

Project : City of New Brighton -Cty RD 10th.doc  
 Distributor : Graybar St. Louis MO

Order:SO0303486  
 PO:4702031352

Type: SP

Page: 1/3 Qty:6

**Kimley-Horn & Associates**

- No Exceptions Taken
- Corrections Noted
- Rejected
- Verify & Make Corrections
- Resubmit

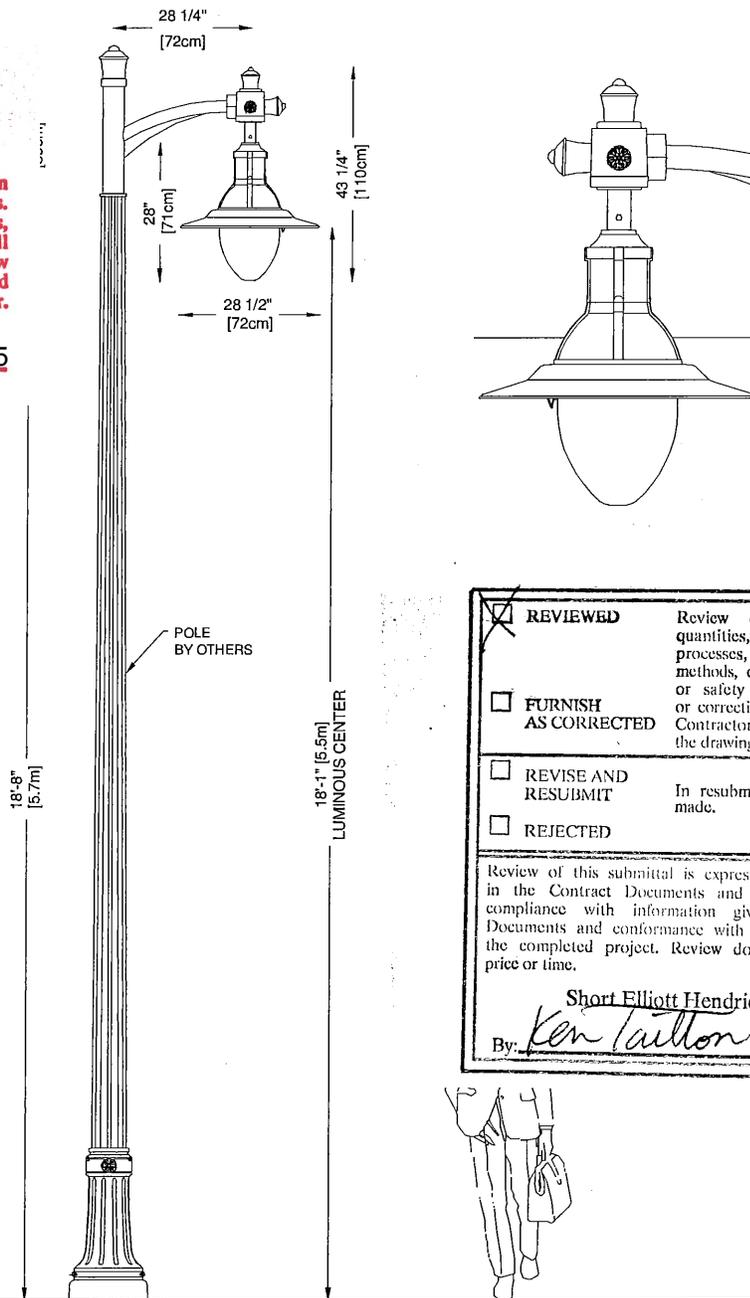
Our limited review is only for compliance with the design concept and information given in the Contract Documents. Contractor is solely responsible for dimensions, quantities, performance, safety-coordination with other work, and all other requirements of the Contract Documents. Review does not authorize changes to contract unless stated specifically in separate letter or change order. Reviewed

By: Guillermo Madrigal Date: 6/09/2015

Please identify and provide certifications for all staff that will be utilized to satisfy the requirements for all electrical work on the project.

Luminaires for Lighting units A6, A7, A10, A29, A30 and A32 shall have their LED driver leads configured to operate at 44 watts. All other luminaires shall operate at 67 watts.

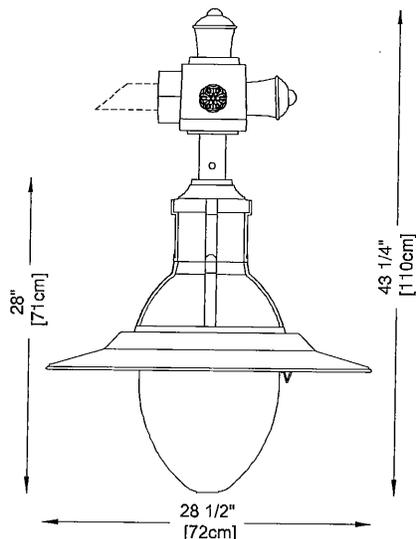
Luminaires on traffic signal system are to be 60BLEDE70



<input checked="" type="checkbox"/> REVIEWED	Review does not extend to quantities, dimensions, fabrication processes, construction means or methods, coordination of the work or safety procedures. Comments or corrections made do not relieve Contractor from compliance with the drawings and specifications.
<input type="checkbox"/> FURNISH AS CORRECTED	
<input type="checkbox"/> REVISE AND RESUBMIT	In resubmitting, identify revisions made.
<input type="checkbox"/> REJECTED	
Review of this submittal is expressly limited as provided in the Contract Documents and is only to determine compliance with information given in the Contract Documents and conformance with the design concept of the completed project. Review does not affect contract price or time.	
Short Elliott Hendrickson Inc.	
By: <u>Ken Taitton</u>	Date: <u>6-4-15</u>

