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Northgate Town Center
San Rafael, CA
Developed for Client

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Revision	Description	Date

Job No.	22-055
Date	05/07/2024
Drawn by	YL
Checked by	JP
Scale	1/8" = 1'-0"

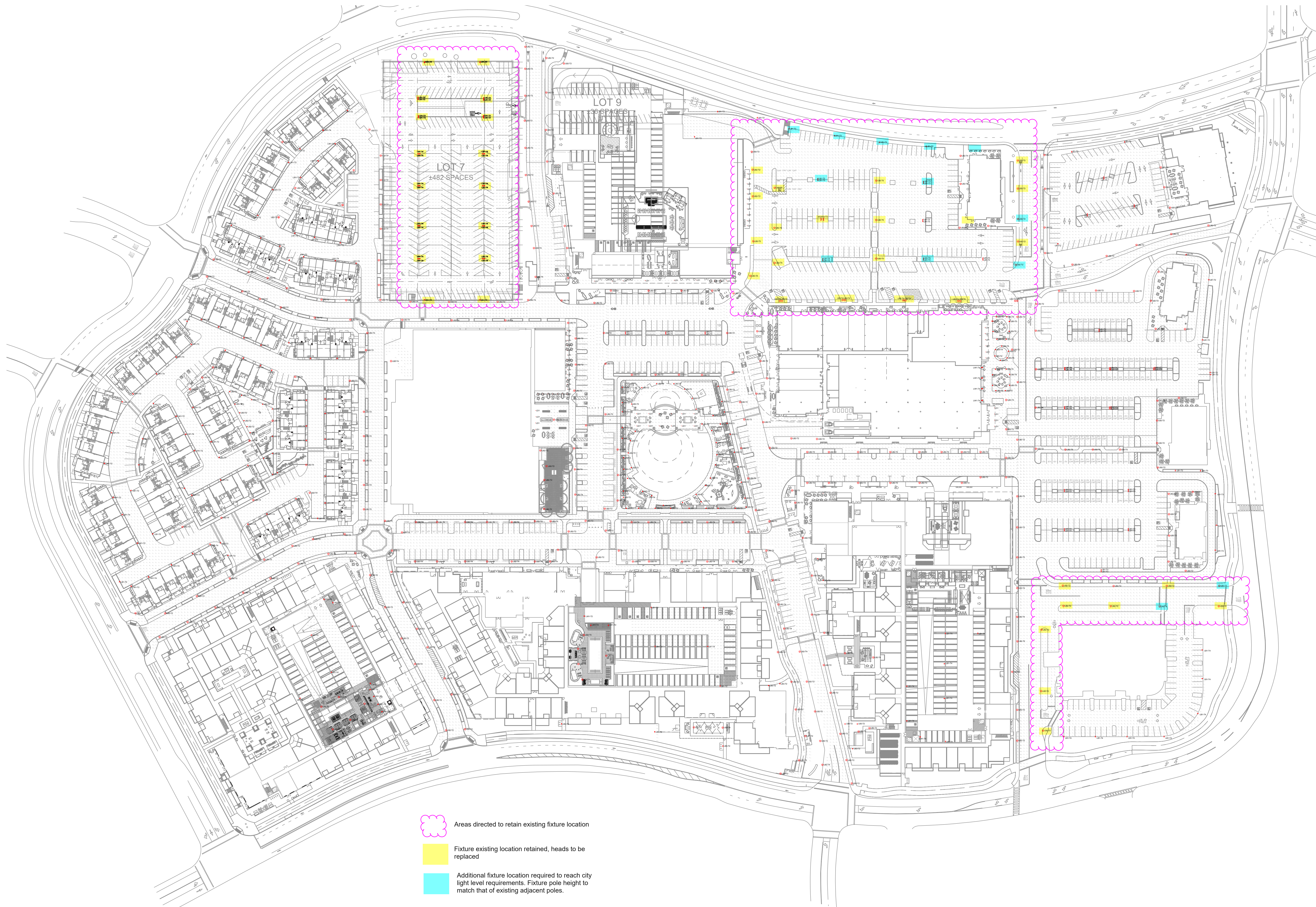
LT- Site Lighting Phase 1 2025




Calculation Summary Phase 1

Label	CalcType	Units	Avg	Min	Avg/Min
Site	Illuminance	Fc	2.96	0.5	5.92

- San Rafael City footcandle requirement for site:
- one-half (1/2) foot-candle overlap at walkways and parking lots,
 - fall below one (1) foot-candle at the property line

This calculation is based on the best information provided to Oculus by the architect, engineer or interior designer. The calculation is also based on photometric information supplied by the lighting product manufacturers. Design changes such as ceiling heights, ceiling, wall and floor reflectances of all interior surfaces including partition walls may adversely affect the overall light levels. Actual footcandle levels may vary. Oculus is in no way responsible as to the veracity of these calculations, and they should only be used as a design reference tool. Any and all photometric calculations for emergency purposes must be verified and approved by Electrical Engineer.



-  Areas directed to retain existing fixture location
-  Fixture existing location retained, heads to be replaced
-  Additional fixture location required to reach city light level requirements. Fixture pole height to match that of existing adjacent poles.

