## ABBREVIATIONS

Е

ER

R

N

A.F.F.

С

E.C.

E.D.F.

GND

MLO

МСВ

S.E.S.

WΡ

WR

U.N.O.

 $\bigcirc$ 

 $\bigcirc$ 

EXISTING LIGHT OR DEVICE TO REMAIN
EXISTING LIGHT OR DEVICE TO BE REMOVED OR RELOCATED
RELOCATED LIGHT OR DEVICE
NEW LIGHT OR DEVICE
ABOVE FINISHED FLOOR
CONDUIT
EMPTY CONDUIT WITH PULLWIRE
ELECTRICAL DRINKING FOUNTAIN.
GROUND
MAIN LUGS ONLY
MAIN CIRCUIT BREAKER
SERVICE ENTRANCE SECTION
WEATHER PROOF
WATER RESISTANT
UNLESS NOTED OTHERWISE
SECURITY CAMERA
SPEAKER

ELECTRI	CAL SYMBOLS LEGEND	ELECTRIC
SYMBOLS	DESCRIPTION	A. PRIOR TO SUE VISIT THE CON
<b>^</b>	FLUORESCENT FIXTURE, WITH FIXTURE DESIGNATED BY LETTER.	HAVE TO OPE ALLOWANCE W PART.
NL	NIGHT LIGHT - NOT SWITCHED	B. THE CONTRAC SURFACES RE
ою	CEILING OR WALL MOUNTED FIXTURE	INSTALLATION ALL SURFACES
Q	JUNCTION BOX	C. SEE ARCHITEC LOCATION OF DRAWINGS AN OF LIGHTING F FIXTURES.
	SINGLE/DOUBLE FACED EXIT SIGN - NOT SWITCHED	D. PRIOR TO ROU OF EQUIPMEN
<b>₩</b>	DOUBLE HEAD EMERGENCY LIGHT WITH BATTERY BACK UP.	E. GROUT AND S
S	SINGLE POLE SWITCH, +48" A.F.F.	F. ALL WIRING TO
S <sub>3</sub>	THREE WAY SWITCH, +48" A.F.F.	MINIMUM CONI AUTHORITIES
Sa	OUTLET CONTROL INDICATOR	G. BRANCH CIRCI FEEDERS. SHA 2017 NEC SEF
SD	DIMMER SWITCH	HANDLE TIE F H. PROVIDE CODE
S <sub>OS</sub>	OCCUPANCY SENSOR SWITCH	I. ALL ELECTRIC
ST	THERMAL OVERLOAD SWITCH	J. ALL ELECTRIC AND ALL APP
ф	DUPLEX RECEPTACLE, +18" A.F.F.	K. IT SHALL BE DRAWINGS.
¢	DUPLEX RECEPTACLE ABOVE COUNTER, VERIFY HEIGHT	L. PROVIDE NEW CIRCUIT FROM
<b>₽</b>	250 VOLT RECEPTACLE PER UNIT REQUIREMENTS	M. ELECTRICAL C THESE ITEMS DOWNSTREAM
₽	FOURPLEX RECEPTACLE, +18" A.F.F.	FIRE ALA
φ	HALF SWITCHED DUPLEX RECEPTACLE	FIRE ALARM SYSTE DEVICES SHOWN ON NOT SHOW ALL FIR
	POWER/PHONE/DATA FLUSH FLOOR OUTLET	REQUIREMENTS, INC AND AUTHORITY HA INCLUDED IN THE E
V	TELEPHONE/DATA SYSTEM OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4"C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, +18" A.F.F.	ENGINEERED FIRE A CONTRACTOR AND ANY WORK COMMEN
$\mathbf{A}$	TELEVISION OUTLET PLASTER RING AT +18" A.F.F. (U.N.O.) HUBBELL COVERPLATE. 3/4"C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.	
$\frown$	CONDUIT BELOW FLOOR OR UNDERGROUND	
$\frown$	CONDUIT IN WALL OR ABOVE CEILING	
LA 1,3	HOMERUN TO PANEL (SEE GROUNDING NOTE)	
Ŋ	MOTOR CONNECTION	
Ľ	DISCONNECT SWITCH	
Ē	DUCT SMOKE DETECTOR	
	LEGEND MAY NOT APPLY TO DRAWING(S). ***	

## ICAL SPECIFICATION

- UBMITTING BID, CONTRACTOR SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS AND CONSTRUCTION SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL PERATE AND WHICH IN ANY WAY AFFECTS THE WORK UNDER HIS CONTRACT. NO SUBSEQUENT WILL BE MADE IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS
- ACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING REQUIRING PATCHING, PLASTERING, PAINTING AND /OR OTHER REPAIR DUE TO THE IN OF ELECTRICAL WORK UNDER THE TERMS OF THE CONTRACT. CLOSE ALL OPENINGS, REPAIR CES, ETC., AS REQUIRED.
- ECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND BUILDING DETAILS. VERIFY F ALL OUTLETS, SWITCHES, AND WALL MOUNTED LIGHTING FIXTURES WITH ARCHITECTURAL AND ACTUAL CONDITIONS. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION G FIXTURES. VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS BEFORE ORDERING
- ROUGH-IN AND FINAL CONNECTION, VERIFY ELECTRICAL CHARACTERISTICS AND EXACT LOCATION
- SEAL ALL CONDUIT PENETRATIONS OF WALLS AND FLOOR SLABS TO PRESERVE FIRE RATING TIGHT INTEGRITY.
- TO BE INSTALLED IN RACEWAYS. TYPE OF RACEWAY SHALL BE AS REQUIRED BY CODE. DNDUIT SIZE SHALL BE 1/2". MC CABLE WILL BE ALLOWED WHERE APPROVED BY LOCAL S AND BUILDING OWNER. RACEWAYS RUN ACROSS ROOF SHALL BE MINIMUM 4" ABOVE ROOF.
- RCUIT WIRING SHALL BE THHN/THWN INSULATION. EXTERIOR WIRING SHALL BE THWN-2. PANEL HALL BE TYPE XHHW. ALL WIRE SHALL BE COPPER. MINIMUM WIRE SIZE SHALL BE #12. PER SEPARATE NEUTRALS ARE TO BE PROVIDED FOR EACH CIRCUIT OR PROVIDE MULTI-POLE FOR EACH MULTI-WIRE CIRCUIT
- DDE SIZED BOND WIRE IN ALL CONDUITS.
- RICAL EQUIPMENT SHALL BE NEW, U.L. APPROVED AND COMMERCIAL GRADE.
- RICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL CODE, (N.E.C.), PPLICABLE FEDERAL, STATE AND LOCAL CODES.
- E THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE ONE (1) SET OF AS-BUIILT
- EW PANEL DIRECTORIES INDICATING SPECIFIC CIRCUIT INFORMATION TO DISTINGUISH EACH OM ANY OTHER PER NEC.
- CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION OF DEVICES, WIRE & CONDUIT. WHERE ARE NO LONGER USED ALL UNUSED WIRE SHALL BE REMOVED BACK TO THE PANEL. ANY I EQUIPMENT TO REMAIN IN USE SHALL BE RECONNECTED.