Stamp/Approval  
 Name : \_\_\_\_\_ Date : \_\_\_\_\_

File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC  
 Date : 29/05/2015 Page : 1/11  
 Designer : **vIacampo**

**Project : City of New Brighton -Cty RD 10th.doc**
**Distributor : Graybar St. Louis MO**
**Order:SO0303486**
**PO:4702031352**
**Type: SP**
**Luminaire: COM12P1-DP2AX-3L-67W-4K-120-DS2-ADH-CP4309-RAL6005TX**
**Page: 2/3**
**Qty:6**

**Luminaire components**

**Adaptor module (ADH):** Square shape. The adaptor is entirely made of alloy 356.1 cast aluminum parts, with a luminaire tenon, welded together. C/W a cast aluminum lid allowing fast access to the mounting module. It permits an adjustment of more or less 5° for leveling. C/W Terminal block connector and a circular spirit level. The module is suited for horizontal tenons from Ø1 7/8" to Ø2 3/8".

**Head module:** Round shape. Cast aluminum hood and an injection-molded clear prismatic acrylic globe (DP2AX) assembled on hinged frame for a tool free opening system that give you access inside. C/w decorative shade (DS2).

**Opening system:** Hinged lens frame mechanism allows a tool-free access inside the luminaire, for ballast and lamp replacement. Made of cast aluminum alloy 356.1 and sealed with a compression system. The luminaire shall offer an IP66 weatherproof protection.

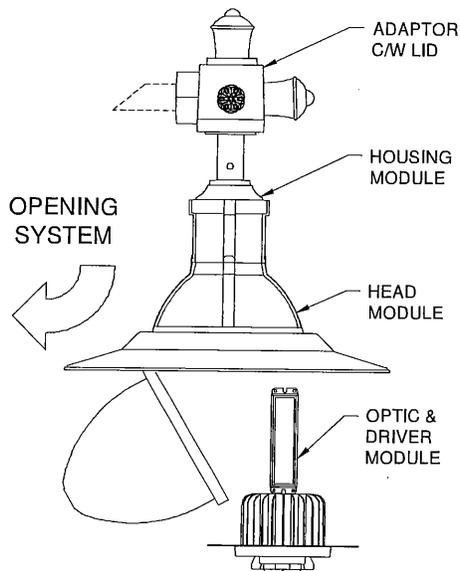
**Housing module:** Cast aluminum housing. Suspended on the Adaptor tenon and locked with locking bolt and set screws. Complete with "street side" sticker.

**Optical/electrical components**

**LED:** 67 watts, 4000K (White), Super high flux output and high luminance, design for high current operation. LED boards are easily mounted on the heatsink with 4 screws for easy replacement. Complete with connectors allowing wattage to change from 44 watts to 67 watts (See last page for details).

**Optic:** IES type III (3L). The optic's reflector is made of pre-anodized aluminum reflecting sheets (86% min. reflection), segmented in multiple facets and ventilated by multiple perforations and by heat sink radiator to keep the LEDs temperature down and increase their longevity. The orientation of each facet has been meticulously calculated to optimise the light distribution for each application.

**Driver module:** Auto-adjustable 120-277VAC Class I driver. Primary voltage at 120 volts. 50/60 Hz. THD max 20%. ROHS compliant. Assembled on a tool-free removable tray with quick connectors resisting up to 221°F (105°C). High power factor of 90%. Minimum starting temperature: -40°F (-40°C). Maximum operating temperature: 130°F (55°C). Overheat protection: Output current is reduced to 150mA if internal driver temperature (Tcase) exceeds 185°F (85°) Complete with a 3-Pole 10KV surge protector for Line-Ground, Line-Neutral and Neutral-Ground according to IEEE/ANSI C62.41.2 C High. Certification, maintenance and luminaire codification labels are located within the module.


**Generals/Options**

**Wiring/hardware:** Type TEW 14-7. 48" (30cm) minimum exceeding from luminaire with Molex connector and 12" of wiring (with Female Molex) to let connection under removable cap bracket. All electrical connections between modules are made with quick-disconnect connectors. All exposed hardware is stainless steel. Silicone gasketing are applied.

**Color: RAL6005 (Moss green) / Finish: textured (TX)  or smooth (SM) .** Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. Cyclone recommends the textured finish for this product.

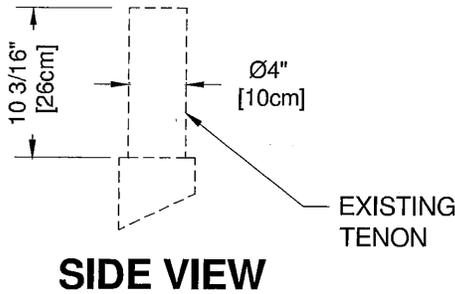
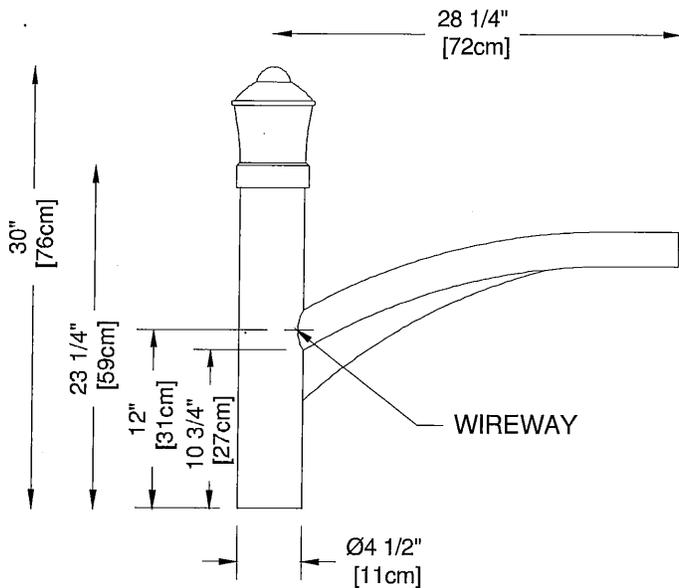
**EPA : 2.2 ft²**
**Weight: 25 lbs / 11 kg**
**Stamp/Approval**
**Name :**
**Date :**
**File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC**
**Date : 29/05/2015 Page : 2/11**
**Designer : vIacampo**