Calculation Summary Phase 2

Label	CalcType	Units	Avg	Min	Avg/Min
Site	Illuminance	Fc	2.96	0.5	5.92
Residential Rooftop	Illuminance	Fc	3.81	0.2	19.05

San Rafael City footcandle requirement for site:

- one-half (1/2) foot-candle overlap at walkways and parking lots,
- fall below one (1) foot-candle at the property line

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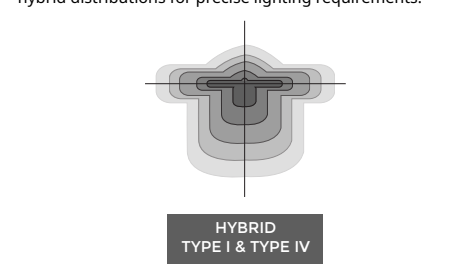
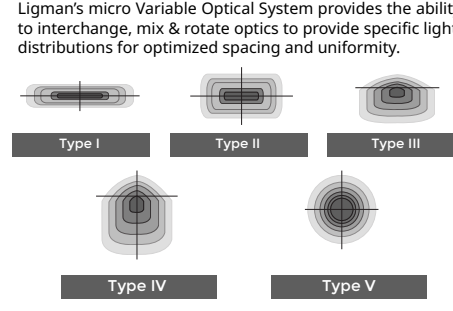
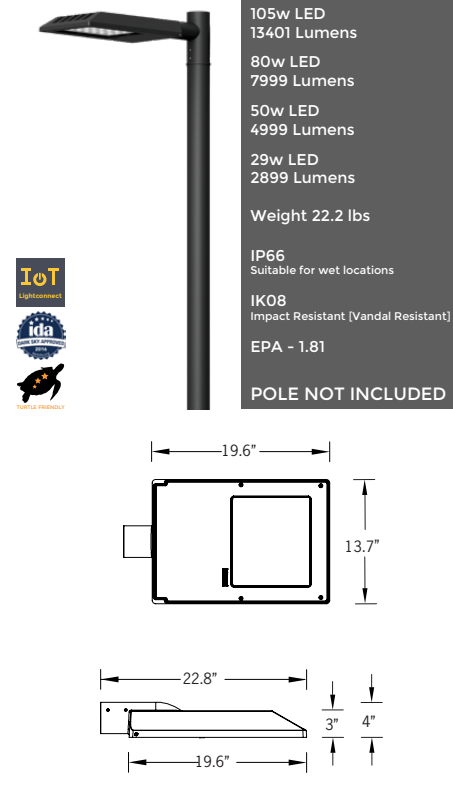
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Job No.	22-055
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Drawn by	YL
Checked by	JP
Scale	1/8" = 1'-0"

**LT- Site Lighting
Phase 2 2040**

This calculation is based on the best information provided to Oculus by the architect, engineer or interior designer. The calculation is also based on photometric information supplied by the lighting product manufacturers. Design changes such as ceiling heights, ceiling, wall and floor reflectances of all interior surfaces including partition walls may adversely affect the overall light levels. Actual footcandle levels may vary. Oculus is in no way responsible as to the veracity of these calculations, and they should only be used as a design reference tool. Any and all photometric calculations for emergency purposes must be verified and approved by Electrical Engineer.

USE-90002
Steamer Medium Rectangular Streetlight



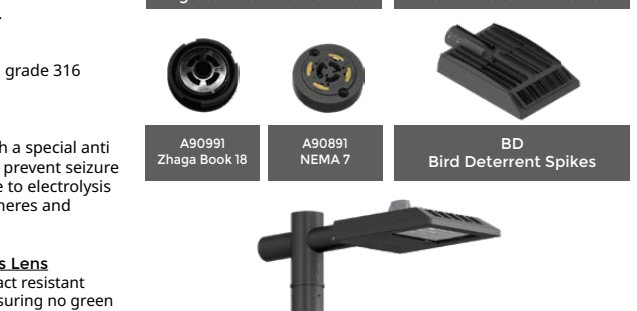
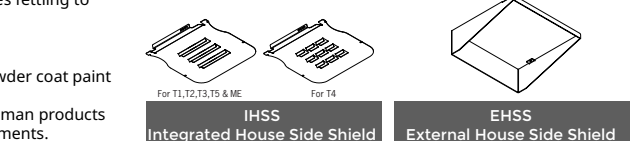
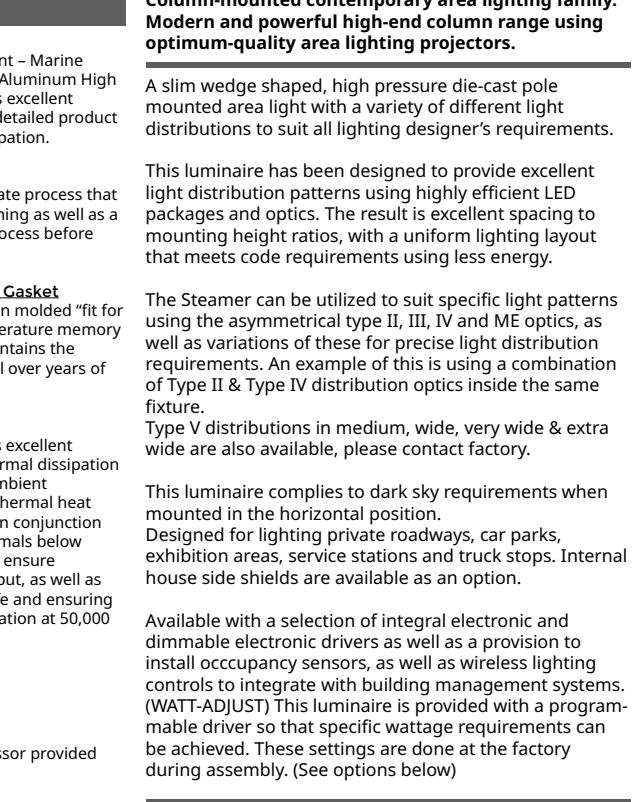
May 5, 2023

