

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: P394028

Luminaire Tested: **146-52-L5-835**

Issue Date: 4/2/2020

Test Information

Test Method: LM-79-08
Report Number: P394028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33614)
Test Lab: INNOVATIONS CENTER-P3
Issue Date: 4/2/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: SHAPER
Catalog Number: 146-52-L5-835
Description: SHAPER 106 FABRIQUE ROUND CYLINDER PENDANT
52 INCH HEIGHT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

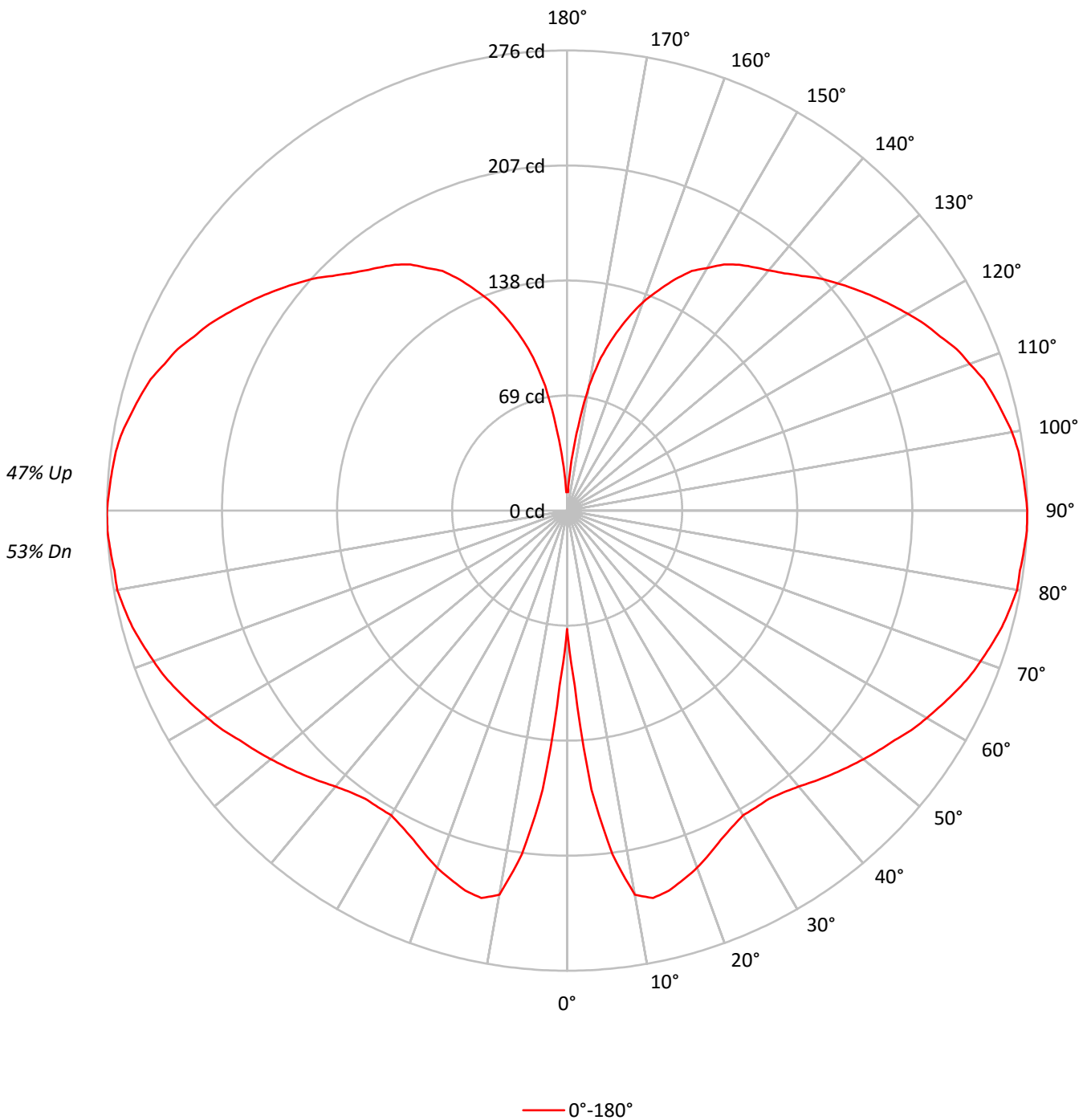
Lumens per Lamp: N/A
Luminaire Lumens: 2947.5 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 3.25 / 3.25 / 3.15
Luminous Opening: Vertical Cylinder (Dia: 0.83' x H: 4.33')
CIE Type: General Diffuse

