Date: March 17, 2010
Vendor Name: Lithonia Lighting
Product Name: Synergy
Product Model Number: SYSC MLX
Applications Software Version: _____   **Firmware Revision:** 2.67   **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)
☒ BACnet Application Specific Controller (B-ASC)
☐ BACnet Smart Sensor (B-SS)
☐ BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks Supported (Annex K): DS-RP-A, DS-RP-B, DS-RPM-B, DS-WP-A, DS-WP-B, DM-DDB-A, DM-DDB-B, DM-DOB-A, DM-DOB-B, DM-TS-A, DM-TS-B, DM-RD-A, DM-RD-B, DM-DCC-A, DM-DCC-B _____

Segmentation Capability:

☒ Segmented requests supported   Window Size 16
☒ Segmented responses supported   Window Size 16

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, and 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

    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, Max_Pres_Value, and Min_Pres_Value.

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

Max_Pres_Value – 0.0 to 100.0, 1.0 resolution.
Min_Pres_Value – 0.0 to 100.0, 1.0 resolution.
Object_Identifier – Only of instances of SIMPLY5 dimmers; Will renumber (reposition) the SIMPLY5 dimmer on its loop.
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, 132.0=FLASH (SIMPLY5 dimmers only), 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, and Relinquish_Default.

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

Member_List (42002) –Update an existing group member, delete an existing group member, append a new group member, delete all group members, and replace all group members.

5. List of proprietary properties:

Property Identifier	Property Data Type	Meaning

Member_List (42002)	BACnetARRAY[n] of Unsigned	Each member consists of five unsigned values:
		1. device_id – range 0-419403, with zero representing a local device. All other value being remote devices.
		2. object_type – legal values are:
		    1=AO – SIMPLY5, SIMPLY5_GROUP, NODE_DIMMER, NODE_MAXSTAR, or NODE_RELAY
		    2=AV – NODE_GROUP
		    4=BO – SIMPLY5, SIMPLY5_GROUP, NODE_DIMMER, NODE_MAXSTAR, or NODE_RELAY
		    5=BV – NODE_PARTITION
		3. instance_number – range depends on object type:
		    When object_type is 1 (AO) or 4 (BO):
		      0-9999 for NODE_DIMMER or NODE_RELAY
		      10000-19999 for NODE_MAXSTAR
		      20000-29999 for SIMPLY5
		      30000-39999 for SIMPLY5_GROUP
		4. level – range is 0-100 percent
		5. fade_time – range is 0-6039 (00:00-99:99)
		
		Taken together, these five values represent all the properties of one member (as specified by Array-Index) of the group specified by the AV objects instance number.
		
		For example, if property 42002 of instance 2101 of an AV object contains these values:
		 {0,2,2117,74,0,0,2,2118,43,0,0,2,2119,20,0}
		then group 2101 has three members: groups 2117-2119. All the members are local, and all the members have a fade_time of zero. Each member has a unique level.

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

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, Device_Type, and Reliability.

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

Device_Type, Group_Object_ID (42001), and Present_Value.

    5. List of proprietary properties:

Property Identifier	Property Data Type	Meaning
Group_Object_ID (42001)	BACnetObjectType	This object identifier represents the Synergy Group number this switch or button controls. The only supported object type is AV.

    6. List of any property value range restrictions:

Property Identifier	Restrictions
Device_Type	Legal values for buttons: "ALTERNATE", "DISABLED", "LATCH", "MAINTAIN", "MASTER_LOWER", "MASTER_OFF", "MASTER_ON", "MASTER_RAISE", "OFF", "ON", "RAMPDOWN", "RAMPING", and "RAMPUP." Legal values for switches are: "DISABLED", "LATCH", "MAINTAIN", "RAMPING", and "TOGGLE."

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, and Reliability.

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

Object_Identifier – Only of instances of SIMPLY5 dimmers; Will renumber (reposition) the SIMPLY5 dimmer on its loop.
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

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, and Relinquish_Default.

    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

    6. List of any property value range restrictions:

Property Identifier	Restrictions

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, and Script_Update (42003.)

    5. List of proprietary properties:

Property Identifier	Property Data Type	Meaning
Script_Update (42003)	UNSIGNED	Writing 1 to instance 1 forces an immediate update of SCRIPT.TXT.

    6. List of any property value range restrictions:

Property Identifier	Restrictions

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, and Max_Info_Frames.

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

Max_Master and Max_Info_Frames.

    5. List of proprietary properties:

Property Identifier	Property Data Type	Meaning
514	Time	Dawn
515	Time	Dusk

    6. List of any property value range restrictions:

Property Identifier	Restrictions
Max_Info_Frames	1-255
Max_Master	0-127

Data Link Layer Options:

☒ BACnet IP, (Annex J)
☐ BACnet IP, (Annex J), Foreign Device
☐ ISO 8802-3, Ethernet (Clause 7)
☐ ANSI/ATA 878.1, 2.5 Mb. ARCNET (Clause 8)
☒ ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s) _156Kbps_____
☒ MS/TP master (Clause 9), baud rate(s): 9600, 19200, 38400
☐ MS/TP slave (Clause 9), baud rate(s): _____
☐ Point-To-Point, EIA 232 (Clause 10), baud rate(s):_____
☐ Point-To-Point, modem, (Clause 10), baud rate(s): _____
☐ Lon Talk, (Clause 11), medium: _____
☐ Other: _____

Device Address Binding:

Is static device binding supported? (This is currently necessary for two-way communication with MS/TP slaves and certain other devices.) ☐Yes   ☒No

Networking Options:

☐ Router, Clause 6 - List all routing configurations, e.g., ARCNET-Ethernet, Ethernet-MS/TP, etc.
☐ Annex H, BACnet Tunneling Router over IP
☐ BACnet/IP Broadcast Management Device (BBMD)
        Does the BBMD support registrations by Foreign Devices?   ☐ Yes   ☐ No

Character Sets Supported:

Indicating support for multiple character sets does not imply that they can all be supported simultaneously.

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

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:
N/A_____
_____
_____