Project: **Northgate Town Center**
San Rafael, CA

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USE-90002
Steamer Medium Rectangular Streetlight



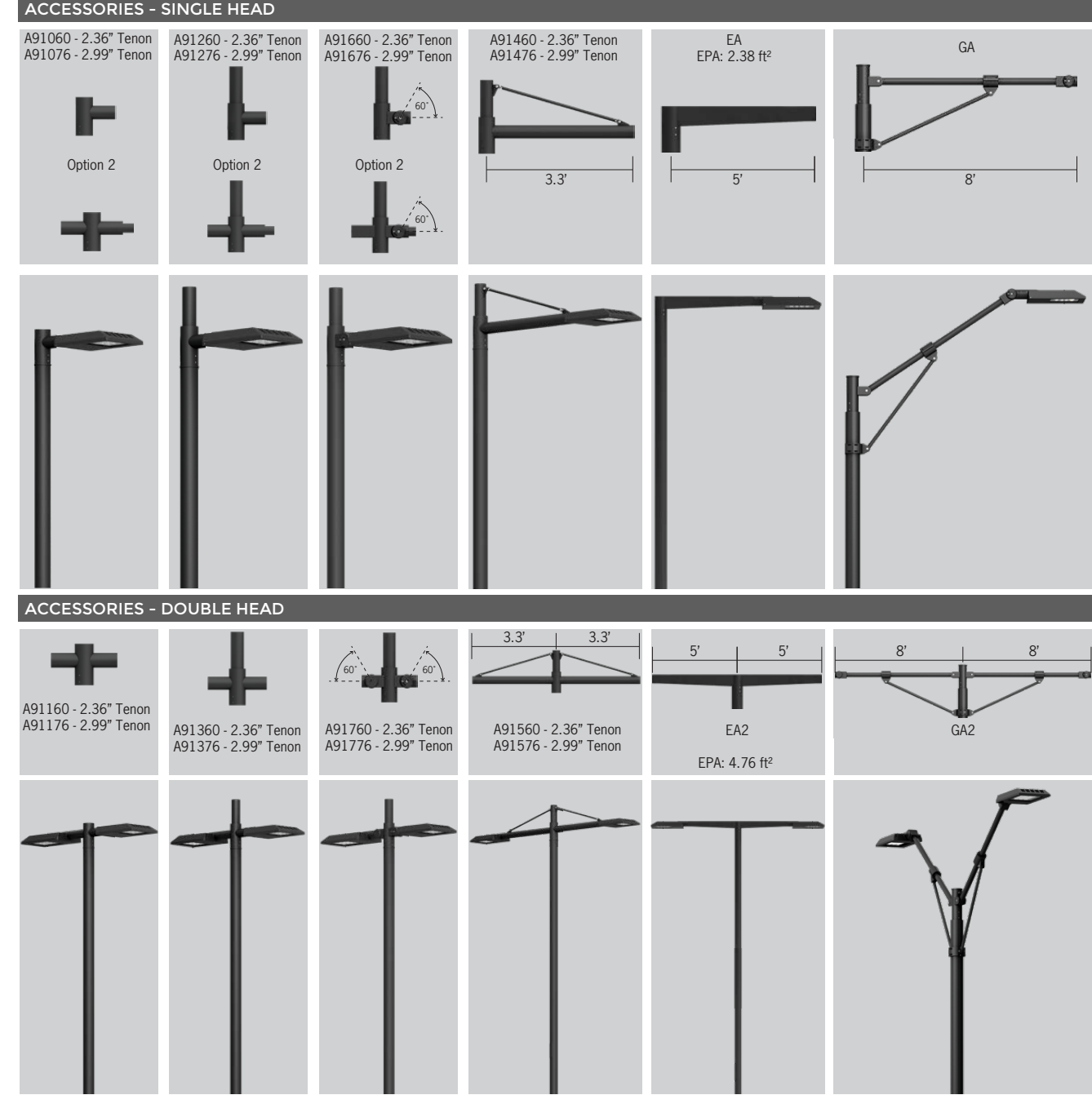
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USE-90002
Steamer Medium Rectangular Streetlight



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USE-90002
Steamer Medium Rectangular Streetlight



