

# HMLED4

## LED High Mast Lighting



|                |      |
|----------------|------|
| Catalog Number |      |
| Notes          | Type |

### Mechanical

Rugged die cast, low copper content aluminum alloy electrical and optical housing are polyester powder coated with super durable paint for durability and corrosion resistance. Rigorous pre-treating and painting process yields a finish that achieves a scribe creepage rating of 10 (per ASTM D1654) after over 5,000 hours exposure to salt fog chamber (per ASTM B117). Enhanced corrosion resistance option (CR) includes an anodized pre-finish that achieves scribe creepage rating of 10 (per ASTM D1654) after over 20,000 hours of exposure to salt fog chamber (per ASTM B117). Four bolt horizontal arm mount with +/- 5 degree vertical adjustment provides 3g vibration rating per ANSI C136. Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8"). Two captive bolts or optional tool-less latches disengage top electrical cover for easy access to LED drivers, surge protection, and terminal block. IP66 rated LED modules, IP65 electrical assembly per IEC60068-2-3. Luminaire electrical and optical housing ship complete in one carton facilitating installation and minimizing carton disposal at jobsite.

### Electrical

Quick disconnect connectors for ease of installation and maintenance. Extreme surge protection meets 20kV/10kA per ANSI/IEEE C62.41. Driver includes 0-10V dimming, meets maximum total harmonic distortion (THD) of 20%, and is ROHS compliant. A three stage terminal block is standard for ease of installation. Minimum operating temperature is -40°C. Electronic driver has an expected life of 100,000 hours at 25°C. XVOLT - Electrical option provides protection against dropped neutral in 277V input as derived from 480V Wye. XVOLT also provides greater immunity from six common power quality issues.

### Optical

Chip on Board (COB) LED technology with color temperature options of 3000K, 4000K and 5000K with CRI of 70 minimum. Borosilicate prismatic glass optics ensure longevity and minimize dirt depreciation. Zero uplight optics reduce sky glow and meets Dark Sky requirements. Prismatic glass optics provide overlapping pattern on application space eliminating dark spots. Prismatic glass optics minimize direct view of LED, reducing glare. Rotatable optic assembly provides alignment of asymmetric distributions to roadway.

### Controls (Optional)

Controls options include the PR3 and PR7 locking style photocontrol receptacles. The PR7 receptacle option is factory pre-wired to dimming leads of drivers. PCLL - Extreme long life solid state locking-style photocontrol (20 year rated life)

ICMNYX - Nyx Hemera module, an onboard device that can receive power line control signals and communicate commands to the driver. Part of an overall Nyx Hemera control system and relies on components of the control system that are installed outside of the luminaire and provided separately.

**Field Adjustable Output (AO) module** — An onboard device that allows manual adjustment of the light output and input wattage to meet site specific requirements, allowing a single fixture configuration to be flexibly applied in many different applications. The AO module is pre-set at the factory to position 8 (100% output).

### Testing Compliance

Luminaire conforms to the following standards:

- ANSI/IEEE extreme surge protection per C136.2
- ANSI C82.77-2002 harmonic distortion
- Vibration tested to 3g level per ANSI C136.31-2018
- Standard paint finish achieves scribe creepage rating of 10 (per ASTM D1654) after over 5,000 hours exposure to salt fog chamber (per ASTM B117)
- Enhanced corrosion resistance (CR) option achieves scribe creepage rating of 10 (per ASTM D1654) after over 20,000 hours of exposure to salt fog chamber (per ASTM B117).
- FCC Title 47 Part 15, subpart B
- Optical enclosure tested to IP66 ingress protection per IEC 60529:1999
- IEC 61000 – Electromagnetic Compatibility Testing (EMC)
- UL 1598, Wet Location – Safety Listing
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at [www.designlights.org/QPL](http://www.designlights.org/QPL) to confirm which versions are qualified.

### Manufacturing

Manufactured in Crawfordsville, Indiana. ARRA compliant. Test 100% electrical of all luminaires before shipment. No less than five (5) years experience in manufacturing LED-based products.

### Government Procurement

BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.

BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to [www.acuitybrands.com/resources/buy-american](http://www.acuitybrands.com/resources/buy-american) for additional information.

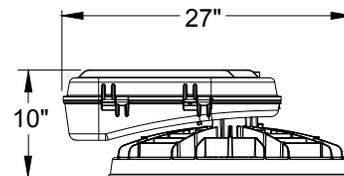
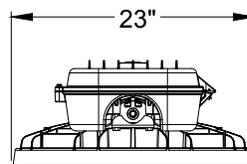
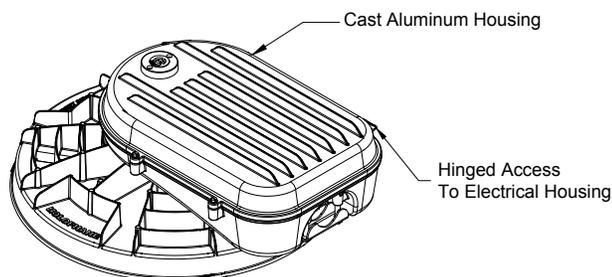
### Warranty

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://www.acuitybrands.com/support/warranty/terms-and-conditions)

**Note:** Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

## DIMENSIONAL DATA



Weight = 68 lbs. max (See Table on Page 6 for Details)

EPA of Fixture = 1.30 sq. ft.

EPA of Fixture with Shield = 3.11 sq. ft.

UL1598, 50°C, Wet location P1, P2, P3, P4, P5

UL1598, 40°C, Wet location P6

UL1598, 30°C, Wet location P7

**P2 will be used on 60' and 80' poles**  
**P3 will be used on 100' and 120' poles**

**ORDERING INFORMATION**

**Example:** HMLEd4 P4 40K XVOLT HGR AW LTCH PR7

| Series        | Performance Package | Color temperature | Voltage   | Housing Color        | Optical                                  | Options                          |
|---------------|---------------------|-------------------|---|----------------------|--|----------------------------------|
| <b>HMLEd4</b> | P1 31,000 Lumens    | 30K 3000K CCT     | MVOLT 120-277V  | HAS As Specified     | LN Long and Narrow                       | LTCH Tool-less latch closure     |
|               | P2 42,000 Lumens    | 40K 4000K CCT     | HVOLT 347-480V  | HGR Gray             | MAS Medium, Asymmetric                   | CR Enhanced corrosion resistance |
|               | P3 63,000 Lumens    | 50K 5000K CCT     | XVOLT 277-480V with enhanced power quality protection | HGH Graphite         | MAW Medium, Asymmetric Wide              | AO Field Adjustable Output       |
|               | P4 85,000 Lumens    |                   |   | HBK Black            | NAS Narrow, Asymmetric                   | SFD Single Fuse Disconnect       |
|               | P5 105,000 Lumens   |                   |   | HBZ Bronze           | FTA Forward Throw, Asymmetric            | DFD Double Fuse Disconnect       |
|               | P6 112,000 Lumens   |                   |   | HWH White            | AN Area Narrow                           | PR3 3 Pin NEMA Receptacle        |
|               | P7 120,000 Lumens   |                   |   |                      | AW Area Wide                             | PR7 7 Pin NEMA Receptacle        |
|               |                     |                   |   | AWS Area Wide Square | PCLL DTL DLL Photocontrol for 120-277V   |                                  |
|               |                     |                   |   |                      | PCL3 DTL DLL Photocontrol for 347V       |                                  |
|               |                     |                   |   |                      | PCL4 DTL DLL Photocontrol for 480V       |                                  |
|               |                     |                   |   |                      | SH Shorting Cap                          |                                  |
|               |                     |                   |   |                      | ICMNYX Integrated Nyx Hemera Control     |                                  |
|               |                     |                   |   |                      | DALI DALI driver option, consult factory |                                  |

| <b>Accessories:</b> Order as separate catalog number. |                       |
|---|-----------------------|
| HMLEDF1FUS10R   | Single Fuse Accessory |
| HMLEDF2FUS10R   | Double Fuse Accessory |
| HMLEd4D90   | 90 Degree Shield      |
| HMLEd4D120  | 120 Degree Shield     |
| HMLEd4D180  | 180 Degree Shield     |

