



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300

Photometric Indoor Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Prepared For
Elemental LED Inc, DBA Diode LED
Wes Buck
Suite 211, 1195 Park Ave.
Emeryville, CA 94608
United States

Catalog Number
TRUE FOCUS™ 12V Light Bar DI-0256
Project Number
10461972
Test Number
748154

Test Date

2014-09-18

Prepared By

A handwritten signature in black ink that reads "Javier Caban".

Javier Caban, Technician

Approved By

A handwritten signature in black ink that reads "Eric M. Gaudreau".

Eric Gaudreau, Engineering Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White plastic housing, clear plastic enclosure
Catalog Number: TRUE FOCUS™ 12V Light Bar DI-0256
Lamp: Six white LEDs
Mounting: Surface
Ballast/Driver: One Meanwell LPV-60-12

Luminaire

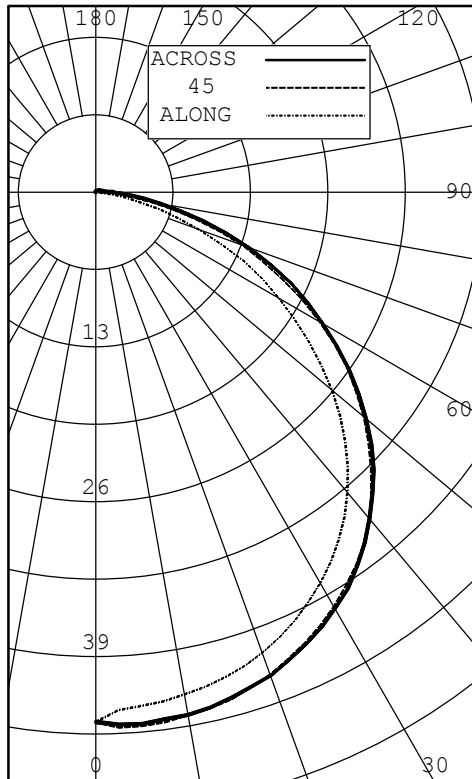


Test Conditions

| | |
|-------------------|-----------|
| Test Temperature: | 25.0 °C |
| Voltage: | 120.0 VAC |
| Current: | 0.04905 A |
| Power: | 2.230 W |
| Power Factor: | 0.379 |
| Frequency: | 60 Hz |
| Current THD: | 156 % |



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT



| ANGLE | ALONG | 22.5 | 45 | 67.5 | ACROSS | OUTPUT LUMENS |
|-------|-------|------|----|------|--------|---------------|
| 0 | 44 | 44 | 44 | 44 | 44 | |
| 5 | 43 | 44 | 45 | 45 | 45 | 4 |
| 15 | 42 | 43 | 44 | 44 | 44 | 12 |
| 25 | 40 | 41 | 42 | 42 | 42 | 19 |
| 35 | 36 | 37 | 38 | 38 | 38 | 23 |
| 45 | 30 | 31 | 33 | 33 | 33 | 25 |
| 55 | 22 | 24 | 26 | 26 | 26 | 22 |
| 65 | 14 | 16 | 17 | 18 | 18 | 16 |
| 75 | 6 | 7 | 9 | 9 | 9 | 9 |
| 85 | 1 | 2 | 2 | 3 | 3 | 3 |
| 90 | 0 | 1 | 1 | 1 | 1 | |
| 95 | 0 | 1 | 1 | 1 | 1 | 1 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 |

ZONAL LUMENS AND PERCENTAGES

| ZONE | LUMENS | % LUMINAIRE |
|--------|--------|-------------|
| 0-30 | 36 | 26.36 |
| 0-40 | 59 | 43.71 |
| 0-60 | 106 | 78.36 |
| 0-90 | 134 | 98.90 |
| 40-90 | 75 | 55.19 |
| 60-90 | 28 | 20.54 |
| 90-180 | 1 | 1.10 |
| 0-180 | 135 | 100.00 |

EFFICACY (LUMENS PER WATT): 61.4

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 8.250 INS
 WIDTH: 0.625 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
 SC: 1.3

| ANGLE | ALONG | 45 | ACROSS |
|-------|-------|-------|--------|
| 45 | 12604 | 10877 | 10058 |
| 55 | 11451 | 9667 | 8688 |
| 65 | 9780 | 7686 | 6975 |
| 75 | 6504 | 4892 | 4396 |
| 85 | 2242 | 1879 | 1833 |

