CONCEPT PLANT KEY

CANOPY TREE- BUFFER
ACER RUBRUM / RED MAPLE
ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE
BETULA NIGRA `DURAHEAT` / DURAHEAT RIVER BIRCH
GYMNOCLADUS DIOICA 'ESPRESSO' / KENTUCKY COFFEETREE
QUERCUS PALUSTRIS / PIN OAK

CANOPY TREES- PARKING
NYSSA SYLVATICA 'WILDFIRE' / WILDFIRE TUPELO
QUERCUS COCCINEA / SCARLET OAK
QUERCUS PHELLOS / WILLOW OAK
TILIA AMERICANA `REDMOND` / REDMOND AMERICAN LINDEN
ULMUS AMERICANA 'JEFFERSON' / JEFFERSON AMERICAN ELM

UNDERSTORY TREE
AMELANCHIER CANADENSIS 'GLENNFORM' / RAINBOW PILLAR® CANADIAN SERVICEBERRY
CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY EASTERN REDBUD
CORNUS FLORIDA 'CHEROKEE BRAVE' / CHEROKEE BRAVE DOGWOOD
CRATAEGUS VIRIDIS 'WINTER KING' / WINTER KING HAWTHORN
MAGNOLIA VIRGINIANA 'MOON GLOW' / SWEET BAY

EVERGREEN TREE
ILEX OPACA 'SATYR HILL' / SATYR HILL AMERICAN HOLLY
JUNIPERUS VIRGINIANA / EASTERN REDCEDAR
MAGNOLIA GRANDIFLORA 'BRACKENS BROWN BEAUTY' / BRACKEN'S BEAUTY SOUTHERN MAGNOLIA
MAGNOLIA GRANDIFLORA 'LITTLE GEM' / LITTLE GEM DWARF SOUTHERN MAGNOLIA

EVERGREEN TREE - BUFFER SMALL
JUNIPERUS VIRGINIANA 'BURKII' / BURK EASTERN REDCEDAR
JUNIPERUS VIRGINIANA 'MANHATTAN BLUE' / EASTERN RED CEDAR

LARGE DECIDUOUS SHRUB
HYDRANGEA QUERCIFOLIA / OAKLEAF HYDRANGEA
VIBURNUM DENTATUM 'BLUE MUFFIN' / BLUE MUFFIN ARROWWOOD VIBURNUM
VIBURNUM NUDUM 'WINTERTHUR' / WINTERTHUR VIBURNUM

ORNAMENTAL GRASSES- LARGE
PANICUM VIRGATUM 'NORTHWIND' / NORTHWIND SWITCH GRASS

ORNAMENTAL GRASSES - MEDIUM
PANICUM VIRGATUM 'SHENANDOAH' / SHENANDOAH SWITCH GRASS

NOTE:
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PROPERTY LINE
TREE PROTECTION
DUMPSTER
LOADING AREA
BUILDING 1
72,000 SF
FFE=478.33'
PARKING LOT
RETENTION
SWM FACILITY
SIGHT DISTANCE LEFT 730'
SIGHT DISTANCE RIGHT 730'
NORTHSIDE DR
ROUTE 29 SB
ROUTE 29 NB
OHP
NAD 83
SCALE 1"=30'
0 30' 60'

NOT FOR CONSTRUCTION

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REVISION DESCRIPTION	DATE

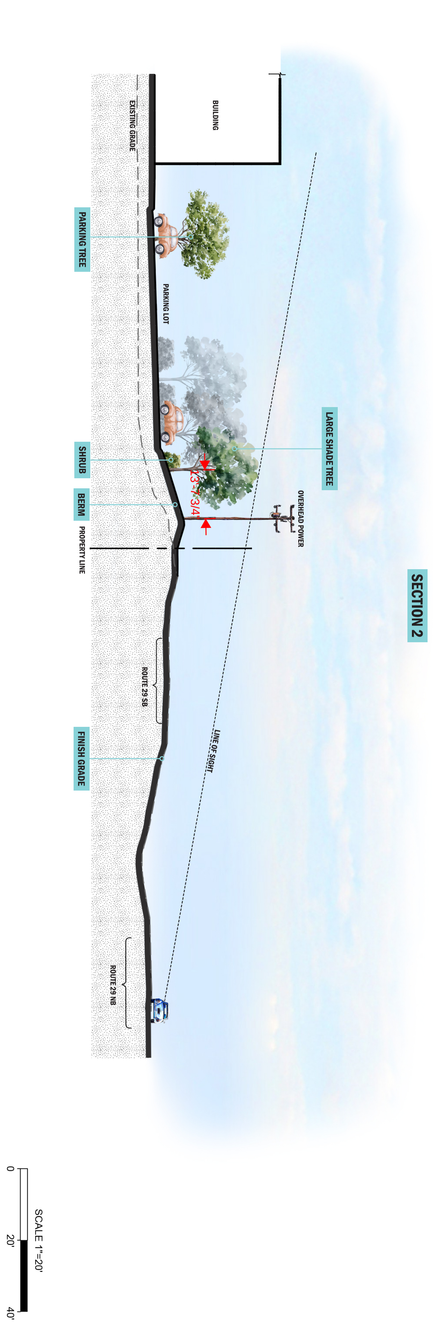
DATE 06/06/2025
DRAWN BY E. ESPINO
DESIGNED BY E. ESPINO
CHECKED BY C. OLDAKER
SCALE

ROUTE 29 INDUSTRIAL SITE
COUNTY OF ALBEMARLE, VIRGINIA
ARB - PLAN RENDER

JOB NO. 64375
SHEET NO. L0.0

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ROUTE 29 INDUSTRIAL SITE

COUNTY OF ALBEMARLE, VIRGINIA

SITE SECTIONS - ARB

SHEET NO.	L0.1
JOB NO.	64375
SCALE	
CHECKED BY	C. OLDAKER
DESIGNED BY	E. ESPINO
DRAWN BY	E. ESPINO
DATE	06/06/2025

DATE	REVISION DESCRIPTION

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ROUTE 29 INDUSTRIAL SITE

COUNTY OF ALBEMARLE, VIRGINIA

PERSPECTIVE RENDER

SHEET NO.	JOB NO.	SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
L0.2	64375		C. OLDAKER	E. ESPINO	E. ESPINO	06/06/2025

DATE	REVISION DESCRIPTION

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ROUTE 29 INDUSTRIAL SITE

COUNTY OF ALBEMARLE, VIRGINIA

PERSPECTIVE RENDER

JOB NO.	SHEET NO.
64375	L0.3

SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
	C. OLDAKER	E. ESPINO	E. ESPINO	06/06/2025

DATE	REVISION DESCRIPTION

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SHEET NO. L0.4

JOB NO. 64375

ROUTE 29 INDUSTRIAL SITE

COUNTY OF ALBEMARLE, VIRGINIA

PERSPECTIVE RENDER

SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
	C. OLDAKER	E. ESPINO	E. ESPINO	06/06/2025

DATE	REVISION DESCRIPTION

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JOB NO. 64375

SHEET NO. L0.5

ROUTE 29 INDUSTRIAL SITE

COUNTY OF ALBEMARLE, VIRGINIA

PERSPECTIVE RENDER

SCALE	CHECKED BY	DESIGNED BY	DRAWN BY	DATE
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DATE	REVISION DESCRIPTION

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PLANT KEY	
CODE	BOTANICAL NAME
CANOPY TREES	
ACE OCT	ACER RUBRUM 'OCTOBER GLORY'
QUE PAL	QUERCUS PALUSTRIS
QUE PHE	QUERCUS PHELLOS
TIL RED	TILIA AMERICANA `REDMOND`
ULM JEF	ULMUS AMERICANA 'JEFFERSON'
EVERGREEN TREES	
ILE SAT	ILEX OPACA 'SATYR HILL'
JUN EAS	JUNIPERUS VIRGINIANA
JUN BRO	JUNIPERUS VIRGINIANA 'BRODIE'
MAG LIT	MAGNOLIA GRANDIFLORA 'LITTLE GEM'
UNDERSTORY TREES	
AME GLE	AMELANCHIER CANADENSIS 'GLENNFORM'
CER FOR	CERCIS CANADENSIS 'FOREST PANSY'
MAG MOO	MAGNOLIA VIRGINIANA 'MOON GLOW'
DECIDUOUS SHRUBS	
CLE RUB	CLETHRA ALNIFOLIA 'RUBY SPICE'
DEU NIK	DEUTZIA GRACILIS 'NIKKO'S DWARF'
EVERGREEN SHRUBS	
ILE DEN	ILEX GLABRA 'DENSA'
MYR CER	MYRICA CERIFERA
ORNAMENTAL GRASSES	
PAN NOR	PANICUM VIRGATUM 'NORTHWIND'
PAN SHD	PANICUM VIRGATUM 'SHENANDOAH'

EXISTING TREE CANOPY KEY

SYMBOL	CODE	DESCRIPTION
	1	FORESTED AREA TO REMAIN

NOTE:
ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT; THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

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DATE	REVISION DESCRIPTION
07/03/2025	REVISED PER COMMENTS

DATE 11/11/2024
DRAWN BY E. ESPINO
DESIGNED BY E. ESPINO
CHECKED BY C. OLDAKER
SCALE

TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL

COUNTY OF ALBEMARLE, VIRGINIA

LANDSCAPE PLAN

JOB NO. 64375
SHEET NO. L1.0

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S:\10\64375-Route_29_Industrial_Site\DWG\Sheet\CD\Phase 1\64375-103-L1.0-PLNT.dwg | Plotted on 7/3/2025 9:51 AM | by Mohammad Akmal

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	CANOPY
CANOPY TREES						
ACE OCT	13	ACER RUBRUM 'OCTOBER GLORY'	OCTOBER GLORY RED MAPLE	2.5" CAL.	B&B	452 SF
QUE PAL	6	QUERCUS PALUSTRIS	PIN OAK	2.5" CAL.	B&B	419 SF
QUE PHE	7	QUERCUS PHELLOS	WILLOW OAK	2.5" CAL.	B&B	419 SF
TIL RED	7	TILIA AMERICANA `REDMOND`	REDMOND AMERICAN LINDEN	2.5" CAL.	B&B	222 SF
ULM JEF	6	ULMUS AMERICANA 'JEFFERSON'	JEFFERSON AMERICAN ELM	2.5" CAL.	B&B	464 SF
EVERGREEN TREES						
ILE SAT	9	ILEX OPACA 'SATYR HILL'	SATYR HILL AMERICAN HOLLY	6` HT.	B&B OR CONTAINER	44 SF
JUN EAS	26	JUNIPERUS VIRGINIANA	EASTERN REDCEDAR	6` HT.	B&B OR CONTAINER	79 SF
JUN BRO	12	JUNIPERUS VIRGINIANA 'BRODIE'	BRODIE EASTERN REDCEDAR	6` HT.	B&B OR CONTAINER	79 SF
MAG LIT	6	MAGNOLIA GRANDIFLORA 'LITTLE GEM'	LITTLE GEM DWARF SOUTHERN MAGNOLIA	6` HT.	B&B	54 SF
UNDERSTORY TREES						
AME GLE	6	AMELANCHIER CANADENSIS 'GLENNFORM'	RAINBOW PILLAR® CANADIAN SERVICEBERRY	6` HT.	B&B OR CONTAINER	130 SF
CER FOR	9	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY EASTERN REDBUD	1.5" CAL.	B&B OR CONTAINER	124 SF
MAG MOO	7	MAGNOLIA VIRGINIANA 'MOON GLOW'	SWEET BAY	2" CAL.	B&B	79 SF
CODE	QTY	BOTANICAL NAME	COMMON NAME	MIN. INSTALLED SIZE	ROOT	SPACING
DECIDUOUS SHRUBS						
CLE RUB	7	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	3 GAL.	CONTAINER	48" o.c.
DEU NIK	8	DEUTZIA GRACILIS 'NIKKO'S DWARF'	SLENDER DEUTZIA	15" HT./SPRD.	CONTAINER	42" o.c.
EVERGREEN SHRUBS						
ILE DEN	29	ILEX GLABRA 'DENSA'	INKBERRY HOLLY	30" HT./SPRD.	CONTAINER	48" o.c.
MYR CER	17	MYRICA CERIFERA	WAX MYRTLE	30" HT.	CONTAINER	60" o.c.
ORNAMENTAL GRASSES						
PAN NOR	108	PANICUM VIRGATUM 'NORTHWIND'	NORTHWIND SWITCH GRASS	24" HT./SPRD.		36" o.c.
PAN SHD	101	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	24" HT./SPRD.		36" o.c.

TREE COVER CALCULATIONS * PER SEC. 32.7.9.8 OF THE ALBEMARLE COUNTY CODE

SITE AREA	REQUIREMENT	CALCULATION	REQUIRED QUANTITY	EXISTING CANOPY MAINTAINED	PROVIDED QUANTITY	TOTAL CANOPY QUANTITY
9.23 AC (GROSS SITE AREA)	15% COVER	9.23 AC x .15 = 1.38 AC = 60,112.8 SF	60,112.8 SF	95,986 SF x1.25 = 119,985 CANOPY BONUS 1.25	21,832 SF	119,985 + 21,832 = 141,817 SF

NOTE:
-WHERE A PARKING AREA IS LOCATED SO THAT PARKED CARS ARE VISIBLE FROM AN OFF-SITE STREET, SHRUBS ARE TO BE INSTALLED AT A MINIMUM HEIGHT OF 12".
-ALL SITE PLANTINGS OF TREES AND SHRUBS SHALL BE ALLOWED TO REACH, AND BE MAINTAINED AT, MATURE HEIGHT; THE TOPPING OF TREES IS PROHIBITED. SHRUBS AND TREES SHALL BE PRUNED MINIMALLY AND ONLY TO SUPPORT THE OVERALL HEALTH OF THE PLANT.

