

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: CORELITE

Report Number: G3-1802-639-5

Luminaire Tested: **CL4DR-F-80D835-UNV-STD-W-4**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: G3-1802-639-5
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: CORELITE
Catalog Number: CL4DR-F-80D835-UNV-STD-W-4
Description: CL 4" DIRECT RECESSED WITH FROSTED FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

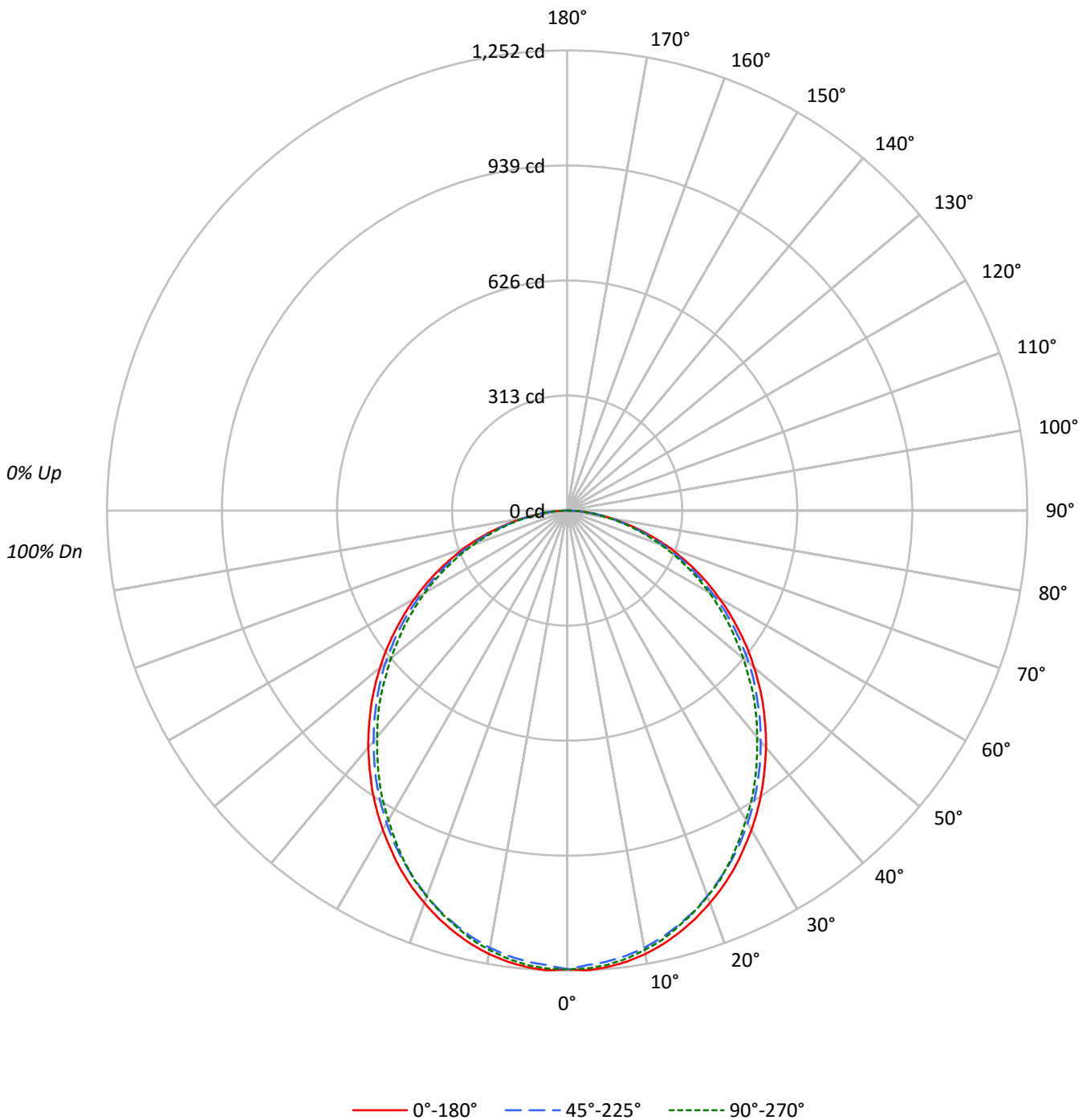
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3203.2 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): 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: G3-1802-639-5
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Luminous Intensity Polar Plot





