

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: METALUX

Report Number: P35055

Luminaire Tested: **12EN-LD2-08-HP-UNV-L835-CD1-U**

Test Date: 09/25/16

**Test Information**

Test Method: LM-79-08  
Report Number: P35055  
Test Lab: INNOVATION CENTER-P3  
Test Date: 09/25/16  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12EN-LD2-08-HP-UNV-L835-CD1-U  
Description: ENCOUNTER 1X2 LED TROFFER  
Light Source: (196) EATON 3500K LEDS  
EL232N098E835  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER @ 160 mA  
OTi30W/PRG1050C/UNV/DIM/L

**Summary**

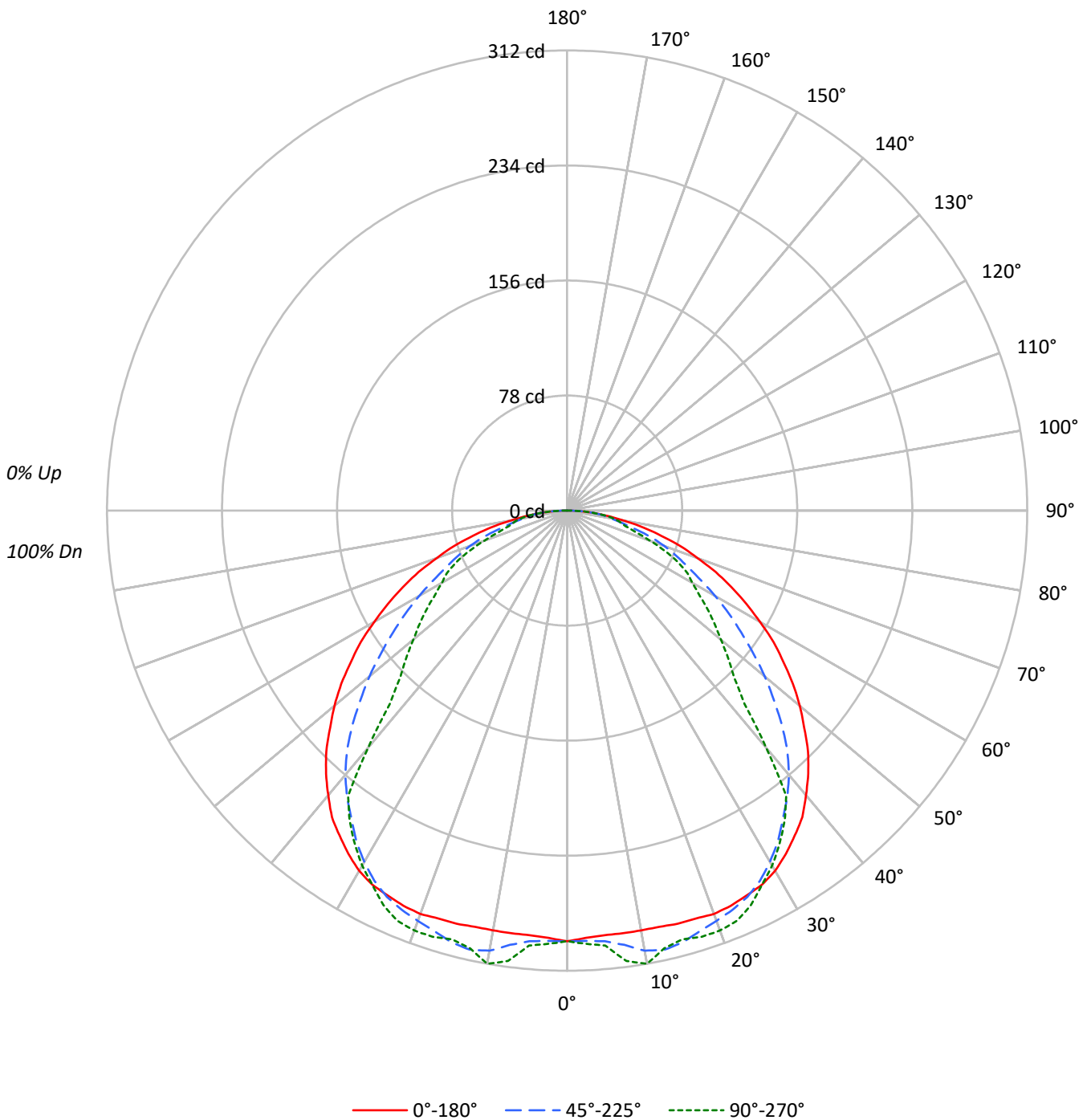
Lumens per Lamp: N/A  
Luminaire Lumens: 859.2 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.41 / 1.37 / 1.41  
Luminous Opening: Rectangular (W 0.83' x L: 1.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8  
Input Voltage (V): 120.1  
Input Current (Ain): 0.0680  
Voltage Rise (V): NR  
Power Factor: 0.9788  
Total Harmonic Distortion (THDi): 8.84%  
Frequency (hertz): 60  
Stabilization Time: 0.5 HR  
Operation Time: 5 HR  
Ambient Temperature (°C): 25.0  
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   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 94  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 68  | 63  | 70  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 44  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 39  | 33  | 60  | 47  | 39  | 33  | 46  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 40  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2057 | 2057 | 2057 |
| 5°  | 2044 | 2072 | 2093 |
| 10° | 2068 | 2168 | 2232 |
| 15° | 2115 | 2210 | 2195 |
| 20° | 2182 | 2219 | 2272 |
| 25° | 2239 | 2247 | 2293 |
| 30° | 2294 | 2237 | 2262 |
| 35° | 2314 | 2193 | 2210 |
| 40° | 2318 | 2152 | 1931 |
| 45° | 2302 | 2053 | 1594 |
| 50° | 2258 | 1918 | 1491 |
| 55° | 2199 | 1769 | 1425 |
| 60° | 2128 | 1635 | 1381 |
| 65° | 2051 | 1500 | 1384 |
| 70° | 1936 | 1442 | 1236 |
| 75° | 1797 | 1279 | 1116 |
| 80° | 1582 | 1217 | 1339 |
| 85° | 1455 | 1374 | 1455 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 28.3   | 3.3       |
| 10°-20°   | 84.7   | 9.9       |
| 20°-30°   | 133.5  | 15.5      |
| 30°-40°   | 161.5  | 18.8      |
| 40°-50°   | 154.7  | 18.0      |
| 50°-60°   | 129.3  | 15.1      |
| 60°-70°   | 94.8   | 11.0      |
| 70°-80°   | 53.9   | 6.3       |
| 80°-90°   | 18.6   | 2.2       |
| 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°    | 246.5  | 28.7      |
