

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: SHAPER

Report Number: P241185

Luminaire Tested: **1800-X-90-L27-1-W-UNV-STD-X-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P241185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL90337-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 1800-X-90-L27-1-W-UNV-STD-X-X
Description: SHAPER 1800 SERIES LED PENDANT DIRECT DOWNLIGHT
WIDE DISTRIBUTION
Light Source: (168) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

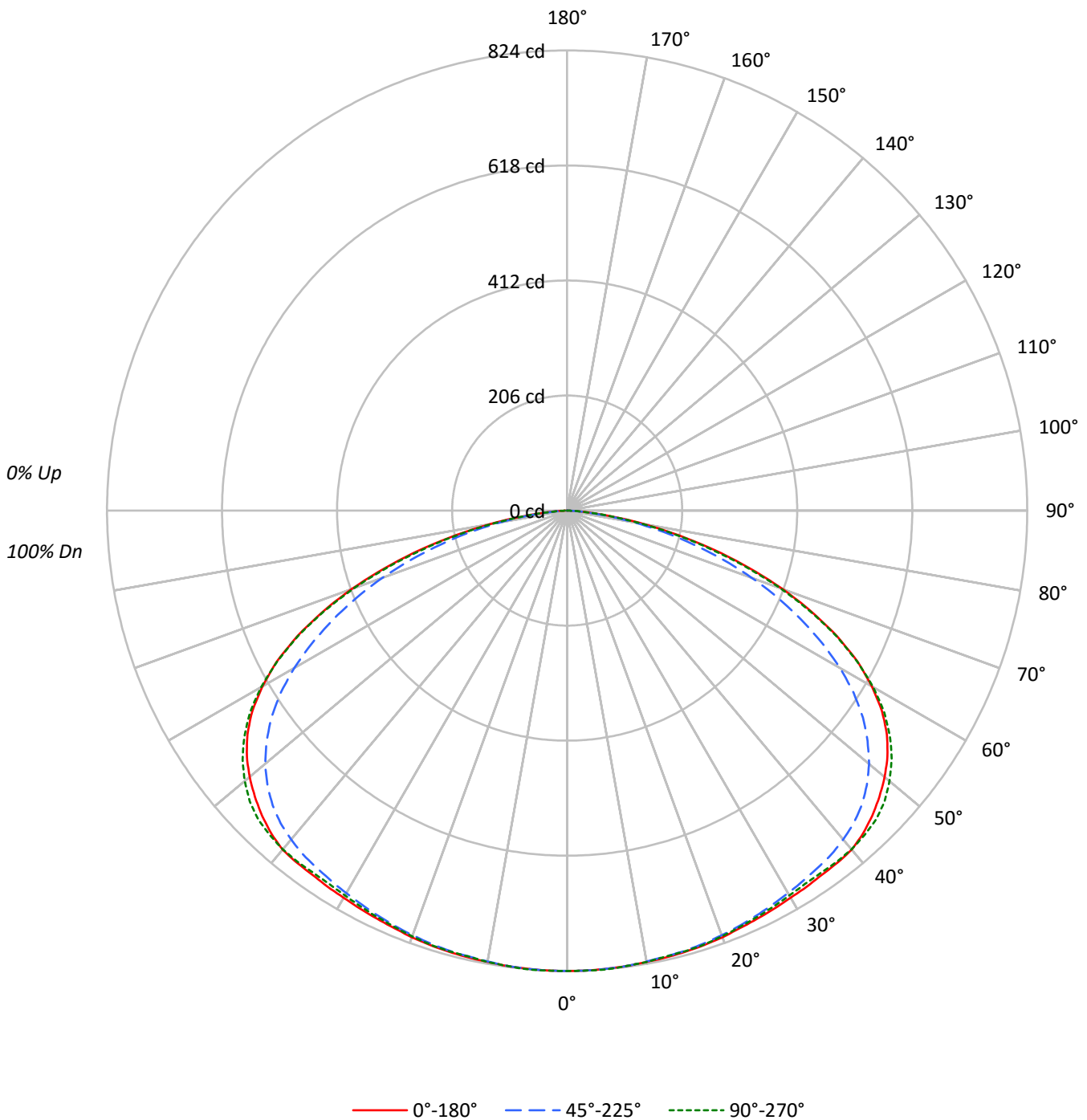
Lumens per Lamp: N/A
Luminaire Lumens: 3169.8 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.48 / 1.48 / 1.61
Luminous Opening: Circular (Dia: 1.17' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): 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: 25 FT



