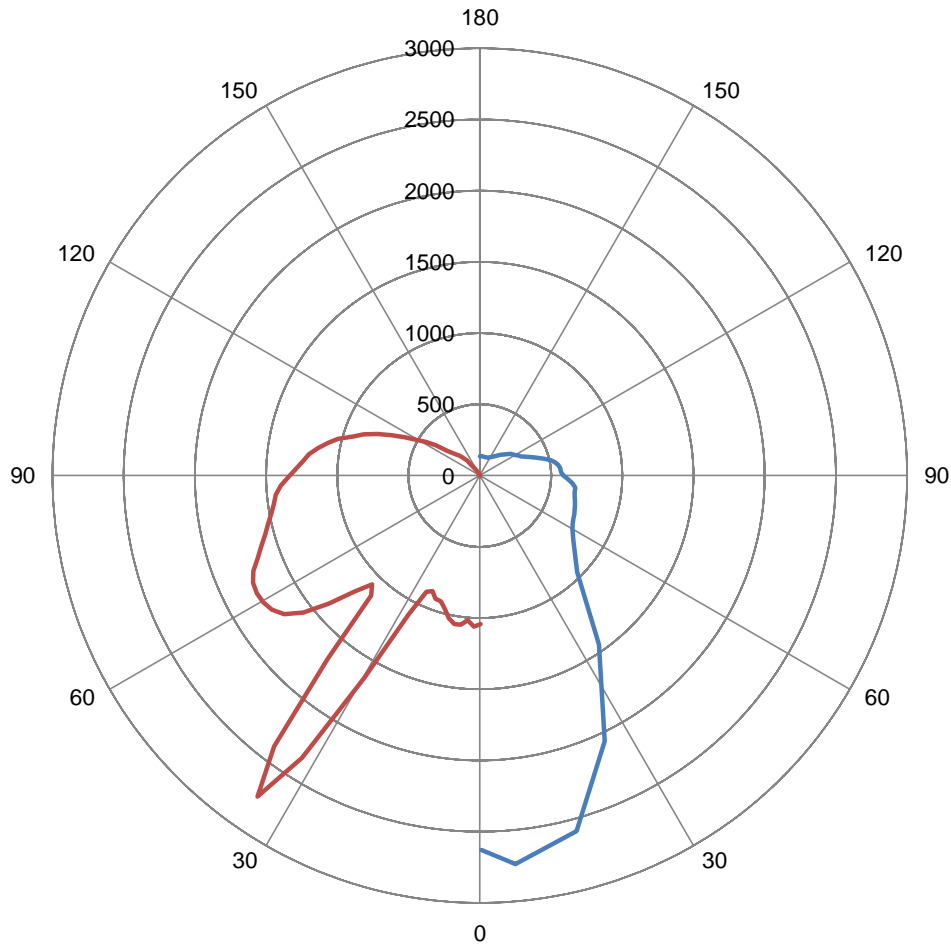
<b>IES Roadway Classification:</b>	Type II, Very Short	<b>Total Lumen Output:</b>	4567 Lumens
<b>Cutoff Classification</b>	Noncutoff	<b>Luminaire Efficacy:</b>	105.6 lm/w
<b>BUG Rating:</b>	B1 U4 G3	<b>Maximum Candela:</b>	2740 Candela

