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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  
**Express Imaging Systems LLC dba Evluma**  
3600 Lind Ave SW Suite 140  
Renton, WA 98057

Catalog Number  
**RX2-140E3T3G1-S3HGL6-A0B0**

Order Number  
14703860  
Test Number  
14703860.07

Test Date

2023-03-10

Prepared By

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Approved By

Yilmaz Yucelidag, Engineering 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  $4\pi$  geometry method.

Absorption correction was employed for Sphere measurement



**Luminaire Description:** Gray aluminum housing, frosted plastic lens  
**Lamp:** 2 LEDS  
**Mounting:** Pole/Arm  
**Ballast/Driver:** Inventronics EUM-150S210LT

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 12.75 in.  
Luminous Width: 15.75 in.

**Summary of Results**

**Integrating Sphere**

Luminous Flux: 16500 Lumens  
Efficacy: 118.01 lm/w  
CCT: 3001 K  
CRI (Ra): 70.2

**Distribution**

Roadway Classification: Type III, Very Short  
Cutoff Classification: Semicutoff  
BUG Rating: B3 U0 G3

**Electrical Data at 120 VAC**

Test Temperature: 25.8 °C  
Voltage: 120.0 VAC  
Current: 1.166 A  
Power: 139.8 W  
Power Factor: 1.000  
Frequency: 60 Hz  
Current THD: 2.83 %

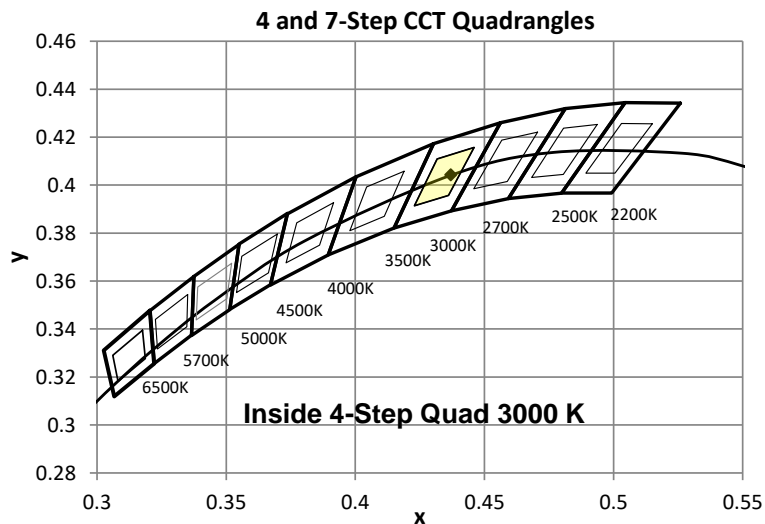
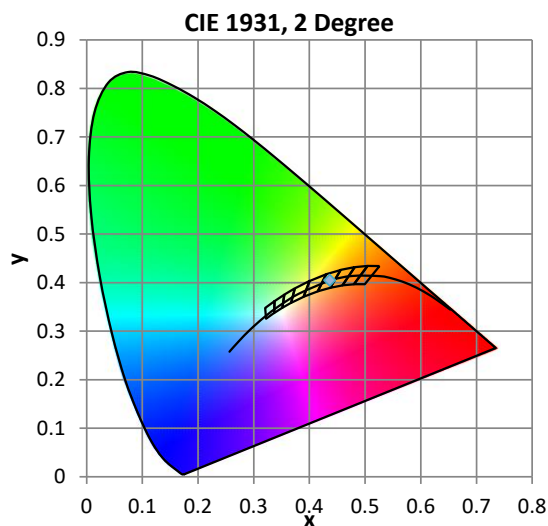
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.8 °C	120.0 VAC	1.166 A	139.8 W	1.000	60 Hz	2.83 %

