



K139 WELINGTON - LED

A simple yet elegant design, the K139 Wellington has the sleekest look of all the K130 Series luminaires. Without the decorative struts of most of its siblings, the simple geometric form of the K139 Wellington adds a crowning touch to any project. Teamed with King Luminaire's high performance LED engines it makes for a perfect solution for city streets, parks, schools and commercial areas.

PROJECT: _____

PREPARED BY: _____

DATE: _____

PRODUCT SPECIFICATIONS

R1/B3 LED ENGINE

Light engine shall be an array of 36, 42, 54 or 63 solid state Cree X-Series high power LEDs (light emitting diodes) mounted to a multi-sided, vertical heat sink of highly conductive aluminum. The LED emitters are mounted to removable circuit boards such that they are in full thermal contact with the vertical heat sink. The vertical heat sink is open at the bottom and vented at the top to provide appropriate dynamic airflow cooling for the LED array. The emitters are arranged in various patterns on each face of the vertical heat sink to provide the required light distribution.

The LED arrays include optical baffles constructed of optical grade ABS plastic with a vacuum metallized reflective surface or clear acrylic precision refractors over each diode. Both optical options are designed to efficiently control light distribution in Type IV & V for the B3 and Type III & V for the R1.

P4 LED ENGINE

Light engine shall include an array of Cree X-Series high power LEDs (light emitting diodes). The emitters shall be mounted to a metal core circuit board using SMT technology. The LEDs and circuit boards shall then be mounted to a high performance heat sink.

External light control shall consist of high precision refractive lenses mounted above the LED emitter arrays in such a way to achieve optimum uplight control. The lenses shall also control horizontal light distribution so that Type II, III, IV or V IESNA distribution patterns are achieved.

LUMINAIRE CONSTRUCTION

All K139 Wellington cast components shall consist of a heavy grade A319 cast aluminum. The main body, or capital, acts as an enclosure for the driver assembly and is of adequate thickness to give sufficient structural rigidity. The capital shall have an opening at the base tenon body to allow the luminaire to be mounted to a tenon of 3-1/2" maximum diameter. The luminaire shall be locked in place by means of heavy duty, stainless steel set-screws.

GLOBE ASSEMBLY

The protective globe shall be molded of either; rippled polycarbonate Miles Makrolon GP/OP Thermoplastic Polymer, or equivalent, or rippled acrylic Acrylite Plus Acrylic Polymer, or equivalent, having a minimum thick-

ness of 0.125".

The globe assembly is a self-contained unit consisting of the globe, rugged cast locking ring, and the LED light engine and optical control. The LED light engine is of a modular design, and is able to be quickly removed from the globe assembly. The globe assembly is secured to the main housing by means of a spring-tensioned, twist-locking Rotolock™ unit to allow tool-less removal of the globe, while maintaining a secure seal between the globe assembly and the main body of the luminaire, making the K139 Wellington suitable for an outdoor environment.

High performance protection against water or dust particle ingress is available by means of a non-porous, closed-cell silicon rubber o-ring gasket which is highly efficient in sealing against particle ingress over a wide temperature range (-40°F to 310°F).

DRIVER

The LED universal dimmable driver will be class 2 and capable of 120 - 277V or 347 - 480V input voltage, greater than 0.9 power factor, less than 20% total harmonic distortion. The case temperature of the driver can range from -40°C up to 70°C. Each LED system comes with a standard surge protection designed to withstand up to 20kV/10kA of transient line surge as per IEEE C62.41.2 C High. An in-line ferrite choke is utilized to provide protection against EFT's. The driver assembly will be mounted on a heavy duty fabricated galvanized steel mounting bracket to allow complete tool-less maintenance.

PHOTOMETRICS

Fixtures are tested to IESNA LM79 specifications. These reports are available upon request.

CHROMATICITY

High output LEDs come standard at 3000K & 4000K (+/- 300K) with a minimum nominal 70 CRI. Additional CCT emitters are available upon request.

LUMEN MAINTENANCE

Reported (TM21) and Calculated (L70) reports are available upon request with a minimum calculated value of 100,000 hrs.

WIRING

All internal wiring and connections shall be completed so that it will be necessary only to attach the incom-

ing supply connectors to Mate-N-Lok connectors or to a terminal block. Mate-N-Lok shall be certified for 600V operation. Internal wire connectors shall be crimp connector only and rated at 1000V and 150°C. All wiring to be CSA certified and/or UL listed, type SFF-2, SEWF-2, or SEW-2 No. 14 gauge, 150°C, 600V, and color coded for the required voltage.

