

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
CAP-21-24NB-27-4K-T2-UNV-3RNW-BBT
Notes:

Type:
L1-2

SLA14-27041

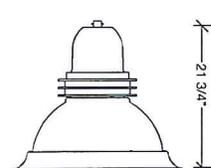
RECEIVED
FEB 18 2015
rev. 03.14.2014
DEPARTMENT OF
PLANNING & ZONING
Urban LED Luminaires



Type: _____
Project Name: _____
Notes: _____

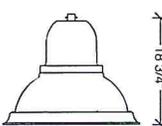
Sample	CAP-21	36NB-80	4K	T2	UNV	PEC	3RNW	BBT
Ordering	/	/	/	/	/	/	/	/
	A	B	C	D	E	F	G	H

DETAILS

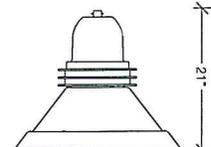


CAP - Round Shade

26" - CAP
Shown with optional 3RNW rings
EPA: 1.39 ft²
40 lbs

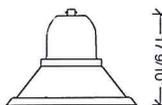


21" - CAP
EPA: 1.04 ft²
35 lbs

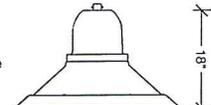


MRDS - Deep Shade

26" - MRDS
Shown with optional 3RNW rings
EPA: 1.25 ft²
40 lbs

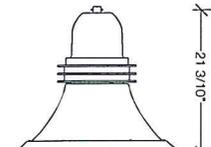


21" - MRDS
EPA: 1.00 ft²
35 lbs



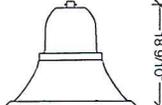
MRSS - Shallow Shade

26" - MRSS
EPA: 1.17 ft²
40 lbs



MAR - Curved Shade

26" - MAR
Shown with optional 3RNW rings
EPA: 1.25 ft²
40 lbs



21" - MAR
EPA: 1.00 ft²
35 lbs

A. MODEL

CAP-21 21" Capitol

MRDS-21 21" Miramar deep shade

MAR-21 21" Maritas

CAP-26 26" Capitol

MRSS-26 26" Miramar shallow shade

MRDS-26 26" Miramar deep shade

MAR-26 26" Maritas

B. ENGINE-WATTS

24NB-27 27 Watts - LED array

24NB-55 55 Watts - LED array

36NB-80 80 Watts - LED array

48NB-110 110 Watts - LED array¹

60NB-136 136 Watts - LED array¹

¹ = 26" Urban only

C. CCT - COLOR TEMP

3K 3000K

4K 4000K

5K 5000K (std.)

D. OPTICS

T2 type II

T3 type III

T4 type IV

T5R type V, rectangular

T5QM type V, square medium

T5W type V, round wide

E. VOLTAGE

UNV 120-277V

347 347V

480 480V

F. ELECTRICAL OPTIONS

PEC photocell, button

2PF dual power feed ^{1,2}

¹ not available on 24NB-27

G. STYLE OPTIONS

NRNW no rings

3RNW three cast rings

H. COLOR

BBT basic black textured

BMT black matte textured

WHT white textured

MBT metallic bronze textured

BZT bronze textured

DBT dark bronze textured

GYS gray smooth

DPS dark platinum smooth

GNT green textured

MST metallic silver textured

MTT metallic titanium textured

OWI old world iron

RAL _____

2041 58th Avenue Circle East Bradenton, fl 34203

Phone: (800) 345-4928

Fax: (941) 751-5535

ORDERING

Submitted by Swaney Lighting Associates

Catalog Number: CAP-21-24NB-27-4K-T2-UNV-BRNW-BBT
Notes:

RECEIVED
L1-2
FEB 18 2015
SLA14-27041



Job Name: Grove St Apartments - Burl VT



DEPARTMENT OF PLANNING & ZONING
ref: 032
URBAN (LED)
Urban LED Luminaires

Housing & LED Thermal Management: The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray. The lower shade shall be made from a one-piece aluminum spinning. The LED bezel assembly shall be attached to a one piece aluminum heat sink to provide direct-heat exchange between the LED light engine and the cool outdoor air. The Housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts.

Bezel optical system: Each Beacon luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications.

The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

Printed Circuit Board (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/Mk. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LifeShield™ Circuit: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

Electrical: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. All driver components supplied are Component-to -component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Surge Protector: The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V

and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

Fasteners: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

Operating Environment: Shall be able to operate normally in ambient temperatures from -40°C to 40°C

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

Warranty: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
AA44-S-4-B-P-BB

Type:

Notes:

RECEIVED
FEB 18 2015
SLA11-27041



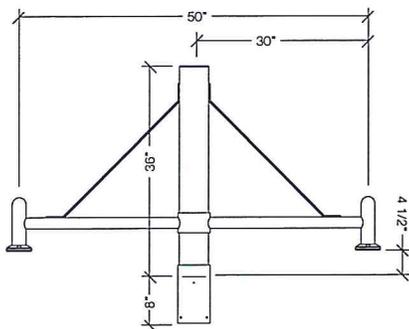
Type: _____
Project Name: _____
Notes: _____

DEPARTMENT OF
PLANNING & ZONING

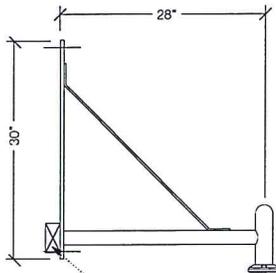
rev. 02.24.2014
AA-44 STRUT
Arms

Sample AA-44 S 4 B P BBT
Ordering / / / / /
A B C D E F

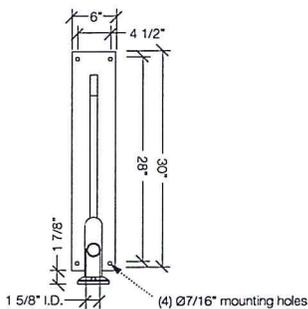
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-44 Strut

B. POST SHAFT PROFILE

W wall mount
S smooth
F fluted

C. POST SHAFT DIAMETER

4 4"
5 5"
6 6"
OTHER _____

D. ARRANGEMENT

B see arrangement table below

E. LUMINAIRE MOUNTING

P pendant

F. COLOR

BBT basic black textured
BMT black matte textured
WHT white textured
MBT metallic bronze textured
BZT bronze textured
DBT dark bronze textured
GYS gray smooth
DPS dark platinum smooth
GNT green textured
MST metallic silver textured
MTT metallic titanium textured
OWI old world iron
RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is de-fined as (projected surface area X drag factor) and measured in ft². Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lbs))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø											
wall	weight	12	-	-	-	-	-	-	-	-	-
Ø4"	EPA	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
	weight	-	15	20	22	20	25	27	25	30	32
Ø5"	EPA	-	2.67	3.61	3.61	3.06	4.08	4.08	4.08	4.55	4.55
	weight	-	18	23	25	23	28	30	28	33	35
Ø6"	EPA	-	2.82	3.76	3.76	3.21	4.23	4.23	4.23	4.70	4.70
	weight	-	21	26	28	26	31	33	31	36	38

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
CAP-21-24NB-27-4K-T3-UNV-3RNW-
BBT
Notes:

Type:
L1-3
SLA14-27041



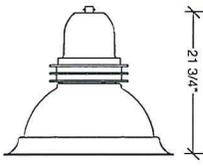
Type: _____
Project Name: _____
Notes: _____

RECEIVED
FEB 18 2015
DEPARTMENT OF PLANNING & ZONING
Urban LED luminaires

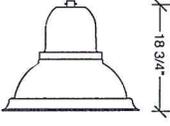
Sample	CAP-21	36NB-80	4K	T2	UNV	PEC	3RNW	BBT
Ordering	/	/	/	/	/	/	/	/
	A	B	C	D	E	F	G	H

DETAILS

CAP - Round Shade

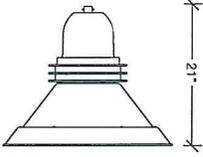


26" - CAP
Shown with optional 3RNW rings
EPA: 1.39 ft²
40 lbs



21" - CAP
EPA: 1.04 ft²
35 lbs

MRDS - Deep Shade

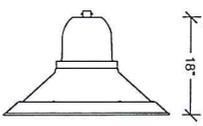


26" - MRDS
Shown with optional 3RNW rings
EPA: 1.25 ft²
40 lbs



21" - MRDS
EPA: 1.00 ft²
35 lbs

MRSS - Shallow Shade

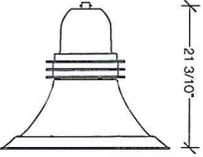


26" - MRSS
EPA: 1.17 ft²
40 lbs



21" - MRSS
EPA: 1.00 ft²
35 lbs

MAR - Curved Shade



26" - MAR
Shown with optional 3RNW rings
EPA: 1.25 ft²
40 lbs



21" - MAR
EPA: 1.00 ft²
35 lbs

A. MODEL

CAP-21 21" Capitol

MRDS-21 21" Miramar deep shade

MAR-21 21" Maritas

CAP-26 26" Capitol

MRSS-26 26" Miramar shallow shade

MRDS-26 26" Miramar deep shade

MAR-26 26" Maritas

B. ENGINE-WATTS

24NB-27 27 Watts - LED array

24NB-55 55 Watts - LED array

36NB-80 80 Watts - LED array

48NB-110 110 Watts - LED array³

60NB-136 136 Watts - LED array³

3 = 26" Urban only

C. CCT - COLOR TEMP

3K 3000K

4K 4000K

5K 5000K (std.)

