

Russell W. Williston, Chair
LANCASTER PLANNING BOARD
701 Main Street – Suite 4
Lancaster, Massachusetts 01523

July 22, 2021

RE: Amended Definitive Subdivision – MGL Ch. 41 §81-W
Construction Plans – Phase 2
McGovern Boulevard, Lancaster, MA
Peer Review Comment-Response

Dear Mr. Williston,

On behalf of our client, North Lancaster, LLC, Hannigan Engineering, Inc. has reviewed the peer review comments from Haley-Ward regarding the application for an Amended Definitive Subdivision submittal for McGovern Boulevard, in Lancaster, Massachusetts. We offer responses to their comments below.

Comment #1: The responsible party for Operation, Maintenance, and Pollution Prevention Plan is listed as "TBD" for during and post-construction. The names and addresses of the person(s) responsible for operation and maintenance, as well as the person(s) responsible for financing maintenance and emergency repairs, should be submitted with the plans.

Response: It is the intention of the Applicant and the Owner to have the roadway remain private and not seek roadway acceptance from the Town. Various aspects of the roadway and infrastructure will require short and long-term maintenance including the water system, sewer system, and drainage system.

As such, an Association will be created that will be responsible for these items. The Association will consist of landowners within the development that will be utilizing the roadway and the associated utilities. Upon the approval of the Amended Subdivision, the final documentation will be prepared and recorded at the Registry of Deeds with the in the chain of title associated with the Amended Subdivision approval.

For the purpose of the O & M Plan, the Responsible Party has been listed as North Lancaster, LLC (Pending the Creation of the Association).

Comment #2: Erosion and sediment control measures around the proposed engineered block retaining wall and culvert should be presented. The means of stream flow management during construction should be provided.

Response: Erosion and sediment control measures around the culvert have been updated to reflect protection of the streamflow bed during construction. The existing culvert will need to be removed prior to this erosion control being installed. As part of the Conservation Commission review process for the project, the Applicant's wetland consultant, Goddard Consulting, LLC, is preparing a construction sequencing plan for the installation of the proposed culvert and retaining wall. This will include additional erosion control measures and the means of stream flow management during construction. These plans will be made part of the construction set of plans and be provided to the Planning Board for their review. The review of these plans by the Peer Review engineer would be an acceptable Condition of Approval.

Comment #3A: The post-development peak rates of runoff show a decrease for all design points, with the exception of Design Point #4. During the 50-year storm, peak rates increase from 0.05 cfs (pre-) to 0.07 cfs (post-). During the 100-year storm, peak rates increase from 0.12 cfs (pre-) to 0.14 cfs (post-). (It is unclear why this is the case. Other than the post area being slightly smaller, there is no proposed construction in e400/p400, but the hydrologic calcs show an increase in impervious area from 0% to 0.59. We agree with Hannigan Engineering that the increases in peak rate of runoff at Design Point #4 are considered de minimis.

Response: During the Public Hearing, the Peer Reviewer noted that there are two parts to this comment. The portion of the comment relative to increases in peak rate of runoff at Design Point #4 were found to be de minimis, which is noted as being acceptable to the Peer Reviewer.

Comment #3B: Drainage systems shall be designed based on a twenty-five-year frequency storm, except that culverts shall be designed on a fifty-year storm, detention basins shall be based on a one-hundred-year storm, and in a one-hundred-year storm streets shall remain passable and drainage shall not enter buildings.

Response: During the Public Hearing, the Peer Reviewer noted that there are two parts to this comment. Relative to the portion of the comment regarding capacity of the culvert system, a review of the USGS StreamStats program was used to develop an anticipated flow of approximately 159 cubic feet per second (cfs) during the 50-year flood event. The proposed culvert has a capacity of approximately 1,170 cfs, far in excess of the 50-year flood event. Although the StreamStats program does not have the ability to provide estimated flows for the 100-year flood event, it is anticipated that the proposed culvert would be able to accommodate these flows as well.

Comment #4: Calculations should be provided showing that the proposed McGovern box culvert will pass a 50-year design storm and that a 100-year design storm will not make the road impassable.

Response: As stated above, a review of the USGS StreamStats program was used to develop an anticipated flow of approximately 159 cubic feet per second (cfs) during the 50-year flood event. The proposed culvert has a capacity of approximately 1,170 cfs, far in excess of the 50-year flood event. Although the StreamStats program does not have the ability to provide estimated flows for the 100-year flood event, it is anticipated that the proposed culvert would be able to accommodate these flows as well.

Comment #5: The Stormwater management bylaw states water velocities shall be between two and 10 feet per second in pipes, and not over five feet per second in swales. Reach DMH22 to DMH#15 reaches a maximum velocity of 9.90 fps during the 25-year storm event, a maximum velocity of 10.34 fps during the 50-year storm, and a maximum velocity of 10.73 fps during the 100-year storm event.

Response: The 12" pipe connection from DMH#22 to DMH#15 noted in the Peer Reviewer's comment is part of the construction associated with the FC Star Soccer Club Clubhouse facility and is not part of the McGovern Boulevard drainage system. As such, modifications to that portion of the drainage system would need to be addressed as part of that particular construction project.