## ARM NOTE

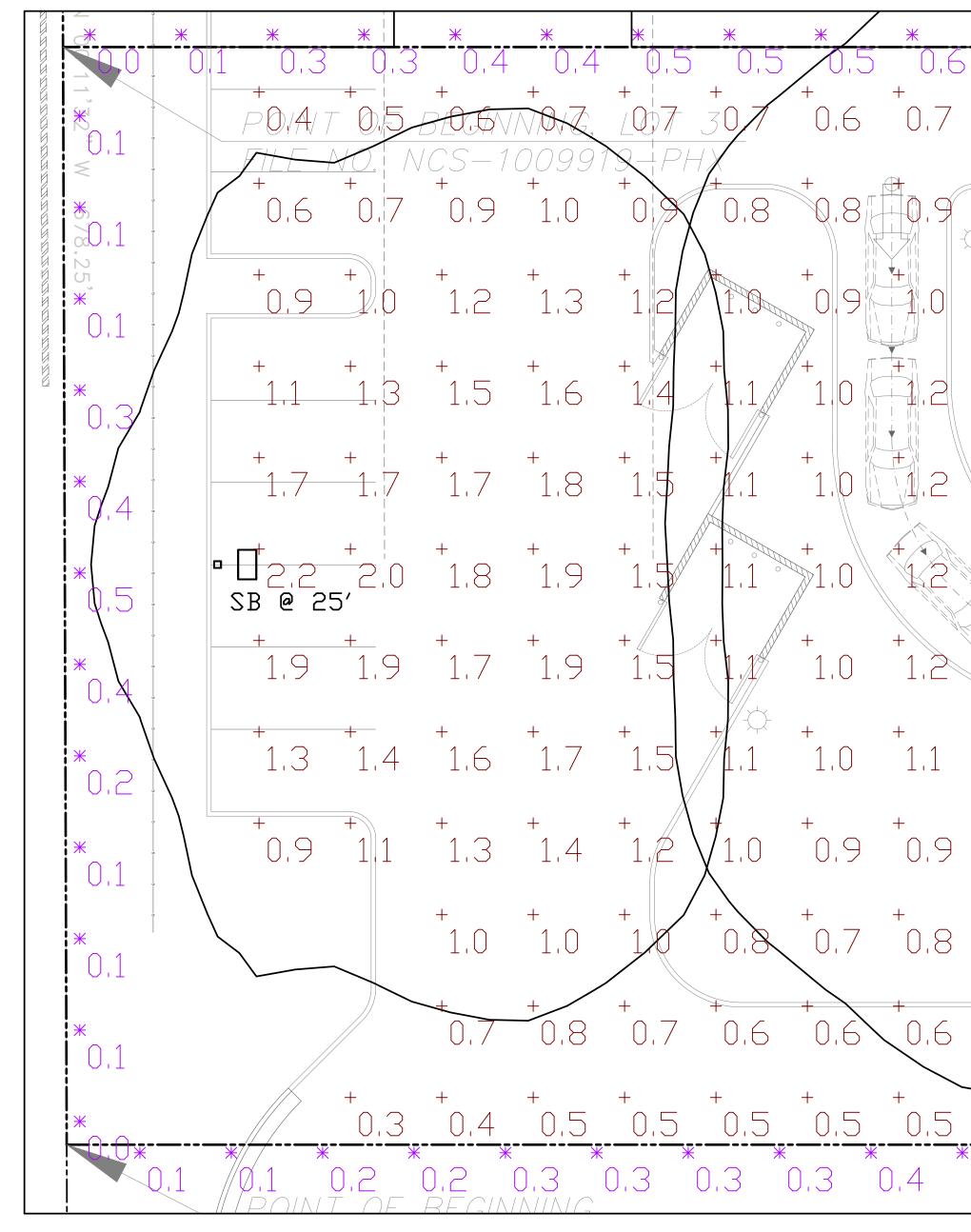
TEM MODIFICATIONS IS INCLUDED IN THIS PROJECT & SHALL BE A DEFERRED SUBMITTAL. ANY ON THE ELECTRICAL PLANS ARE FOR BID PURPOSES ONLY, AND NOT FOR CONSTRUCTION. PLANS DO IRE ALARM DEVICES REQUIRED. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT FIRE ALARM NCLUDING ANY MODIFICATIONS OR UPGRADES NECESSARY TO THE EXISTING SYSTEM, WITH LANDLORD HAVING JURISDICTION. CONTRACTOR IS TO PROVIDE COMPLETE DWGS & ALL ALL COSTS SHALL BE BID. FIRE ALARM DEVICES ARE TO BE COMPATIBLE WITH LANDLORDS FIRE ALARM SYSTEM. IF ALARM DRAWINGS ARE REQUIRED, THEY ARE TO BE PREPARED BY A LOCAL, LICENSED FIRE ALARM SUBMITTED TO THE LANDLORD AND AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO ENCEMENT.

