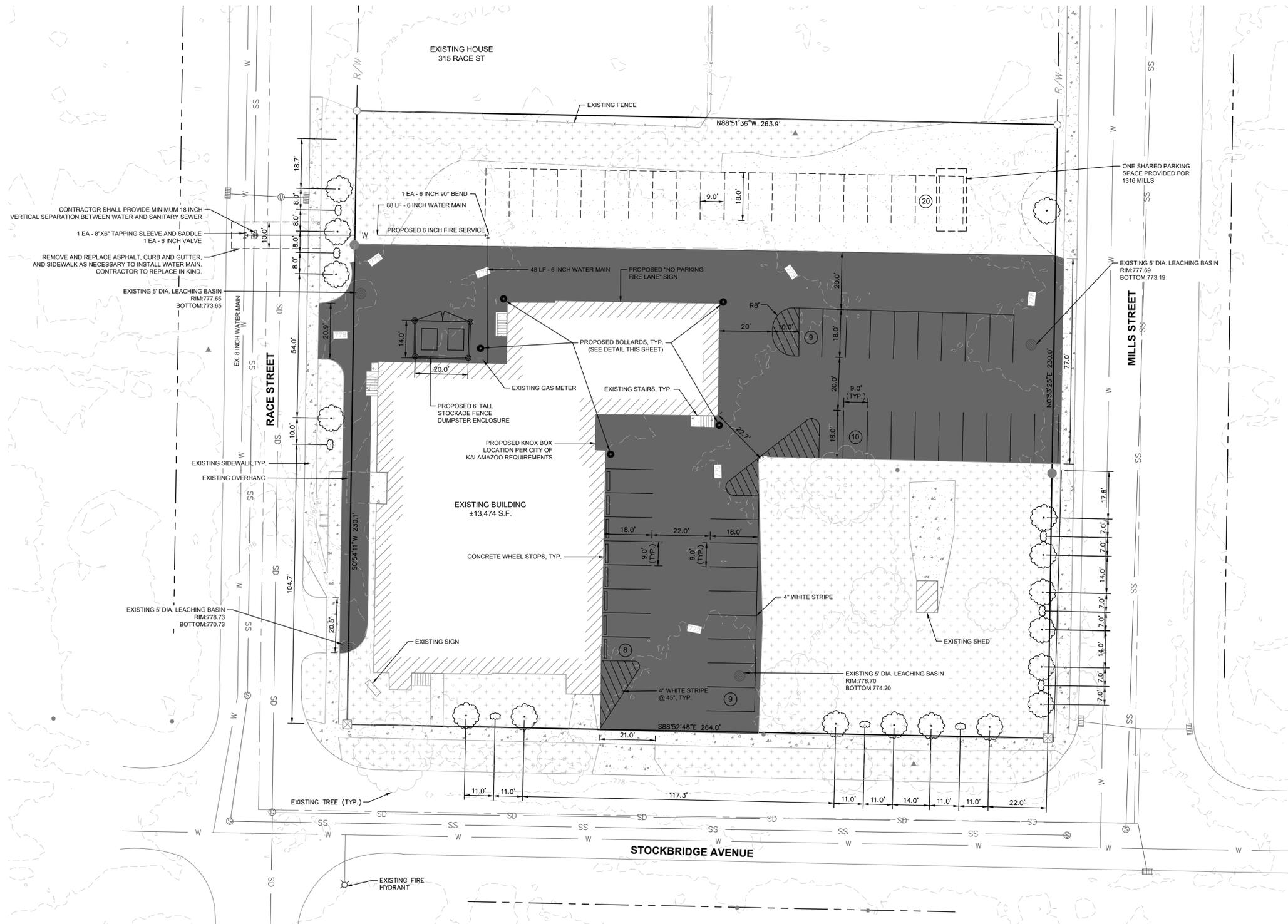


8.24.2020



SITE INFORMATION TABLE	
Applicant	Urban Alliance
Property Address	1009 E. Stockbridge Avenue
PIN	06-23-322-003
Zoning District	RD-19
Site Area (S.F.)	67430
First Floor Building Area (S.F.)	13474
Net Floor Area (S.F.)	15161

