

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P453034

Luminaire Tested: **GALN-SA4A-740-U-5WQ**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453034
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-1)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4A-740-U-5WQ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18934.1 lumens
Efficiency: N/A
Efficacy: 156.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short
BUG Rating: B5 - U0 - G3

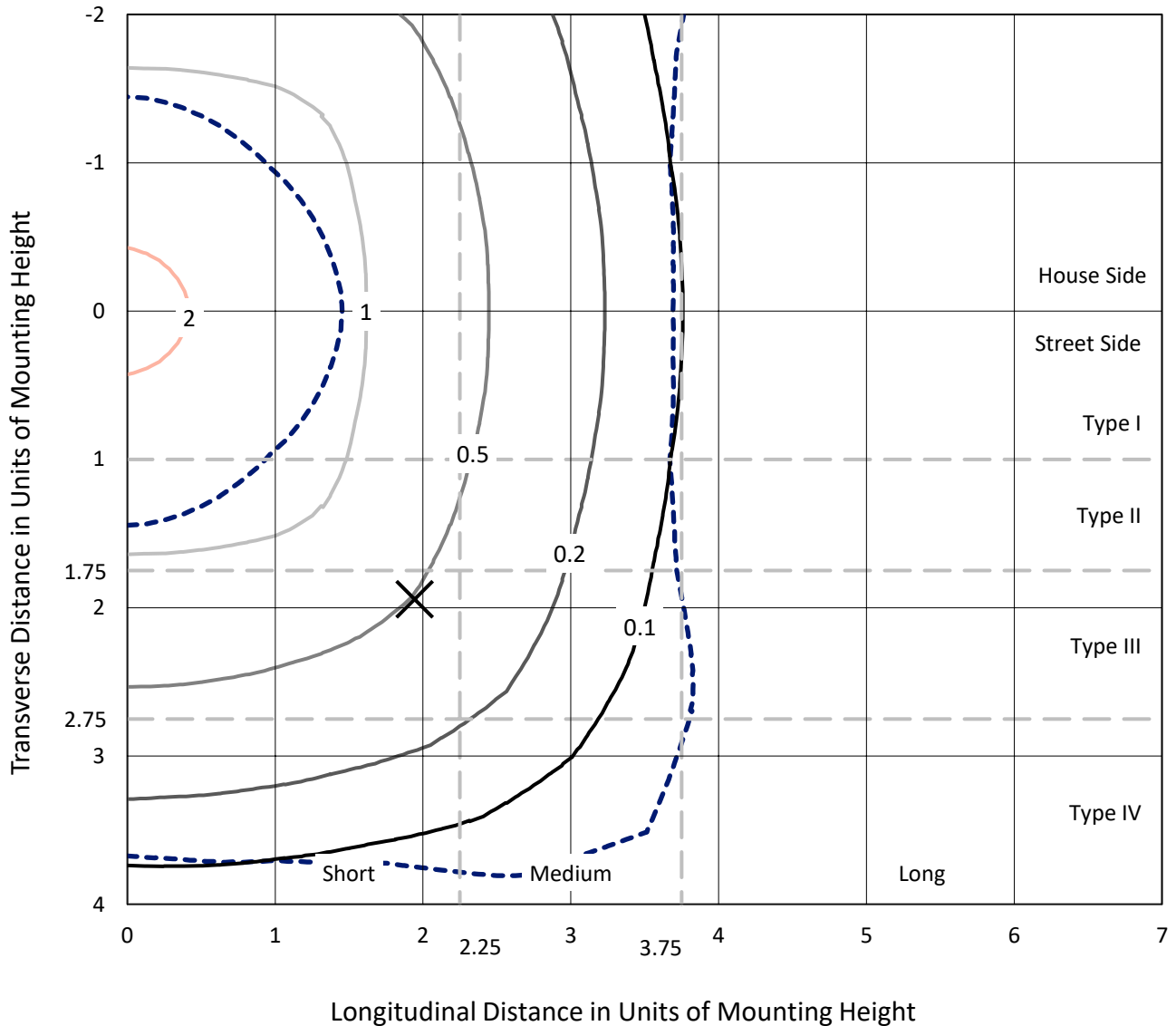
Input Watts (W): 121
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

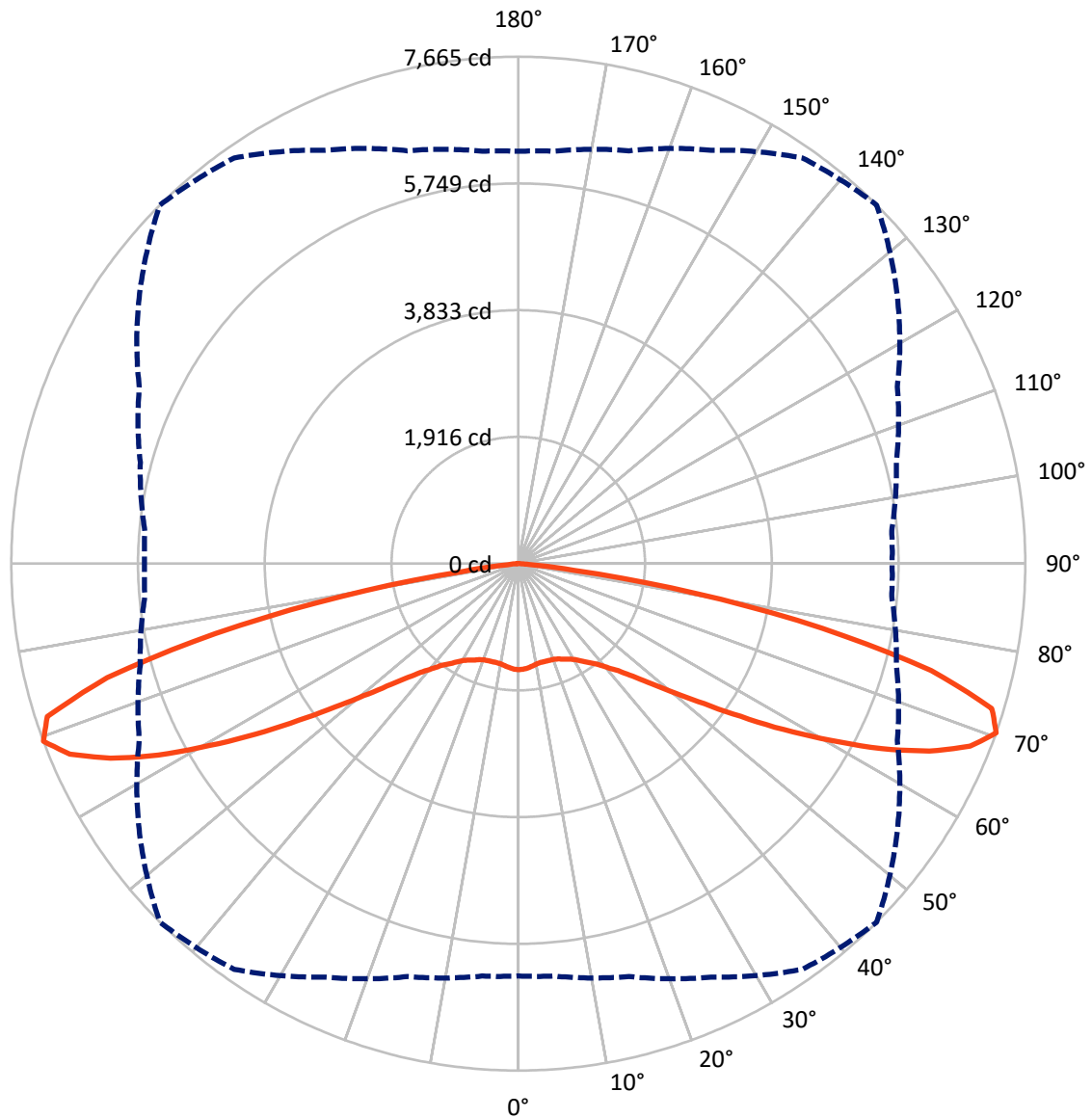
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type V - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 9467.0 | 0.0 | 9467.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 9467.0 | 0.0 | 9467.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 18934.1 | 0.0 | 18934.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 149.9 | 0.8 |
| 10°-20° | 438.9 | 2.3 |
| 20°-30° | 747.7 | 3.9 |
| 30°-40° | 1159.0 | 6.1 |
| 40°-50° | 1950.7 | 10.3 |
| 50°-60° | 3549.3 | 18.7 |
| 60°-70° | 6008.8 | 31.7 |
| 70°-80° | 4651.1 | 24.6 |