TEST NUMBER: P241185
CATALOG NUMBER: 1800-X-90-L27-1-W-UNV-STD-X-X

Luminous Intensity Polar Plot





TEST NUMBER: P241185

CATALOG NUMBER: 1800-X-90-L27-1-W-UNV-STD-X-X

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | |
| RC | 80 | | | | | 70 | | | | | 50 | | | | | 30 | | | | | 10 | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | 100 | | | |
| 1 | 108 | 103 | 98 | 94 | 105 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 87 | 84 | 82 | | | | | 82 | | | |
| 2 | 97 | 89 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 77 | 72 | 80 | 75 | 71 | 77 | 73 | 69 | 67 | | | | | 67 | | | |
| 3 | 88 | 77 | 68 | 61 | 85 | 75 | 67 | 60 | 72 | 65 | 59 | 69 | 63 | 58 | 67 | 62 | 57 | 55 | | | | | 55 | | | |
| 4 | 80 | 67 | 58 | 51 | 78 | 66 | 57 | 50 | 63 | 56 | 49 | 61 | 54 | 49 | 59 | 53 | 48 | 46 | | | | | 46 | | | |
| 5 | 73 | 59 | 50 | 43 | 71 | 58 | 49 | 43 | 56 | 48 | 42 | 54 | 47 | 42 | 52 | 46 | 41 | 39 | | | | | 39 | | | |
| 6 | 67 | 53 | 44 | 37 | 65 | 52 | 43 | 37 | 50 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 35 | 33 | | | | | 33 | | | |
| 7 | 62 | 48 | 38 | 32 | 60 | 47 | 38 | 32 | 45 | 37 | 32 | 44 | 37 | 31 | 42 | 36 | 31 | 29 | | | | | 29 | | | |
| 8 | 57 | 43 | 34 | 28 | 56 | 43 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 27 | 25 | | | | | 25 | | | |
| 9 | 53 | 39 | 31 | 25 | 52 | 39 | 31 | 25 | 38 | 30 | 25 | 37 | 30 | 25 | 35 | 29 | 24 | 23 | | | | | 23 | | | |
| 10 | 50 | 36 | 28 | 22 | 49 | 36 | 28 | 22 | 35 | 27 | 22 | 34 | 27 | 22 | 33 | 27 | 22 | 20 | | | | | 20 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 8302 | 8302 | 8302 |
| 5° | 8323 | 8323 | 8334 |
| 10° | 8390 | 8381 | 8390 |
| 15° | 8525 | 8504 | 8514 |
| 20° | 8711 | 8670 | 8691 |
| 25° | 8958 | 8893 | 8926 |
| 30° | 9307 | 9197 | 9253 |
| 35° | 9782 | 9605 | 9734 |
| 40° | 10422 | 10108 | 10409 |
| 45° | 11004 | 10623 | 11141 |
| 50° | 11626 | 11058 | 11806 |
| 55° | 12274 | 11351 | 12392 |
| 60° | 12693 | 11364 | 12751 |
| 65° | 12716 | 11029 | 12670 |
| 70° | 12079 | 10363 | 11938 |
| 75° | 10605 | 9115 | 10344 |
| 80° | 8153 | 7045 | 7874 |
| 85° | 4309 | 3535 | 4090 |