Project : City of New Brighton -Cty RD 10th.doc  
 Distributor : Graybar St. Louis MO

Order:SO0303486  
 PO:4702031352

Type: **SP** Bracket : **M534-C1-T45-CP4310-RAL6005TX**

Page: 3/3 Qty:6



**SIDE VIEW**

**Components**

**Bracket:** Round shape. Central tubing 4 1/2"(11cm)Ø made of aluminum, with one arm 2 3/8"(6cm)Ø and a laser-cut decorative element, welded together. **Single configuration(C1).** Slip fits on a pole tenon having 4"(10cm)Ø x 10 3/16"(26cm) long.

**Generals/Options**

**Hardware:** All exposed hardware is stainless steel. EPDM and/or silicone gasketing is applied

**Color:** RAL6005 (Moss green) / **Finish:** textured (TX)  or smooth (SM) . Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. **Cyclone recommends the textured finish for this product.**

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Bracket EPA : 1.5 ft²

**Stamp/Approval**  
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File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC  
 Date : 29/05/2015 Page : 3/11  
 Designer : **vlacampo**

Project : City of New Brighton -Cty RD 10th.doc

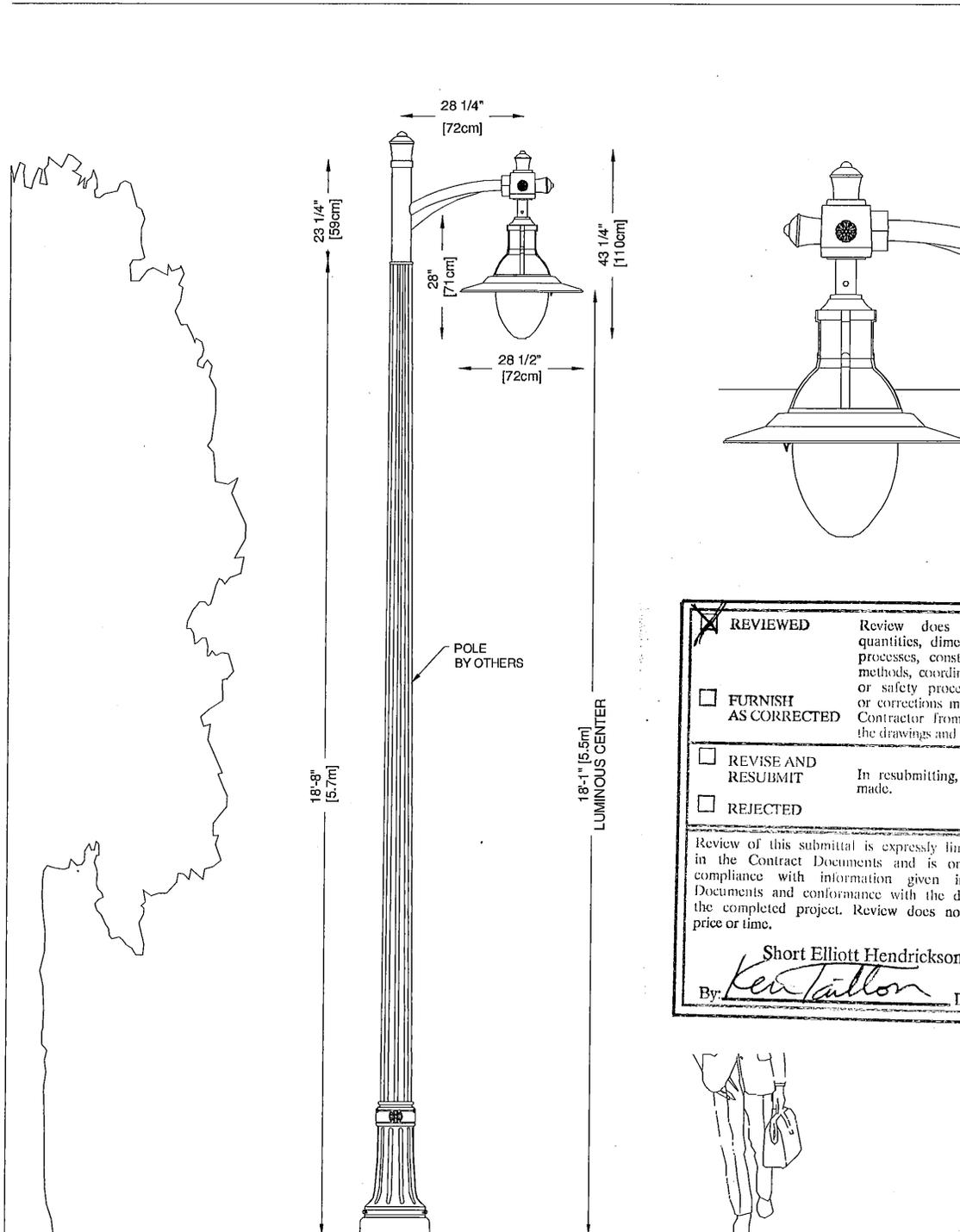
Order:SO0303486

Distributor : Graybar St. Louis MO

PO:4702031352

Type: SP1

Page: 1/3 Qty:2



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Short Elliott Hendrickson Inc.	
By: <i>Ken Tallon</i>	Date: 6-4-15