P2 will be used on 60' and 80' poles  
P3 will be used on 100' and 120' poles

| PERFORMANCE PACKAGE | DISTRIBUTION | SYSTEM WATTS               | 3000K   |     | 4000K   |     | 5000K   |     |
|---------------------|--------------|----------------------------|---------|-----|---------|-----|---------|-----|
|                     |              |                            | LUMENS  | LPW | LUMENS  | LPW | LUMENS  | LPW |
| P1                  | LN           | 199                        | 32,484  | 163 | 33,085  | 166 | 33,686  | 169 |
|                     | MAS          |                            | 29,689  | 149 | 30,238  | 152 | 30,787  | 155 |
|                     | MAW          |                            | 29,772  | 149 | 30,323  | 152 | 30,873  | 154 |
|                     | NAS          |                            | 29,864  | 150 | 30,416  | 153 | 30,968  | 156 |
|                     | FTA          |                            | 28,052  | 141 | 28,571  | 144 | 29,090  | 146 |
|                     | AN           |                            | 33,014  | 166 | 33,625  | 169 | 34,235  | 172 |
|                     | AW           |                            | 30,655  | 154 | 31,222  | 157 | 31,788  | 160 |
|                     | AWS          |                            | 30,589  | 154 | 31,155  | 157 | 31,720  | 159 |
| P2                  | LN           | 295                        | 46,264  | 157 | 47,120  | 160 | 47,975  | 162 |
|                     | MAS          |                            | 42,284  | 143 | 43,066  | 146 | 43,848  | 149 |
|                     | MAW          |                            | 42,401  | 144 | 43,186  | 147 | 43,970  | 149 |
|                     | NAS          |                            | 42,532  | 144 | 43,319  | 147 | 44,105  | 150 |
|                     | FTA          |                            | 39,952  | 135 | 40,691  | 138 | 41,430  | 140 |
|                     | AN           |                            | 47,019  | 159 | 47,889  | 162 | 48,758  | 165 |
|                     | AW           |                            | 43,659  | 148 | 44,466  | 151 | 45,273  | 153 |
|                     | AWS          |                            | 43,565  | 148 | 44,371  | 150 | 45,176  | 153 |
| P3                  | LN           | 429                        | 66,995  | 156 | 68,234  | 159 | 69,473  | 162 |
|                     | MAS          |                            | 61,231  | 143 | 62,363  | 145 | 63,495  | 148 |
|                     | MAW          |                            | 61,401  | 143 | 62,536  | 146 | 63,672  | 149 |
|                     | NAS          |                            | 61,590  | 144 | 62,729  | 146 | 63,868  | 149 |
|                     | FTA          |                            | 57,856  | 135 | 58,926  | 137 | 59,995  | 140 |
|                     | AN           |                            | 68,087  | 159 | 69,346  | 162 | 70,605  | 165 |
|                     | AW           |                            | 63,221  | 147 | 64,390  | 150 | 65,559  | 153 |
|                     | AWS          |                            | 63,086  | 147 | 64,253  | 150 | 65,420  | 152 |
| P4                  | LN           | 582                        | 86,109  | 148 | 87,701  | 151 | 89,294  | 153 |
|                     | MAS          |                            | 78,700  | 135 | 80,155  | 138 | 81,611  | 140 |
|                     | MAW          |                            | 78,919  | 136 | 80,378  | 138 | 81,838  | 141 |
|                     | NAS          |                            | 79,162  | 136 | 80,626  | 139 | 82,090  | 141 |
|                     | FTA          |                            | 74,359  | 128 | 75,734  | 130 | 77,109  | 132 |
|                     | AN           |                            | 87,513  | 150 | 89,131  | 153 | 90,749  | 156 |
|                     | AW           |                            | 81,258  | 140 | 82,761  | 142 | 84,264  | 145 |
|                     | AWS          |                            | 81,086  | 139 | 82,585  | 142 | 84,084  | 144 |
| P5                  | LN           | 703                        | 107,758 | 153 | 109,751 | 156 | 111,744 | 159 |
|                     | MAS          |                            | 98,487  | 140 | 100,308 | 143 | 102,129 | 145 |
|                     | MAW          |                            | 98,762  | 140 | 100,588 | 143 | 102,414 | 146 |
|                     | NAS          |                            | 99,065  | 141 | 100,897 | 144 | 102,729 | 146 |
|                     | FTA          |                            | 93,054  | 132 | 94,775  | 135 | 96,496  | 137 |
|                     | AN           |                            | 109,516 | 156 | 111,542 | 159 | 113,567 | 162 |
|                     | AW           |                            | 101,689 | 145 | 103,569 | 147 | 105,449 | 150 |
|                     | AWS          |                            | 101,472 | 144 | 103,348 | 147 | 105,225 | 150 |
| P6                  | LN           | 753                        | 112,822 | 150 | 114,908 | 153 | 116,995 | 155 |
|                     | MAS          |                            | 103,115 | 137 | 105,022 | 139 | 106,929 | 142 |
|                     | MAW          |                            | 103,403 | 137 | 105,315 | 140 | 107,227 | 142 |
|                     | NAS          |                            | 103,721 | 138 | 105,639 | 140 | 107,557 | 143 |
|                     | FTA          |                            | 97,427  | 129 | 99,229  | 132 | 101,030 | 134 |
|                     | AN           |                            | 114,663 | 152 | 116,783 | 155 | 118,903 | 158 |
|                     | AW           |                            | 106,467 | 141 | 108,436 | 144 | 110,405 | 147 |
|                     | AWS          |                            | 106,241 | 141 | 108,205 | 144 | 110,169 | 146 |
| P7                  | LN           | 838 (MVOLT)<br>898 (HVOLT) | 121,877 | 145 | 124,130 | 148 | 126,384 | 151 |
|                     | MAS          |                            | 111,391 | 133 | 113,450 | 135 | 115,510 | 138 |
|                     | MAW          |                            | 111,701 | 133 | 113,767 | 136 | 115,832 | 138 |
|                     | NAS          |                            | 112,045 | 134 | 114,117 | 136 | 116,188 | 139 |
|                     | FTA          |                            | 105,246 | 126 | 107,192 | 128 | 109,138 | 130 |
|                     | AN           |                            | 123,865 | 148 | 126,156 | 151 | 128,446 | 153 |
|                     | AW           |                            | 115,012 | 137 | 117,139 | 140 | 119,265 | 142 |
|                     | AWS          |                            | 114,767 | 137 | 116,889 | 139 | 119,011 | 142 |

