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DUTCH BROS
Coffee



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05/01/2024



Project No: MO0401

Dutch Bros Coffee
New Freestanding Store
15200 MANCHESTER RD.
BALLWIN, MO 63011
for: Dutch Bros Coffee
110 SW 4th St. Grant's Pass, OR 97526

ISSUED FOR PLANNING :
05.01.2024

REV: DATE: DESCRIPTION:

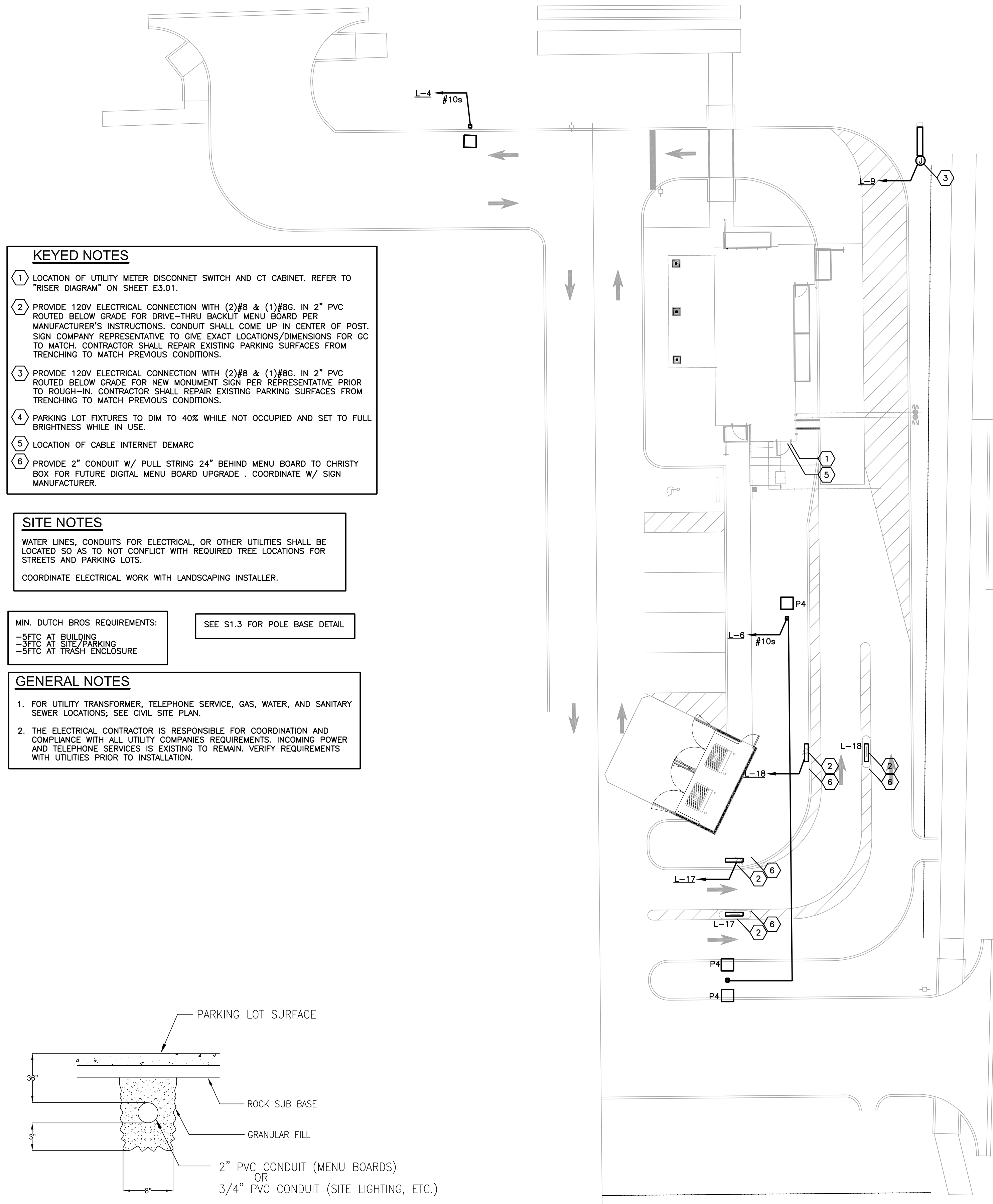
SHEET NAME:

ELECTRICAL
SITE & PHOTOMETRIC
PLAN

SHEET NUMBER:

E0.01

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- KEYED NOTES**
- LOCATION OF UTILITY METER DISCONNECT SWITCH AND CT CABINET. REFER TO "RISER DIAGRAM" ON SHEET E3.01.
 - PROVIDE 120V ELECTRICAL CONNECTION WITH (2)#8 & (1)#6G. IN 2" PVC ROUTED BELOW GRADE FOR DRIVE-THRU BACKLIT MENU BOARD PER MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL COME UP IN CENTER OF POST. SIGN COMPANY REPRESENTATIVE TO GIVE EXACT LOCATIONS/DIMENSIONS FOR GC TO MATCH. CONTRACTOR SHALL REPAIR EXISTING PARKING SURFACES FROM TRENCHING TO MATCH PREVIOUS CONDITIONS.
 - PROVIDE 120V ELECTRICAL CONNECTION WITH (2)#8 & (1)#6G. IN 2" PVC ROUTED BELOW GRADE FOR NEW MONUMENT SIGN PER REPRESENTATIVE PRIOR TO ROUGH-IN. CONTRACTOR SHALL REPAIR EXISTING PARKING SURFACES FROM TRENCHING TO MATCH PREVIOUS CONDITIONS.
 - PARKING LOT FIXTURES TO DIM TO 40% WHILE NOT OCCUPIED AND SET TO FULL BRIGHTNESS WHILE IN USE.
 - LOCATION OF CABLE INTERNET DEMARC
 - PROVIDE 2" CONDUIT W/ PULL STRING 24" BEHIND MENU BOARD TO CHRISTY BOX FOR FUTURE DIGITAL MENU BOARD UPGRADE. COORDINATE W/ SIGN MANUFACTURER.

SITE NOTES

WATER LINES, CONDUITS FOR ELECTRICAL, OR OTHER UTILITIES SHALL BE LOCATED SO AS TO NOT CONFLICT WITH REQUIRED TREE LOCATIONS FOR STREETS AND PARKING LOTS.

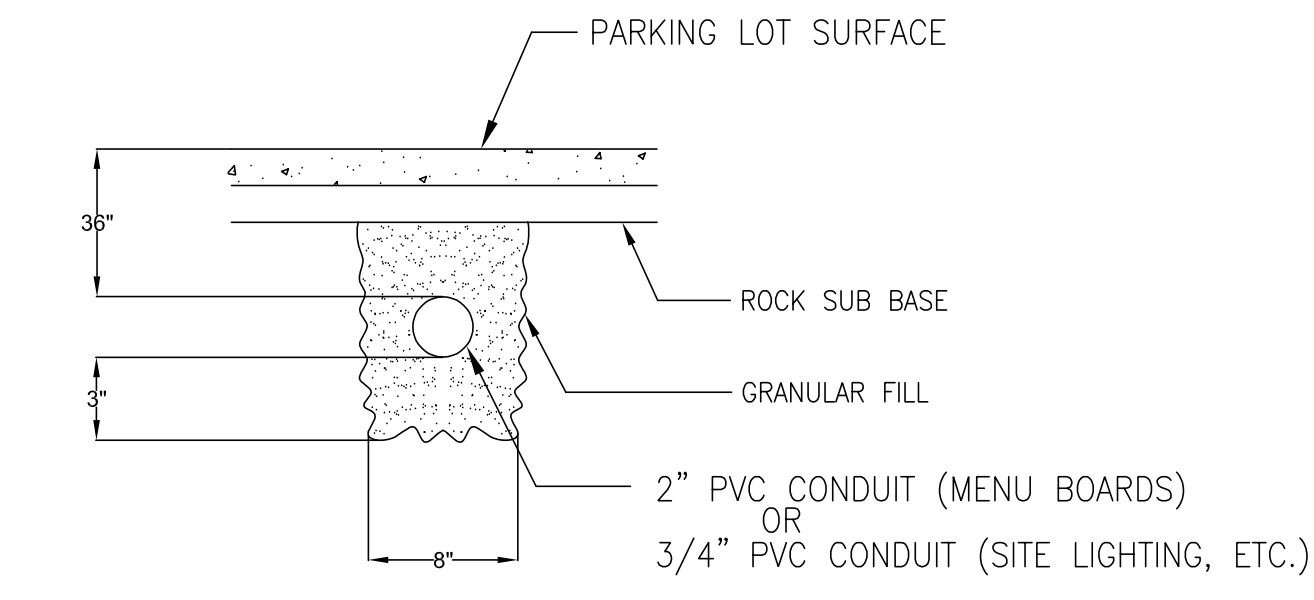
COORDINATE ELECTRICAL WORK WITH LANDSCAPING INSTALLER.