D. OPTICS

T2 type II

T3 type III

T4 type IV

T5R type V, rectangular

T5QM type V, square medium

T5W type V, round wide

E. VOLTAGE

UNV 120-277V

347 347V

480 480V

F. ELECTRICAL OPTIONS

PEC photocell, button

2PF dual power feed ^{1,2}

G. STYLE OPTIONS

NRNW no rings

3RNW three cast rings

H. COLOR

BBT basic black textured

BMT black matte textured

WHT white textured

MBT metallic bronze textured

BZT bronze textured

DBT dark bronze textured

GYS gray smooth

DPS dark platinum smooth

GNT green textured

MST metallic silver textured

MTT metallic titanium textured

OWI old world iron

RAL _____

¹ not available on 24NB-27

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
CAP-21-24NB-27-4K-T3-UNV-3RNV-
BBT
Notes:

Type:

RECEIVED
L1-3
SLA14-27041
FEB 18 2015
rev. 03.14.2014



DEPARTMENT OF
PLANNING & ZONING
URBAN (LED)
LUMINAIRE

Housing & LED Thermal Management: The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray. The lower shade shall be made from a one-piece aluminum spinning. The LED bezel assembly shall be attached to a one piece aluminum heat sink to provide direct-heat exchange between the LED light engine and the cool outdoor air. The Housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts.

Bezel optical system: Each Beacon luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications.

The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

Printed Circuit Board (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/MK. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LifeShield™ Circuit: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

Electrical: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. All driver components supplied are Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Surge Protector: The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V

and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

Fasteners: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

Operating Environment: Shall be able to operate normally in ambient temperatures from -40°C to 40°C

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

Warranty: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	65.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.



Job Name:
Grove St Appartments - Burl VT

Catalog Number:
AA44-S-4-B-P-BBT

Type:

Notes:

RECEIVED
FEB 18 2015
SLA14-27044

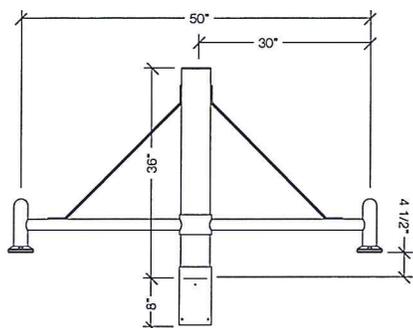


Type: _____
Project Name: _____
Notes: _____

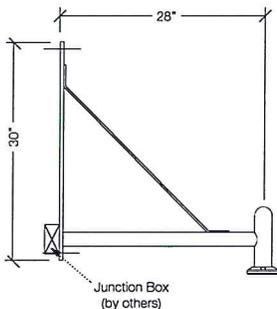
rev. 02.24.2014
DEPARTMENT OF PLANNING & ZONING
AAMA STRUT Arms

Sample AA-44 S 4 B P BBT
Ordering / / / / /
A B C D E F

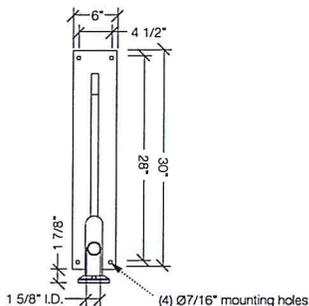
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-44 Strut

B. POST SHAFT PROFILE

W wall mount
S smooth
F fluted

C. POST SHAFT DIAMETER

4 4"
5 5"
6 6"
OTHER _____

D. ARRANGEMENT

B see arrangement table below

E. LUMINAIRE MOUNTING

P pendant

F. COLOR

BBT basic black textured
BMT black matte textured
WHT white textured
MBT metallic bronze textured
BZT bronze textured
DBT dark bronze textured
GYS gray smooth
DPS dark platinum smooth
GNT green textured
MST metallic silver textured
MTT metallic titanium textured
OWI old world iron
RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is de-fined as (projected surface area X drag factor) and measured in ft². Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lbs))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø	weight	12	-	-	-	-	-	-	-	-	-
Ø4"	EPA	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
	weight	-	15	20	22	20	25	27	25	30	32
Ø5"	EPA	-	2.67	3.61	3.61	3.06	4.08	4.08	4.08	4.55	4.55
	weight	-	18	23	25	23	28	30	28	33	35
Ø6"	EPA	-	2.82	3.76	3.76	3.21	4.23	4.23	4.23	4.70	4.70
	weight	-	21	26	28	26	31	33	31	36	38

Submitted by Swaney Lighting Associates



Job Name:
Grove St Appartments - Burl VT

Catalog Number:

CAP-21-24NB-27-4K-T4-UNV-3RNW-
BBT
Notes:

Type:

L1-4

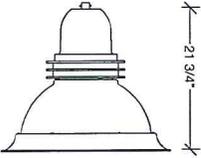
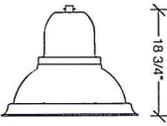
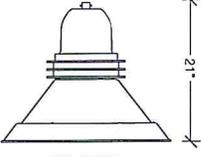
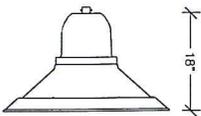
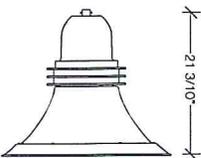
RECEIVED
FEB 18 2015
SLA 442704



Type: _____
Project Name: _____
Notes: _____

rev. 03.14.2014
DEPARTMENT OF URBAN (LED)
PLANNING & ZONING
Urban LED Luminaires

Sample CAP-21 36NB-80 4K T2 UNV PEC 3RNW BBT
Ordering / / / / / / / / / /
A B C D E F G H

DETAILS		A. MODEL	G. STYLE OPTIONS
<p>CAP - Round Shade</p>  <p>26" - CAP Shown with optional 3RNW rings EPA: 1.39 ft² 40 lbs</p>	 <p>21" - CAP EPA: 1.04 ft² 35 lbs</p>	CAP-21 21" Capitool	NRNW no rings
		<p>MRDS - Deep Shade</p>  <p>26" - MRDS Shown with optional 3RNW rings EPA: 1.25 ft² 40 lbs</p>	 <p>21" - MRDS EPA: 1.00 ft² 35 lbs</p>
<p>MRSS - Shallow Shade</p>  <p>26" - MRSS EPA: 1.17 ft² 40 lbs</p>	 <p>21" - MRSS EPA: 1.00 ft² 35 lbs</p>	B. ENGINE-WATTS	H. COLOR
		<p>MAR - Curved Shade</p>  <p>26" - MAR Shown with optional 3RNW rings EPA: 1.25 ft² 40 lbs</p>	 <p>21" - MAR EPA: 1.00 ft² 35 lbs</p>
		C. CCT - COLOR TEMP	
		3K 3000K 4K 4000K 5K 5000K (std.)	
		D. OPTICS	
		T2 type II T3 type III T4 type IV T5R type V, rectangular T5QM type V, square medium T5W type V, round wide	
		E. VOLTAGE	
		UNV 120-277V 347 347V 480 480V	
		F. ELECTRICAL OPTIONS	
		PEC photocell, button 2PF dual power feed ^{1,2}	

¹ not available on 24NB-27

Submitted by Swaney Lighting Associates

Catalog Number: CAP-21-24NB-27-4K-T4-UNV-3PINV

Job Name: Grove St Appartments - Burl VT
Notes: BBT

RECEIVED
L1-4
FEB 19 2015



Job Name:
Grove St Appartments - Burl VT



DEPARTMENT OF PLANNING & ZONING
URBAN-LED
Urban LED Luminaires

Housing & LED Thermal Management: The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray. The lower shade shall be made from a one-piece aluminum spinning. The LED bezel assembly shall be attached to a one piece aluminum heat sink to provide direct-heat exchange between the LED light engine and the cool outdoor air. The Housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts.