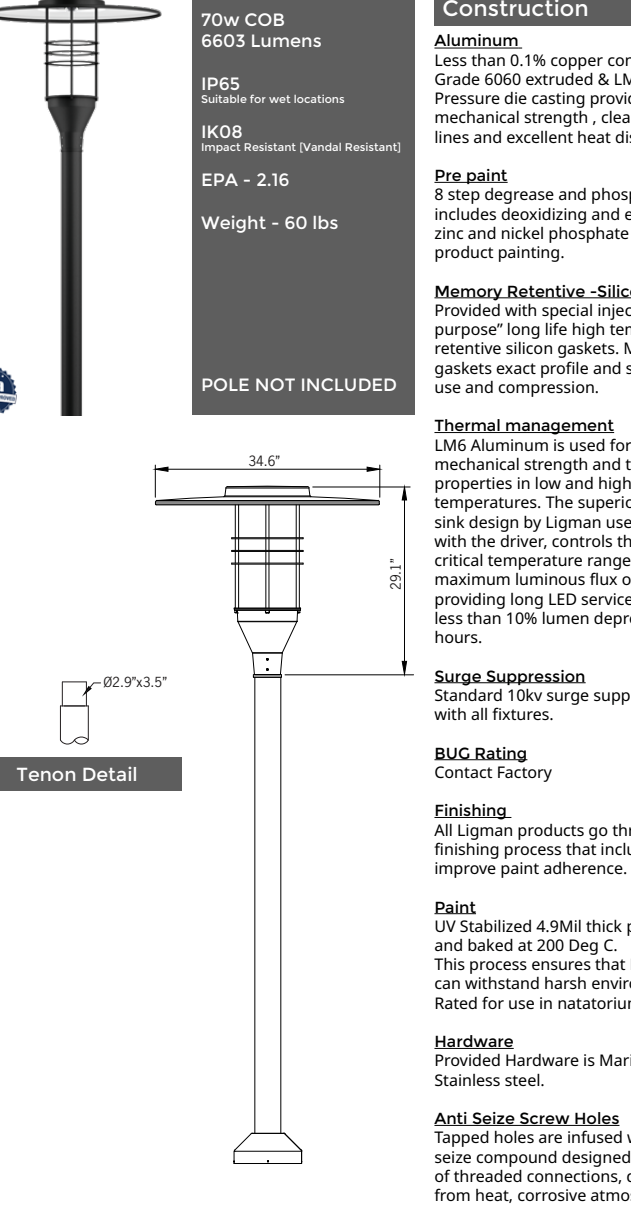
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UFOR-20042
Forrey 12 Post Top No Lens



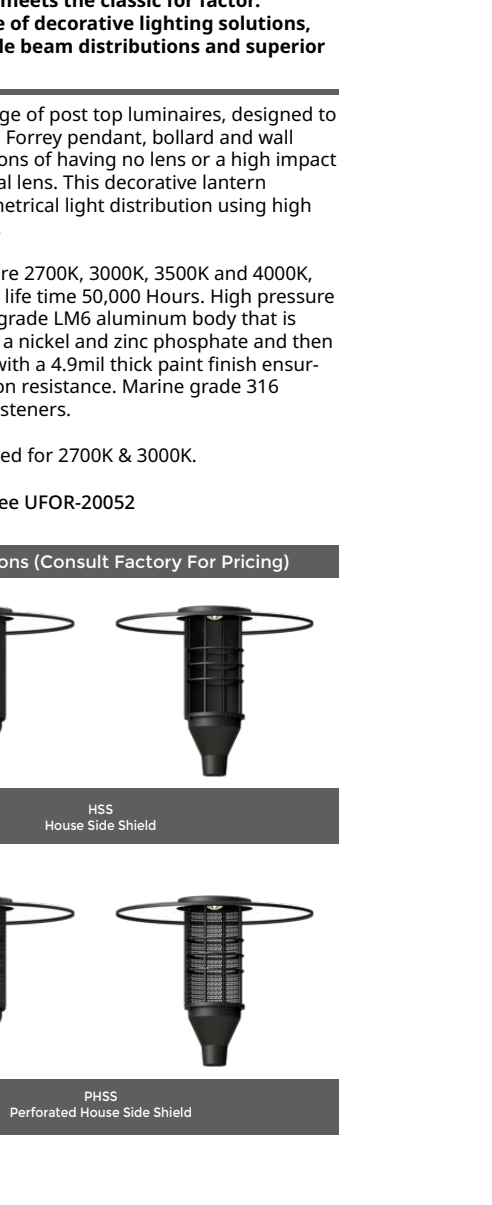
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UFOR-20042
Forrey 12 Post Top No Lens



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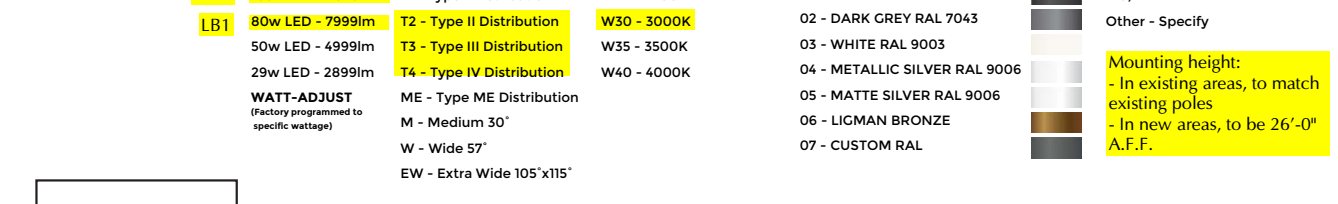
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USE-90002
Steamer Medium Rectangular Streetlight