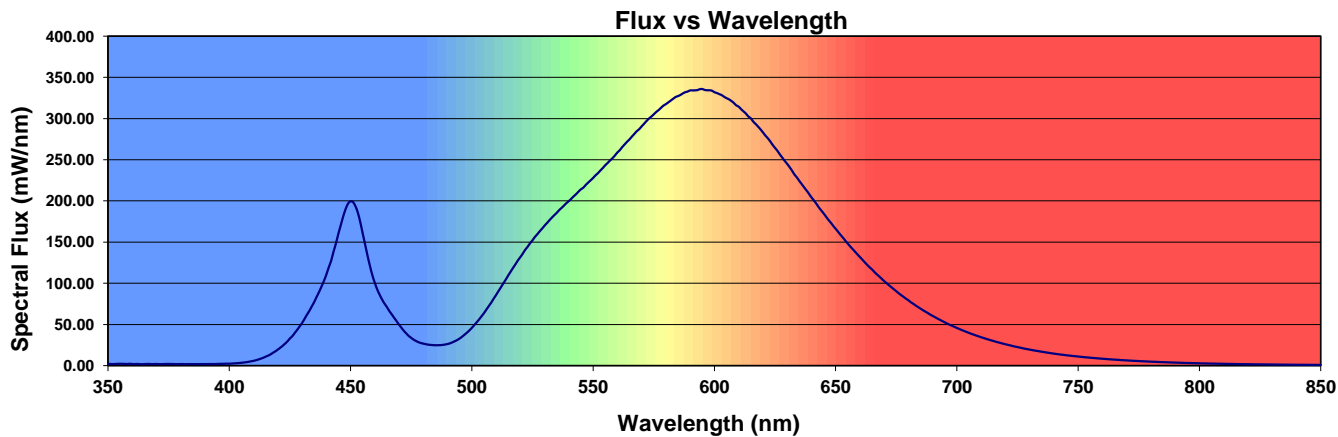
### Summary of Results

<b>Total Output:</b>	16500 Lumens	<b>Chromaticity (x):</b>	0.4369
<b>Efficacy:</b>	118.0 lm/w	<b>Chromaticity (y):</b>	0.4044
<b>CCT:</b>	3001 K	<b>Chromaticity (u'):</b>	0.2504
<b>CRI (Ra):</b>	70.2	<b>Chromaticity (v'):</b>	0.5215
<b>CRI (R9):</b>	-30.4	<b>TM-30 Rf:</b>	72
<b>Peak Wavelength:</b>	595 nm	<b>TM-30 Rg:</b>	95
<b>Dominant Wavelength:</b>	555 nm	<b>TM-30 Rcs,h1:</b>	-16%
<b>S/P Ratio:</b>	1.16	<b>Duv:</b>	0.0002
<b>M/P Ratio:</b>	0.41	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
70.2	66.8	79.7	90.0	66.0	64.7	70.1	78.6	45.4	-30.4	51.8	58.6	40.6	68.8	93.9	60.4



