BGP390 | LumiStreet Pro gen2 Nano

BGP390 LED45-1F/740 II DM32 CLO

Introduction

Increasing numbers of municipalities are having to upgrade large-scale conventional street lighting installations with energy efficient LED technology. But they are having to do this with smaller and smaller budgets. That's why the new generation of LumiStreet has been upgraded and designed to provide a solution to this challenge, it is the ideal solution for performing point-to-point replacement of conventional lighting. LumiStreet gen2 achieves this by offering high efficiency, low Total Cost of Ownership, and ease of installation and maintenance. The ease of installation and maintenance is enabled by the Philips Service tag. Moreover, the Philips SR (System Ready) socket makes it future-ready and you can pair this luminaire with lighting control and software applications such as Interact City.

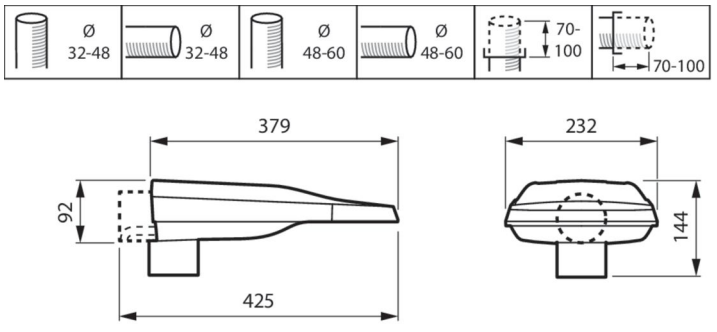
Product Information

Product Family Code	BGP390
Mechanical and Housing	
Housing Material	Aluminum
Optic Material	Polymethyl methacrylate
Optical cover material	Glass
Fixation material	Aluminum
Ingress protection code	IP66
Mech. impact protection code	IK08
Corrosion resistance	500 hours Salt Spray Test for standard version, 1.000 hours. Salt Spray Test optional Marine Salt Protection (MSP)
Certification	
CE mark	Yes
ENEC mark	ENEC plus mark
RoHS mark	-
WEEE mark	-
Protection class IEC	II
Service	
Warranty period	5 years
Serviceability	-
Light source replaceable	Yes
Operating ambient temperature range Tamb	-
Performance ambient temperature (Tq)	25 °C
Lumen maintenance	1
Lifetime	100000 h
Control gear failure rate at median useful life 100000h	10%
Surge protection	6KV in Common or Differential mode as standard, 10KV with optional Surge Protector Device (SPD)

IPEA - Energy classification

Road		Large area		Historical centers		Green areas		Cycle & pedestrian	
IPEA	**Class**	**IPEA**	**Class**	**IPEA**	**Class**	**IPEA**	**Class**	**IPEA**	**Class**
1.87	A7+	1.95	A8+	2.27	A11+	1.82	A7+	1.82	A7+

Dimensional drawing(s) - mm



Effective projected area	0.02274 m²
Weight	kg

Light technical Report

Drivers

Description	Xi FP 40W 0.3-1.0A SNLDAE 230V C123 sXt
12NC	929002165306
Number of driver(s)	1
Number of luminaire per MCB 16A	30
Inrush current	18 A
Inrush time	280 µs
Input Voltage	220V-240V
Input Frequency	50/60 Hz
Start Current	692 mA
End Current	712 mA
System power (minimum)	26.5 W
System power (maximum)	27.5 W
System power (average)	27 W
Power consumption tolerance	+/-10%
Power Factor (100%)	0.97
Power Factor (50%)	0.92
Connectivity	No connectivity
Dimming	Dynadimmer DDF451

Light engine

Light source engine type	LED
Number of LED	24
Initial LED luminaire efficacy (source)	166 lm/W
Initial LED luminaire efficacy (system)	136 lm/W
Light source colour	740 (Neutral White)
Init. Colour Rendering Index	70
Init. CRI tolerance	+/-3
Init. Corr. Colour Temperature	4000 K
Initial tolerance	+/- 180 K (5 SDCM)
End of life tolerance	+/- 255 K
Initial luminous flux (source)	4400 lm
Luminous flux tolerance	+/-7%
Initial luminous flux (system)	3608 lm
Photobiological risk	Risk group 0 (exempt) according to EN IEC 62471

