

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: PORTFOLIO

Report Number: P251253

Luminaire Tested: **LSR8B70D010 EC8B70930 8LBN0GPH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P251253  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P201794)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B70D010 EC8B70930 8LBN0GPH  
Description: PORTFOLIO 8 INCH NARROW DISTRIBUTION 50 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
90 CRI 3000 CCT WITH GRAPHITE TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2183 (1 lamp)  
Luminaire Lumens: 5642.1 lumens  
Efficiency: 258.5%  
Efficacy: 74.3 lumens/watt  
Spacing Criteria (0/90/45): 0.69 / 0.69 / 0.77  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

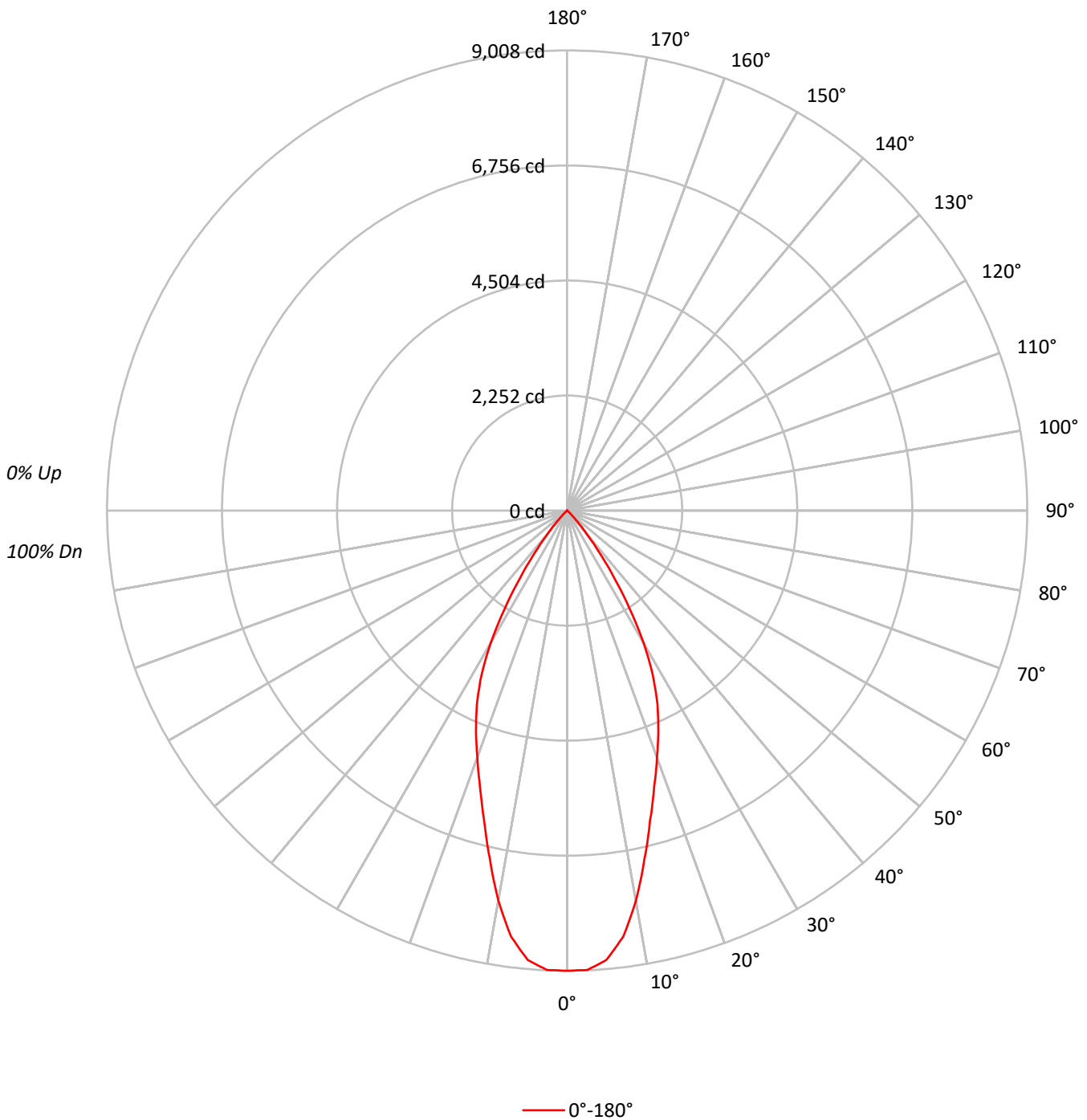
Input Watts (W): 75.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P251253

