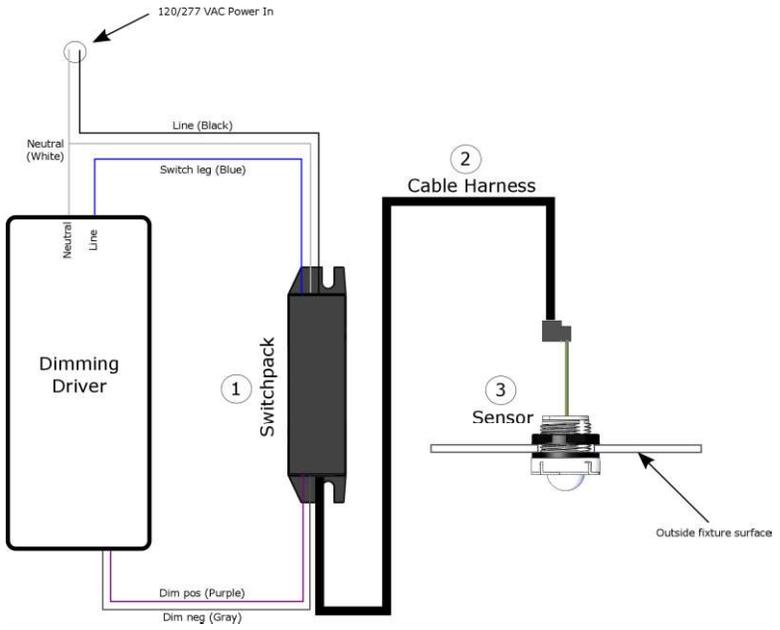


Integrated Sensor

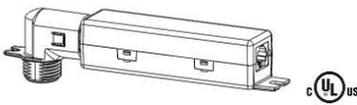
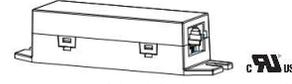
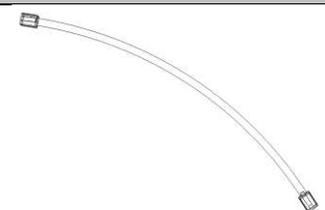
-Internal Use Only-

Specifications	
<p>Features</p> <ul style="list-style-type: none"> • Occupancy detection • Continuous daylight dimming • Out-of-the-box code compliance • Personal control via remote • Customize default settings on the line • 0-10 V dimming • Energy saver mode • Occupancy sensitivity • Fresnel lens coverage • Multiple length cable harness allowing flexible placement 	<p>Overview</p> <p>The Integrated Sensor system is an integrated control system that provides occupancy and daylight dimming controls. Daylight dimming is implemented as a closed loop control. The system is a low-cost, out-of-the-box solution to lighting code compliance with the added benefit of personal control after commissioning. Indoor and outdoor focused products have been developed.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">If implementing please contact: Mike Lunn Product Manager 770.486.4328</p>

System wiring diagram	
<p>Three components:</p> <ol style="list-style-type: none"> 1. Switchpack 2. Cable Harness 3. Sensor <p>Note: Indoor wiring is identical to outdoor.</p> <p>Personal control:</p> <ul style="list-style-type: none"> • See remote (separate document) 	 <p style="text-align: center;">Outdoor Wiring Diagram</p>

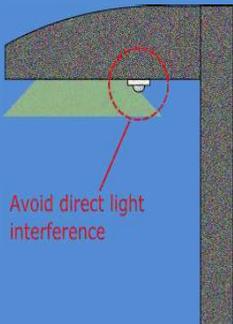
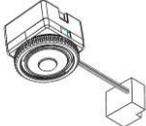
Integrated Sensor