LANDSCAPING OF PARKING AREAS
*** PER ALBEMARLE COUNTY ARB DESIGN GUIDELINES 35(a)**

REQUIREMENTS	PARKING SPACES	CALCULATIONS	REQUIRED	PROVIDED
1 LARGE SHADE TREE PER FOR EVERY 10 PARKING SPACES	64 SPACES	64 ÷ 10 = 6.4	7 LRG. SHADE TREES	7 LRG. SHADE TREES
REQUIREMENTS	**TOTAL AREA**	**CALCULATIONS**	**REQUIRED**	**PROVIDED**
5% OF OVERALL AREA USED FOR PARKING AND INTERNAL TRAVEL MUST BE LANDSCAPE	58,768.11 SF	58,768.11 SF x .05 = 2,939 SF	2,939 SF	4,223 SF

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EXISTING TREE SCHEDULE

SYMBOL	CODE	DESCRIPTION	QTY
	1	FORESTED AREA TO REMAIN	95,986 SF

County of Albemarle
Conservation Plan Checklist – To be placed on Landscape Plans
(Handbook, pp III-284-111-297 for complete specifications)

1. **The following items shall be shown on the plan:**
   - ☒ Trees to be saved;
   - ☒ Limits of clearing (outside dripline of trees to be saved);
   - ☒ Location and type of protective fencing;
   - ☒ Grade changes requiring tree wells or walls;
   - ☒ Proposed trenching or tunneling beyond the limits of clearing.
2. **Markings:**
   - ☒ All trees to be saved shall be marked with print or ribbon at a height clearly visible to equipment operators.
   - ☒ No grading shall begin until the tree marking has been inspected and approved by a County Inspector.
3. **Pre-Construction Conference:**
   - ☒ Tree preservation and protection measures shall be reviewed with the contractor on site.
4. **Equipment Operation and Storage:**
   - ☒ Heavy equipment, vehicular traffic and storage of construction materials including soil shall not be permitted within the driplines of trees to be saved.
5. **Soil Erosion and Stormwater Detention Devices:**
   - ☒ Such devices shall not adversely affect trees to be saved.
6. **Fires:**
   - ☒ Fires are not permitted within 100 feet of the dripline of trees to be saved.
7. **Toxic Materials:**
   - ☒ Toxic materials shall not be stored within 100 feet of the dripline of trees to be saved.
8. **Protective Fencing:**
   - ☒ Trees to be retained within 40 feet of a proposed building or grading activity shall be protected by fencing.
   - ☒ Fencing shall be in place and shall be inspected and approved by a County Inspector prior to grading or construction.
9. **Tree Wells:**
   - ☒ When the ground level must be raised within the dripline of a tree to be saved, a tree well shall be provided and a construction detail submitted for approval.
10. **Tree Walls:**
    - ☒ When the ground level must be lowered within the dripline a tree to be saved, a tree wall shall be provided; and a construction detail submitted for approval.
11. **Trenching and Tunneling:**
    - ☒ When trenching is required within the limits of clearing, it shall be done as far away from the trunks of trees as possible. Tunneling under a large tree shall be considered as an alternative when it is anticipated that necessary trenching will destroy feeder roots.
12. **Cleanup:**
    - ☒ Protective fencing shall be the last items removed during the final cleanup.
13. **Damaged Trees:**
    - ☒ Damaged trees shall be treated immediately by pruning, fertilization or other methods recommended by a tree specialist.

NOTE: IT IS THE DEVELOPER'S RESPONSIBILITY TO CONFER WITH THE CONTRACTOR ON TREE CONSERVATION REQUIREMENTS.

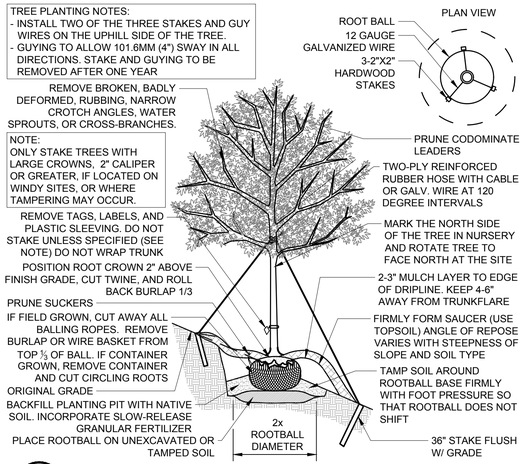
OWNER SIGNATURE _____ (DATE) _____

CONTRACT PURCHASER SIGNATURE Vice President (DATE) 6/4/25

5/1/06 Page 1 of 1

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TREE PLANTING NOTES:
- INSTALL TWO OF THE THREE STAKES AND GUY WIRES ON THE UPHILL SIDE OF THE TREE.
- GUYING TO ALLOW 101.6MM (4") SWAY IN ALL DIRECTIONS. STAKE AND GUYING TO BE REMOVED AFTER ONE YEAR

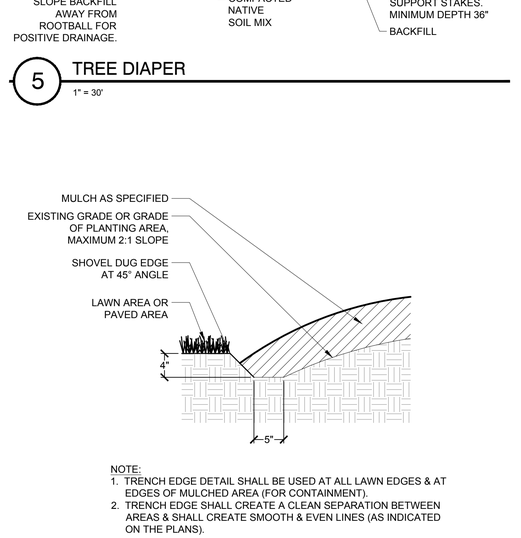


4 TREE PLANTING WITH GUYS ON SLOPE DETAIL
NTS

NOTES:

INSTALL:	ROOTBALL PIT DEPTH:	ROOTBALL PIT WIDTH:
15 GAL.	20"	32"
24" BOX	22"	48"
30" BOX	26"	60"
36" BOX	30"	72"

5 TREE DIAPER
1" = 30'

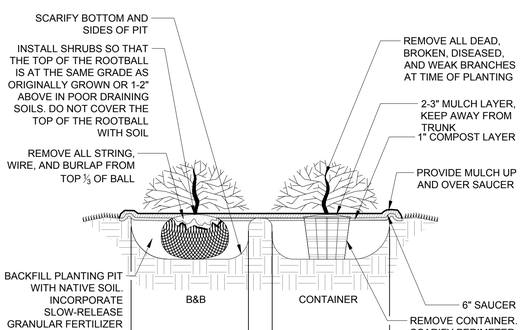


1 DECIDUOUS TREE PLANTING DETAIL
NTS

2 EVERGREEN TREE PLANTING DETAIL
NTS

NOTE:
1. TRENCH EDGE DETAIL SHALL BE USED AT ALL LAWN EDGES & AT EDGES OF MULCHED AREA (FOR CONTAINMENT).
2. TRENCH EDGE SHALL CREATE A CLEAN SEPARATION BETWEEN AREAS & SHALL CREATE SMOOTH & EVEN LINES (AS INDICATED ON THE PLANS).

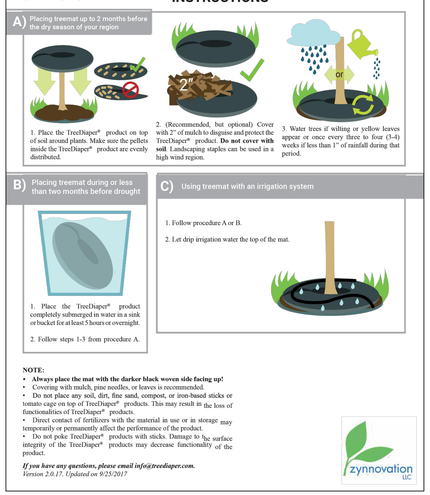
6 TRENCH EDGE
1" = 1'-0"



3 SHRUB PLANTING DETAIL
NTS

Thank you for purchasing TREEDIAPER®
For best results, please follow these procedures to install and use your TreeDiaper® product!

TREEDIAPER®
Advanced Plant Hydration System *For Trees and Shrubs*
INSTRUCTIONS



NOTE:
- **Always place the mat with the darker black woven side facing up!**
- Covering with mulch, pine needles, or leaves is recommended.
- Do not place any soil, dirt, fine sand, compost, or iron-based sticks or tomato cage on top of TreeDiaper® products. This may result in the loss of functionalities of TreeDiaper® products.
- Direct contact of fertilizers with the material in use or in storage may temporarily or permanently affect the performance of the product.
- Do not poke TreeDiaper® products with sticks. Damage to the surface integrity of the TreeDiaper® products may decrease functionality of the product.

If you have any questions, please email info@treediaper.com.
Version 2.0.17. Updated on 9/25/2017

zynnovation LLC

7 TREE DIAPER WATERING DETAIL
3/4" = 1'-0"

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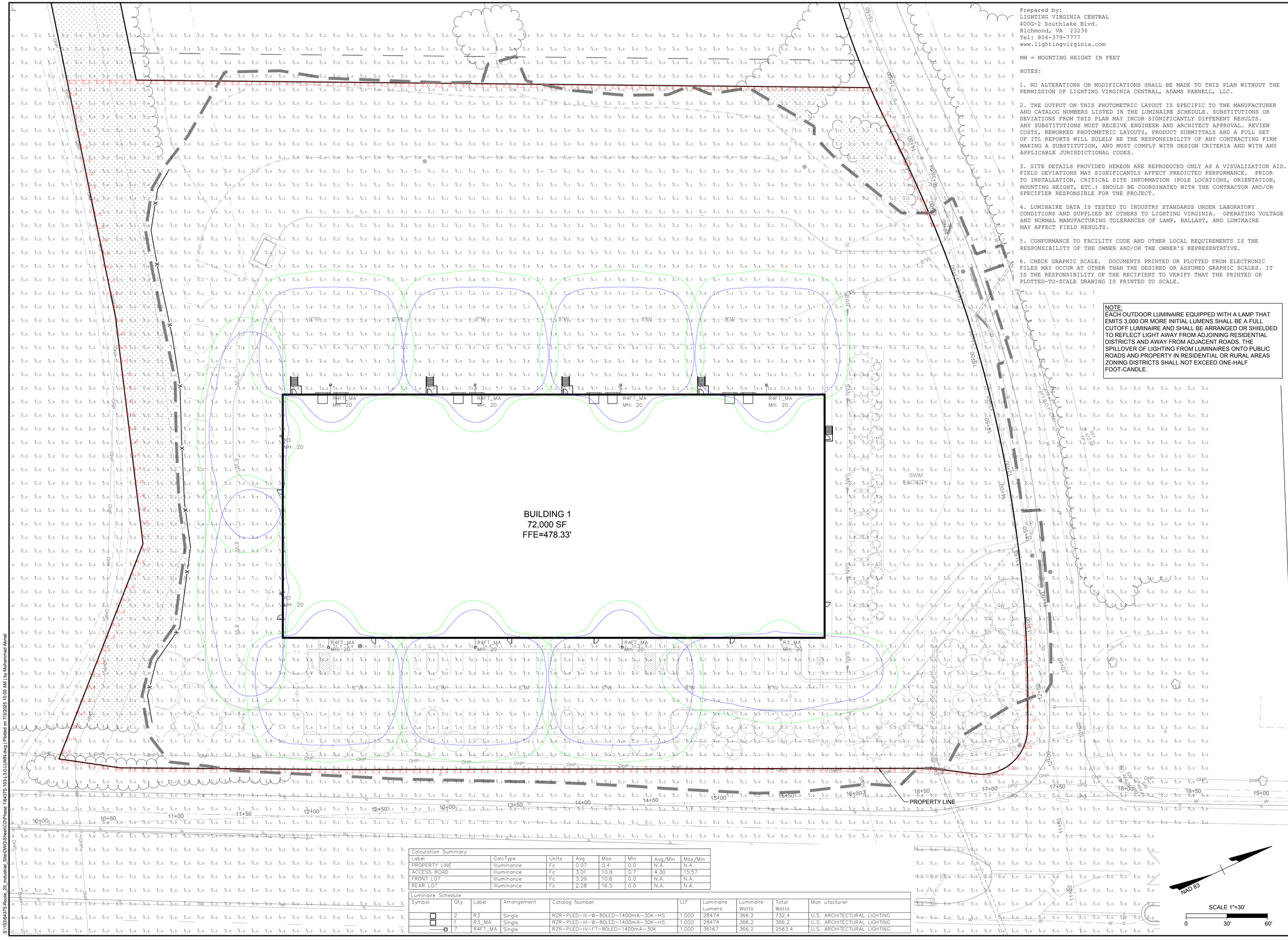
DATE 11/11/2024
DRAWN BY E. ESPINO
DESIGNED BY E. ESPINO
CHECKED BY C. OLDAKER
SCALE

TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL
COUNTY OF ALBEMARLE, VIRGINIA
LANDSCAPE NOTES & DETAILS

JOB NO. 64375
SHEET NO. L2.0

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LIGHTING VIRGINIA CENTRAL
400G-2 Southlake Blvd.
Richmond, VA 23236
Tel: 804-379-7777
www.lightingvirginia.com

MH = MOUNTING HEIGHT IN FEET

NOTES:

1. NO ALTERATIONS OR MODIFICATIONS SHALL BE MADE TO THIS PLAN WITHOUT THE PERMISSION OF LIGHTING VIRGINIA CENTRAL, ADAMS PARNELL, LLC.