THERMALS

Fixtures tested by a DOE sanctioned test facility to determine the maximum in-situ solder-point or junction-point temperatures of the LED emitters. This report is available upon request.

FINISH

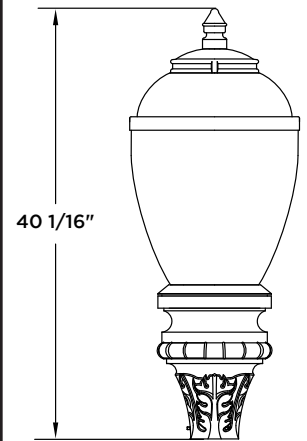
Housing is finished with a 13 step KingCoat™ SuperDurable polyester TGIC powder coat. Standard colors include strobe white, brown metal, marina blue, gate gray, Chicago bronze, standard gold, standard black, federal green and rain forest. Please see our website for a complete list of colors. RAL and custom color matches are available.

MISCELLANEOUS

All exterior hardware and fasteners, wholly or partly exposed, shall be stainless steel alloy. All internal fasteners are stainless steel or zinc coated steel. All remaining internal hardware is stainless steel, aluminum alloy, or zinc coated steel.

WARRANTY

The K139 Wellington LED luminaire comes with a 7 year limited warranty.



CERTIFICATION:

CSA US Listed
Suitable for wet locations
ISO 9001
IP66
ARRA Compliant
LM79 / LM80 Compliant

DRIVER INFO:

>0.9 Power Factor
<20% Total Harmonic Distortion
120 - 277V & 347 - 480V
-40°C Min. Case Temperature
70°C Max. Case Temperature
Surge Protection: ANSI C136.2
extreme level 20kV/10kA

EPA:

1.55 sq. ft.

FIXTURE WEIGHT:

40 lbs





Test Voltage: 120V
Nominal Color Temperature: 3000K & 4000K¹
1036 Engine Series: 36 Emitters (40 - 75W)
1054 Engine Series: 54 Emitters (100W)
LED Engine + Driver Rated Life = 100,000 hrs²

To learn more about the B3 Optic, please see the B3 Optic Information Sheet

Photometric Test Report Number	Decorative Option	Color Temperature	IES Distribution	Nominal Watts	Engine Series	Delivered Lumens ³	Efficacy (LM/W) ³	mA @ Emitter	Driver Output Current	BUG Rating	HID Equivalent ⁴
0100SB3AR4X04030XXJ	SST	3000	Type IV	40	1036	3117	83.1	333	2000	1-3-3	50-70
0100SB3AR4X04040XXA	SST	4000	Type IV	40	1036	2890	71.4	333	2000	1-3-2	50-70
0100SB3AR5X04030XXJ	SST	3000	Type V	40	1036	3555	92.3	333	2000	-	50-70
0100SB3AR5X04040XXA	SST	4000	Type V	40	1036	2816	70.2	333	2000	2-3-2	50-70
0100SB3AR4X06030XXJ	SST	3000	Type IV	60	1036	4530	79.6	500	3000	1-3-3	70-100
0100SB3AR4X06040XXA	SST	4000	Type IV	60	1036	4093	66.8	500	3000	1-3-3	70-100
0100SB3AR5X06030XXB	SST	3000	Type V	60	1036	3278	53.3	500	3000	2-3-2	70-100
0100SB3AR5X06040XXA	SST	4000	Type V	60	1036	4022	65.5	500	3000	2-3-2	70-100
0100SB3AR4X07530XXJ	SST	3000	Type IV	75	1036	6017	76	667	4000	1-3-3	100-150
0100SB3AR4X07540XXH	SST	4000	Type IV	75	1036	6876	92	667	4000	1-3-3	100-150
0100SB3AR5X07530XXB	SST	3000	Type V	75	1036	3802	50.1	667	4000	2-3-2	100-150
0100SB3AR5X07540XXA	SST	4000	Type V	75	1036	4746	62.6	667	4000	3-3-3	100-150
0100SB3AR4X10030XXJ	SST	3000	Type IV	100	1054	6546	68	533	4800	1-3-4	150-200
0100SB3AR4X10040XXA	SST	4000	Type IV	100	1054	5904	57.1	533	4800	1-3-3	150-200
0100SB3AR5X10030XXB	SST	3000	Type V	100	1054	5450	51.9	533	4800	3-3-3	150-200
0100SB3AR5X10040XXA	SST	4000	Type V	100	1054	6482	57.4	533	4800	3-3-3	150-200