MIN. DUTCH BROS REQUIREMENTS:

- 5FTC AT BUILDING
- 3FTC AT SITE/PARKING
- 5FTC AT TRASH ENCLOSURE

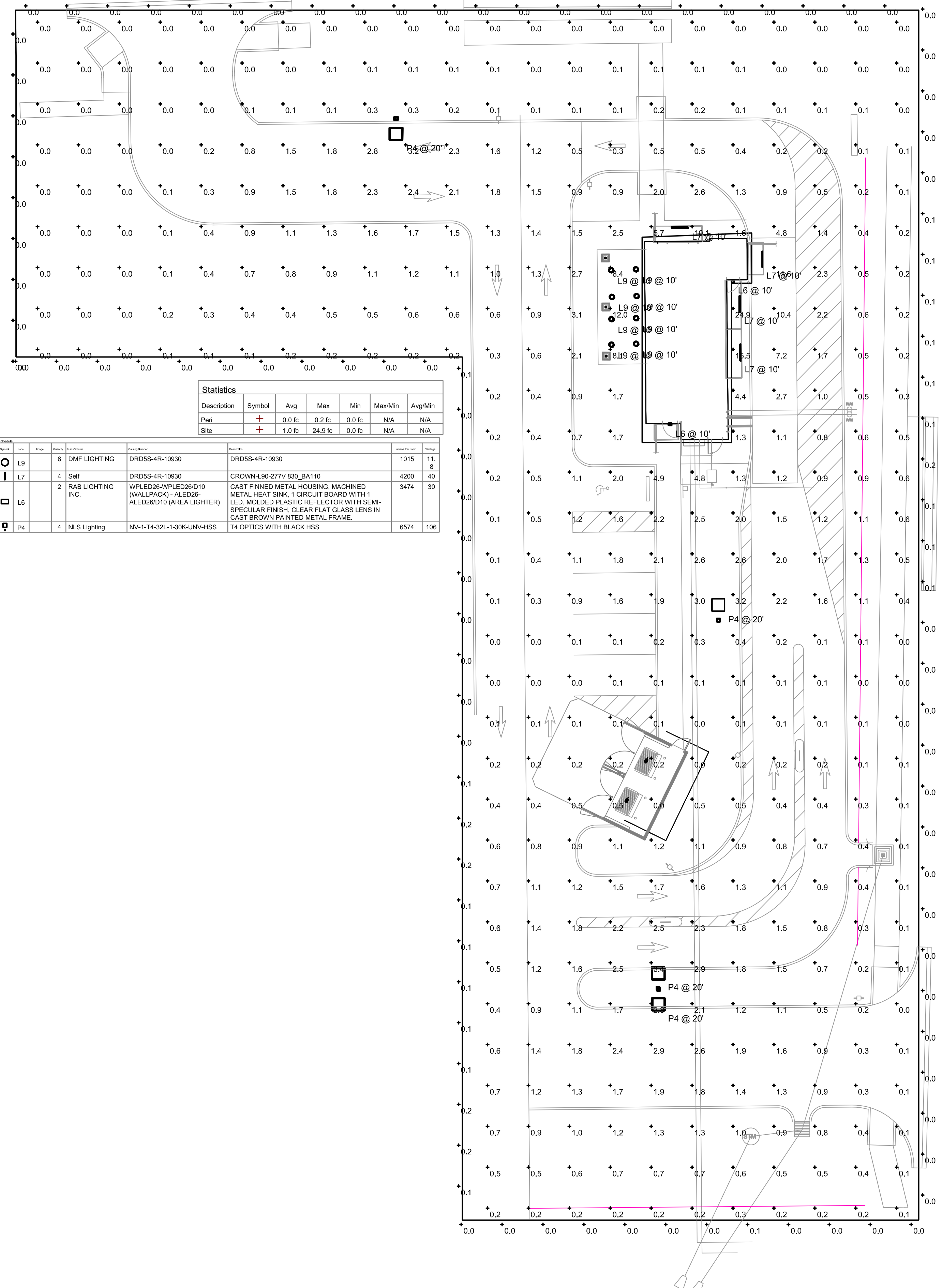
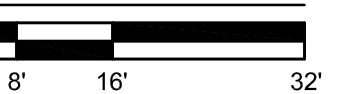
SEE S1.3 FOR POLE BASE DETAIL

- GENERAL NOTES**
- FOR UTILITY TRANSFORMER, TELEPHONE SERVICE, GAS, WATER, AND SANITARY SEWER LOCATIONS; SEE CIVIL SITE PLAN.
 - THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLIANCE WITH ALL UTILITY COMPANIES REQUIREMENTS. INCOMING POWER AND TELEPHONE SERVICES IS EXISTING TO REMAIN. VERIFY REQUIREMENTS WITH UTILITIES PRIOR TO INSTALLATION.



3 TRENCHING DETAIL
N.T.S.

1 ELECTRICAL SITE PLAN
1/16" = 1'-0"



Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Park	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
Site	+	1.0 fc	24.9 fc	0.0 fc	N/A	N/A

Schedule

Item	Qty	Unit	Description	Manufacturer	Notes	Quantity	Value
L9	8	DMF LIGHTING	DRD55-4R-10930	DRD55-4R-10930		1015	11.6
L7	4	Self	DRD55-4R-10930	CROWN490-277V-830_BA110		4200	40
L6	2	RAB LIGHTING INC.	WPLED26-WPLED26/D10 (WALLPACK) - ALED26-ALED26/D10 (AREA LIGHTER)	CAST FINNED METAL HOUSING, MACHINED METAL HEAT SINK, 1 CIRCUIT BOARD WITH 1 LED MOLDED PLASTIC REFLECTOR WITH SEMI-SPECULAR FINISH, CLEAR FLAT GLASS LENS IN CAST BROWN PAINTED METAL FRAME.		3474	30
P4	4	NLS Lighting	NV-1-T4-32L-1-30K-UNV-HSS	T4 OPTICS WITH BLACK HSS		6574	106

2 SITE PHOTOMETRIC
1/16" = 1'-0"





Construction

Aluminum

Less than 0.1% copper content - Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength, clean detailed product lines and excellent heat dissipation.

Pre paint

8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket

Provided with special injection molded "fit for purpose" long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management

LM6 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 driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression

Standard 10kv surge suppressor provided with all fixtures.

BUG Rating

B1 - U1 - G0

Finishing

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

Paint

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

Inspired by Nature Finishes

The Inspired by nature Finishing is a unique system of decorative powder coating. Our metal decoration process can easily transform the appearance of metal or aluminum product into a wood grain finish.

This patented technology enables the simulation of wood grain, and even marble or granite finish through the use of decorative powder coating.

The wood grain finish is so realistic that it's almost undistinguishable from real wood, even from a close visual inspection. The system of coating permeates the entire thickness of the coat and as a result, the coating cannot be removed by normal rubbing, chipping, or scratching.

The Coating Process

After pre-treatment the prepared parts are powder coated with a specially formulated polyurethane powder. This powder provides protection against wear, abrasion, impact and corrosion and acts as the relief base color for the finalized metal decoration.

The component is then wrapped with a sheet of non-porous film with the selected decoration pattern printed on it using special high temperature inks.

This printed film transfer is vacuum-sealed to the surface for a complete thermo print and then transferred into a customized oven. The oven transforms the ink into different forms within the paint layer before it becomes solid. Finally, the film is removed, and a vivid timber look on aluminum remains.

Wood grain coating can create beautiful wood-looking products of any sort. There are over 300 combinations of designs currently in use. Wood grains can be made with different colors, designs, etc.

Our powder coatings are certified for indoor and outdoor applications and are backed by a comprehensive warranty. These coatings rise to the highest conceivable standard of performance excellence and design innovation.