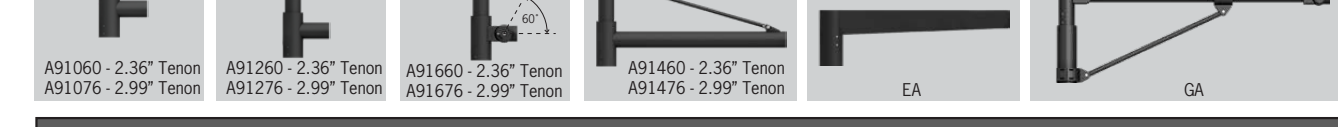
PROJECT		DATE	
QUANTITY		TYPE	
NOTE			

ORDERING EXAMPLE | USE-90002 - 105w - T2 - W30 - 02 - 120/277v

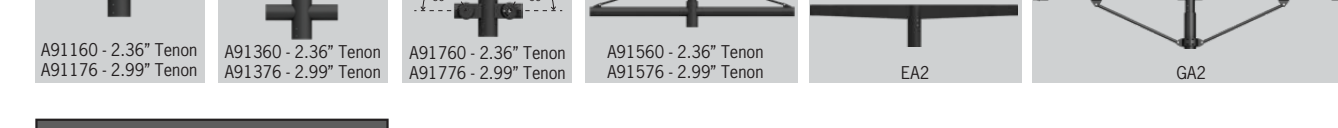
USE-90002	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
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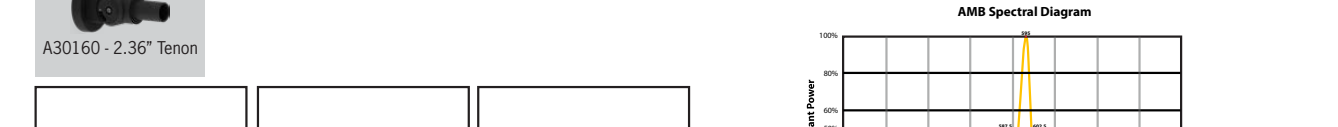
ACCESSORIES SINGLE HEAD



ACCESSORIES DOUBLE HEAD



ACCESSORY WALL



ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING

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San Rafael, CA

OCULUS LIGHT STUDIO

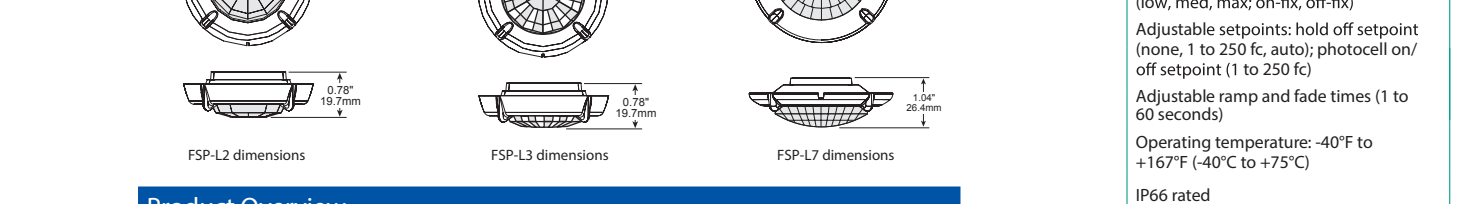
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HIGH/LOW/OFF PIR OUTDOOR PHOTO/MOTION SENSOR
IP66 - **Legrand** Integrated photocell

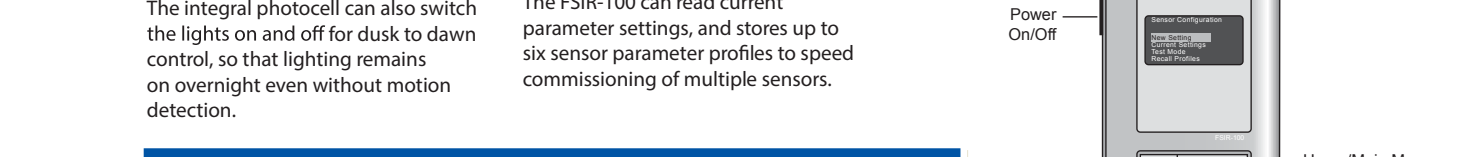
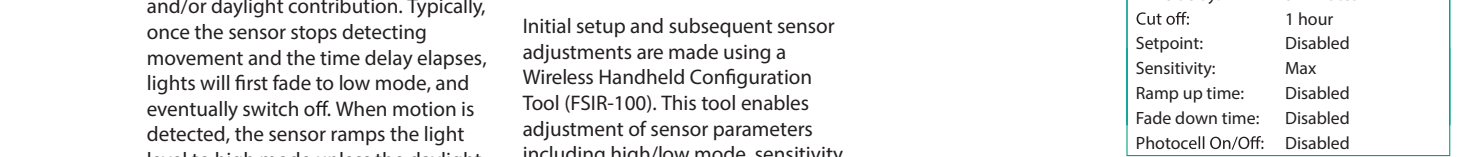
PROJECT		DATE	
QUANTITY		TYPE	
NOTE			

