

# PRUDENTIAL LIGHTING TEST REPORT

## SCOPE OF WORK

LED Performance Testing

## MODEL NUMBER

BPRO4-2R-LED35-90-MED

## PROJECT NUMBER

G104933496

## REPORT NUMBER

104933496LAX-002

## ISSUE DATE

December 27, 2021

## REVISED DATE

None

## TEST DATES

December 27, 2021

## DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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**REPORT NUMBER**

104933496LAX-002

**MODEL NUMBER(s)**

BPRO4-2R-LED35-90-MED

**REPORT RENDERED TO:**

PRUDENTIAL LIGHTING  
1774 EAST 21ST  
LOS ANGELES, CA 90058

**STATEMENT OF LIMITATION**

NVLAP Lab Code 600221-0. 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-01205890.

**TEST STANDARDS**

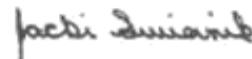
IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

In Charge of Testing:

Reviewer:



Nicolas Manders  
Engineer  
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Jacki Swiernik  
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**SAMPLE INFORMATION**

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**ITEMS RECEIVED**

Item No.	Control No.	Model No.	Description	Type	Received
1	LAN2112271338-002	BPRO4-2R-LED35-90-MED	BPRO 2R Downlight Medium	Prototype	12/27/2021

**TESTED SAMPLE CONFIGURATIONS**

Config No.	Tested Model No.	Item Nos. Utilized
1	BPRO4-2R-LED35-90-MED	1

**SAMPLE PHOTOS - TESTED CONFIGURATIONS**



## SUMMARY

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### PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	BPRO4-2R-LED35-90-MED
Product Description:	BPRO 2R Downlight Medium
LED Model No.:	Cree XHP35B
Driver Model No.:	Osram OTI30G2 - 210mAmp
Light Source:	LED

Criteria	Results
Light Output (lumens)	466.0
Input Power (W) @ 120 (Vac)	8.71
Lumen Efficacy (lm/W)	53.5
Input Power Factor ( ) @ 120 (Vac)	0.934

## 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	BPRO4-2R-LED35-90-MED	NA

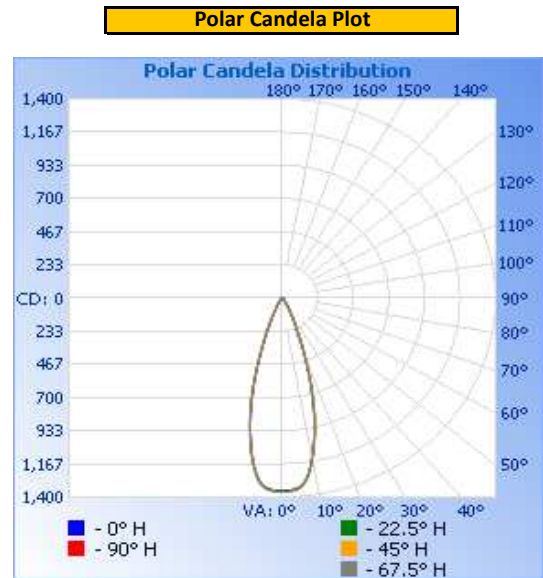
**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)**

Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD(%)
Up	119.88	77.8	8.71	0.934	13.9

