

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: P402566

Luminaire Tested: **ShSe-DRUM-3-L40-90-UNV-STD**

Issue Date: 6/5/2020

Test Information

Test Method: LM-79-08
Report Number: P402566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-737-4)
Test Lab: INNOVATIONS CENTER
Issue Date: 6/5/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: ShSe-DRUM-3-L40-90-UNV-STD
Description: SHAPER SENSE CIRCLE
LIGHT LEVEL 3
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

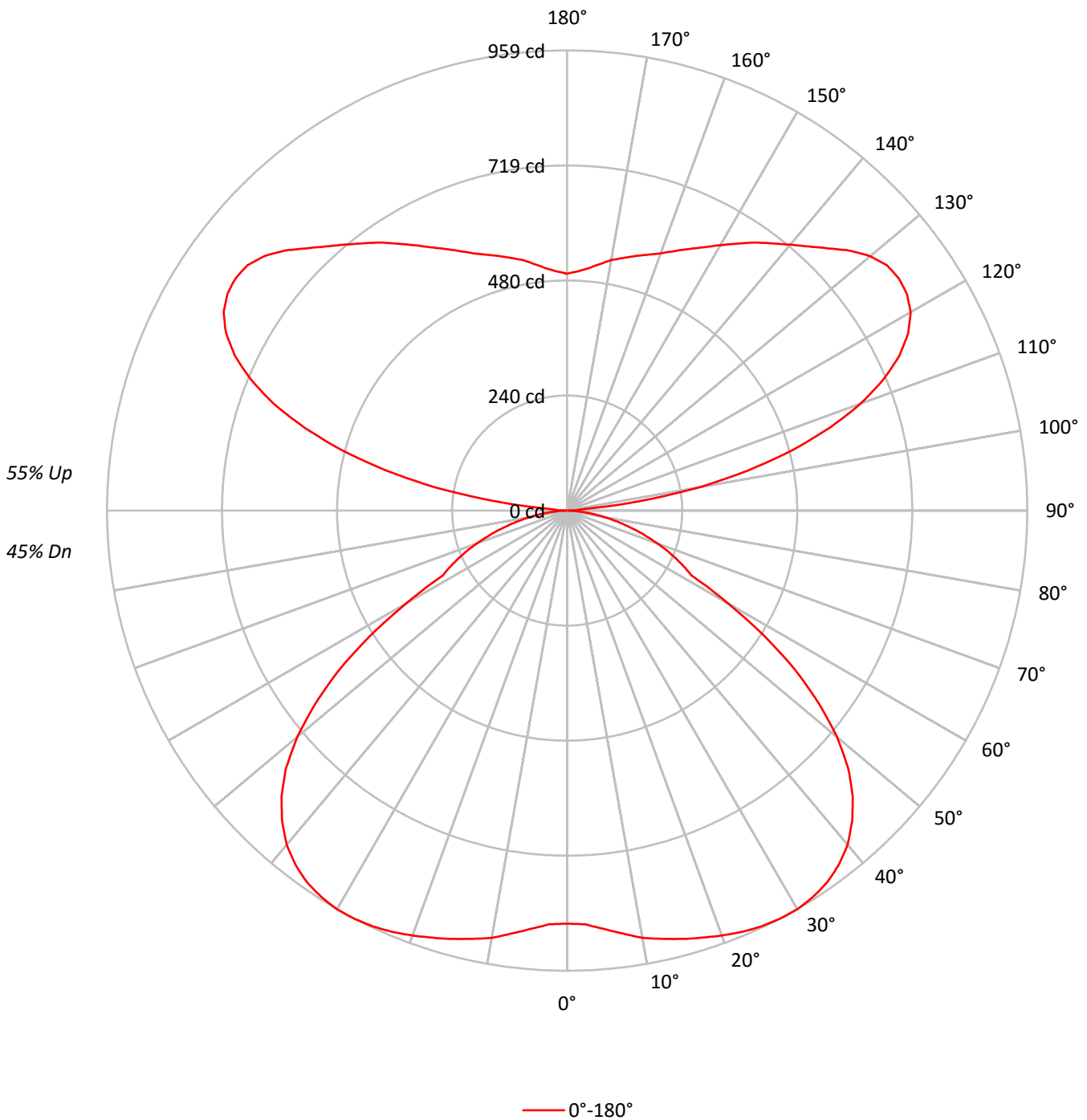
Lumens per Lamp: N/A
Luminaire Lumens: 6594.9 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.62 / 1.62 / 1.62
Luminous Opening: Circular (Dia: 2.09' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 60.5
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