	ARC 8145 Scot 480.	WART + REIN CHITECTURE, 5 E. Indian Ben tsdale, Arizona 515.5123 A.sra360.com	PLLC d Rd.	)
	architect:	4199 JEFFRE WILS Passing	Y A.	
	consultant:			
	contact:	ANGELA'S SEAFOOD 907 E. CARLA VISTA DRIVE GILBERT, AZ 85295	CONTACT: TONY CHRISTOFELLIS T: (480) 332-8709	This drawing is an instrument of service and the property of Stewart + Reindersma Architecture, pllc, and shall remain their property. The use of this drawing shall be restricted to the original site for which it is prepared and publication thereof is expressly limited to such use.
	project:	ANGELA'S SEAFOOD	SWC GUADALUPE ROAD & SIGNAL BUTTE ROAD	MESA, ARIZUNA 03212
	date: issued	for:		04/28/21
	revision			EMENTS BMITTAL e:
	$\boxed{1}$			
	$\boxed{3}$ $\boxed{4}$			
ļ	job no. sheet t			21-055
		ELECTRIC SPECIFICA		
	sheet r		0.	0

ARDEBILI Engineering

∎× ₩0

Project Number: 21274 | Project Manager: BH 8100 E Indian School Rd. Suite 205, Scottsdale, AZ 85251 P: 480.626.7072 | ardebilieng.com



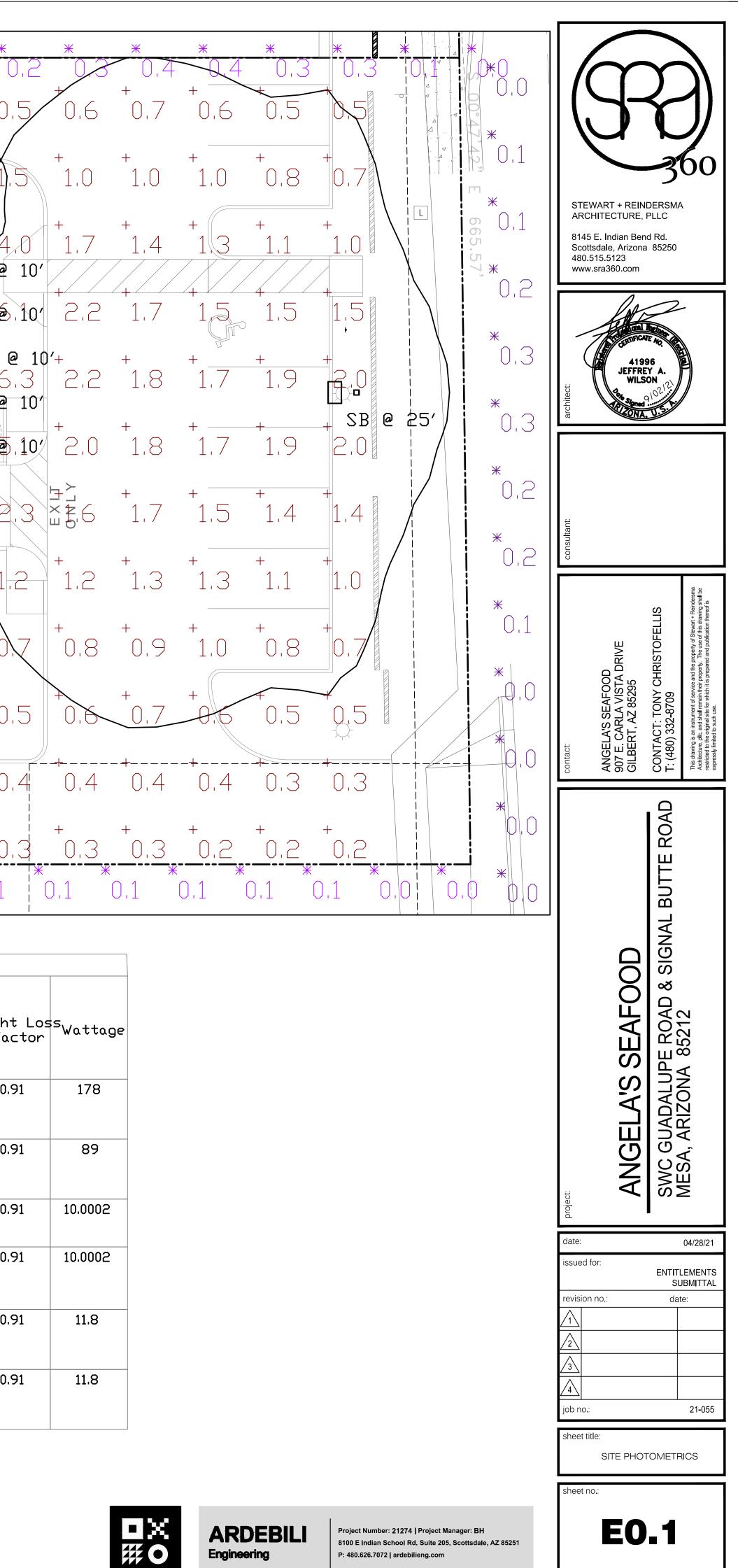
Schedu	le								
Symbol	Label	Quantit	ty Manufacturer	Catalog Number	Description	Lamp	NORTH Filename	Lumens Per Lamp	rLight Fac <sup>-</sup>
	SA	1	Lithonia Lighting	(2) DSX0 LED P5 40K T5W MVOLT SPA (FINISH) / SSS 22.5' W/2.5' BASE	TWIN-HEAD DSX0 LED P5 40K T5W M∨DLT	LED - 4000K	DSX0_LED_P5_4 OK_T5W_MVOLT .ies	12047	0.91
	SB	2	Lithonia Lighting	DSX0 LED P5 40K TFTM MVOLT SPA HS (FINISH) / SSS 22.5' W/2.5' BASE	DSX0 LED P5 40K TFTM MVOLT with houseside shield	LED - 4000K	DSX0_LED_P5_4 OK_TFTM_MVOL T_HS.ies	9119	0.91
	SC	1	Lithonia Lighting	WDGE1 LED P1 30K 80CRI VF (FINISH)	WDGE1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K, 80CRI, VISUAL COMFORT FORWARD OPTIC	LED – 3000K	WDGE1_LED_P1 _30K_80CRI_VF .ies	1161	0.91
	SCE	1	Lithonia Lighting	WDGE1 LED P1 30K 80CRI VF E4WH (FINISH)	WDGE1 LED WITH P1 - PERFORMANCE PACKAGE, 3000K, 80CRI, VISUAL COMFORT FORWARD OPTIC W/ EM BATTERY PACK	LED – 3000K	WDGE1_LED_P1 _30K_80CRI_VF .ies	1161	0.91
$\bigotimes$	SD	13	DMF LIGHTING	DRDH N JO / DRD5S 4 R 10 9 30	4IN SURFACE MOUNTED LED DOWNLIGHT	LED – 3000K	DRD5S-4R- 10930.ies	1015	0.91
$\bigotimes$	SDE	1	DMF LIGHTING	DRDH N JO 100SEM / DRD5S 4 R 10 9 30 EM	4IN SURFACE MOUNTED LED DOWNLIGHT W/EM BATTERY PACK	LED - 3000K	DRD5S-4R- 10930.ies	1015	0.91
Statist	ics					I		1	