## Distribution - Goniophotometer

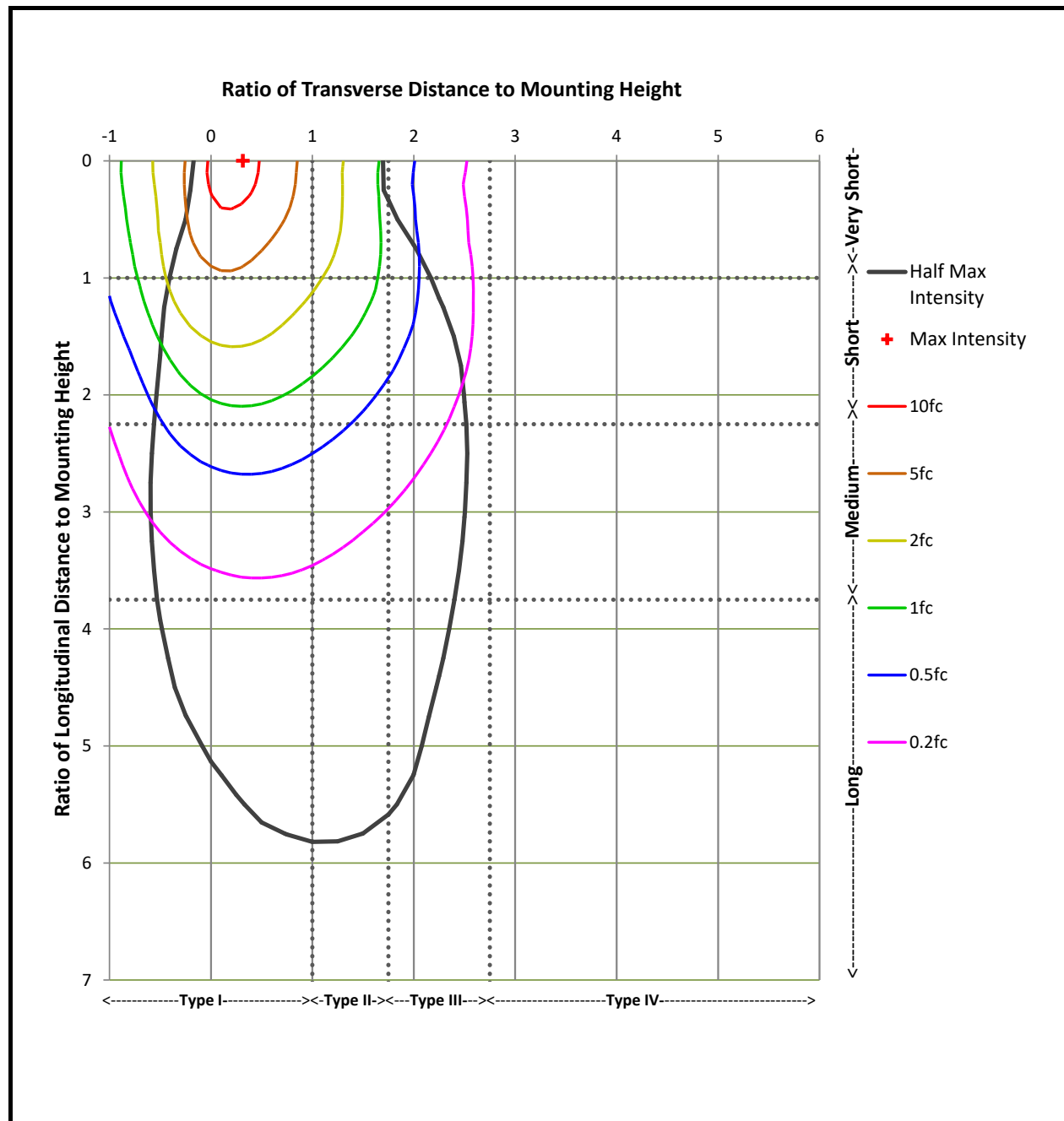
### Distribution Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.1 VAC	1.166 A	140.0 W	1.000	60 Hz	2.76 %