| 80°-90° | 278.7 | 1.5 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 18934.1 | 100.0 |
| 0°-180° | 18934.1 | 100.0 |



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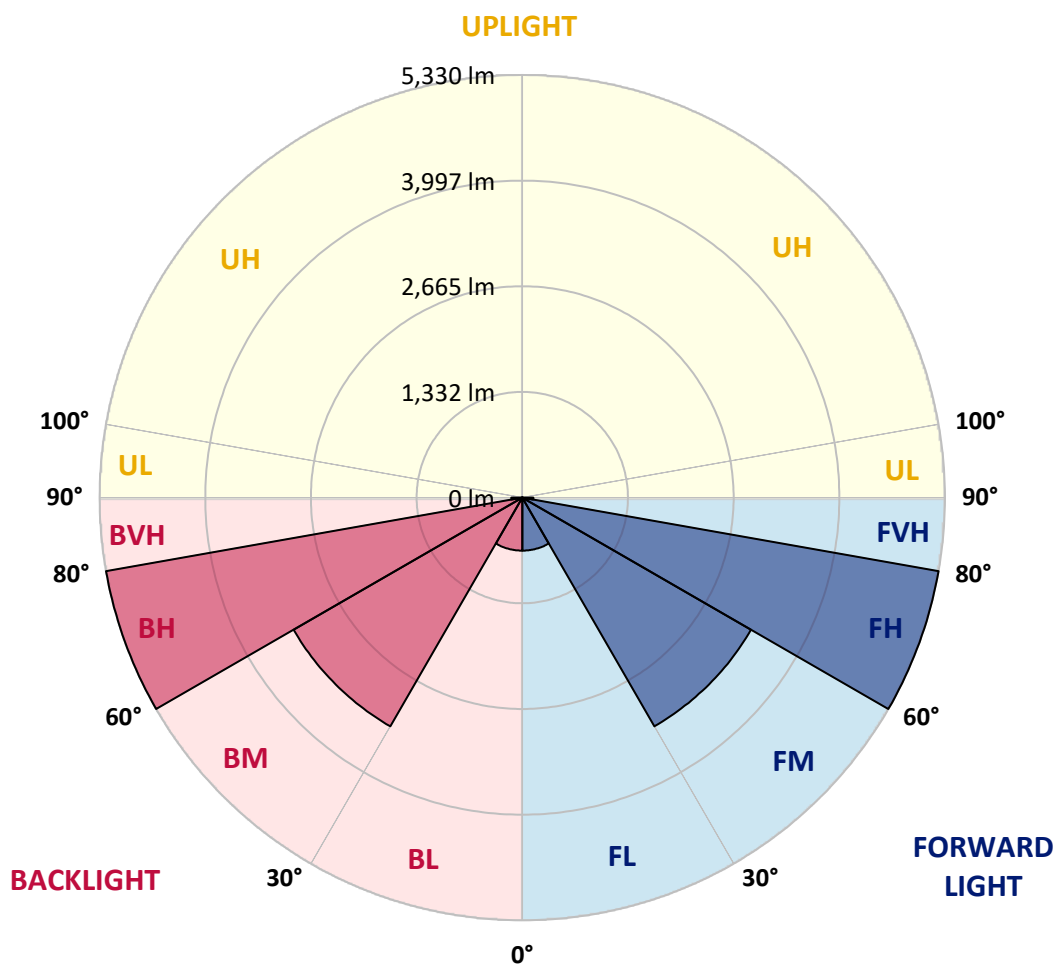
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 668.3 | 3.5 | | | |
| FM (30°-60°) | 3329.5 | 17.6 | | | |
| FH (60°-80°) | 5329.9 | 28.1 | | | G3/7500 |
| FVH (80°-90°) | 139.3 | 0.7 | | | G2/225 |
| BL (0°-30°) | 668.3 | 3.5 | B2/1000 | | |
| BM (30°-60°) | 3329.5 | 17.6 | B3/5000 | | |
| BH (60°-80°) | 5329.9 | 28.1 | B5 | | G3/7500 |
| BVH (80°-90°) | 139.3 | 0.7 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 | 1603 |
| 2.5° | 1599 | 1600 | 1600 | 1598 | 1597 | 1597 | 1596 | 1596 | 1599 | 1600 | 1601 |
| 5° | 1585 | 1585 | 1585 | 1584 | 1582 | 1582 | 1580 | 1580 | 1581 | 1584 | 1582 |
| 7.5° | 1566 | 1568 | 1568 | 1564 | 1561 | 1561 | 1560 | 1561 | 1562 | 1565 | 1564 |
| 10° | 1560 | 1561 | 1556 | 1549 | 1544 | 1541 | 1542 | 1544 | 1549 | 1551 | 1552 |
| 12.5° | 1564 | 1564 | 1555 | 1545 | 1536 | 1532 | 1531 | 1538 | 1547 | 1553 | 1555 |
| 15° | 1569 | 1567 | 1556 | 1543 | 1534 | 1533 | 1532 | 1537 | 1550 | 1562 | 1563 |
| 17.5° | 1572 | 1571 | 1557 | 1541 | 1536 | 1536 | 1535 | 1539 | 1553 | 1568 | 1569 |