**Stamp/Approval**

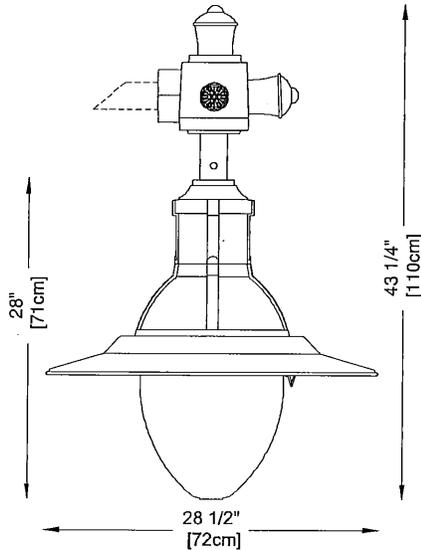
Name :

Date :

File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC

Date : 29/05/2015 Page : 4/11

Designer : vIacampo

**Project : City of New Brighton -Cty RD 10th.doc**
**Order:SO0303486**
**Distributor : Graybar St. Louis MO**
**PO:4702031352**
**Type: SP1**
**Luminaire: COM12P1-DP2AX-3L-67W-4K-120-DS2-ADH-CP4309-RAL6005TX**
**Page: 2/3**
**Qty: 2**

**Luminaire components**

**Adaptor module (ADH):** Square shape. The adaptor is entirely made of alloy 356.1 cast aluminum parts, with a luminaire tenon, welded together. C/W a cast aluminum lid allowing fast access to the mounting module. It permits an adjustment of more or less 5° for leveling. C/W Terminal block connector and a circular spirit level. The module is suited for horizontal tenons from Ø1 7/8" to Ø2 3/8".

**Head module:** Round shape. Cast aluminum hood and an injection-molded clear prismatic acrylic globe (DP2AX) assembled on hinged frame for a tool free opening system that give you access inside. C/w decorative shade (DS2).

**Opening system:** Hinged lens frame mechanism allows a tool-free access inside the luminaire, for ballast and lamp replacement. Made of cast aluminum alloy 356.1 and sealed with a compression system. The luminaire shall offer an IP66 weatherproof protection.

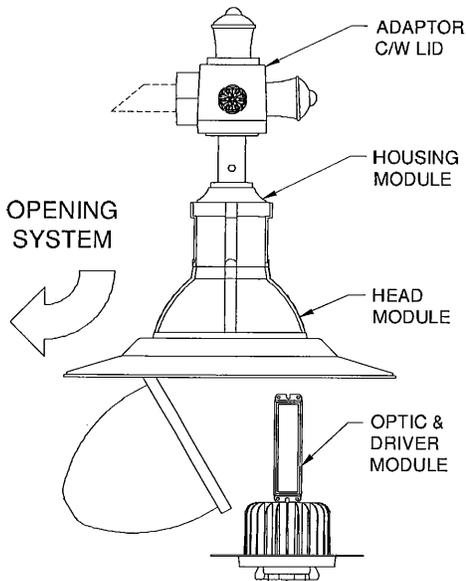
**Housing module:** Cast aluminum housing. Suspended on the Adaptor tenon and locked with locking bolt and set screws. Complete with "street side" sticker.

**Optical/electrical components**

**LED: 67 watts, 4000K (White),** Super high flux output and high luminance, design for high current operation. LED boards are easily mounted on the heatsink with 4 screws for easy replacement. Complete with connectors allowing wattage to change from 44 watts to 67 watts (See last page for details).

**Optic: IES type III (3L).** The optic's reflector is made of pre-anodized aluminum reflecting sheets (86% min. reflection), segmented in multiple facets and ventilated by multiple perforations and by heat sink radiator to keep the LEDs temperature down and increase their longevity. The orientation of each facet has been meticulously calculated to optimise the light distribution for each application.

**Driver module:** Auto-adjustable 120-277VAC Class I driver. Primary voltage at 120 volts. 50/60 Hz. THD max 20%. ROHS compliant. Assembled on a tool-free removable tray with quick connectors resisting up to 221°F (105°C). High power factor of 90%. Minimum starting temperature: -40°F (-40°C). Maximum operating temperature: 130°F (55°C). Overheat protection: Output current is reduced to 150mA if internal driver temperature (Tcase) exceeds 185°F (85°) Complete with a 3-Pole 10KV surge protector for Line-Ground, Line-Neutral and Neutral-Ground according to IEEE/ANSI C62.41.2 C High. Certification, maintenance and luminaire codification labels are located within the module.


**Generals/Options**

**Wiring/hardware:** Type TEW 14-7. 48" (30cm) minimum exceeding from luminaire with Molex connector and 12" of wiring (with Female Molex) to let connection under removable cap bracket. All electrical connections between modules are made with quick-disconnect connectors. All exposed hardware is stainless steel. Silicone gasketing are applied.

**Color: RAL6005 (Moss green) / Finish: textured (TX)  or smooth (SM) .** Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. Cyclone recommends the textured finish for this product.