Added Benefits

- Resistance to salt-acid room, accelerated aging
- Boiling water, lime and condensed water resistant
- Anti-Graffiti, Anti-Slip, Anti-Microbial, Anti-Scratch
- Super durable (UV resistant)
- TGIC free (non-toxic)

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 seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

Crystal Clear Low Iron Glass Lens

Provided with tempered, impact resistant crystal clear low iron glass ensuring no green glass tinge.

Optics & LED

Precise optic design provides exceptional light control and precise distribution of light. LED CRI > 80

Lumen - Maintenance Life

L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

Square surface wall-mounted architectural lighting range. Family of lighting effects sanctioning imagination and inspiration to reign in designs.

A small profile wall mounted compact cubic luminaire with up and downward light distributions. The Matrix is designed with five light distribution options, namely narrow, medium, wide, very wide and spike.

The Matrix uses high efficiency, long life LEDs and is designed to illuminate the wall and surfaces in front of the wall, as well as light accents on vertical and horizontal surfaces. The Matrix is suitable for indoor and outdoor applications.

This luminaire is available with decorative spikes and can be used with various combinations of light distribution optics.

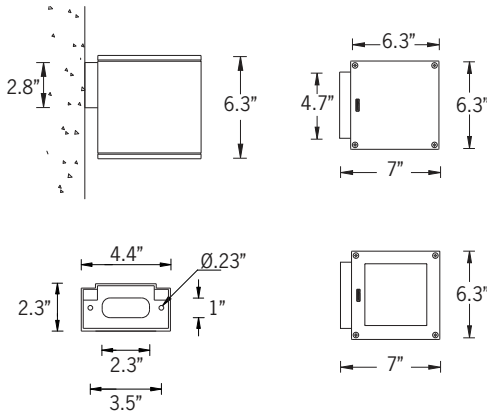
This luminaire can be mounted at different angles to produce interesting decorative lighting effects on the side of the building facade.

The standard Matrix is designed to mount over a 3" octagonal j-box, a 4" j-box cover plate is available upon request.

To meet International Dark Sky criteria, 3000k or warmer LEDs must be selected and luminaire fix mounted (+/- 15° allowable to permit leveling).



14w COB 1128 Lumens
IP65 • Suitable For Wet Locations
IK07 • Impact Resistant
Weight 5 lbs



Mounting Detail



UMT-31426

Matrix 4 Surface

PROJECT		DATE	
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QUANTITY		TYPE		NOTE	
-----------------	--	-------------	--	-------------	--

ORDERING EXAMPLE || UMT - 31426 - 14w - N - W30 - 02 - 120/277v - Options

UMT-31426					
LAMP	BEAM	LED COLOR	FINISH COLOR	VOLTAGE	

14w COB
1128 Lumens

N - Narrow 20°
M - Medium 25°
W - Wide 36°
VW - Very Wide 74°

W27 - 2700K 
W30 - 3000K 
W35 - 3500K
W40 - 4000K

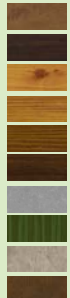
01 - BLACK RAL 9011
02 - DARK GREY RAL 7043
03 - WHITE RAL 9003
04 - METALLIC SILVER RAL 9006
05 - MATTE SILVER RAL 9006
06 - LIGMAN BRONZE
07 - CUSTOM RAL



120/277v
Other - Specify

INSPIRED BY NATURE FINISHES

SW01 - OAK FINISH
SW02 - WALNUT FINISH
SW03 - PINE FINISH
DF - DOUGLAS FIR FINISH
CW - CHERRY WOOD FINISH
NW - NATIONAL WALNUT FINISH
SU01 - CONCRETE FINISH
SU02 - SOFTSCAPE FINISH
SU03 - STONE FINISH
SU04 - CORTEN FINISH



THERE IS AN ADDITIONAL COST FOR THESE FINISHES

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ADDITIONAL OPTIONS

NAT - Natatorium Rated

F - Frosted Lens

4J - Mounting Plate for 4" Junction Box

DIM - 0-10v Dimming

COLORED DICHROIC FILTERS

RD - Red Lens

BL - Blue Lens

GR - Green Lens

AM - Amber Lens

[Specify Other Color]

More Custom Finishes Available Upon Request

Consult factory for pricing and lead times

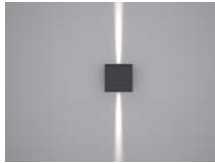


Matrix Product Family



Matrix 1

• UMT-31396-7/14w-90/1128lm



Matrix 2

• UMT-31406-7/7w-90/90lm



Matrix 3

• UMT-31416-29w-2256lm



Matrix 4

• UMT-31426-14w-1128lm



Matrix 5

• UMT-31427-7w-90lm



Matrix 6

• UMT-31397-5/7w-80/90lm



Matrix 7

• UMT-31398-19w-1247lm



Matrix 8

• UMT-31407-10w-238lm



Matrix 9

• UMT-31428-5w-119lm



Color: Bronze

Weight: 7.2 lbs

Project:

Type:

Prepared By:

Date:

Driver Info

Type	Constant Current
120V	0.22A
208V	0.13A
240V	0.11A
277V	0.10A
Input Watts	28.7W

LED Info

Watts	26W
Color Temp	5000K (Cool)
Color Accuracy	70 CRI
L70 Lifespan	100,000 Hours
Lumens	3,851 lm
Efficacy	134.2 lm/W

Technical Specifications

Electrical

Driver:

Constant Current, Class 2, 120-277V, 50/60Hz, 120V: 0.22A, 208V: 0.13A, 240V: 0.11A, 277V 0.10A

Dimming Driver:

Driver includes dimming control wiring for 0-10V dimming systems. Requires separate 0-10V DC dimming circuit. Dims down to 10%.

THD:

10.68% at 120V, 10.68% at 277V

Power Factor:

95.4% at 120V, 95.4% at 277V

Battery Backup:

Minimum starting temperature is 0°C/32°F

Photocell:

120V Swivel photocell included. Photocell is only compatible with 120V.

Battery Backup Light Loss Factor:

0.39

Battery Mode:

Light output use LLD of .76 to simulate light output during battery mode operation.

Compliance

UL Listed:

Suitable for Wet Locations as downlight. Wall Mount Only. Battery Backup UL 924 Listed Emergency Lighting Power Supply.

DLC Listed:

This product is listed by Design Lights Consortium (DLC) as an ultra-efficient premium product that qualifies for the highest tier of rebates from DLC Member Utilities. Designed to meet DLC 5.1 requirements.
DLC Product Code: P0000170I

Performance

Lifespan:

100,000-Hour LED lifespan based on IES LM-80 results and TM-21 calculations

Wattage Equivalency:

Equivalent to 150W Metal Halide

LED Characteristics

LED:

Two (2) 13W high-output, long-life LEDs

Color Consistency:

7-step MacAdam Ellipse binning to achieve consistent fixture-to-fixture color

Technical Specifications (continued)

LED Characteristics

Color Stability:

LED color temperature is warranted to shift no more than 200K in color temperature over a 5-year period

Color Uniformity:

RAB's range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377-2017.

Construction

Ambient Temperature:

Suitable for use in up to 35°C (95°F)

Thermal Management:

Optimized using computational fluid dynamics software to ensure long LED and driver lifespan

Gaskets:

High-temperature silicone

Housing:

Precision die-cast aluminum housing, lens frame and mounting arm

Finish:

Formulated for high durability and long-lasting color

Green Technology:

Mercury and UV free. RoHS-compliant components.

Other

Patents:

The WPLED26 design is protected by U.S. Patent D634878 and Patents pending in the U.S., Canada, China, Taiwan and Mexico.

Buy American Act Compliance:

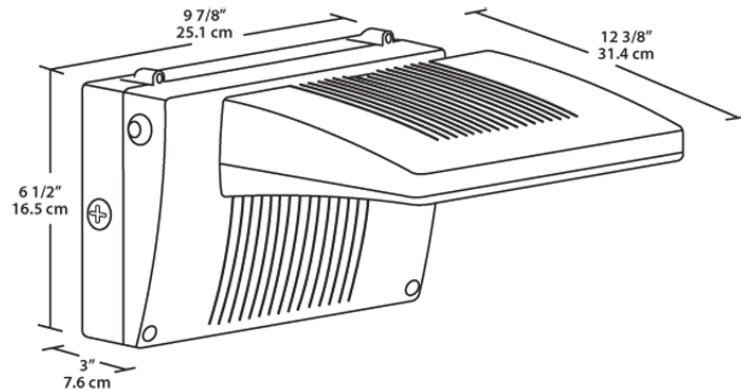
RAB values USA manufacturing! Upon request, RAB may be able to manufacture this product to be compliant with the Buy American Act (BAA). Please contact customer service to request a quote for the product to be made BAA compliant.