Comment #6: According to the bylaws, streetlights shall be installed at every major intersection. The applicant should submit lighting details for streetlights, traffic lights, and illumination in accordance with the Lighting Section in the bylaws.

Response: As depicted on the plans, streetlights have been provided at the end and approximately the midpoint of the roadway for general illumination of the roadway. As part of the overall development, the intersection at McGovern Boulevard and Lunenburg Road is being evaluated as a signalized intersection. The design of the roadway improvements as submitted are based on those plans as prepared by TEC. These plans are at the Conceptual Level as part of the MEPA review process. Further design and permitting from MassDOT will be required for the construction of this intersection. The Conceptual Plan has been included in this review.

Comment #7: The plans indicate proposed signalization at the McGovern/Lunenburg intersection. The plan for implementing this work should be presented.

Response: As stated above, the design of the roadway improvements as submitted are based on those plans as prepared by TEC. These plans are at the Conceptual Level as part of the MEPA review process. Further design and permitting from MassDOT will be required for the construction of this intersection. The Conceptual Plan has been included in this review.

Comment #8: The treatment of the center island near 1+00 should be detailed and shown on the cross section.

Response: The roadway way cross section detail for station 1+00 has been updated to include information relative to the center island. It is anticipated that this island will be landscaped with tree and low growing plants to maintain site visibility.

Comment #9: Ramps and a pedestrian cross walk should be provided at the McGovern/Lunenburg intersection.

Response: The ramps and pedestrian crosswalks are shown on the plans at this location. Additional notes have been added to clarify the locations. Additionally, ADA warning pads and details have been added to the plan set.

Comment #10: Ramps and a pedestrian cross walk should be provided at 8+30.

Response: Ramps and a pedestrian crosswalk is shown on the plans at Station 7+15. Additional notes have been added to clarify the locations. Additionally, ADA warning pads and details have been added to the plan set.

Comment #11: The existing water main(s) over McGovern Brook are currently fitted with heat tape to prevent freezing due to the very low flow. The plans should provide this detail at the new culvert crossing and the ongoing means of operation.

Response: As discussed at the Public Hearing, this main is being converted from a fire suppression only main, to a full use domestic and fire suppression system. As such, there will be additional flow in the main that should lessen the likelihood of freezing. Additional notations have been added to profile dictating the need for heat tape within the area of the crossing to prevent freezing during times of low flow. The power for this will be connected to the streetlight system to allow the electrical costs to be absorbed by the Association.

Comment #12: The proposed wood guard rail should be replaced with a rail meeting Massachusetts Highway Standards.

Response: A guardrail detail has been updated to be steel guardrail in lieu of a timber rail.

**HANNIGAN
ENGINEERING, INC.**

8 MONUMENT SQUARE, LEOMINSTER, MA 01453 PHONE: (978) 534-1234 FAX (978) 534-6060 | CIVIL ENGINEERS & LAND SURVEYORS

Comment #13: Fire Hydrants should be provided near Stations 5+00, 10+00 and 15+00.

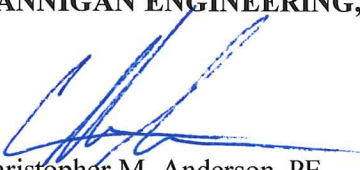
Response: Additional fire hydrants have been added to the revised plan set.

Comment #14: The plans propose a retaining wall and culvert to be designed by others at the McGovern Brook Crossing. Your Board should consider a condition of approval requiring submittal of these plans for review prior to construction.


Response: Acknowledged. Prior to construction the final retaining wall and culvert designs for the crossing at McGovern Brook will be provided to both the Planning Board and the Conservation Commission for final review.

Hannigan Engineering, Inc. is providing this information as part of the review of the proposed Amended Subdivision application. We look forward to your continued cooperation and assistance relative to this Phase of the project. If you have any questions or concerns, please do not hesitate to contact this office.