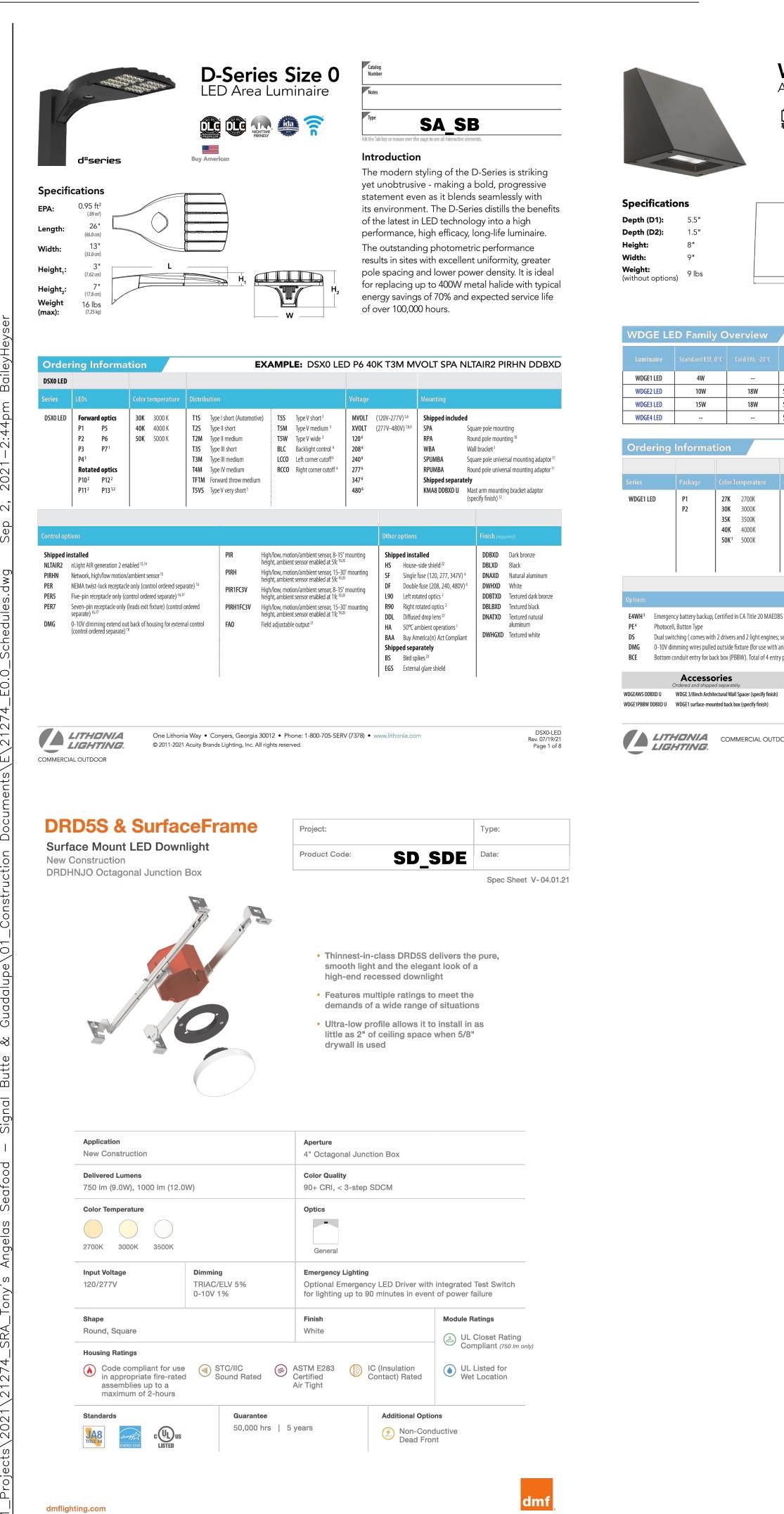
-	Description	Symbol	Avg	Max	Min	Max/Min	Av
>	PROPERTY LINE @ GUADALUPE - FC @ 3' AFG	Ж	0.1 fc	0.3 fc	0.0 fc	N/A	
5	PROPERTY LINE WITHIN SITE - FC @ 3' AFG	Ж	0.3 fc	0.7 fc	0.0 fc	N/A	
	SITE - FC @ GRADE	+	1.3 fc	7.4 fc	0.2 fc	37.0:1	6
2							

*	*	*		*		*	*	*	*	*	*	*
$\rightarrow 0,/$	U, /	U, /	U, /	U, /	U, /	U,6	, J	U,4	0,3		<u> </u>	
0,8	0,8	0,8	+ 0,8	0,8	0,8	0,7	0,7	$\underline{10}$	0,6	0,5	_0,4	
									$\backslash$ /			$\langle \langle$
	+	+ 1 1	+ 1 1	+		+	+	-+	+	+	+	
					, , U				0'			
		+	+	+	+	+	+		+	+	2 10' +	
	1.3	1.3	1,3	1,3		1.2			1.3		4,5	14
+	+	+	+	+	+		-					] @  _
1.3	1.\$	1.7	1.7	1.5	1,3	1,2-	5				SI	
					SD	@ 10'	-				•	
+		+	+ 1.9	+	1.5	+ $-$	2=				SI	)
				251	T I 🗸						SI	
+	+				+ 1,6	+					•	
1,4		C, J	ЪÐ		1,6	L , 8					·	
			+			+	• • •	• @+10\$D	• @ 10\$I	+@ 10\$	<b>₽ @ 10</b>	
1,3=			20			2,4		@+10SD 7_,4				
				+	+	+	<u>SD</u>	@ 10\$D				
1,3	1,3	1,4	1.5					4,2		3,4		1
+ 1 1	+	+	+	+	+	+	+	+	+	+	+ -	
	⊥ · (	⊥ · (	⊥ · (	⊥ · (	⊥ , (	_ · (	L I O		⊥ . (	$\cup$ , /	$\cup$ , /	U N
+	+	+	+	+	+	+ 0,8	+	+	+	+ 0,5	+	+
0,9	1.0	1.0	1.0		0,9	0,8	0.8		0,6	0,5	0,5	
+	+	+	+	~~ <del>+</del>	+	+			+	+	+	+
0.7	0.7	0.7	0.7	0.7	0.7	0,6	0,6	0.5	0,4	0,4	0,3	
-0.5	+	+	+	+	0,5	+	0.4	+ 0,4	+	+	+	+
* <u> </u>	*		*	*	*	*			*	*	*	
U,4 I	U,4 I	U, J <b>- <u>PITE P</u>I</b>	$\checkmark$ 1 1			0,4 (	13	U.J l	J, J	0,2 (	0.2	$\cup$ , $\bot$
	(1)	311E P	HOTOM				1" = 10'-0"					
	<u> </u>											