Optical

BUG Rating:

B1 U0 G0

Dimensions



Features

- Maintains 70% of initial lumens at 100,000-hours
- Weatherproof high temperature silicone gaskets
- Superior heat sinking with die cast aluminum housing and external fins
- 100 up to 277 Volts
- 5-Year, No-Compromise Warranty

Outdoor Cove Lighting
CROWN



Outdoor Cove Lighting

CROWN



- Quick connection
- Dimmable, 1-10V dimming to 10%-100%
- Linkable, max. linkable length: 72' @120VAC, 156' @277VAC
- Lockable, precision aiming adjustment: ±85°vertical rotation
- IP rating: IP66 (for wet locations)
- Lifetime: 50,000hrs (ta=95°F, 35°C)
- Ta: -13°F~122°F (-25°C~50°C)
- 10W/ft, 1050lm/ft
- Material: Aluminum alloy
- Other color temp available



Dimensions: (inches/mm)



How to order using our catalog numbers
 Example: CROWN-1230K110SS

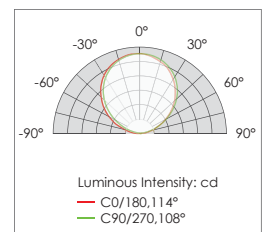
Series	Length	CCT (K)	Beam Angle	Finish	Installation
CROWN	12 - 11.8"(300mm)	30K - 3000K	110 - 110°	S - Silver	S - Screw Mounting
	47 - 47"(1120mm)	40K - 4000K			
	70 - 70"(1778mm)				

Specifications

Catalog No.	Model	Rated Input (VAC)	Ra	Power (W)	Luminous flux (TYP@4000K)lm
CROWN-1230K110SS	CROWN-L24-277V	120-277	85	10	1050
CROWN-1240K110SS					
CROWN-4730K110SS	CROWN-L90-277V	120-277	85	40	4200
CROWN-4740K110SS					
CROWN-7030K110SS	CROWN-L144-277V	120-277	85	60	6300
CROWN-7040K110SS					

* Included: 1 pc LED fixture, 2pcs screws, 1pc cable end cap.

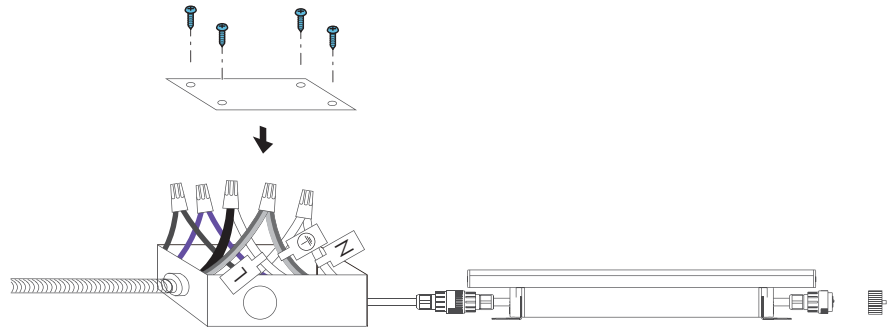
Photometrics



Outdoor Cove Lighting

CROWN/CROWN NARROW

Wiring Diagram

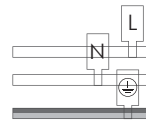


AC connection :

Black: " L "

White: " N "

Yellow/green: " ⊕ "

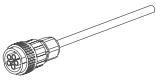


Dimming connection :

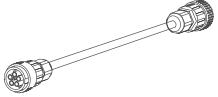
Violet: " + " ———

Gray: " - " ———

Accessories

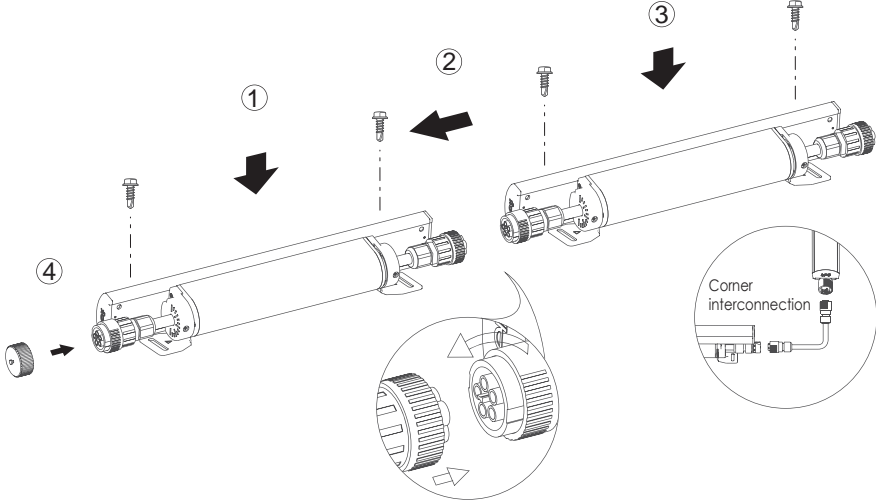
Catalog No.	Description	Length (inch)
IC-CROWN-59	 Input cable	59"

Accessories(optional)

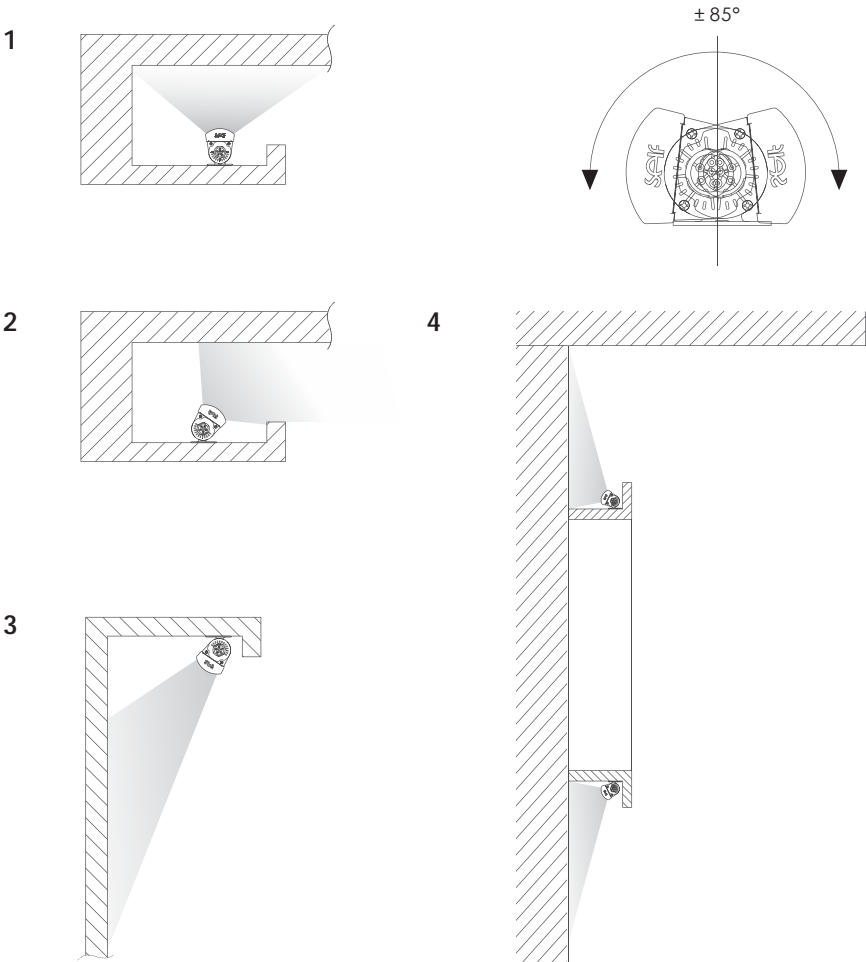
Catalog No.	Description	Length (inch)
SC-CROWN-12	 Soft connector	12"