OPTIONS MATRIX

|                     |            | Performance Package |     |     |     |     |     |                | Color Temperature |     |     | Voltage |                |       | Housing Color |     |     |     |     |     |
|---------------------|------------|---------------------|-----|-----|-----|-----|-----|----------------|-------------------|-----|-----|---------|----------------|-------|---------------|-----|-----|-----|-----|-----|
|                     |            | P1                  | P2  | P3  | P4  | P5  | P6  | P7             | 30K               | 40K | 50K | MVOLT   | HVOLT          | XVOLT | HAS           | HGR | HGY | HBK | HBZ | HWH |
| Performance Package | P1         |                     | N   | N   | N   | N   | N   | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P2         | N                   |     | N   | N   | N   | N   | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P3         | N                   | N   |     | N   | N   | N   | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P4         | N                   | N   | N   |     | N   | N   | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P5         | N                   | N   | N   | N   |     | N   | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P6         | N                   | N   | N   | N   | N   |     | N              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   | Y   |
|                     | P7         | N                   | N   | N   | N   | N   | N   |                | Y                 | Y   | Y   | Y       | Y <sup>1</sup> | N     | Y             | Y   | Y   | Y   | Y   | Y   |
| Color Temperature   | 30K        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              |                   | N   | N   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | 40K        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | N                 |     | N   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | 50K        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | N                 | N   |     | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
| Voltage             | MVOLT      | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   |     | N       | N              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | HVOLT      | Y                   | Y   | Y   | Y   | Y   | Y   | Y <sup>1</sup> | Y                 | Y   | Y   | N       |                | N     | Y             | Y   | Y   | Y   | Y   |     |
|                     | XVOLT      | Y                   | Y   | Y   | Y   | Y   | Y   | N              | Y                 | Y   | Y   | N       | N              |       | Y             | Y   | Y   | Y   | Y   |     |
| Housing Color       | HAS        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     |               | N   | N   | N   | N   |     |
|                     | HGR        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | N             |     | N   | N   | N   |     |
|                     | HGY        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | N             | N   |     | N   | N   |     |
|                     | HBK        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | N             | N   | N   |     | N   |     |
|                     | HBZ        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | N             | N   | N   | N   |     |     |
|                     | HWH        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | N             | N   | N   | N   | N   |     |
| Optics              | LN         | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | MAS        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | MAW        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | NAS        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | FTA        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | AN         | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | AW         | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | AWS        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
| Options             | AO         | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | DALI       | RFD                 | RFD | RFD | RFD | RFD | RFD | N              | RFD               | RFD | RFD | RFD     | N              | N     | RFD           | RFD | RFD | RFD | RFD |     |
|                     | SFD        | Y                   | Y   | Y   | Y   | Y   | Y   | RFD            | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | DFD        | Y                   | Y   | Y   | Y   | Y   | Y   | RFD            | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | PR3        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | PR7        | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | PCLL       | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | N              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | PCL3       | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | N       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | PCL4       | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | N       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | SH         | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