2. THE OUTPUT ON THIS PHOTOMETRIC LAYOUT IS SPECIFIC TO THE MANUFACTURER AND CATALOG NUMBERS LISTED IN THE LUMINAIRE SCHEDULE. SUBSTITUTIONS OR DEVIATIONS FROM THIS PLAN MAY INCUR SIGNIFICANTLY DIFFERENT RESULTS. ANY SUBSTITUTIONS MUST RECEIVE ENGINEER AND ARCHITECT APPROVAL. REVIEW COSTS, REWORKED PHOTOMETRIC LAYOUTS, PRODUCT SUBMITTALS AND A FULL SET OF ITL REPORTS WILL SOLELY BE THE RESPONSIBILITY OF ANY CONTRACTING FIRM MAKING A SUBSTITUTION, AND MUST COMPLY WITH DESIGN CRITERIA AND WITH ANY APPLICABLE JURISDICTIONAL CODES.

3. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A VISUALIZATION AID. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (POLE LOCATIONS, ORIENTATION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

4. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS AND SUPPLIED BY OTHERS TO LIGHTING VIRGINIA. OPERATING VOLTAGE AND NORMAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

5. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

6. CHECK GRAPHIC SCALE. DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY OCCUR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED-TO-SCALE DRAWING IS PRINTED TO SCALE.

NOTE:
EACH OUTDOOR LUMINAIRE EQUIPPED WITH A LAMP THAT EMITS 3,000 OR MORE INITIAL LUMENS SHALL BE A FULL CUTOFF LUMINAIRE AND SHALL BE ARRANGED OR SHIELDED TO REFLECT LIGHT AWAY FROM ADJOINING RESIDENTIAL DISTRICTS AND AWAY FROM ADJACENT ROADS. THE SPILLOVER OF LIGHTING FROM LUMINAIRES ONTO PUBLIC ROADS AND PROPERTY IN RESIDENTIAL OR RURAL AREAS ZONING DISTRICTS SHALL NOT EXCEED ONE-HALF FOOT-CANDLE.

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PROPERTY LINE	Illuminance	Fc	0.07	0.4	0.0	N.A.	N.A.
ACCESS ROAD	Illuminance	Fc	3.01	10.9	0.7	4.30	15.57
FRONT LOT	Illuminance	Fc	3.29	10.6	0.0	N.A.	N.A.
REAR LOT	Illuminance	Fc	2.28	16.5	0.0	N.A.	N.A.

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Catalog Number	LLF	Luminaire Lumens	Luminaire Watts	Total Watts	Man ufacturer
	2	R3	Single	RZR-PLED-III-W-80LED-1400mA-30K-HS	1.000	28474	366.2	732.4	U.S. ARCHITECTURAL LIGHTING
	1	R3_MA	Single	RZR-PLED-III-W-80LED-1400mA-30K-HS	1.000	28474	366.2	366.2	U.S. ARCHITECTURAL LIGHTING
	7	R4FT_MA	Single	RZR-PLED-IV-FT-80LED-1400mA-30K	1.000	36167	366.2	2563.4	U.S. ARCHITECTURAL LIGHTING

Prepared by:
LIGHTING VIRGINIA CENTRAL
400G-2 Southlake Blvd.
Richmond, VA 23236
Tel: 804-379-7777
www.lightingvirginia.com

NOT FOR CONSTRUCTION

THIS DRAWING PREPARED AT THE
CHARLOTTESVILLE OFFICE
608 Preston Avenue, Suite 200 | Charlottesville, VA 22903
TEL 434.295.5624 FAX 434.295.8317 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE	REVISION DESCRIPTION
07/03/2025	REVISED PER COMMENTS

DATE 11/11/2024
DRAWN BY E. ESPINO
DESIGNED BY E. ESPINO
CHECKED BY C. OLDAKER
SCALE

TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL
COUNTY OF ALBEMARLE, VIRGINIA
PHOTOMETRIC PLAN

JOB NO. 64375
SHEET NO. L3.0

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S:\10364375 Route_29_Industrial_Site\DWG\Revit\C3D\Plans 1\64375-103-L3.0-LUMIN.dwg | Plotted on 7/3/2025 10:00 AM | by Mohammad Akmal

Submitted by Lighting Virginia-Central

Job Name:	Catalog Number:	Type:
ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)	RZR/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:	R3 LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

PROJECT NAME:

PROJECT TYPE:

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Optical Housing
Heavy cast aluminum assembly minimum wall thickness .188". LED Module mounting area is machined to within a 0.002" surface flatness variance for maximum surface contact and thermal conductivity from the LED modules to the radiating fins. Passive radiating fins above the LED Optics provide superior thermal management and long LED life. The optical and electrical compartments are integrated with the support arm to create one assembly. Cast and hinged driver compartment cover allows access to the drivers and wiring.

Electrical Housing w/ Integrated Arm
Heavy cast aluminum assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

Mast Arm Fitter/Electrical Housing
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.

PLED™ Optics
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side, maximizing usable light. Optional house side shields are available that cover each individual optic. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments. Quick-disconnects are provided above each panel for fast field replacement. All fixture optical options will provide a "U0" no uplight optical package and is are dark sky friendly.

LED Emitters
LED thermal management is designed to maintain LED operating temperature below 90 °C, well below the manufacturers thermal max of 150 °C for long life, high lumen maintenance and color stabilit. High Power White LED's are driven between 350mA and 875mA for a maximum output of 2.5 Watts nominal. LED's are available in standard Warm White (2700K & 3000K), Neutral White (4000K), or Cool White (5000K). All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L94 at 60,000 hours (TM-21 calculated at 6x Test Time).

True Amber LED's TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

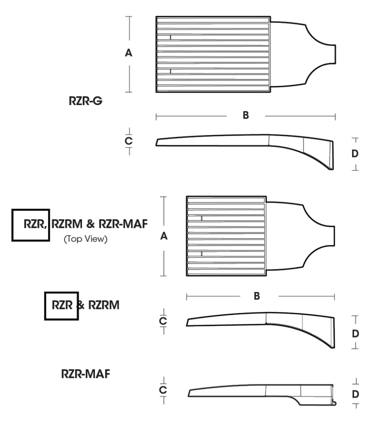
LED Driver
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. 0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with a separate 20KV surge protector for field installation.

Finish
Super TGIC polyester powder coating is applied onto a metal substrate this has been pretreated with a four-stage process for maximum adhesion and color retention. The top coat is baked at 400° F for maximum hardness and exterior durability.



RZR

(Models: RZRM, RZR, RZR-G & RZR-MAF)



Fixture	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

U.L. Listed for Wet Location

2024281

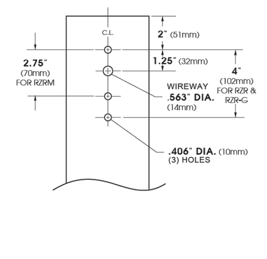
Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:
Type: R3 LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

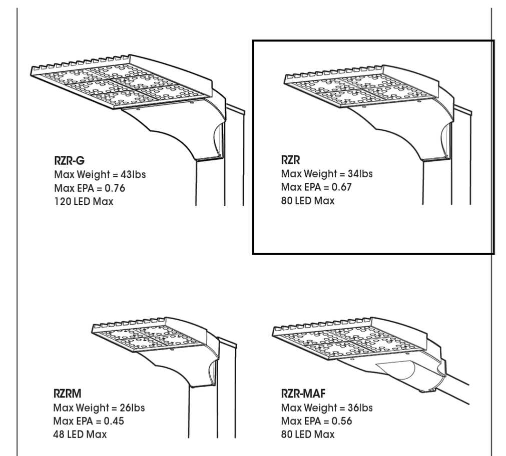
RAZAR SERIES - LED

SPECIFICATIONS

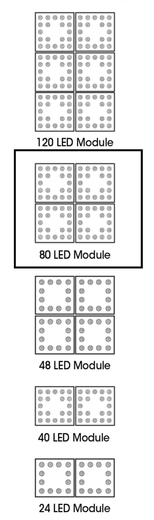
POLE DRILLING TEMPLATE



EPA & WEIGHT



PLED™ MODULES



SELECT FROM STD FINISHES

ORDERING INFORMATION

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/UNV/8019-S

Luminaire	Optics	LED Mode	Voltage	Mounting	Finish	Options
RZR	PLED-III-W	80LED-1400MA/30K	UNV	WM	XXX	HS-PLED/80

Luminaire: ☐ RZR-G; ■ RZR; ☐ RZR-MAF; ☐ RZRM

Optics (PLED™ Distribution Type): ☐ PLED-II; ☐ PLED-II-FR; ☐ PLED-II-MIL; ☐ PLED-III; ■ PLED-III-W; ☐ PLED-IV; ☐ PLED-IV-FT; ☐ PLED-VSQ-N; ☐ PLED-V-SQ-M; ☐ PLED-V-SQ-W

LED:
- # of LEDs: RZR-G: ☐ 120LED, ☐ 80LED; RZR / RZR-MAF: ■ 80LED, ☐ 40LED; RZRM: ☐ 48LED, ☐ 24LED
- Drive Current: ■ 1400mA[1]; ☐ 1225mA[1]; ☐ 1050mA; ☐ 875mA; ☐ 700mA; ☐ 525mA; ☐ 350mA
- Color Temp - CCT: ☐ 27K (2700K); ■ 30K (3000K); ☐ 40K (4000K); ☐ 50K (5000K); ☐ TRA True Amber
- Consult Factory for Other LED Color, CCT, & CRI Options
- NOTES: 1 - 1400mA & 1225mA drive currents not available in RZRM. 2 - TRA available in 350mA & 525mA drive currents only.
- Consult Factory for Other Drive Currents

Voltage: ■ UNV (120-277); ☐ 347; ☐ 480

Mounting: Arm Mount: ☐ 1; ☐ 2-180; ☐ 2-90; ☐ 3-90; ☐ 3-120; ☐ 4-90. Wall Mount: ■ WM. WM - Wall Mount provided with mounting bracket and cover.

Finish: Standard Textured Finish: ☐ Black 9005-T; ☐ White 9003-T; ☐ Grey 7004-T; ☐ Dark Bronze 8019-T; ☐ Green 6005-T. Premium Finishes: ☐ Rust; ☐ Patina Copper PC. For smooth finish replace suffix "T" with suffix "S" (Example: 9500-S). Consult factor for custom colors

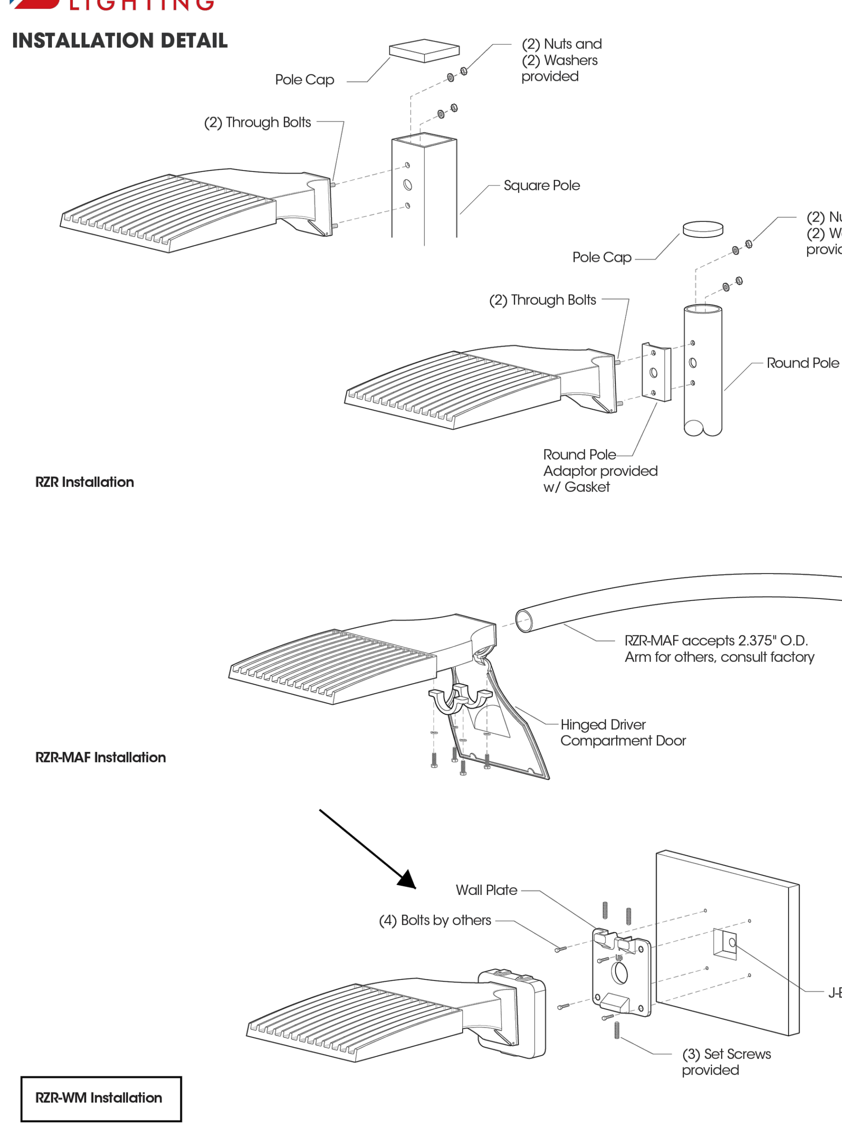
Options:
- ■ Internal House Side Shield inc. LED Count (Example: HS-PLED/48) HS-PLED /80
- ☐ External Glare Shield 4 Sided EGS4
- ☐ External Glare Shield 3 Sided Rear Wedge EGS3W
- ☐ Round Pole Adapter RPA
- ☐ Twist Lock Receptable Only TPR
- ☐ 7-Pin Twist Lock Receptable Only TPR7
- ☐ High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) HLSW
- ☐ Twist Lock Photocell + Voltage (Example: TPC347V) TPC+V
- ☐ Photo Cell + Voltage (Example: PC120V) PC+V
- ☐ Single Fuse (120V, 277V) SF
- ☐ Double Fuse (208V, 240V) DF
- ☐ Blue-Tooth Programmable Photo/Motion Sensor (Factory - Motion 50/100; Photo 75fc) MS-F311