Bezel optical system: Each Beacon luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications.

The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

Printed Circuit Board (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/Mk. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LifeShield™ Circuit: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

Electrical: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. All driver components supplied are Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Surge Protector: The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V

and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

Fasteners: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

Operating Environment: Shall be able to operate normally in ambient temperatures from -40°C to 40°C

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

Warranty: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Submitted by Swaney Lighting Associates

Catalog Number: AA44-S-4-B-P-BBT

Type:



Job Name:
Grove St Apartments - Burl VT

Notes:

RECEIVED
FEB 18 2015
SLA14-2041

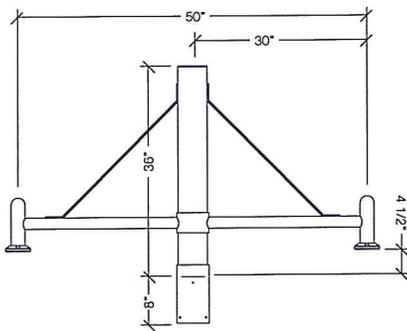


Type: _____
Project Name: _____
Notes: _____

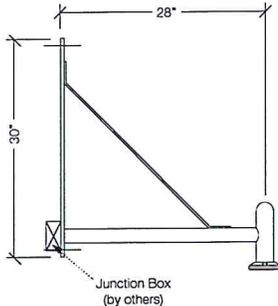
rev. 02.24.2014
DEPARTMENT OF PLANNING & ZONING
AA-44 STRUT Arms

Sample AA-44 S 4 B P BBT
Ordering / / / / /
A B C D E F

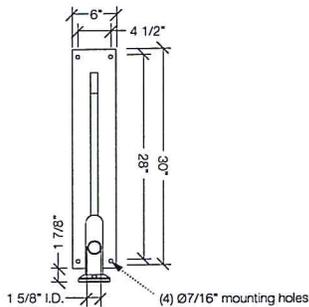
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-44 Strut

B. POST SHAFT PROFILE

W wall mount
S smooth
F fluted

C. POST SHAFT DIAMETER

4 4"
5 5"
6 6"
OTHER _____

D. ARRANGEMENT

B see arrangement table below

E. LUMINAIRE MOUNTING

P pendant

F. COLOR

BBT basic black textured
BMT black matte textured
WHT white textured
MBT metallic bronze textured
BZT bronze textured
DBT dark bronze textured
GYS gray smooth
DPS dark platinum smooth
GNT green textured
MST metallic silver textured
MTT metallic titanium textured
OWI old world iron
RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is defined as (projected surface area X drag factor) and measured in ft². Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lbs))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø	weight	12	-	-	-	-	-	-	-	-	-
Ø4"	EPA	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
	weight	-	15	20	22	20	25	27	25	30	32
Ø5"	EPA	-	2.67	3.61	3.61	3.06	4.08	4.08	4.08	4.55	4.55
	weight	-	18	23	25	23	28	30	28	33	35
Ø6"	EPA	-	2.82	3.76	3.76	3.21	4.23	4.23	4.23	4.70	4.70
	weight	-	21	26	28	26	31	33	31	36	38

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:

CAP-21-24NB-55-4K-T3-UNV-3RNW
BBT
Notes:

Type:

L2
SLA14-2704

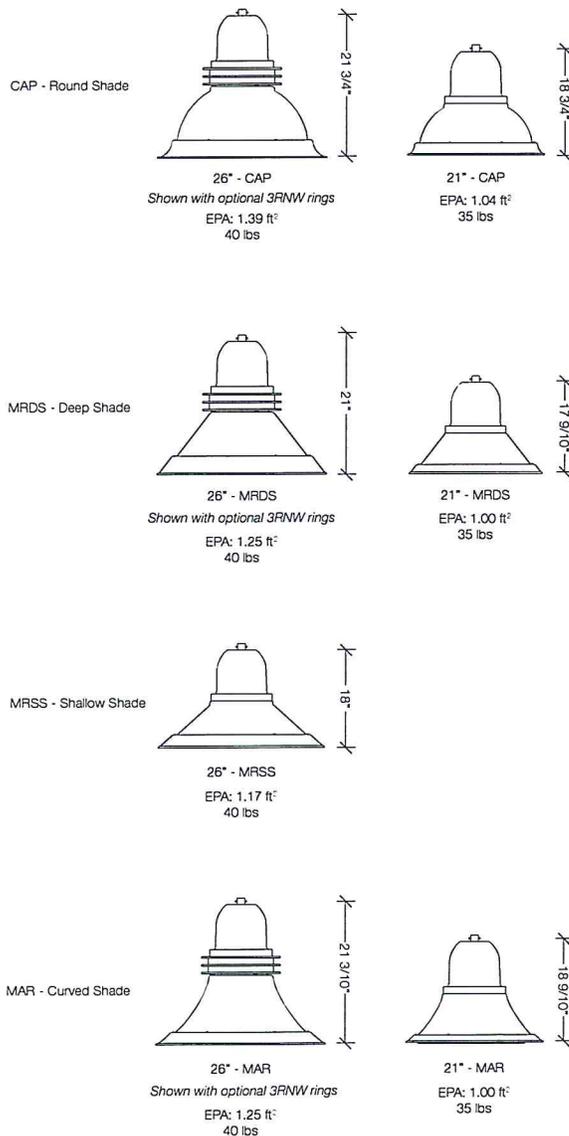
DEPARTMENT OF PLANNING & ZONING
rev. 03.14.2014
URBAN (LED)
Urban LED Luminaires



Type: _____
Project Name: _____
Notes: _____

Sample	CAP-21	36NB-80	4K	T2	UNV	PEC	3RNW	BBT
Ordering	/	/	/	/	/	/	/	/
	A	B	C	D	E	F	G	H

DETAILS



A. MODEL

- CAP-21 21" Capitol
- MRDS-21 21" Miramar deep shade
- MAR-21 21" Maritas
- CAP-26 26" Capitol
- MRSS-26 26" Miramar shallow shade
- MRDS-26 26" Miramar deep shade
- MAR-26 26" Maritas

B. ENGINE-WATTS

- 24NB-27 27 Watts - LED array
 - 24NB-55 55 Watts - LED array
 - 36NB-80 80 Watts - LED array
 - 48NB-110 110 Watts - LED array²
 - 60NB-136 136 Watts - LED array²
- ² 3 = 26" Urban only

C. CCT - COLOR TEMP

- 3K 3000K
- 4K 4000K
- 5K 5000K (std.)

D. OPTICS

- T2 type II
- T3 type III
- T4 type IV
- T5R type V, rectangular
- T5QM type V, square medium
- T5W type V, round wide

E. VOLTAGE

- UNV 120-277V
- 347 347V
- 480 480V

F. ELECTRICAL OPTIONS

- PEC photocell, button
- 2PF dual power feed ^{1,2}

G. STYLE OPTIONS

- NRNW no rings
- 3RNW three cast rings

H. COLOR

- BBT basic black textured
- BMT black matte textured
- WHT white textured
- MBT metallic bronze textured
- BZT bronze textured
- DBT dark bronze textured
- GYS gray smooth
- DPS dark platinum smooth
- GNT green textured
- MST metallic silver textured
- MTT metallic titanium textured
- OWI old world iron
- RAL _____

¹ not available on 24NB-27

Submitted by Swaney Lighting Associates

Catalog Number: CAP-21-24NB-55-4K-T3-UNV-3RNV-BBT
Notes:

RECEIVED
FEB 4 2015
SLA14-27041



Job Name: Grove St Appartments - Burl VT

DEPARTMENT OF PLANNING & ZONING

rev. 03.14.2014
URBAN (LED)
Urban LED Luminaires



Housing & LED Thermal Management: The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray. The lower shade shall be made from a one-piece aluminum spinning. The LED bezel assembly shall be attached to a one piece aluminum heat sink to provide direct-heat exchange between the LED light engine and the cool outdoor air. The Housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts.

Bezel optical system: Each Beacon luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications.