-Internal Use Only-

1. Switchpack control module																																
<p>Switchpack specifications</p> <p>Operating Temp: -30° to 70° C amb.</p> <p>Enclosure: Polycarbonate</p> <p>Connector Type: RJ-11 plug</p> <p>Input: 120/277 VAC 1.4/1.0 mA 50/60 HZ</p> <p>Leads: 600 VAC 105° C 18 AWG 5" min. Black Line White Neutral Blue Switch leg</p> <p>Output: Blue switch leg Max 3A @ 120-277 VAC 50/60 HZ Electronic or magnetic RJ-11 port Cable Class 2 power supply UART communication</p> <p>Dimming Control: 0-10V sink Low 0.7 V High 9.8 V Purple (Dim +) Grey (Dim -)</p>	 <p>Indoor Switchpack</p> <table border="0"> <tr> <td>L</td> <td>6.55"</td> <td>166.4 mm</td> </tr> <tr> <td>W</td> <td>1.10"</td> <td>27.9 mm</td> </tr> <tr> <td>H</td> <td>1.08"</td> <td>27.4 mm</td> </tr> </table> <p>Mounting</p> <p>Option 1 (Two screws)</p> <table border="0"> <tr> <td>Slot-to-slot</td> <td>6.26"</td> <td>159.0 mm</td> </tr> <tr> <td>Slot dia.</td> <td>0.20"</td> <td>5.1 mm</td> </tr> </table> <p>Option 2 (One screw + locknut) 90° Adapter included</p> <p>Threads ½" – 14 NPSL</p> <p>SAP Information</p> <p>Catalog No. MSP03-ANI-MV</p>	L	6.55"	166.4 mm	W	1.10"	27.9 mm	H	1.08"	27.4 mm	Slot-to-slot	6.26"	159.0 mm	Slot dia.	0.20"	5.1 mm	 <p>Outdoor Switchpack</p> <table border="0"> <tr> <td>L</td> <td>4.17"</td> <td>105.9 mm</td> </tr> <tr> <td>W</td> <td>1.01"</td> <td>25.7 mm</td> </tr> <tr> <td>H</td> <td>1.02"</td> <td>25.9 mm</td> </tr> </table> <p>Mounting</p> <p>Two Screws</p> <table border="0"> <tr> <td>Slot-to-slot</td> <td>3.63"</td> <td>92.2 mm</td> </tr> <tr> <td>Slot dia.</td> <td>0.20"</td> <td>5.1 mm</td> </tr> </table> <p>SAP Information</p> <p>Catalog No. MSP03-ANO-MV</p>	L	4.17"	105.9 mm	W	1.01"	25.7 mm	H	1.02"	25.9 mm	Slot-to-slot	3.63"	92.2 mm	Slot dia.	0.20"	5.1 mm
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2. Cable harness																																
<p>Cable harness specifications</p> <p>Max Temp: 75°C (non-plenum) 105°C (plenum CMP)</p> <p>Connector Type: RJ-11</p> <p>Wire Diameter: 0.21" (non-plenum) 0.13" (plenum)</p> <p>Plenum: In building construction, a plenum is a separate space provided for air circulation for HVAC and typically provided in the space between the structural ceiling and a drop-down ceiling.</p> <p>Takeaway: Plenum rated cable harnesses are available if product must comply with plenum standards.</p>	 <p>Cable Harness SAP Information</p> <table border="0"> <thead> <tr> <th>Catalog & Material No.</th> <th>Length</th> <th>Plenum rated?</th> </tr> </thead> <tbody> <tr> <td>5140-000121-00</td> <td>22"</td> <td>Yes</td> </tr> <tr> <td>5140-000122-00</td> <td>42"</td> <td>Yes</td> </tr> <tr> <td>5140-000123-00</td> <td>54"</td> <td>Yes</td> </tr> <tr> <td>5140-000124-00</td> <td>12"</td> <td>No</td> </tr> <tr> <td>5140-000125-00</td> <td>22"</td> <td>No</td> </tr> <tr> <td>5140-000126-00</td> <td>42"</td> <td>No</td> </tr> </tbody> </table> <p>*Strain relief recommendation: Add strain relief to the cable harness near the sensor and switchpack. (i.e. zip ties fastened to the fixture)</p>		Catalog & Material No.	Length	Plenum rated?	5140-000121-00	22"	Yes	5140-000122-00	42"	Yes	5140-000123-00	54"	Yes	5140-000124-00	12"	No	5140-000125-00	22"	No	5140-000126-00	42"	No									
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Integrated Sensor