Optics

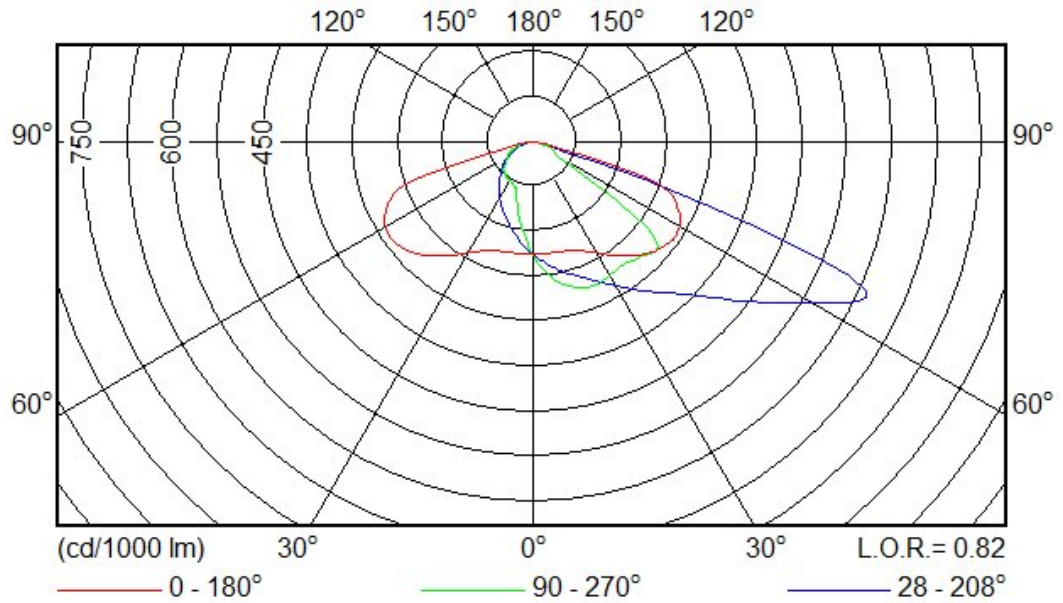
Optical configuration	DM32
LOR	0.82
ULR at tilt=0°	0.00%
G* at tilt=0°	G*3
Imax (at 90° and above)	0 cd/klm
CIE code	35 75 99 100 82

Dimming range

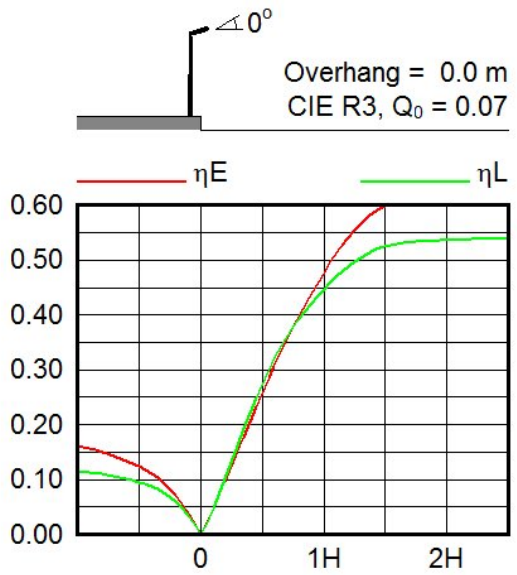
Current percentage	Current (mA)	System power (minimum) (W)	System power (maximum) (W)	System power (average) (W)	Source flux (lm)	System flux (lm)
100	692	26.5	27.5	27	4400	3608
95	658	25.5	26	25.5	4154	3448
90	623	24	24.5	24.5	3953	3281
85	589	22.5	23	23	3750	3113
80	554	21.5	22	21.5	3546	2979
75	519	20	20.5	20.5	3340	2806
70	485	18.8	19	19	3132	2631
65	450	17.6	17.8	17.8	2922	2484
60	416	16.4	16.6	16.4	2711	2304
55	381	15.2	15.2	15.2	2497	2122
50	346	13.8	14	13.8	2281	1962
45	312	12.6	12.8	12.8	2063	1774
40	277	11.4	11.6	11.4	1843	1585
35	243	10.2	10.2	10.2	1620	1393
30	208	8.9	8.9	8.9	1396	1215
25	173	7.8	7.8	7.8	1169	1017
20	139	6.7	6.7	6.7	939	817
15	104	5.3	5.3	5.3	707	615

