



Photometric Evaluation to IES LM-79-08 Sphere Test Results

Sample Tested

HB-88W-50K-WB

Prepared for:

RedBird LED, Inc.

1202 Gail Drive NE

Atlanta, GA 30319

Phone: 678-733-2473

**Technical Report
Number 70073519 - M2**

April 18, 2016

Prepared by:

A handwritten signature in black ink, appearing to read 'M Anderson'.


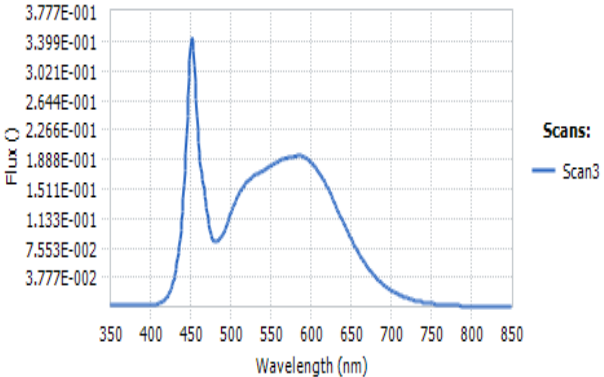
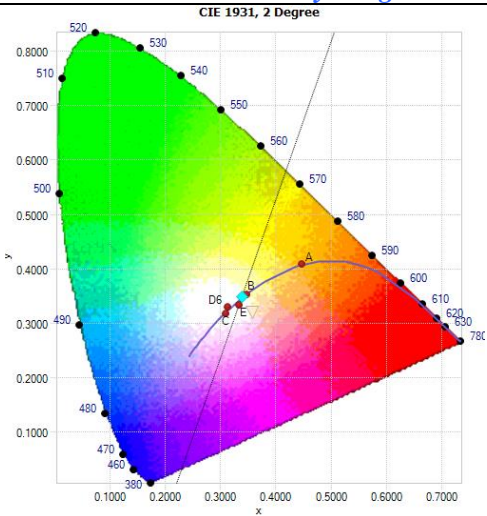
Mauricio Anderson, Project Manager

Approved by:

A handwritten signature in black ink, appearing to read 'Jesse Whalen'.

Jesse Whalen, Operations Manager

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government

<i>Description of Evaluated Product</i>		<i>Photograph</i>
Product Tested:	HB-88W-50K-WB	
Manufacturer:	RedBird LED, Inc.	
Notes: None		
<i>Key Results</i>		
Luminous Flux:	16,493 Lumens	
Input Power:	84.07 Watts	
Luminous Efficacy:	196.18 Lumens/Watt	
ISTMT Temp	Not Tested	
<i>Full Photometric Results</i>		
Total Luminous Flux:	16,493 Lumens	
Luminous Efficacy	196.18 Lumens/Watt	
CCT	5168 K	
CRI	86.50	
R9	8.5	
Radiant Flux	51.66 Watts	
Chroma (x and y)	0.3407	0.3520
Chroma (u and v)	0.2083	0.3228
Chroma (u' and v')	0.2083	0.4842
Duv	0.0015	
<i>Spectral Flux Graph</i>		
		
<i>Electrical Results</i>		
Input Power	84.07 Watts	
Input Voltage (AC)	120.02 Volts	
Input Current	0.7062 Amps	
Power Factor	0.9919	
THD (V and A)	0.09	9.01
<i>Test Conditions</i>		
Date of Test	April 13, 2016	
Ambient Temp	24.8°C	
Humidity	52%	
Stabilization Time	60 Minutes	
Total Operating Time	64 Minutes	
Orientation of Sample	Downward Facing	
<i>CIE 1931 Chromaticity Diagram</i>		
		
<i>Equipment List</i>		
Equipment Used	ID Number	Calibration Due Date
Integrating Sphere D	SPH 400	N/A
Spectrometer	CDS 1100	N/A
Power Analyzer	PA108	5/2016
CSA is an accredited Test Laboratory National Voluntary Laboratory Accreditation Program (NVLAP) 200732-0		