Date: November 30, 2006
Vendor Name: Lithonia Lighting
Product Name: Synergy
Product Model Number: SYSC MLX
Applications Software Version: Firmware Revision: 2.66
BACnet Protocol Revision: 1.0

Product Description:
Synergy is a unique event driven lighting control system that integrates all aspects of lighting control into a single system platform. Synergy combines architectural dimming, low voltage switching, lighting automation and lighting energy management functions into a single scalable package capable of meeting the requirements of virtually any lighting control application.

BACnet Standardized Device Profile (Annex L)

| BACnet Operator Workstation (B-OWS) |
| BACnet Building Controller (B-BC) |
| BACnet Advanced Application Controller (B-AAC) |
| **x** BACnet Application Specific Controller (B-ASC) |
| BACnet Smart Sensor (B-SS) |
| BACnet Smart Actuator (B-SA) |

List all BACnet Interoperability Building Blocks supported (see Annex K in BACnet Addendum 135d):

- DS-RP-B Read Property
- DS-RPM-B Read Property Multiple
- DS-WP-B Write Property
- DM-DDB-B Dynamic Device Binding
- DM-DOB-B Dynamic Object Binding
- DM-TS-B Time Synchronization
- DM-RD-B Reinitialize Device
- DM-DCC-B Device Communication Control
  - DS-RP-A Read Property
  - DS-WP-A Write Property
  - DM-DDB-A Dynamic Device Binding
  - DM-DOB-A Dynamic Object Binding
  - DM-TS-A Time Synchronization
  - DM-RD-A Reinitialize Device
  - DM-DCC-A Device Communication Control

Which of the following device binding methods does the product support? (Check one or more)

- **x** Send Who-Is, receive I-Am (BIBB DM-DDB-A)
- **x** Receive Who-Is, send I-Am (BIBB DM-DDB-B)
- Send Who-Has, receive I-Have (BIBB DM-DOB-A)
- **x** Receive Who-Has, send I-Have (BIBB DM-DOB-B)
- **x** Manual configuration of recipient device's network number and MAC address
- None of the above
Standard Object Types Supported:

Analog Input Object Type
1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   Description
   Reliability
4. List of all properties that are writable where not otherwise required by this standard
   Present_Value
5. List of proprietary properties:
   Property Identifier  Property Data Type  Meaning
   Strike_Count (512)    REAL            Number of OFF to ON transitions
   Runtime_Hours (513)   REAL            Number of hours present value is ON
6. List of any property value range restrictions:
   Property Identifier  Restrictions
   Present_Value        0.0 – 100.0, resolution of 1.0.

Analog Output Object Type
1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   Description
   Reliability
4. List of all properties that are writable where not otherwise required by this standard
   Strike_Count (512) – Resets the strike count and runtime hours to 0 regardless of value.
   Runtime_Hours (513) - Resets the strike count and runtime hours to 0 regardless of value.
5. List of proprietary properties:
   Property Identifier  Property Data Type  Meaning
   Strike_Count (512)    REAL            Number of OFF to ON transitions
   Runtime_Hours (513)   REAL            Number of hours present value is ON
6. List of any property value range restrictions:
   Property Identifier  Restrictions
   Present_Value        0.0 to 100.0, 1.0 resolution,
                        128.0 = STOP,
                        129.0 = LOWER,
                        130.0 = RAISE,
                        131.0 = BLINK,
                        255.0 = NULL, and
                        1000.0 * fade time (1/10 seconds) + level = FADE
**Analog Value Object Type**

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   - Description
   - Reliability
   - Priority_Array
   - Relinquish_Default

4. List of all properties that are writable where not otherwise required by this standard

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present_Value</td>
<td>0.0 to 100.0, 1.0 resolution, 128.0 = STOP, 129.0 = LOWER, 130.0 = RAISE, 131.0 = BLINK, 255.0 = NULL, and 1000.0 * fade time (1/10 seconds) + level = FADE</td>
</tr>
</tbody>
</table>

**Binary Input Object Type**

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   - Description
   - Reliability

4. List of all properties that are writable where not otherwise required by this standard
   - Present_Value

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
</table>
Binary Output Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   - Description
   - Reliability

4. List of all properties that are writable where not otherwise required by this standard:
   - Strike_Count (512) – Resets the strike count and runtime hours to 0 regardless of value.
   - Runtime Hours (513) - Resets the strike count and runtime hours to 0 regardless of value.