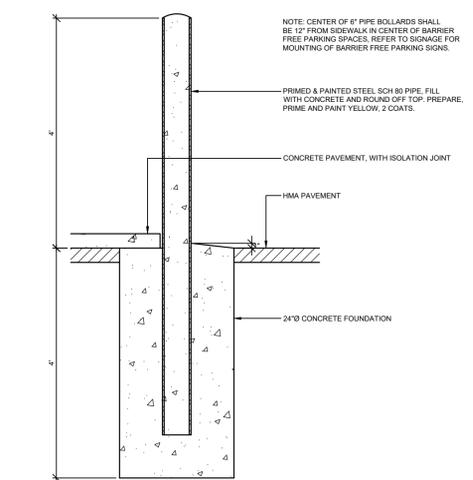
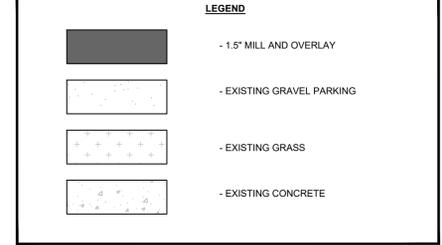
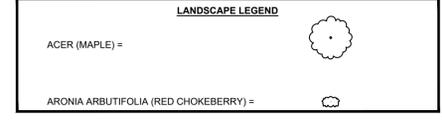
PARKING TABLE			
	Existing	Proposed	Required
Standard Parking	Not Striped	55	55*

*Required parking was calculated based on office use and a requirement of 1 space per 300 square feet of net floor area

- PROJECT NOTES**
- NO ADDITIONAL IMPERVIOUS AREA IS PROPOSED AS PART OF THIS PROJECT. THE EXISTING STORM WATER INFRASTRUCTURE SHALL REMAIN AS-IS.
 - ENVIRONMENTAL PLANS ARE NOT AVAILABLE FOR THIS SITE.
 - ADDRESS TO BE CLEARLY IDENTIFIED ON ALL SIDES FACING ROAD FRONTAGE. ADDRESS NUMBERS TO BE 12 INCH IN HEIGHT AND STREET NAMES SHALL BE 6 INCH LETTERS. ADDRESS NUMBERS SHALL BE VISIBLE ON MILLS STREET AND SHALL BE 18 INCH IN HEIGHT AND LETTERS TO BE 6 INCH IN HEIGHT.

STREET FRONTAGE LANDSCAPE REQUIREMENTS

1 TREE/35 FT OF STREET FRONTAGE +	
3 SHRUBS PER 200 FT OF STREET FRONTAGE	
TOTAL STREET FRONTAGE =	606.5 FT
REQUIRED TREES =	17
REQUIRED SHRUBS =	9
PROPOSED TREES =	17
PROPOSED SHRUBS =	9



PIPE BOLLARD DETAIL
NO SCALE

NO.	REVISIONS	DATE	BY



SCALE: AS NOTED
DESIGNED BY: TWC
DRAWN BY: TWC
CHECKED BY: JWC

SITE PLAN

URBAN ALLIANCE
BUILDING RENOVATION
KALAMAZOO, MI

ORIGINAL ISSUE:
PROJECT NO. 20007
SHEET NUMBER

C101

8.24.2020



Symbol	Label	Image	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	Lumen Multiplier	LLF	Wattage	Efficiency	Distribution	Polar Plot	Notes
	A		3	Lithonia Lighting	DSKW2 LED 20C 1000 40K T3M MVOLT	DSKW2 LED WITH 2 LIGHT ENGINES, 20 LED's, 1000mA DRIVER, 4000K LED, TYPE 3 MEDIUM OPTIC	LED	1	DSKW2_LED_20C_1000_40K_T3M_MVOLT.ies	7701	1	1	73	100%	TYPE IV, MEDIUM, BUG RATING: B2 - U0 - G3		
	B		1	Lithonia Lighting	DSKW2 LED 30C 1000 40K 1FTM MVOLT	DSKW2 LED WITH 3 LIGHT ENGINES, 30 LED's, 1000mA DRIVER, 4000K LED, TYPE FORWARD THROW MEDIUM OPTIC	LED	1	DSKW2_LED_30C_1000_40K_1FTM_MVOLT.ies	11120	1	1	109	100%	TYPE IV, SHORT, BUG RATING: B2 - U0 - G3		