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

| ANGLE | PLANE | | | | | | OUTPUT LUMENS |
|-------|-------|------|----|------|--------|---------|------------------|
| | ALONG | 22.5 | 45 | 67.5 | ACROSS | AVERAGE | |
| 0 | 44 | 44 | 44 | 44 | 44 | 44 | |
| 5 | 43 | 44 | 45 | 45 | 45 | 45 | 4 |
| 10 | 43 | 44 | 45 | 45 | 45 | 44 | |
| 15 | 42 | 43 | 44 | 44 | 44 | 44 | 12 |
| 20 | 41 | 42 | 43 | 43 | 43 | 43 | |
| 25 | 40 | 41 | 42 | 42 | 42 | 41 | 19 |
| 30 | 38 | 39 | 40 | 40 | 40 | 40 | |
| 35 | 36 | 37 | 38 | 38 | 38 | 38 | 23 |
| 40 | 33 | 34 | 36 | 36 | 36 | 35 | |
| 45 | 30 | 31 | 33 | 33 | 33 | 32 | 25 |
| 50 | 26 | 28 | 29 | 29 | 30 | 29 | |
| 55 | 22 | 24 | 26 | 26 | 26 | 25 | 22 |
| 60 | 18 | 20 | 22 | 22 | 22 | 21 | |
| 65 | 14 | 16 | 17 | 18 | 18 | 17 | 16 |
| 70 | 9 | 11 | 13 | 14 | 14 | 12 | |
| 75 | 6 | 7 | 9 | 9 | 9 | 8 | 9 |
| 80 | 3 | 4 | 5 | 6 | 6 | 5 | |
| 85 | 1 | 2 | 2 | 3 | 3 | 2 | 3 |
| 90 | 0 | 1 | 1 | 1 | 1 | 1 | |
| 95 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| 100 | 0 | 0 | 1 | 1 | 1 | 0 | |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 130 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 135 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 155 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 170 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 175 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 | 0 | |



COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

| CC WALL | 90 | | | | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | | | | 0 | |
|------------|----|-------|------|------|-----|-------|------|------|-----|-------|------|------|-----|-------|------|------|-------|-------|------|-------|------|-------|------|------|-----|------|
| | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | |
| RCR | 0 | 1.221 | .221 | .221 | .22 | 1.191 | .191 | .191 | .19 | 1.161 | .161 | .161 | .16 | 1.111 | .111 | .111 | .11 | 1.061 | .061 | .061 | .06 | 1.011 | .011 | .011 | .01 | 0.99 |
| | 1 | 1.121 | .071 | .020 | .98 | 1.091 | .041 | .000 | .96 | 1.061 | .020 | .980 | .95 | 0.970 | .940 | .92 | 0.930 | .910 | .89 | 0.900 | .880 | .86 | 0.84 | | | |
| | 2 | 1.020 | .940 | .870 | .81 | 1.000 | .920 | .860 | .80 | 0.970 | .900 | .840 | .79 | 0.860 | .810 | .77 | 0.830 | .790 | .75 | 0.800 | .770 | .73 | 0.71 | | | |
| | 3 | 0.940 | .830 | .750 | .68 | 0.910 | .810 | .740 | .67 | 0.890 | .800 | .720 | .67 | 0.770 | .700 | .65 | 0.740 | .690 | .64 | 0.710 | .670 | .63 | 0.61 | | | |
| | 4 | 0.860 | .740 | .650 | .59 | 0.840 | .730 | .640 | .58 | 0.820 | .710 | .640 | .57 | 0.690 | .620 | .57 | 0.660 | .600 | .56 | 0.640 | .590 | .55 | 0.53 | | | |
| | 5 | 0.800 | .660 | .570 | .50 | 0.770 | .650 | .560 | .50 | 0.750 | .640 | .550 | .49 | 0.610 | .540 | .49 | 0.590 | .530 | .48 | 0.570 | .520 | .48 | 0.45 | | | |
| | 6 | 0.730 | .590 | .500 | .44 | 0.710 | .580 | .490 | .43 | 0.690 | .570 | .490 | .43 | 0.550 | .480 | .42 | 0.530 | .470 | .42 | 0.520 | .460 | .41 | 0.39 | | | |
| | 7 | 0.670 | .530 | .440 | .38 | 0.650 | .520 | .430 | .37 | 0.640 | .510 | .430 | .37 | 0.490 | .420 | .37 | 0.480 | .410 | .36 | 0.460 | .400 | .36 | 0.34 | | | |
| | 8 | 0.620 | .480 | .390 | .33 | 0.600 | .470 | .390 | .33 | 0.590 | .460 | .380 | .32 | 0.450 | .370 | .32 | 0.430 | .370 | .32 | 0.420 | .360 | .32 | 0.30 | | | |
| | 9 | 0.570 | .430 | .340 | .29 | 0.560 | .430 | .340 | .29 | 0.540 | .420 | .340 | .28 | 0.400 | .330 | .28 | 0.390 | .330 | .28 | 0.380 | .320 | .28 | 0.26 | | | |
| | 10 | 0.530 | .390 | .300 | .25 | 0.520 | .390 | .300 | .25 | 0.510 | .380 | .300 | .25 | 0.370 | .300 | .25 | 0.360 | .290 | .25 | 0.350 | .290 | .24 | 0.23 | | | |

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
 LUMINOUS OPENING OF LUMINAIRE.



Cone of Light

Cone Of Light Tabulation

| Mounting Height (Feet) | Footcandles at Nadir | Diameter (Feet) |
|------------------------|----------------------|-----------------|
| 4.00 | 2.78 | 5.26 |
| 6.00 | 1.24 | 7.88 |
| 8.00 | 0.695 | 10.5 |
| 10.0 | 0.445 | 13.1 |
| 12.0 | 0.309 | 15.8 |
| 14.0 | 0.227 | 18.4 |
| 16.0 | 0.174 | 21.0 |

Cone of Light Plot