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Luminous Intensity Polar Plot





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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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | |
| 0 | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | | 66 | 66 | 66 | | 52 | 52 | 52 | 45 |
| 1 | 97 | 93 | 89 | 86 | 89 | 85 | 82 | 79 | 71 | 69 | 67 | | 58 | 57 | 55 | | 46 | 45 | 44 | 39 |
| 2 | 88 | 81 | 75 | 70 | 81 | 75 | 69 | 65 | 62 | 59 | 55 | | 51 | 48 | 46 | | 41 | 39 | 37 | 33 |
| 3 | 81 | 71 | 64 | 58 | 74 | 66 | 59 | 54 | 55 | 50 | 47 | | 45 | 42 | 39 | | 36 | 34 | 32 | 28 |
| 4 | 74 | 63 | 55 | 49 | 67 | 58 | 51 | 46 | 49 | 44 | 40 | | 40 | 36 | 33 | | 32 | 30 | 27 | 24 |
| 5 | 68 | 56 | 48 | 42 | 62 | 52 | 45 | 39 | 44 | 38 | 34 | | 36 | 32 | 29 | | 29 | 26 | 24 | 20 |
| 6 | 62 | 50 | 42 | 36 | 57 | 46 | 39 | 34 | 39 | 34 | 29 | | 32 | 28 | 25 | | 26 | 23 | 21 | 18 |
| 7 | 57 | 45 | 37 | 32 | 52 | 42 | 35 | 30 | 35 | 30 | 26 | | 29 | 25 | 22 | | 24 | 21 | 18 | 16 |
| 8 | 53 | 41 | 33 | 28 | 49 | 38 | 31 | 26 | 32 | 27 | 23 | | 27 | 23 | 19 | | 22 | 19 | 16 | 14 |
| 9 | 49 | 37 | 30 | 25 | 45 | 34 | 28 | 23 | 29 | 24 | 20 | | 24 | 20 | 17 | | 20 | 17 | 15 | 12 |
| 10 | 46 | 34 | 27 | 22 | 42 | 31 | 25 | 21 | 27 | 22 | 18 | | 22 | 18 | 16 | | 18 | 15 | 13 | 11 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 2708 |
| 5° | 2762 |
| 10° | 2887 |
| 15° | 3009 |
| 20° | 3154 |
| 25° | 3319 |
| 30° | 3484 |
| 35° | 3630 |
| 40° | 3733 |
| 45° | 3744 |
| 50° | 3592 |
| 55° | 3193 |
| 60° | 2442 |
| 65° | 1953 |
| 70° | 1840 |
| 75° | 1674 |
| 80° | 1440 |
| 85° | 1090 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.4 | 1.3 |
| 10°-20° | 262.4 | 4.0 |
| 20°-30° | 441.9 | 6.7 |
| 30°-40° | 590.6 | 9.0 |
| 40°-50° | 644.3 | 9.8 |
| 50°-60° | 511.4 | 7.8 |
| 60°-70° | 267.1 | 4.1 |
| 70°-80° | 145.8 | 2.2 |
| 80°-90° | 36.5 | 0.6 |
| 90°-100° | 93.6 | 1.4 |
| 100°-110° | 503.7 | 7.6 |
| 110°-120° | 747.7 | 11.3 |
| 120°-130° | 751.2 | 11.4 |
| 130°-140° | 600.1 | 9.1 |
| 140°-150° | 428.9 | 6.5 |
| 150°-160° | 279.7 | 4.2 |
| 160°-170° | 156.3 | 2.4 |
| 170°-180° | 49.1 | 0.7 |