avg/Min N/A N/A

6.5:1





## WDGE1 LED Architectural Wall Sconce



Catalog Number



## Introduction

— W -------└───D1───┤

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WDGE1 delivers up to 2,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of WDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

NUTM DOSC				Lumens	(4000K)		
		1,200	2,000			-	
18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	
18W	Standalone / nLight	7,500	8,500	10,000	12,000	-	
	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

	CRI							
2700K 3000K 3500K 4000K 1 5000K	80CRI 90CRI	VF VW	Visual comfort forward Visual comfort wide	throw	MVOLT 347²	Shipped included         SRM       Surface mounting bracket         ICW       Indirect Canopy/Ceiling Washer bracket (dry/damp locations only)         Shipped separately         AWS       3/8inch Architectural wall spacer         PBBW       Surface-mounted back box (top, left, right conduit entry) Use whether is no junction box available.		
d in CA Title 20 MAEDE rs and 2 light engines; e fixture (for use with a PBBW). Total of 4 entr;	see page 3 for de an external contro		d separately)	DDBXD DBLXD DNAXD DWHXD DSSXD	Dark bronze Black Natural alumin White Sandstone	um	DDBTXD DBLBXD DNATXD DWHGXD DSSTXD	Textured dark bronze Textured black Textured natural aluminum Textured white Textured sandstone

NOTES

1 50K not available in 90CRI.

2 347V not available with E4WH, DS or PE.

3 E4WH not available with PE or DS.

4 PE not available with DS.

Not qualified for DLC. Not available with E4WH.

WDGE1 LED

Rev. 03/17/21

COMMERCIAL OUTDOOR One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com © 2019-2021 Acuity Brands Lighting, Inc. All rights reserved.

COMcheck Software Version 4.1.5.3 л) **Exterior Lighting Compliance Certifica** 

**Project Information** Energy Code: Project Title: Project Type: Exterior Lighting Zone

2018 IECC angela's seafood New Construction 3 (Other (LZ3))

Construction Site: swc guadalupe rd & signal butte rd mesa, AZ 85212





Allowed Exterior Lighting Power				
Α	В	С	D	
Area/Surface Category	Quantity	Allowed Watts / Unit	Tradable Wattage	
Illuminated area of facade wall or surface	38532 ft2	0.11	No	
		Total Tradab	le Watts (a)	=
		Total All	owed Watts	=
	Total Alle	owed Supplement	al Watts (b)	=
<ul> <li>(a) Wattage tradeoffs are only allowed between tradable areas/surface</li> <li>(b) A supplemental allowance equal to 500 watts may be applied towa</li> <li>Proposed Exterior Lighting Power</li> </ul>		oth non-tradable a	nd tradable	are
Α		В	С	
Fixture ID : Description / Lamp / Wattage Per Lamp	o / Ballast	Lamps/ Fixture	# of Fixtures	Fi \
Illuminated area of facade wall or surface (38532 ft2): Non-tradab	<u>le Wattage</u>			
LED 1: SA: TWIN HEAD: Other:	-	1	1	
LED 2: SB: HOUSESIDE SHIELD: Other:		1		
LED 3: SC: WALL SCONCE: Other:			2	
		1	2 1	
LED 4: SCE: WALL SCONCE: Other:		1 1 1	2 1 1	

LED 6: SDE: MOUNTED DOWNLIGHT: Other:

Exterior Lighting PASSES: Design 0.0% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the specifications, and other calculations submitted with this permit application. The proposed exterior lighting system designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable man requirements listed in the Inspection Checklist.

Project Title: angela's seafood Data filename: Z:\Shared\01\_Projects\2021\21274\_SRA\_Tony's Angelas Seafood - Signal Butte & Guadalupe\01\_Construction Documents\ENERGY\IECC.cck

JEFFREY A. WILSON, PE Name - Title Signature

	T				
<sup>3</sup> nce Certificate			J-		
Designer/Contractor: Ardebili Engineering, LLC 8100 E Indian School Rd. Suite 205 Scottsdale, AZ 85251 480.626.7072		ARCHI 8145 E Scottso 480.51	ART + REINI ITECTURE, F I. Indian Bend dale, Arizona 5.5123 ra360.com	PLLC d Rd.	00
C       D       E         Allowed       Tradable       Allowed Watts         atts / Unit       Wattage       (B X C)         0.11       No       4354         Total Tradable Watts (a) =       0       0         Total Allowed Watts =       4354         I Supplemental Watts (b) =       500		architect:	Aligned Aligned Aligned Aligned Aligned Aligned Aligned	YA.   *	
on-tradable and tradable areas/surfaces. <b>B C D E Lamps/ # of Fixture (C X D) Fixture Fixtures Watt.</b> 1 1 1 1 78 178 1 2 89 178 1 1 1 10 10 1 1 1 14 12 165		consultant:			
1       1       12       12         Total Tradable Proposed Watts =       0         cument is consistent with the building plans, bosed exterior lighting systems have been somply with any applicable mandatory         Page       1 of 6         Report date:       08/03/21         nal Butte &       Page       1 of 6			ANGELA'S SEAFOOD 907 E. CARLA VISTA DRIVE GILBERT, AZ 85295	CONTACT: TONY CHRISTOFELLIS T: (480) 332-8709	This drawing is an instrument of service and the property of Stewart + Reindersma Architecture, plic, and shall remain their property. The use of this drawing shall be restricted to the original site for which it is prepared and publication thereof is
<u>08/03/21</u> Date		project:		SWC GUADALUPE ROAD & SIGNAL BUTTE ROAD	
		date: issued for revision n 1 2 3 4 job no.:	0.:	ENTITLI	BMITTAL
		sheet title	SITE PHOT	OMETRI	CS