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	
Calc Zone #1	+	0.6 fc	4.6 fc	0.0 fc	N/A	N/A	



MILLS STREET

Plan View
Scale - 1" = 16ft

PHOTOMETRIC PLAN

Designer
Date
8/20/2020
Scale
Not to Scale
Drawing No.
Summary

D-Series Size 2 LED Wall Luminaire



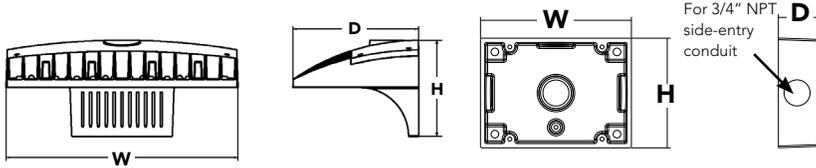
d^{series}

Specifications Luminaire

Width: 18-1/2" (47.0 cm) **Weight:** 21 lbs (9.5 kg)
Depth: 10" (25.4 cm)
Height: 7-5/8" (19.4 cm)

Back Box (BBW)

Width: 5-1/2" (14.0 cm) **BBW Weight:** 1 lbs (0.5 kg)
Depth: 1-1/2" (3.8 cm)
Height: 4" (10.2 cm)



Catalog Number
Notes
Type

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

A+ 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[®] or XPoint[™] Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

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

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)

A+ Capable options indicated by this color background.

Ordering Information

EXAMPLE: DSXW2 LED 30C 700 40K T3M MVOLT DDBTXD

DSXW2 LED										
Series	LEDs	Drive Current		Color temperature		Distribution	Voltage	Mounting	Control Options	
DSXW2 LED	20C	20 LEDs (two engines)	350	350 mA	30K	3000 K	T2S	MVOLT ³	Shipped included (blank) Surface mounting bracket	Shipped installed PE Photoelectric cell, button type ⁷
	30C	30 LEDs (three engines)	530	530 mA	40K	4000 K	T2M			
			700	700 mA	50K	5000 K	T3S	208 ⁴		PER5 Five-wire receptacle only (control ordered separately) ^{8,9}
		1000	1000 mA ¹ (1 A)	AMBPC	Amber phosphor converted ²	T3M	240 ⁴		PER7 Seven-wire receptacle only (control ordered separately) ^{8,9}	
						T4M	277 ⁴			DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)
						TFTM	347 ^{4,5}		PIR 180° motion/ambient light sensor, <15' mtg ht ^{10,11}	
							480 ^{4,5}			PIRH 180° motion/ambient light sensor, 15-30' mtg ht ^{10,11}
									PIR1FC3V Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{11,12}	
										PIRH1FC3V Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{11,12}

Other Options	Finish (required)
Shipped installed	
SF Single fuse (120, 277, 347V) ³	DDBXD Dark bronze
DF Double fuse (208, 240, 480V) ³	DBLXD Black
HS House-side shield ⁴	DNAXD Natural aluminum
SPD Separate surge protection ¹³	DWHXD White
	DSSXD Sandstone
	DBBTXD Textured dark bronze
	DBLBXD Textured black
	DNATXD Textured natural aluminum
	DWHGXD Textured white
	DSSTXD Textured sandstone



Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photozell - SSL twist-lock (120-277V) ¹⁴
DLL347F 1.5 CUL JU	Photozell - SSL twist-lock (347V) ¹⁴
DLL480F 1.5 CUL JU	Photozell - SSL twist-lock (480V) ¹⁴
DSHORT SBK U	Shorting cap (Included when ordering PER, PERS or PER7) ¹⁴
DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW2VG U	Vandal guard accessory
DSXW2BBW	Back box accessory
DBBXD U	(specify finish)

For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- 1000mA is not available with AMBPC.
- AMBPC is not available with 1000mA.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
- Available with 30 LED/700mA options only (DSXW2 LED 30C 700). DMG option not available.
- Also available as a separate accessory; see Accessories information.
- Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
- Photozell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.
- Reference Motion Sensor table on page 3.
- Reference PER Table on page 3 for functionality.
- PIR and PIR1FC3V specify the [SensorSwitch SBGR-10-ODP](#) control; PIRH and PIRH1FC3V specify the [SensorSwitch SBGR-6-ODP](#) control; see [Motion Sensor Guide](#) for details. Dimming driver standard. Not available with PER5 or PER7. Separate on/off required.
- See the electrical section on page 2 for more details.
- Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item. See PER Table.

Performance Data

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. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
20C (20 LEDs)	350 mA	25W	T2S	2,783	1	0	1	111	2,989	1	0	1	120	3,008	1	0	1	120
			T2M	2,709	1	0	1	108	2,908	1	0	1	116	2,926	1	0	1	117
			T3S	2,748	1	0	1	110	2,951	1	0	1	118	2,969	1	0	1	119
			T3M	2,793	1	0	1	112	2,999	1	0	1	120	3,018	1	0	1	121
			T4M	2,756	1	0	1	110	2,959	1	0	1	118	2,977	1	0	1	119
			TFTM	2,753	1	0	1	110	2,956	1	0	1	118	2,975	1	0	1	119
	530 mA	36W	T2S	4,030	1	0	1	112	4,327	1	0	1	120	4,354	1	0	1	121
			T2M	3,920	1	0	1	109	4,210	1	0	1	117	4,236	1	0	1	118
			T3S	3,978	1	0	1	111	4,272	1	0	1	119	4,299	1	0	1	119
			T3M	4,044	1	0	2	112	4,343	1	0	2	121	4,370	1	0	2	121
			T4M	3,990	1	0	1	111	4,284	1	0	1	119	4,310	1	0	1	120
			TFTM	3,987	1	0	1	111	4,281	1	0	1	119	4,308	1	0	1	120
	700 mA	47W	T2S	5,130	1	0	1	109	5,509	1	0	1	117	5,544	1	0	1	118
			T2M	4,991	1	0	2	106	5,360	1	0	2	114	5,393	1	0	2	115
			T3S	5,066	1	0	1	108	5,440	1	0	1	116	5,474	1	0	1	116
			T3M	5,148	1	0	2	110	5,529	1	0	2	118	5,563	1	0	2	118
			T4M	5,080	1	0	2	108	5,455	1	0	2	116	5,488	1	0	2	117
			TFTM	5,075	1	0	2	108	5,450	1	0	2	116	5,484	1	0	2	117
	1000 mA	73W	T2S	7,147	2	0	2	98	7,675	2	0	2	105	7,723	1	0	1	104
			T2M	6,954	2	0	2	95	7,467	2	0	2	102	7,514	2	0	2	103
			T3S	7,057	1	0	2	97	7,579	1	0	2	104	7,627	1	0	2	104
			T3M	7,172	2	0	3	98	7,702	2	0	3	106	7,751	2	0	3	106
			T4M	7,076	1	0	2	97	7,599	1	0	2	104	7,646	1	0	2	105
			TFTM	7,071	1	0	2	97	7,594	1	0	2	104	7,641	1	0	2	105
30C (30 LEDs)	350 mA	36W	T2S	4,160	1	0	1	116	4,467	1	0	1	124	4,494	1	0	1	125
			T2M	4,048	1	0	1	112	4,346	1	0	2	121	4,373	1	0	2	121
			T3S	4,108	1	0	1	114	4,411	1	0	1	123	4,438	1	0	1	123
			T3M	4,174	1	0	2	116	4,483	1	0	2	125	4,510	1	0	2	125
			T4M	4,119	1	0	1	114	4,423	1	0	2	123	4,450	1	0	2	124
			TFTM	4,115	1	0	1	114	4,419	1	0	1	123	4,446	1	0	1	124
	530 mA	54W	T2S	6,001	1	0	1	111	6,444	1	0	1	119	6,484	1	0	1	120
			T2M	5,838	1	0	2	108	6,270	2	0	2	116	6,308	2	0	2	117
			T3S	5,926	1	0	2	110	6,364	1	0	2	118	6,403	1	0	2	119
			T3M	6,023	1	0	2	112	6,467	1	0	2	120	6,507	1	0	2	121
			T4M	5,942	1	0	2	110	6,380	1	0	2	118	6,420	1	0	2	119
			TFTM	5,937	1	0	2	110	6,376	1	0	2	118	6,415	1	0	2	119
	700 mA	71W	T2S	7,403	2	0	2	104	8,170	2	0	2	115	8,221	2	0	2	116
			T2M	7,609	2	0	2	107	7,949	2	0	2	112	7,998	2	0	2	113
			T3S	7,513	1	0	2	106	8,068	1	0	2	114	8,118	1	0	2	114
			T3M	7,635	2	0	3	108	8,199	2	0	3	115	8,250	2	0	3	116
			T4M	7,534	1	0	2	106	8,089	1	0	2	114	8,140	1	0	2	115
			TFTM	7,527	1	0	2	106	8,082	2	0	2	114	8,134	2	0	2	115
	1000 mA	109W	T2S	10,468	2	0	2	96	11,241	2	0	2	103	11,311	2	0	2	104
			T2M	10,184	2	0	3	93	10,936	2	0	3	100	11,005	2	0	3	101
			T3S	10,335	2	0	2	95	11,099	2	0	2	102	11,169	2	0	2	102
			T3M	10,505	2	0	3	96	11,280	2	0	3	103	11,351	2	0	3	104
			T4M	10,365	2	0	2	95	11,129	2	0	2	102	11,198	2	0	2	103
			TFTM	10,356	2	0	2	95	11,121	2	0	3	102	11,190	2	0	3	103