Sincerely,
HANNIGAN ENGINEERING, INC



Christopher M. Anderson, PE
Project Engineer

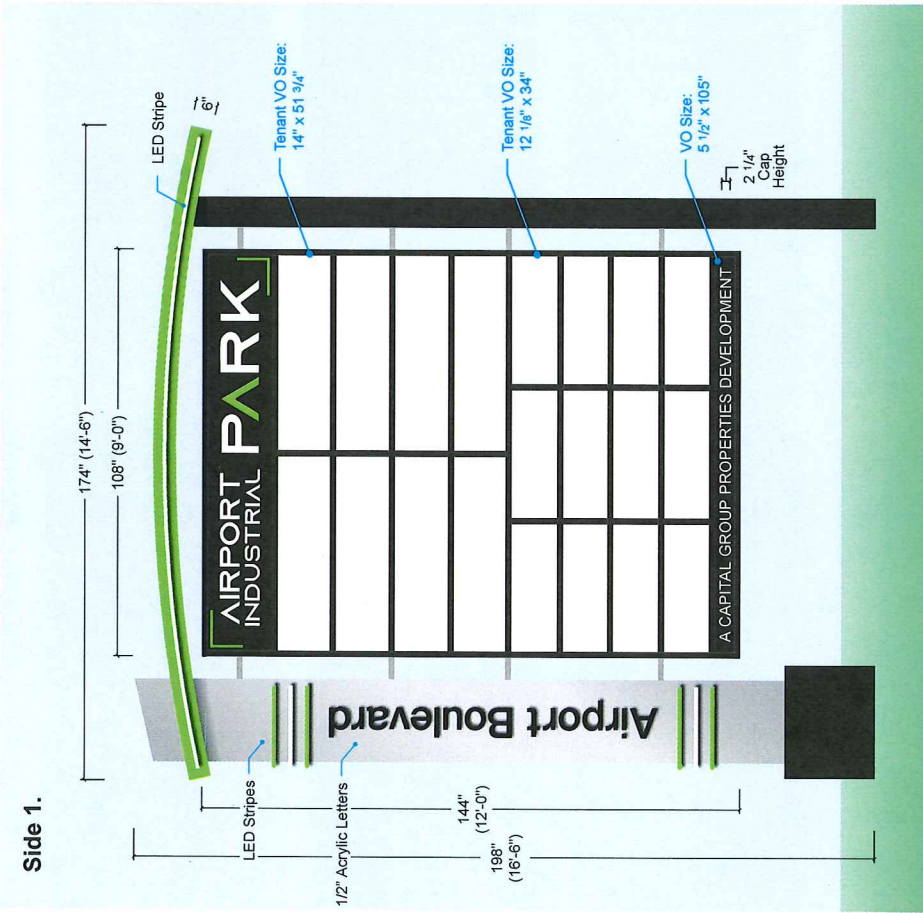


William D. Hannigan, PE
President

PC: Steve Boucher, North Lancaster, LLC
Robert Depietri, Capital Group
William Depietri, 720, LLC
Thomas Bovenzi, Attorney

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Option 2. Double Sided, Internally Illuminated Pylon Sign



Side 1.



Side 2.

Sign Cabinet: 144" x 108" = 108 sq. ft.
TOTAL SQUARE FOOTAGE: 108 sq. ft.

#10369

Job: Capital Group Properties	Account Manager: Jeff Kweiss	Date: 08.07.19	Revisions: 09.23.19 .75 (0x2) SM	Revisions: 09.23.19 .75	Revisions: 09.25.19 .25	Revisions: 09.25.19 .25	THIS PROPOSAL DRAWING CONTAINS ORIGINAL ELEMENTS CREATED BY VIEWPOINT SIGN AND AWNING. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION OR REPRODUCTION IS PROHIBITED.	Production Approval
Location: 685 Farm Road - Methuen, MA	File: CapGpProp_MethuMA_Airport_Pylon-0p2_1b.rvt	Designer: Jay Tuccillo						Customer Approval
								Acct. Manager Approval
								Concept

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RSX1 LED Area Luminaire

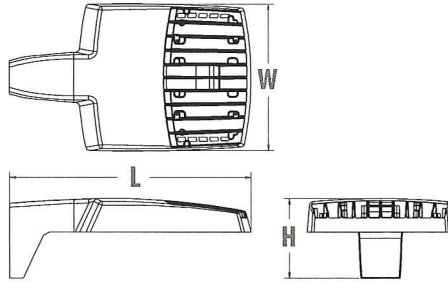


Catalog Number
Notes
Type

Hit the tab key or mouse over this page to see all interactive elements

Specifications

EPA (ft ² @0°):	0.57 ft ² (0.05 m ²)
Length:	21.8" (55.4 cm) (SPA mount)
Width:	13.3" (33.8 cm)
Height:	3.0" (7.6 cm) Main Body 7.2" (18.4 cm) Arm
Weight (max):	25.0 lbs (11.3 kg)



Introduction

The new RSX LED Area family delivers maximum value by providing significant energy savings, long life and outstanding photometric performance at an affordable price. The RSX1 delivers 7,000 to 17,000 lumens allowing it to replace 70W to 400W HID luminaires.

The RSX features an integral universal mounting mechanism that allows the luminaire to be mounted on most existing drill hole patterns. This "no-drill" solution provides significant labor savings. An easy-access door on the bottom of mounting arm allows for wiring without opening the electrical compartment. A mast arm adaptor and an adjustable integral slip-fitter are also available.

Ordering Information

EXAMPLE: RSX1 LED P4 40K R3 MVOLT SPA DDBXD

RSX1 LED

Series	Performance Package	Color Temperature	Distribution	Voltage	Mounting
RSX1 LED	P1	30K 3000K	R3 Type 3 Wide	MVOLT (120V-277V) ¹	SPA Square pole mounting (Min. 3.0" SQ for 1 at 90°, Min. 3.5" SQ for 2, 3, 4 at 90°) RPA Round pole mounting (3.2" min pole dia. for 1, 2, 3 or 4 at 90°) MA Mast arm adaptor (fits 2-3/8" OD horizontal tenon) IS Adjustable slipfitter (fits 2-3/8" OD tenon) ⁴ WBA Wall bracket
	P2	40K 4000K	R4 Type 4 Wide	HVOLT (347V-480V) ²	
	P3	50K 5000K	R5 Type 5 Wide	(use specific voltage for options as noted)	
	P4		R5S Type 5 Short AFR Automotive Front Row	120 ³ 277 ³ 208 ³ 347 ³ 240 ³ 480 ³	