| 0°-30° | 788.8 | 12.0 |
| 0°-40° | 1379.4 | 20.9 |
| 0°-60° | 2535.0 | 38.4 |
| 0°-90° | 2984.5 | 45.3 |
| 90°-120° | 1345.0 | 20.4 |
| 90°-150° | 3125.2 | 47.4 |
| 90°-180° | 3610.0 | 54.7 |
| 0°-180° | 6594.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|------|-----|------|
| 0° | 861 | |
| 5° | 875 | 84 |
| 15° | 924 | 262 |
| 25° | 956 | 442 |
| 35° | 945 | 591 |
| 45° | 842 | 644 |
| 55° | 582 | 511 |
| 65° | 262 | 267 |
| 75° | 138 | 146 |
| 85° | 30 | 35 |
| 90° | 2 | 4 |
| 95° | 35 | 91 |
| 105° | 486 | 504 |
| 115° | 764 | 748 |
| 125° | 844 | 751 |
| 135° | 772 | 600 |
| 145° | 682 | 429 |
| 155° | 601 | 280 |
| 165° | 549 | 156 |
| 175° | 507 | 49 |
| 180° | 494 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|--------|-------|
| 0° | 860.9 |
| 2.5° | 862.9 |
| 5° | 875.0 |
| 7.5° | 889.0 |
| 10° | 904.1 |
| 12.5° | 914.2 |
| 15° | 924.2 |
| 17.5° | 933.3 |
| 20° | 942.3 |
| 22.5° | 950.4 |
| 25° | 956.4 |
| 27.5° | 959.4 |
| 30° | 959.4 |
| 32.5° | 954.4 |
| 35° | 945.4 |
| 37.5° | 930.3 |
| 40° | 909.2 |
| 42.5° | 879.0 |
| 45° | 841.8 |
| 47.5° | 794.5 |
| 50° | 734.2 |
| 52.5° | 661.8 |
| 55° | 582.3 |
| 57.5° | 487.8 |
| 60° | 388.2 |
| 62.5° | 291.7 |
| 65° | 262.5 |
| 67.5° | 232.3 |
| 70° | 200.1 |
| 72.5° | 168.0 |
| 75° | 137.8 |
| 77.5° | 107.6 |
| 80° | 79.5 |
| 82.5° | 54.3 |
| 85° | 30.2 |
| 87.5° | 9.1 |
| 90° | 2.0 |
| 92.5° | 16.1 |
| 95° | 35.2 |
| 97.5° | 152.9 |
| 100° | 278.6 |
| 102.5° | 386.2 |
| 105° | 485.8 |
| 107.5° | 573.3 |
| 110° | 650.7 |



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CANDELA DISTRIBUTION (continued):

| | 0° |
|--------|-------|
| 112.5° | 713.0 |
| 115° | 764.3 |
| 117.5° | 801.5 |
| 120° | 826.7 |
| 122.5° | 839.8 |
| 125° | 843.8 |
| 127.5° | 839.8 |
| 130° | 824.7 |
| 132.5° | 801.5 |
| 135° | 772.4 |
| 137.5° | 746.2 |
| 140° | 723.1 |
| 142.5° | 702.0 |
| 145° | 681.9 |
| 147.5° | 659.7 |
| 150° | 638.6 |
| 152.5° | 618.5 |
| 155° | 601.4 |
| 157.5° | 585.3 |
| 160° | 570.2 |
| 162.5° | 559.2 |
| 165° | 549.1 |
| 167.5° | 539.1 |
| 170° | 530.0 |
| 172.5° | 517.9 |
| 175° | 506.9 |
| 177.5° | 498.8 |
| 180° | 493.8 |

(END OF REPORT)