B3 = 3rd Generation Baffled Array
 Solid Spun Top (SST) with Acrylic Rippled Lens



Test Voltage: 120V
Nominal Color Temperature: 3000K & 4000K¹
1042 Engine Series: 42 Emitters (40 - 75W)
1063 Engine Series: 63 Emitters (100 -120W)
LED Engine + Driver Rated Life = 100,000 hrs²

To learn more about the R1 Optic, please see the R1 Optic Information Sheet

Photometric Test Report Number	Decorative Option	Color Temperature	IES Distribution	Nominal Watts	Engine Series	Delivered Lumens ³	Efficacy (LM/W) ³	mA @ Emitter	Driver Output Current	BUG Rating	HID Equivalent ⁴
0100SR1AR3X04030XXJ	SST	3000	Type III	40	1042	3831	88.5	278	1670	1-3-3	50-70
0100SR1AR3X04040XXA	SST	4000	Type III	40	1042	3208	81.2	278	1670	1-3-2	50-70
0100SR1AR5X04030XXB	SST	3000	Type V	40	1042	2654	67.5	278	1670	-	50-70
0100SR1AR5X04040XXA	SST	4000	Type V	40	1042	3110	78.3	278	1670	2-3-2	50-70
0100SR1AR3X06030XXX	SST	3000	Type III	60	1042	4111	64.3	417	2500	1-4-3	70-100
0100SR1AR3X06040XXA	SST	4000	Type III	60	1042	4905	75.6	417	2500	1-3-3	70-100
0100SR1AR5X06030XXB	SST	3000	Type V	60	1042	3936	62.1	417	2500	2-3-2	70-100
0100SR1AR5X06040XXA	SST	4000	Type V	60	1042	4683	72.8	417	2500	2-3-2	70-100
0100SR1AR3X07530XXB	SST	3000	Type III	75	1042	4672	59.3	566	3400	1-3-3	100-150
0100SR1AR3X07540XXA	SST	4000	Type III	75	1042	5790	71.7	566	3400	2-4-3	100-150
0100SR1AR5X07530XXB	SST	3000	Type V	75	1042	4601	58.8	566	3400	-	100-150
0100SR1AR5X07540XXA	SST	4000	Type V	75	1042	5503	69.3	566	3400	3-3-3	100-150
0100SR1AR3X10030XXJ	SST	3000	Type III	100	1063	7165	71.5	444	4000	2-3-4	150-175
0100SR1AR3X10040XXA	SST	4000	Type III	100	1063	7333	75.2	444	4000	2-3-4	150-175
0100SR1AR5X10030XXB	SST	3000	Type V	100	1063	6229	62.4	444	4000	-	150-175
In Testing	SST	4000	Type V	100	1063	N/A	N/A	444	4000	N/A	150-175
0100SR1AR3X12030XXJ	SST	3000	Type III	120	1063	7878	70.5	555	5000	2-3-4	150-200
0100SR1AR3X12040XXA	SST	4000	Type III	120	1063	8054	66.3	555	5000	2-3-3	150-200
0100SR1AR5X12030XXB	SST	3000	Type V	120	1063	6968	59.2	555	5000	-	150-200
In Testing	SST	4000	Type V	120	1063	N/A	N/A	555	5000	N/A	150-200

R1 = 1st Generation Refractive Array
 Solid Spun Top (SST) with Acrylic Rippled Lens

¹Color temperature is nominal, please see test report for specific chromaticity information

²Contact factory for TM21 information/Driver specification

³Due to the continuous advancements in LED technology, luminaire delivered lumen and efficacy is subject to change without notice at the discretion of King Luminaire

⁴Equivalence should always be confirmed by performing a photometric layout, due to the variability of performance requirements and application criteria



Test Voltage: 120V
Nominal Color Temperature: 3000K & 4000K¹
7030 Engine Series: 30 Emitters (40 - 100W Max)
LED Engine + Driver Rated Life = 100,000 hrs²