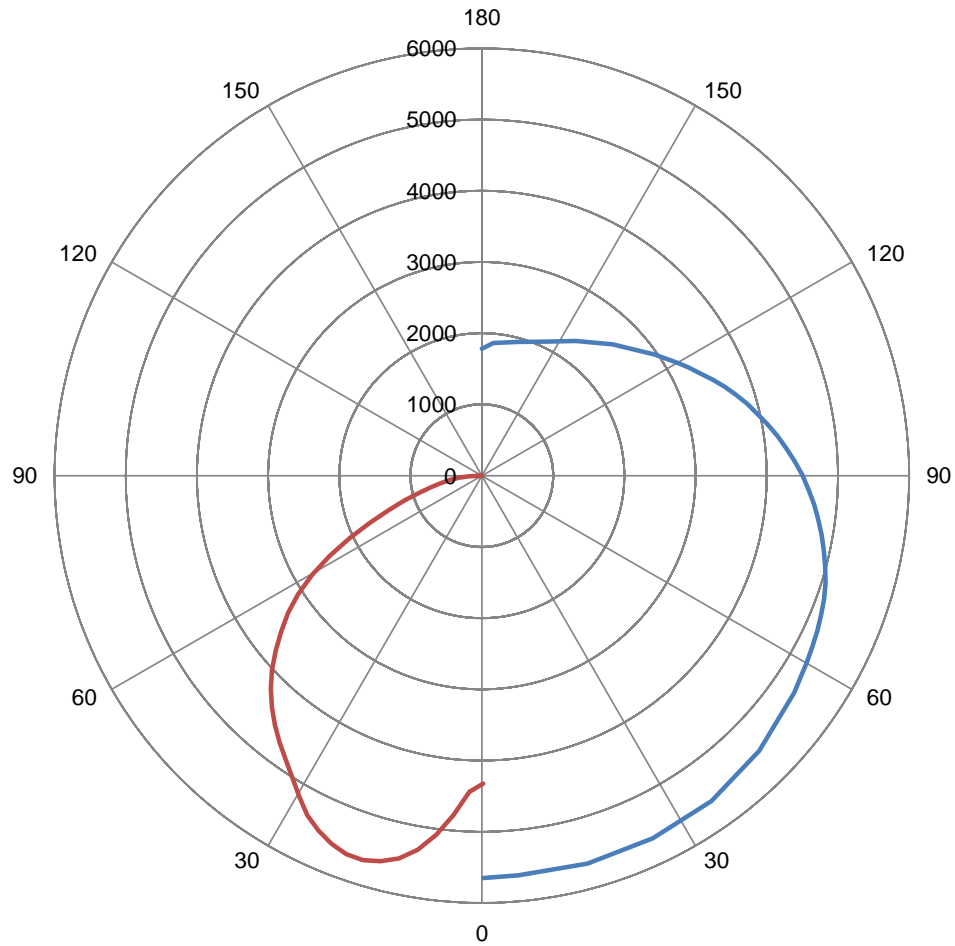
### Summary of Results

<b>IES Roadway Classification:</b>	Type III, Very Short	<b>Total Lumen Output:</b>	16253 Lumens
<b>Cutoff Classification</b>	Semicutoff	<b>Luminaire Efficacy:</b>	116.1 lm/w
<b>BUG Rating:</b>	B3 U0 G3	<b>Maximum Candela:</b>	5650 Candela

### ISO FootCandle Plot at 20 Feet



### Maximum Plane and Cone Plots of Candela



Vertical Plane Through

0 ° Lateral

Lateral Cone Through

17.5 ° Vertical

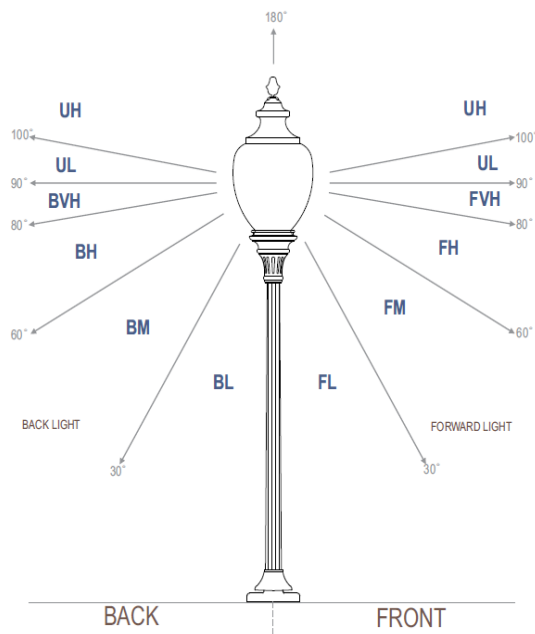
**Maximum Intensity (Candlepower):**

5650 Candela

### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	109.6	0.7%	60-65	1405.1	8.6%	120-125	0.0	0.0%
5-10	306.3	1.9%	65-70	1288.6	7.9%	125-130	0.0	0.0%
10-15	497.7	3.1%	70-75	1081.0	6.7%	130-135	0.0	0.0%
15-20	672.1	4.1%	75-80	814.2	5.0%	135-140	0.0	0.0%
20-25	827.8	5.1%	80-85	461.0	2.8%	140-145	0.0	0.0%
25-30	963.0	5.9%	85-90	110.7	0.7%	145-150	0.0	0.0%
30-35	1076.0	6.6%	90-95	0.0	0.0%	150-155	0.0	0.0%
35-40	1175.3	7.2%	95-100	0.0	0.0%	155-160	0.0	0.0%
40-45	1264.9	7.8%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	1350.0	8.3%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	1412.8	8.7%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	1437.0	8.8%	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)	2219.8	13.7%
FM	(30-60)	5467.6	33.6%
FH	(60-80)	3335.8	20.5%
FVH	(80-90)	410.5	2.5%
BL	(0-30)	1156.7	7.1%
BM	(30-60)	2248.5	13.8%
BH	(60-80)	1253.0	7.7%
BVH	(80-90)	161.2	1.0%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		16253.1	100.0%
<b>BUG Rating</b>	<b>B3 U0 G3</b>		