**EPA : 2.2 ft² Weight: 25 lbs / 11 kg**
**Stamp/Approval**
**Name :**
**Date :**
**File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC**
**Date : 29/05/2015 Page : 5/11**
**Designer : vIacampo**

Project : City of New Brighton -Cty RD 10th.doc

Order:SO0303486

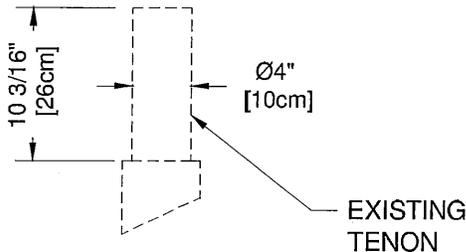
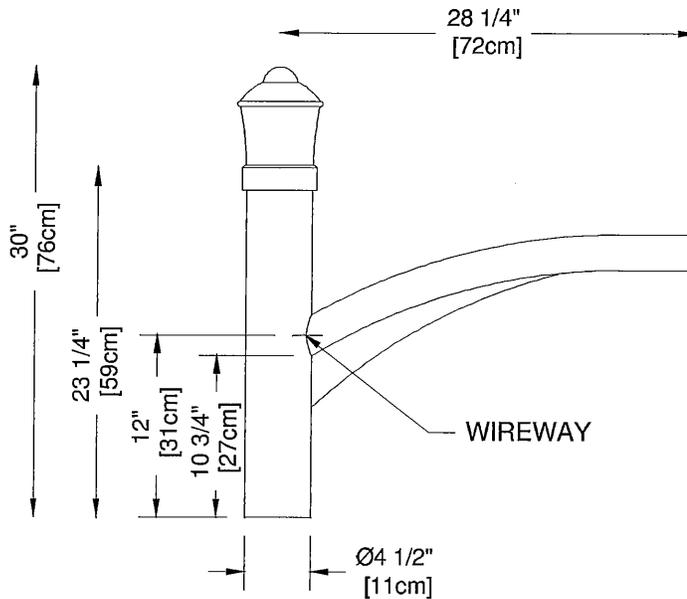
Distributor : Graybar St. Louis MO

PO:4702031352

Type: SP1 Bracket : M534-C1-T45-CP4310-RAL6005TX

Page: 3/3

Qty:2


**SIDE VIEW**
**Components**

**Bracket:** Round shape. Central tubing 4 1/2"(11cm)Ø made of aluminum, with one arm 2 3/8"(6cm)Ø and a laser-cut decorative element, welded together. **Single configuration(C1).** Slip fits on a pole tenon having 4"(10cm)Ø x 10 3/16"(26cm) long.

**Generals/Options**

**Hardware:** All exposed hardware is stainless steel. EPDM and/or silicone gasketing is applied

**Color: RAL6005 (Moss green) / Finish: textured (TX)  or smooth (SM) .** Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. **Cyclone recommends the textured finish for this product.**

**Any accessories, added or modified that are not described on this approval drawing will automatically void the warranty unless a written consent is given by Cyclone Lighting.**

 Bracket EPA : 1.5 ft<sup>2</sup>
**Stamp/Approval**

Name :

Date :

File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON - CTY RD 10TH.DOC

Date : 29/05/2015 Page : 6/11

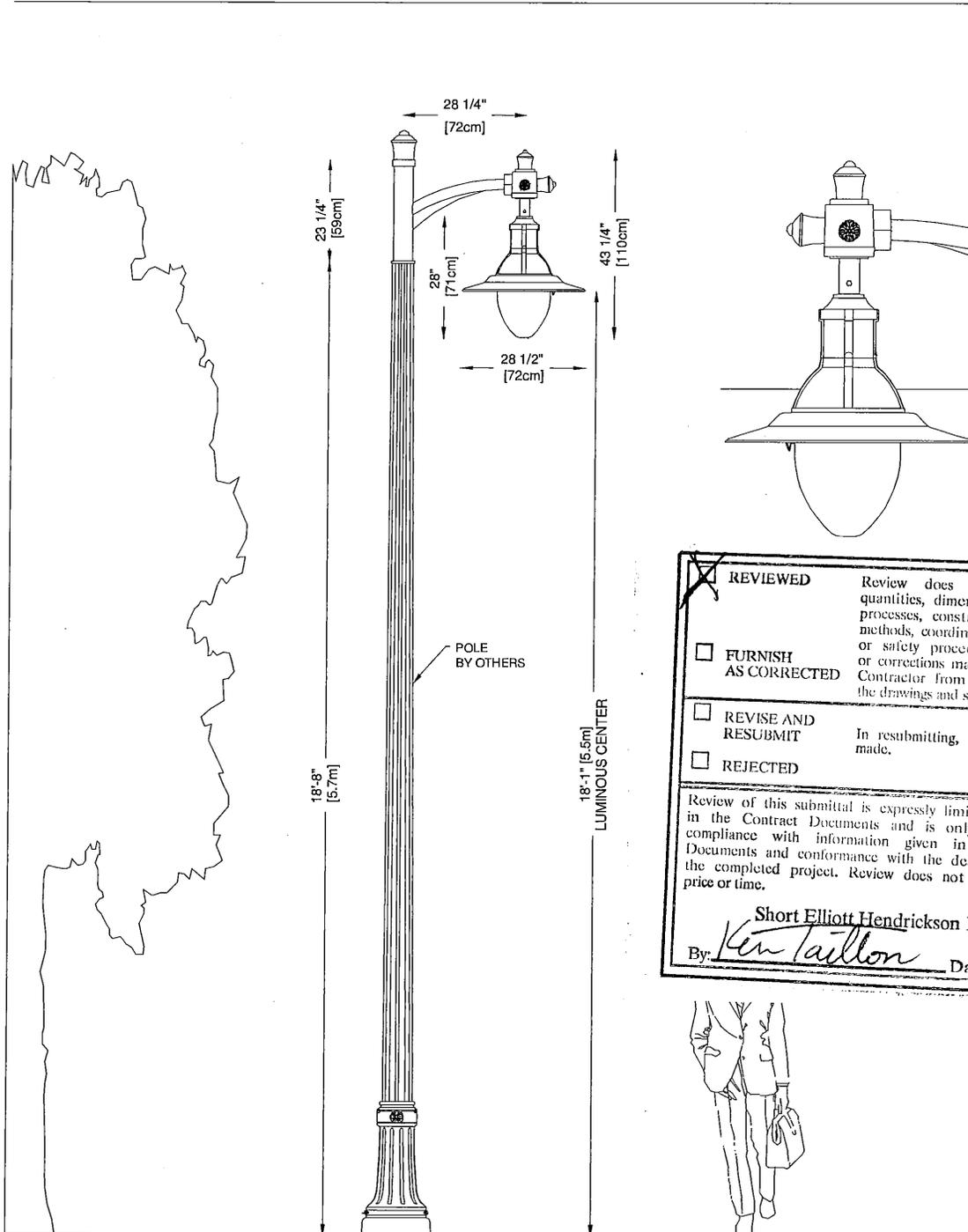
Designer : vlacampo

Project : City of New Brighton -Cty RD 10th.doc  
 Distributor : Graybar St. Louis MO