Options		Finish
Shipped Installed HS House-side shield PE Photocontrol, button style ^{5,7} PEX Photocontrol external threaded, adjustable ^{6,7} PER7 Seven-wire twist-lock receptacle only (no controls) ^{7,8,9} CE34 Conduit entry 3/4" NPT (Qty 2) SF Single fuse (120, 277, 347) ³ DF Double fuse (208, 240, 480) ³ SPD20KV 20KV Surge pack (10KV standard) FAO Field adjustable output DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)		DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured Dark Bronze DBLBXD Textured Black DNATXD Textured Natural Aluminum DWHGXD Textured White
Shipped Separately (requires some field assembly) EGS External glare shield EGFV External glare full visor (360° around light aperture) BS Bird spikes ¹²		
Shipped Installed *Standalone and Networked Sensors/Controls (factory default settings, see table page 5) NLTAIR2 nLight AIR generation 2 ^{10,15} PIRHN Networked, Bi-Level motion/ambient sensor (for use with NLTAIR2) ^{7,11,14,15}		
*Note: PIRHN with nLight Air can be used as a standalone or networked solution. Sensor coverage pattern is affected when luminaire is tilted.		



Ordering Information

Accessories

Ordered and shipped separately.

RSX1HS	RSX1 House side shield (includes 1 shield)
RSX1EGS U	External glare shield (specify finish)
RSX1EGFV U	External glare full visor (specify finish)
RSXRPA U	RSX Universal round pole adaptor plate (specify finish)
DLL127F 1.5 JU	Photocell -SSL twist-lock (120-277V) ¹³
DLL347F 1.5 CUL JU	Photocell -SSL twist-lock (347V) ¹³
DLL480F 1.5 CUL JU	Photocell -SSL twist-lock (480V) ¹³
DSHORT SBK U	Shorting cap ¹³

NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- IS maximum tilt is 90° above horizontal.
- Requires MOVLT or 347V.
- Requires 120V, 208V, 240V, 277V or 347V.
- Not available in combination with other light sensing control options (following options cannot be combined: PE, PEX, PER7, PIRHN).
- Twistlock photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included. Dimming leads capped for future use.

- For units with option PER7, the mounting must be restricted to +/- 45° from horizontal aim per ANSI C136.10-2010.
- Must be ordered with PIRHN.
- Must be ordered with NLTAIR2. For additional information on PIRHN visit [here](#).
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.
- Two or more of the following options cannot be combined including DMG, PER7, FAO and PIRHN.
- Requires MVOLT or HVOLT.

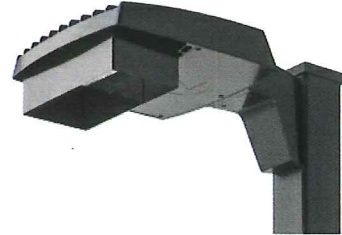
External Shields



House Side Shield



External Glare Shield

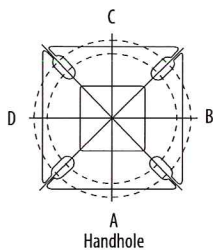


External 360 Full Visor

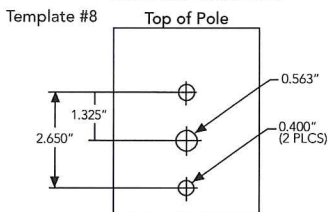
Pole/Mounting Information

Accessories including bullhorns, cross arms and other adaptors are available under the accessories tab at Lithonia's Outdoor Poles and Arms product page. Click here to visit [Accessories](#).

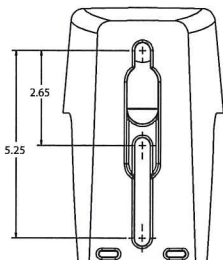
HANDHOLE ORIENTATION



RSX POLE DRILLING



RSX STANDARD ARM



Tenon Adapters

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Pole Drilling Nomenclature

Number of heads at degree from handhole (default side A)					
DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D

Note: Review luminaire spec sheet for specific nomenclature

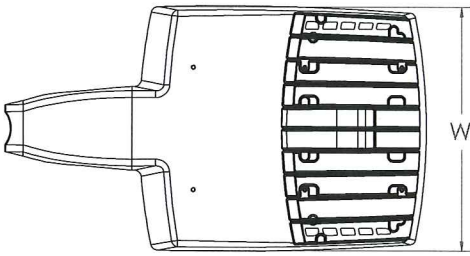
RSX1 - Luminaire EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