Outdoor Cove Lighting CROWN/CROWN NARROW

Installation



Application



DRD5S & SurfaceFrame

Surface Mount LED Downlight

New Construction













DRDHNJO Octagonal Junction Box

Project:	Type:
Product Code:	Date:

Spec Sheet V-01.10.22



- Thinnest-in-class DRD5S delivers the pure, smooth light and the elegant look of a high-end recessed downlight
- Features multiple ratings to meet the demands of a wide range of situations
- Ultra-low profile allows it to install in as little as 2" of ceiling space when 5/8" drywall is used

Application New Construction		Aperture 4" Octagonal Junction Box	
Delivered Lumens 750 lm (9.0W), 1000 lm (12.0W)		Color Quality 90+ CRI, < 3-step SDCM	
Color Temperature  2700K 3000K 3500K		Optics  General	
Input Voltage 120V only (TRIAC/ELV), 120/277V (0-10V)	Dimming TRIAC/ELV 5% 0-10V 1%	Emergency Lighting Optional Emergency LED Driver with integrated Test Switch for lighting up to 90 minutes in event of power failure	
Shape Round, Square		Finish White	Module Ratings  UL Closet Rating Compliant (750 lm only)  UL Listed for Wet Location
Housing Ratings			
 Code compliant for use in appropriate fire-rated assemblies up to a maximum of 2-hours	 STC/IC Sound Rated	 ASTM E283 Certified Air Tight	 IC (Insulation Contact) Rated
Standards   		Guarantee 50,000 hrs 5 years	Additional Options  Non-Conductive Dead Front



PRODUCT BUILDER

HOUSING

PRODUCT CODE		APPLICATION		APERTURE		OPTION	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
DRDH	Housing	N	New Construction	JO	SurfaceFrame Octagonal Junction Box	[Blank]	Integrated Driver
						70SEM	EM Driver ¹ , 0-10V, 750 lm
						100SEM	EM Driver ¹ , 0-10V, 1000 lm

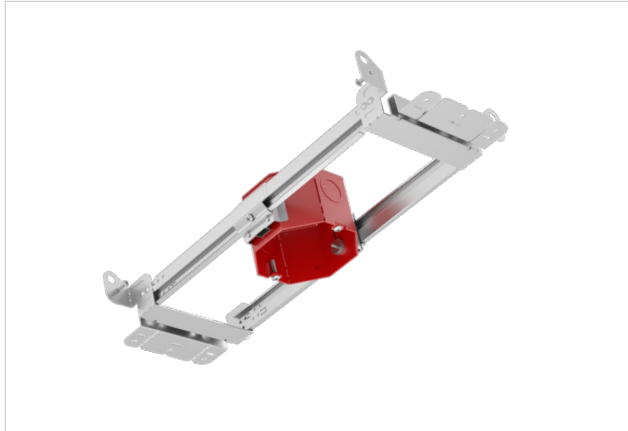
LED MODULE

PRODUCT CODE		APERTURE		SHAPE		LUMENS		CRI		CCT		DRIVER	
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DRD5S	Module	4	4" Aperture	R	Round	07	750 lm	9	90+ CRI	27	2700K	T	Integrated TRIAC/ELV, 120V only
				S	Square	10	1000 lm			30	3000K	O	Integrated 0-10V, 120/277V
										35	3500K	TDF	Integrated TRIAC/ELV, 120V only, Non-Conductive ¹
												ODF	Integrated 0-10V, 120/277V, Non-Conductive ¹
												EM	Emergency ¹ w/ Test Switch

¹ EM option (housing) and Emergency driver (module) must be selected together
² Only available for Round shape, 750 lm, 2700K or 3000K CCT



HOUSING



SurfaceFrame

New Construction Octagonal Junction Box

DRDHNJO

SUMMARY

JUNCTION BOX: Equipped with (4) 1/2" trade size knockouts (two side, two top) to allow straight conduit runs. Approved for 6 (three in, three out) #12 AWG 70°C through wiring conductors.

MOUNTING: Pre-installed mounting brackets allow vertical adjustment of bar hangers up to 1"

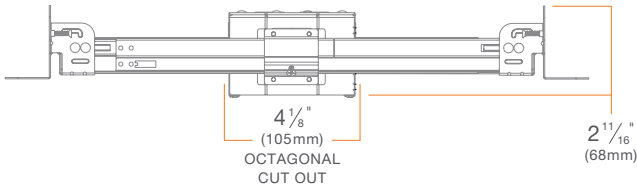
CEILING: 1/2" up to 1 3/4"

CUTOUT: 4 1/8" (105mm) octagonal opening

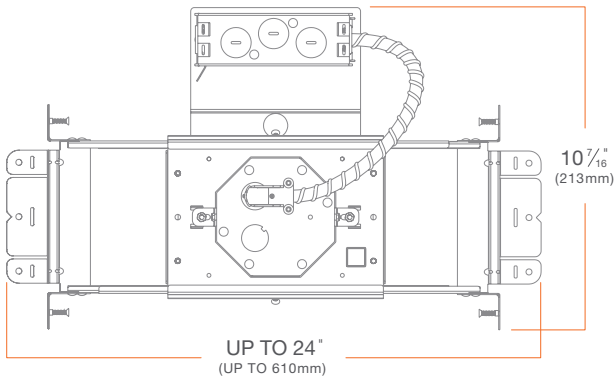
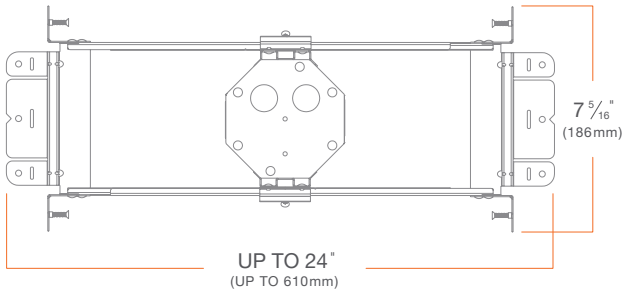
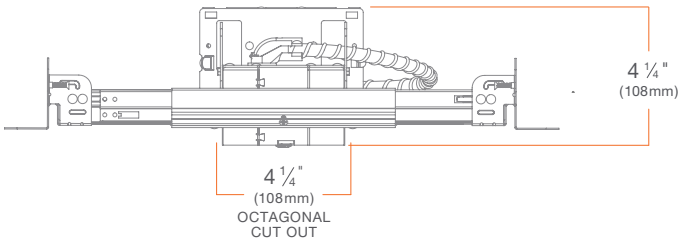
LISTINGS: Metallic outlet box certified UL514A, code compliant for use in appropriate fire-rated assemblies for up to 2-hours, STC/IIC Sound Rated, ASTM E283 certified Air Tight, IC (Insulation Contact) rated

WARRANTY: 5 year limited warranty

SurfaceFrame
DRDHNJO



SurfaceFrame w/ Emergency Lighting
DRDHNJO EM



MODULE



DRD5S

Surface Mount LED Module

DRD5S

SUMMARY

LED: Optimized LED array

SHAPE: 4" Round, 4" Square

MODULE LUMENS: 750 lm (9.0W), 1000 lm (12.0W)

COLOR QUALITY: 90+ CRI, less than 3-step SDCM

CCT: 2700K, 3000K, 3500K

INPUT VOLTAGE: 120V only (TRIAC/ELV), 120/277V (0-10V)

DIMMING: Down to less than 5% for TRIAC/ELV at 120V, 1% for 0-10V at 120/277V

MAX INPUT CURRENT (120V): 0.075 amps, 0.1047 amps

MAX INPUT CURRENT (277V): 0.034 amps, 0.047 amps

POWER FACTOR: Greater than 0.9

TOTAL HARMONIC DISTORTION: Less than 20%

AMBIENT OPERATING TEMPERATURE: -20°C to 40°C

EMERGENCY LIGHTING: Optional Emergency LED Driver with Integrated Test Switch for lighting up to 90 minutes in event of power failure

PHOTOMETRIC TESTING: Tested in accordance to IESNA LM-79-2008

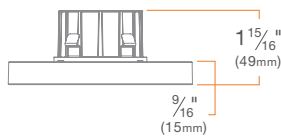
LISTINGS: ENERGY STAR® qualified, California Title 24 2019 JA8 compliant, UL Listed for Wet Location, UL Closet Rating compliant (750 lm only), cULus Listed

