

LUMINAIRE SCHEDULE								
Project Name: Sterling Hall Addition Project number: 00036.010.001					File Name:	Attachment A - Luminaires Schedule_R01	Smith + Andersen	
TYPE	VOLT.	LAMP(S)	DIMENSIONS	DESCRIPTION	DRIVERS/POWER SUPPLY	MANUFACTURER/CATALOGUE NUMBER	MINIMUM PERFORMANCE REQUIRED (DELIVERED)	LOCATED
LED: AMBIENT / GENERAL PURPOSE LIGHTING								
L1A	120 V	4.8 W/ft. LED (3500 K) 80 CRI	5" W x 4.625" H See length on electrical drawings	Recessed T-Bar Straight and Narrow LED fixture. Extruded aluminum body. High transmission diffuser. Matte finish using electrostatically applied polyester powder coat paint. T-Bar mounting brackets/clips. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards.	0-10V Dimming	• Neo-Ray: Define 4	575 lumens/ft	T-bar Ceilings: Classrooms, Corridors and offices
L1B	120 V	6.8 W/ft. LED (3500 K) 80 CRI	5" W x 4.625" H See length on electrical drawings	Recessed T-Bar Straight and Narrow LED fixture. Extruded aluminum body. High transmission diffuser. Matte finish using electrostatically applied polyester powder coat paint. T-Bar mounting brackets/clips. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards.	0-10V Dimming	• Neo-Ray: Define 4	795 lumens/ft	T-bar Ceilings: Classrooms, Corridors and offices
L1C	120 V	10.6 W/ft. LED (3500 K) 80 CRI	5" W x 4.625" H See length on electrical drawings	Recessed T-Bar Straight and Narrow LED fixture. Extruded aluminum body. High transmission diffuser. Matte finish using electrostatically applied polyester powder coat paint. T-Bar mounting brackets/clips. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards.	0-10V Dimming	• Neo-Ray: Define 4	1195 lumens/ft	T-bar Ceilings: Classrooms, Corridors and offices
L2	120 V	10.6 W/ft. LED (3000 K) 80 CRI	4.25" W x 4.625" H See length on electrical drawings	Recessed on Drywall Ceiling Straight and Narrow LED fixture. Continuous row. Extruded aluminum housing. High transmission diffuser. Flush optic diffuser. Matte finish using electrostatically applied polyester powder coat paint. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards. Contractor to install asymmetric optics towards the floor.	0-10V Dimming	• Neo-Ray: Define 4	1195 lumens/ft	Drywall ceiling: Corridors
L3A	120 V	13.7 W LED (3500 K) 80 CRI	4-5/16" dia. aperture, 5-7/16" trim, 6-5/8" depth	Recessed round 4" LED Open Down light. Self-flanged, semi specular, spun 0.050" thick aluminum lower reflector. Medium wide light distribution. Universal mounting bracket, adjusts 5" vertically from above and below ceiling. Specular Clear finish. Light engine and driver accessible through aperture. Fully serviceable and upgradeable lensed LED light engine. CSA certified to meet US and Canadian standards; wet location, covered ceiling.	0-10V Dimming	• Gotham: EVO 4	1527 lumens	Drywall ceiling: Washrooms, Classrooms
L3B	120 V	25.7 W LED (3500 K) 80 CRI	4-5/16" dia. aperture, 5-7/16" trim, 6-5/8" depth	Recessed round 4" LED Open Down light. Self-flanged, semi specular, spun 0.050" thick aluminum lower reflector. Medium wide light distribution. Universal mounting bracket, adjusts 5" vertically from above and below ceiling. Specular Clear finish. Light engine and driver accessible through aperture. Fully serviceable and upgradeable lensed LED light engine. CSA certified to meet US and Canadian standards; wet location, covered ceiling.	0-10V Dimming	• Gotham: EVO 4	2580 lumens	Drywall ceiling: Washrooms, Classrooms
L3C	120 V	31.2 W LED (3500 K) 80 CRI	4-5/16" dia. aperture, 5-7/16" trim, 6-5/8" depth	Recessed round 4" LED Open Down light. Self-flanged, semi specular, spun 0.050" thick aluminum lower reflector. Medium wide light distribution. Universal mounting bracket, adjusts 5" vertically from above and below ceiling. Specular Clear finish. Light engine and driver accessible through aperture. Fully serviceable and upgradeable lensed LED light engine. CSA certified to meet US and Canadian standards; wet location, covered ceiling.	0-10V Dimming	• Gotham: EVO 4	3110 lumens	Drywal ceiling: Washrooms, Classrooms, Meeting room