Note:

Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

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

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

Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A)					
			120V	208V	240V	277V	347V	480V
20C	350	25 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	-	-
	1000	74 W	0.68	0.39	0.34	0.29	-	-
30C	350	36 W	0.33	0.19	0.17	0.14	-	-
	530	54 W	0.50	0.29	0.25	0.22	-	-
	700	71 W	0.66	0.38	0.33	0.28	0.23	0.16
	1000	109 W	1.01	0.58	0.50	0.44	-	-

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW2 LED 30C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

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

Motion Sensor Default Settings

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

*for use with Inline Dusk to Dawn or timer

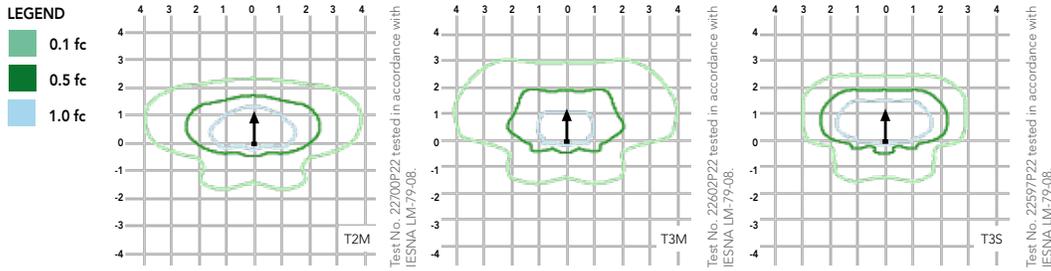
PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

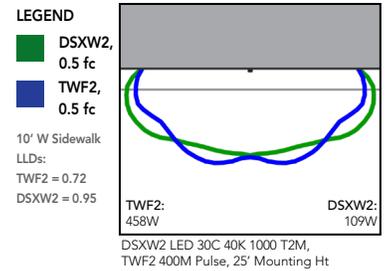
- ✓ Recommended
- ⊘ Will not work
- ⚠ Alternate

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

Isofootcandle plots for the DSXW2 LED 30C 1000 40K. Distances are in units of mounting height (25').



