

17. CONSISTENCY WITH PORTLAND DESIGN STANDARDS & DESIGN MANUAL

The City of Portland has design standards contained within Section 14-526 of the City Code; the City of Portland Design Manual does not contain any design guidance relevant to the Waynflete School Campus. The proposed development will follow the City's design standards as described below:

a) *Transportation Standards*

The campus upgrades are not being proposed for the purpose of accommodating a larger enrollment; rather, it is intended to improve the overall learning experience of the classrooms. As such, an increase in traffic throughout, to, and from the Site is not anticipated at this time. No new curb cuts or parking lots are proposed. The school's current traffic management protocols and existing campus parking areas will be maintained.

b) *Environmental Quality Standards*

1. *Preservation of Significant Natural Features*

The Site is fully developed and there are no known areas of significant natural features, including unusual natural areas, threatened or endangered botanical features, areas of significant wildlife habitats, aquifers, waterbodies, or wetland areas.

2. *Landscaping & Landscape Preservation*

Landscaping Plans are included in the Design Drawings attached to Section 3 of this Report. Existing trees will be preserved to the maximum extent practicable. Vegetation not specified for removal will be protected during construction. The project design team will request a meeting with the City Arborist, Jeff Tarling, to review the Landscaping Plan and to coordinate proposed plantings and the preservation of existing landscaping.

3. *Water Quality, Stormwater Management & Erosion Control*

The proposed project has been designed to minimize the amount of stormwater leaving the site. As further described in Section 12 of this report, an on-site, subsurface stormwater treatment and detention system is proposed, which reduces the peak rate of runoff from the site, provides stormwater treatment, and complies with the standards of Section 5 of the Technical Manual. The proposed project will not result in the flooding of adjacent lots or City property. The proposed project is not located within the watershed of an Urban Impaired Stream and is not anticipated to pose a risk of groundwater contamination either during or post-construction.

The proposed project has also been designed to provide for adequate and sanitary disposal of sewage, as further described in Section 14 of this Report.

c) *Public Infrastructure & Community Safety Standards*

The proposed project's consistency with City Master Plans is described in Section 13 of this Report.

As a School Campus, provisions for public safety are of the utmost importance and have been incorporated into the design of site visibility, access, and territorial reinforcement. The school's current traffic management protocols, including emergency vehicle access, will be maintained.

The availability and adequate capacity of public utilities is described in Section 14 of this Report.

The full plan set has been provided to the Fire Department Reviewer, along with a cover letter including the items in the Portland Fire Department Site Review Checklist.

d) *Site Design Standards*

1. *Massing, ventilation, and wind impact:* The proposed Lower School is within the school campus and does not result in any changes to ventilation or significant change in wind patterns or any adverse effects on the adjacent neighbor on Fletcher Street. The proposed Gymnasium will be recessed into the ground an additional six feet, such that the proposed roof height will be lower than the existing roof height of the current gymnasium. The Lower School will be pursuing a Passive House certification and, as a result, will have minimal HVAC systems. Air source heat pumps will be used with condensers on roof tops or in screened utility yards. The gymnasium will be serviced by a major roof top mechanical unit, which will be screened and positioned so that it faces the campus interior.
2. *Shadows:* The footprints of both the proposed and existing Lower School and Gymnasium are essentially the same, and there is no significant change to building heights; no adverse impacts from shadows are anticipated to result from the proposed project.
3. *Snow and ice loading:* The proposed buildings have been designed to accommodate appropriate snow and ice loads and to prevent significant amounts of accumulated snow and ice from loading or falling onto adjacent properties or public ways.
4. *View corridors:* The proposed buildings are located within the Waynflete School Campus and comply with the building height requirements, as described in Section 6 of this Report, and will therefore not obstruct public view corridors identified in the City's Downtown Vision View Corridor Protection Plan.
5. *Historic Resources:* A Historic Preservation Application for Certificate of Appropriateness was submitted on October 5, 2015, and a public hearing has been scheduled for March 16, 2016.
6. *Exterior Lighting:* Cut Sheets for all proposed lighting fixtures, in addition to a Photometric Plan, are attached to this Section for your reference. No pole mounted light fixtures will be used; all site lighting will be building mounted or on the underside of canopies. All exterior light fixtures will be full cutoff with no light emitted above the horizontal plane. No light trespass onto the adjacent properties or street is anticipated to result from the proposed project.
7. *Noise and Vibration:* Noise associated with the proposed development will not exceed regulated levels. The Lower School will be serviced by air source heat pumps and condensers will be located on roof tops and in a concealed utility yard. The Gymnasium will be serviced by a major rooftop air handling unit located on a rooftop within the campus and screened for noise reduction. Proposed HVAC equipment is further described in Section 18 of this Report.
8. *Signage and Wayfinding:* All signage will be limited to building names and function and will be designed to the Waynflete campus standards.
9. *Zoning Related Design Standards:* An assessment of the City Zoning requirements is provided in Section 6 of this Report. There are no other zoning related design standards associated with the proposed project; the City of Portland Design Manual does not contain any design guidance relevant to the Waynflete School Campus.

17.1 ATTACHMENTS

- Lighting Fixture Cut Sheets
- Photometric Plan

**PHILIPS
LIGHTOLIER**

Downlighting

SlimSurface LED

5" and 7" round aperture
surface mount downlight

TYPE C1



Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

SlimSurface LED is a 5/8" thick surface mounted luminaire with the appearance of a recessed downlight. Easy to install into most standard j-boxes, the SlimSurface LED round apertures are available in a 5" 650 lm and 7" 1000 lm fixture.

Ordering information

example: S5R830K7AL

Series	Size	Shape	CRI	CCT	Lumens	Finish	UL listing
S		R					
S SlimSurface	5 5"	R Round	8 80 9 90 ¹	27K 2700K 30K 3000K 35K 3500K 40K 4000K	7 650lm	blank White AL Aluminum BK Black	blank Wet location
	5 5"	R Round	8 80	30K 3000K	7 650lm	blank White	-D Damp location
	7 7"	R Round	8 80 9 90 ¹	27K 2700K 30K 3000K 35K 3500K 40K 4000K	10 1000lm	blank White AL Aluminum BK Black	blank Wet location
	7 7"	R Round	8 80	30K 3000K	10 1000lm	blank White	-D Damp location



1. 90 CRI is only available with 2700K

Note: Lumen output is calculated based on 80 CRI and 3000K CCT. Please consult adjustment factors table on page 3 for other lumen outputs.

Features

- Flange:** One piece plastic flange. Injection molded white, applied aluminum, or black.
- Lens:** High transmittance lens allowing for smooth, comfortable light pattern.
- Power supply:** Integral class 2 driver. Factory wired electronic LED driver (see Electrical section for specifications)
- LED Strip:** Utilizes Philips LEDs.
- Lifetime:** Expected lifetime 50,000 hours and backed by a 5-year warranty (see Philips.com/warranties for details).
- Compliance:** Non-conductive fixture for shower light application. This product complies with the requirements of the California Energy Commission regulated under Title 24, and has been listed in the Title 20 database.

Electrical

Electronic power supply: RoHS compliant. Class 2 power unit. Unit tolerates sustained open circuit and short circuit output conditions without damage.

Dimming: All luminaires are intended for use with incandescent standard type dimmers (TRIAC). 10%-100% dimming range.

Lumen Output	Max. Input Current	Max. Input Power
630lm	0.08A	9.5W
980lm	0.13A	14.2W



Input Voltage 120V
 Input Frequency 50/60Hz
 Power Factor > 0.9
 Max. THD < 15%
 Minimum Operating Temperature -20°C

Labels

cULus listed for damp locations (wall mount applications and wet locations (covered ceilings)). ENERGY STAR® certified.

Compatibility

Installs into standard J-box applications:

-  3 1/2" round (plastic)
-  4" square (plastic)
Not compatible with S5R
-  4" octagonal (metal)
-  4" square (metal)
Not compatible with S5R

Note: 2 1/8" deep octagon junction box recommended for through circuit wiring applications.