LIFETIME: 50,000 hours at 70% lumen maintenance

WARRANTY: 5 year limited warranty

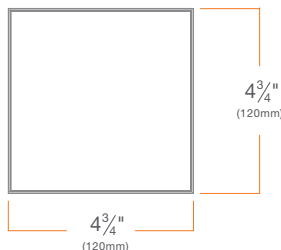
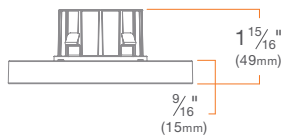
4" Round

DRD5S4R



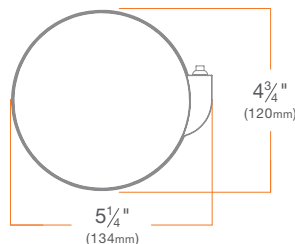
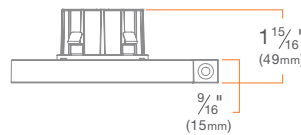
4" Square

DRD5S4S



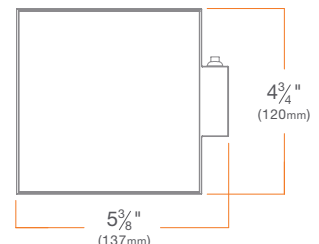
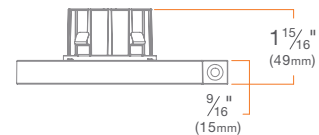
4" Round w/ EM Test Switch

DRD5S4R EM



4" Square w/ EM Test Switch

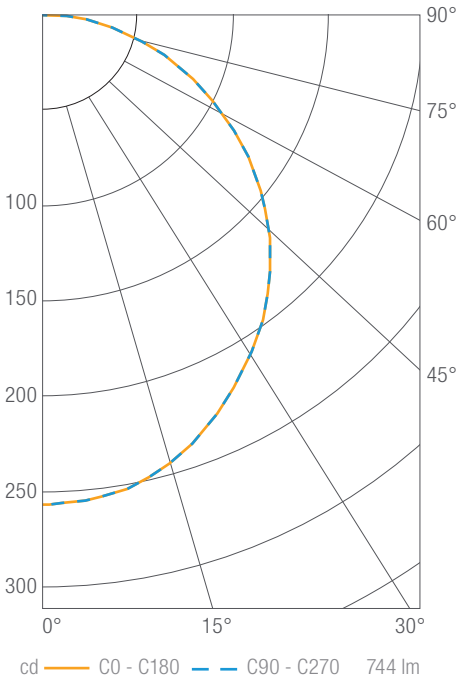
DRD5S4S EM





PHOTOMETRY

DRD5S 4" Round, 750 lm, 90 CRI, 3000K DRD5S4R07930



Luminous Intensity

Gamma	C 0°
0°	258
5°	256
10°	253
15°	247
20°	237
25°	226
30°	213
35°	200
40°	185
45°	169
50°	151
55°	132
60°	113
65°	93
70°	73
75°	54
80°	35
85°	18
90°	6

Values in candela

Zonal Lumen Summary

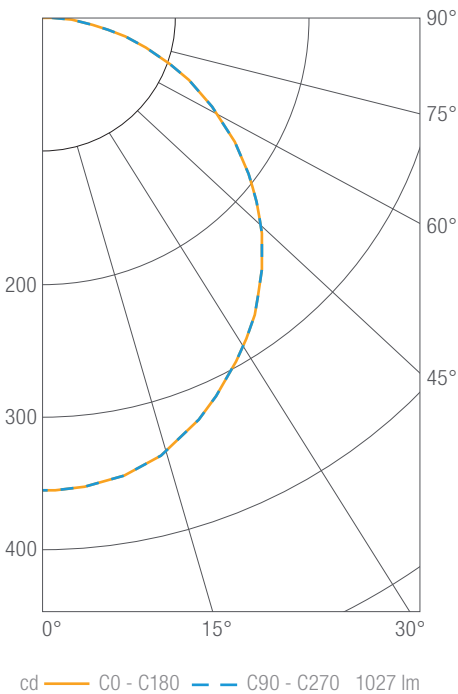
Zone	Lumens	Luminaire %
0-30	199	27
0-40	324	44
0-60	573	77
0-90	744	100
0-180	744	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3.0'	29	8.8'
6.0'	7	17.7'
9.0'	3	26.5'
12.0'	2	35.3'

Beam Angle: 70°

DRD5S 4" Round, 1000 lm, 90 CRI, 3000K DRD5S4R10930



Luminous Intensity

Gamma	C 0°
0°	356
5°	354
10°	349
15°	340
20°	327
25°	312
30°	294
35°	276
40°	255
45°	233
50°	209
55°	183
60°	155
65°	128
70°	101
75°	74
80°	48
85°	25
90°	9

Values in candela

Zonal Lumen Summary

Zone	Lumens	Luminaire %
0-30	274	27
0-40	447	44
0-60	790	77
0-90	1027	100
0-180	1027	100

Illuminance Chart

Distance from LED	Foot Candles	Diameter
3.0'	40	8.8'
6.0'	10	17.7'
9.0'	4	26.5'
12.0'	2	35.3'

Beam Angle: 63°

DIMMER COMPATIBILITY
Recommended Phase-control Dimmers (Dims down to 5% nominal measured light output)

Brand	Series	Model Number	Max Load 750lm DRD5S4R07	Max Load 1000lm DRD5S4R10
Cooper	Aspire	9573	29	23
Leviton	Vizia	VPE06	64	48
Lutron	CL Series	AYCL-253, DVCL-253	26	20
	Grafik Eye 3000	QSGR-3P, QSGR-6P	31	24
	Grafik Sys / Homeworks	RPM-4U	44	35
	Maestro CL	MACL-153M, MSCL-OP153M, MSCL-VP153M	16	12

Compatible Phase-control Dimmers¹ (Dims down to 20% nominal measured light output)

Brand	Series	Model Number	Max Load 750lm DRD5S4R07	Max Load 1000lm DRD5S4R10
Cooper	Decorator	DLC03P, DAL06P	29	23
Legrand	Adorne	ADTP703	48	38
	Digital Light Management	LMRC-221	250	195
Leviton	IllumaTech	IPE04	32	25
	Vizia	VPE04	42	32
Lutron	CL Series	AYCL-153, CTCL-153, DVCL-153, LGCL-513, SCL-153, TGCL-513	15	11
	Maestro Wireless	MRF2-6ELV, MRF2-6CL	15	12
	Radio RA	RRD-6NA, RRD-6CL, RRD-6D	15	12
	Skylark Contour CL	CTCL-153P	15	12

¹ Dimmer compatibility reflects performance compatibility only. Please reference your local codes for application.



DIMMER COMPATIBILITY

Recommended 0-10V Dimmers (Dims down to 1% nominal measured light output)

Brand	Series	Model Number	Max Load 750lm DRD5S4R07	Max Load 1000lm DRD5S4R10
Legrand	Titan	CD4FB	200	150
Leviton	IllumaTech	IP710-DLZ	120	90
Lithonia	Synergy	ISD BC	120	90
Lutron	Diva	DVTV	100	75
	Nova	NFTV	200	150
	Nova	NTSTV-DV	100	75
	Vive-PowPak	RMJS-8T-DV-B	60	45
Watt Stopper	Micro-Decorator	DCLV1	60	45
	DLM	LMRC-211	100	75



SurfaceFrame Options

Shallow Recessed LED Downlight

DRD2 & SurfaceFrame

DRDHNJO Octagonal Junction Box

DRD2 & SurfaceFrame Alt/EM

Alternate Dimming and/or Emergency Lighting

DRDHNJO Octagonal Junction Box

Surface Mount LED Downlight

DRD5S & SurfaceFrame

DRDHNJO Octagonal Junction Box

FORM AND FUNCTION

- Sleek, low profile housing
- Spec grade performance
- Engineered for optimum thermal management
- Low depreciation rate
- Reduces energy consumption and costs up to 65%
- Exceeds IES foot candle levels utilizing the least number of poles and fixtures per project
- Optical system designed for:
 - Parking Lots
 - Auto Dealerships
 - General Area Lighting

CONSTRUCTION

- Die Cast Aluminum
- External cooling fins, Finite Element Analysis (FEA) designed
- Corrosion resistant external hardware
- One-piece silicone gasket ensures IP-65 seal for electronics compartment
- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP-67 level seal around each PCB
- Grade 2 Clear Anodized Optics Plate™ standard

FINISH

- 3-5 mils electrostatic powder coat.
- NLS' standard high-quality finishes prevent corrosion protects against and extreme environmental conditions

WARRANTY

Five-year limited warranty for drivers and LEDs.