The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

Printed Circuit Board (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/Mk. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LifeShield™ Circuit: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

Electrical: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. All driver components supplied are Component-to -component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Surge Protector: The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V

and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

Fasteners: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

Operating Environment: Shall be able to operate normally in ambient temperatures from -40°C to 40°C

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

Warranty: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

RECEIVED
FEB 18 2015

Submitted by Swaney Lighting Associates



Job Name:
Grove St Appartments - Burl VT

Catalog Number:
AA44-S-4-B-P-BBT

Type:

SLA14-27041

Notes:

DEPARTMENT OF
PLANNING & ZONING

rev. 02.24.2014

AA-44 STRUT
Arms

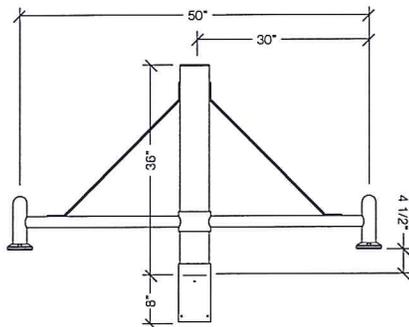


www.beaconproducts.com

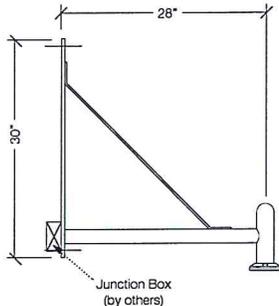
Type: _____
Project Name: _____
Notes: _____

Sample AA-44 S 4 B P BBT
Ordering / / / / /
A B C D E F

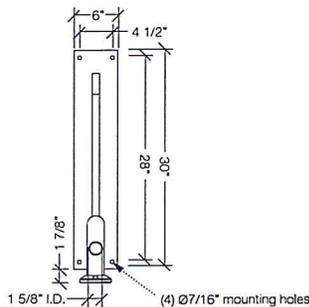
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-44 Strut

B. POST SHAFT PROFILE

W wall mount
S smooth
F fluted

C. POST SHAFT DIAMETER

4 4"
5 5"
6 6"
OTHER _____

D. ARRANGEMENT

B see arrangement table below

E. LUMINAIRE MOUNTING

P pendant

F. COLOR

BBT basic black textured
BMT black matte textured
WHT white textured
MBT metallic bronze textured
BZT bronze textured
DBT dark bronze textured
GYS gray smooth
DPS dark platinum smooth
GNT green textured
MST metallic silver textured
MTT metallic titanium textured
OWI old world iron
RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is de-fined as (projected surface area X drag factor) and measured in ft². Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lb))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø	12	-	-	-	-	-	-	-	-	-	-
	weight	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
Ø4"	EPA	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
	weight	-	15	20	22	20	25	27	25	30	32
Ø5"	EPA	-	2.67	3.61	3.61	3.06	4.08	4.08	4.08	4.55	4.55
	weight	-	18	23	25	23	28	30	28	33	35
Ø6"	EPA	-	2.82	3.76	3.76	3.21	4.23	4.23	4.23	4.70	4.70
	weight	-	21	26	28	26	31	33	31	36	38

Submitted by Swaney Lighting Associates

Catalog Number
LC6LED120 / 6LCLED635K8

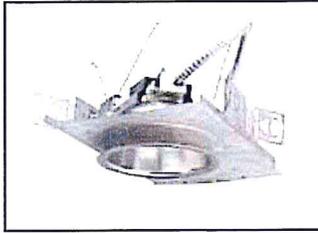
Type:
3



Job Name:
Grove St Apartments - Burl VT

Notes:

RECEIVED
FEB 18 2015
SLA14-2004



6" LED Downlight
LC6LED
120 or 277V
0-10V Dimming Option

APPLICATIONS:

LiteFrame Commercial (LC6LED) is a 6" commercial grade LED downlight with available outputs between 1000-1600 lumens. This is suitable to replace most CFL downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 35°C (LED5), 28°C (LED6), 25°C (LED7). Free Air Flow around fixture is required for optimal life performance.

HOUSING:

One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

REFLECTOR:

High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:

The LC6LED uses either 36, 54, 72 low power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SCDM color consistency. The use of multiple low power LED's allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LED's. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

LED DRIVER:

The LC6LED utilizes a 25 watt constant current Thomas Research Products LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing sku's and simplified specification. The driver is UL8750 and Class II compliant.

DIMMING:

A 0-10V dimming option is available (DM), providing flicker-free dimming down to 10%. See list of compatible dimmers on page (3). For the sizing of the control circuit, the dimming circuit may require up to 1.2mA of sink current.

INSTALLATION:

Light commercial bar hangers included. Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Wall wash orientation may be field adjusted in 90° increments to housing.

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations (EM & WW damp location). ENERGY STAR qualified on standard downlight.

WARRANTY:

5 year warranty. See www.prescolite.com for details.

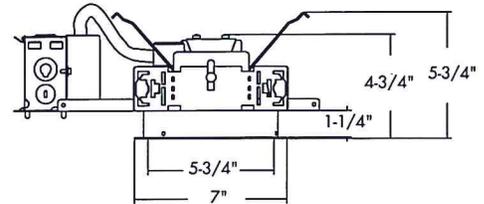
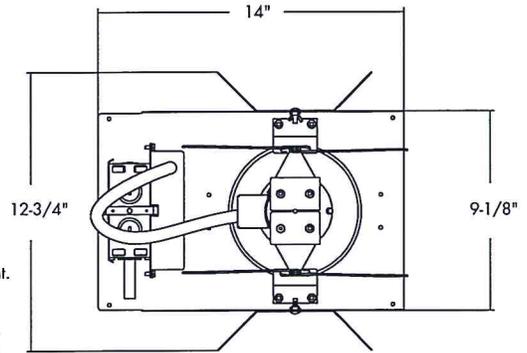
DEPARTMENT OF PLANNING & ZONING

FIRM NAME:

PROJECT:

LiteFrame

Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness 1 1/4"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale



6LCLED 5 & 6

*See page 5 for 6LCLED 7 line art
*See page 5 for 6LCLEDEM line art

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: LC6LED120DM - 6LCLED535K8WT

HOUSING	VOLTAGE	HOUSING OPTIONS	TRIM	APERTURE	OUTPUT	KELVIN	CRI	REFLECTOR FINISH	REFLECTOR COLOR	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> LC6LED 6" LED Housing	<input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V	<input type="checkbox"/> Blank No Dimming <input type="checkbox"/> DM 0-10V dimming to 10% <input type="checkbox"/> WIH Wi-Hubb Enabled <input type="checkbox"/> EM ³ Bodine BSL310C-DF Battery Pack with integral test switch and indicator light <input type="checkbox"/> EMR Bodine BSL310C Battery Pack with remote test switch and indicator light	<input type="checkbox"/> 6LCLED 6" Open Reflector/ Light Engine Assembly.	<input type="checkbox"/> 5 Nominal 1000 Delivered Lumens <input type="checkbox"/> 6 Nominal 1400 Lumens Delivered <input type="checkbox"/> 7 Nominal 1600 Lumens Delivered	<input type="checkbox"/> 27K 2700 Kelvin <input type="checkbox"/> 30K 3000 Kelvin <input type="checkbox"/> 35K 3500 Kelvin <input type="checkbox"/> 40K 4000 Kelvin	<input type="checkbox"/> 8 80+ CRI	<input type="checkbox"/> Blank Clear Alzak, Semi- Diffuse	<input type="checkbox"/> WH ¹ White Paint	<input type="checkbox"/> WT White Trim <input type="checkbox"/> EM ³ Pre-punched reflector to accept integral test switch <input type="checkbox"/> WF Wide Flange <input type="checkbox"/> WW ^{5,6} Wall Wash	<input type="checkbox"/> B24 Set of two(2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> LG1S ^{2,4} Dual-Lite 100VA Surface Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG1R ^{2,4} Dual-Lite 100VA Recessed Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG1T ^{2,4} Dual-Lite 100VA Recessed Ceiling T-Grid LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG2S ^{2,4} Dual-Lite 250 VA Surface Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> SCA6D Sloped ceiling adapter (see note on page 4)	

¹ Requires WT option
² See LC6LED and LiteGear Compatibility on page 3
³ EM must be selected on both the housing and the trim, not compatible with WW trim
⁴ Not compatible with EM or EMR
⁵ Damp location only
⁶ Not compatible with EM (EMR is compatible)



In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: www.prescolite.com • Tech Support: (888) 777-4832

LFR-LED-013

Submitted by Swaney Lighting Associates

Catalog Number: LC6LED120 / 6LCLED635K8

RECEIVED
FEB 13 2015
L3

Type

SLA14-27041



Job Name:
Grove St Appartments - Burl VT

Notes:

DEPARTMENT OF
PLANNING & ZONING
LiteFrame - 6" LC6LED Downlight

PHOTOMETRIC DATA

DRIVER DATA	6LCLED5xxx	6LCLED6xxx	6LCLED7xxx
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.143 (120v)	0.200 (120v)	0.148 (120v)
	0.062 (277v)	0.087 (277v)	0.108 (277v)
Input Power	17.1W	24.0W	29.8W
Constant Current Output	700mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%
EMI Filtering	FCC 47CFR	FCC 47CFR	FCC 47CFR
	Part 15, Class A	Part 15, Class A	Part 15, Class A
Operating Temperature	-30°C to +35°C	-30°C to +28°C	-30°C to +25°C
Dimming	0-10V	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

Lumen Multiplier Table

Photometrics for the LC6LED are published below at a nominal 3500 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.14
4000 Kelvin	1.03
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	0.91

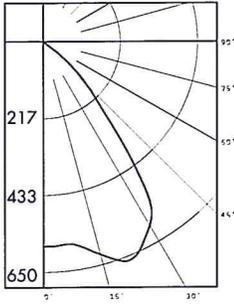
LC6LED120 6LCLED535K8
LED Light Engine: 3500K, 80+ CRI
System Wattage: 17.1W
Fixture Delivered Lumens: 925
Fixture Efficacy: 54.0
Spacing Criteria: 1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	920.4
0-90	925.1
90-180	0.0
0-180	925.1

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	12691
55°	873
65°	326
75°	164
85°	62



CANDELA DISTRIBUTION

DEG	CANDELA
0	560
5	552
15	593
25	621
35	444
45	161
55	10
65	2
75	1
85	0
90	0

Test No. 1911.6074

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

COEFFICIENTS OF UTILIZATION

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	113	110	107	105	110	106	105	103	104	102	100	100	98	97	96	95	94
2	106	101	96	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	87	83	98	91	86	82	89	84	81	85	83	80	84	81	78
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65
6	83	73	66	62	82	72	66	61	71	65	61	69	64	60	68	63	60
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43

LC6LED120 6LCLED535K8

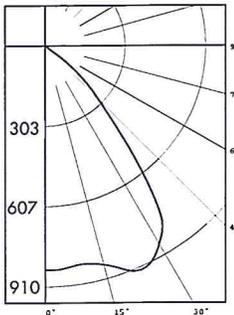
LC6LED120 6LCLED635K8
LED Light Engine: 3500K, 80+ CRI
System Wattage: 24.0W
Fixture Delivered Lumens: 1375
Fixture Efficacy: 57.3
Spacing Criteria: 1.3

ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	1369.3
0-90	1375.2
90-180	0.0
0-180	1375.2

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	19982
55°	1447
65°	541
75°	244
85°	89



CANDELA DISTRIBUTION

DEG	CANDELA
0	836
5	824
15	847
25	869
35	649
45	249
55	16
65	4
75	1
85	0
90	0

Test No. 1910.6073

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

COEFFICIENTS OF UTILIZATION

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	113	110	107	105	110	106	105	103	103	102	100	100	98	97	96	95	94
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86
3	100	93	87	83	98	91	86	82	89	84	81	85	82	79	84	81	78
4	94	85	79	74	92	84	79	74	82	77	73	80	75	72	78	74	71
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65
6	83	73	66	61	81	72	65	61	70	64	60	69	64	60	67	63	59
7	78	67	60	56	76	66	60	55	65	59	55	64	59	55	63	58	54
8	73	62	56	51	72	62	55	51	61	55	50	59	54	50	58	54	50
9	69	58	51	47	68	57	51	47	57	51	46	56	50	46	55	50	46
10	65	54	47	43	64	54	47	43	53	47	43	52	47	43	51	46	43

LC6LED120 6LCLED635K8



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
Copyright ©2013 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
Specifications subject to change without notice. • Printed in U.S.A. • LFRAED-013 • 10/23/13



Hubbell Lighting, Inc.

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
LC6LED120 / 6LCLED635K8

Type:

L3

Notes:



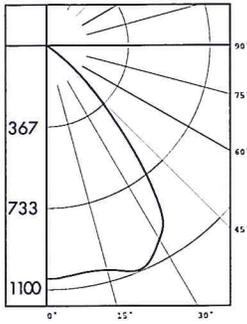
514-27041

PHOTOMETRIC DATA

LightFrame - 6 LC6LED Downlight

DEPARTMENT OF PLANNING & ZONING

LC6LED120 6LCLED735K8
LED Light Engine: 3500K, 80+ CRI
System Wattage: 29.8W
Fixture Delivered Lumens: 1598
Fixture Efficacy: 53.6
Spacing Criteria: 1.3



CANDELA DISTRIBUTION

DEG	CANDELA
0	1003
5	996
15	998
25	1020
35	822
45	314
55	25
65	5
75	2
85	0
90	0

Test No. 1912.6072

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS
0-60	1590.1
0-90	1597.6
90-180	0
0-180	1597.6

LUMINANCE DATA IN CANDELA/SQ. METER

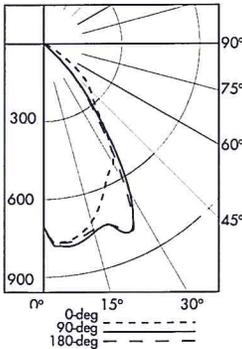
Angle in Vertical	Average - 0°
45°	22934
55°	1376
65°	538
75°	272
85°	75

COEFFICIENTS OF UTILIZATION

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	50	30	10						
1	113	110	107	105	110	108	105	103	101	100	98	97	96	95	94		
2	106	101	96	93	104	99	95	91	96	92	89	85	80	88	85		
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	73	68	65
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60
7	78	67	61	56	76	67	60	56	65	59	55	64	59	55	63	58	55
8	73	63	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43

LC6LED120 6LCLED735K8

LC6LED120-6LCLED635K8 WW
LED Light Engine: 3500K, 80 CRI
System Wattage: 15.6W
Fixture Delivered Lumens: 1051
Fixture Efficacy: 67



CANDELA DISTRIBUTION

DEG	0.0	90.0	180.0
0	706	706	706
5	768	783	772
15	712	753	743
25	574	797	798
35	422	435	384
45	254	121	119
55	121	3	4
65	33	1	2
75	2	1	1
85	0	0	0
90	0	0	0

Test No. 7829

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	19685	9377	9222
55°	11561	287	382
65°	4279	130	259
75°	423	212	212
85°	0	0	0

MULTIPLE UNITS	
UNITS ON 3' CENTER	UNITS ON 4' CENTER
1' 2' 3' 4'	

3' DISTANCE FIXTURE MOUNTED OUT FROM WALLS FOOT-CANDELA DISTRIBUTION ON WALL SURFACE

DISTANCE FROM CEILING IN FEET	2	1	1	1	1	4	4	4	4	3	4
1	2	1	1	1	1	4	4	4	4	3	4
2	9	7	3	1	1	12	10	12	11	6	11
3	14	12	6	2	1	19	19	19	16	13	16
4	13	11	7	4	2	21	21	21	16	15	16
5	11	10	8	5	2	21	22	21	16	17	16
6	8	8	7	5	3	20	20	20	15	16	15
7	6	6	6	5	3	19	18	19	13	14	13
8	5	5	5	4	3	17	17	17	13	13	13
9	4	4	4	4	3	15	15	15	12	11	12

LC6LED120-6LCLED635K8 WW

Test No. 7829



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
Copyright ©2013 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
Specifications subject to change without notice. • Printed in U.S.A. • UFR1ED013 - 10/23/13



Hubbell Lighting, Inc.