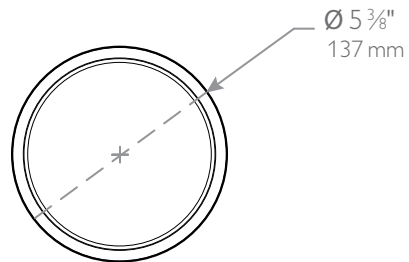
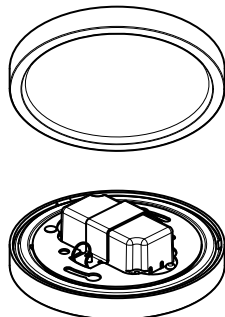
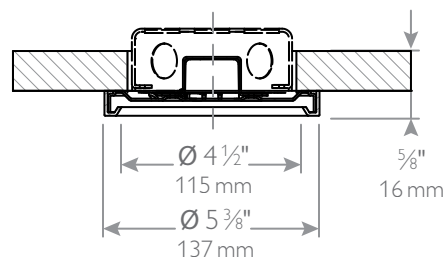


S5R & S7R SlimSurface LED

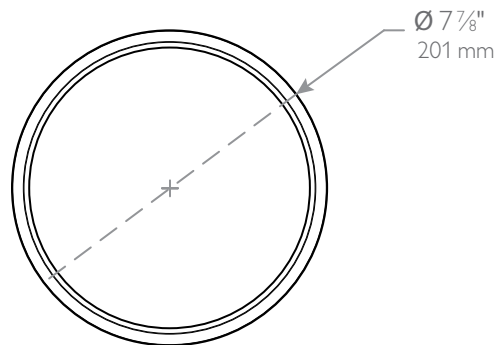
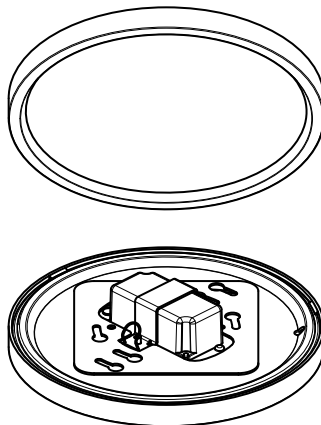
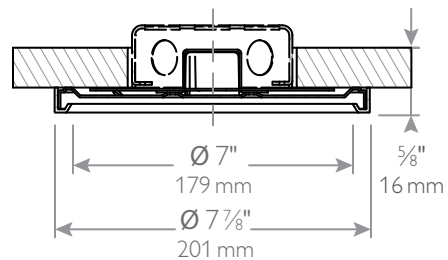
5" and 7" round aperture surface mount downlight

Dimensions

SlimSurface LED 5" downlight



SlimSurface LED 7" downlight

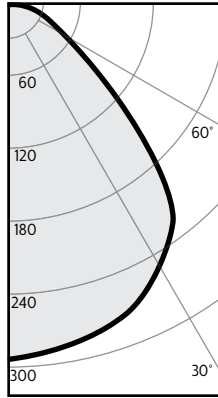


S5R & S7R SlimSurface LED

5" and 7" round aperture surface mount downlight

S5R830K7 • 10 W LED, 3000 K, 80 CRI

Candela Curves



Angle	Mean CP	Lumens
0	294	
5	291	28
10	286	
15	282	80
20	276	
25	265	122
30	253	
35	236	147
40	211	
45	157	121
50	108	
55	74	68
60	53	
65	39	40
70	30	
75	22	23
80	14	
85	5	6
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	12	6.5'
6'	8	7.8'
7'	6	9.1'
8'	5	10.4'
9'	4	11.7'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	26.7	0.43
6'	17.5	0.29
7'	12.5	0.20
8'	10.4	0.17
9'	8.4	0.14

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	Zonal cavity method - Effective floor reflectance = 20%											
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	81	87	80	76
	3	94	85	78	72	84	72	81	71	78	69	66
	4	87	77	69	63	75	63	73	62	71	61	58
	5	81	69	61	55	68	55	66	55	64	54	52
	6	75	63	55	49	62	49	61	49	59	48	46
	7	70	58	50	44	57	44	55	44	54	43	41
	8	65	53	45	40	52	40	51	39	50	39	37
	9	61	49	41	36	48	36	47	36	46	36	34
	10	58	45	38	33	45	33	44	33	43	33	31

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	230	36.2%
0-40	377	59.3%
0-60	566	89.2%
0-90	635	100.0%

CRI and CCT adjustment factors

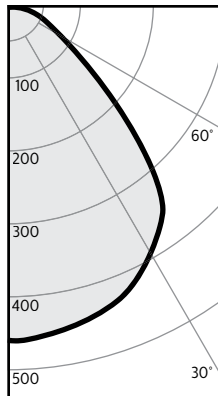
90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

Report: 438GFR

Output lumens:	625lms	Input Watts ² :	9.8W
Spacing Criterion:	1.3	Efficacy:	64.8lm/w
Field Angle:	141°	CCT ³ :	3000K
Beam Angle:	92°	CRI:	>80

S7R830K10 • 14 W LED, 3000 K, 80 CRI

Candela Curves



Angle	Mean CP	Lumens
0	461	
5	457	43
10	450	
15	444	125
20	433	
25	415	192
30	395	
35	365	227
40	322	
45	235	182
50	161	
55	111	102
60	80	
65	59	60
70	45	
75	34	36
80	22	
85	10	11
90	0	

Single unit data

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	18	6.5'
6'	13	7.8'
7'	9	9.1'
8'	7	10.4'
9'	6	11.7'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	41.2	0.61
6'	27.0	0.40
7'	19.3	0.29
8'	16.1	0.24
9'	12.9	0.19

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	Zonal cavity method - Effective floor reflectance = 20%											
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	87
	2	102	95	89	84	93	83	90	82	87	80	76
	3	94	85	78	73	84	72	81	71	78	70	66
	4	87	77	69	63	76	63	73	62	71	61	59
	5	81	70	62	56	69	56	67	55	65	54	52
	6	75	63	55	50	63	49	61	49	59	49	46
	7	70	58	50	44	57	44	56	44	54	44	42
	8	66	53	46	40	53	40	51	40	50	40	38
	9	62	49	42	36	49	36	48	36	47	36	34
	10	58	46	38	33	45	33	44	33	43	33	31

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	360	36.9%
0-40	587	60.1%
0-60	871	89.2%
0-90	977	100.0%

CRI and CCT adjustment factors

90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

Report: 441GFR

Output lumens:	977lms	Input Watts ² :	13.8W
Spacing Criterion:	1.3	Efficacy:	70.8lm/w
Field Angle:	140°	CCT ³ :	3000K
Beam Angle:	91°	CRI:	>80

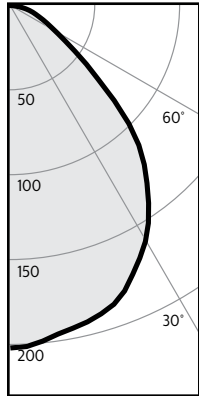
1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
 2. Wattage: controlled to within 5%
 3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

S5R & S7R SlimSurface LED

5" and 7" round aperture surface mount downlight

S5R927K7 • 10 W LED, 2700 K, 90 CRI

Angle	Mean CP	Lumens
0	222	
5	219	21
10	213	
15	207	58
20	197	
25	181	83
30	163	
35	141	88
40	119	
45	88	68
50	60	
55	41	38
60	30	
65	22	22
70	17	
75	13	13
80	8	
85	3	4
90	0	



Report#: 683GFR

Output lumens:	395 lms	Input Watts ² :	9.7W
Spacing Criterion:	1.1	Efficacy:	40.7lm/w
Field Angle:	130°	CCT ³ :	2700K
Beam Angle:	82°	CRI:	>90

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	9	5.5'
6'	6	6.6'
7'	5	7.7'
8'	3	8.8'
9'	3	9.9'

* Beam diameter is where foot-candles drop to 50% of maximum.