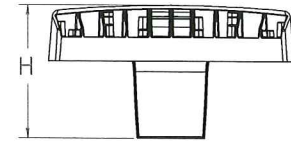
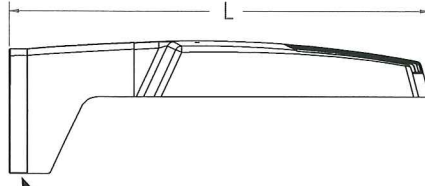
Fixture Quantity & Mounting Configuration	Mounting Type	Tilt	Single	2 @ 90	2 @ 180	3 @ 90	3 @ 120	4 @ 90	2 Side by Side	3 Side by Side	4 Side by Side
			0°	10°	20°	30°	40°	45°	50°	60°	70°
SPA - Square Pole Adaptor		0°	0.57	1.03	1.05	1.52	1.36	2.03	1.13	1.7	2.26
RPA - Round Pole Adaptor		0°	0.57	1.03	1.05	1.52	1.36	2.03	1.13	1.7	2.26
MA - Mast Arm Adaptor		0°	0.57	1.03	1.05	1.52	1.36	2.03	1.13	1.7	2.26
IS - Integral Slipfitter		0°	0.57	1.03	1.05	1.52	1.36	2.03	1.31	1.7	2.26
		10°	0.68	1.34	1.33	2	1.74	2.64	1.35	2.03	2.71
		20°	0.87	1.71	1.73	2.56	2.26	3.42	1.75	2.62	3.49
		30°	1.24	2.19	2.3	3.21	2.87	4.36	2.49	3.73	4.97
		40°	1.81	2.68	2.98	3.85	3.68	5.3	3.62	5.43	7.24
		45°	2.11	2.92	3.44	4.2	4.08	5.77	4.22	6.33	8.44
		50°	2.31	3.17	3.72	4.52	4.44	6.26	4.62	6.94	9.25
		60°	2.71	3.66	4.38	5.21	5.15	7.24	5.43	8.14	10.86
		70°	2.78	3.98	4.54	5.67	5.47	7.91	5.52	8.27	11.03
		80°	2.76	4.18	4.62	5.97	5.76	8.31	5.51	8.27	11.03
	90°	2.73	4.25	4.64	6.11	5.91	8.47	5.45	8.18	10.97	

Dimensions

RSX1 with Round Pole Adapter (RPA)



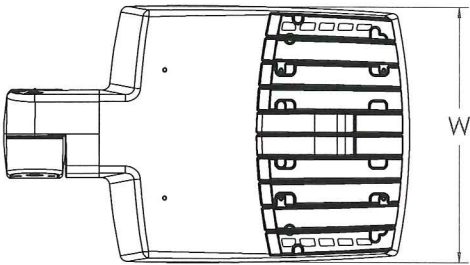
Length: 22.8" (57.9 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.2" (18.4 cm) Arm



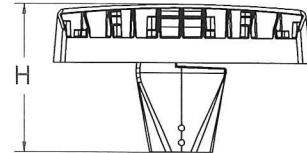
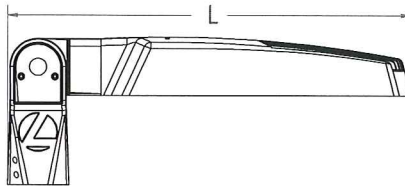
Note: RPA — Round Pole mount can also be used to mount on square poles by omitting the round pole adapter plate shown here.



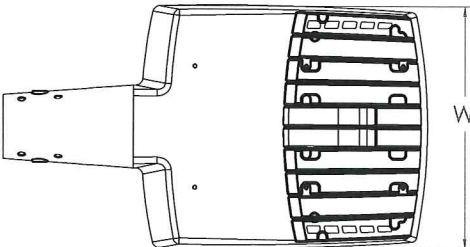
RSX1 with Adjustable Slipfitter (IS)



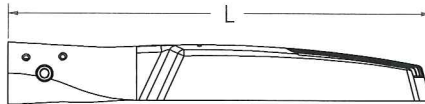
Length: 20.7" (52.7 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 7.6" (19.3 cm) Arm



RSX1 with Mast Arm Adapter (MA)



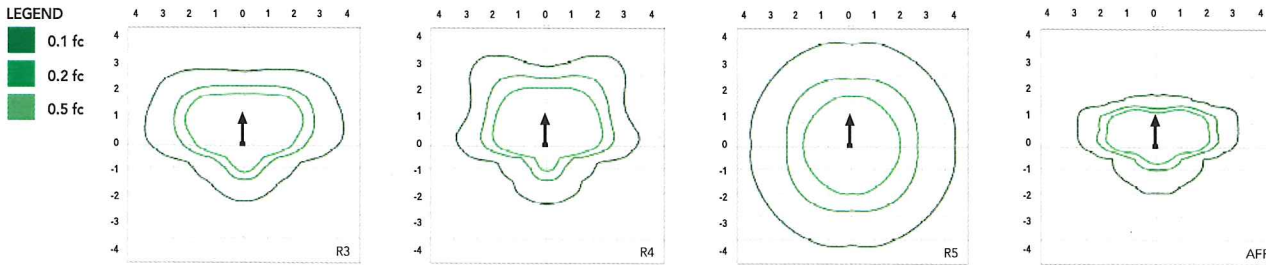
Length: 23.2" (59.1 cm)
 Width: 13.3" (33.8 cm)
 Height: 3.0" (7.6 cm) Main Body
 3.5" (8.9 cm) Arm



Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [RSX Area homepage](#).

