

LIGHT LABORATORY, INC.

8165 E. Kaiser Blvd., Anaheim, CA 92808

SHT 1 OF 2

Test #: L091101

Date: 9/30/2011

Test Prepared for: Roberts Step-Lite Systems

Objective:

Foot candle reading for two 8 foot LED strip.

Equipment:

Light Laboratory Type C goniophotometer.
Chroma Programmable Source – Model 61605
Xitron Power Analysis System 2503AH
Gigahertz Optik Opt. Meter P9710 w/ VL3701-2 sensor

Test Samples:

Two LED light strips provided by Roberts Step Lite.
RW-12-LED-CL – 3000K Clear Lens 8 ft.
RW-12-LED-FS – 3000K Frosted Lens 8 ft.

Test Setup and Procedure:

Test performed in Light Laboratory dark room.
LED strip was mounted on the goniophotometer and height adjusted for the defined distances.
Foot candle measured and recorded per grid (table 1 & table 2).
LED strip was allowed to stabilize at least 1 hour.
All measurement from length center of LED strip.
Fig 1 – cross sectional view of test configuration.
Ambient test temperature: 77 deg. F.

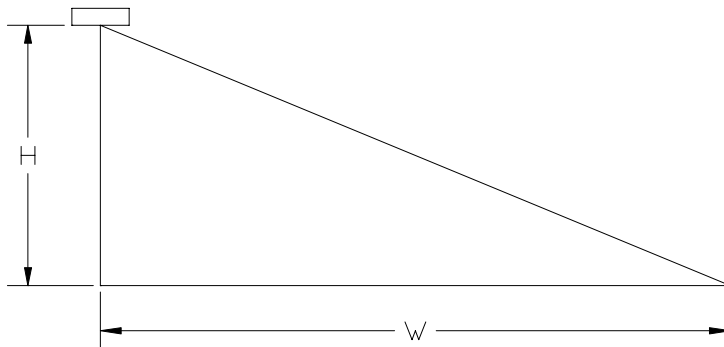


Fig 1. cross sectional view of test configuration

| REV. | LOG NUMBER | REVISION DESCRIPTION | REVISION BY | CHECKED BY | APPROVED BY | DATE |
|------|------------|----------------------|-------------|------------|-------------|---------|
| A | | | | | JG | 9/30/11 |

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SHT 2 OF 2

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Summary of Data:

| | | Width (w) Inches | | | | | | | | | |
|---------------------|-----|--------------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| | | 0" | 4" | 8" | 12" | 16" | 20" | 24" | 28" | 32" | 36" |
| HEIGHT (h) Inches | 6" | 168.500 | 94.200 | 30.660 | 5.230 | 1.343 | 0.608 | 0.321 | 0.189 | 0.123 | 0.085 |
| | 8" | 127.300 | 89.800 | 41.060 | 16.400 | 3.587 | 1.234 | 0.627 | 0.366 | 0.228 | 0.152 |
| | 10" | 102.600 | 81.100 | 45.810 | 23.600 | 9.580 | 2.842 | 1.147 | 0.631 | 0.393 | 0.256 |
| | 12" | 85.900 | 72.600 | 47.080 | 27.320 | 15.340 | 6.290 | 2.251 | 1.065 | 0.591 | 0.399 |
| | 18" | 57.500 | 53.220 | 42.800 | 31.110 | 21.670 | 14.840 | 9.930 | 5.540 | 2.681 | 1.345 |
| | 24" | 42.610 | 40.740 | 35.730 | 29.380 | 22.740 | 17.200 | 12.930 | 9.640 | 7.090 | 4.570 |
| | 30" | 33.290 | 32.350 | 29.650 | 25.960 | 21.730 | 17.610 | 13.970 | 11.120 | 8.690 | 6.840 |
| | 36" | 26.840 | 26.180 | 24.720 | 22.340 | 19.600 | 16.810 | 13.970 | 11.500 | 9.480 | 7.710 |

Table 1 - RW-12-LED-CL – 3000K Clear Lens 8 ft.

Test voltage: 12VDC

Test Current: 1.706A

| | | Width (w) Inches | | | | | | | | | |
|---------------------|-----|--------------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| | | 0" | 4" | 8" | 12" | 16" | 20" | 24" | 28" | 32" | 36" |
| HEIGHT (h) Inches | 6" | 112.900 | 64.700 | 24.310 | 10.030 | 4.910 | 2.712 | 1.651 | 1.068 | 0.730 | 0.511 |
| | 8" | 85.000 | 60.900 | 30.390 | 14.440 | 7.540 | 4.297 | 2.643 | 1.726 | 1.169 | 0.836 |
| | 10" | 68.300 | 54.700 | 32.450 | 17.700 | 9.900 | 5.930 | 3.741 | 2.472 | 1.684 | 1.215 |
| | 12" | 56.900 | 48.930 | 32.820 | 19.920 | 12.010 | 7.480 | 4.855 | 3.276 | 2.263 | 1.638 |
| | 18" | 37.780 | 35.170 | 28.780 | 21.590 | 15.420 | 10.850 | 7.680 | 5.520 | 4.016 | 2.974 |
| | 24" | 27.810 | 26.720 | 23.720 | 19.750 | 15.710 | 12.130 | 9.310 | 7.090 | 5.400 | 4.164 |
| | 30" | 21.620 | 21.080 | 19.470 | 17.170 | 14.560 | 12.020 | 9.760 | 7.800 | 6.260 | 4.988 |
| | 36" | 17.380 | 17.070 | 16.160 | 14.740 | 13.050 | 11.240 | 9.520 | 8.000 | 6.610 | 5.455 |

Table 2 - RW-12-LED-FS – 3000K Frosted Lens 8 ft.

Test voltage: 12VDC

Test Current: 1.678A

Test report prepared by:
Jason Gee
Engineering Manager

| A | | | | | JG | 9/30/11 | | |
|------|------------|----------------------|--|--|-------------|------------|-------------|------|
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