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Type: R3 LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

INSTALLATION DETAIL



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U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

ELECTRICAL DATA GUIDE - AMPERAGE CHART

ELECTRICAL LOAD			CURRENT (Amps)				
# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
24	350	26	0.21	0.12	0.09	0.07	0.05
24	525	39	0.32	0.19	0.14	0.11	0.08
24	700	52	0.43	0.25	0.19	0.15	0.11
24	875	67	0.55	0.32	0.24	0.19	0.14
24	1050	81	0.67	0.39	0.29	0.23	0.17
48	350	52	0.43	0.25	0.19	0.15	0.11
48	525	78	0.65	0.37	0.28	0.22	0.16
48	700	104	0.87	0.50	0.38	0.30	0.22
48	875	133	1.11	0.64	0.48	0.38	0.28
48	1050	162	1.35	0.78	0.58	0.47	0.34
40	350	43	0.36	0.21	0.15	0.12	0.09
40	525	65	0.54	0.31	0.23	0.19	0.14
40	700	87	0.72	0.42	0.31	0.25	0.18
40	875	111	0.92	0.53	0.40	0.32	0.23
40	1050	135	1.12	0.65	0.49	0.39	0.28
40	1225	159	1.32	0.76	0.57	0.46	0.33
40	1400	183	1.53	0.88	0.66	0.53	0.38
80	350	86	0.72	0.41	0.31	0.25	0.18
80	525	130	1.08	0.62	0.47	0.37	0.27
80	700	174	1.45	0.83	0.63	0.50	0.36
80	875	222	1.85	1.06	0.80	0.64	0.46
80	1050	270	2.25	1.30	0.97	0.78	0.56
80	1225	318	2.65	1.53	1.15	0.92	0.66
80	1400	366	3.05	1.76	1.32	1.06	0.76
120	350	129	1.07	0.62	0.46	0.37	0.27
120	525	195	1.62	0.94	0.70	0.56	0.41
120	700	260	2.17	1.25	0.94	0.75	0.54
120	875	332	2.77	1.60	1.20	0.96	0.69
120	1050	404	3.37	1.94	1.46	1.17	0.84
120	1225	477	3.97	2.29	1.72	1.37	0.99
120	1400	549	4.58	2.64	1.98	1.58	1.14

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

LED LUMEN MAINTENANCE (350mA to 1050mA)		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L96	0.96x
100,000 (6X LED Test Hrs)	L93	0.93x
150,000 (Theoretical)	L89	0.90x
200,000 (Theoretical)	L86	0.87x

TM-21 6x Test Time Dicatates that L93 > 100,000 Hours.

LED LUMEN MAINTENANCE (1225mA & 1400mA)		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L93	0.93x
100,000 (6X LED Test Hrs)	L89	0.89x
150,000 (Theoretical)	L84	0.84x
200,000 (Theoretical)	L80	0.80x

TM-21 6x Test Time Dicatates that L93 > 100,000 Hours.
Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)

IES File downloads for this product can be found at www.usaltg.com/downloads/asr.html

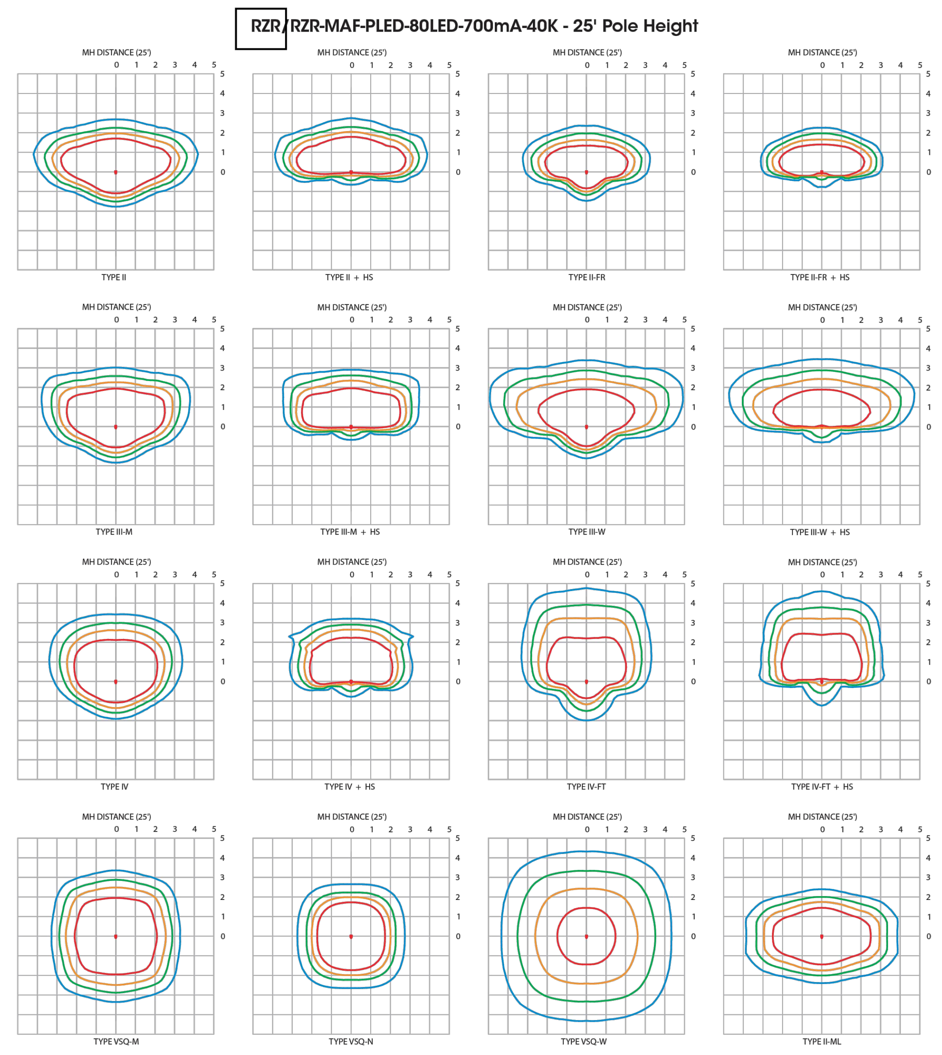
Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:
Type: R3 LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - ISOFOOTCANDLE PLOTS

RZR/RZR-MAF-PLED-80LED-700mA-40K - 25' Pole Height



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U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - LUMEN TABLES

RZR/RZR-MAF-PLED

LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K LUMENS	27K LPW	27K BUG RATING	30K LUMENS	30K LPW	30K BUG RATING	40K LUMENS	40K LPW	40K BUG RATING	50K LUMENS	50K LPW	50K BUG RATING	System Watts	TRA LUMENS	TRA LPW	TRA BUG RATING
80	1225	317.9	II	34767	109	B4-U0-G4	36279	114	B4-U0-G4	37790	119	B4-U0-G4	39302	124	B4-U0-G4	N/A	N/A		
			II-FR	35001	110	B4-U0-G2	36523	115	B4-U0-G2	38044	120	B4-U0-G2	39566	124	B4-U0-G2				
			II-ML	34769	109	B5-U0-G5	36280	114	B5-U0-G5	37792	119	B5-U0-G5	39304	124	B5-U0-G5				
			III-M	35375	111	B4-U0-G4	36913	116	B4-U0-G4	38451	121	B4-U0-G5	39989	126	B4-U0-G5				
			III-W	32846	103	B3-U0-G5	34274	108	B3-U0-G5	35702	112	B3-U0-G5	37131	117	B3-U0-G5				
			IV	35110	110	B4-U0-G4	36636	115	B4-U0-G4	38163	120	B4-U0-G4	39689	125	B4-U0-G5				
			IV-FT	31983	101	B3-U0-G5	33373	105	B3-U0-G5	34764	109	B3-U0-G5	36155	114	B3-U0-G5				
			VSQ-N	36696	115	B5-U0-G2	38291	120	B5-U0-G2	39887	125	B5-U0-G2	41482	130	B5-U0-G2				
			VSQ-M	35985	113	B5-U0-G4	37549	118	B5-U0-G4	39114	123	B5-U0-G4	40678	128	B5-U0-G4				
			VSQ-W	35125	110	B5-U0-G5	36652	115	B5-U0-G5	38179	120	B5-U0-G5	39706	125	B5-U0-G5				
			II-HS	25427	80	B2-U0-G4	26533	83	B2-U0-G4	27638	87	B2-U0-G4	28744	90	B2-U0-G4				
			II-FR-HS	25865	81	B2-U0-G2	26989	85	B2-U0-G2	28114	88	B2-U0-G2	29239	92	B2-U0-G2				
			III-M-HS	25725	81	B1-U0-G4	26843	84	B1-U0-G4	27962	88	B1-U0-G5	29080	91	B1-U0-G5				
			III-W-HS	25179	79	B1-U0-G5	26274	83	B1-U0-G5	27369	86	B1-U0-G5	28464	90	B1-U0-G5				
			IV-HS	26570	84	B1-U0-G4	27725	87	B1-U0-G4	28881	91	B1-U0-G4	30036	94	B1-U0-G4				
			IV-FT-HS	25111	79	B1-U0-G5	26202	82	B1-U0-G5	27294	86	B1-U0-G5	28386	89	B1-U0-G5				
80	1400	366.2	II	37677	103	B4-U0-G4	39315	107	B4-U0-G4	40953	112	B4-U0-G4	42591	116	B4-U0-G5	N/A	N/A		
			II-FR	37930	104	B4-U0-G2	39579	108	B4-U0-G2	41228	113	B4-U0-G3	42877	117	B4-U0-G3				
			II-ML	37678	103	B5-U0-G5	39317	107	B5-U0-G5	40955	112	B5-U0-G5	42593	116	B5-U0-G5				
			III-M	38336	105	B4-U0-G5	40003	109	B4-U0-G5	41670	114	B4-U0-G5	43337	118	B4-U0-G5				
			III-W	35595	97	B3-U0-G5	37143	101	B3-U0-G5	38690	106	B3-U0-G5	40238	110	B4-U0-G5				
			IV	38048	104	B4-U0-G4	39703	108	B4-U0-G5	41357	113	B4-U0-G5	43011	117	B4-U0-G5				
			IV-FT	34659	95	B3-U0-G5	36166	99	B3-U0-G5	37673	103	B4-U0-G5	39180	107	B4-U0-G5				
			VSQ-N	39767	109	B5-U0-G2	41496	113	B5-U0-G2	43225	118	B5-U0-G2	44954	123	B5-U0-G2				
			VSQ-M	38996	106	B5-U0-G4	40692	111	B5-U0-G4	42387	116	B5-U0-G4	44082	120	B5-U0-G4				
			VSQ-W	38065	104	B5-U0-G5	39720	108	B5-U0-G5	41374	113	B5-U0-G5	43029	118	B5-U0-G5				
			II-HS	27555	75	B2-U0-G4	28753	79	B2-U0-G4	29951	82	B2-U0-G4	31149	85	B2-U0-G4				
			II-FR-HS	28030	77	B2-U0-G2	29248	80	B2-U0-G2	30467	83	B2-U0-G2	31686	87	B2-U0-G3				
			III-M-HS	27878	76	B1-U0-G5	29090	79	B1-U0-G5	30302	83	B1-U0-G5	31514	86	B1-U0-G5				
			III-W-HS	27287	75	B1-U0-G5	28474	78	B1-U0-G5	29660	81	B1-U0-G5	30846	84	B1-U0-G5				
			IV-HS	28794	79	B1-U0-G4	30046	82	B1-U0-G4	31298	85	B1-U0-G5	32550	89	B1-U0-G5				
			IV-FT-HS	27213	74	B1-U0-G5	28396	78	B1-U0-G5	29579	81	B1-U0-G5	30762	84	B1-U0-G5				

(27K = 27K (2700K - 70CRI); 30K = 30K (3000K - 70CRI); 40K = 40K (4000K - 70CRI); 50K = 50K (5000K - 70CRI); TRA = TRA (590nm))

IES File downloads for this product can be found at www.usaltg.com/downloads/asr.html

Submitted by Lighting Virginia-Central

Job Name:	Catalog Number:	Type:
ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)	RZR-MAF/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:	R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

PROJECT NAME:

PROJECT TYPE:

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Optical Housing
Heavy cast aluminum assembly minimum wall thickness .188". LED Module mounting area is machined to within a 0.002" surface flatness variance for maximum surface contact and thermal conductivity from the LED modules to the radiating fins. Passive radiating fins above the LED Optics provide superior thermal management and long LED life. The optical and electrical compartments are integrated with the support arm to create one assembly. Cast and hinged driver compartment cover allows access to the drivers and wiring.