Isofootcandle plots for the RSX1 LED P4 40K. Distances are in units of mounting height (20').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97
45°C	113°F	0.96
50°C	122°F	0.95

Electrical Load

Performance Package	System Watts (W)	Current (A)					
		120V	208V	240V	277V	347V	480V
P1	51W	0.42	0.25	0.21	0.19	0.14	0.11
P2	72W	0.60	0.35	0.30	0.26	0.21	0.15
P3	109W	0.91	0.52	0.45	0.39	0.31	0.23
P4	133W	1.11	0.64	0.55	0.48	0.38	0.27

Projected LED Lumen Maintenance

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.97	>0.95	>0.92

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

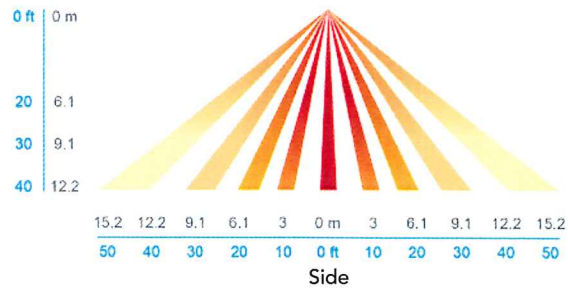
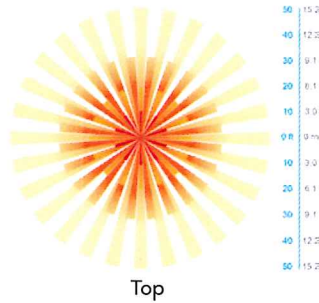
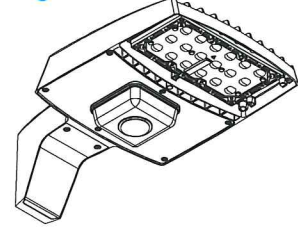
Lumen Output

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.

Performance Package	System Watts	Distribution Type	30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
			P1	51W	R3	6,459	1	0	2	127	7,096	1	0	2	139	7,096	1
R4	6,543	1			0	2	128	7,189	1	0	2	141	7,189	1	0	2	141
R5	6,631	3			0	2	130	7,286	3	0	2	143	7,286	3	0	2	143
R5S	6,807	3			0	1	133	7,479	3	0	1	147	7,479	3	0	1	147
AFR	6,473	1			0	1	127	7,112	1	0	1	139	7,112	1	0	1	139
P2	72W	R3	8,959	2	0	2	124	9,843	2	0	2	137	9,843	2	0	2	137
		R4	9,077	2	0	2	126	9,972	2	0	2	139	9,972	2	0	2	139
		R5	9,198	4	0	2	128	10,106	4	0	2	140	10,106	4	0	2	140
		R5S	9,443	3	0	1	131	10,374	3	0	1	144	10,374	3	0	1	144
		AFR	8,979	2	0	1	125	9,865	2	0	1	137	9,865	2	0	1	137
P3	109W	R3	12,763	2	0	2	117	14,023	2	0	2	129	14,023	2	0	2	129
		R4	12,930	2	0	2	119	14,206	2	0	2	130	14,206	2	0	2	130
		R5	13,104	4	0	2	120	14,397	4	0	2	132	14,397	4	0	2	132
		R5S	13,452	3	0	2	123	14,779	3	0	2	136	14,779	3	0	2	136
		AFR	12,791	2	0	1	117	14,053	2	0	2	129	14,053	2	0	2	129
P4	133W	R3	14,890	2	0	3	112	16,360	2	0	3	123	16,360	2	0	3	123
		R4	15,085	2	0	3	113	16,574	2	0	3	125	16,574	2	0	3	125
		R5	15,287	4	0	2	115	16,796	4	0	2	126	16,796	4	0	2	126
		R5S	15,693	4	0	2	118	17,242	4	0	2	130	17,242	4	0	2	130
		AFR	14,923	2	0	2	112	16,395	2	0	2	123	16,395	2	0	2	123

nLight Control - Sensor Coverage and Settings

PIRHN nLight Sensor Coverage Pattern



Motion Sensor Default Settings - Option PIRHN						
Option	Dimmed State (unoccupied)	High Level (when occupied)	Photocell Operation	Dwell Time (occupancy time delay)	Ramp-up Time (from unoccupied to occupied)	Ramp-down Time (from occupied to unoccupied)
PIRHN	Approx. 30% Output	100% Output	Enabled @ 1.5FC	7.5 minutes	3 seconds	5 minutes

*Note: PIRHN default settings including photocell set-point, high/low dim rates, and occupancy sensor time delay are all configurable using the Clarity Pro App.

FEATURES & SPECIFICATIONS

INTENDED USE

The RSX LED area luminaire is designed to provide a long-lasting, energy-efficient solution for the one-for-one replacement of existing metal halide or high pressure sodium lighting. The RSX1 delivers 7,000 to 17,000 lumens and is ideal for replacing 70W to 400W HID pole-mounted luminaires in parking lots and other area lighting applications.