L3D	120 V	38.4 W LED (3500 K) 80CRI	4-5/16" dia. aperture, 5-7/16" trim, 6-5/8" depth	Recessed round 4" LED Open Down light. Self-flanged, semi specular, spun 0.050" thick aluminum lower reflector. Medium wide light distribution. Universal mounting bracket, adjusts 5" vertically from above and below ceiling. Specular Clear finish. Light engine and driver accessible through aperture. Fully serviceable and upgradeable lensed LED light engine. CSA certified to meet US and Canadian standards; wet location, covered ceiling.	0-10V Dimming	• Gotham: EVO 4	3612 lumens	Drywall ceiling: Washrooms, Classrooms
L4A	120 V	6.7 W/ft. LED (3500 K) 80 CRI	2" W x 4.13" H See length on electrical and architectural drawings	Pendant Direct Narrow Linear LED fixture. Extruded aluminum housing. High transmission diffuser. Matte finish using electrostatically applied polyester powder coat paint. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards.	0-10V Dimming	• Neo-Ray: Define 2	675 lumens/ft	Wooden Slat: c100 Corridor
L4B	120 V	10.6 W/ft. LED (3500 K) 80 CRI	2" W x 4.13" H See length on electrical and architectural drawings	Pendant Direct Narrow Linear LED fixture. Extruded aluminum housing. High transmission diffuser. Matte finish using electrostatically applied polyester powder coat paint. LED modules are driven using universal voltage switch mode LED drivers. Certified to UL and CUL standards.	0-10V Dimming	• Neo-Ray: Define 2	1005 lumens/ft	Exposed and drywall ceiling: Classrooms, corridors, breakout rooms

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L5	120 V	41W LED (3500K) 80 CRI	2.2" W x 48" L x 3" H	Pendant and wall mounted Linear LED luminaire. Die formed cold rolled steel channel with numerous KCs for ease of installation. Channel / wireway secured with sheet metal screw. White reflector. Multistage phosphate pre-treatment for maximum bonding and rust inhibitor. Wide Lens optical distribution. Long-life LED system with electronic driver. White finish. Architect to confirm finishes prior to ordering Provide mounting rods/chains to suspend luminaire at 3000mm AFF. Provide wire guards.	Non-dimmable ON/OFF	• Cooper Lighting: Metalux SNX LW Lens • Lithonia Lighting: ZL1D series	5000 lumens	Service rooms & Elevator shaft
L6	120 V	LED 8.1W/ft 3500K 90 CRI	W: 5.85" H: 8.17" L: See length on the electrical and architectural drawings	5.8" Linear integrated light fixture. Aluminum extruded and cold rolled steel housing, with aluminum trim flange, matte white and powder coated. Rated for both indoor dry and damp locations. Certified to CSA 22.2 NO 250.0. Trim fixture for architectural ceilings. Optimal performance and glare control provided by extruded, satin acrylic lens. Drivers are integral with the light fixture. Fixture components: 3.3" round adjustable downlight, 3000lm output, 40D reflectors, black beveled insert, softening lens, seven 3.5" width x 4' long linear, 1000lm per foot, flush lens, flangeless, matte black powder coated housing interior, 3 circuit operation, Provide suspension cable and accessories. Fixture to be recessed in ceiling. Architect to confirm finishes prior to ordering.	0-10V Dimming	3G: 3Gi linear integrated series	100 lumens/ft	Heart Space
L7	120 V	LED 17 W 3000 K 90 CRI	W: 100 mm (4") H: 300 mm (11-3/4") Depth: 130 mm (5-1/8")	Recessed Step Lights With Trim. Die cast aluminum body with pure anodized aluminum reflector and 4mm thick acid etched tempered glass lens. Stainless steel screws and silicone gaskets. Back box mandatory for recessed installation - to be ordered separately. Powder coated finish. IP65 and IK06 Rated. cULus listed for wet locations. Architect to confirm finishes prior to ordering.	0-10V Dimming	Sisternalux / Miniblinker (S6070W)	280 lumens	Staircase C
L8	120 V	6 W/m LED 3500 K, CRI 85	0.39" W x 0.8" H x Refer to drawings for length	Flexible slim opal gloss encapsulated Surface mount LED Luminaire. Self adhesive tape on rear side. Complete with all parts for a functional cove/accent lighting system. Power cord termination into a junction box. Provide remote drivers and connectors as required by manufacturer's recommendations for lengths of luminaires shown on drawing. Complete with remote transformer box (as required). IP67 Rated. Must be supplied with an aluminum channel.	0-10V Dimming	LED Linear: Venus Top View	255 lumens/m	Cove Lights Heart Space