Order:SO0303486  
 PO:4702031352

Type: SP2

Page: 1/3 Qty:3



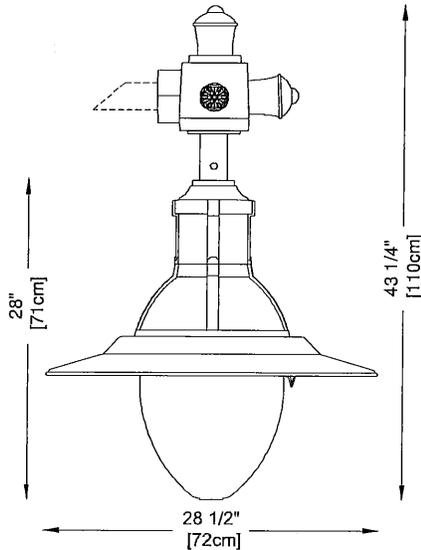
<input checked="" type="checkbox"/> REVIEWED	Review does not extend to quantities, dimensions, fabrication processes, construction means or methods, coordination of the work or safety procedures. Comments or corrections made do not relieve Contractor from compliance with the drawings and specifications.
<input type="checkbox"/> FURNISH AS CORRECTED	
<input type="checkbox"/> REVISE AND RESUBMIT	In resubmitting, identify revisions made.
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Short Elliott Hendrickson Inc.  
 By: *Ken Tallon* Date: *6-4-15*

**Stamp/Approval**  
 Name : \_\_\_\_\_ Date : \_\_\_\_\_

File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC  
 Date : 29/05/2015 Page : 7/11  
 Designer : **vjacampo**

**Project : City of New Brighton -Cty RD 10th.doc**
**Order:SO0303486**
**Distributor : Graybar St. Louis MO**
**PO:4702031352**
**Type: SP2**
**Luminaire: COM12P1-DP2AX-3L-67W-4K-120-DS2-ADH-CP4309-RAL6005TX**
**Page: 2/3**
**Qty:3**

**Luminaire components**

**Adaptor module (ADH):** Square shape. The adaptor is entirely made of alloy 356.1 cast aluminum parts, with a luminaire tenon, welded together. C/W a cast aluminum lid allowing fast access to the mounting module. It permits an adjustment of more or less 5° for leveling. C/W Terminal block connector and a circular spirit level. The module is suited for horizontal tenons from Ø1 7/8" to Ø2 3/8".

**Head module:** Round shape. Cast aluminum hood and an injection-molded clear prismatic acrylic globe (DP2AX) assembled on hinged frame for a tool free opening system that give you access inside. C/w decorative shade (DS2).

**Opening system:** Hinged lens frame mechanism allows a tool-free access inside the luminaire, for ballast and lamp replacement. Made of cast aluminum alloy 356.1 and sealed with a compression system. The luminaire shall offer an IP66 weatherproof protection.

**Housing module:** Cast aluminum housing. Suspended on the Adaptor tenon and locked with locking bolt and set screws. Complete with "street side" sticker.

**Optical/electrical components**

**LED:** 67 watts, 4000K (White), Super high flux output and high luminance, design for high current operation. LED boards are easily mounted on the heatsink with 4 screws for easy replacement. Complete with connectors allowing wattage to change from 44 watts to 67 watts (See last page for details).

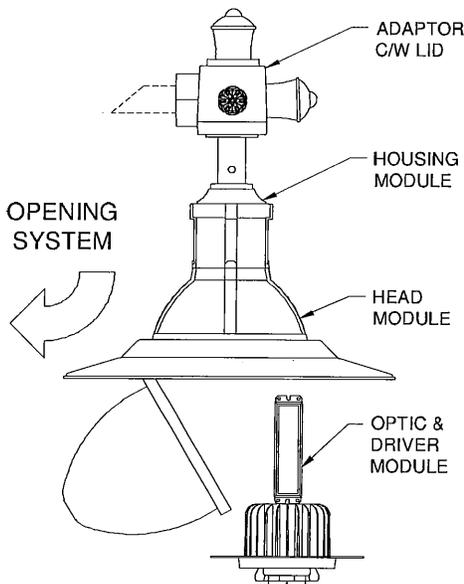
**Optic:** IES type III (3L). The optic's reflector is made of pre-anodized aluminum reflecting sheets (86% min. reflection), segmented in multiple facets and ventilated by multiple perforations and by heat sink radiator to keep the LEDs temperature down and increase their longevity. The orientation of each facet has been meticulously calculated to optimise the light distribution for each application.

**Driver module:** Auto-adjustable 120-277VAC Class I driver. Primary voltage at 120 volts. 50/60 Hz. THD max 20%. ROHS compliant. Assembled on a tool-free removable tray with quick connectors resisting up to 221°F (105°C). High power factor of 90%. Minimum starting temperature: -40°F (-40°C). Maximum operating temperature: 130°F (55°C). Overheat protection: Output current is reduced to 150mA if internal driver temperature (Tcase) exceeds 185°F (85°) Complete with a 3-Pole 10KV surge protector for Line-Ground, Line-Neutral and Neutral-Ground according to IEEE/ANSI C62.41.2 C High. Certification, maintenance and luminaire codification labels are located within the module.