Distribution overlay comparison to 400W metal halide.



FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the D-Series Wall Size 2 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

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. Available in textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (70 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 min. CRI) configurations.

ELECTRICAL

Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L87/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION

Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS

CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

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

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

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.

8.24.2020

UNIFORM STORMWATER STANDARD 2: CHANNEL PROTECTION VOLUME WORKSHEET		
Applies to development/re-development sites ≥ 1 acre.		
	<u>Result</u>	
1. Calculate pre-development stormwater runoff volume.	6,701	ft ³
2. Calculate post-development stormwater runoff volume.	6,701	ft ³
3. Difference in pre and post development stormwater runoff volume.	0	ft ³
If post-development stormwater runoff volume is \leq pre-development stormwater runoff volume, Uniform Stormwater Standard 2 is met (#4 and #5 below are not necessary).		
If post-development stormwater volume is $>$ pre-development stormwater runoff volume, appropriate controls/BMPs or site design changes have to be implemented to make post-development runoff volume and rate \leq the pre-development levels for all storms up to the 2-year, 24-hour event, or 2.37-inches.		
4. Calculate the volume of 2.37 inches of stormwater runoff by multiplying area contributing runoff (ft ²) by 0.2 feet.		ft ³
5. List and provide a Figure showing the locations of all proposed BMPs to meet the Channel Protection Volume		<u>Protection Volume (ft³)</u>
Bioretention (e.g. rain gardens)		
Vegetated Filter Strip		
Vegetated Filter Swale		
Vegetated Roof		
Infiltration Basin		
Infiltration Trench		
Subsurface Infiltration Bed		
Dry Well		
Level Spreader	412	
Pervious Pavement		
Capture/ Reuse		
Other (list)		
Total Treatment Volume (ft ³)		
If Protection Volume \geq 2.37-inches for project site, Uniform Stormwater Standard 2 is met.		
6. A signed Stormwater Best Management Practices Operations & Maintenance Agreement between the City and the Landowner or Designee is required (City Form provided).		
PROJECT NAME: Urban Alliance Building Renovations		
PROJECT ADDRESS: 1009 E Stockbridge Ave		DATE: 8/24/2020

8.24.2020

Instructions: Input the areas (ft²) of the site for each type of surface cover.

PRE-DEVELOPMENT CONDITIONS

Simplified Table of Rational Method Runoff Coefficients (C)

Surface Cover	C	Area of Surface Cover on Site (ft ²)
Lawns	0.1	25924
Forest	0.15	
Cultivated Land/Gardens	0.25	
Meadow	0.3	
Brick Streets	0.8	
Asphalt Streets and Parking Lots	0.9	22512
Roofs	0.9	12308
Concrete Streets and Parking Lots	0.9	
Total Site Size (acres)		1.4
Site Peak Flow Rate (Rational Method) (ft ³ /s)		1.12
Channel Protection Volume (ft ³)		6701

POST-DEVELOPMENT CONDITIONS

Simplified Table of Rational Method Runoff Coefficients (C)

Surface Cover	C	Area of Surface Cover on Site (ft ²)
Lawns	0.1	25924
Forest	0.15	
Cultivated Land/Gardens	0.25	
Meadow	0.3	
Brick Streets	0.8	
Asphalt Streets and Parking Lots	0.9	22512
Roofs	0.9	12308
Concrete Streets and Parking Lots	0.9	
Total Site Size (acres)		1.4
Site Peak Flow Rate (Rational Method) (ft ³ /s)		1.12
Channel Protection Volume (ft ³)		6701