| HSS                 | ICMNYX     | Y                   | Y   | Y   | Y   | N   | N   | N              | Y                 | Y   | Y   | Y       | Y              | N     | Y             | Y   | Y   | Y   | Y   |     |
|                     | HMLED4D90  | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   | Y   |     |
|                     | HMLED4D120 | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   |     |     |
|                     | HMLED4D180 | Y                   | Y   | Y   | Y   | Y   | Y   | Y              | Y                 | Y   | Y   | Y       | Y              | Y     | Y             | Y   | Y   | Y   |     |     |

Note: Options designated "RFD" require additional information. Consult factory  
<sup>1</sup> P7 HVOLT is not suitable for use on ungrounded delta system. Consult factory for details.

**OPTIONS MATRIX** (continued)

|                     |           | Options |      |     |     |     |     |      |      |      |     |        | Shielding |           |           |
|---------------------|-----------|---------|------|-----|-----|-----|-----|------|------|------|-----|--------|-----------|-----------|-----------|
|                     |           | AO      | DALI | SFD | DFD | PR3 | PR7 | PCLL | PCL3 | PCL4 | SH  | ICMNYX | HMLE4D90  | HMLE4D120 | HMLE4D180 |
| Performance Package | P1        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | P2        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | P3        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | P4        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | P5        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
|                     | P6        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
|                     | P7        | Y       | N    | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
| Color Temperature   | 30K       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | 40K       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | 50K       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
| Voltage             | MVOLT     | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | N    | N    | Y   | Y      | Y         | Y         | Y         |
|                     | HVOLT     | Y       | N    | Y   | Y   | Y   | Y   | N    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | XVOLT     | Y       | N    | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
| Housing Color       | HAS       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | HGR       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | HGY       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | HBK       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | HBZ       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
| Optics              | LN        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | MAS       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | MAW       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | NAS       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | FTA       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | AN        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | AW        | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | AWS       | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
| Options             | AO        | N       | N    | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
|                     | DALI      | N       | N    | RFD | RFD | RFD | RFD | RFD  | RFD  | RFD  | RFD | N      | RFD       | RFD       | RFD       |
|                     | SFD       | Y       | RFD  | N   | N   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | DFD       | Y       | RFD  | N   | N   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | Y         | Y         | Y         |
|                     | PR3       | Y       | RFD  | Y   | Y   | N   | N   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
|                     | PR7       | Y       | RFD  | Y   | Y   | N   | N   | Y    | Y    | Y    | Y   | N      | Y         | Y         | Y         |
|                     | PCLL      | Y       | RFD  | Y   | Y   | Y   | Y   | N    | N    | N    | N   | N      | Y         | Y         | Y         |
|                     | PCL3      | Y       | RFD  | Y   | Y   | Y   | Y   | N    | N    | N    | N   | N      | Y         | Y         | Y         |
|                     | PCL4      | Y       | RFD  | Y   | Y   | Y   | Y   | N    | N    | N    | N   | N      | Y         | Y         | Y         |
| HSS                 | SH        | Y       | RFD  | Y   | Y   | Y   | Y   | N    | N    | N    | N   | N      | Y         | Y         | Y         |
|                     | ICMNYX    | N       | N    | Y   | Y   | N   | N   | N    | N    | N    | N   | N      | Y         | Y         | Y         |
|                     | HMLE4D90  | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | N         | N         | N         |
|                     | HMLE4D120 | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | N         | N         | N         |
|                     | HMLE4D180 | Y       | RFD  | Y   | Y   | Y   | Y   | Y    | Y    | Y    | Y   | Y      | N         | N         | N         |