CATALOG NUMBER: LSR8B70D010 EC8B70930 8LBN0GPH

### Luminous Intensity Polar Plot





TEST NUMBER: P251253

CATALOG NUMBER: LSR8B70D010 EC8B70930 8LBN0GPH

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |     |    |    |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 308 | 308 | 308 | 308 | 301 | 301 | 301 | 301 | 287 | 287 | 287 | 275 | 275 | 275 | 264 | 264 | 264 | 258 |    |    |
| 1   | 294 | 288 | 282 | 276 | 288 | 282 | 277 | 272 | 272 | 268 | 264 | 262 | 259 | 256 | 253 | 251 | 248 | 244 |    |    |
| 2   | 281 | 270 | 260 | 252 | 276 | 265 | 256 | 249 | 257 | 250 | 244 | 249 | 244 | 238 | 242 | 238 | 233 | 229 |    |    |
| 3   | 269 | 253 | 241 | 232 | 264 | 250 | 239 | 230 | 243 | 234 | 226 | 237 | 229 | 223 | 231 | 225 | 219 | 216 |    |    |
| 4   | 256 | 238 | 225 | 215 | 252 | 235 | 223 | 214 | 230 | 220 | 211 | 225 | 216 | 209 | 220 | 213 | 206 | 203 |    |    |
| 5   | 245 | 225 | 211 | 201 | 241 | 222 | 209 | 200 | 218 | 207 | 198 | 214 | 204 | 196 | 210 | 201 | 194 | 191 |    |    |
| 6   | 234 | 212 | 198 | 188 | 230 | 210 | 197 | 187 | 207 | 195 | 186 | 203 | 193 | 185 | 200 | 191 | 183 | 180 |    |    |
| 7   | 223 | 201 | 187 | 177 | 220 | 199 | 186 | 176 | 196 | 184 | 175 | 193 | 182 | 174 | 190 | 181 | 173 | 170 |    |    |
| 8   | 213 | 191 | 176 | 166 | 210 | 189 | 176 | 166 | 186 | 174 | 165 | 184 | 173 | 165 | 181 | 171 | 164 | 161 |    |    |
| 9   | 204 | 181 | 167 | 157 | 201 | 180 | 166 | 157 | 177 | 165 | 156 | 175 | 164 | 156 | 173 | 163 | 155 | 152 |    |    |
| 10  | 195 | 172 | 158 | 149 | 193 | 171 | 158 | 149 | 169 | 157 | 148 | 167 | 156 | 148 | 165 | 155 | 148 | 145 |    |    |

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

|     | 0°     |
|-----|--------|
| 0°  | 277770 |
| 5°  | 273322 |
| 10° | 242853 |
| 15° | 200375 |
| 20° | 168681 |
| 25° | 142316 |
| 30° | 106542 |
| 35° | 60261  |
| 40° | 23794  |
| 45° | 6415   |
| 50° | 1233   |
| 55° | 0      |
| 60° | 160    |
| 65° | 0      |
| 70° | 0      |
| 75° | 0      |
| 80° | 0      |
| 85° | 0      |