Project Number: 21274 | Project Manager: BH 8100 E Indian School Rd. Suite 205, Scottsdale, AZ 85251 P: 480.626.7072 | ardebilieng.com

**E0.2** 

## Surface Mount LED Downlight

New Construction DRDHNJO Octagonal Junction Box

Project:	Туре:
Product Code:	Date:

Spec Sheet V-06.15.20

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





### Surface Mount LED Downlight

General New Construction DRDHNJO Octagonal Junction Box

### PRODUCT BUILDER

#### HOUSING

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

### LED MODULE

PRODUC	T CODE	AP	ERTURE	SH	APE	LUM	IENS	CF	31	CCI	F	DRIVER	
DRD5S	Module	4	4" Aperture	R	Round	07	750 lm	9	90+ CRI	27	2700K	[Blank]	Integrated TRIAC/ELV
				S	Square	10	1000 lm			30	3000K	0	Integrated 0-10V
												DF	Integrated TRIAC/ELV, Non-Conductive <sup>2</sup>
												ODF	Integrated 0-10V, Non-Conductive <sup>2</sup>
												EM	Emergency <sup>1</sup> w/ Test Switch

<sup>1</sup> EM option (housing) and Emergency driver (module) must be selected together

<sup>2</sup> Only available for Round shape, 750 lm, 2700K or 3000K CCT



HOUSING

## **DRD5S & SurfaceFrame**

### Surface Mount LED Downlight

General New Construction DRDHNJO Octagonal Junction Box



## SurfaceFrame

New Construction Octagonal Junction Box **DRDHNJO** 

#### SUMMARY

**JUNCTION BOX:** Equipped with (4) <sup>1</sup>/<sub>2</sub>" 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"

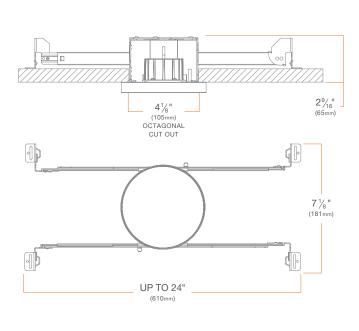
CEILING: 1/2" up to 1 3/4"

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

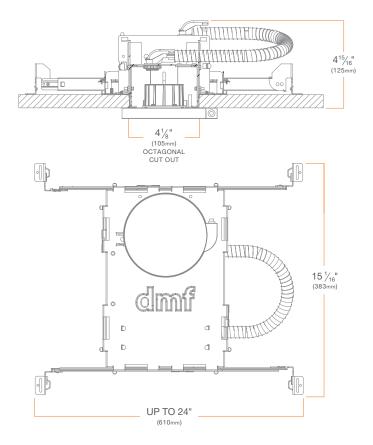
WARRANTY: 5 year limited warranty

### SurfaceFrame w/ Emergency Lighting DRDHNJO EM



**SurfaceFrame** 

**DRDHNJO** 



DMF LIGHTING 1118 E. 223rd St. Carson, CA 90745 800.441.4422 dmflighting.com

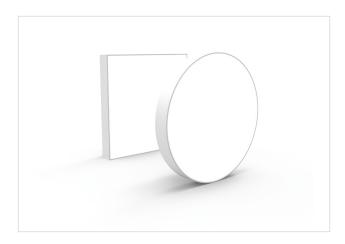


## MODULE

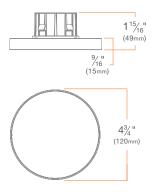


#### Surface Mount LED Downlight

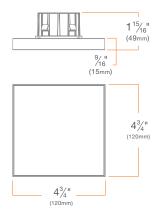
General New Construction DRDHNJO Octagonal Junction Box



### 4" Round DRD5S4R



4" Square DRD5S4S



## 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

**ССТ:** 2700К, 3000К

INPUT VOLTAGE: 120/277V

**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

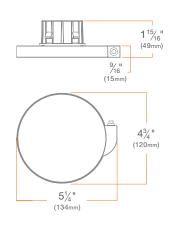
**PHOTOMETRIC TESTING:** Tested in accordance to IESNA LM-79-2008

LISTINGS: ENERGY STAR<sup>®</sup> qualified, California Title 24 2016 JA8 compliant, UL Listed for Wet Location, cULus Listed

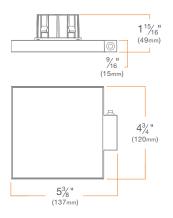
LIFETIME: 50,000 hours at 70% lumen maintenance

WARRANTY: 5 year limited warranty

### 4" Round w/ EM Test Switch DRD5S4R EM



4" Square w/ EM Test Switch DRD5545 EM



DMF LIGHTING 1118 E. 223rd St. Carson, CA 90745 800.441.4422 dmflighting.com

© 2019 DMF Lighting. All Rights Reserved. Specifications subject to change without notice. See website for U.S. and international patent information.