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	16.8	0.43
6'	11.0	0.28
7'	7.9	0.20
8'	6.6	0.17
9'	5.2	0.13

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

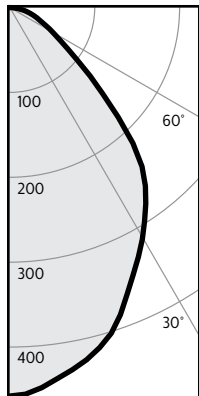
Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	Zonal cavity method - Effective floor reflectance = 20%											
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	104	100	105	99	101	96	97	93	88
	2	103	96	90	86	94	85	91	83	88	81	77
	3	95	86	80	74	85	74	82	72	80	71	68
	4	89	78	71	65	77	65	75	64	72	63	60
	5	82	71	63	58	70	57	68	57	66	56	54
	6	77	65	57	52	64	52	63	51	61	51	48
	7	72	60	52	47	59	47	58	46	56	46	44
	8	67	55	48	42	55	42	53	42	52	42	40
	9	63	51	44	39	51	39	50	38	48	38	36
	10	60	48	40	36	47	36	46	35	45	35	34

Zone	Lumens	%Luminaire
0-30	162	41.1%
0-40	250	63.4%
0-60	356	90.0%
0-90	395	100.0%

CRI and CCT adjustment factors
90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

S7R927K10 • 14 W LED, 2700 K, 90 CRI

Angle	Mean CP	Lumens
0	443	
5	435	41
10	419	
15	401	113
20	374	
25	338	156
30	308	
35	276	172
40	241	
45	178	137
50	120	
55	83	76
60	60	
65	46	46
70	35	
75	27	28
80	18	
85	8	9
90	0	



Report#: 681GFR

Output lumens:	779 lms	Input Watts ² :	14.2W
Spacing Criterion:	1.1	Efficacy:	54.8lm/w
Field Angle:	132°	CCT ³ :	2700K
Beam Angle:	83°	CRI:	>90

Height to Lighted Plane	Initial center beam foot-candles	Beam dia. (ft)*
5'	18	5.5'
6'	12	6.6'
7'	9	7.7'
8'	7	8.8'
9'	5	9.9'

* Beam diameter is where foot-candles drop to 50% of maximum.

Spacing on center	Initial center beam foot-candles	Watts per sq.ft.
5'	32.9	0.63
6'	21.6	0.41
7'	15.4	0.30
8'	12.9	0.25
9'	10.3	0.20

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Ceiling	80%				70%		50%		30%		0%	
	70	50	30	10	50	10	50	10	50	10	0	
Wall	Zonal cavity method - Effective floor reflectance = 20%											
RCR	Zonal cavity method - Effective floor reflectance = 20%											
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106	100
	1	111	107	103	100	104	98	100	95	96	92	88
	2	102	96	90	85	94	84	90	82	87	80	77
	3	95	86	79	73	84	73	82	72	79	70	67
	4	88	78	70	64	76	64	74	63	72	62	60
	5	82	71	63	57	70	57	68	56	66	56	53
	6	76	65	57	51	64	51	62	50	60	50	48
	7	71	59	51	46	58	46	57	46	56	45	43
	8	67	55	47	42	54	42	53	41	52	41	39
	9	63	51	43	38	50	38	49	38	48	38	36
	10	59	47	40	35	47	35	46	35	45	35	33

Zone	Lumens	%Luminaire
0-30	310	39.8%
0-40	482	61.9%
0-60	696	89.3%
0-90	779	100.0%

CRI and CCT adjustment factors
90 CRI 2700K = 84%
80 CRI 2700K = 100%
80 CRI 3000K = 100%
80 CRI 3500K = 105%
80 CRI 4000K = 109%

1. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.
2. Wattage: controlled to within 5%
3. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

© 2015 Koninklijke Philips N.V. All rights reserved.
 Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication.
philips.com/luminaires



Philips Lighting, North America Corporation
 200 Franklin Square Drive, Somerset, NJ 08873
 Tel. 855-486-2216

Philips Lighting Canada Ltd.
 A division of Philips Electronics Ltd.
 281 Hillmount Rd, Markham, ON, Canada L6C 2S3
 Tel. 800-668-9008

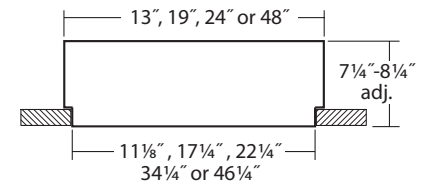


TYPE C2



Type:

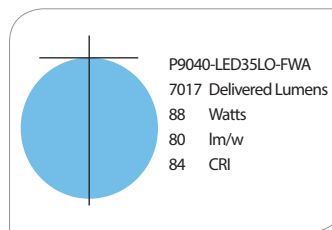
Job:



Clean, radiant, celestial, at times almost invisible.

P9000 – a slimmer, refined version of P8900 – minimal 7/16” trim or trimless with flush lens that melts into its environment. Optional drop down lens creates a playful ‘bubble-like’ effect.

Perfect partner to our P4000 Sky Oculus pendant.



		LOW	MED	STD	HIGH
12”:	lm	550	700	1100	1400
	w	14	18	28	35
18”:	lm	950	1650	1950	2150
	w	19	33	39	47
2’:	lm	2100	3150	3900	5300
	w	35	54	67	97
3’:	lm	4500	7000	9000	13275
	w	56	87	113	177
4’:	lm	7000	8800	13900	21000
	w	88	110	174	281

Lumen output may vary +/- 5%
4000K used for lm/ft estimates above
3500K -2% If, 3000K -4%, 2700K -6%
See LED Details PDF for more info



SERIES	LED COLOR	OUTPUT	SHIELDING	TRIM COLOR	CIRCUITING	VOLTAGE	CEILING SYSTEMS	CONTROLS	OPTIONS
9012 12” diam.	LED27 2700K	LO Low	FWA Flush White Acrylic Lens	TMW Textured Matte White Standard	SC Single Circuit	120 277	X1 T-Bar	ND Non-dimming	EML Emergency Battery, Low
9018 18” diam.	LED3 3000K	MO Medium	DWA Drop White Acrylic lens	YGW Gloss White	UNV 120-277		X3 Hard Ceiling Flange trim	DM10 0-10v 10% dimming Standard	EMH Emergency Battery, High (NA 18” and 2’)
9020 2” diam.	LED35 3500K	SO Standard		Y Premium Color			X7 Hard Ceiling Trimless mud- over Flange	DM01 0-10v 1% dimming	PRUBIN Meticulous binning and labeling every LED board within a 2-step MacAd- ams ellipse
9030 3” diam.	LED4 4000K	HO High		CC Custom Color				STEP Step Dimming 100-50-Off	
9040 4” diam.		PROG Program- mable light output (specify de- sired lumens or watts per fixture)						DML 1% Lutron Dimming DMD 0.1% DALI Dimming DMG 1% DALI Dimming	

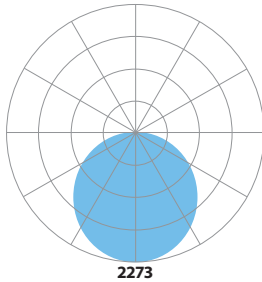




PHOTOMETRICS

Low Output:

P9040-LED35LO-FWA
 7017 Delivered Lumens
 88 Watts
 80 lm/w
 84 CRI
 3500 CCT
 Light Labs Test #L041411805



Zonal Lumen Summary:
 0-90 = 100%

Vertical Angle	0	22.25	45	67.5	90
0	2273	2273	2273	2273	2273
5	2260	2260	2260	2260	2260
15	212	212	212	212	212
25	2005	2005	2005	2005	2005
35	1773	1773	1773	1773	1773
45	1484	1484	1484	1484	1484
55	1150	1150	1150	1150	1150
65	807	807	807	807	807
75	440	440	440	440	440
85	131	131	131	131	131
90	0	0	0	0	0

LUMEN MAINTENANCE

Designed to last with cool running mid-power LEDs projected to maintain 90% (L90) of their initial output for 100,000 hours (at HO), and L70 exceeding 150,000 hours.

LED SYSTEM

LED modules and drivers are field replaceable.

PROG (optional)

Programmable light output. Specify desired lumens or watts per fixture.

BINNING

Standard binning (all Prudential LED boards) includes testing at the chip level and board integration to provide consistent color temperature within a 3-step MacAdam ellipse, with +/- 5% lumen output range and +/- .004 Duv.