Submitted by Swaney Lighting Associates	Catalog Number: LC6LED120 / 6LCLED635K8	Type: L3
 Job Name: Grove St Apartments - Burl VT	Notes:	SLA14-27041

PHOTOMETRIC DATA

LiteFrame - 6" ~~LED Downlight~~

RECEIVED
FEB 18 2015

DEPARTMENT OF
PLANNING & ZONING

DIMMING COMPATIBILITY TABLE

Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting Controls	WPC 5721	
Entertainment Technology	Tap Glide TG400FAM120 (120V) Tap Glide Heatsink TGH1500fam120 (120V) Oasis DA2000FAMU (120/277V)	
Honeywell, Inc.	EL731A1019 and EL7315A1009	EL7305A1010
HUNT Dimming	Preset Slide: PS-010-IV-120V and PS-010-WH-120V Preset Slide: PS-010-3W-IV-120V and PS-010-3W-WH-120V Preset Slide: PS-010-IV-277V and PS-010-WH-277V Preset Slide: PS-010-3W-IV-277V and PS-010-3W-WH-277V Preset Slide, controls FD-010, PS-1FC-010-IV, and PS-1FC-010-32-WH-120/277V Preset Slide, controls FD-010, PS-1FC-010-32-IV, and PS-1FC-010-3W-WH-120/277V Remoted mounted unit: FD-010120V and FD-010-277V	
Lehigh Electric Products Co.	Solitaire	PBX
Leviton Lighting Controls Div.	Leviton Centura Fluorescent Control System IllumaTech™ IP7 Series	CN100 PE300
Lutron Electronics Co., Inc.	Visit www.lutron.com/advance for the latest control information and selection	
PDM Electrical products	WPC-5721	
Starfield Controls	TR61 with DALI Interface port	RT03 DALInet Router
The Watt Stopper, Inc.	LS-4 used with LCD-101 and LCD-103	

Central Inverters

For fixture full light output in back-up mode, Prescolite and Dual-lite have jointly tested the LiteFrame Commercial LED with the 100 (LG1) and 250 (LG2) VA LiteGear inverters. For more information on LiteGear go to http://www.dual-lite.com/resources/litegear_luminaire_loading_chart/

wiHUBB®

Fixture comes with a pre-installed In-Fixture Module (1 relay, 0-10V) compatible with the HBA wiHUBB system. Actual dimming requires the selection of 0-10V dimming ballast as well. Consult factory for compatibility with EM fixtures.



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
Copyright ©2013 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
Specifications subject to change without notice. • Printed in U.S.A. • IFR4ED013 • 10/23/13



Submitted by Swaney Lighting Associates

Catalog Number:
LC6LED120 / 6LCLED635K8

Type:

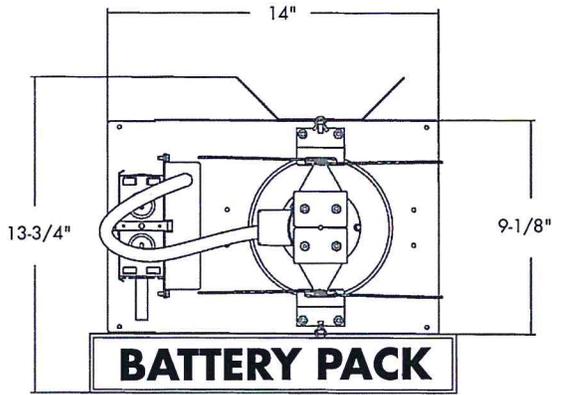


Job Name:
Grove St Apartments - Burl VT

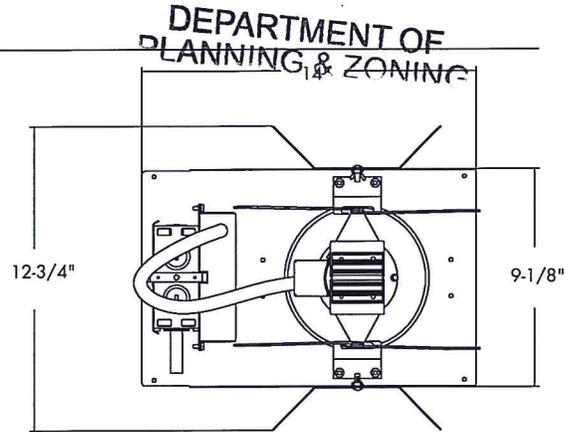
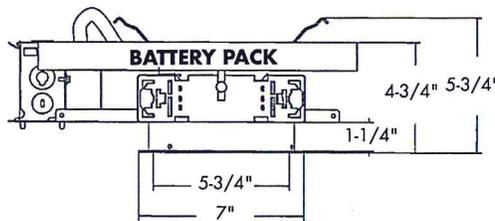
Notes:

RECEIVED
L3
SLA# 27041
FEB 18 2015

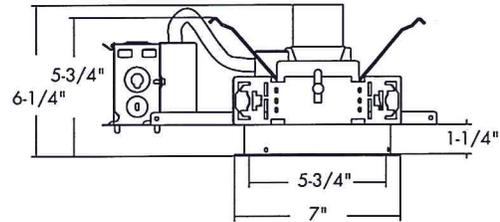
PHOTOMETRIC DATA



LC6LED EM



LC6LED 7



SCA6D

When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, maximum of 35°. For a more precise degree or wet ceiling applications, please contact factory. Sloped ceiling adapter and housing must be installed at the same time.

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	925
Watts	17.12
Lumens per Watt (Efficacy)	54

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3434 (Bright White)

2700K 3000K 4500K 6500K

Visit www.lightingfacts.com for the Label Reference Guide

Registered Number: 1048-4413-1012-1013
Manufacturer: 1048-4413-1012-1013
Type: Prescolite 5-wire light

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	1375
Watts	23.98
Lumens per Watt (Efficacy)	57

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3423 (Bright White)

2700K 3000K 4500K 6500K

Visit www.lightingfacts.com for the Label Reference Guide

Registered Number: 1048-4413-1012-1013
Manufacturer: 1048-4413-1012-1013
Type: Prescolite 5-wire light

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	1598
Watts	29.79
Lumens per Watt (Efficacy)	53

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3418 (Bright White)

2700K 3000K 4500K 6500K

Visit www.lightingfacts.com for the Label Reference Guide

Registered Number: 1048-4413-1012-1013
Manufacturer: 1048-4413-1012-1013
Type: Prescolite 5-wire light



Web: www.prescolite.com • Tech Support: (888) 777-4832
701 Millennium Boulevard • Greenville, SC 29607 U.S.A. • Phone (864) 678-1000
Copyright ©2013 Prescolite, Inc., a division of Hubbell Lighting, Inc. All Rights Reserved
Specifications subject to change without notice. • Printed in U.S.A. • UFR-LED013 • 10/23/13



RECEIVED
FEB 18 2015

Submitted by Swaney Lighting Associates
Job Name: Grove St Apartments - Burl VT
Catalog Number: TRP30L-4K-035-4-U-BL-SCP
Type: L5
DEPARTMENT OF PLANNING & ZONING
 Notes: SA14-27041

TRP LED ARCHITECTURAL WALLPACK **NEW**
 Cat.# Job Type Approvals
SPAULDING LIGHTING

SPECIFICATIONS

Applications:
 • Architectural wallpack in stylish Trapezoid shape with molded contours to accentuate building architecture. Provides excellent illumination in energy-saving LED systems.

Construction:
 • Die-cast aluminum housing and door
 • Seven powder coat standard finishes, plus custom color options

LED:
 • 30 high power LEDs deliver up to 5,062 lumens
 • Up to 105 lumens per watt
 • Variety of IES distribution patterns - Type II, III, and IV (Forward Throw)

Electrical:
 • Two driver options: 34w at 350mA (1 driver) and 53w at 525mA (1 driver)
 • Operating temperature: -30°C/-22°F to 40°C/104°F

Electrical (Cont.):
 • 120-277VAC, 50/60Hz
 • Power factor ≥ 90%
 • THD (Total Harmonic Distortion) <20%
 • 10 KA, 10 KV, 270 joules surge suppressor

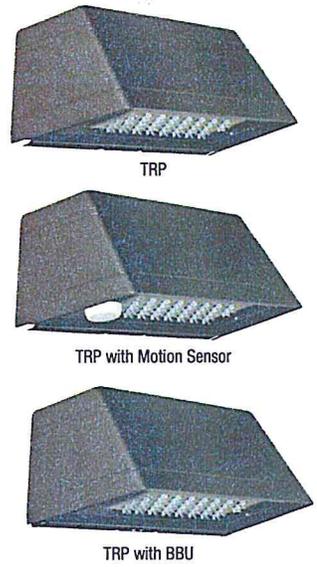
Controls:
 Drivers are 0-10V dimming standard. Photocell and occupancy sensors available for complete on/off and dimming control.