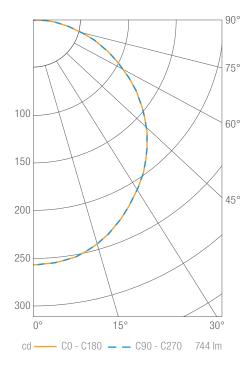


### Surface Mount LED Downlight

General New Construction DRDHNJO Octagonal Junction Box

### PHOTOMETRY

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



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

#### 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

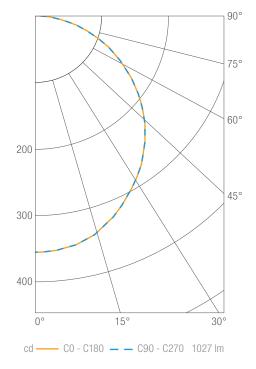
#### Illuminance Chart

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'

Values in candela

Beam Angle: 70°

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



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

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°

#### DMF LIGHTING 1118 E. 223rd St. Carson, CA 90745 800.441.4422 dmflighting.com



### Surface Mount LED Downlight

General New Construction DRDHNJO Octagonal Junction Box

### 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
	CL Series	AYCL-253, DVCL-253	26	20
Lutron	Grafik Eye 3000	QSGR-3P, QSGR-6P	31	24
Lution	Grafik Sys / Homeworks	RPM-4U	44	35
	Maestro CL	MACL-153M, MSCL-0P153M, MSCL-VP153M	16	12

### Compatible Phase-control Dimmers<sup>1</sup> (Dims down to 20% nominal measured light output)

Brand	Series	Model Number	Max Load 750lm DRD5S4R07	Max Load 1000lm DRD5S4R10
Cooper	Aspire	9573	29	23
Cooper	Decorator	DLC03P, DAL06P	29	23
Logrand	Adorne	ADTP703	48	38
Legrand	Digital Light Management	LMRC-221	250	195
	IllumaTech	IPE04	32	25
Leviton	Vizia	VPE04	42	32
	Vizia	VPE06	64	48
	CL Series	AYCL-153, CTCL-153, DVCL-153, LGCL-513, SCL-153, TGCL-513	15	11
	CL Series	AYCL-253, DVCL-253	26	20
	Grafik Eye 3000	QSGR-3P, QSGR-6P	31	24
Lutron	Grafik Sys / Homeworks	RPM-4U	44	35
Lutron	Maestro CL	MACL-153M, MSCL-0P153M, MSCL-VP153M	16	12
	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

<sup>1</sup> Dimmer compatibility reflects performance compatibility only. Please reference your local codes for application.



### Surface Mount LED Downlight

General New Construction DRDHNJO Octagonal Junction Box

### DIMMER COMPATIBILITY

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
	Diva	DVTV	100	75
	Nova	NFTV	200	150
Lutron	Nova	NTSTV-DV	100	75
	Vive-PowPak	RMJS-8T-DV-B	60	45
	Micro-Decorator	DCLV1	60	45
Watt Stopper	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

### Apex Series Shallow Recessed LED Downlight

DRD2X & SurfaceFrame DRDHNJO Octagonal Junction Box

DRD2X & SurfaceFrame Alt/EM Alternate Dimming and/or Emergency Lighting DRDHNJO Octagonal Junction Box

### Surface Mount LED Downlight

DRD5S & SurfaceFrame DRDHNJO Octagonal Junction Box



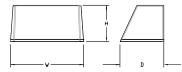




### **Specifications**

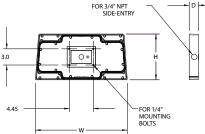
#### Luminaire

Height:	<b>8-1/2''</b> (21.59 cm)
Width:	<b>17″</b> (43.18 cm)
Depth:	10-3/16" (25.9 cm)
Weight:	<b>20 lbs</b> (9.1 kg)



### **Optional Back Box (PBBW)**

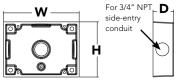




### Optional Back Box (BBW)

Height:	4″	
Width:	(10.2 cm) <b>5-1/2''</b> (14.0 cm)	
Depth:	<b>1-1/2''</b> (3.8 cm)	
<b>—</b> w		For 3/4"

LIGHTING





Catalog Number
-------------------

Notes

Туре

Hit the Tab key or mouse over the page to see all interactive elements.

### Section 24 Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability1
- This luminaire is part of an A+ Certified solution for ROAM<sup>®</sup> or XPoint<sup>™</sup> Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background<sup>1</sup>

To learn more about A+, visit <u>www.acuitybrands.com/aplus</u>.

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: <u>Link</u> to Roam; Link to DTL DLL



#### **Ordering Information**

#### EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED						
Series	Performance Package	Color temperature	Distribution	Voltage	Mounting	
WST LED	<ul><li>P1 1,500 Lumen package</li><li>P2 3,000 Lumen package</li><li>P3 6,000 Lumen package</li></ul>	27K 2700 K 30K 3000 K 40K 4000 K 50K 5000 K	VF Visual comfort forward throw VW Visual comfort wide	MVOLT <sup>1</sup> 277 <sup>2</sup> 120 <sup>2</sup> 347 <sup>2</sup> 208 <sup>2</sup> 480 <sup>2</sup> 240 <sup>2</sup>	Shipped included         (blank)       Surface mounting bracket         Shipped separately         BBW       Surface-mounted back box <sup>3</sup> PBBW       Premium surface-mounted back box <sup>3,4</sup>	

Options		÷		Finish (requ	ıired)
NLTAIR2 PIR NLTAIR2 PIRH PE PER PER5 PER7 PIR1 PIR1FC3V PIRH1FC3V SF DF DF DS DS DMG	nLIGHT AIR Wireless enabled motion/ambient sensor for 8'-15' mounting heights <sup>5,6</sup> nLIGHT AIR Wireless enabled motion/ambient sensor for 15'-30' mounting heights <sup>5,6</sup> Photoelectric cell, button type <sup>7</sup> NEMA twist-lock receptacle only (controls ordered separate) <sup>8</sup> Five-wire receptacle only (controls ordered separate) <sup>8</sup> Seven-wire receptacle only (controls ordered separate) <sup>8</sup> Motion/Ambient Light Sensor, 8-15' mounting height <sup>5,6</sup> Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc <sup>5,6</sup> 180° motion/ambient light sensor, 15-30' mounting height <sup>5,6</sup> Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc <sup>5,6</sup> Single fuse (120, 277, 347V) <sup>2</sup> Double fuse (208, 240, 480V) <sup>2</sup> Dual switching <sup>8</sup> 0-10V dimming extend out back of housing for external control (control ordered separate) <sup>10</sup> Emergency batkup, Non CEC compliant (7W) <sup>11</sup>	E7WC E7WHR E20WH E20WC E23WHR LCE RCE Shipped RBPW VG WG	Emergency battery backup, CA Title 20 Noncompliant (cold, 7W) <sup>11,12</sup> Remote emergency battery backup, CA Title 20 Noncompliant (remote 7W) <sup>11,13</sup> Emergency battery pack 18W constant power, Certified in CA Title 20 MAEDBS <sup>11</sup> Emergency battery pack -20°C 18W constant power, Certified in CA Title 20 MAEDBS <sup>11,12</sup> Remote emergency battery backup, CA Title 20 Noncompliant (remote 20W) <sup>11,12,14</sup> Left side conduit entry <sup>15</sup> Right side conduit entry <sup>15</sup> separately Retrofit back plate <sup>3</sup> Vandal guard <sup>15</sup>	DDBXD DBLXD DNAXD DWHXD DSSXD DDBTXD DBLBXD DNATXD DWHGXD DSSTXD	Dark bronze Black Natural aluminum White Sandstone Textured dark bronze Textured dark bronze Textured black Textured natural aluminum Textured white Textured sandstone

