

# PUREEDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

LED Performance Testing

### MODEL NUMBER

FJ24-ZOOM-ZZ1-30K-BK (Min Beam)

### PROJECT NUMBER

G104797632

### REPORT NUMBER

104797632CHI-002rev1

### ISSUE DATE

1/20/2022

### REVISED DATE

1/27/2022

### TEST DATES

2022-01-19.

### DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

104797632CHI-002rev1

**MODEL NUMBER(s)**

FJ24-ZOOM-ZZ1-30K-BK (MIN BEAM)

**REPORT RENDERED TO:**

PUREEDGE LIGHTING  
1718 W. FULLERTON AVE,  
CHICAGO, IL 60614  
USA

**STATEMENT OF LIMITATION**

NVLAP Lab Code 600186-0. 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.

**AUTHORIZATION**

The testing performed was authorized by signed quote number QU-0119885-0.

**TEST STANDARDS**

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting  
ANSI/IES LM-79-19 Optical and Electrical Measurements of Solid-State Lighting Products

In Charge of Testing:



Maximilian Carvajal  
Engineer  
Lighting Division

Reviewer:



Jeff Davis  
N.A. Technical Lead  
Lighting Division

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## SAMPLE INFORMATION

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### ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH01182022074347-002	FJ24-ZOOM-ZZ1-30K-BK (Min Beam)	TRACK HEAD	Production	1/18/2022

### TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	FJ24-ZOOM-ZZ1-30K-BK (Min Beam)	1

### SAMPLE PHOTOS - TESTED CONFIGURATIONS



## SUMMARY

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### PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	FJ24-ZOOM-ZZ1-30K-BK (Min Beam)
Product Description:	TRACK HEAD
LED Model No.:	LUMINUS/CXM-4-30-90-36-AC40-F5-3
Driver Model No.:	HUARI/DR-24V-2000-60D
Light Source:	LED

Criteria	Results
Light Output (lumens)	686.2
Input Power (W) @ 120 (Vac)	18.18
Lumen Efficacy (lm/W)	37.7
Input Power Factor ( ) @ 120 (Vac)	0.977

## TEST METHODS

### SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with IESNA LM-79.

### TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

**TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING**

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	FJ24-ZOOM-ZZ1-30K-BK (Min Beam)	NA

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)**

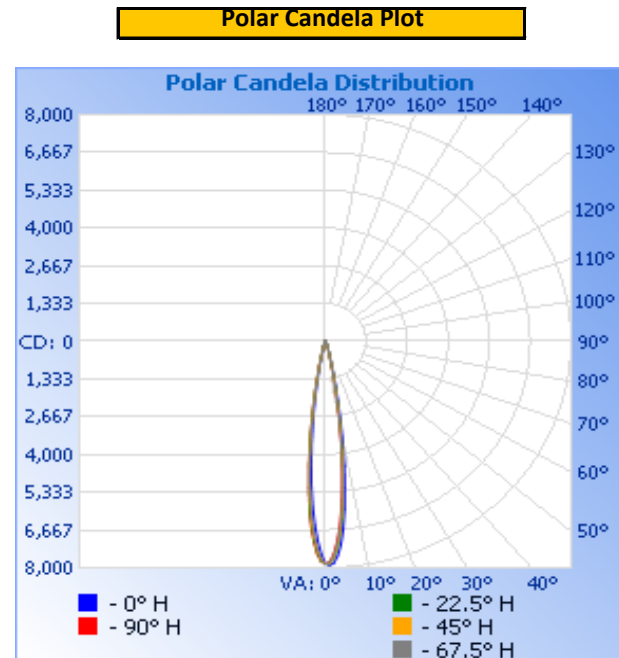
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)
Up	119.91	155.3	18.18	0.977