PRUBIN™

Prudential Ltg's exclusive 'job binning' method that ensures color temperature consistency across all luminaires on a project. Meticulously testing and labeling EVERY LED BOARD to +/- 25 lumens, +/- 50k CCT and +/- .004 Duv — while also separating positive from negative — allows us to match color, hue and intensity throughout a project and provides a consistent color temperature within a 2-step MacAdam ellipse.

(OPTIONAL)

LABELS

ETL damp labeled and I.B.E.W. manufactured

ELECTRICAL

Must specify LED dimming controls. LED fixtures have constant current driver(s) with less than 20% THD when loaded to a minimum of 60%. Drivers sink a maximum of 6mA per driver. DM10 LED drivers are 0-10V dimmable and are compatible with most 0-10V wall slide dimmers and direct 0-10V analog signal dimmers. Max driver size 1.25" w x 1" h.

CONSTRUCTION

Housing Die-formed 20-gauge USA steel, >20% PC recycled, 100% recyclable

Lens Thermoformed acrylic, 100% recyclable

MOUNTING

Recessed mounted into exposed T-bar or hard ceiling applications

WARRANTY

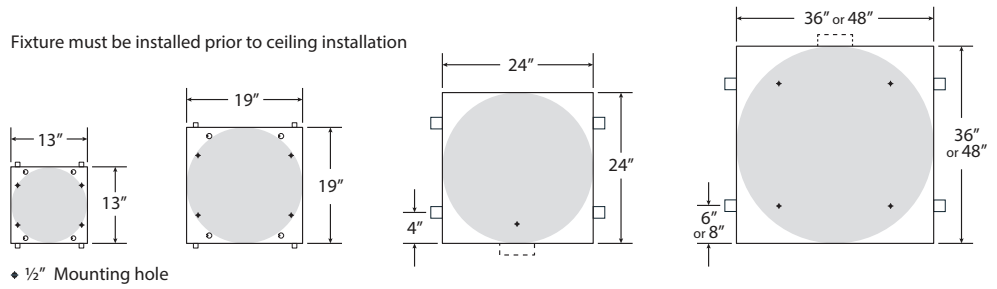
Single-source, 5 year limited warranty covers standard components and construction



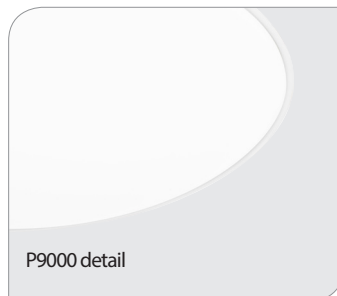
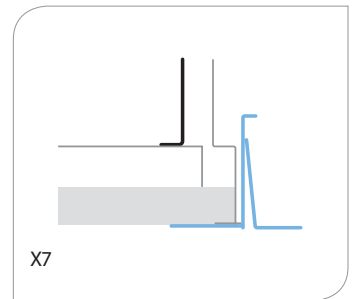
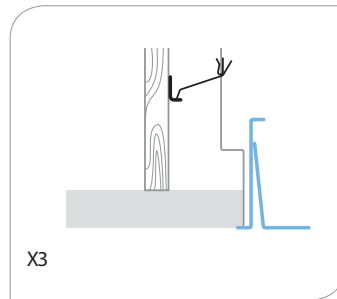
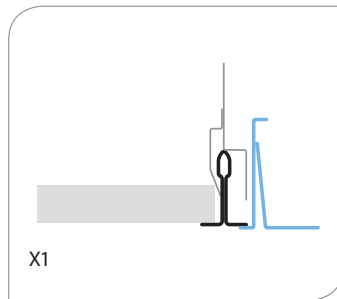


MOUNTING LOCATIONS

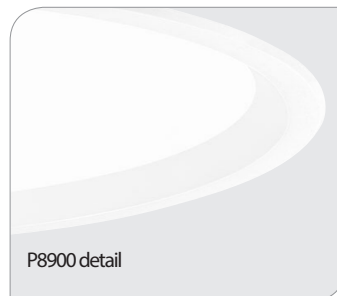
Fixture must be installed prior to ceiling installation



CEILING SYSTEMS



P9000 detail



P8900 detail



P4000 detail

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

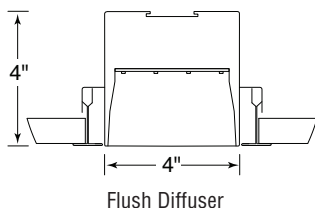
Comments



DESCRIPTION

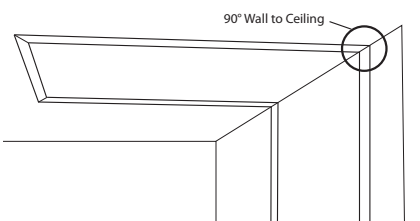
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy. HP-4 R is RoHS compliant.

TYPE L1



DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-powered LEDs and a precise diffuser to eliminate pixilation.



MITERED ANGLES

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.



SEAMLESS ILLUMINATION

Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S0 - 3500K - 120V - SC - C1 - OBO

Finelite Series HP-4 R

Length (Minimum 2', increments accurate to 1/16th", Standard)

Light Engine (S0 - Standard Output, H0 - High Output)

LED Color Temperature (3000K, 3500K, 4000K)

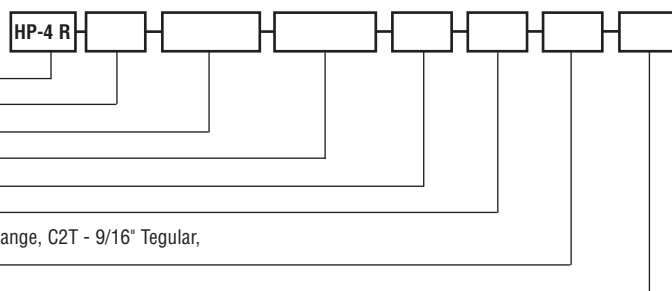
Voltage (120V, 277V)

Circuiting (SC - Single Circuit)*

Mounting (C1 - 1" T-Bar, C2 - 9/16" T-Bar, C3 - Screw Slot, C3F - Flush Screw Slot, VF - Visible Flange, C2T - 9/16" Tegular,

C1T - 1" Tegular, SF - Spackle Flange, TZ6 (C1, C2, C2T, C3, C3F) - Tech Zone 6")

Integrated Sensor (OBO - Occupancy Sensor, OBD - Daylight)



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

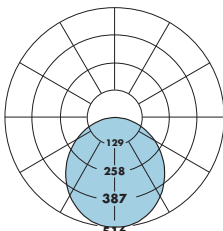
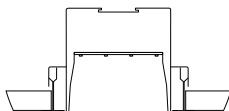
FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

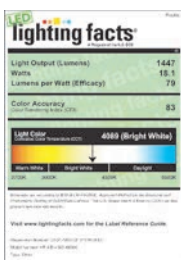
Standard Output
 Efficacy (Lumen per watt): 79.9
 Total luminaire output: 1447 Lumens (362 lumens/foot)
 18 Watts (4.5 watts/foot)

CRI: 83
 R9: 10
 CCT: 4000K
 ITL LM79 Report 74686



— Refer to www.finelite.com for additional photometry and product information.

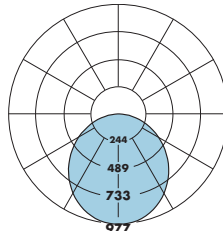
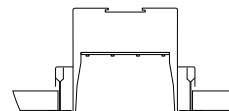
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	514	514	514	514	514	514
5	514	511	511	511	513	49
15	493	492	492	491	492	139
25	453	492	492	491	492	139
35	397	397	395	395	394	247
45	331	330	328	328	326	254
55	255	256	256	255	251	228
65	179	179	180	178	174	177
75	103	103	104	102	99	109
85	33	33	34	34	33	37
90	0	2	4	5	6	



PHOTOMETRY

High Output
 Efficacy (Lumen per watt): 74.6
 Total luminaire output: 2754 Lumens (689 lumens/foot)
 37 Watts (9.2 watts/foot)

CRI: 83
 R9: 10
 CCT: 4000K
 ITL LM79 Report 74687



— Refer to www.finelite.com for additional photometry and product information.