Note: Options designated "RFD" require additional information. Consult factory

**P2 will be used on 60' and 80' poles**  
**P3 will be used on 100' and 120' poles**

| Adjustable Output Reponse (AO) |                |           |
|--------------------------------|----------------|-----------|
| AO Position                    | % Lumen Output | % Wattage |
| 1                              | 21%            | 19%       |
| 2                              | 33%            | 31%       |
| 3                              | 46%            | 43%       |
| 4                              | 58%            | 56%       |
| 5                              | 70%            | 68%       |
| 6                              | 82%            | 81%       |
| 7                              | 94%            | 94%       |
| 8 (factory default)            | 100%           | 100%      |

| Luminaire Ambient Temperature (LAT) Factor |      |      |      |      |      |
|--|------|------|------|------|------|
| 0C   | 15C  | 25C  | 35C  | 40C  | 50C  |
| 1.05                                       | 1.02 | 1.00 | 0.98 | 0.97 | 0.96 |

P1 thru P5 qualified to 50°C  
P6 qualified to 40°C  
P7 qualified to 30°C  
ICMNYX option qualified to 40°C

| Lumen Package | LED Lumen Maintenance |              |              |              |              |               |
|---------------|-----------------------|--------------|--------------|--------------|--------------|---------------|
|               | 0 hours               | 25,000 hours | 50,000 hours | 60,000 hours | 75,000 hours | 100,000 hours |
| P1 thru P4    | 100%                  | 96%          | 92%          | 91%          | 89%          | 85%           |
| P5            | 100%                  | 96%          | 92%          | 90%          | 88%          | 84%           |
| P6            | 100%                  | 95%          | 91%          | 89%          | 87%          | 82%           |
| P7            | 100%                  | 94%          | 89%          | 87%          | 84%          | 79%           |

The *italicized* data is extrapolated beyond the TM-21 standard

|    | Input Operating Amps |      |      |      |      |      |
|----|----------------------|------|------|------|------|------|
|    | 120V                 | 208V | 240V | 277V | 347V | 480V |
| P1 | 1.69                 | 0.97 | 0.84 | 0.73 | 0.58 | 0.42 |
| P2 | 2.48                 | 1.43 | 1.24 | 1.08 | 0.86 | 0.62 |
| P3 | 3.59                 | 2.07 | 1.80 | 1.56 | 1.24 | 0.90 |
| P4 | 4.87                 | 2.81 | 2.44 | 2.11 | 1.69 | 1.22 |
| P5 | 5.85                 | 3.38 | 2.93 | 2.53 | 2.02 | 1.46 |
| P6 | 6.28                 | 3.62 | 3.14 | 2.72 | 2.17 | 1.57 |
| P7 | 6.97                 | 4.02 | 3.48 | 3.02 | 2.65 | 1.92 |

| Fixture Weight |        |
|----------------|--------|
| P1 thru P2     | 47 lbs |
| P3 thru P4     | 53 lbs |
| P5 thru P7     | 59 lbs |
| P7 HVOLT       | 68 lbs |