L9	220-240V	LED 90 CRI 3000K 100 lm / W 120 degree angle	W: 50 mm D: 172 mm	Surface Mounted SlimDownlight. Possess a multi-colour feature with two colour temperatures. Energy saving. Long-lifespan: 100lm/W and 50 000h @L70. Driver Included. Can be mounted on normally flammable surfaces. Must be surface mounted.	0-10V Dimming	Signify / Coreline SlimDownlight	1100 lm	Corridor C000
D								
LX1	120 V	Bird 8 x LED 53 W 4000 K 90 CRI Globe LED (E26) 8 W 4000 K 90 CRI	Bird H: 21.7" W: 82.7" L: 57.1" Globe Dia: 7.9"	Large Bird - Horizontal. Decorative Wood Pendant With Integral LED light and Frosted Glass Globe. Fixture housing made of natural elm and birch wood. Fixture diffuser made of Natural White wood veneer. Nickel Metal Canopy (4.5" diameter) To be suspended from three steel cables with two transparent electrical cables. Fixtures to be mounted at varying heights. Final mounting heights to be determined by the architect and confirmed on site. Globe to be provided with E26 Medium bulb. Suitable for dry locations / interior use only.	0-10V Dimming	LZF / Bird Horizontal - Large	Bird: 3 Lumens Globe: 800 lumens	Heart Space
LX2	120 V	Bird 8 x LED 53 W 4000 K 90 CRI Globe LED (E26) 8 W 4000 K 90 CRI	Bird H: 21.7" W: 82.7" L: 57.1" Globe Dia: 7.9"	Small Bird - Vertical. Decorative Wood Pendant With Integral LED light and Frosted Glass Globe. Fixture housing made of natural elm and birch wood. Fixture diffuser made of Natural White wood veneer. Nickel Metal Canopy (4.5" diameter) To be suspended from three steel cables with two transparent electrical cables. Fixtures to be mounted at varying heights. Final mounting heights to be determined by the architect and confirmed on site. Globe to be provided with E26 Medium bulb. Suitable for dry locations / interior use only.	0-10V Dimming	LZF / Bird Vertical - Small	Bird: 3 Lumens Globe: 800 lumens	Stair C

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LX3	120 V	LED (E26) 8 W 4000 K 90 CRI	Dia: 7.9"	Opal Globe Pendant. To be suspended from three steel cables with two transparent electrical cables. Fixtures to be mounted at varying heights. Final mounting heights to be determined by the architect and confirmed on site. Globe to be provided with E26 Medium bulb. Suitable for dry locations / interior use only.	0-10V Dimming	LZF / Globe	800 lumens	Heart Space Stair C	
EXTERIOR LIGHTS									
LS-1	120/277 V	115W LED (3000 K) 90 CRI	W: 6" H: 3.5" L: 28"	Singlehead pole mount fixture Clearsite lens, type 4 distribution. Dark sky approved. Pole to be NON-tapered, galvanized steel, 6" square, 12 ft. tall, internally dampened to eliminate second mode vibrations, standard colour finish to match fixture head colour. Pole to be mounted on 1 ft. high concrete base above grade. . Pole is to be complete with factory installed dampeners for resonance vibration cancelation.	Dimmable 0-10V	Lumenpulse Lumenblade pole mount BDLM	7210 lumens	Pole lights	
LS-1A	120/277 V	115W LED (3000 K) 90 CRI	W: 6" H: 3.5" L: 28"	Doublehead pole mount fixture Clearsite lens, type 4 distribution. Dark sky approved. Pole to be NON-tapered, galvanized steel, 6" square, 12 ft. tall, internally dampened to eliminate second mode vibrations, standard colour finish to match fixture head colour. Pole to be mounted on 1 ft. high concrete base above grade. . Pole is to be complete with factory installed dampeners for resonance vibration cancelation.	Dimmable 0-10V	Lumenpulse Lumenblade pole mount BDLM	7210 lumens/fixture	Pole lights	
LS-2	120 V	25W LED (3000 K) 90 CRI	W: 14.7" H: 3" L: 5.1"	Wall mounted fixture: Half frosted site lens. Type III distribution. Dark Sky approved.	Dimmable 0-10V	Lumenpulse Lumenblade - BLDS W1H series	2000 lumens	Wall mounted fixture	
LS-3	120 V	51W LED (3000 K) 80 CRI	W: 8" H: 39" L: 6"	Bollard Fixture: Clearsite lens, single head. Type III distribution. Dark Sky approved.	Dimmable 0-10V	Lumenpulse Lumenblade - BLDB W1H series	1000 lumens	Bollard- Site	
LS-4	120 V	15W LED (3000 K) 80 CRI	dia: 4.61" H: 3.66'	4" Recessed Downlight Symmetric medium beam. CSA listed for wet locations. Impact resistant.	Dimmable 0-10V	DOC110 LED New Construction series	1282.4 lumens	Outdoor Canopies	
EMERGENCY LIGHTING									