Light Output (lm)	Lumen Efficacy (lm/W)
686.2	37.7

**INTENSITY SUMMARY - CANDELA**

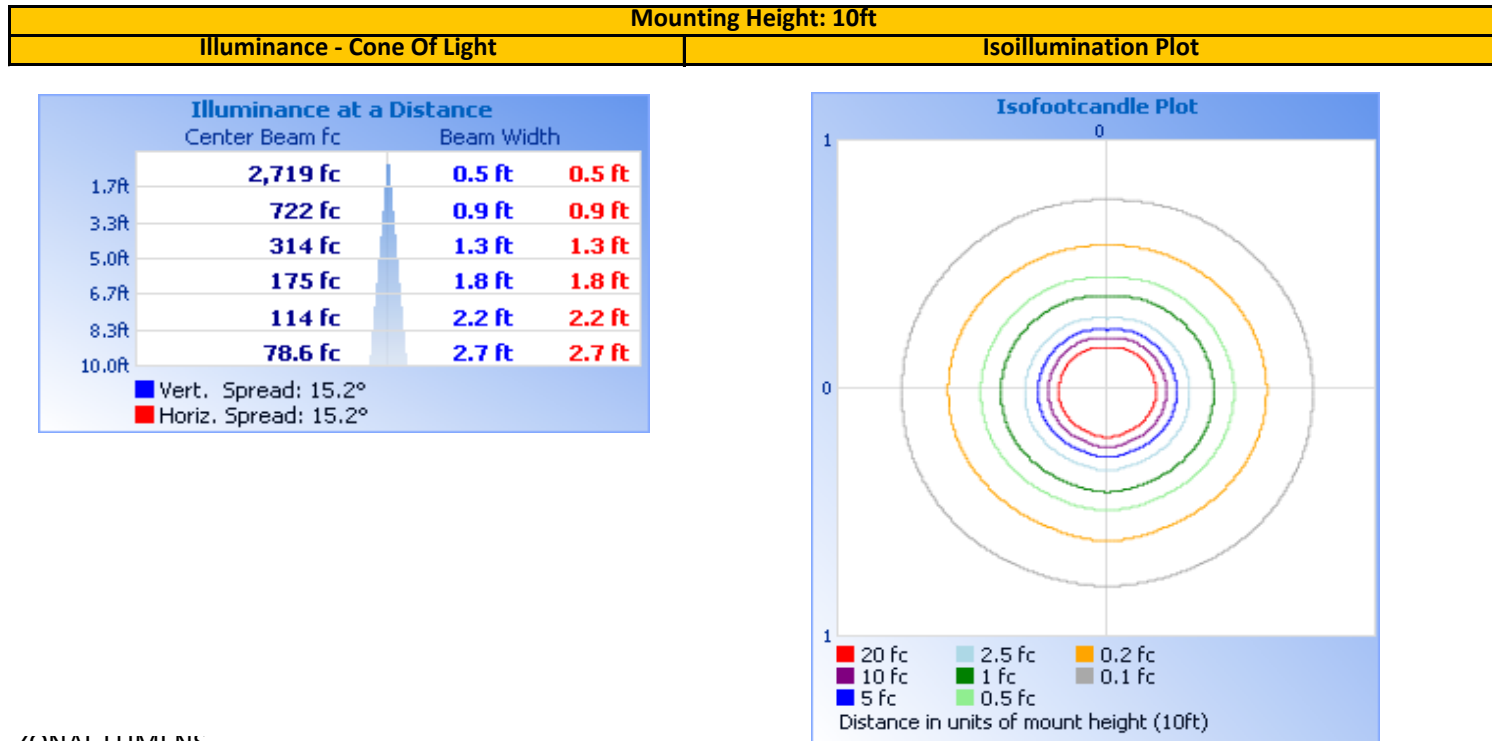
Angle	0	22.5	45	67.5	90
0	7858.5	7858.5	7858.5	7858.5	7858.5
5	6663.2	6295.2	6205.8	6116.2	5939.3
10	2874.4	2479.7	2457.5	2366.4	2231.1
15	615.7	537.3	523.1	495.3	459.6
20	205.6	183	179.1	172.8	165.1
25	83.5	74.5	74.2	72.4	70.1
30	38.7	34.9	34.2	34.1	33.5
35	24.9	24.1	23.7	23.7	23.4
40	19	17.9	18	17.2	16.5
45	12.6	12.3	12.4	12.1	12.1
50	9.5	9.6	9.6	9.4	9.4
55	7.1	6.9	7	6.9	6.9
60	5.1	5	5	5.1	5.1
65	3.5	3.5	3.6	3.7	3.6
70	2.7	2.8	2.9	2.9	3
75	1.1	0.8	0.8	0.9	0.9
80	0.1	0.1	0.1	0.1	0.1
85	0.1	0.1	0.1	0.1	0.1
90	0	0	0	0	0
95	0	0	0	0	0
100	0	0	0	0	0
105	0	0	0	0	0
110	0	0	0	0	0
115	0	0	0	0	0
120	0	0	0	0	0
125	0	0	0	0	0
130	0	0	0	0	0
135	0	0	0	0	0
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

Entire luminous intensity matrix found in .IES file



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	650.4	94.8%	0-10	439.9	64.1%
0-40	665.3	97.0%	10-20	175.7	25.6%
0-60	681.1	99.3%	20-30	34.8	5.1%
60-90	5.1	0.7%	30-40	14.9	2.2%
70-100	1.4	0.2%	40-50	9.6	1.4%
90-120	0.0	0.0%	50-60	6.2	0.9%
0-90	686.2	100.0%	60-70	3.7	0.5%
90-180	0.0	0.0%	70-80	1.3	0.2%
0-180	686.2	100.0%	80-90	0.1	0.0%
			90-100	0.0	0.0%
			100-110	0.0	0.0%
			110-120	0.0	0.0%
			120-130	0.0	0.0%
			130-140	0.0	0.0%
			140-150	0.0	0.0%
			150-160	0.0	0.0%
			160-170	0.0	0.0%
			170-180	0.0	0.0%

# EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Yokogawa Power Meter	WT210	146919	7/1/2021	7/1/2022
2	Omega Thermometer	DPI8-C24	146920	10/4/2021	10/4/2022
3	LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
4	Newport Thermohygrometer	iServer	146379	4/13/2021	4/13/2022
5	Chroma Power Supply	61604	CHI0371	VBU	VBU

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

# REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
1	1/27/2022	Max Carvajal <i>MC</i>	Jeff Davis <i>JD</i>	Change to Model Number
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