**Generals/Options**

**Wiring/hardware:** Type TEW 14-7. 48" (30cm) minimum exceeding from luminaire with Molex connector and 12" of wiring (with Female Molex) to let connection under removable cap bracket. All electrical connections between modules are made with quick-disconnect connectors. All exposed hardware is stainless steel. Silicone gasketing are applied.

**Color: RAL6005 (Moss green) / Finish: textured (TX)  or smooth (SM) .** Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. Cyclone recommends the textured finish for this product.


**EPA : 2.2 ft²**
**Weight: 25 lbs / 11 kg**
**Stamp/Approval**

Name :

Date :

File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC

Date : 29/05/2015 Page : 8/11

Designer : vlacampo

Project : City of New Brighton -Cty RD 10th.doc

Order:SO0303486

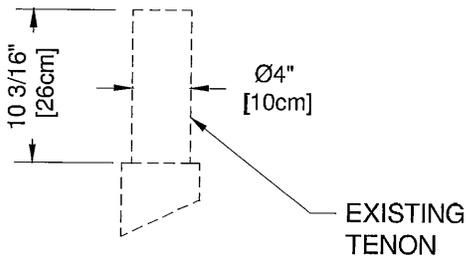
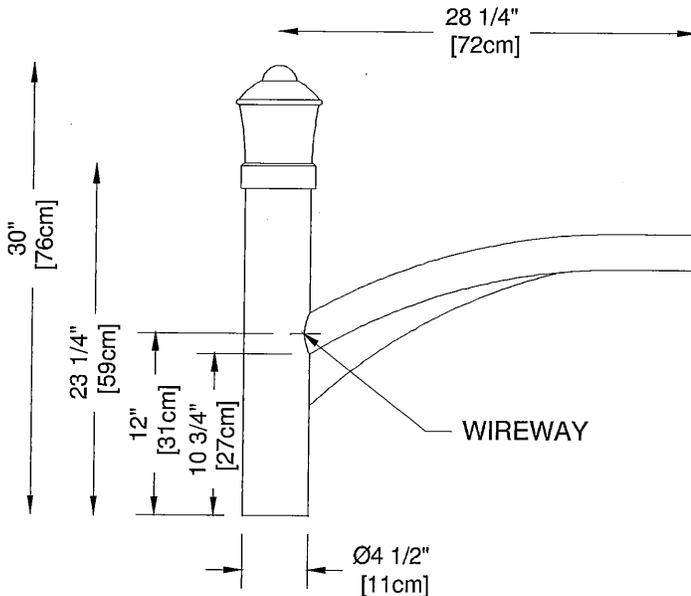
Distributor : Graybar St. Louis MO

PO:4702031352

Type: SP2 Bracket : M534-C1-T45-CP4310-RAL6005TX

Page: 3/3

Qty:3


**SIDE VIEW**
**Components**

**Bracket:** Round shape. Central tubing 4 1/2"(11cm)Ø made of aluminum, with one arm 2 3/8"(6cm)Ø and a laser-cut decorative element, welded together. **Single configuration(C1).** Slip fits on a pole tenon having 4"(10cm)Ø x 10 3/16"(26cm) long.

**Generals/Options**

**Hardware:** All exposed hardware is stainless steel. EPDM and/or silicone gasketing is applied

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 Bracket EPA : 1.5 ft<sup>2</sup>
**Stamp/Approval**

Name :

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File : COM12P1-CP4309 - SO0303486 - CITY OF NEW BRIGHTON -CTY RD 10TH.DOC

Date : 29/05/2015 Page : 9/11

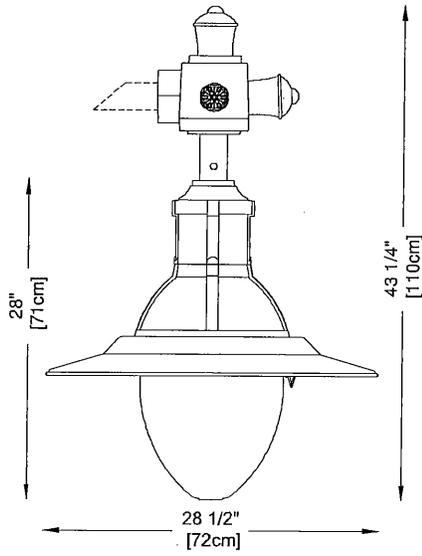
Designer : vlacampo

Project : **City of New Brighton -Cty RD 10th.doc**  
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Order: **SO0303486**  
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Type: **LST** Luminaire: **COM12P1-DP2AX-3L-67W-4K-120-DS2-ADH-CP4309-RAL6005TX**

Page: **1/1** Qty: **35**



**Luminaire components**

**Adaptor module (ADH):** Square shape. The adaptor is entirely made of alloy 356.1 cast aluminum parts, with a luminaire tenon, welded together. C/W a cast aluminum lid allowing fast access to the mounting module. It permits an adjustment of more or less 5° for leveling. C/W Terminal block connector and a circular spirit level. The module is suited for horizontal tenons from Ø1 7/8" to Ø2 3/8".