Photometric Graphs

Polar intensity diagram



Utilisation factor curve and luminance yield diagram

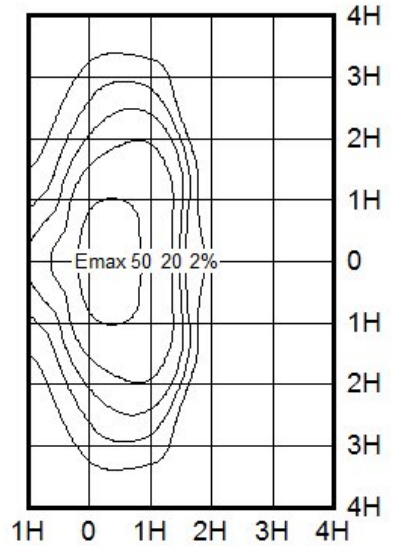


Relative isolux diagram

Horizontal Illuminance 0°

H	Emax
(m)	(lux)
4.0	62
6.0	28
8.0	15

M.F.= 1.0



Lab Information & Certification

Lab Information

Test standards

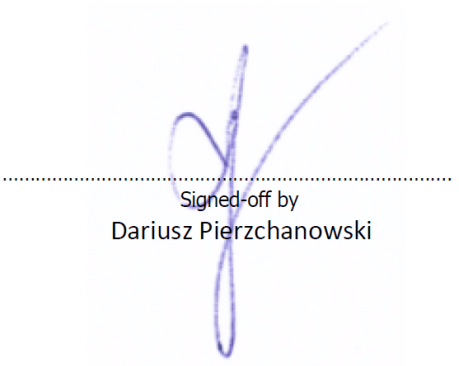
EN 13032-4:2015	Light and lighting. Measurement and presentation of photometric data of lamps and luminaires. Part 4: LED lamps, modules and luminaires
EN 13032-1:2014	Light and lighting. Measurement and presentation of photometric data of lamps and luminaires. Part 1: Measurement and file format
IEC 62717:2014+AMD1:2015	LED modules for general lighting - performance requirements
IES LM-79-08	IES Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products
IEC / EN 62722-1:2014	Luminaire performance - Part 1: General requirements
IEC / EN 62722-2-1:2014	Luminaire performance - Part 2-1: Particular requirements for LED luminaires

Test equipment

LMT GO-DS 2000 Goniometer (C/G)	☐
Yokogawa WT3000 power analyzer	☐
Chroma 6415 programmable AC source	☐
Agilent 6675A system DC power supply	☐
Integrating sphere U-101-A	☐
EM TEST NetWave3 AC/DC source	☐
FLUKE Norma 4000 power analyzer	☐
Sonopan L-100 luxmeter	☐
Gigahertz X1-3 hazard lightmeter	☐
Gigahertz XD-45-HB-4 Head	☐
Gigahertz XD-45-HUV-4 head	☐

MEASUREMENT UNCERTAINTIES

Type of test	**Uncertainties**
Luminous flux	+/- 2.2 %
Power	+/- 0.5 %
Imax	+/- 2.2 %
Beam angle of Imax	+/- 0.1°
Ambient temperature 0-50°C	+/- 0.1°C



Signed-off by
Dariusz Pierzchanowski

DISCLAIMER: *This photometry report is compiled based on real measurement done in Signify Laboratories during development and release of new products and calculation data pulled from PPS web-based tool and internal data. The values present in this report may differ from real values measured for specific product, but not more than +/-10 % on power and +/- 7% on lumen.*

Certification

F-128/II/21

CERTIFICATE

Ref.No.CTF-3/E-CTF-3/0001/4/2021

Customer's Testing Facility
CTF - Stage 3 / E-CTF - Stage 3

It is hereby confirmed that the laboratory

Laboratory of Quality
Signify Poland Sp. z o.o. O/Kętrzyn
ul. Chrobrego 8, 11-400 Kętrzyn
POLAND

is authorized by Łukasiewicz- IMiF PREDOM Division to perform testing
for the certification body Łukasiewicz- IMiF PREDOM Division
in the framework of
ENEC, ENEC+, CCA agreements, IECEE CB Scheme and national certification
for the products and standards as referred in the Appendix to this certificate and
under conditions as mentioned in the Contract No. SMT/01/12 dated 10.10.2012
This procedure is fully in accordance with the following operational documents
IECEE OD-2048
OD ECS 032

The technical competence of the laboratory
has been checked according to
EN ISO/IEC 17025:2017

the proof has been given in the assessment carried out by Łukasiewicz- IMiF PREDOM Division
This certificate is valid if the laboratory observes the requirements of the above mentioned standard and Operational Documents and under conditions of the Contract No. No. SMT/01/12 dated 10.10.2012

Joanna Walczak-Złotkowska
Manager of Certification Office

Filip Walczak
Leader of the Łukasiewicz- IMiF PREDOM Division

Warsaw, 2021-11-30

Łukasiewicz
Instytut Mikroelektroniki i Fotoniki

Łukasiewicz- Instytut Mikroelektroniki i Fotoniki Oddział PREDOM
Łukasiewicz- Institute of Microelectronics and Photonics PREDOM Division
ul. Krakowiaków 53, 02-255 WARSZAWA, POLSKA - POLAND