CONSTRUCTION

The RSX LED area luminaire features a rugged die-cast aluminum main body that uses heat-dissipating fins and flow-through venting to provide optimal thermal management that both enhances LED performance and extends component life. Integral "no drill" mounting arm allows the luminaire to be mounted on existing pole drillings, greatly reducing installation labor. The light engines and housing are sealed against moisture and environmental contaminants to IP66. The low-profile design results in a low EPA, allowing pole optimization. All mountings are rated for a 1.5 G vibration load per ANSI C136.31.

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 superior adhesion as well as a minimum finish thickness of 3 mils. The result is a high-quality finish that is warrantied not to crack or peel.

OPTICS

Precision acrylic refractive lenses are engineered for superior application efficiency, distributing the light to where it is needed most. Available in short and wide pattern distributions including Type 3, Type 4, Type 5, Type 5S and AFR (Automotive Front Row).

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted on metal-core circuit boards and aluminum heat sinks to maximize heat dissipation. Light engines are IP66 rated. LED lumen maintenance is >L92/100,000 hours. CCT's of 3000K, 4000K and 5000K (minimum 70 CRI) are available. Class 1 electronic drivers ensure system power factor >90% and THD <20%. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The RSX LED area luminaire has a wide assortment of control options. Dusk to dawn controls include MVOLT and 347V button-type photocells and NEMA twist-lock photocell receptacles.

nLIGHT AIR CONTROLS

The RSX LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing with photocontrol functionality and is suitable for mounting heights up to 40 feet. See chart above for motion sensor default out-of-box settings. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

INSTALLATION

Integral "no-drill" mounting arm allows for fast, easy mounting using existing pole drillings. Select the "SPA" option for square poles and the "RPA" option to mount to round poles. Note, the RPA mount can also be used for mounting to square poles by omitting the RPA adapter plate. Select the "MA" option to attach the luminaire to a 2.3/8" horizontal mast arm or the "IS" option for an adjustable slipfitter that mounts on a 2.3/8" OD tenon. The adjustable slip fitter has an integral junction box and offers easy installation. IS adjustable slipfitter is not rated for tilting above 90° or mounting within 4 feet of ground. Can be tilted up to 90° above horizontal.

LISTINGS

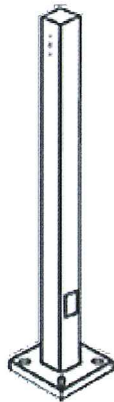
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/resources/terms-and-conditions

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.





Square steel poles drilled for 2 Area Lights at 180°. Designed for ground mounting. Poles are stocked nationwide for quick shipment. Protective packaging ensures poles arrive at the job site good as new.

Color: Bronze

Weight: 240.0 lbs

Project:	Type:
Prepared By:	Date:

Lamp Info		Ballast Info	
Type:	N/A	Type:	N/A
Watts:	0W	120V:	N/A
Shape/Size:	N/A	208V:	N/A
Base:	N/A	240V:	N/A
ANSI:	N/A	277V:	N/A
Hours:	N/A	Input Watts:	0W
Lamp Lumens:	N/A		
Efficacy:	N/A		

Technical Specifications

Listings

CSA Listed:

Suitable for wet locations

Construction

Shaft:

46,000 p.s.i. minimum yield.

Hand Holes:

Reinforced with grounding lug and removable cover

Base Plates:

36,000 p.s.i. minimum yield.

Shipping Protection:

All poles are shipped in individual corrugated cartons to prevent finish damage

Color:

Bronze powder coating

Height:

25 FT

Weight:

240 lbs

Gauge:

7

Wall Thickness:

3/16"

Shaft Size:

4"

Hand Hole Dimensions:

3" x 5"

Bolt Circle:

8 1/2"

Base Dimension:

8"

Anchor Bolt:

Galvanized anchor bolts and galvanized hardware and anchor bolt template. All bolts have a 3" hook.

Anchor Bolt Templates:

WARNING Template must be printed on 11" x 17" sheet for actual size. CHECK SCALE BEFORE USING. Templates shipped with anchor bolts and available .

Pre-Shipped Anchor Bolts:

Bolts can be pre-shipped upon request for additional freight charge

MaxEPA's/Max Weights:

- 70MPH 10.7 ft_/245 lb
- 80MPH 7.2 ft_/165 lb
- 90MPH 4.7 ft_/110 lb
- 100MPH 2.9 ft_/65 lb
- 110MPH 1.4 ft_/35 lb
- 120MPH 0.3 ft_/10 lb.

Other

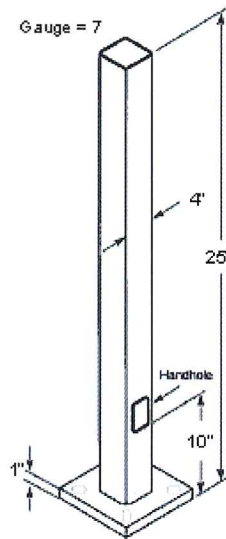
Terms of Sale:

Pole Terms of Sale is available .