NV-1 with DPS3

LISTINGS

- Certified to UL 1598
- UL 8750
- CSA C22.2 No. 250.0
- DesignLights Consortium® (DLC)
- DesignLights Consortium Premium® (DLCP)
- IP65/ IP67 Rated
- 3G Vibration Rated per ANSI C136.31-2010



LED WATTAGE CHART

	16L	32L	48L	64L
350 milliamps	18w	-	-	-
530 milliamps	28w	-	-	-
700 milliamps	36w	71w	104w	136w
1050 milliamps	56w	106w	156w	205w

Project Name: _____ Type: _____

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Cat #	Light Dist.	No. of LEDs	Milliamps	Kelvin	Volts	Mounting	Color	Options
NV Size 1 (NV-1)	Type 2 (T2)	16 (16L)	350	3000K	120-277	Direct Pole Single, D180 3" (DPS3)	Bronze (BRZ)	Bird Deterrent (BD) Marine Grade Finish (MGF) Optic Plate Painted to Match Fixture (OPP) Nema 7-Pin Receptacle (PE7) Photocell + Receptacle (PCR) Receptacle + Shorting Cap (PER) FSP-211 with Motion Sensor (UNV Voltage) (FSP-20) *9'-20" Heights (FSP-40) *21'-40" Heights Quick Mount Bracket (QMB) Retrofit Mount Bracket (RQMB) Round Pole Adaptor 3"- 4" Pole (RPA4) Round Pole Adaptor 5"- 6" Pole (RPA5) Rotated Optic Left (ROL) Rotated Optic Right (ROR) Automotive House Side Shield (AHS) House Side Shield (HSS) *HSS not applicable with N3 - NEMA 30° Optics
	Type 3 (T3)	32 (32L)	(35)	(30K)	(UNV)		White (WHT)	
	Type 4 (T4)	48 (48L)	530	4000K	347-480	7" (DPS7)	Silver (SVR)	
	Type 5 (T5)	64 (64L)	(53)	(40K)	(HV)	Knuckle Mount (KM) Wall Mount (WM) Trunnion Mount (TM)	Black (BLK)	
	Nema 3 30° Narrow Beam (N3)		1050	(1)	(50K)		Graphite (GPH) Grey (GRY) Custom (CS)	

*Standard finish is stainless steel. Can be painted to match fixture
 *See next page for Arm Configurations
 *For Round Pole, please specify RPA4 or RPA5

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver by Philips Advance
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- All internal wiring UL certified for 600 VAC and 105°C
- All drivers, controls, and sensors housed in enclosed IP-65 compartment
- Lumileds Luxeon MX LED's
- CRI >70
- Color temperatures: 3000K, 4000K, 5000K
- Surge Protection: 20KVA supplies as standard.

OPTIONS

- **BIRD DETERRANT (BD)**—offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.
- **MARINE GRADE FINISH (MGF)**—A multi-step process creating protective finishing coat against harsh environments.
 - Chemically washed in a 5 stage cleaning system.
 - Pre-baked
 - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
 - 1-2 feet inside pole coverage top and bottom.
 - Oven Baked.
 - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- **SHIELDS (HSS, AHS)**—House Side Shield (HSS) is designed for full property line cut-off. Automotive House Side Shield (AHS) is a single-sided shield allowing partial cut-off on either side or front of luminaire.
- **ROUND POLE ADAPTER (RPA)**— When using round poles, specify Round Pole Adapter (RPA). Specify RPA4 when installing on 3"-4" round poles, and RPA5 when installing on 5"-6" round poles.

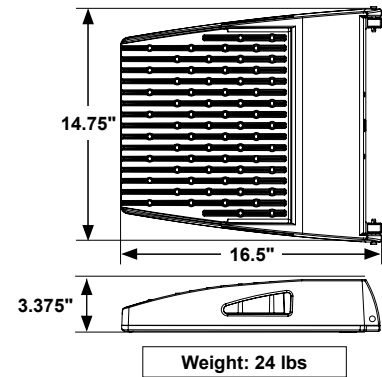
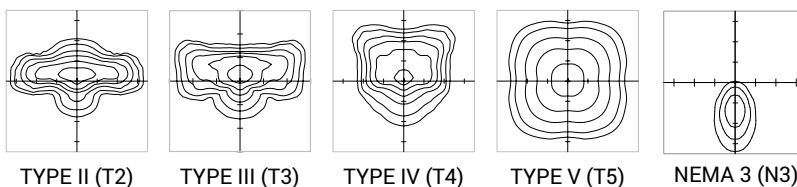
CONTROLS

- **FSP-211 (FSP-X)**—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
 - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
 - FSP-20 mounting heights 9-20 feet
 - FSP-40 mounting heights 21-40 feet.
 - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, reprogrammable in the field.
- **NEMA 7-PIN RECEPTACLE (PE7)**—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.