| 0°-40°    | 408.0  | 47.5      |
| 0°-60°    | 691.9  | 80.5      |
| 0°-90°    | 859.2  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 859.2  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 292 | 292   | 292 | 292   | 292 |      |
| 5°  | 289 | 291   | 293 | 296   | 296 | 28   |
| 15° | 290 | 296   | 303 | 301   | 301 | 82   |
| 25° | 288 | 287   | 289 | 293   | 295 | 133  |
| 35° | 269 | 261   | 255 | 257   | 257 | 168  |
| 45° | 231 | 216   | 206 | 182   | 160 | 178  |
| 55° | 179 | 164   | 144 | 122   | 116 | 160  |
| 65° | 123 | 108   | 90  | 83    | 83  | 122  |
| 75° | 66  | 56    | 47  | 42    | 41  | 70   |
| 85° | 18  | 16    | 17  | 18    | 18  | 20   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°  | 22.5° | 45° | 67.5° | 90° |
|-------|-----|-------|-----|-------|-----|
| 0°    | 292 | 292   | 292 | 292   | 292 |
| 2.5°  | 290 | 290   | 292 | 293   | 294 |
| 5°    | 289 | 291   | 293 | 296   | 296 |
| 7.5°  | 289 | 291   | 297 | 304   | 308 |
| 10°   | 289 | 294   | 303 | 312   | 312 |
| 12.5° | 289 | 295   | 305 | 305   | 304 |
| 15°   | 290 | 296   | 303 | 301   | 301 |
| 17.5° | 290 | 295   | 299 | 300   | 303 |
| 20°   | 291 | 293   | 296 | 300   | 303 |
| 22.5° | 290 | 291   | 293 | 298   | 301 |
| 25°   | 288 | 287   | 289 | 293   | 295 |
| 27.5° | 286 | 283   | 283 | 286   | 286 |
| 30°   | 282 | 277   | 275 | 277   | 278 |
| 32.5° | 276 | 270   | 266 | 268   | 268 |
| 35°   | 269 | 261   | 255 | 257   | 257 |
| 37.5° | 262 | 251   | 245 | 245   | 244 |
| 40°   | 252 | 240   | 234 | 226   | 210 |
| 42.5° | 242 | 228   | 221 | 202   | 178 |
| 45°   | 231 | 216   | 206 | 182   | 160 |
| 47.5° | 218 | 203   | 190 | 164   | 148 |
| 50°   | 206 | 191   | 175 | 148   | 136 |
| 52.5° | 193 | 177   | 159 | 135   | 126 |
| 55°   | 179 | 164   | 144 | 122   | 116 |
| 57.5° | 166 | 150   | 130 | 110   | 106 |
| 60°   | 151 | 136   | 116 | 99    | 98  |
| 62.5° | 137 | 122   | 102 | 91    | 92  |
| 65°   | 123 | 108   | 90  | 83    | 83  |
| 67.5° | 109 | 95    | 80  | 72    | 72  |
| 70°   | 94  | 81    | 70  | 61    | 60  |
| 72.5° | 81  | 69    | 59  | 51    | 49  |
| 75°   | 66  | 56    | 47  | 42    | 41  |
| 77.5° | 53  | 46    | 37  | 36    | 37  |
| 80°   | 39  | 35    | 30  | 32    | 33  |
| 82.5° | 27  | 24    | 25  | 26    | 26  |
| 85°   | 18  | 16    | 17  | 18    | 18  |
| 87.5° | 8   | 8     | 9   | 10    | 10  |
| 90°   | 0   | 0     | 0   | 0     | 0   |

(END OF REPORT)