### ISO FootCandle Plot at 20 Feet





**Maximum Plane and Cone Plots of Candela**



Vertical Plane Through

5 ° Lateral

Lateral Cone Through

35 ° Vertical

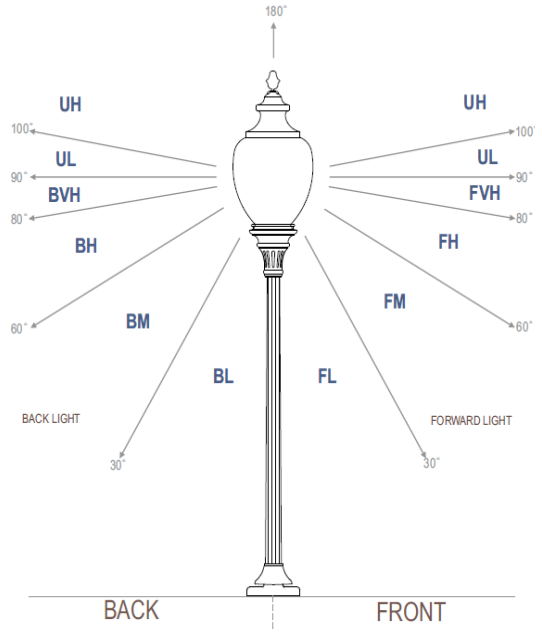
**Maximum Intensity (Candlepower):** 2740.1 Candela

**Zonal Lumen Summary**

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	25.4	0.6%	60-65	282.5	6.2%	120-125	47.1	1.0%
5-10	64.2	1.4%	65-70	287.2	6.3%	125-130	31.5	0.7%
10-15	93.3	2.0%	70-75	272.7	6.0%	130-135	21.5	0.5%
15-20	115.9	2.5%	75-80	256.7	5.6%	135-140	14.6	0.3%
20-25	135.5	3.0%	80-85	237.7	5.2%	140-145	8.2	0.2%
25-30	158.5	3.5%	85-90	217.6	4.8%	145-150	3.8	0.1%
30-35	220.3	4.8%	90-95	194.1	4.2%	150-155	1.4	0.0%
35-40	276.5	6.1%	95-100	170.7	3.7%	155-160	0.4	0.0%
40-45	257.5	5.6%	100-105	146.5	3.2%	160-165	0.1	0.0%
45-50	239.0	5.2%	105-110	119.3	2.6%	165-170	0.0	0.0%
50-55	246.5	5.4%	110-115	92.6	2.0%	170-175	0.0	0.0%
55-60	260.9	5.7%	115-120	67.5	1.5%	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)	380.8	8.3%
FM	(30-60)	1308.2	28.6%
FH	(60-80)	1042.2	22.8%
FVH	(80-90)	443.3	9.7%
BL	(0-30)	211.9	4.6%
BM	(30-60)	192.4	4.2%
BH	(60-80)	56.9	1.2%
BVH	(80-90)	12.0	0.3%
UL	(90-100)	364.7	8.0%
UH	(100-180)	554.6	12.1%
Total		4567.2	100.0%
<b>BUG Rating</b>	<b>B1 U4 G3</b>		



## In-Situ Test

### In-Situ Test Conditions

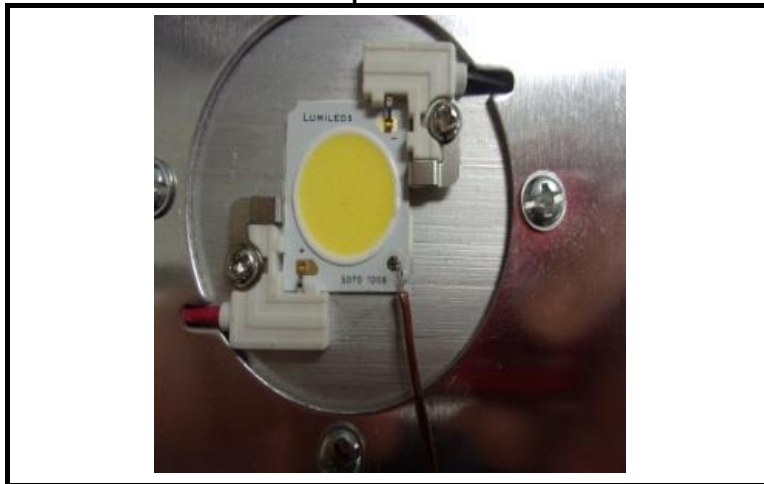
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
22.8 °C	120.6 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

LED Temperature: 66.0 °C  
Driver Temperature: 48.1 °C  
Maximum LED Current: 1.111 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

### LED Temperature Location



### Driver Temperature Location