Electrical Housing w/ Integrated Arm
Heavy cast aluminum assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

Mast Arm Fitter/Electrical Housing
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.

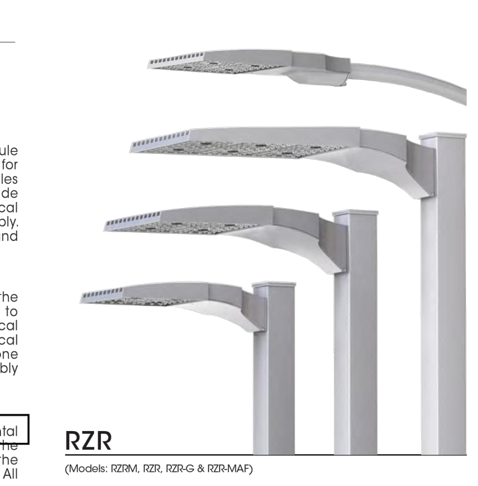
PLED™ Optics
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side, maximizing usable light. Optional house side shields are available that cover each individual optic. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments. Quick-disconnects are provided above each panel for fast field replacement. All fixture optical options will provide a "U0" no uplight optical package and is are dark sky friendly.

LED Emitters
LED thermal management is designed to maintain LED operating temperature below 90 °C, well below the manufacturers thermal max of 150 °C for long life, high lumen maintenance and color stabilit. High Power White LED's are driven between 350mA and 875mA for a maximum output of 2.5 Watts nominal. LED's are available in standard Warm White (2700K & 3000K), Neutral White (4000K), or Cool White (5000K). All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L94 at 60,000 hours (TM-21 calculated at 6x Test Time).

True Amber LED's TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

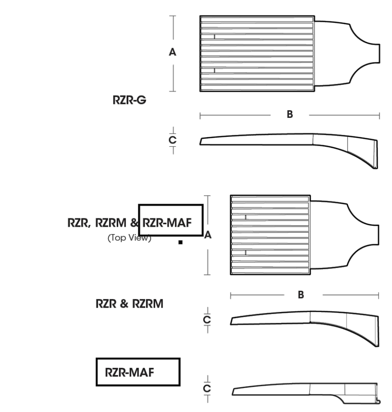
LED Driver
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. 0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with a separate 20KV surge protector for field installation.

Finish
Super TGIC polyester powder coating is applied onto a metal substrate this has been pretreated with a four-stage process for maximum adhesion and color retention. The top coat is baked at 400° F for maximum hardness and exterior durability.



RZR

(Models: RZRM, RZR, RZR-G & RZR-MAF)



Fixture	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

U.L. Listed for Wet Location

2024281

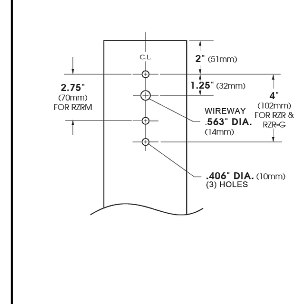
Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR-MAF/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:
Type: R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

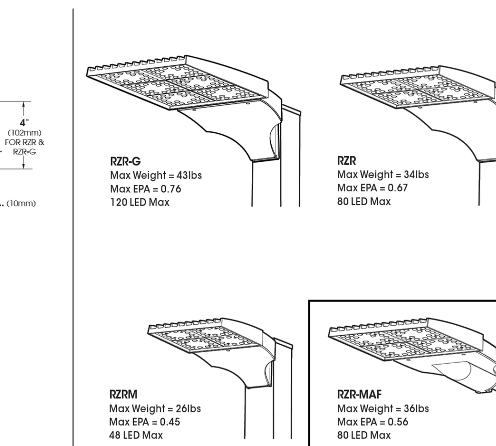
RAZAR SERIES - LED

SPECIFICATIONS

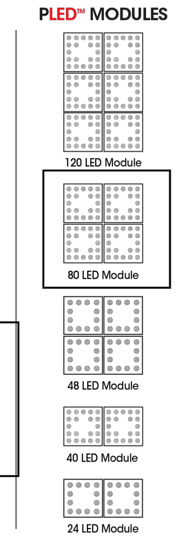
POLE DRILLING TEMPLATE



EPA & WEIGHT



PLED™ MODULES



SELECT FROM STD FINISHES

ORDERING INFORMATION

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/UNV/8019-S

Luminaire	Optics	LED Mode	Voltage	Mounting	Finish	Options
RZR-MAF	PLED-IV-FT	80LED-1400MA/30K	UNV	1	XXX	

Luminaire: ☐ RZR-G; ☐ RZR; ■ RZR-MAF; ☐ RZRM

Optics (PLED™ Distribution Type): ☐ PLED-II; ☐ PLED-II-FR; ☐ PLED-II-MIL; ☐ PLED-III; ■ PLED-III-W; ☐ PLED-IV; ☐ PLED-IV-FT; ☐ PLED-VSQ-N; ☐ PLED-V-SQ-M; ☐ PLED-V-SQ-W

LED: # of LEDs: RZR-G: ☐ 120LED, ☐ 80LED; RZR / RZR-MAF: ■ 80LED, ☐ 40LED; RZRM: ☐ 48LED, ☐ 24LED. Drive Current: ■ 1400mA[1]; ☐ 1225mA[1]; ☐ 1050mA; ☐ 875mA; ☐ 700mA; ☐ 525mA; ☐ 350mA. Color Temp - CCT: ☐ 27K (2700K); ■ 30K (3000K); ☐ 40K (4000K); ☐ 50K (5000K); ☐ TRA True Amber. Consult Factory for Other LED Color, CCT, & CRI Options. NOTES: 1 - 1400mA & 1225mA drive currents not available in RZRM. 2 - TRA available in 350mA & 525mA drive currents only. Consult Factory for Other Drive Currents

Voltage: ■ UNV (120-277); ☐ 347; ☐ 480

Mounting: Arm Mount: ■ 1; ☐ 2-180; ☐ 2-90; ☐ 3-90; ☐ 3-120; ☐ 4-90. Wall Mount: ☐ WM. WM - Wall Mount provided with mounting bracket and cover.

Finish: Standard Textured Finish: ☐ Black 9005-T; ☐ White 9003-T; ☐ Grey 7004-T; ☐ Dark Bronze 8019-T; ☐ Green 6005-T. Premium Finishes: ☐ Rust; ☐ Patina Copper PC. For smooth finish replace suffix "T" with suffix "S" (Example: 9500-S). Consult factor for custom colors

Options: ☐ Internal House Side Shield inc. LED Count (Example: HS-PLED/48) HS-PLED; ☐ External Glare Shield 4 Sided EGS4; ☐ External Glare Shield 3 Sided Rear Wedge EGS3W; ☐ Round Pole Adapter RPA; ☐ Twist Lock Receptable Only TPR; ☐ 7-Pin Twist Lock Receptable Only TPR7; ☐ High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) HLSW; ☐ Twist Lock Photocell + Voltage (Example: TPC347V) TPC+V; ☐ Photo Cell + Voltage (Example: PC120V) PC+V; ☐ Single Fuse (120V, 277V) SF; ☐ Double Fuse (208V, 240V) DF; ☐ Blue-Tooth Programmable Photo/Motion Sensor (Factory - Motion 50/100; Photo 75fc) MS-F311

NOT FOR CONSTRUCTION

Prepared by:
LIGHTING VIRGINIA CENTRAL
400G-2 Southlake Blvd.
Richmond, VA 23236
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www.lightingvirginia.com

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YOUR VISION ACHIEVED THROUGH OURS.

DATE	REVISION DESCRIPTION
07/03/2025	REVISED PER COMMENTS

DATE 11/11/2024
DRAWN BY E. ESPINO
DESIGNED BY E. ESPINO
CHECKED BY C. OLDAKER
SCALE

TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL
COUNTY OF ALBEMARLE, VIRGINIA
LIGHTING CUTSHEETS

JOB NO. 64375
SHEET NO. L4.0

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S:\103\64375-Route_29_Industrial_Site\DWG\Sheet\CD\Phase 1\64375-103-L4.0-LUMN-NTDT.dwg | Plotted on 7/3/2025 10:04 AM | by Mohammad Akmal

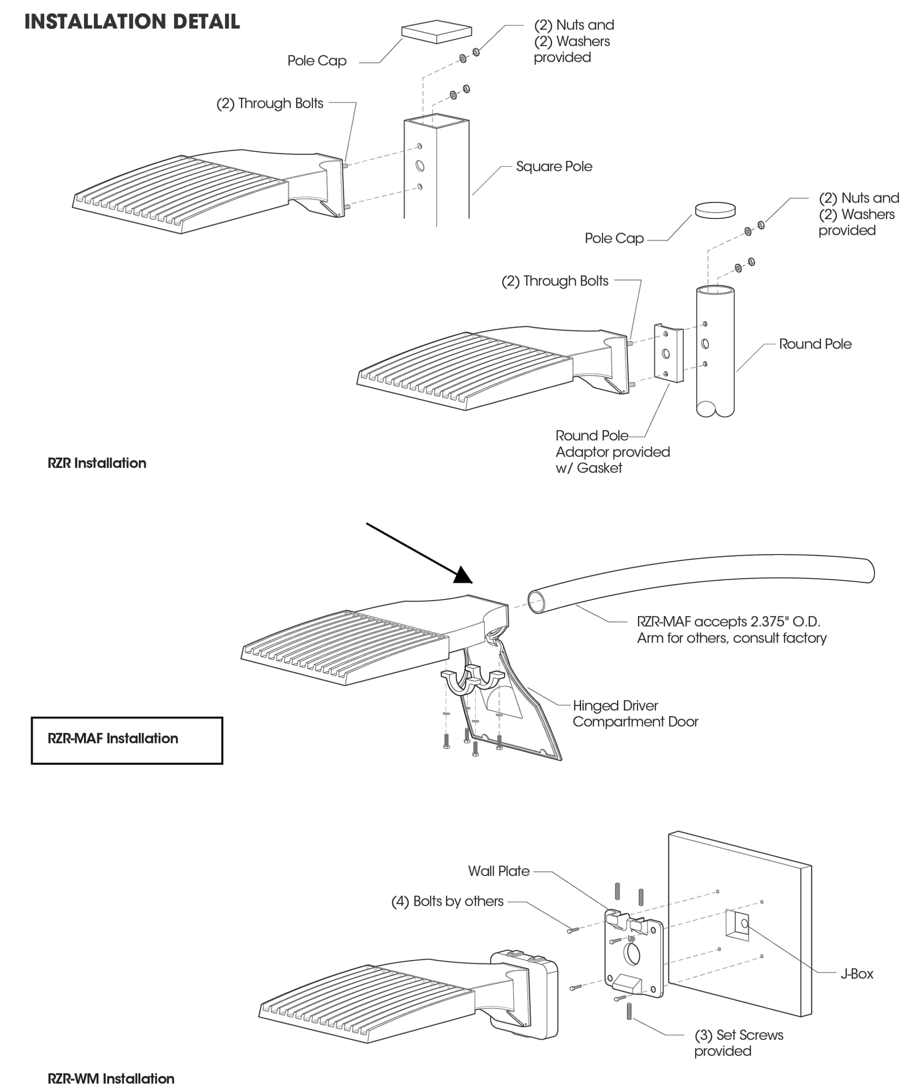
Submitted by Lighting Virginia-Central

Job Name:	Catalog Number:	Type:
ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)	RZR-MAF/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:	R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

INSTALLATION DETAIL



Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
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Type: R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

ELECTRICAL DATA GUIDE - AMPERAGE CHART

ELECTRICAL LOAD			CURRENT (Amps)				
# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
24	350	26	0.21	0.12	0.09	0.07	0.05
24	525	39	0.32	0.19	0.14	0.11	0.08
24	700	52	0.43	0.25	0.19	0.15	0.11
24	875	67	0.55	0.32	0.24	0.19	0.14
24	1050	81	0.67	0.39	0.29	0.23	0.17
48	350	52	0.43	0.25	0.19	0.15	0.11
48	525	78	0.65	0.37	0.28	0.22	0.16
48	700	104	0.87	0.50	0.38	0.30	0.22
48	875	133	1.11	0.64	0.48	0.38	0.28
48	1050	162	1.35	0.78	0.58	0.47	0.34
40	350	43	0.36	0.21	0.15	0.12	0.09
40	525	65	0.54	0.31	0.23	0.19	0.14
40	700	87	0.72	0.42	0.31	0.25	0.18
40	875	111	0.92	0.53	0.40	0.32	0.23
40	1050	135	1.12	0.65	0.49	0.39	0.28
40	1225	159	1.32	0.76	0.57	0.46	0.33
40	1400	183	1.53	0.88	0.66	0.53	0.38
80	350	86	0.72	0.41	0.31	0.25	0.18
80	525	130	1.08	0.62	0.47	0.37	0.27
80	700	174	1.45	0.83	0.63	0.50	0.36
80	875	222	1.85	1.06	0.80	0.64	0.46
80	1050	270	2.25	1.30	0.97	0.78	0.56
80	1225	318	2.65	1.53	1.15	0.92	0.66
80	1400	366	3.05	1.76	1.32	1.06	0.76
120	350	129	1.07	0.62	0.46	0.37	0.27
120	525	195	1.62	0.94	0.70	0.56	0.41
120	700	260	2.17	1.25	0.94	0.75	0.54
120	875	332	2.77	1.60	1.20	0.96	0.69
120	1050	404	3.37	1.94	1.46	1.17	0.84
120	1225	477	3.97	2.29	1.72	1.37	0.99
120	1400	549	4.58	2.64	1.98	1.58	1.14

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

LED LUMEN MAINTENANCE (350mA to 1050mA)		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L96	0.96x
100,000 (6X LED Test Hrs)	L93	0.93x
150,000 (Theoretical)	L89	0.90x
200,000 (Theoretical)	L86	0.87x

TM-21 6x Test Time Dicatates that L93 > 100,000 Hours.

