

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: HALO

Report Number: P579664

Luminaire Tested: **SMD12R209SWHE-EM - 2700K**

Issue Date: 11/23/2021

Test Information

Test Method: LM-79-08
Report Number: P579664
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2110240B001)
Test Lab:
Issue Date: 11/23/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: SMD12R209SWHE-EM - 2700K
Description: SMD SELECTABLE CCT 2700K
Light Source: SELECTABLE CCT LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

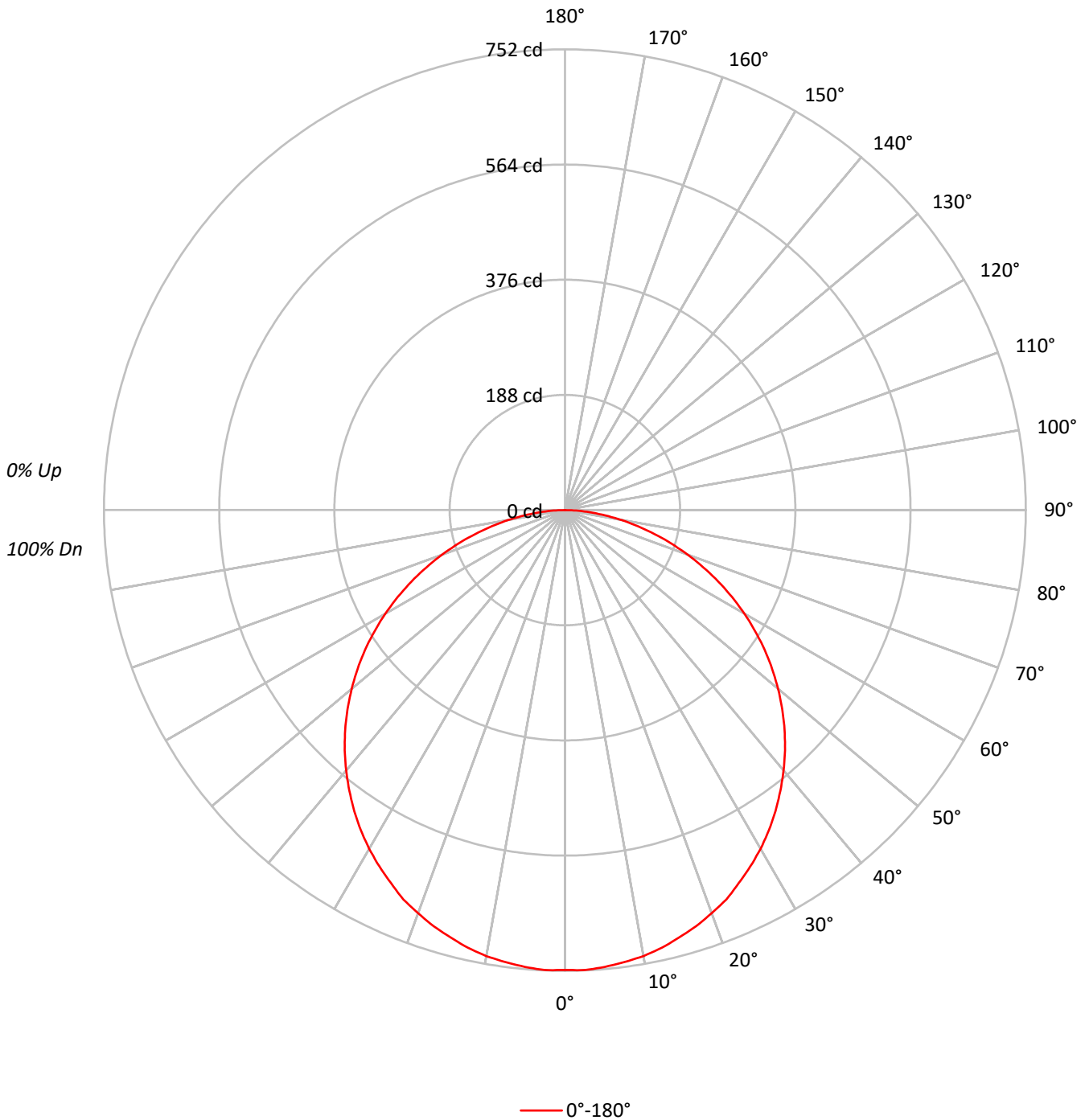
Lumens per Lamp: N/A
Luminaire Lumens: 2186.7 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Circular (Dia: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 29.6
Input Voltage (V): NR
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



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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 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 90 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 85 | 79 | 75 | 81 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 63 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 52 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 43 |
| 6 | 70 | 56 | 47 | 40 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 25 | 24 |

AVERAGE LUMINANCE (cd/sqm):

| | |
|-----|-------|
| | 0° |
| 0° | 10286 |
| 5° | 10297 |
| 10° | 10286 |
| 15° | 10243 |
| 20° | 10212 |
| 25° | 10156 |
| 30° | 10103 |
| 35° | 10028 |
| 40° | 9935 |
| 45° | 9823 |
| 50° | 9682 |
| 55° | 9507 |
| 60° | 9276 |
| 65° | 8963 |
| 70° | 8555 |
| 75° | 8028 |
| 80° | 7379 |
| 85° | 6431 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.1 | 3.3 |
| 10°-20° | 203.9 | 9.3 |
| 20°-30° | 309.8 | 14.2 |
| 30°-40° | 374.9 | 17.1 |
| 40°-50° | 390.8 | 17.9 |
| 50°-60° | 355.3 | 16.3 |
| 60°-70° | 273.3 | 12.5 |
| 70°-80° | 160.7 | 7.3 |
| 80°-90° | 46.9 | 2.1 |
| 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° | 584.9 | 26.7 |
| 0°-40° | 959.7 | 43.9 |
| 0°-60° | 1705.9 | 78.0 |
| 0°-90° | 2186.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2186.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | Flux |
|-----|-----|------|
| 0° | 750 | |
| 5° | 748 | 71 |
| 15° | 722 | 204 |
| 25° | 672 | 310 |
| 35° | 599 | 375 |
| 45° | 507 | 391 |
| 55° | 398 | 355 |
| 65° | 276 | 273 |
| 75° | 152 | 161 |
| 85° | 41 | 47 |
| 90° | 0 | |



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CANDELA DISTRIBUTION (FULL):

| 0° | |
|-------|-------|
| 0° | 750.5 |
| 2.5° | 751.6 |
| 5° | 748.5 |
| 7.5° | 744.0 |
| 10° | 739.1 |
| 12.5° | 731.7 |
| 15° | 721.9 |
| 17.5° | 712.1 |
| 20° | 700.2 |
| 22.5° | 688.1 |
| 25° | 671.6 |
| 27.5° | 655.7 |
| 30° | 638.4 |
| 32.5° | 619.6 |
| 35° | 599.4 |
| 37.5° | 577.5 |
| 40° | 555.3 |
| 42.5° | 531.6 |
| 45° | 506.8 |
| 47.5° | 481.1 |
| 50° | 454.1 |
| 52.5° | 426.4 |
| 55° | 397.9 |
| 57.5° | 368.2 |
| 60° | 338.4 |
| 62.5° | 307.3 |
| 65° | 276.4 |
| 67.5° | 244.8 |
| 70° | 213.5 |
| 72.5° | 182.4 |
| 75° | 151.6 |
| 77.5° | 121.8 |
| 80° | 93.5 |
| 82.5° | 66.4 |
| 85° | 40.9 |
| 87.5° | 18.2 |
| 90° | 0.0 |

(END OF REPORT)