ORDERING EXAMPLE || UFOR - 20042 - 70w - T2 - W30 - 02 - 120/277v - Options

UFOR-20042	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
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ADDITIONAL OPTIONS



ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING

ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING

May 5, 2023

Project: **Northgate Town Center**
San Rafael, CA

OCULUS LIGHT STUDIO

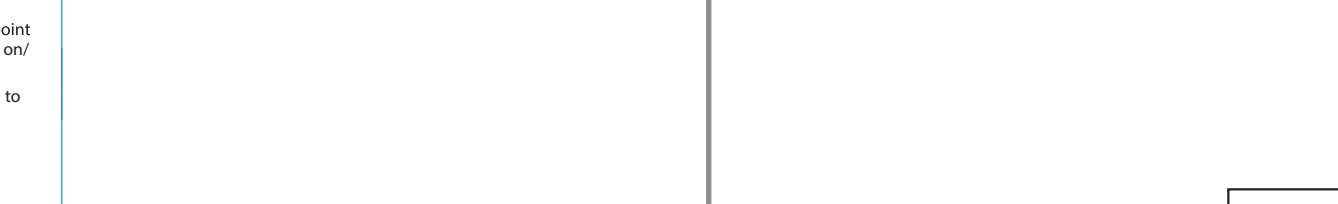
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HIGH/LOW/OFF PIR OUTDOOR PHOTO/MOTION SENSOR
IP66 - **Legrand** Integrated photocell

PROJECT		DATE	
QUANTITY		TYPE	
NOTE			

ORDERING EXAMPLE || UFOR - 20042 - 70w - T2 - W30 - 02 - 120/277v - Options

UFOR-20042	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
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ADDITIONAL OPTIONS



ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING

ADDITIONAL OPTIONS - CONSULT FACTORY FOR PRICING

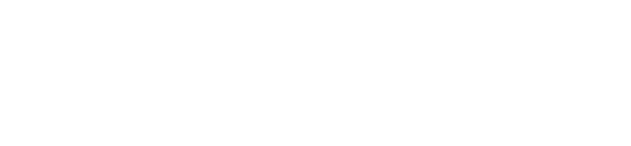
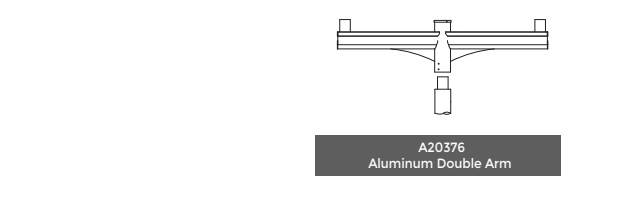
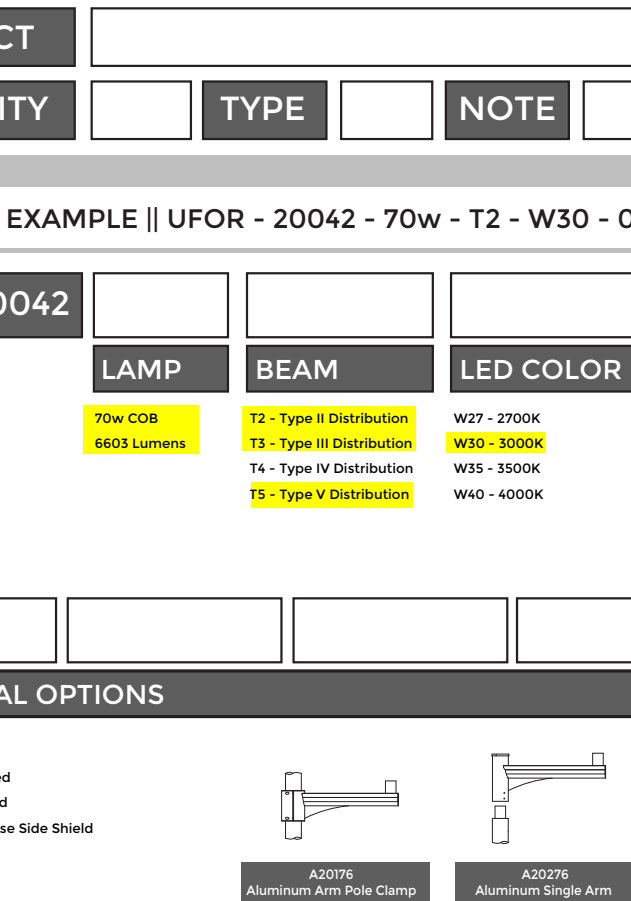
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San Rafael, CA

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UFOR-20042
Forrey 12 Post Top No Lens