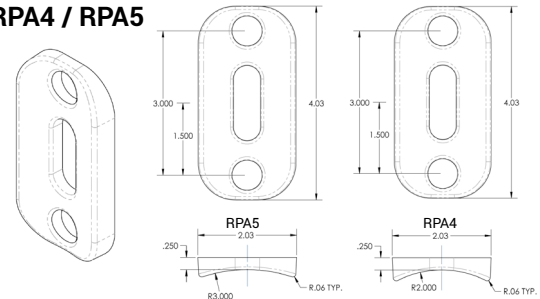
OPTICS

Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

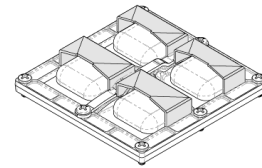
- IES Types



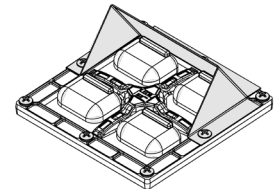
RPA4 / RPA5



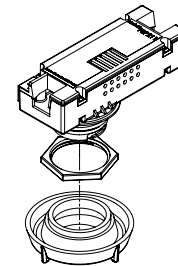
HOUSE SIDE SHIELD



AUTOMOTIVE HOUSE SIDE SHIELD



FSP-211



LUMENS

PART NUMBER	N3	LM/W	T2	LM/W	DLC	T3	LM/W	DLC	T3 HSS	LM/W	T4	LM/W	DLC	T4 AHS	LM/W	T4 HSS	LM/W	T5	LM/W	DLC	W
NV-1-16L-35-30K	2016	112	2106	117	P	2106	117	P	1134	63	2187	116	P	1296	72	1116	62	2231	118	P	18
NV-1-16L-35-40K	2088	116	2268	126	P	2286	127	P	1206	67	2250	125	P	1368	76	1188	66	2304	128	P	18
NV-1-16L-35-50K	2160	120	2376	132	P	2394	133	P	1278	71	2358	131	P	1440	80	1260	70	2412	134	P	18
NV-1-16L-53-30K	3136	112	3192	114	P	3220	115	P	1764	63	3119	113	P	2016	72	1736	62	3248	116	P	28
NV-1-16L-53-40K	3248	116	3472	124	P	3472	124	P	1876	67	3444	123	P	2128	76	1848	66	3500	125	P	28
NV-1-16L-53-50K	3360	120	3612	129	P	3640	130	P	1988	71	3584	128	P	2240	80	1960	70	3668	131	P	28
NV-1-16L-7-30K	4032	112	3960	110	P	3960	110	P	2268	63	3973	109	P	2592	72	2232	62	3996	111	P	36
NV-1-16L-7-40K	4176	116	4428	123	P	4284	119	P	2412	67	4212	117	P	2736	76	2376	66	4320	120	P	36
NV-1-16L-7-50K	4320	120	4644	129	P	4500	125	P	2556	71	4428	123	P	2880	80	2520	70	4500	125	P	36
NV-1-16L-1-30K	6272	112	6160	110	S	6384	114	P	3528	63	6232	112	P	4032	72	3472	62	6440	115	P	56
NV-1-16L-1-40K	6496	116	6832	122	P	6888	123	P	3752	67	6776	121	P	4256	76	3696	66	6944	124	P	56
NV-1-16L-1-50K	6720	120	7168	128	P	7224	129	P	3976	71	7112	127	P	4480	80	3920	70	7280	130	P	56
NV-1-32L-7-30K	7952	112	7810	110	S	7810	110	S	4473	63	7739	109	S	5112	72	4402	62	7881	111	S	71
NV-1-32L-7-40K	8236	116	9017	127	P	8449	119	P	4757	67	8307	117	P	5396	76	4686	66	8520	120	P	71
NV-1-32L-7-50K	8520	120	9159	129	P	8875	125	P	5041	71	8733	123	P	5680	80	4970	70	8946	126	P	71
NV-1-32L-1-30K	11872	112	11660	110	S	12084	114	S	6678	63	11820	112	S	7632	72	6572	62	12190	115	S	106
NV-1-32L-1-40K	12296	116	12932	122	P	13038	123	P	7102	67	12826	121	P	8056	76	6996	66	13144	124	P	106
NV-1-32L-1-50K	12720	120	13568	128	P	13674	129	P	7526	71	13462	127	P	8480	80	7420	70	13780	130	P	106
NV-1-48L-7-30K	11648	112	11440	110	S	11440	110	S	6552	63	11336	109	S	7488	72	6448	62	11544	111	S	104
NV-1-48L-7-40K	12064	116	13208	127	P	12376	119	P	6968	67	12168	117	P	7904	76	6864	66	12480	120	P	104
NV-1-48L-7-50K	12480	120	13520	130	P	13000	125	P	7384	71	12792	123	P	8320	80	7280	70	13104	126	P	104
NV-1-48L-1-30K	17472	112	17160	110	S	17784	114	S	9828	63	17472	112	S	11232	72	9672	62	17940	115	S	156
NV-1-48L-1-40K	18096	116	19032	122	P	19188	123	P	10452	67	18876	121	P	11856	76	10296	66	19344	124	P	156
NV-1-48L-1-50K	18720	120	19968	128	P	20124	129	P	11076	71	19812	127	P	12480	80	10920	70	20280	130	P	156
NV-1-64L-7-30K	15232	112	14960	110	S	14960	110	S	8568	63	14824	109	S	9792	72	8432	62	15096	111	S	136
NV-1-64L-7-40K	15776	116	17272	127	P	16184	119	P	9112	67	15912	117	P	10336	76	8976	66	16320	120	P	136
NV-1-64L-7-50K	16320	120	17680	130	P	17000	125	P	9656	71	16728	123	P	10880	80	9520	70	17136	126	P	136
NV-1-64L-1-30K	22960	112	22550	110	S	23370	114	S	12915	63	22960	112	S	14760	72	12710	62	23575	115	S	205
NV-1-64L-1-40K	23780	116	25010	122	P	25215	123	P	13735	67	24805	121	P	15580	76	13530	66	25420	124	P	205
NV-1-64L-1-50K	24600	120	26240	128	P	26445	129	P	14555	71	26035	127	P	16400	80	14350	70	26650	130	P	205

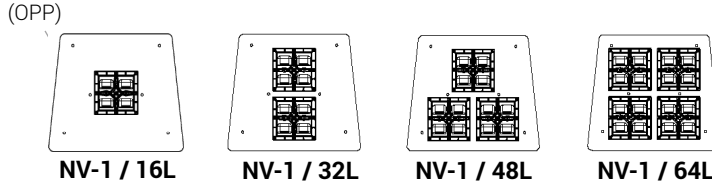
*DLC S= Standard  P= Premium 

BUG RATINGS

PART NUMBER	T2	T3	T3 HSS	T4	T4 HSS	T5
NV-1-16L-35-30K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV-1-16L-35-40K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G0
NV-1-16L-35-50K	B1-U0-G1	B1-U0-G1	B0-U0-G0	B1-U0-G1	B0-U0-G0	B2-U0-G2
NV-1-16L-53-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-53-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-53-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B2-U0-G1
NV-1-16L-7-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-7-40K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-7-50K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-1-30K	B1-U0-G1	B1-U0-G1	B0-U0-G1	B1-U0-G1	B0-U0-G1	B3-U0-G1
NV-1-16L-1-40K	B1-U0-G1	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-16L-1-50K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-32L-7-30K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G1	B3-U0-G2
NV-1-32L-7-40K	B1-U0-G2	B2-U0-G2	B0-U0-G1	B2-U0-G2	B0-U0-G2	B3-U0-G2
NV-1-32L-7-50K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2
NV-1-32L-1-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-32L-1-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B3-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-32L-1-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B0-U0-G2	B4-U0-G2
NV-1-48L-7-30K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-7-40K	B2-U0-G2	B2-U0-G2	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-7-50K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B2-U0-G2	B0-U0-G2	B4-U0-G2
NV-1-48L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-48L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV-1-48L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B5-U0-G3
NV-1-64L-7-30K	B2-U0-G2	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-7-40K	B3-U0-G3	B3-U0-G3	B0-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-7-50K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G2	B4-U0-G2
NV-1-64L-1-30K	B3-U0-G3	B3-U0-G3	B1-U0-G2	B3-U0-G3	B1-U0-G3	B5-U0-G3
NV-1-64L-1-40K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3
NV-1-64L-1-50K	B3-U0-G3	B3-U0-G3	B1-U0-G3	B3-U0-G4	B1-U0-G3	B5-U0-G3

OPTICAL CONFIGURATIONS

Rotatable Optics (ROR) Rotated Right, (ROL) Rotated Left options available. Optics field and factory rotatable.



* **OPTIC PLATE PAINTED TO MATCH FIXTURE FINISH (OPP)**– Optic Plate standard clear anodized, Grade 2. When (OPP) specified, Optic Plate finish will match fixture finish.

EPA

EPA	SGL	D90	D180	T90	T120	QD
NV-1-DP	0.46	1.14	0.92	1.34	1.37	1.34
NV-1-KM	0.54	N/A	1.08	N/A	N/A	N/A
NV-1-ASA	0.75	1.29	1.50	1.99	2.05	1.99

L70/L90 DATA

TEMP.	NV-1	
	L70 (64L-1050mA)	L90 (64L-1050mA)
25°C	483,000	160,000

DPX ARM LENGTH

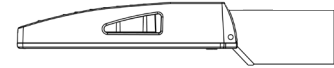
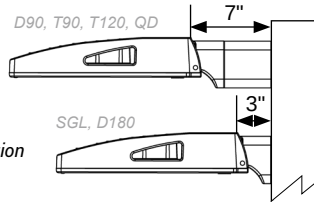
DPX ARM LENGTH	SGL	D90	D180	T90	T120	QD
NV-1	3"	7"	3"	7"	7"	7"

MOUNTING OPTIONS

DIRECT POLE (DP)

Standard mounting is extruded aluminum in lengths of 3" and 7".

*Arm lengths may vary depending on configuration



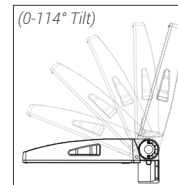
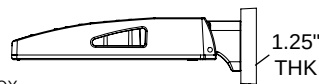
TENNIS ARM (TA)

Steel fitter slips over 3.5" x 1.5" rectangular arm.

*See Tennis Arm Spec Sheet for details

WALL MOUNT (WM)

Cast Aluminum Plate for direct wall mount. 3" extruded aluminum arm mounts directly to a cast wall mount box.



KNUCKLE MOUNT (KM)

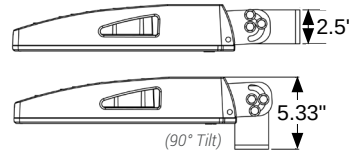
Die Cast Knuckle great for adjustable installation on 2-3/8" OD vertical or horizontal tenon.

- Max Uptilt of 114 degrees
- Adjustable in 6 degree increments

TRUNNION MOUNT (TM)

Steel, bolt-on-mounting for adjustable installation with a maximum uplift of 90 degrees.

*Unpainted stainless steel is standard



OPTIONAL

Optional Cast Aluminum Bracket, **Quick Mount Bracket (QMB)** and **Retrofit Quick Mount Bracket (RQMB)**, designed for quick mounting on Direct Square or Round Poles. Cleat mounts directly to pole for easily hung fixtures.