Created Date: 02-05-2023

APPENDIX TO CERTIFICATE

Ref.No.CTF-3/E-CTF-3/0001/4/2021

Customer's Testing Facility
CTF - Stage 3 / E-CTF - Stage 3

List of products and standards
for which the Laboratory of Quality Signify Poland Sp. z o.o. O/Kętrzyn
is authorized to perform testing
for the certification body Łukasiewicz- IMiF PREDOM Division
in the framework of
ENEC, ENEC+, CCA agreements, IECEE CB Scheme and national certification

CATEGORY	PRODUCTS*)	STANDARDS**)		
		For ENEC and CCA	For IECEE CB Scheme	For national certification
LITE	Fixed general purpose luminaires	EN 60598-1 EN 60598-2-1	IEC 60598-1 IEC 60598-2-1	EN 60598-1 EN 60598-2-1
LITE	Recessed luminaires	EN 60598-1 EN 60598-2-2	IEC 60598-1 IEC 60598-2-2	EN 60598-1 EN 60598-2-2
LITE	Luminaires for road and street lighting	EN 60598-1 EN 60598-2-3	IEC 60598-1 IEC 60598-2-3	EN 60598-1 EN 60598-2-3
LITE	Floodlights	EN 60598-1 EN 60598-2-5	IEC 60598-1 IEC 60598-2-5	EN 60598-1 EN 60598-2-5
LITE	Luminaires for emergency lighting	EN 60598-1 EN 60598-2-22	IEC 60598-1 IEC 60598-2-22	EN 60598-1 EN 60598-2-22
LITE	Luminaires with limited surface temperatures	EN 60598-1 EN 60598-2-24	IEC 60598-1 IEC 60598-2-24	EN 60598-1 EN 60598-2-24
LITE	LED modules for general lighting	EN 62031	IEC 62031	EN 62031
LITE (ENEC+)	LED modules for general lighting	EPRS 001/ /IEC 62717	-	-
LITE (ENEC+)	Luminaires	EPRS 002 / IEC 62722-1	-	-
LITE (ENEC+)	LED Luminaires	EPRS 003/ IEC 62722-2-1	-	-
LITE	Lamp and luminaires	-	-	EN 13032-1
LITE	Lamp and luminaires	-	-	EN 13032-2
LITE	Lamp and luminaires	-	-	EN 13032-3
LITE	LED lamps, modules and luminaires	-	-	EN 13032-4
LITE	Solid-State Lighting Products	-	-	LM-79
HOR	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	EN 62262	IEC 62262	EN 62262

**) – Name and address of manufacturing place of the products: Signify Poland Sp. z o.o. O/Kętrzyn ul. Chrobrego 8, 11-400 Kętrzyn., Poland*
***) – newest edition of the standards/documents*

Joanna Walczak-Złotkowska
Manager of Certification Office

Filip Walczak
Leader of the Łukasiewicz- IMiF PREDOM Division

Warsaw, 2021-11-30

Łukasiewicz- Instytut Mikroelektroniki i Fotoniki Oddział PREDOM
Łukasiewicz- Institute of Microelectronics and Photonics PREDOM Division
ul. Krakowiaków 53, 02-255 WARSZAWA, POLSKA - POLAND

POLSKIE CENTRUM AKREDYTACJI

POLISH CENTRE FOR ACCREDITATION

Sygnatariusz EA MLA
EA MLA Signatory

CERTYFIKAT AKREDYTACJI

LABORATORIUM BADAWCZEGO

ACCREDITATION CERTIFICATE OF TESTING LABORATORY

Nr **AB 003**

Potwierdza się, że: / This is to confirm that:

INSTYTUT TECHNOLOGII ELEKTRONOWEJ
Al. Lotników 32/46, 02-668 Warszawa
INSTYTUT TECHNOLOGII ELEKTRONOWEJ ODDZIAŁ PREDOM
LABORATORIUM BADAWCZE
ul. Krakowiaków 53, 02-255 Warszawa

spełnia wymagania normy PN-EN ISO/IEC 17025:2005
meets requirements of the PN-EN ISO/IEC 17025:2005 standard

Akredytowana działalność jest określona w Zakresie Akredytacji Nr AB 003
Accredited activity is defined in the Scope of Accreditation No AB 003

Akredytacja pozostaje w mocy pod warunkiem przestrzegania wymagań jednostki akredytującej określonych w kontrakcie Nr AB 003
This accreditation remains in force provided the Laboratory observes the requirements of Accreditation Body defined in the Contract No AB 003

Akredytacji udzielono dnia 27.04.1993 r.
Accreditation was granted on 27.04.1993

016127

POLSKIE CENTRUM AKREDYTACJI · 1 ·

DYREKTOR
POLSKIEGO CENTRUM AKREDYTACJI

LUCYNA OLBORSKA

Warszawa, 10 grudnia 2018 roku

Created Date: 02-05-2023

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