Protocol Implementation Conformance Statement

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
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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

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:

Property Identifier	Property Data Type	Meaning

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 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

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:

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 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

5. List of proprietary properties:

Property Identifier	Property Data Type	Meaning

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 Max_Info_Frames

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

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 (check all that are supported):

x	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)	
x	ANSI/ATA 878.1, RS-485 ARCNET (Clause 8), baud rate(s):	156Kbps
x	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:	

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):

		Window Size
x	Segmented requests supported	16
x	Segmented responses supported	16

Character Sets Supported (check all that apply):

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

x	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).