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strike_Count (512)</td>
<td>REAL</td>
<td>Number of OFF to ON transitions</td>
</tr>
<tr>
<td>Runtime Hours (513)</td>
<td>REAL</td>
<td>Number of hours present value is ON</td>
</tr>
</tbody>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Binary Value Object Type

1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
   - Description
   - Reliability
   - Priority_Array
   - Relinquish_Default

4. List of all properties that are writable where not otherwise required by this standard:
   - Present_Value

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
File Object Type
1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
Description

4. List of all properties that are writable where not otherwise required by this standard
File_Size

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
</table>

Device Object Type
1. Dynamically creatable using BACnet's CreateObject service? No
2. Dynamically deletable using BACnet's DeleteObject service? No
3. List of optional properties supported:
Description
Local_Time
Local_Date
UTC_Offset
Daylight_Savings_Status
APDU_Segment_Timeout
Max_Master
Max_Info_Frames

4. List of all properties that are writable where not otherwise required by this standard

5. List of proprietary properties:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Property Data Type</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>514</td>
<td>Time</td>
<td>Dawn</td>
</tr>
<tr>
<td>515</td>
<td>Time</td>
<td>Dusk</td>
</tr>
</tbody>
</table>

6. List of any property value range restrictions:

<table>
<thead>
<tr>
<th>Property Identifier</th>
<th>Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max_Info_Frames</td>
<td>1-255</td>
</tr>
<tr>
<td>Max_Master</td>
<td>0-127</td>
</tr>
</tbody>
</table>
### Data Link Layer Options (check all that are supported):

<table>
<thead>
<tr>
<th>Option</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACnet IP, (Annex J)</td>
<td></td>
</tr>
<tr>
<td>BACnet IP, (Annex J), Foreign Device</td>
<td></td>
</tr>
<tr>
<td>ISO 8802-3, Ethernet (Clause 7)</td>
<td></td>
</tr>
<tr>
<td>ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)</td>
<td></td>
</tr>
<tr>
<td>ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s): 156Kbps</td>
<td></td>
</tr>
<tr>
<td>MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400</td>
<td></td>
</tr>
<tr>
<td>MS/TP slave (Clause 9), baud rate(s):</td>
<td></td>
</tr>
<tr>
<td>Point-To-Point, EIA 232 (Clause 10), baud rate(s):</td>
<td></td>
</tr>
<tr>
<td>Point-To-Point, modem, (Clause 10), baud rate(s):</td>
<td></td>
</tr>
<tr>
<td>Lon Talk, (Clause 11), medium:</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

### Networking Options (check all that are supported):

- Router, Clause 6 - List all routing configurations (e.g. ARCNET-Ethernet, Ethernet-MS/TP, etc.):
- Annex H.3, BACnet Tunneling Router over UDP/IP
- BACnet/IP Broadcast Management Device (BBMD)
- BBMD supports registrations by Foreign Devices

### Segmentation Capability (check all that apply):

<table>
<thead>
<tr>
<th>Capability</th>
<th>Window Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>x Segmented requests supported</td>
<td>16</td>
</tr>
<tr>
<td>x Segmented responses supported</td>
<td>16</td>
</tr>
</tbody>
</table>

### Character Sets Supported (check all that apply):

- ANSI X3.4
- IBM /Microsoft DBCS
- ISO 8859-1
- ISO 10646 (UCS-2)
- ISO 10646 (ICS-4)
- JIS C 6226

If this product is a communication gateway, describe the non-BACnet equipment/network(s) that the gateway supports:

N/A

Include any addition information about the product's BACnet capabilities relevant to interoperability:

Analog Value objects are group write objects such that they control a group of output objects. The values in the priority array will reflect the average value of the internal objects controlled by the analog value objects or the last value written if it controls no internal objects. This was done to accommodate the missing multiplexer object (group write). Internal proprietary schedules write to objects at priority 10. Binary Input and Analog Input objects that are bound to output objects write at priority 3 (Priority ON), priority 4 (priority OFF), priority 10 (priority NORMAL), and priority 13 (priority LOW).