TEST NUMBER: G3-1802-639-5

CATALOG NUMBER: CL4DR-F-80D835-UNV-STD-W-4

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 | 95 | 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 | 67 | 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 | 47 | 41 | 52 | 46 | 41 | 39 |
| 7 | 66 | 52 | 44 | 38 | 64 | 52 | 43 | 37 | 50 | 43 | 37 | 49 | 42 | 37 | 47 | 41 | 37 | 35 |
| 8 | 61 | 48 | 39 | 34 | 60 | 47 | 39 | 34 | 46 | 39 | 33 | 45 | 38 | 33 | 43 | 37 | 33 | 31 |
| 9 | 57 | 44 | 36 | 30 | 56 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 35 | 30 | 40 | 34 | 30 | 28 |
| 10 | 54 | 41 | 33 | 28 | 52 | 40 | 33 | 28 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11093 | 11093 | 11093 |
| 5° | 11127 | 10993 | 11073 |
| 10° | 11057 | 10903 | 10958 |
| 15° | 10923 | 10748 | 10776 |
| 20° | 10746 | 10557 | 10566 |
| 25° | 10543 | 10337 | 10308 |
| 30° | 10295 | 10079 | 9987 |
| 35° | 10038 | 9810 | 9679 |
| 40° | 9770 | 9503 | 9329 |
| 45° | 9491 | 9202 | 9026 |
| 50° | 9182 | 8933 | 8657 |
| 55° | 8849 | 8586 | 8307 |
| 60° | 8516 | 8196 | 7947 |
| 65° | 8140 | 7824 | 7509 |
| 70° | 7719 | 7329 | 7043 |
| 75° | 7075 | 6731 | 6560 |
| 80° | 6296 | 6040 | 5887 |
| 85° | 5507 | 5303 | 5201 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 117.6 | 3.7 |
| 10°-20° | 331.4 | 10.3 |
| 20°-30° | 487.7 | 15.2 |
| 30°-40° | 567.0 | 17.7 |
| 40°-50° | 566.9 | 17.7 |
| 50°-60° | 495.8 | 15.5 |
| 60°-70° | 368.1 | 11.5 |
| 70°-80° | 208.9 | 6.5 |
| 80°-90° | 59.8 | 1.9 |
| 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° | 936.8 | 29.2 |
| 0°-40° | 1503.7 | 46.9 |
| 0°-60° | 2566.4 | 80.1 |
| 0°-90° | 3203.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3203.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1248 | 1248 | 1248 | 1248 | 1248 | |
| 5° | 1247 | 1243 | 1232 | 1243 | 1241 | 118 |
| 15° | 1187 | 1183 | 1168 | 1174 | 1171 | 335 |
| 25° | 1075 | 1068 | 1054 | 1055 | 1051 | 495 |
| 35° | 925 | 918 | 904 | 897 | 892 | 578 |
| 45° | 755 | 748 | 732 | 721 | 718 | 582 |
| 55° | 571 | 568 | 554 | 542 | 536 | 511 |
| 65° | 387 | 382 | 372 | 362 | 357 | 383 |
| 75° | 206 | 201 | 196 | 192 | 191 | 219 |
| 85° | 54 | 54 | 52 | 52 | 51 | 62 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: G3-1802-639-5

CATALOG NUMBER: CL4DR-F-80D835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|------|-------|------|-------|------|
| 0° | 1248 | 1248 | 1248 | 1248 | 1248 |
| 2.5° | 1252 | 1249 | 1238 | 1248 | 1247 |
| 5° | 1247 | 1243 | 1232 | 1243 | 1241 |
| 7.5° | 1238 | 1234 | 1222 | 1231 | 1230 |
| 10° | 1225 | 1221 | 1208 | 1216 | 1214 |
| 12.5° | 1208 | 1204 | 1190 | 1199 | 1196 |
| 15° | 1187 | 1183 | 1168 | 1174 | 1171 |
| 17.5° | 1163 | 1158 | 1144 | 1148 | 1146 |
| 20° | 1136 | 1131 | 1116 | 1119 | 1117 |
| 22.5° | 1107 | 1100 | 1085 | 1091 | 1087 |
| 25° | 1075 | 1068 | 1054 | 1055 | 1051 |
| 27.5° | 1039 | 1032 | 1019 | 1017 | 1012 |
| 30° | 1003 | 995 | 982 | 978 | 973 |
| 32.5° | 965 | 958 | 944 | 939 | 934 |
| 35° | 925 | 918 | 904 | 897 | 892 |
| 37.5° | 883 | 877 | 862 | 855 | 848 |
| 40° | 842 | 834 | 819 | 809 | 804 |
| 42.5° | 798 | 794 | 777 | 765 | 762 |
| 45° | 755 | 748 | 732 | 721 | 718 |
| 47.5° | 710 | 705 | 690 | 678 | 670 |
| 50° | 664 | 660 | 646 | 632 | 626 |
| 52.5° | 619 | 614 | 599 | 587 | 579 |
| 55° | 571 | 568 | 554 | 542 | 536 |
| 57.5° | 526 | 523 | 509 | 497 | 491 |
| 60° | 479 | 474 | 461 | 452 | 447 |
| 62.5° | 433 | 429 | 415 | 407 | 402 |
| 65° | 387 | 382 | 372 | 362 | 357 |
| 67.5° | 340 | 336 | 326 | 316 | 315 |
| 70° | 297 | 290 | 282 | 274 | 271 |
| 72.5° | 251 | 244 | 238 | 232 | 229 |
| 75° | 206 | 201 | 196 | 192 | 191 |
| 77.5° | 162 | 160 | 155 | 154 | 151 |
| 80° | 123 | 120 | 118 | 116 | 115 |
| 82.5° | 85 | 84 | 84 | 83 | 82 |
| 85° | 54 | 54 | 52 | 52 | 51 |
| 87.5° | 26 | 25 | 24 | 24 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 |

(END OF REPORT)