Listings:
 • UL1598 listed for use in wet locations
 • 4K and 5K models meet DesignLights Consortium (DLC) qualifications, consult DLC website for more details: <http://www.designlights.org/QPL>
 • Zero uplight (UO), dark sky, neighbor friendly
 • Drivers IP66 and RoHS compliant

TRP-BBU Egress Wallpack:
 Designed to meet strict 1fc minimum requirements. At 12ft mounting height 1fc covers 16x16ft area, well beyond the 10x10ft standard; No uplight, external test button; 120V or 277V only; Rated -20°C to 35°C

Warranty:
 For more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>

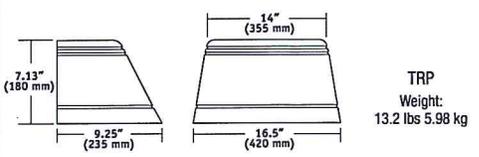
PRODUCT IMAGE(S)



SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
TRP	16 (7.3)	18.5 (47)	9.5 (24)	11.5 (29)

DIMENSIONS



CERTIFICATIONS/LISTINGS



ORDERING INFORMATION

ORDERING EXAMPLE: TRP-30L5K-053-2-U-DB

FAMILY	# OF LEDs	CCT	DRIVE CURRENT	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
TRP Trapezoid	30L 30 High brightness LEDs	3K* 3000K 4K 4000K 5K 5000K	035* 350mA 053 525mA	2 Type II 3* Type III 4 Type IV	U 120V-277V 1 ^{1A} 120V 2 ¹ 208V 3 ¹ 240V 4 ^{1A} 277V	CC ³ Custom Color BL Black DB Bronze FG Forest Green GR Gray PS Platinum RD Red WH White	PC ¹ Photocontrol (Must specify individual voltage) SC0 ^{2,5} Motion sensor On/Off control, No light output when no motion detected SCP ^{2,5} Programmable motion control, factory default is 10% light output	BBU ^{1,6} Integral battery for 120 or 277V only rated for -20°C to 35°C (Must specify individual voltage) F ¹ Fusing (Must specify individual voltage)

¹ Must specify individual voltage for BBU, PC and Fusing options
² Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V or 277V only
³ Consult factory for Custom Color option
⁴ DLC qualification 4K and 5K models only
⁵ PC option not applicable, included in sensor For SCP, PC function turns on to lower setting until motion is detected
⁶ BBU only available in TRP, 350mA, Type III, 120V or 277V

ACCESSORIES - Order separately

Catalog Number	Description
SCP-REMOTE ²	Remote control for SCP option. Order at least one per project to program and control.

Submitted by Swaney Lighting Associates



Job Name:
Grove St Apartments - Burl VT

Catalog Number:
TRP30L-4K-035-4-U-BL-SCP

Type:

L5

Notes:

SLA14-27041

RECEIVED
FEB 18 2015
DEPARTMENT OF PLANNING & ZONING

PERFORMANCE DATA

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	5K (5000K nominal, 67 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 80 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
30	350mA	34w	2	3549	104	1	0	2	3161	93	1	0	1	2404	71	1	0	1
			3	3583	105	1	0	2	3191	94	1	0	1	2443	72	1	0	1
			4	3459	102	1	0	2	3081	91	1	0	1	2375	70	1	0	1
			2	4935	93	1	0	2	4466	84	1	0	2	3420	65	1	0	1
	525mA	53w	3	5062	96	1	0	2	4508	85	1	0	2	3452	65	1	0	2
			4	4887	92	1	0	2	4353	82	1	0	2	3352	63	1	0	2

Lumen values are from photometric tests performed at a NVLAP certified laboratory in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment, application and performance tolerances of the electrical components.

ELECTRICAL DATA

# OF LEDS	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
30	1	350mA	120	34	0.29
			277	34	0.12
		525mA	120	53	0.45
			277	53	0.18

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

AMBIENT TEMPERATURE	LUMEN MULTIPLIER	
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.98

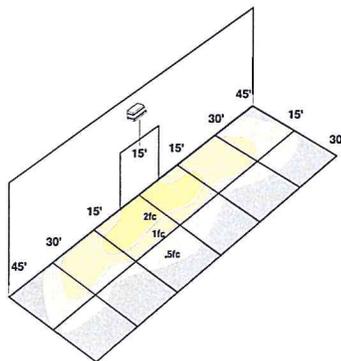
Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

PROJECTED LUMEN MAINTENANCE

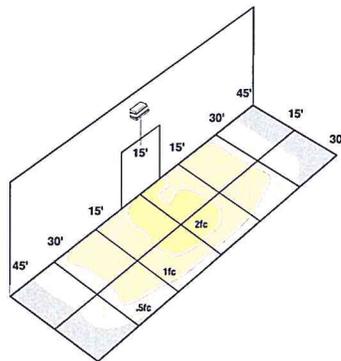
Ambient Temp.	OPERATING HOURS					L70 (hours)
	0	25,000	50,000	TM-21-11 ¹ 60,000	100,000	
25°C / 77°F	1.00	0.98	0.97	0.96	0.95	>774,000
40°C / 104°F	0.99	0.96	0.95	0.95	0.93	>625,000

¹ Nichia 219B, 700mA, 85°C Ts, 10,000hrs
Data references the extrapolated performance projections for the TRP base model in 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

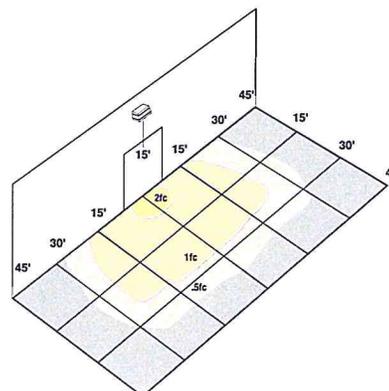
PHOTOMETRIC REPORTS



TYPE II



TYPE III



TYPE IV (Forward throw)



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
Due to our continued efforts to improve our products, product specifications are subject to change without notice.
© 2014 SPALDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA

TRP-SPEC 9/14



Job Name:
Grove St Appartments - Burl VT

Catalog Number:
2-CAP-21-24NB-27-4K-T4-UNV-3RNB-BBT
Notes:

Type:
2L1-4

SLA14-27041

RECEIVED
FEB 18 2015



Type:
Project Name:
Notes:

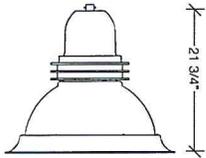
DEPARTMENT OF
PLANNING & ZONING

rev. 03.14.2014
URBAN (LED)
Urban LED Luminaires

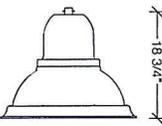
Sample	CAP-21	36NB-80	4K	T2	UNV	PEC	3RNB	BBT
Ordering	/	/	/	/	/	/	/	/
	A	B	C	D	E	F	G	H

DETAILS

CAP - Round Shade

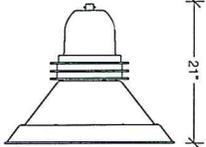


26" - CAP
Shown with optional 3RNB rings
EPA: 1.39 ft²
40 lbs

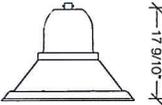


21" - CAP
EPA: 1.04 ft²
35 lbs

MRDS - Deep Shade

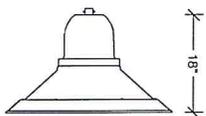


26" - MRDS
Shown with optional 3RNB rings
EPA: 1.25 ft²
40 lbs



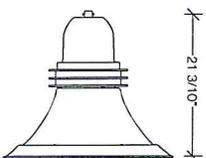
21" - MRDS
EPA: 1.00 ft²
35 lbs

MRSS - Shallow Shade



26" - MRSS
EPA: 1.17 ft²
40 lbs

MAR - Curved Shade



26" - MAR
Shown with optional 3RNB rings
EPA: 1.25 ft²
40 lbs



21" - MAR
EPA: 1.00 ft²
35 lbs

A. MODEL

CAP-21 21" Capitol (2 Fixtures)

MRDS-21 21" Miramar deep shade

MAR-21 21" Maritas

CAP-26 26" Capitol

MRSS-26 26" Miramar shallow shade

MRDS-26 26" Miramar deep shade

MAR-26 26" Maritas

B. ENGINE-WATTS

24NB-27 27 Watts - LED array

24NB-55 55 Watts - LED array

36NB-80 80 Watts - LED array

48NB-110 110 Watts - LED array³

60NB-136 136 Watts - LED array³

3 = 26" Urban only

C. CCT - COLOR TEMP

3K 3000K

4K 4000K

5K 5000K (std.)