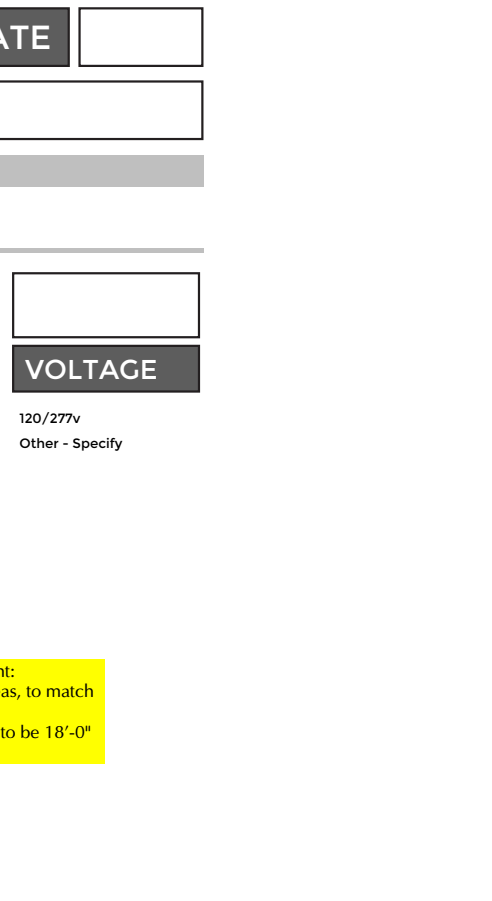
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UFOR-20042
Forrey 12 Post Top No Lens



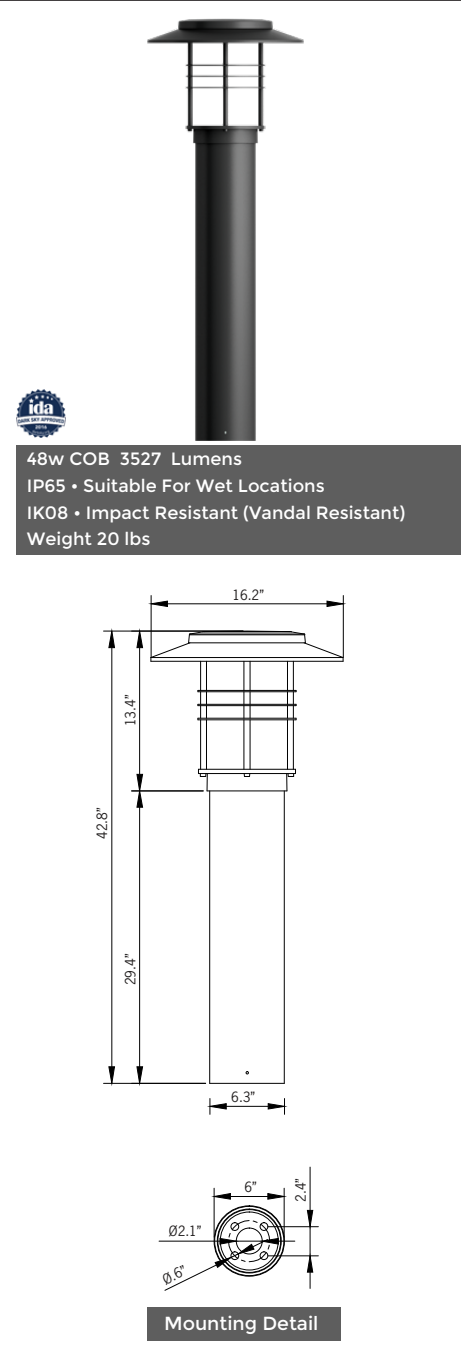
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UFOR-10012
 Forrey 2 Bollard No Lens



Construction
 Aluminum.
 Cast steel 1/4" copper content Marine Grade 6061 extruded & LME Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Finish
 A zinc phosphate and phosphate process that includes descaling and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive Silicon Gasket
 Provided with special retention molded "to purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
 LME Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the direct contact thermal sink critical temperature range to ensure maximum luminaire life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
 Standard 150v surge suppressor provided with all fixtures.

RUG Rating
 B1-U0-G1

Finishing
 All Ligman products go through an extensive finishing process that includes testing to improve paint adherence.

Paint
 UV Stabilized 4.9Ml thick powder coat paint and baked at 200 Deg. C. This process ensures that Ligman products can withstand harsh environments. Rated for use in marine environments.

Hardware
 Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
 Tapped holes are infused with a special anti seize compound designed to prevent failure of repeated connections, due to electrolysis, high heat, corrosive atmospheres and moisture.

Optics & LED
 Precision optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life
 LED life of 50,000 Hours (This means that at least 90% of the LED still achieve 80% of their original flux)

May 5, 2023 Luminaire Type
 Project: **Northgate Town Center** San Rafael, CA
LB3-T2, LB3-T4, LB3-T5
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 SEATTLE | 107 Spring Street Seattle WA 98104 USA +1 206 876 8555
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UFOR-10012
 Forrey 2 Bollard No Lens

PROJECT				DATE	
QUANTITY	TYPE	NOTE			

ORDERING EXAMPLE || UFOR - 10012 - 48w - T3 - W30 - 02 - 120/277v - Options

UFOR-10012	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
<p>LED COB 18W COB 18W Lumens</p>	<p>18° Type II Distribution 18° Type II Distribution</p>	<p>W37 - 2700K W30 - 3000K W30 - 4000K W30 - 4000K</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>120/277v Other - Specify</p>