TEST NUMBER: P251253

CATALOG NUMBER: LSR8B70D010 EC8B70930 8LBN0GPH

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

| Zone      | Lumens | % Fixture | % Lamp | 0°   | Flux |      |
|-----------|--------|-----------|--------|------|------|------|
| 0°-10°    | 808.0  | 14.3      | 37.0   | 0°   | 9008 |      |
| 10°-20°   | 1761.1 | 31.2      | 80.7   | 5°   | 8830 | 808  |
| 20°-30°   | 1886.4 | 33.4      | 86.4   | 15°  | 6277 | 1761 |
| 30°-40°   | 1022.2 | 18.1      | 46.8   | 25°  | 4183 | 1886 |
| 40°-50°   | 159.1  | 2.8       | 7.3    | 35°  | 1601 | 1022 |
| 50°-60°   | 4.2    | 0.1       | 0.2    | 45°  | 147  | 159  |
| 60°-70°   | 1.0    | 0.0       | 0.0    | 55°  | 0    | 4    |
| 70°-80°   | 0.0    | 0.0       | 0.0    | 65°  | 0    | 1    |
| 80°-90°   | 0.0    | 0.0       | 0.0    | 75°  | 0    | 0    |
| 90°-100°  | 0.0    | 0.0       | 0.0    | 85°  | 0    | 0    |
| 100°-110° | 0.0    | 0.0       | 0.0    | 90°  | 0    | 0    |
| 110°-120° | 0.0    | 0.0       | 0.0    | 95°  | 0    | 0    |
| 120°-130° | 0.0    | 0.0       | 0.0    | 105° | 0    | 0    |
| 130°-140° | 0.0    | 0.0       | 0.0    | 115° | 0    | 0    |
| 140°-150° | 0.0    | 0.0       | 0.0    | 125° | 0    | 0    |
| 150°-160° | 0.0    | 0.0       | 0.0    | 135° | 0    | 0    |
| 160°-170° | 0.0    | 0.0       | 0.0    | 145° | 0    | 0    |
| 170°-180° | 0.0    | 0.0       | 0.0    | 155° | 0    | 0    |
| 0°-30°    | 4455.5 | 79.0      | 204.1  | 165° | 0    | 0    |
| 0°-40°    | 5477.8 | 97.1      | 250.9  | 175° | 0    | 0    |
| 0°-60°    | 5641.1 | 100.0     | 258.4  | 180° | 0    | 0    |
| 0°-90°    | 5642.1 | 100.0     | 258.5  |      |      |      |
| 90°-120°  | 0.0    | 0.0       | 0.0    |      |      |      |
| 90°-150°  | 0.0    | 0.0       | 0.0    |      |      |      |
| 90°-180°  | 0.0    | 0.0       | 0.0    |      |      |      |
| 0°-180°   | 5642.1 | 100.0     | 258.5  |      |      |      |



TEST NUMBER: P251253

CATALOG NUMBER: LSR8B70D010 EC8B70930 8LBN0GPH

**CANDELA DISTRIBUTION (FULL):**

| 0°     |        |
|--------|--------|
| 0°     | 9007.9 |
| 2.5°   | 9000.6 |
| 5°     | 8829.9 |
| 7.5°   | 8409.0 |
| 10°    | 7755.9 |
| 12.5°  | 6991.6 |
| 15°    | 6276.6 |
| 17.5°  | 5669.7 |
| 20°    | 5140.3 |
| 22.5°  | 4665.4 |
| 25°    | 4182.8 |
| 27.5°  | 3635.1 |
| 30°    | 2992.2 |
| 32.5°  | 2282.2 |
| 35°    | 1600.8 |
| 37.5°  | 1025.2 |
| 40°    | 591.1  |
| 42.5°  | 315.0  |
| 45°    | 147.1  |
| 47.5°  | 80.3   |
| 50°    | 25.7   |
| 52.5°  | 2.6    |
| 55°    | 0.0    |
| 57.5°  | 2.6    |
| 60°    | 2.6    |
| 62.5°  | 0.0    |
| 65°    | 0.0    |
| 67.5°  | 2.6    |
| 70°    | 0.0    |
| 72.5°  | 0.0    |
| 75°    | 0.0    |
| 77.5°  | 0.0    |
| 80°    | 0.0    |
| 82.5°  | 0.0    |
| 85°    | 0.0    |
| 87.5°  | 0.0    |
| 90°    | 0.0    |
| 92.5°  | 0.0    |
| 95°    | 0.0    |
| 97.5°  | 0.0    |
| 100°   | 0.0    |
| 102.5° | 0.0    |
| 105°   | 0.0    |
| 107.5° | 0.0    |
| 110°   | 0.0    |



TEST NUMBER: P251253

CATALOG NUMBER: LSR8B70D010 EC8B70930 8LBN0GPH

**CANDELA DISTRIBUTION (continued):**

|        | 0°  |
|--------|-----|
| 112.5° | 0.0 |
| 115°   | 0.0 |
| 117.5° | 0.0 |
| 120°   | 0.0 |
| 122.5° | 0.0 |
| 125°   | 0.0 |
| 127.5° | 0.0 |
| 130°   | 0.0 |
| 132.5° | 0.0 |
| 135°   | 0.0 |
| 137.5° | 0.0 |
| 140°   | 0.0 |
| 142.5° | 0.0 |
| 145°   | 0.0 |
| 147.5° | 0.0 |
| 150°   | 0.0 |
| 152.5° | 0.0 |
| 155°   | 0.0 |
| 157.5° | 0.0 |
| 160°   | 0.0 |
| 162.5° | 0.0 |
| 165°   | 0.0 |
| 167.5° | 0.0 |
| 170°   | 0.0 |
| 172.5° | 0.0 |
| 175°   | 0.0 |
| 177.5° | 0.0 |
| 180°   | 0.0 |

(END OF REPORT)