Buy American Act Compliance:

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

Dimensions



Features

- Designed for ground mounting
- Heavy duty TGIC polyester coating
- Reinforced hand holes with grounding lug and removable cover for easy wiring access
- Anchor Bolt Kit includes pole cap and base cover (sold separately)
- Custom manufactured for each application



TEC, Inc.
 146 Dascomb Road
 Andover, MA 01810
 978-931-1724
 www.TheEngineeringCorp.com

DESIGNED BY: JMW
 DRAWN BY: JMW
 CHECKED BY: KMD
 DATE: 12/27/2010
 SCALE: 1" = 30'

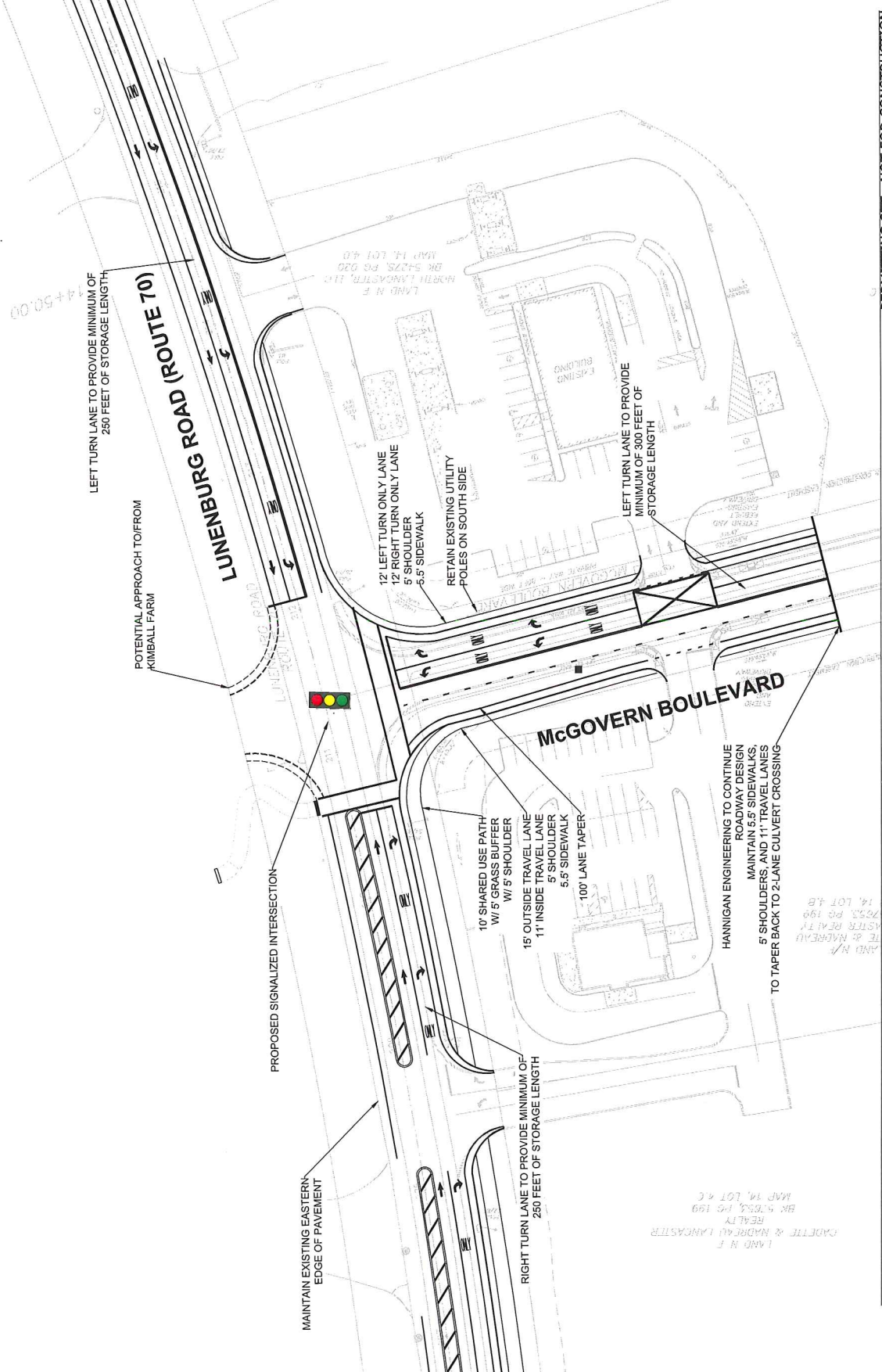
PREPARED FOR:
 Capital Group Prop.
 259 Turnpike Road
 Southborough, MA
 01772

REVISIONS:

ISSUED FOR:
 Permitting
 PROJECT TITLE
 Capital Commerce
 Center

PROJECT LOCATION
 McGovern Boulevard,
 Lancaster, MA
 DRAWING TITLE
 Conceptual Intersection
 Improvements

PROJECT NO.: TMBZ
 TEC CAD FILE:
 DRAWING NO.:
 SHEET 1 OF 1



PERMITTING SET - NOT FOR CONSTRUCTION