D. OPTICS

T2 type II

T3 type III

T4 type IV

T5R type V, rectangular

T5QM type V, square medium

T5W type V, round wide

E. VOLTAGE

UNV 120-277V

347 347V

480 480V

F. ELECTRICAL OPTIONS

PEC photocell, button

2PF dual power feed ^{1,2}

G. STYLE OPTIONS

NRNW no rings

3RNB three cast rings

H. COLOR

BBT basic black textured

BMT black matte textured

WHT white textured

MBT metallic bronze textured

BZT bronze textured

DBT dark bronze textured

GYS gray smooth

DPS dark platinum smooth

GNT green textured

MST metallic silver textured

MTT metallic titanium textured

OWI old world iron

RAL _____

¹ not available on 24NB-27

Submitted by Swaney Lighting Associates

Catalog Number:

Type:



Job Name:
Grove St Apartments - Burl VT

2-CAP-21-24NB-27-4K-T4-UNV-
3RNW-BBT

2L1-4

Notes:

RECEIVED
SLA 14-27041

FEB 18 2015

rev. 03.14.2014

DEPARTMENT OF PLANNING & ZONING
URBAN (LED)
Urban LED Luminaires



Housing & LED Thermal Management: The drivers shall be located in the top cast housing and shall be accessible without tools by hinging the lower shade assembly. The driver and all electrical components shall be on a tray. The lower shade shall be made from a one-piece aluminum spinning. The LED bezel assembly shall be attached to a one piece aluminum heat sink to provide direct-heat exchange between the LED light engine and the cool outdoor air. The Housing is designed for LED thermal management without the use of metallic screens, cages, or fans. The top casting shall be able to be pendent mounted in place with a stainless steel safety pin and then permanently held in place with four stainless steel bolts.

Bezel optical system: Each Beacon luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the luminaire to be rated for high-pressure hose down applications.

The optical cartridge is secured to the aluminum heat sink with fasteners to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

Printed Circuit Board (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/MK. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LifeShield™ Circuit: Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components. A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The thermal circuit will allow higher maximum Wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

Thermal circuit shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

Thermal circuit shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

Electrical: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. All driver components supplied are Component-to -component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher.

Surge Protector: The on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V

and surge rating of 540J. The case shall be a high-temperature, flame resistant plastic enclosure.

Fasteners: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

Operating Environment: Shall be able to operate normally in ambient temperatures from -40°C to 40°C

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

Warranty: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.

Power/Lumens & Distributions

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
5000K = 1.0	min 67 CRI
4000K = .92	min 70 CRI
3000K = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Submitted by Swaney Lighting Associates



Job Name:
Grove St Appartments - Burl VT

Catalog Number:
AA44-S-4-C-P-BBT

RECEIVED
FEB 13 2015

Type:

Notes:

DEPARTMENT OF
PLANNING & ZONING

SLA14-27041

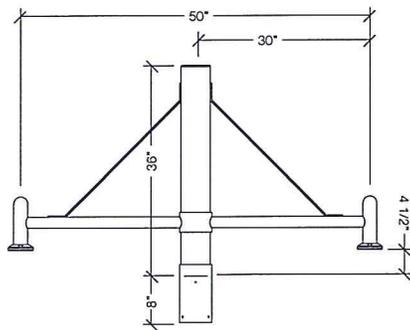


Type: _____
Project Name: _____
Notes: _____

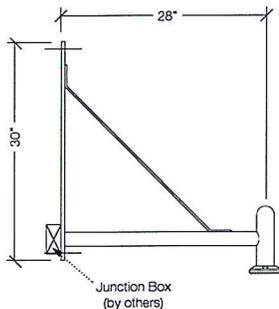
rev. 02.24.2014
AA-44 STRUT
Arms

Sample AA-44 S 4 B P BBT
Ordering / / / / / /
A B C D E F

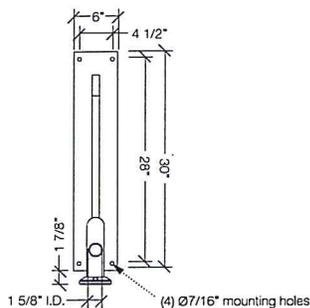
DETAILS



WALL BRACKET DETAILS



WALL PLATE DETAILS



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

A. MODEL

AA-44 Strut

B. POST SHAFT PROFILE

W wall mount
S smooth
F fluted

C. POST SHAFT DIAMETER

4 4"
5 5"
6 6"
OTHER _____

D. ARRANGEMENT

C see arrangement table below

P pendant

F. COLOR

BBT basic black textured
BMT black matte textured
WHT white textured
MBT metallic bronze textured
BZT bronze textured
DBT dark bronze textured
GYS gray smooth
DPS dark platinum smooth
GNT green textured
MST metallic silver textured
MTT metallic titanium textured
OWI old world iron
RAL _____

Construction: All cast aluminum parts shall be low copper alloy A356. All extruded aluminum parts shall be alloy 6061-T6, 6063-T5 or equal.

EPA (effective projected area): EPA is de-fined as (projected surface area X drag factor) and measured in ft2. Allowable post, luminaire arm, luminaire and accessory EPAs are derived from the most current published AASHTO (American Association of State Highway and Transportation Officials) standard, currently AASHTO 2001 (50yr design life). Customer assumes all responsibility for selecting the appropriate post for installation (consult factory for assistance). Luminaire arm, luminaire and accessory EPA must be equal to or less than allowable EPA of post. Consult a professional engineer for compliance with local codes and standards.

Fasteners: All fasteners shall be Corrosion Resistant. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, available at additional cost).

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pound.

Limited Warranty: Beacon Products warrants its products, to the original purchaser, against defects in materials and workmanship for proper usage for a period of 5 years after date of production, when properly installed, maintained and appropriately specified. See Warranty Information on www.beaconproducts.com for complete details and exclusions.

		arrangement (EPA index ft ² / weight (lbs))									
		A	B	C	D	E	F	G	H	I	J
shaft Ø	weight	12	-	-	-	-	-	-	-	-	-
Ø4"	EPA	-	2.34	3.28	3.28	2.73	3.75	3.75	3.75	4.22	4.22
	weight	-	15	20	22	20	25	27	25	30	32
Ø5"	EPA	-	2.67	3.61	3.61	3.06	4.08	4.08	4.08	4.55	4.55
	weight	-	18	23	25	23	28	30	28	33	35
Ø6"	EPA	-	2.82	3.76	3.76	3.21	4.23	4.23	4.23	4.70	4.70
	weight	-	21	26	28	26	31	33	31	36	38

Luminaire Schedule					
Symbol	Tag	Qty	LLF	Description	
○	L3	4	0.900	LC6LED120 - 6LCLED635K8	
●	L1-3	30	0.820	CAP-21-24NB-27-4K-T3	
●	L1-4	34	0.820	CAP-21-24NB-27-4K-T4	
●	L1-2	2	0.820	CAP21-24NB-27-T2	
□	L2	5	0.820	CAP-21-24NB-55-4K-T3	
⊥	L5	13	0.900	TRP-30L4K-035-4	
●	2L1-4	1	0.820	twin - CAP-21-24NB-27-4K-T4	

Calculation Summary					
Label	Units	Avg	Max	Min	Max/Min
Bldg I entry	Fc	1.20	1.6	0.2	8.00
Bldg J and K en	Fc	1.01	2.5	0.2	12.50
Bldg R entry	Fc	1.24	2.4	0.6	4.00
Bldg S entry	Fc	1.16	1.8	0.6	3.00
Bldg T entry	Fc	1.26	2.5	0.7	3.57
Entrance Drive	Fc	0.37	0.9	0.1	9.00
large parking	Fc	0.80	1.7	0.1	17.00
main rd walk	Fc	0.53	1.4	0.1	14.00
North Parking a	Fc	0.65	4.0	0.0	N.A.
North Pavilion	Fc	1.45	6.7	0.0	N.A.
Seasonal Act Wa	Fc	0.63	1.3	0.1	13.00
Small parking	Fc	0.59	1.2	0.1	12.00
South drive T-S	Fc	1.22	3.3	0.5	6.60
South Parking a	Fc	0.67	3.3	0.0	N.A.
South Pavilion	Fc	1.49	7.1	0.0	N.A.



Beacon Urban - Type L1 and L2



LED

Spaulding TRP - Wall mtd 12' AFG



15 Pleasant Hill Rd
P.O. Box 1597
Scarborough, Maine 04070
email: swaneylighting.com
ph: 207-883-7100
fax: 207-885-9605

#	Date	Comments
3	9/9/14	Pole locations
4	9/24/14	Added Bollards
5	9/29/14	Revised Site & Wall Packs
6	11/24/14	Entrance drive fixtures
7	1/26/15	Added building fixtures

Drawn By: Steve Weatherbie
Not to Scale
THIS LIGHTING CALCULATION IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS. SWANEY LIGHTING ASSOCIATES AND FIELD DEPARTMENTS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION SHOULD BE OBTAINED AND THE CONTRACTOR AND/OR SPECIFICATIONS SHOULD BE REVIEWED WITH THE CONTRACTOR AND/OR SPECIFICATIONS OWNER RESPONSIBLE FOR THE PROJECT. CONFORMANCE TO CODES AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR OWNER'S REPRESENTATIVE.

**Garden Street Apartments
Burlington, VT
Site Lighting Layout**