X1	AC 120/ 347 V DC 6, 12, 24 V	LED		Architectural Edge-lit Pictogram Exit Sign, slim-profile extruded aluminum housing, high-output LED. Universal surface mounting - wall, ceiling, or end mount. Extruded acrylic panel with pictogram legend. Refer to drawings for mounting, number of faces and direction of arrows. AC/Universal DC backup.		• Lumacell: LAE Series • Emergi-Lite: EAE Series • Beghelli: Ottica RM Series • Aimlite: RPEL Series • Stanpro: RMEA Series		See drawings	
X2	AC 120/ 347 V DC 6, 12, 24 V	LED		Weatherproof surface mounted cast aluminum pictogram exit sign, high output LED, protected by high abuse clear polycarbonate c/w fully gasketed housing and tamper resistant screws. Wet location listed. Suitable for cold weather application. NEMA 4X rated. Refer to drawings for mounting, number of faces and direction of arrows. AC / Universal DC backup.		• Lumacell: LN Series • Emergi-Lite: EN Series • Beghelli: Fortezza RM Series • Stanpro: RMR Series • Aimlite: RPWP Series		See drawings	

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Attachment A - Luminaires Schedule_R01

Smith + Andersen

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NOTES: 1. All luminaires need to be consistent on technology and must match reference standard description regardless of catalogue number. Where finishes are not indicated, allow for special finish. Manufacturer/Catalogue number not listed will not be considered. 2. The Electrical Contractor is responsible for the supply and installation of all fixed per unit cost luminaires as part of the base electrical contract. The Electrical Contractor is responsible for the installation of all cash allowance luminaires as part of the base electrical contract. Refer to specification 16505 or 26 51 13.00 for more details. 3. LEDs are to be latest technology to proved maximum lumens, binned, best colour and longest life at time of purchase. Drivers are to be the latest technology at time of purchase. 4. LED luminaire dimensions listed are the maximum size allowed. Luminaires provided can be smaller than the dimension listed. 5. All luminaire diameters and depths listed are the maximum size allowed. Luminaires provided can be smaller than the dimension listed. 6. All LED luminaires that present signs of failure on site, within the warranty period, must be replaced at no cost to the owner. If temporary luminaires are required to replace any failed LED luminaires, during the waiting time for parts (i.e. drivers, boards, heat sinks, etc.), the labour cost including installation, temporary luminaire supply, temporary luminaire removal and reinstallation of the LED fixture must be provided at no cost of the owner. Additional electrical costs, associated with higher wattage temporary luminaires, must be reimbursed with interest to the owner by the manufacturer. 7. In case of failure of an LED luminaire, whether complete failure or partial failure, a independent third party testing Laboratory (approved by Smith + Andersen) shall be commissioned by the manufacturer or vendor to perform tests on samples taken from the failed luminaires installed on corresponding site. All reporting including the test results must be submitted to Smith + Andersen for evaluation and final approval. 8. Any additional time (related to luminaire manufacturing issues) spent by Smith + Andersen will be billed at our hourly rates to the manufacturer or vendor. 9. All LED parts and accessories must be replaceable on site without removal of the luminaire. 10. Equivalents will only be considered at Smith + Andersen discretion prior to tender close. Sample must be supplied with plug and cord for mock-up. 11. When a mock-up is requested, the full order of luminaires are on hold until approval and verification of the mock-up findings. 12. Poles and bases are to be designed to accommodate wind conditions to avoid damage due to wind-induced vibrations. Shop drawings are to be signed by a structural engineer registered in the local jurisdiction. 13. Alternates are not acceptable for all luminaires . 14. Contractor shall be responsible for providing the required quantity of LED drivers to suit the luminaire layout shown on the Drawings.								