Input Watts (W): 39.7
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 | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 71 | 71 | 71 | 58 | 58 | 58 | 53 |
| 1 | 93 | 87 | 81 | 76 | 86 | 80 | 75 | 70 | 67 | 63 | 59 | 55 | 52 | 49 | 44 | 41 | 39 | 34 |
| 2 | 83 | 73 | 65 | 58 | 76 | 67 | 60 | 54 | 56 | 50 | 45 | 45 | 41 | 37 | 36 | 33 | 30 | 25 |
| 3 | 75 | 63 | 54 | 46 | 68 | 58 | 50 | 43 | 48 | 41 | 36 | 39 | 34 | 30 | 30 | 27 | 23 | 19 |
| 4 | 68 | 55 | 45 | 38 | 62 | 50 | 42 | 35 | 42 | 35 | 30 | 34 | 28 | 24 | 26 | 22 | 19 | 15 |
| 5 | 62 | 48 | 39 | 32 | 56 | 44 | 36 | 29 | 37 | 30 | 25 | 30 | 24 | 20 | 23 | 19 | 16 | 12 |
| 6 | 57 | 43 | 34 | 27 | 52 | 39 | 31 | 25 | 33 | 26 | 21 | 27 | 21 | 17 | 21 | 17 | 13 | 10 |
| 7 | 52 | 38 | 30 | 23 | 48 | 35 | 27 | 22 | 30 | 23 | 18 | 24 | 19 | 15 | 19 | 15 | 12 | 9 |
| 8 | 48 | 35 | 26 | 20 | 44 | 32 | 24 | 19 | 27 | 20 | 16 | 22 | 17 | 13 | 17 | 13 | 10 | 8 |
| 9 | 45 | 32 | 23 | 18 | 41 | 29 | 22 | 17 | 24 | 18 | 14 | 20 | 15 | 12 | 16 | 12 | 9 | 7 |
| 10 | 42 | 29 | 21 | 16 | 38 | 27 | 19 | 15 | 22 | 17 | 12 | 18 | 14 | 10 | 15 | 11 | 8 | 6 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|------|
| | 0° |
| 0° | 1401 |
| 5° | 2107 |
| 10° | 2164 |
| 15° | 1738 |
| 20° | 1404 |
| 25° | 1161 |
| 30° | 997 |
| 35° | 902 |
| 40° | 849 |
| 45° | 820 |
| 50° | 801 |
| 55° | 790 |
| 60° | 788 |
| 65° | 790 |
| 70° | 794 |
| 75° | 801 |
| 80° | 808 |
| 85° | 812 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 17.8 | 0.6 |
| 10°-20° | 66.3 | 2.2 |
| 20°-30° | 101.0 | 3.4 |
| 30°-40° | 133.3 | 4.5 |
| 40°-50° | 173.6 | 5.9 |
| 50°-60° | 215.8 | 7.3 |
| 60°-70° | 255.1 | 8.7 |
| 70°-80° | 285.1 | 9.7 |
| 80°-90° | 300.0 | 10.2 |
| 90°-100° | 298.8 | 10.1 |
| 100°-110° | 280.1 | 9.5 |
| 110°-120° | 245.4 | 8.3 |
| 120°-130° | 201.2 | 6.8 |
| 130°-140° | 154.8 | 5.3 |
| 140°-150° | 112.8 | 3.8 |
| 150°-160° | 70.9 | 2.4 |
| 160°-170° | 31.1 | 1.1 |
| 170°-180° | 4.3 | 0.1 |
| 0°-30° | 185.0 | 6.3 |
| 0°-40° | 318.4 | 10.8 |
| 0°-60° | 707.8 | 24.0 |
| 0°-90° | 1548.1 | 52.5 |
| 90°-120° | 824.4 | 28.0 |
| 90°-150° | 1293.2 | 43.9 |
| 90°-180° | 1399.0 | 47.5 |
| 0°-180° | 2947.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|------|-----|------|
| 0° | 71 | |
| 5° | 168 | 18 |
| 15° | 236 | 66 |
| 25° | 218 | 101 |
| 35° | 211 | 133 |
| 45° | 224 | 174 |
| 55° | 240 | 216 |
| 65° | 257 | 255 |
| 75° | 270 | 285 |
| 85° | 275 | 224 |
| 90° | 276 | 151 |
| 95° | 274 | 223 |
| 105° | 265 | 280 |
| 115° | 247 | 245 |
| 125° | 224 | 201 |
| 135° | 199 | 155 |
| 145° | 180 | 113 |
| 155° | 153 | 71 |
| 165° | 108 | 31 |
| 175° | 30 | 4 |
| 180° | 12 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° |
|--------|-----|
| 0° | 71 |
| 2.5° | 105 |
| 5° | 168 |
| 7.5° | 208 |
| 10° | 234 |
| 12.5° | 238 |
| 15° | 236 |
| 17.5° | 232 |
| 20° | 228 |
| 22.5° | 223 |
| 25° | 218 |
| 27.5° | 214 |
| 30° | 211 |
| 32.5° | 211 |
| 35° | 211 |
| 37.5° | 213 |
| 40° | 216 |
| 42.5° | 220 |
| 45° | 224 |
| 47.5° | 228 |
| 50° | 232 |
| 52.5° | 236 |
| 55° | 240 |
| 57.5° | 245 |
| 60° | 249 |
| 62.5° | 253 |
| 65° | 257 |
| 67.5° | 261 |
| 70° | 264 |
| 72.5° | 267 |
| 75° | 270 |
| 77.5° | 272 |
| 80° | 274 |
| 82.5° | 274 |
| 85° | 275 |
| 87.5° | 276 |
| 90° | 276 |
| 92.5° | 275 |
| 95° | 274 |
| 97.5° | 273 |
| 100° | 271 |
| 102.5° | 268 |
| 105° | 265 |
| 107.5° | 262 |
| 110° | 257 |



TEST NUMBER: P394028
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CANDELA DISTRIBUTION (continued):

| | 0° |
|--------|-----|
| 112.5° | 253 |
| 115° | 247 |
| 117.5° | 242 |
| 120° | 236 |
| 122.5° | 230 |
| 125° | 224 |
| 127.5° | 218 |
| 130° | 212 |
| 132.5° | 206 |
| 135° | 199 |
| 137.5° | 193 |
| 140° | 188 |
| 142.5° | 184 |
| 145° | 180 |
| 147.5° | 175 |
| 150° | 168 |
| 152.5° | 162 |
| 155° | 153 |
| 157.5° | 143 |
| 160° | 133 |
| 162.5° | 121 |
| 165° | 108 |
| 167.5° | 94 |
| 170° | 76 |
| 172.5° | 51 |
| 175° | 30 |
| 177.5° | 11 |
| 180° | 12 |

(END OF REPORT)