| 20° | 1582 | 1579 | 1563 | 1546 | 1542 | 1544 | 1541 | 1546 | 1561 | 1579 | 1583 |
| 22.5° | 1602 | 1599 | 1583 | 1566 | 1564 | 1564 | 1563 | 1568 | 1584 | 1603 | 1606 |
| 25° | 1626 | 1623 | 1608 | 1596 | 1598 | 1602 | 1600 | 1601 | 1614 | 1630 | 1635 |
| 27.5° | 1658 | 1653 | 1640 | 1630 | 1636 | 1636 | 1636 | 1635 | 1643 | 1658 | 1663 |
| 30° | 1697 | 1695 | 1681 | 1680 | 1685 | 1680 | 1680 | 1681 | 1682 | 1696 | 1701 |
| 32.5° | 1748 | 1744 | 1737 | 1735 | 1749 | 1753 | 1739 | 1726 | 1733 | 1747 | 1750 |
| 35° | 1832 | 1826 | 1816 | 1805 | 1816 | 1835 | 1805 | 1795 | 1813 | 1832 | 1834 |
| 37.5° | 1946 | 1943 | 1927 | 1907 | 1906 | 1926 | 1895 | 1894 | 1928 | 1951 | 1954 |
| 40° | 2089 | 2092 | 2072 | 2053 | 2043 | 2059 | 2035 | 2044 | 2077 | 2103 | 2101 |
| 42.5° | 2290 | 2279 | 2248 | 2230 | 2219 | 2213 | 2207 | 2221 | 2258 | 2286 | 2308 |
| 45° | 2525 | 2521 | 2482 | 2460 | 2436 | 2427 | 2425 | 2450 | 2495 | 2529 | 2532 |
| 47.5° | 2791 | 2782 | 2757 | 2734 | 2725 | 2714 | 2704 | 2723 | 2768 | 2792 | 2799 |
| 50° | 3065 | 3067 | 3067 | 3063 | 3072 | 3074 | 3047 | 3054 | 3079 | 3077 | 3075 |
| 52.5° | 3378 | 3389 | 3441 | 3446 | 3489 | 3518 | 3469 | 3440 | 3431 | 3377 | 3381 |