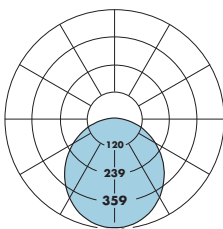
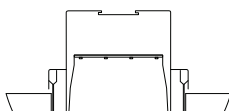
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	973	973	973	973	973	973
5	974	969	968	969	972	92
15	936	932	931	932	934	263
25	860	859	855	856	858	395
35	754	755	750	751	751	470
45	628	629	625	625	623	483
55	487	489	488	486	481	435
65	341	342	343	340	334	337
75	199	198	198	194	190	208
85	65	64	64	63	61	70
90	0	4	6	8	8	



PHOTOMETRY

Standard Output
 Efficacy (Lumen per watt): 74
 Total luminaire output: 1348 Lumens (337 lumens/foot)
 18 Watts (4.5 watts/foot)

CRI: 84
 R9: 14
 CCT: 3500K
 ITL LM79 Report 74684



— Refer to www.finelite.com for additional photometry and product information.

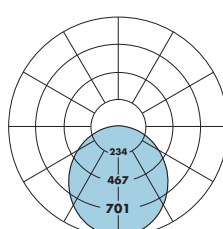
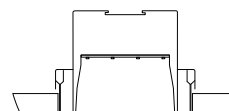
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	476	476	476	476	476	476
5	476	474	473	473	475	45
15	457	456	455	455	456	129
25	420	422	418	418	419	193
35	368	369	367	367	367	230
45	308	307	306	306	304	236
55	238	239	238	238	235	213
65	167	167	168	166	163	165
75	97	97	97	96	94	102
85	32	31	32	32	32	35
90	0	2	4	5	6	



PHOTOMETRY

High Output
 Efficacy (Lumen per watt): 70.5
 Total luminaire output: 2622 Lumens (656 lumens/foot)
 37 Watts (9.2 watts/foot)

CRI: 84
 R9: 16
 CCT: 3500K
 ITL LM79 Report 74685



— Refer to www.finelite.com for additional photometry and product information.

CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	930	930	930	930	930	930
5	930	926	925	925	928	88
15	893	890	889	890	891	251
25	820	821	816	816	817	377
35	719	719	714	715	714	448
45	598	598	595	595	592	460
55	463	464	463	462	456	413
65	325	325	326	323	317	320
75	188	188	189	186	181	198
85	61	61	62	62	60	67
90	0	2	5	6	7	



Consult www.finelite.com for 3000K photometric reports.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane are standard. Custom angles are available (90° minimum on inside corners). Contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DIFFUSER: 12' maximum lens length. Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination. Frost white snap-in lens, 73% transmissive, 99% diffusion.

LIGHT ENGINE: Two lumens packages are available, Standard Output (SO) and High Output (HO). A separate chart summarizes lumen distribution and wattage. LM79 test reports are available for each distribution. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000 hours; 70% of initial light output (L70) 168,000 hours.

LED COLOR TEMPERATURE (CCT): 3000K, 3500K, or 4000K.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.

INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more information.



MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. Optional 6' flex conduit whips available.

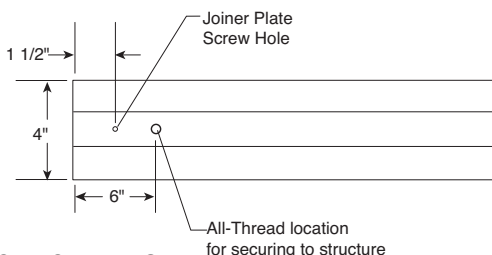
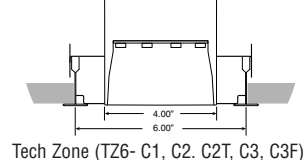
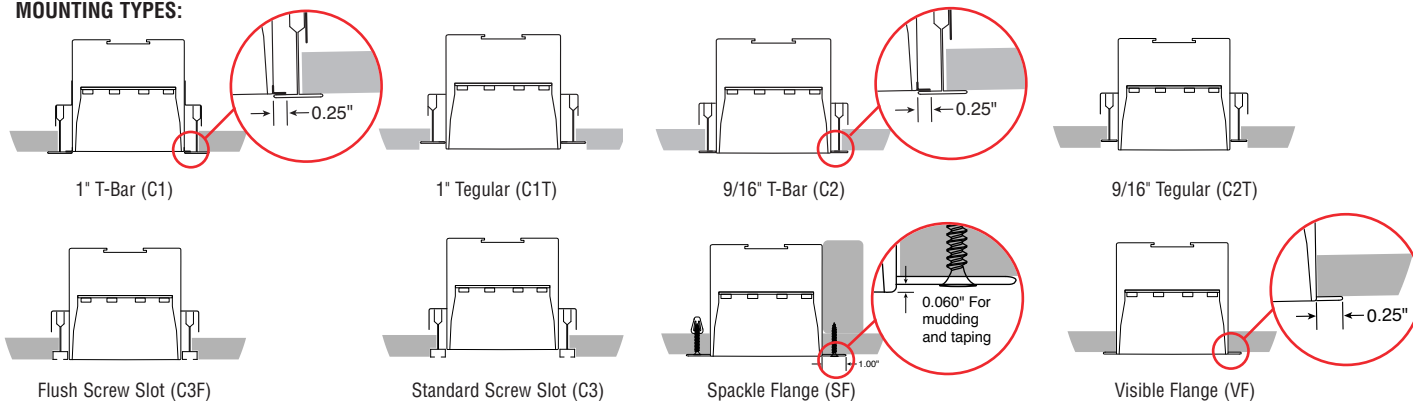
LENGTHS: Standard 4', 8', and 12' section lengths can be combined to make longer runs. Contact factory for custom lengths, angles and configurations accurate to 1/16th-inch.

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location.

WEIGHT: 2.8 lb/ft.

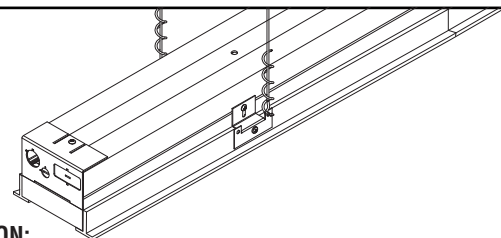
WARRANTY: 10-year warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

MOUNTING TYPES:



SHEET ROCK INSTALLATION:

Flex conduit is secured to top of fixture. Support to structure using All-Thread. All-Thread support holes are located on each end of the fixture.



T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the fixture to T-Bar and provide support to structure location. All starter/independent fixtures are 11/16" shorter than nominal. All joiner/ender fixture are normal length.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

	Lumen Output Per Foot					
	3000K		3500K		4000K	
	SO	HO	SO	HO	SO	HO
Lumens Per Foot	329.75	639.25	337	655.5	361.75	689
Watts Per Foot	4.45	9.35	4.55	9.3	4.525	9.225
Efficacy (LPW)	74.1	68.4	74.1	70.5	79.9	74.6

SO - Standard Output, HO - High Output

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed



Date

Project

Type

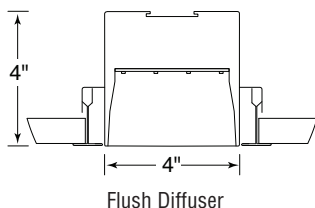
Comments



DESCRIPTION

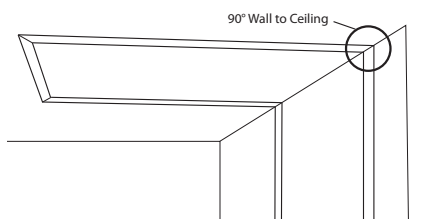
High Performance 4" Aperture Recessed (HP-4 R) is a patented, linear LED luminaire. HP-4 R is the first recessed linear LED luminaire to feature On-Grid™ mounting for standard lengths, making installation quick and easy. HP-4 R is RoHS compliant.

TYPE L2



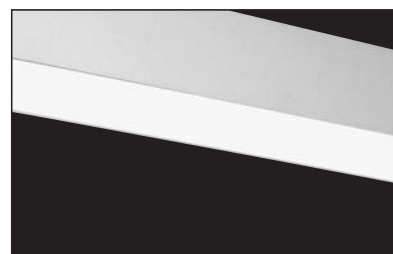
DIMENSIONS & DIFFUSER

Glare-free experience is attained with mid-powered LEDs and a precise diffuser to eliminate pixilation.