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**Optical/electrical components**

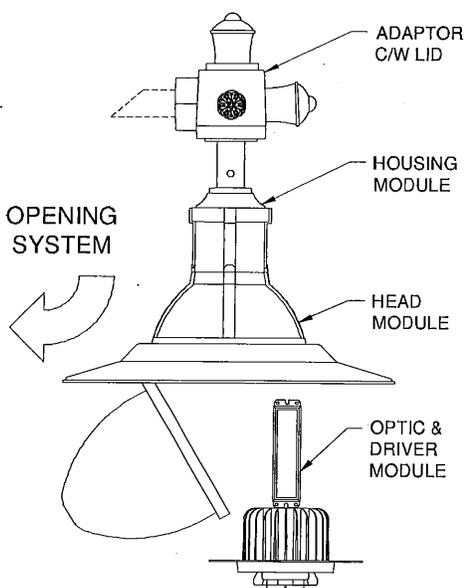
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**Optic:** IES type III (3L). The optic's sheets (86% min. reflection), seg perforations and by heat sink radii their longevity. The orientation of e the light distribution for each appli

**Driver module:** Auto-adjustable 12. 50/60 Hz. THD max 20%. ROHS quick connectors resisting up to 221 temperature: -40°F (-40°C). Maxii protection: Output current is reducec 185°F (85°) Complete with a 3-Pole Neutral-Ground according to IEEE/ luminaire codification labels are loc

**Generals/Options**

**Wiring/hardware:** Type TEW 14-Molex connector and 12" of wiring (w bracket. All electrical connections connectors. All exposed hardware is



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Short Elliott Hendrickson Inc.	
By: <i>Ken Tailton</i>	Date: <i>6-4-15</i>

EPA : 2.2 ft<sup>2</sup> Weight: 25 lbs / 11 kg

**Color:** RAL6005 (Moss green) / **Finish:** textured (TX)  or smooth (SM) . Application of a polyester powder coat of paint. (5 mils /127 microns). The finish meets the ASTM G7, B117 and D1654 requirements relative to salt spray and humidity resistance. Cyclone recommends the textured finish for this product.

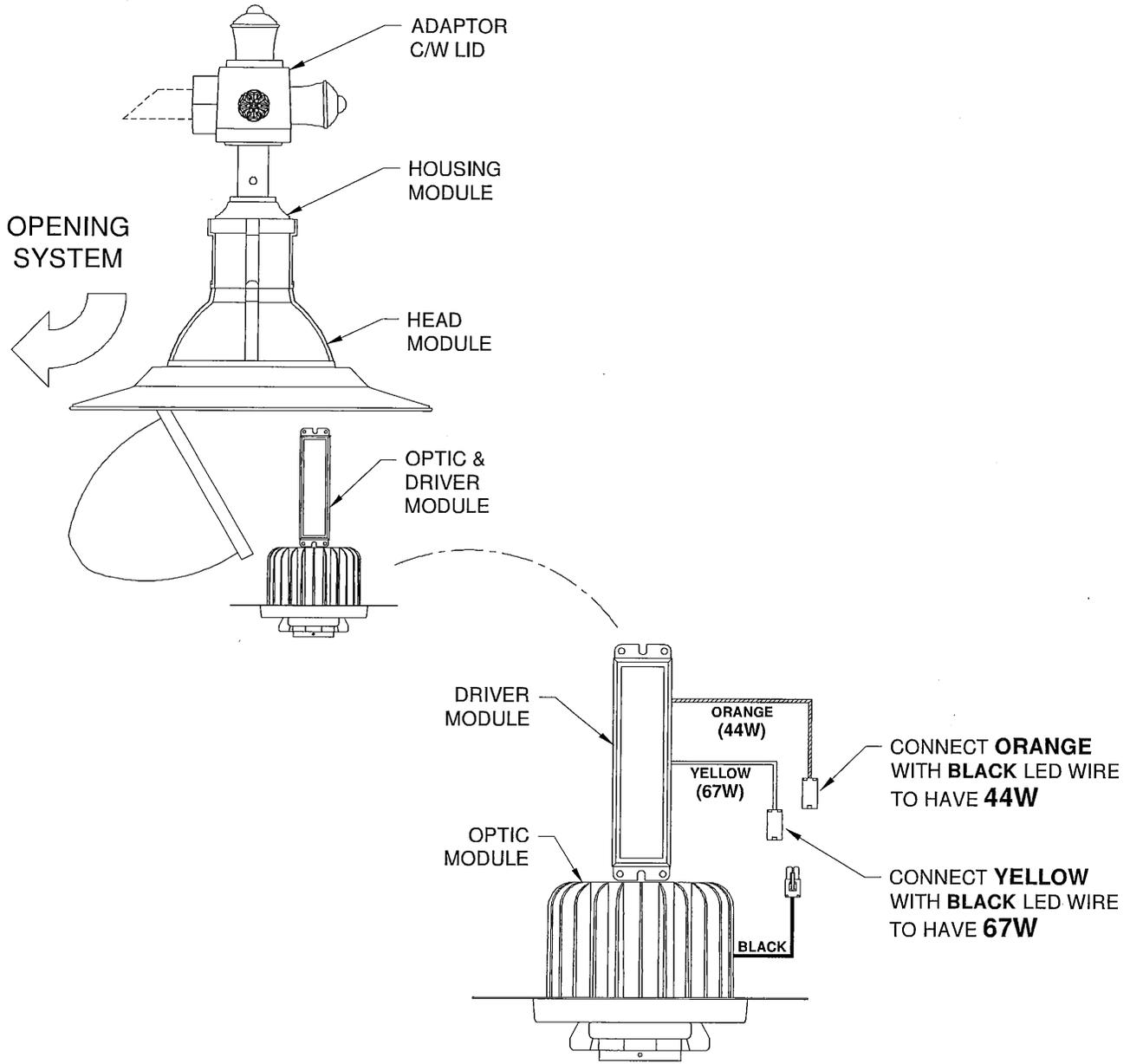
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 Designer : **vlacampo**

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 Distributor : Graybar St. Louis MO

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**Wiring Diagram Details – For 44W or 67W**



**OPTIC & DRIVER WIRING DETAILS**

**Stamp/Approval**  
 Name : \_\_\_\_\_ Date : \_\_\_\_\_

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