# ANSI/IES TM-30-18 Color Rendition Report

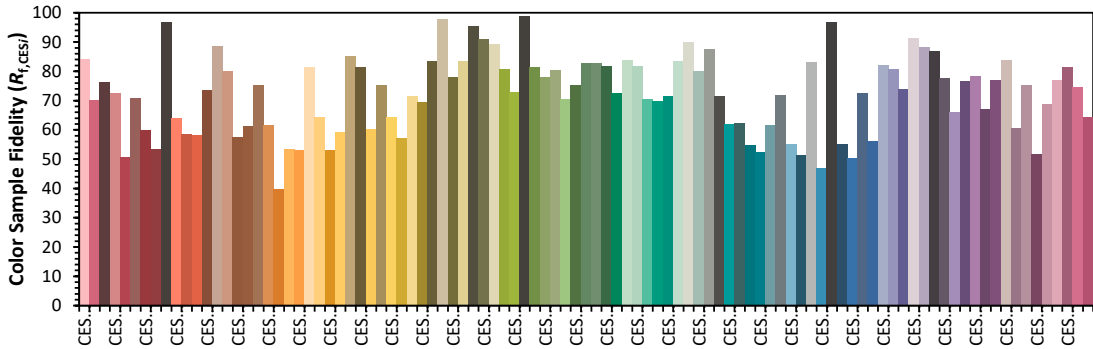
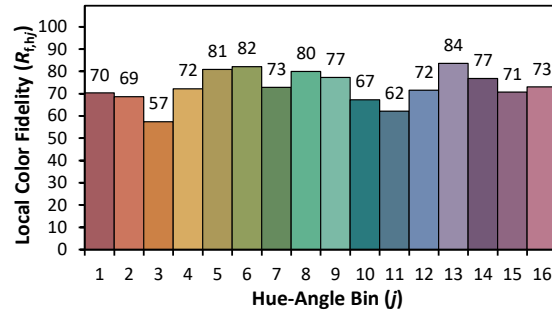
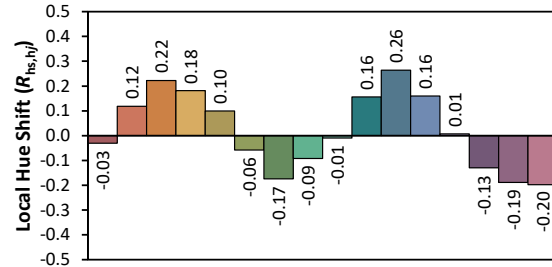
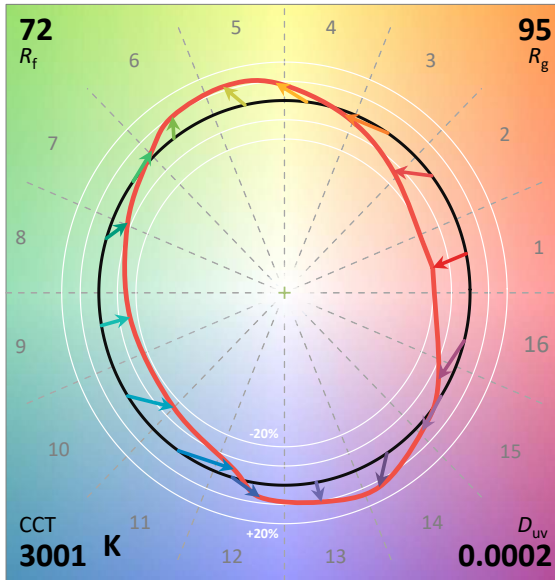
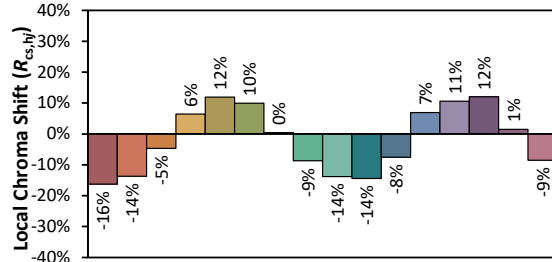
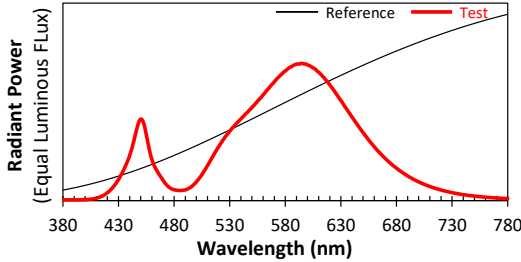
Date: 2023-03-10

Manufacturer:

Express Imaging Systems LLC dba Evluma

Model:

RX2-140E3T3G1-S3HGL6-A0B0



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

$x$  0.4369  
 $y$  0.4044  
 $u'$  0.2504  
 $v'$  0.5215

CIE 13.3-1995  
(CRI)

$R_a$  70  
 $R_g$  -30

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