MITERED ANGLES

Fully illuminated corners have internal secondary diffusers to ensure against light leaks. Custom angles are available.

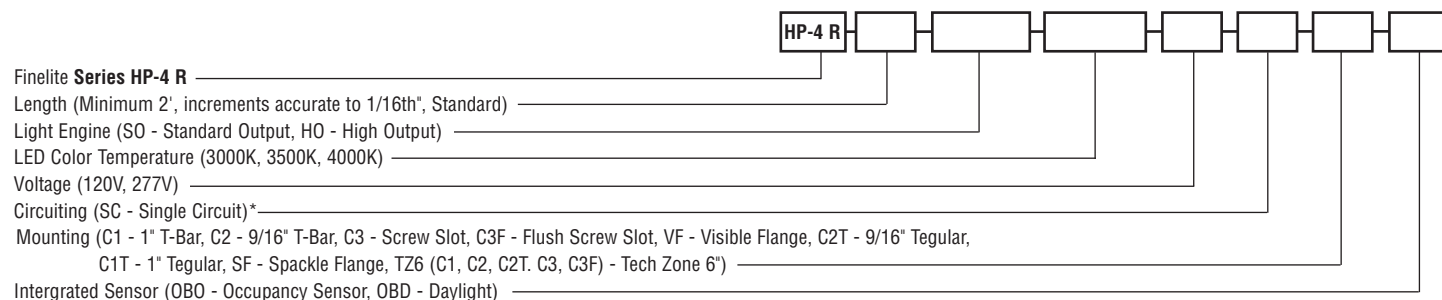


SEAMLESS ILLUMINATION

Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination.

ORDERING GUIDE

Sample Number: HP-4 R - 32' - S0 - 3500K - 120V - SC - C1 - OBO



*Contact factory for switching options.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

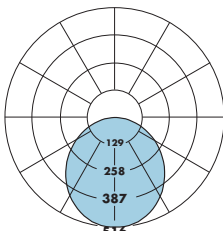
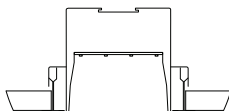
FINELITE

High Performance 4" Aperture (HP-4) - Recessed

PHOTOMETRY

Standard Output
 Efficacy (Lumen per watt): 79.9
 Total luminaire output: 1447 Lumens (362 lumens/foot)
 18 Watts (4.5 watts/foot)

CRI: 83
 R9: 10
 CCT: 4000K
 ITL LM79 Report 74686



— Refer to www.finelite.com for additional photometry and product information.

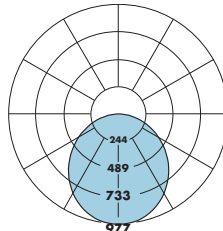
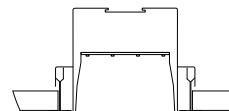
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	514	514	514	514	514	514
5	514	511	511	511	513	49
15	493	492	492	491	492	139
25	453	492	492	491	492	139
35	397	397	395	395	394	247
45	331	330	328	328	326	254
55	255	256	256	255	251	228
65	179	179	180	178	174	177
75	103	103	104	102	99	109
85	33	33	34	34	33	37
90	0	2	4	5	6	



PHOTOMETRY

High Output
 Efficacy (Lumen per watt): 74.6
 Total luminaire output: 2754 Lumens (689 lumens/foot)
 37 Watts (9.2 watts/foot)

CRI: 83
 R9: 10
 CCT: 4000K
 ITL LM79 Report 74687



— Refer to www.finelite.com for additional photometry and product information.

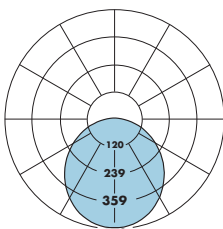
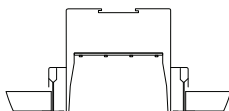
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	973	973	973	973	973	973
5	974	969	968	969	972	92
15	936	932	931	932	934	263
25	860	859	855	856	858	395
35	754	755	750	751	751	470
45	628	629	625	625	623	483
55	487	489	488	486	481	435
65	341	342	343	340	334	337
75	199	198	198	194	190	208
85	65	64	64	63	61	70
90	0	4	6	8	8	



PHOTOMETRY

Standard Output
 Efficacy (Lumen per watt): 74
 Total luminaire output: 1348 Lumens (337 lumens/foot)
 18 Watts (4.5 watts/foot)

CRI: 84
 R9: 14
 CCT: 3500K
 ITL LM79 Report 74684



— Refer to www.finelite.com for additional photometry and product information.

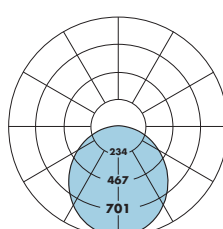
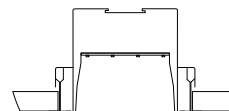
CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	476	476	476	476	476	476
5	476	474	473	473	475	45
15	457	456	455	455	456	129
25	420	422	418	418	419	193
35	368	369	367	367	367	230
45	308	307	306	306	304	236
55	238	239	238	238	235	213
65	167	167	168	166	163	165
75	97	97	97	96	94	102
85	32	31	32	32	32	35
90	0	2	4	5	6	



PHOTOMETRY

High Output
 Efficacy (Lumen per watt): 70.5
 Total luminaire output: 2622 Lumens (656 lumens/foot)
 37 Watts (9.2 watts/foot)

CRI: 84
 R9: 16
 CCT: 3500K
 ITL LM79 Report 74685



— Refer to www.finelite.com for additional photometry and product information.

CANDLEPOWER SUMMARY						
	0.0	22.5	45	67.5	90	Flux
0	930	930	930	930	930	930
5	930	926	925	925	928	88
15	893	890	889	890	891	251
25	820	821	816	816	817	377
35	719	719	714	715	714	448
45	598	598	595	595	592	460
55	463	464	463	462	456	413
65	325	325	326	323	317	320
75	188	188	189	186	181	198
85	61	61	62	62	60	67
90	0	2	5	6	7	



Consult www.finelite.com for 3000K photometric reports.

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

SPECIFICATIONS

CONSTRUCTION: Precision-cut 6061-T6 extruded aluminum body. Internal joiner system, plug-together wiring, standard. Housing is powder coated.

ENDCAPS: Flat endcaps add 0.05" to each end of luminaire.

MITERED CORNERS: Illuminated 90° corners in a single plane are standard. Custom angles are available (90° minimum on inside corners). Contact factory.

REFLECTORS: Die-formed 20-gauge cold-rolled steel reflectors are finished in 96 LG high reflectance matte white powder coat paint.

DIFFUSER: 12" maximum lens length. Internal secondary diffusers at corners, joints and seams ensure visually seamless, uniform, continuous illumination. Frost white snap-in lens, 73% transmissive, 99% diffusion.

LIGHT ENGINE: Two lumens packages are available, Standard Output (SO) and High Output (HO). A separate chart summarizes lumen distribution and wattage. LM79 test reports are available for each distribution. Light engines are replaceable.

LUMEN MAINTENANCE: 90% of initial light output (L90) at 100,000 hours; 70% of initial light output (L70) 168,000 hours.

LED COLOR TEMPERATURE (CCT): 3000K, 3500K, or 4000K.

DRIVER: Replaceable 120V/277V Constant Current Reduction dimming driver standard. Can be wired dimming or non-dimming. 0-10V dimming controls with a range of 10%- 100%. Dimming to 1% available; consult factory. Driver is fully accessible from below the ceiling. Power Factor: ≥0.9. Total Harmonic Distortion (THD) <20%. Expected driver lifetime: 100,000 hours.

LUTRON DRIVER OPTIONS: Lut3W-3-wire, LutES-EcoSystem, Lut2W-2-wire.

ELECTRICAL: Optional emergency to generator/inverter wiring, internal generator transfer switch, nightlight wiring, step-dimming driver, backup battery. Factory-choice low-profile backup battery available. 8' minimum fixture length for low profile battery pack. Bodine BSL722 battery pack also available; 4' minimum fixture length. Backup battery delivers 1300 lumens. Half of a 4' section will be illuminated in emergency mode.