TEST NUMBER: P241185

CATALOG NUMBER: 1800-X-90-L27-1-W-UNV-STD-X-X

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 78.5 | 2.5 |
| 10°-20° | 231.2 | 7.3 |
| 20°-30° | 371.3 | 11.7 |
| 30°-40° | 494.9 | 15.6 |
| 40°-50° | 587.4 | 18.5 |
| 50°-60° | 600.4 | 18.9 |
| 60°-70° | 489.5 | 15.4 |
| 70°-80° | 267.0 | 8.4 |
| 80°-90° | 49.7 | 1.6 |
| 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°-30° | 681.0 | 21.5 |
| 0°-40° | 1175.9 | 37.1 |
| 0°-60° | 2363.6 | 74.6 |
| 0°-90° | 3169.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3169.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 824 | 824 | 824 | 824 | 824 | |
| 5° | 824 | 824 | 824 | 824 | 824 | 79 |
| 15° | 818 | 817 | 816 | 816 | 817 | 232 |
| 25° | 806 | 803 | 800 | 802 | 803 | 373 |
| 35° | 796 | 790 | 781 | 787 | 792 | 500 |
| 45° | 773 | 759 | 746 | 766 | 782 | 596 |
| 55° | 699 | 672 | 647 | 678 | 706 | 622 |
| 65° | 534 | 498 | 463 | 497 | 532 | 523 |
| 75° | 273 | 252 | 234 | 252 | 266 | 289 |
| 85° | 37 | 35 | 31 | 34 | 35 | 54 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P241185

CATALOG NUMBER: 1800-X-90-L27-1-W-UNV-STD-X-X

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 824.5 | 824.5 | 824.5 | 824.5 | 824.5 |
| 2.5° | 824.5 | 824.5 | 824.5 | 824.5 | 824.5 |
| 5° | 823.5 | 823.5 | 823.5 | 823.5 | 824.5 |
| 7.5° | 822.5 | 822.5 | 822.5 | 822.5 | 822.5 |
| 10° | 820.6 | 820.6 | 819.7 | 819.7 | 820.6 |
| 12.5° | 819.7 | 818.7 | 817.8 | 817.8 | 817.8 |
| 15° | 817.8 | 816.8 | 815.8 | 815.8 | 816.8 |
| 17.5° | 815.8 | 813.9 | 813.0 | 813.0 | 814.9 |
| 20° | 813.0 | 810.1 | 809.1 | 810.1 | 811.1 |
| 22.5° | 809.1 | 807.2 | 805.3 | 806.3 | 807.2 |
| 25° | 806.3 | 803.4 | 800.5 | 802.5 | 803.4 |
| 27.5° | 803.4 | 799.6 | 795.8 | 797.7 | 799.6 |
| 30° | 800.5 | 795.8 | 791.0 | 792.9 | 795.8 |
| 32.5° | 798.6 | 792.9 | 786.2 | 790.0 | 792.9 |
| 35° | 795.8 | 790.0 | 781.4 | 787.2 | 791.9 |
| 37.5° | 794.8 | 786.2 | 776.6 | 784.3 | 792.9 |
| 40° | 792.9 | 780.5 | 769.0 | 781.4 | 791.9 |
| 42.5° | 784.3 | 771.8 | 759.4 | 774.7 | 788.1 |
| 45° | 772.8 | 759.4 | 746.0 | 766.1 | 782.4 |
| 47.5° | 758.5 | 744.1 | 727.9 | 751.8 | 770.9 |
| 50° | 742.2 | 724.0 | 705.9 | 731.7 | 753.7 |
| 52.5° | 723.1 | 700.1 | 678.1 | 707.8 | 732.6 |
| 55° | 699.2 | 672.4 | 646.6 | 678.1 | 705.9 |
| 57.5° | 668.6 | 638.9 | 608.3 | 642.7 | 673.3 |
| 60° | 630.3 | 598.7 | 564.3 | 599.7 | 633.2 |
| 62.5° | 586.3 | 550.9 | 515.5 | 552.8 | 585.3 |
| 65° | 533.7 | 498.3 | 462.9 | 497.3 | 531.8 |
| 67.5° | 474.4 | 440.0 | 408.4 | 439.0 | 470.6 |
| 70° | 410.3 | 379.7 | 352.0 | 377.8 | 405.5 |
| 72.5° | 342.4 | 316.6 | 293.6 | 315.6 | 335.7 |
| 75° | 272.6 | 252.5 | 234.3 | 252.5 | 265.9 |
| 77.5° | 204.7 | 189.4 | 176.9 | 191.3 | 198.9 |
| 80° | 140.6 | 131.0 | 121.5 | 132.0 | 135.8 |
| 82.5° | 83.2 | 79.4 | 71.7 | 78.4 | 80.3 |
| 85° | 37.3 | 35.4 | 30.6 | 34.4 | 35.4 |
| 87.5° | 6.7 | 5.7 | 4.8 | 5.7 | 6.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)