LED LUMEN MAINTENANCE (1225mA & 1400mA)		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L93	0.93x
100,000 (6X LED Test Hrs)	L89	0.89x
150,000 (Theoretical)	L84	0.84x
200,000 (Theoretical)	L80	0.80x

TM-21 6x Test Time Dicatates that L93 > 100,000 Hours.
Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)

IES File downloads for this product can be found at www.usaltg.com/downloads/asr.html

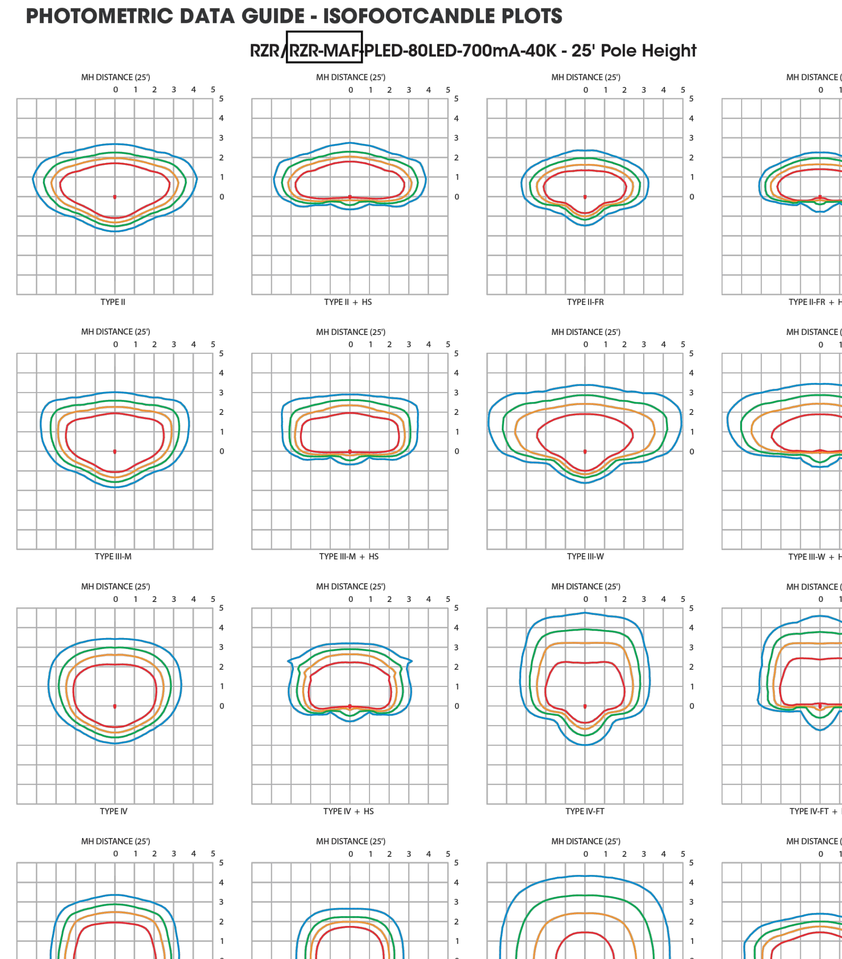
Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR-MAF/PLED-III-W/80LED-1400MA/30K/UNV/WM//XXX/HS-PLED/80 Notes:
Type: R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - ISOFOOTCANDLE PLOTS

RZR/RZR-MAF-PLED-80LED-700mA-40K - 25' Pole Height



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Type: R3_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - LUMEN TABLES

RZR/RZR-MAF-PLED

LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI) LUMENS	LPW	BUG RATING	30K (3000K - 70CRI) LUMENS	LPW	BUG RATING	40K (4000K - 70CRI) LUMENS	LPW	BUG RATING	50K (5000K - 70CRI) LUMENS	LPW	BUG RATING	System Watts	TRA (590nm) LUMENS	LPW	BUG RATING
80	1225	317.9	II	34767	109	B4-U0-G4	36279	114	B4-U0-G4	37790	119	B4-U0-G4	39302	124	B4-U0-G4	N/A	N/A		
			II-FR	35001	110	B4-U0-G2	36523	115	B4-U0-G2	38044	120	B4-U0-G2	39566	124	B4-U0-G2				
			II-ML	34769	109	B5-U0-G5	36280	114	B5-U0-G5	37792	119	B5-U0-G5	39304	124	B5-U0-G5				
			III-M	35375	111	B4-U0-G4	36913	116	B4-U0-G4	38451	121	B4-U0-G5	39989	126	B4-U0-G5				
			III-W	32846	103	B3-U0-G5	34274	108	B3-U0-G5	35702	112	B3-U0-G5	37131	117	B3-U0-G5				
			IV	35110	110	B4-U0-G4	36636	115	B4-U0-G4	38163	120	B4-U0-G4	39689	125	B4-U0-G5				
			IV-FT	31983	101	B3-U0-G5	33373	105	B3-U0-G5	34764	109	B3-U0-G5	36155	114	B3-U0-G5				
			VSQ-N	36696	115	B5-U0-G2	38291	120	B5-U0-G2	39887	125	B5-U0-G2	41482	130	B5-U0-G2				
			VSQ-M	35985	113	B5-U0-G4	37549	118	B5-U0-G4	39114	123	B5-U0-G4	40678	128	B5-U0-G4				
			VSQ-W	35125	110	B5-U0-G5	36652	115	B5-U0-G5	38179	120	B5-U0-G5	39706	125	B5-U0-G5				
			II-HS	25427	80	B2-U0-G4	26533	83	B2-U0-G4	27638	87	B2-U0-G4	28744	90	B2-U0-G4				
			II-FR-HS	25865	81	B2-U0-G2	26989	85	B2-U0-G2	28114	88	B2-U0-G2	29239	92	B2-U0-G2				
			III-M-HS	25725	81	B1-U0-G4	26843	84	B1-U0-G4	27962	88	B1-U0-G5	29080	91	B1-U0-G5				
			III-W-HS	25179	79	B1-U0-G5	26274	83	B1-U0-G5	27369	86	B1-U0-G5	28464	90	B1-U0-G5				
			IV-HS	26570	84	B1-U0-G4	27725	87	B1-U0-G4	28881	91	B1-U0-G4	30036	94	B1-U0-G4				
			IV-FT-HS	25111	79	B1-U0-G5	26202	82	B1-U0-G5	27294	86	B1-U0-G5	28386	89	B1-U0-G5				
80	1400	366.2	II	37677	103	B4-U0-G4	39315	107	B4-U0-G4	40953	112	B4-U0-G4	42591	116	B4-U0-G5	N/A	N/A		
			II-FR	37930	104	B4-U0-G2	39579	108	B4-U0-G2	41228	113	B4-U0-G3	42877	117	B4-U0-G3				
			II-ML	37678	103	B5-U0-G5	39317	107	B5-U0-G5	40955	112	B5-U0-G5	42593	116	B5-U0-G5				
			III-M	38336	105	B4-U0-G5	40003	109	B4-U0-G5	41670	114	B4-U0-G5	43337	118	B4-U0-G5				
			III-W	35595	97	B3-U0-G5	37143	101	B3-U0-G5	38690	106	B3-U0-G5	40238	110	B4-U0-G5				
			IV	38048	104	B4-U0-G4	39703	108	B4-U0-G5	41357	113	B4-U0-G5	43011	117	B4-U0-G5				
			IV-FT	34659	95	B3-U0-G5	36166	99	B3-U0-G5	37673	103	B4-U0-G5	39180	107	B4-U0-G5				
			VSQ-N	39767	109	B5-U0-G2	41496	113	B5-U0-G2	43225	118	B5-U0-G2	44954	123	B5-U0-G2				
			VSQ-M	38996	106	B5-U0-G4	40692	111	B5-U0-G4	42387	116	B5-U0-G4	44082	120	B5-U0-G4				
			VSQ-W	38065	104	B5-U0-G5	39720	108	B5-U0-G5	41374	113	B5-U0-G5	43029	118	B5-U0-G5				
			II-HS	27555	75	B2-U0-G4	28753	79	B2-U0-G4	29951	82	B2-U0-G4	31149	85	B2-U0-G4				
			II-FR-HS	28030	77	B2-U0-G2	29248	80	B2-U0-G2	30467	83	B2-U0-G2	31686	87	B2-U0-G3				
			III-M-HS	27878	76	B1-U0-G5	29090	79	B1-U0-G5	30302	83	B1-U0-G5	31514	86	B1-U0-G5				
			III-W-HS	27287	75	B1-U0-G5	28474	78	B1-U0-G5	29660	81	B1-U0-G5	30846	84	B1-U0-G5				
			IV-HS	28794	79	B1-U0-G4	30046	82	B1-U0-G4	31298	85	B1-U0-G5	32550	89	B1-U0-G5				
			IV-FT-HS	27213	74	B1-U0-G5	28396	78	B1-U0-G5	29579	81	B1-U0-G5	30762	84	B1-U0-G5				

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Job Name:	Catalog Number:	Type:
ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)	RZR-MAF/PLED-IV-FT/80LED-1400MA/30K/UNV/1/XXX Notes:	R4FT_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

PROJECT NAME:

PROJECT TYPE:

AREA & ROADWAY LIGHTING

RAZAR SERIES - LED

LOW PROFILE AREA LUMINAIRE

Optical Housing
Heavy cast aluminum assembly minimum wall thickness .188". LED Module mounting area is machined to within a 0.002" surface flatness variance for maximum surface contact and thermal conductivity from the LED modules to the radiating fins. Passive radiating fins above the LED Optics provide superior thermal management and long LED life. The optical and electrical compartments are integrated with the support arm to create one assembly. Cast and hinged driver compartment cover allows access to the drivers and wiring.

Electrical Housing w/ Integrated Arm
Heavy cast aluminum assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

Mast Arm Fitter/Electrical Housing
Replaces standard Electrical Housing. Fits standard 2 3/8" O.D. horizontal tenon. Two (2) straps with two (2) bolts each encircle the lower half of the tenon. Upper half of the tenon rests on self-centering steps that position the angle of the luminaire at 0°, +1.5°, +1.5 or +3° up from the horizontal. All hardware is stainless steel.

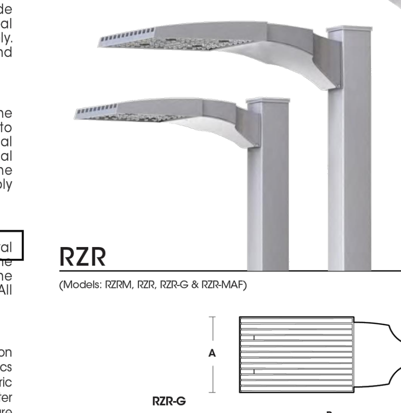
PLED™ Optics
Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side, maximizing usable light. Optional house side shields are available that cover each individual optic. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments. Quick-disconnects are provided above each panel for fast field replacement. All fixture optical options will provide a "U0" no uplight optical package and is are dark sky friendly.

LED Emitters
LED thermal management is designed to maintain LED operating temperature below 90 °C, well below the manufacturers thermal max of 150 °C for long life, high lumen maintenance and color stabilit. High Power White LED's are driven between 350mA and 875mA for a maximum output of 2.5 Watts nominal. LED's are available in standard Warm White (2700K & 3000K), Neutral White (4000K), or Cool White (5000K). All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L94 at 60,000 hours (TM-21 calculated at 6x Test Time).

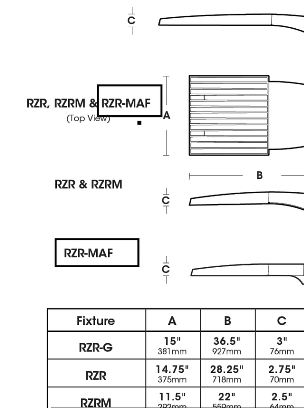
True Amber LED's TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

LED Driver
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. 0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with a separate 20KV surge protector for field installation.

Finish
Super TGIC polyester powder coating is applied onto a metal substrate this has been pretreated with a four-stage process for maximum adhesion and color retention. The top coat is baked at 400° F for maximum hardness and exterior durability.