INTEGRATED SENSORS: Integrated PIR (Passive Infrared) occupancy and/or daylight sensors available. Refer to Occupancy Sensor and Daylight Sensor tech sheets for more information.



MOUNTING: Standard bracket design works with most lay-in ceiling types. Brackets secure luminaire to the ceiling grid from above. Tie-in T-Bar brackets. Connect luminaire to T-Bar for securing to structure. Consult local codes for tie-wire recommendations.

FEED: Standard with one 18-gauge/5-conductor single-circuit feed. 14-gauge feed used when fixture current exceeds 5 amps. Optional 6' flex conduit whips available.

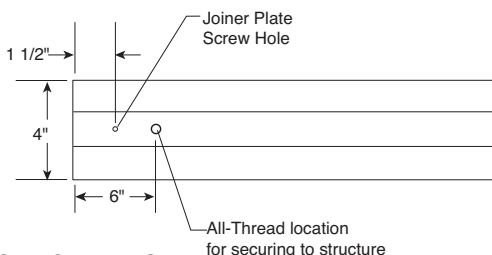
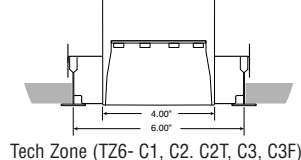
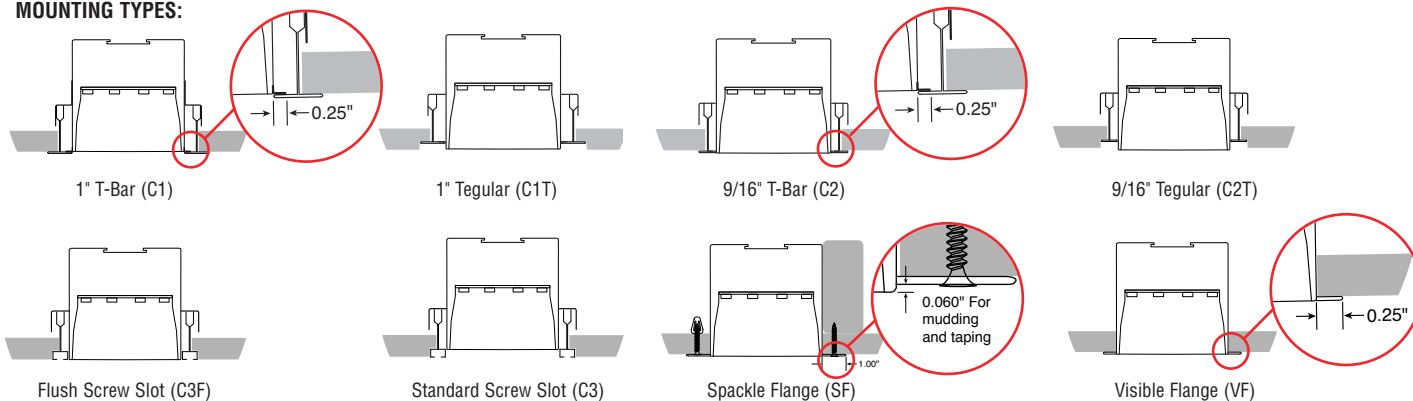
LENGTHS: Standard 4', 8', and 12' section lengths can be combined to make longer runs. Contact factory for custom lengths, angles and configurations accurate to 1/16th-inch.

LABELS: Fixture and electrical components are ETL-listed conforming to UL 1598 in the U.S.A. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location.

WEIGHT: 2.8 lb/ft.

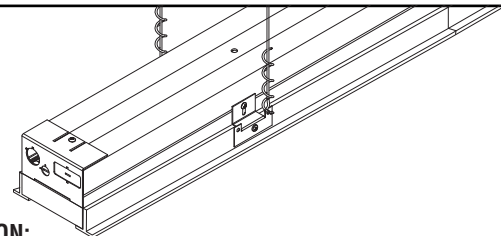
WARRANTY: 10-year warranty on all standard components. Optional accessories such as emergency battery packs are covered by their individual manufacturer warranties.

MOUNTING TYPES:



SHEET ROCK INSTALLATION:

Flex conduit is secured to top of fixture. Support to structure using All-Thread. All-Thread support holes are located on each end of the fixture.



T-BAR INSTALLATION:

HP-4 R for T-Bar installations comes standard with a splice plate at the end of the luminaire. Mounting brackets (supplied) secure the fixture to T-Bar and provide support to structure location. All starter/independent fixtures are 11/16" shorter than nominal. All joiner/ender fixture are normal length.

FINELITE

High Performance 4" Aperture (HP-4) - Recessed

	Lumen Output Per Foot					
	3000K		3500K		4000K	
	SO	HO	SO	HO	SO	HO
Lumens Per Foot	329.75	639.25	337	655.5	361.75	689
Watts Per Foot	4.45	9.35	4.55	9.3	4.525	9.225
Efficacy (LPW)	74.1	68.4	74.1	70.5	79.9	74.6

SO - Standard Output, HO - High Output

Protected by one or more US Patents: 8915613; D702,391; D702,390; D700,732

Finelite, Inc. • 30500 Whipple Road • Union City, CA 94587-1530 • 510 / 441-1100 • Fax: 510 / 441-1510 • www.finelite.com

Due to continuing product improvements, Finelite reserves the right to change specifications without notice. Please visit www.finelite.com for most current data.

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial

light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

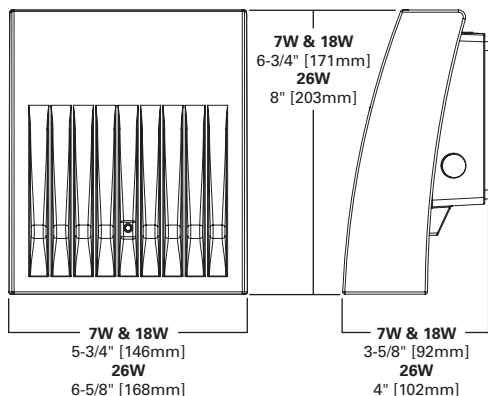
Five-year warranty.



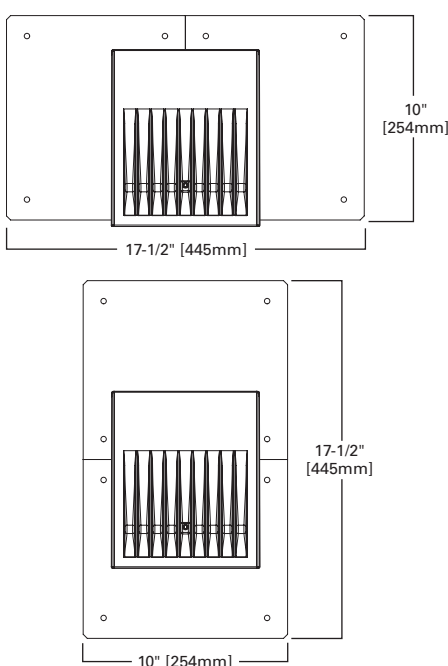
XTOR CROSSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XTOR2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W XTOR2A=Small Door, 18W XTOR3A=Small Door, 26W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K ²	[Blank]=Carbon Bronze (Standard) WT=Summit White	PC1=Photocontrol 120V ³ PC2=Photocontrol 208-277V ^{3,4} 347V=347V ⁵ HA=50°C High Ambient ⁵	WG/XTOR=Wire Guard ⁶ XTORFLD-KNC=Knuckle Floodlight Kit ⁷ XTORFLD-TRN=Trunnion Floodlight Kit ⁷ XTORFLD-KNC-WT=Knuckle Floodlight Kit, Summit White ⁷ XTORFLD-TRN-WT=Trunnion Floodlight Kit, Summit White ⁷ EWP/XTOR=Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 XTOR1A not available in 3500K. 3 Photocontrols are factory installed. 4 Order PC2 for 347V models. 5 Thru-branch wiring not available with HA option or with 347V. 6 Wire guard for wall/surface mount. Not for use with floodlight kit accessory. 7 Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