Accessories				
Ordered and shipped separately.				
WSTVCPBBW DDBXD U Premium Surface - mounted back box				
WSBBW DDBTXD U Surface - mounted back box				
RBPW DDBXD U Retrofit back plate				
DLL127F 1.5 JU Photocell - SSL twist-lock (120-277V) <sup>17</sup>				
DLL347F 1.5 CUL JU Photocell - SSL twist-lock (347V) <sup>17</sup>				
DLL480F 1.5 CUL JU Photocell - SSL twist-lock (480V) <sup>17</sup>				

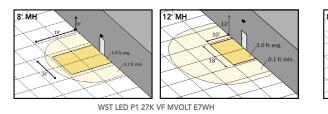
#### NOTES

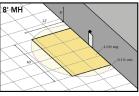
- 1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Also available as a separate accessory; see accessories information.
- 4 Top conduit entry standard.
- 5 Not available with VG or WG. See PER Table.
- 6 Reference Motion Sensor table.
- 7 Need to specify 120, 208, 240 or 277 voltage.
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
- 9 Not available with Emergency options, PE or PER options.
- 10 DMG option not available with standalone or networked
- sensors/controls. 11 Not available with 347/480V.
- 12 Battery pack rated for -20° to 40°C.
- 13 Comes with PBBW.
- 14 Warranty period is 3-years.
- 15 Not available with BBW.
- 16 Must order with fixture; not an accessory.
- 17 Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table.

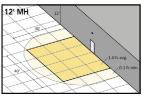
#### **Emergency Battery Operation**

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of NFPA 70/NEC 2008 - 700.16 The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per International Building Code Section 1006 and NFPA 101 Life Safety Code Section 7.9, provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions. The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

10' x 10' Gridlines 8' and 12' Mounting Height







WST LED P2 40K VF MVOLT E20WH



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800-705-SERV (7378) • www.lithonia.com © 2011-2020 Acuity Brands Lighting, Inc. All rights reserved.

#### **Performance Data**

#### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40  $^\circ C$  (32-104'F).

Amt	pient	Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

#### Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.92	>0.87

		Current (A)					
Performance package	System Watts	120	208	240	277	347	480
P1	11	0.1	0.06	0.05	0.04		
rı	14					0.04	0.03
P1 DS	14	0.12	0.07	0.06	0.06		
Р2	25	0.21	0.13	0.11	0.1		
	30					0.09	0.06
P2 DS	25	0.21	0.13	0.11	0.1		
Р3	50	0.42	0.24	0.21	0.19		
P3	56					0.16	0.12
P3 DS	52	0.43	0.26	0.23	0.21		

#### **Motion Sensor Default Settings**

motion Sensor Delaut Settings								
Option Dimmed State		High Level Photocell (when triggered) Operation		Ramp-up Time	Dwell Time	Ramp-down Time		
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	3 sec	5 min	5 min		
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	3 sec	5 min	5 min		

\*for use with site wide Dusk to Dawn control

#### **PER Table**

Control	PER	PER5 (5 wire)		PER7 (7 wire)			
Control	Control (3 wire) Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7			
Photocontrol Only (On/Off)	$\checkmark$	A	Wired to dimming leads on driver	A	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM	$\odot$	$\checkmark$	Wired to dimming leads on driver	A	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM with Motion	$\bigcirc$	A	Wired to dimming leads on driver	A	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof*	$\bigcirc$	A	Wired to dimming leads on driver	$\checkmark$	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof* with Motion	$\bigcirc$	A	Wired to dimming leads on driver	$\checkmark$	Wired to dimming leads on driver	Wires Capped inside fixture	



\*Futureproof means: Ability to change controls in the future.

#### Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts.

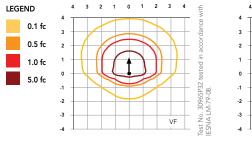
Performance Package	System Watts (MVOLT <sup>1</sup> )	Dist. Type	27K (2700K, 70 CRI)					30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW
P1	12W	VF	1,494	0	0	0	125	1,529	0	0	0	127	1,639	0	0	0	137	1,639	0	0	0	137
		VW	1,513	0	0	0	126	1,548	0	0	0	129	1,659	0	0	0	138	1,660	0	0	0	138
P2	25W	VF	3,163	1	0	1	127	3,237	1	0	1	129	3,469	1	0	1	139	3,468	1	0	1	139
		VW	3,201	1	0	0	128	3,276	1	0	0	131	3,512	1	0	0	140	3,512	1	0	0	140
Р3	50W	VF	6,025	1	0	1	121	6,165	1	0	1	123	6,609	1	0	1	132	6,607	1	0	1	132
		VW	6,098	1	0	1	122	6,240	1	0	1	125	6,689	1	0	1	134	6,691	1	0	1	134

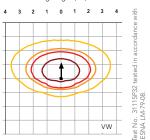


#### **Photometric Diagrams**

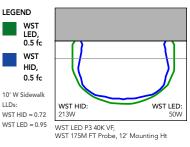
#### To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's WST LED homepage.

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').





Distribution overlay comparison to 175W metal halide.



#### **FEATURES & SPECIFICATIONS**

#### INTENDED USE

The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

#### CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

#### FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

#### OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

#### ELECTRICAL

Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

#### INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

#### LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR and back box options are rated for wet location. Rated for -30°C to 40°C ambient.

DesignLights Consortium<sup>®</sup> (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

#### WARRANTY

5-year limited warranty. Complete warranty terms located at:

**Note:** Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