-Internal Use Only-

3. Sensor																																								
<p>Sensor specifications</p> <p>Operating Temp: -25° to 70° C amb. Enclosure: Polycarbonate Connector Type: RJ-11 plug pigtail Input: Class 2 power 5-12 VDC 10 mADC (LED on) 3 mADC (LED off)</p> <p>I/O: UART communication 3.3 VDC 9600 Baud rate 1 start bit 1 stop bit Error check no parity</p> <p>Caution: Mounting sensor in a location subject to direct light from the fixture may result in poor performance.</p> 	 <p>Indoor Sensor</p> <table> <tr> <td>L</td> <td>1.12"</td> <td>28.5 mm</td> </tr> <tr> <td>W</td> <td>1.12"</td> <td>28.5 mm</td> </tr> <tr> <td>H</td> <td>1.15"</td> <td>28.6 mm</td> </tr> <tr> <td>Threads</td> <td colspan="2">¾" – 14 NPSL</td> </tr> </table> <p>Mounting</p> <p>Hole with locknut (included) Diameter 1.10" 27.9mm</p> <p>SAP Information</p> <p>Catalog No. MLSI-P-500-W</p>	L	1.12"	28.5 mm	W	1.12"	28.5 mm	H	1.15"	28.6 mm	Threads	¾" – 14 NPSL		 <p>Outdoor Sensor</p> <table> <tr> <td>H (total)</td> <td>1.89"</td> <td>48.0 mm</td> </tr> <tr> <td>H (external)</td> <td>0.96"</td> <td>24.4 mm</td> </tr> <tr> <td>Diameter</td> <td>1.70"</td> <td>43.2 mm</td> </tr> <tr> <td>Threads</td> <td colspan="2">1" – 11 ½ NPSL</td> </tr> </table> <p>Mounting</p> <p>Option 1: Hole with locknut (included) Diameter 1.30" 33.0 mm</p> <p>Option 2: Threaded (discard locknut) Threads 1" – 11 ½ NPSL L (threads) 0.93" 23.6 mm</p> <p>SAP Information</p> <table> <tr> <td>Catalog Nos.</td> <td>See below</td> </tr> <tr> <td></td> <td><u>900 ft² coverage</u></td> </tr> <tr> <td>White</td> <td>MLSO-P-900-W</td> </tr> <tr> <td>Bronze</td> <td>MLSO-P-900-BZ</td> </tr> <tr> <td></td> <td><u>1200 ft² Coverage</u></td> </tr> <tr> <td>White</td> <td>MLSO-P-1200-W</td> </tr> <tr> <td>Bronze</td> <td>MLSO-P-1200-BZ</td> </tr> </table>	H (total)	1.89"	48.0 mm	H (external)	0.96"	24.4 mm	Diameter	1.70"	43.2 mm	Threads	1" – 11 ½ NPSL		Catalog Nos.	See below		<u>900 ft² coverage</u>	White	MLSO-P-900-W	Bronze	MLSO-P-900-BZ		<u>1200 ft² Coverage</u>	White	MLSO-P-1200-W	Bronze	MLSO-P-1200-BZ
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Integrated Sensor

-Internal Use Only-

Configuration settings (contained in sensor only)

Adjustable settings:

- 1) Occupied light level target
- 2) Unoccupied light level target
- 3) Energy Saver light level target (Unocc. ≤ ES ≤ Occ.)
- 4) Vacancy Timeout

Note:
Indoor versions allow for occupied and unoccupied targets for each of the following:

- Daytime (includes ES target)
- Twilight
- Nighttime

Outdoor versions contain a single occupied and unoccupied target as well as the ES target.

Visual representation of settings 1 & 2

Visual representation of setting 4

Coverage patterns – additional coverage patterns may be available (Application | Catalog number | Lens)
Caution: Coverage is subject to line-of-sight. Any obstructions will alter coverage.