RZR
(Models: RZRM, RZR, RZR-G & RZR-MAF)



Fixture	A	B	C	D
RZR-G	15" 381mm	36.5" 927mm	3" 76mm	7" 187mm
RZR	14.75" 375mm	28.25" 718mm	2.75" 70mm	6.5" 165mm
RZRM	11.5" 292mm	22" 559mm	2.5" 64mm	5.25" 133mm
RZR-MAF	15" 381mm	28.25" 724mm	2.5" 64mm	4" 102mm

U.L. Listed for Wet Location — BABA COMPLIANT

2024281

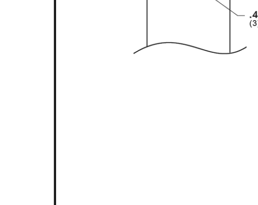
Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR-MAF/PLED-IV-FT/80LED-1400MA/30K/UNV/1/XXX Notes:
Type: R4FT_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

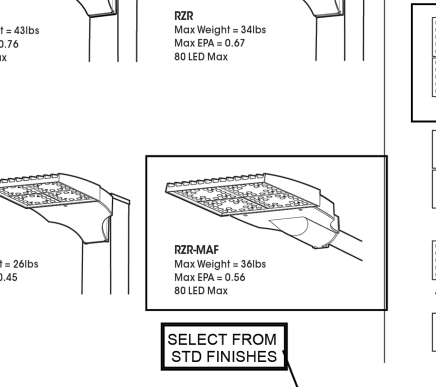
RAZAR SERIES - LED

SPECIFICATIONS

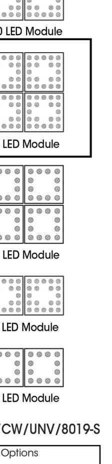
POLE DRILLING TEMPLATE



EPA & WEIGHT



PLED™ MODULES



SELECT FROM STD FINISHES

ORDERING INFORMATION

Spec/Order Example: RZR/PLED-IV/80LED-700mA/CW/UNV/8019-S

Luminaire	Optics	LED Mode	Voltage	Mounting	Finish	Options
RZR-MAF	PLED-IV-FT	80LED-1400MA/30K	UNV	1	XXX	

Luminaire: ☐ RZR-G; ☐ RZR; ■ RZR-MAF; ☐ RZRM

Optics (PLED™ Distribution Type): ☐ PLED-II; ☐ PLED-II-FR; ☐ PLED-II-MIL; ☐ PLED-III; ☐ PLED-III-W; ☐ PLED-IV; ■ PLED-IV-FT; ☐ PLED-VSQ-N; ☐ PLED-V-SQ-M; ☐ PLED-V-SQ-W

LED
- # of LEDs: RZR-G: ☐ 120LED ☐ 80LED; RZR / RZR-MAF: ■ 80LED ☐ 40LED; RZRM: ☐ 48LED ☐ 24LED
- Drive Current: ■ 1400mA[1]; ☐ 1225mA[1]; ☐ 1050mA; ☐ 875mA; ☐ 700mA; ☐ 525mA; ☐ 350mA
- Color Temp - CCT: ☐ 27K (2700K); ■ 30K (3000K); ☐ 40K (4000K); ☐ 50K (5000K); ☐ TRA True Amber
- Consult Factory for Other LED Color, CCT, & CRI Options
- NOTES: 1 - 1400mA & 1225mA drive currents not available in RZRM. 2 - TRA available in 350mA & 525mA drive currents only.
- Consult Factory for Other Drive Currents

Voltage: ■ UNV (120-277); ☐ 347; ☐ 480

Mounting: Arm Mount: ■ 1; ☐ 2-180; ☐ 2-90; ☐ 3-90; ☐ 3-120; ☐ 4-90. Wall Mount: ☐ WM. WM - Wall Mount provided with mounting bracket and cover.

Finish: Standard Textured Finish: ☐ Black 9005-T; ☐ White 9003-T; ☐ Grey 7004-T; ☐ Dark Bronze 8019-T; ☐ Green 6005-T. Premium Finishes: ☐ Rust; ☐ Patina Copper PC. For smooth finish replace suffix "T" with suffix "S" (Example: 9500-S). Consult factor for custom colors

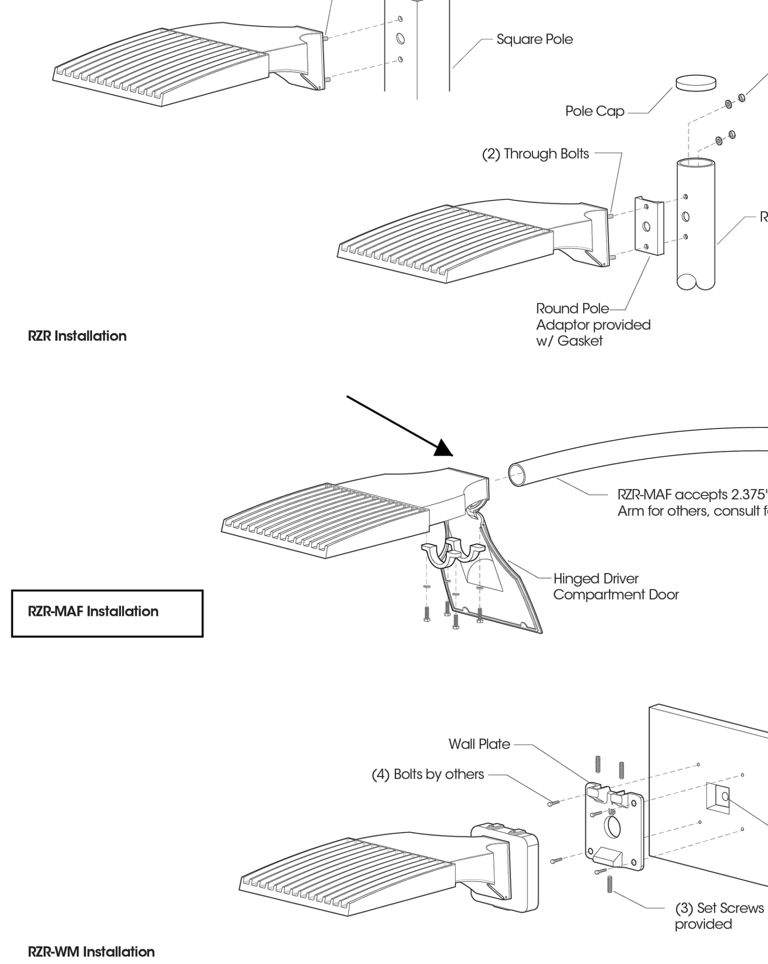
Options:
- ☐ Internal House Side Shield inc. LED Count (Example: HS-PLED/48) HS-PLED
- ☐ External Glare Shield 4 Sided EGS4
- ☐ External Glare Shield 3 Sided Rear Wedge EGS3W
- ☐ Round Pole Adapter RPA
- ☐ Twist Lock Receptable Only TPR
- ☐ 7-Pin Twist Lock Receptable Only TPR7
- ☐ High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) HLSW
- ☐ Twist Lock Photocell + Voltage (Example: TPC347V) TPC+V
- ☐ Photo Cell + Voltage (Example: PC120V) PC+V
- ☐ Single Fuse (120V, 277V) SF
- ☐ Double Fuse (208V, 240V) DF
- ☐ Blue-Tooth Programmable Photo/Motion Sensor (Factory - Motion 50/100; Photo 75fc) MS-F311

Submitted by Lighting Virginia-Central
Job Name: ROUTE 29 INDUSTRIAL SITE - R1 Architect: TIMMONS (null)
Catalog Number: RZR-MAF/PLED-IV-FT/80LED-1400MA/30K/UNV/1/XXX Notes:
Type: R4FT_MA LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

INSTALLATION DETAIL



Submitted by Lighting Virginia-Central
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Type: R4FT_MA LV - CENTRAL25-200478

ELECTRICAL DATA GUIDE - AMPERAGE CHART (as above)
PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE (as above)
IES File downloads for this product can be found at www.usaltg.com/downloads/asr.html

LIGHTING VIRGINIA
Prepared by: LIGHTING VIRGINIA CENTRAL
400G-2 Southlake Blvd.
Richmond, VA 23236
Tel: 804-379-7777
www.lightingvirginia.com

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THIS DRAWING PREPARED AT THE **CHARLOTTESVILLE OFFICE**
608 Preston Avenue, Suite 200 | Charlottesville, VA 22903
TEL 434.295.5624 FAX 434.295.8317 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE	REVISION DESCRIPTION
07/03/2025	REVISED PER COMMENTS

DATE	11/11/2024
DRAWN BY	E. ESPINO
DESIGNED BY	E. ESPINO
CHECKED BY	C. OLDAKER
SCALE	

TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL
COUNTY OF ALBEMARLE, VIRGINIA
LIGHTING CUTSHEETS

JOB NO.	64375
SHEET NO.	L4.1

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Submitted by Lighting Virginia-Central

Job Name: ROUTE 29 INDUSTRIAL SITE - R1
Architect: TIMMONS (null)

Catalog Number: RZR-MAF/PLED-IV-FT/80LED-1400MA/30K/UNV/1/XXX
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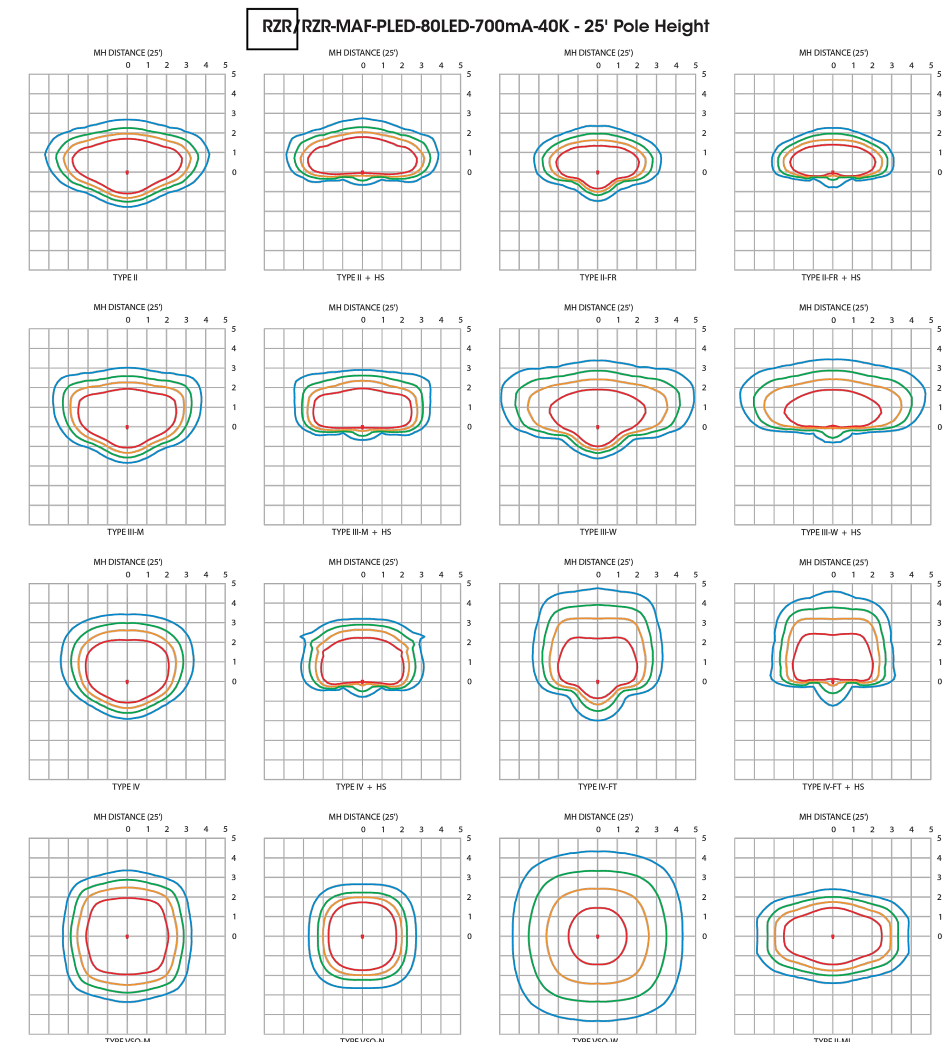
Type: R4FT_MA
LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - ISOFOOTCANDLE PLOTS

RZR/RZR-MAF-PLED-80LED-700mA-40K - 25' Pole Height



IES File downloads for this product can be found at www.usaltg.com/downloads/asr.html

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Submitted by Lighting Virginia-Central

Job Name: ROUTE 29 INDUSTRIAL SITE - R1
Architect: TIMMONS (null)

Catalog Number: RZR-MAF/PLED-IV-FT/80LED-1400MA/30K/UNV/1/XXX
Notes:

Type: R4FT_MA
LV - CENTRAL25-200478

U.S. ARCHITECTURAL LIGHTING

RAZAR SERIES - LED

PHOTOMETRIC DATA GUIDE - LUMEN TABLES

RZR/RZR-MAF-PLED

LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI) LUMENS	LPW	BUG RATING	30K (3000K - 70CRI) LUMENS	LPW	BUG RATING	40K (4000K - 70CRI) LUMENS	LPW	BUG RATING	50K (5000K - 70CRI) LUMENS	LPW	BUG RATING	System Watts	TRA (590nm) LUMENS	LPW	BUG RATING
80	1225	317.9	II	34767	109	B4-U0-G4	36279	114	B4-U0-G4	37790	119	B4-U0-G4	39302	124	B4-U0-G4	N/A	N/A		
			II-FR	35001	110	B4-U0-G2	36523	115	B4-U0-G2	38044	120	B4-U0-G2	39566	124	B4-U0-G2				
			II-ML	34769	109	B5-U0-G5	36280	114	B5-U0-G5	37792	119	B5-U0-G5	39304	124	B5-U0-G5				
			III-M	35375	111	B4-U0-G4	36913	116	B4-U0-G4	38451	121	B4-U0-G5	39989	126	B4-U0-G5				
			III-W	32846	103	B3-U0-G5	34274	108	B3-U0-G5	35702	112	B3-U0-G5	37131	117	B3-U0-G5				
			IV	35110	110	B4-U0-G4	36636	115	B4-U0-G4	38163	120	B4-U0-G4	39689	125	B4-U0-G5				
			IV-FT	31983	101	B3-U0-G5	33373	105	B3-U0-G5	34764	109	B3-U0-G5	36155	114	B3-U0-G5				
			VSQ-N	36696	115	B5-U0-G2	38291	120	B5-U0-G2	39887	125	B5-U0-G2	41482	130	B5-U0-G2				
			VSQ-M	35985	113	B5-U0-G4	37549	118	B5-U0-G4	39114	123	B5-U0-G4	40678	128	B5-U0-G5				
			VSQ-W	35125	110	B5-U0-G5	36652	115	B5-U0-G5	38179	120	B5-U0-G5	39706	125	B5-U0-G5				
			II-HS	25427	80	B2-U0-G4	26533	83	B2-U0-G4	27638	87	B2-U0-G4	28744	90	B2-U0-G4				
			II-FR-HS	25865	81	B2-U0-G2	26989	85	B2-U0-G2	28114	88	B2-U0-G2	29239	92	B2-U0-G2				
			III-M-HS	25725	81	B1-U0-G4	26843	84	B1-U0-G4	27962	88	B1-U0-G5	29080	91	B1-U0-G5				
			III-W-HS	25179	79	B1-U0-G5	26274	83	B1-U0-G5	27369	86	B1-U0-G5	28464	90	B1-U0-G5				
			IV-HS	26570	84	B1-U0-G4	27725	87	B1-U0-G4	28881	91	B1-U0-G4	30036	94	B1-U0-G4				
			IV-FT-HS	25111	79	B1-U0-G5	26202	82	B1-U0-G5	27294	86	B1-U0-G5	28386	89	B1-U0-G5				
80	1400	366.2	II	37677	103	B4-U0-G4	39315	107	B4-U0-G4	40953	112	B4-U0-G4	42591	116	B4-U0-G5	N/A	N/A		
			II-FR	37930	104	B4-U0-G2	39579	108	B4-U0-G2	41228	113	B4-U0-G3	42877	117	B4-U0-G3				
			II-ML	37678	103	B5-U0-G5	39317	107	B5-U0-G5	40955	112	B5-U0-G5	42593	116	B5-U0-G5				
			III-M	38336	105	B4-U0-G5	40003	109	B4-U0-G5	41670	114	B4-U0-G5	43337	118	B4-U0-G5				
			III-W	35595	97	B3-U0-G5	37143	101	B3-U0-G5	38690	106	B3-U0-G5	40238	110	B4-U0-G5				
			IV	38048	104	B4-U0-G4	39703	108	B4-U0-G5	41357	113	B4-U0-G5	43011	117	B4-U0-G5				
			IV-FT	34659	95	B3-U0-G5	36166	99	B3-U0-G5	37673	103	B4-U0-G5	39180	107	B4-U0-G5				
			VSQ-N	39767	109	B5-U0-G2	41496	113	B5-U0-G2	43225	118	B5-U0-G2	44954	123	B5-U0-G2				
			VSQ-M	38996	106	B5-U0-G4	40692	111	B5-U0-G4	42387	116	B5-U0-G4	44082	120	B5-U0-G4				
			VSQ-W	38065	104	B5-U0-G5	39720	108	B5-U0-G5	41374	113	B5-U0-G5	43029	118	B5-U0-G5				
			II-HS	27555	75	B2-U0-G4	28753	79	B2-U0-G4	29951	82	B2-U0-G4	31149	85	B2-U0-G4				
			II-FR-HS	28030	77	B2-U0-G2	29248	80	B2-U0-G2	30467	83	B2-U0-G2	31686	87	B2-U0-G3				
			III-M-HS	27878	76	B1-U0-G5	29090	79	B1-U0-G5	30302	83	B1-U0-G5	31514	86	B1-U0-G5				
			III-W-HS	27287	75	B1-U0-G5	28474	78	B1-U0-G5	29660	81	B1-U0-G5	30846	84	B1-U0-G5				
			IV-HS	28794	79	B1-U0-G4	30046	82	B1-U0-G4	31298	85	B1-U0-G5	32550	89	B1-U0-G5				
			IV-FT-HS	27213	74	B1-U0-G5	28396	78	B1-U0-G5	29579	81	B1-U0-G5	30762	84	B1-U0-G5				

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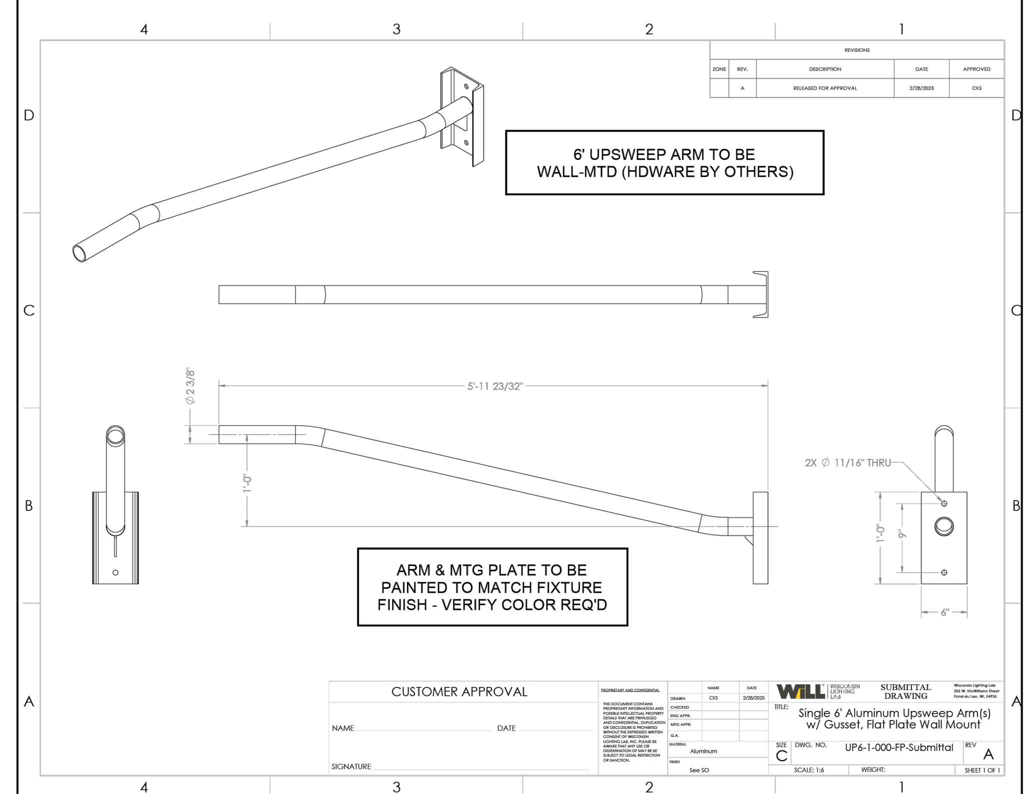
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Submitted by Lighting Virginia-Central

Job Name: ROUTE 29 INDUSTRIAL SITE - R1
Architect: TIMMONS (null)

Catalog Number: NP-UP6-1-000-WP-FP-XXX
Notes:

Type: 6' W.M. MAST ARMS
LV - CENTRAL25-200478



Submitted by Lighting Virginia-Central

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Notes:

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LV - CENTRAL25-200478

WiLL WISCONSIN LIGHTING LAB® | Aluminum | Brackets & Arms

NAFCO® COMMERCIAL LIGHT FIXTURE BRACKETS & ARMS

Catalog #

Project

Comments

Proudly engineered and manufactured in Wisconsin, USA – our NAFCO® family of LED lighting products combines 50 years of manufacturing expertise with premium components and top-notch Midwestern workmanship. From high-output outdoor applications to extreme indoor industrial environments – NAFCO® series products drastically reduce energy consumption and maintenance costs and come supported by WiLL's unmatched design, engineering, and project support capabilities.



NAFCO® ABH-2-180 Double Bullhorn | NAFCO® SP18-3-120 Triple Spoke | NAFCO® UP4-1-000 Single Upsweep

Highlights

- Designed, engineered, and manufactured in Wisconsin, USA
- Fabricated from seamless extruded aluminum and heat treated to T6 temper after bending, welding, and machining operations
- High-grade stainless steel hardware for superior strength and corrosion resistance
- Architectural grade powder coat or painted finish and custom color matching of RAL codes and architectural colors; anodizing options also available
- Custom products, configurations, options, and accessories available
- Meets Buy American and BABA standards

Loading Guidelines

- Local specifying engineer recommended for product selection and local compliance; connect with WiLL support for guidance
- Maximum allowable loading mounting to NAFCO brackets and arms is 2.0 EPA and 50 lbs per fixture at 40 feet above grade and 100 mph; specific design standards are available from WiLL support
- The total combined Effective Projected Area (EPA) and weight of all fixtures, brackets, and other attachments mounting to a light pole cannot exceed the EPA and weight rating for a specified pole

Specifications subject to change without notice.
Rev. V01202025
Page: 1 of 9

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quotes@willbrands.com | www.willbrands.com
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WiLL WISCONSIN LIGHTING LAB®

Submitted by Lighting Virginia-Central

Job Name: ROUTE 29 INDUSTRIAL SITE - R1
Architect: TIMMONS (null)

Catalog Number: NP-UP6-1-000-WP-FP-XXX
Notes:

Type: 6' W.M. MAST ARMS
LV - CENTRAL25-200478

WiLL WISCONSIN LIGHTING LAB® | Aluminum | Brackets & Arms

Ordering Information

Ex: NP-SP24-2-180-30E-BK

Product Family	Design	Arm/Tenon Quantity	Orientation	Pole/Tenon Fit	Finish Color
NP = NAFCO®	ABH = Aluminum Bullhorn Bracket	1	000 = N/A	24E = 2.38" OD Tenon (External Fit)	SBF = Brushed Aluminum
	SP18 = 18" Aluminum Spoke Arm(s)	2	090 = 90°	30E = 3" OD Pole/Tenon (External Fit)	BK = Black Painted
	SP24 = 24" Aluminum Spoke Arm(s)	3	120 = 120°	35E = 3.5" OD Pole/Tenon (External Fit)	MB = Medium Bronze Painted
	SP36 = 36" Aluminum Spoke Arm(s)	4	180 = 180°	40E = 4" OD Pole/Tenon (External Fit)	DB = Dark Bronze Painted
	UP4 = 4' Aluminum Upsweep Arm(s)	C = Custom	C = Custom	45E = 4.5" OD Pole/Tenon (External Fit)	WH = White Painted
	UP6 = 6' Aluminum Upsweep Arm(s) w/ Gusset			50E = 5" OD Pole/Tenon (External Fit)	NA = Nat Alum Silver Painted
	ATA = Aluminum Tenon Adapter w/ 2.38" OD Tenon			40S = 4" OD Square Pole/Tenon (External Fit)	LG = Light Gray Painted
	C = Custom			50S = 5" OD Square Pole/Tenon (External Fit)	SG = Slate Gray Painted
				FP = Flat Plate (Hardware by Others)	DG = Dark Green Painted
				CMS = Clamp Mount (4-8" OD Pole Fit)	DP = Dark Platinum Painted
				CMM = Clamp Mount (9-13" OD Pole Fit)	GM = Graphite Metallic Painted
				WP = Wood Pole (Thru Bolts by Others)	BA = Bronze Anodized
				C = Custom	BKA = Black Anodized
					SA = Satin Silver Anodized
					RAL = Custom RAL Match
					C = Custom

Note: Custom products, configurations, options, and accessories available.

FINISH COLOR SHALL MATCH FIXTURE FINISH - VERIFY COLOR REQ'D.

6' MAST ARM WITH FP (FLAT PLATE) FOR WALL MOUNTING OF UPSWEEP ARM

Specifications subject to change without notice.
Rev. V01202025
Page: 8 of 9

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WiLL WISCONSIN LIGHTING LAB®

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Architect: TIMMONS (null)

Catalog Number: NP-UP6-1-000-WP-FP-XXX
Notes:

Type: 6' W.M. MAST ARMS
LV - CENTRAL25-200478



LIGHTING VIRGINIA

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Prepared by:
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07/03/2025	REVISED PER COMMENTS

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TIMMONS GROUP

NORTHSIDE DRIVE INDUSTRIAL
COUNTY OF ALBEMARLE, VIRGINIA

LIGHTING CUTSHEETS

JOB NO. 64375
SHEET NO. L4.2

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