Light Output (lm)	Lumen Efficacy (lm/W)
466.0	53.5

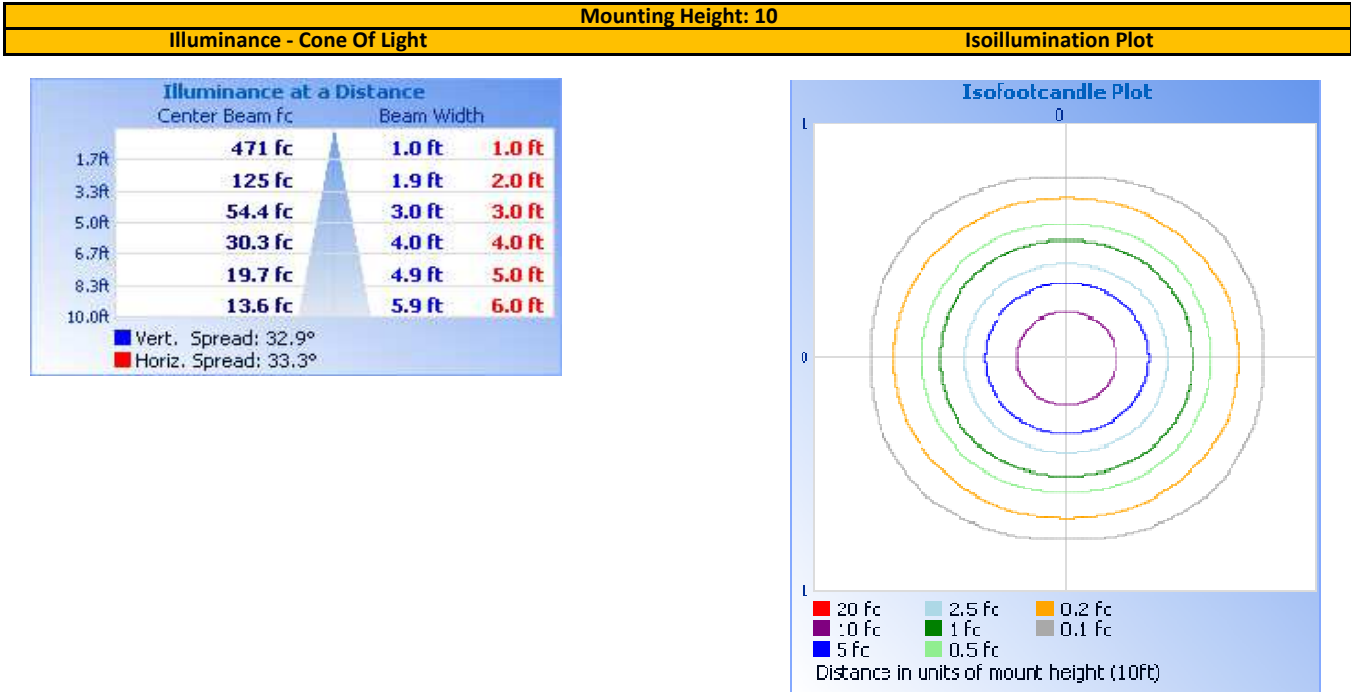
**INTENSITY SUMMARY - CANDELA**

Angle	0	22.5	45	67.5	90
0	1360	1360	1360	1360	1360
5	1332	1329	1338	1339	1339
10	1137	1138	1145	1140	1133
15	792	799	810	807	808
20	420	433	439	432	423
25	188	196	204	198	189
30	75	81	83	77	76
35	32	34	34	34	33
40	15	17	20	17	16
45	10	10	12	11	11
50	6	7	7	7	6
55	2	2	4	2	2
60	1	1	1	1	1
65	0	0	0	0	0
70	0	0	0	0	0
75	0	0	0	0	0
80	0	0	0	0	0
85	0	0	0	0	0
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



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ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	430.6	92.4%	90-100	0.0	0.0%
0-40	454.0	97.4%	100-110	0.0	0.0%
0-60	465.2	99.8%	110-120	0.0	0.0%
60-90	0.8	0.2%	120-130	0.0	0.0%
70-100	0.2	0.0%	130-140	0.0	0.0%
90-120	0.0	0.0%	140-150	0.0	0.0%
0-90	466.0	100.0%	150-160	0.0	0.0%
90-180	0.0	0.0%	160-170	0.0	0.0%
0-180	466.0	100.0%	170-180	0.0	0.0%

SPACING CRITERION

Spacing Criterion (0-180)	0.56
Spacing Criterion (90-270)	0.56
Spacing Criterion (Diagonal)	0.54

LUMINANCE DATA - AVERAGE LUMINANCE (cd/m<sup>2</sup>)

Angle	0	45	90
45	3643	4298	3861
55	853	1617	853
65	244	305	305
75	0	100	100
85	0	296	296

**EQUIPMENT LIST**

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Goniophotometer	6440T	000943	11/19/21	01/31/22
2	AC Source	CW1251P	000944	VBV	VBV
3	Power Analyzer	WT210	000945	09/21/21	09/21/22
4	Tape Measure	33-428	002225	08/23/21	08/23/22
5	Thermometer	DPi8-C24	001782	09/22/21	09/22/22
6	Magnetic Level	581-9	001610	10/05/21	10/05/22
7	Temp. & RH Meter	971	002137	09/20/21	09/20/22

**REVISION HISTORY**

#	Revision Date	Updated By	Reviewed BY	Description of Change
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