To learn more about the P4 Optic, please see the P4 Optic Information Sheet

Photometric Test Report Number	Decorative Option	Color Temperature	IES Distribution	Nominal Watts	Engine Series	Delivered Lumens ³	Efficacy (LM/W) ³	mA @ emitter	Driver Output Current	BUG Rating	HID Equivalent ⁴
0100SP4AR3X04030XXB	SST	3000	Type III	40	7030	3039	74.9	400	2000	1-3-1	50-70
0100SP4AR3X04040XXA	SST	4000	Type III	40	7030	3872	92.0	400	2000	1-3-2	50-70
0100SP4AR5X04030XXE	SST	3000	Type V	40	7030	4029	96.4	400	2000	2-3-1	50-70
0100SP4AR5X04040XXA	SST	4000	Type V	40	7030	3802	90.7	400	2000	2-3-1	50-70
0100SP4AR3X06030XXB	SST	3000	Type III	60	7030	4213	69	600	3000	2-3-2	70-100
0100SP4AR3X06040XXA	SST	4000	Type III	60	7030	5211	84.6	600	3000	2-3-2	70-100
0100SP4AR5X06030XXE	SST	3000	Type V	60	7030	5580	89.4	600	3000	2-3-2	70-100
0100SP4AR5X06040XXA	SST	4000	Type V	60	7030	5320	83.9	600	3000	2-3-2	70-100
0100SP4AR3X07530XXE	SST	3000	Type III	75	7030	7070	92	800	4000	2-3-2	100-150
0100SP4AR3X07540XXA	SST	4000	Type III	75	7030	6059	80.7	800	4000	2-3-2	100-150
0100SP4AR5X07530XXE	SST	3000	Type V	75	7030	6825	86.9	800	4000	2-3-2	100-150
0100SP4AR5X07540XXA	SST	4000	Type V	75	7030	6118	77.6	800	4000	2-3-2	100-150
0100SP4AR3X10030XXE	SST	3000	Type III	100	7030	8063	86	960	4800	3-3-3	150-200
0100SP4AR3X10040XXA	SST	4000	Type III	100	7030	7197	71.9	960	4800	2-3-2	150-200
0100SP4AR5X10030XXE	SST	3000	Type V	100	7030	8414	79.8	960	4800	2-3-2	150-200
0100SP4AR5X10040XXA	SST	4000	Type V	100	7030	7500	74.5	960	4800	2-3-2	150-200

P4 = 4th Generation Flat Array

Solid Spun Top (SST) with Acrylic Rippled Lens

¹Color temperature is nominal, please see test report for specific chromaticity information

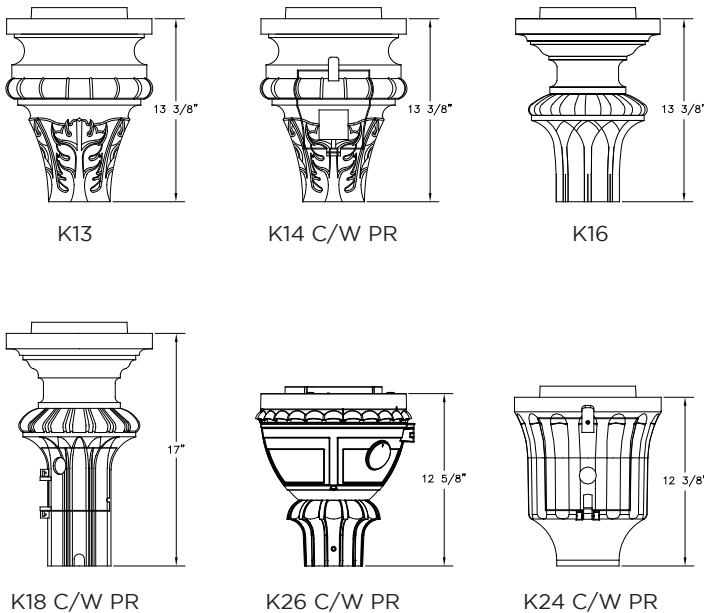
²Contact factory for TM21 information/Driver specification

³Due to the continuous advancements in LED technology, luminaire delivered lumen and efficacy is subject to change without notice at the discretion of King Luminaire

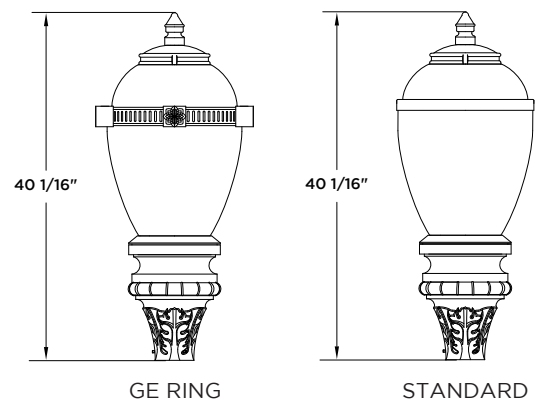
⁴Equivalence should always be confirmed by performing a photometric layout, due to the variability of performance requirements and application criteria

FIXTURE OPTIONS

Capital Options



Decorative Options



Finial Options