ADDITIONAL OPTIONS

DM - 0-Die Casting
 NAT - Natatorium Rated
 NBT - Custom Height
CO-Clear Lens

SB - Security Bollard
 ASDM - KA Rated Security Bollard
 APBS - Lockable In-line GFCI Breakout Outlet Box

May 5, 2023 Luminaire Type
 Project: **Northgate Town Center** San Rafael, CA
LB3-T2, LB3-T4, LB3-T5
 LOS ANGELES | 5855 Green Valley Circle Ste 306 Culver City, CA 90230 USA +1 310 715 8333
 SEATTLE | 107 Spring Street Seattle WA 98104 USA +1 206 876 8555
 www.ocularlightstudio.com

UNI-80501
 Nikon 1



Construction
 Aluminum Casting
 Cast steel 1/4" copper content Marine Grade 6061 extruded & LME Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Finish
 A zinc phosphate and phosphate process that includes descaling and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive Silicon Gasket
 Provided with special retention molded "to purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
 LME Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the direct contact thermal sink critical temperature range to ensure maximum luminaire life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
 Standard 150v surge suppressor provided with all fixtures.

RUG Rating
 B1-U0-G2

Finishing
 All Ligman products go through an extensive finishing process that includes testing to improve paint adherence.

Paint
 UV Stabilized 4.9Ml thick powder coat paint and baked at 200 Deg. C. This process ensures that Ligman products can withstand harsh environments. Rated for use in marine environments.

Hardware
 Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
 Tapped holes are infused with a special anti seize compound designed to prevent failure of repeated connections, due to electrolysis, high heat, corrosive atmospheres and moisture.

Optics & LED
 Precision optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life
 LED life of 50,000 Hours (This means that at least 90% of the LED still achieve 80% of their original flux)

May 5, 2023 Luminaire Type
 Project: **Northgate Town Center** San Rafael, CA
LD1
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UNI-80501
 Nikon 1

PROJECT				DATE	
QUANTITY	TYPE	NOTE			

ORDERING EXAMPLE || UNI-80501 - 13w - A - N - W30 - 03 - 120/277v

UNI-80501	LAMP	FRAME	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
<p>LED COB 13W COB 13W Lumens</p>	<p>5° - Stainless Steel A - Aluminum (DIMENSIONS: FRAME COLOR)</p>	<p>W37 - 2700K W30 - 3000K W30 - 4000K</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>120/277v Other - Specify</p>	

ADDITIONAL OPTIONS

DM - 0-Die Casting
 NAT - Natatorium Rated
 F - Fixed Lens
 BRM - Remotes Receiver
 ASDM - Remotes Driver Box

BT - Rough In Ceiling Tray
 CRP - Concrete Post Box
 SSC - Stainless Steel Gasket
 HCL - Horizontal Louvre
 AMB - Turtle Friendly Anchor LED

CITY OF FLAGSTAFF & TURTLE FRIENDLY COMPLIANT

Narrow Spectrum Amber LED
 Peak wavelength between 585 & 595 nanometers and a full width of 50% power no greater than 15 nanometers.

May 5, 2023 Luminaire Type
 Project: **Northgate Town Center** San Rafael, CA
LD1
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UFOR-30002
 Forrey 18 Wall Mount No Lens



Construction
 Aluminum.
 Cast steel 1/4" copper content Marine Grade 6061 extruded & LME Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Finish
 A zinc phosphate and phosphate process that includes descaling and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive Silicon Gasket
 Provided with special retention molded "to purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
 LME Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the direct contact thermal sink critical temperature range to ensure maximum luminaire life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
 Standard 150v surge suppressor provided with all fixtures.

RUG Rating
 Contact Factory

Finishing
 All Ligman products go through an extensive finishing process that includes testing to improve paint adherence.

Paint
 UV Stabilized 4.9Ml thick powder coat paint and baked at 200 Deg. C. This process ensures that Ligman products can withstand harsh environments. Rated for use in marine environments.

Hardware
 Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
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Optics & LED
 Precision optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life
 LED life of 50,000 Hours (This means that at least 90% of the LED still achieve 80% of their original flux)

May 5, 2023 Luminaire Type
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LW1-T2, LW1-T4
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UFOR-30002
 Forrey 18 Wall Mount No Lens

PROJECT				DATE	
QUANTITY	TYPE	NOTE			

ORDERING EXAMPLE || UFOR - 30002 - 48w - T2 - W30 - 02 - 120/277v - Options

UFOR-30002	LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE
<p>LED COB 18W COB 18W Lumens</p>	<p>18° Type II Distribution 18° Type II Distribution</p>	<p>W37 - 2700K W30 - 3000K W30 - 4000K</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>01 - BLACK RAL 9001 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL</p>	<p>120/277v Other - Specify</p>

ADDITIONAL OPTIONS

DM - 0-Die Casting
 NAT - Natatorium Rated
CO-Clear Lens

May 5, 2023 Luminaire Type
 Project: **Northgate Town Center** San Rafael, CA
LW1-T2, LW1-T4
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