| 55° | 3746 | 3756 | 3834 | 3912 | 4028 | 4077 | 3974 | 3884 | 3820 | 3738 | 3742 |
| 57.5° | 4205 | 4210 | 4284 | 4434 | 4618 | 4733 | 4552 | 4374 | 4244 | 4166 | 4135 |
| 60° | 4699 | 4704 | 4812 | 4995 | 5281 | 5421 | 5197 | 4906 | 4742 | 4623 | 4631 |
| 62.5° | 5292 | 5312 | 5409 | 5661 | 6008 | 6165 | 5868 | 5479 | 5257 | 5109 | 5115 |
| 65° | 5927 | 5961 | 6067 | 6344 | 6664 | 6833 | 6469 | 6020 | 5744 | 5563 | 5582 |
| 67.5° | 6339 | 6369 | 6522 | 6828 | 7227 | 7367 | 6897 | 6374 | 6029 | 5813 | 5773 |
| 70° | 6234 | 6259 | 6463 | 6897 | 7488 | 7665 | 6999 | 6322 | 5916 | 5667 | 5651 |
| 72.5° | 5503 | 5451 | 5749 | 6372 | 7190 | 7487 | 6678 | 5774 | 5263 | 5007 | 4977 |
| 75° | 3647 | 3760 | 4200 | 4934 | 6083 | 6451 | 5700 | 4636 | 3993 | 3780 | 3747 |
| 77.5° | 1219 | 1306 | 1697 | 2797 | 4147 | 4700 | 4153 | 3032 | 2145 | 1728 | 1736 |
| 80° | 323 | 319 | 413 | 769 | 1792 | 2722 | 2086 | 1027 | 562 | 407 | 386 |
| 82.5° | 116 | 130 | 167 | 213 | 475 | 846 | 597 | 288 | 211 | 156 | 151 |
| 85° | 51 | 50 | 72 | 85 | 119 | 158 | 140 | 122 | 107 | 71 | 66 |
| 87.5° | 11 | 11 | 17 | 13 | 21 | 21 | 26 | 31 | 32 | 21 | 17 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)