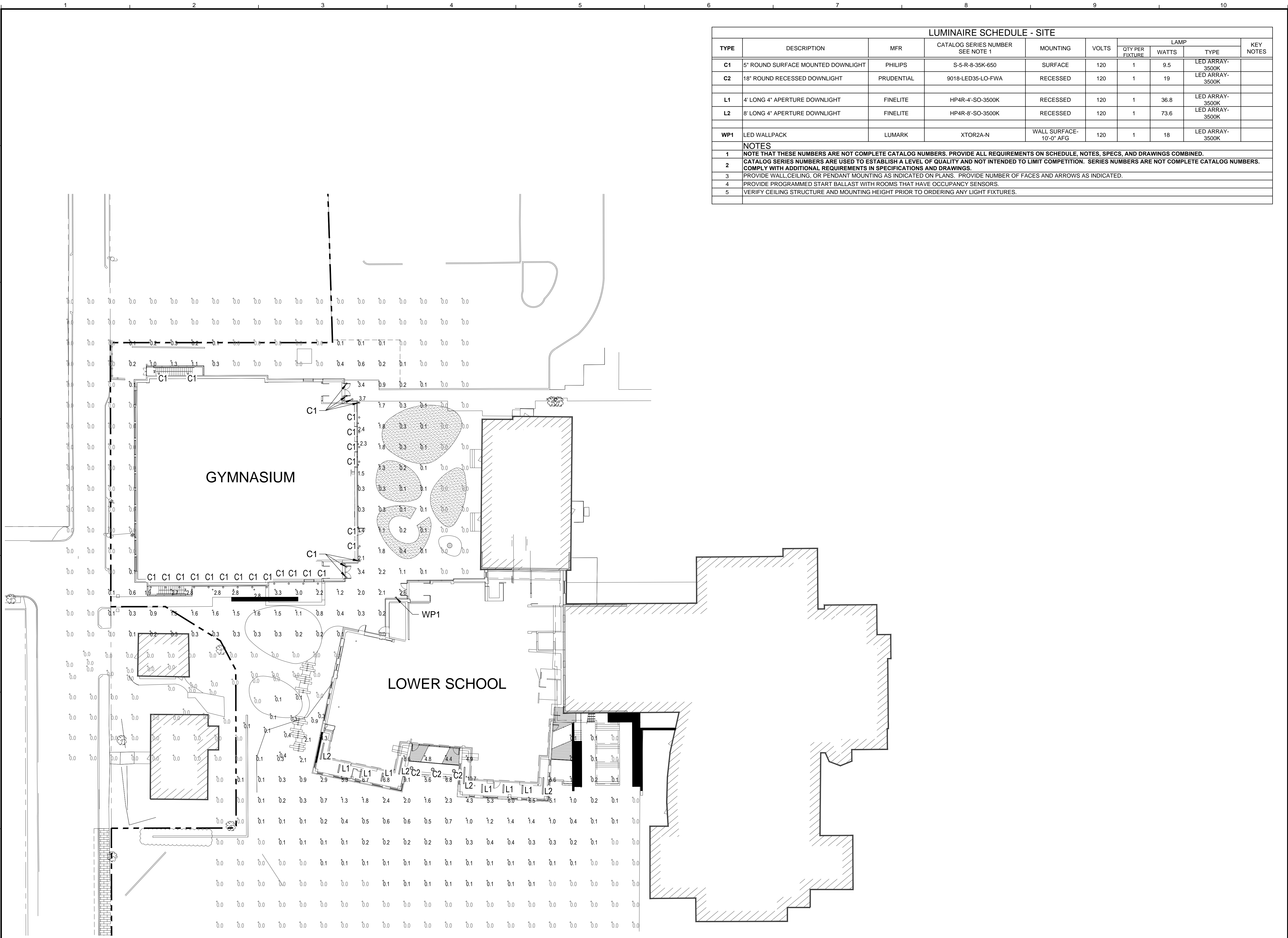
5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC

N:\Projects\2015\15051 - Waynflete School\00 Drawing Files\15051ES.dwg Feb 11, 2016 - 3:09pm

LUMINAIRE SCHEDULE - SITE									
TYPE	DESCRIPTION	MFR	CATALOG SERIES NUMBER SEE NOTE 1	MOUNTING	VOLTS	LAMP			KEY NOTES
						QTY PER FIXTURE	WATTS	TYPE	
C1	5" ROUND SURFACE MOUNTED DOWNLIGHT	PHILIPS	S-5-R-8-35K-650	SURFACE	120	1	9.5	LED ARRAY-3500K	
C2	18" ROUND RECESSED DOWNLIGHT	PRUDENTIAL	9018-LED35-LO-FWA	RECESSED	120	1	19	LED ARRAY-3500K	
L1	4' LONG 4" APERTURE DOWNLIGHT	FINELITE	HP4R-4'-SO-3500K	RECESSED	120	1	36.8	LED ARRAY-3500K	
L2	8' LONG 4" APERTURE DOWNLIGHT	FINELITE	HP4R-8'-SO-3500K	RECESSED	120	1	73.6	LED ARRAY-3500K	
WP1	LED WALLPACK	LUMARK	XTOR2A-N	WALL SURFACE-10'-0" AFG	120	1	18	LED ARRAY-3500K	

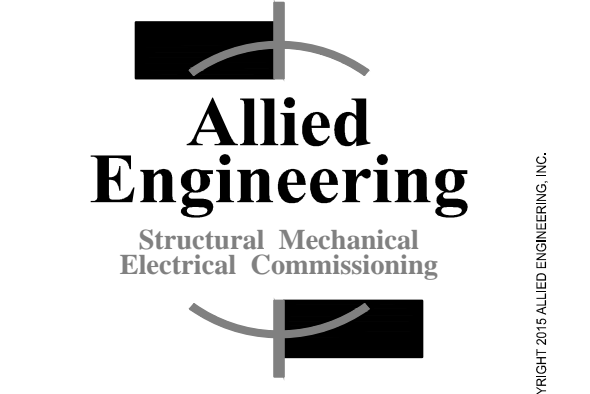
- NOTES**
- NOTE THAT THESE NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. PROVIDE ALL REQUIREMENTS ON SCHEDULE, NOTES, SPECS, AND DRAWINGS COMBINED.
 - CATALOG SERIES NUMBERS ARE USED TO ESTABLISH A LEVEL OF QUALITY AND NOT INTENDED TO LIMIT COMPETITION. SERIES NUMBERS ARE NOT COMPLETE CATALOG NUMBERS. COMPLY WITH ADDITIONAL REQUIREMENTS IN SPECIFICATIONS AND DRAWINGS.
 - PROVIDE WALL, CEILING, OR PENDANT MOUNTING AS INDICATED ON PLANS. PROVIDE NUMBER OF FACES AND ARROWS AS INDICATED.
 - PROVIDE PROGRAMMED START BALLAST WITH ROOMS THAT HAVE OCCUPANCY SENSORS.
 - VERIFY CEILING STRUCTURE AND MOUNTING HEIGHT PRIOR TO ORDERING ANY LIGHT FIXTURES.



A1 SITE PHOTOMETRIC PLAN
SCALE: 1"=20'-0"



75 York Street,
Portland, Maine 04101
simonsarchitects.com
207.772.4656



160 Veranda Street
Portland, Maine 04103
T: 207.221.2260
F: 207.221.2266
Web: www.allied-eng.com

Allied Project No: 15051
Cad File: 15051ES.dwg

PROJECT NAME:
WAYNFLETE LOWER SCHOOL
ADDITION & RENOVATIONS

WAYNFLETE SCHOOL
360 SPRING STREET
PORTLAND, MAINE 04102

SEAL:

THIS DRAWING IS THE PROPERTY OF SCOTT SIMONS ARCHITECTS (SSA) AND IS NOT TO BE COPIED OR REPRODUCED IN PART OR WHOLE. © 2015 SCOTT SIMONS ARCHITECTS, LLC

REVISION:	DATE
1	DATE
2	DATE
3	DATE
4	DATE
5	DATE
6	DATE

DATE OF ISSUE: _____
PROJECT NUMBER: 2013-0050
STATUS: DESIGN DEVELOPMENT

ELECTRICAL SITE PHOTOMETRIC PLAN AND SCHEDULES

SL-100

SITE PERMITTING ~ 10 FEBRUARY 2016 ~ NOT FOR CONSTRUCTION