

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 COMMERCIAL

Report Number: P238197

Luminaire Tested: **PRS640D010-S6M24-61SMDMW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P238197
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1802-584-17)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: PRS640D010-S6M24-61SMDMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, WITH 6" MEDIUM DISTRIBUTION, DEEP TRIM MATTE WHITE
Light Source: ARRAYS OF HIGH LUMEN LEDS 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4220.0 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.97 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

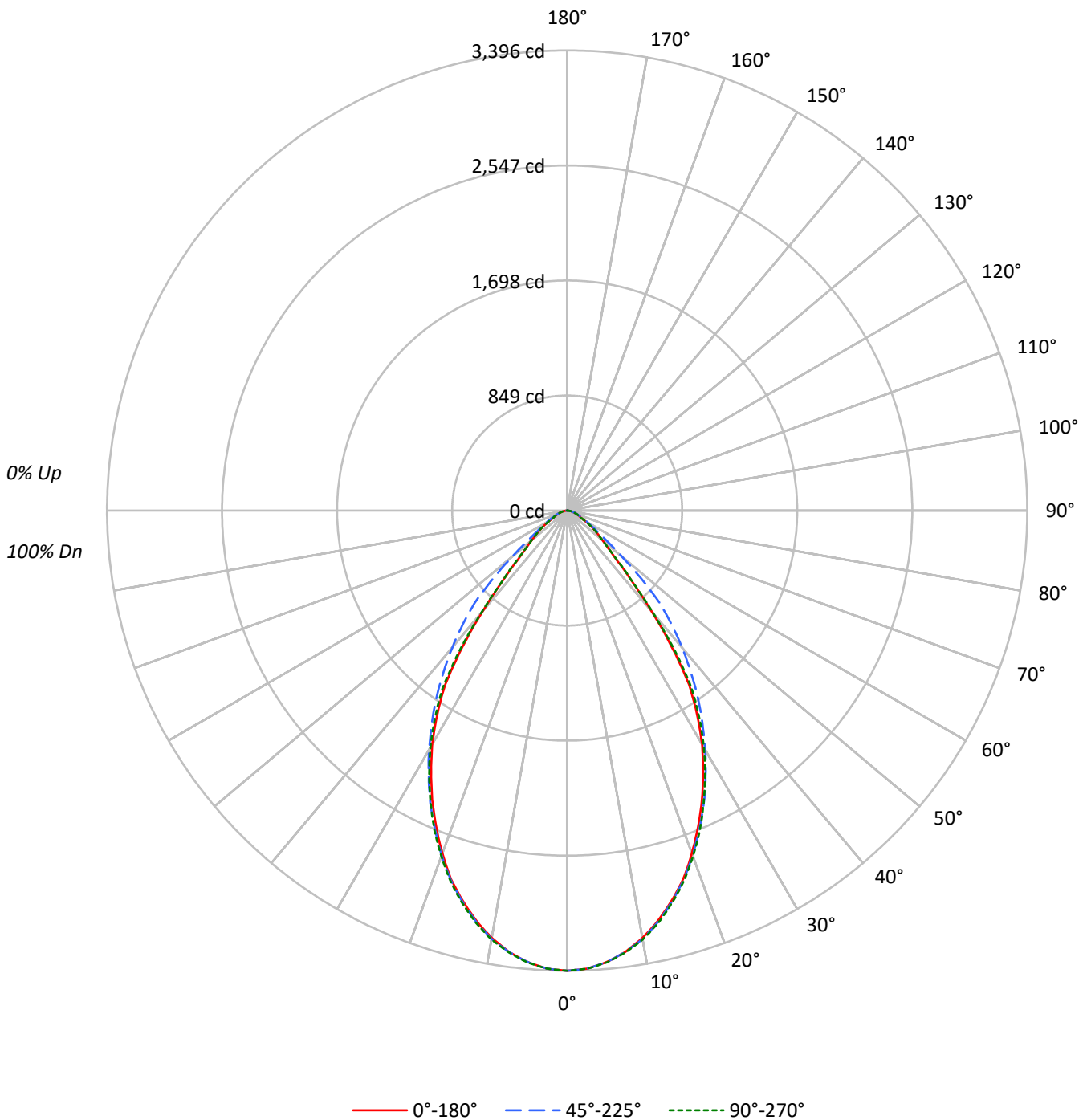
Input Watts (W): 38
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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 | | | | | 100 | | | |
| 1 | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 95 | 94 | 93 | 91 | | | | | 91 | | | |
| 2 | 105 | 100 | 95 | 91 | 103 | 98 | 93 | 90 | 94 | 91 | 88 | 91 | 88 | 86 | 89 | 86 | 84 | 82 | | | | | 82 | | | |
| 3 | 99 | 91 | 85 | 80 | 97 | 90 | 84 | 80 | 87 | 82 | 79 | 84 | 81 | 77 | 82 | 79 | 76 | 74 | | | | | 74 | | | |
| 4 | 93 | 84 | 77 | 72 | 91 | 83 | 76 | 72 | 80 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 67 | | | | | 67 | | | |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 73 | 68 | 64 | 71 | 67 | 63 | 61 | | | | | 61 | | | |
| 6 | 82 | 71 | 64 | 59 | 80 | 71 | 64 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 66 | 61 | 58 | 56 | | | | | 56 | | | |
| 7 | 77 | 66 | 59 | 54 | 76 | 66 | 59 | 54 | 64 | 58 | 54 | 63 | 58 | 54 | 62 | 57 | 53 | 52 | | | | | 52 | | | |
| 8 | 73 | 62 | 55 | 50 | 71 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 53 | 49 | 58 | 53 | 49 | 48 | | | | | 48 | | | |
| 9 | 69 | 58 | 51 | 46 | 67 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 44 | | | | | 44 | | | |
| 10 | 65 | 54 | 47 | 43 | 64 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 43 | 51 | 46 | 43 | 41 | | | | | 41 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|--------|--------|--------|
| 0° | 146230 | 146230 | 146230 |
| 5° | 144567 | 144567 | 144736 |
| 10° | 140008 | 140354 | 140529 |
| 15° | 132863 | 133215 | 133567 |
| 20° | 123331 | 124059 | 124421 |
| 25° | 111892 | 113394 | 113208 |
| 30° | 98990 | 101352 | 100367 |
| 35° | 82390 | 88424 | 84266 |
| 40° | 54289 | 74090 | 55401 |
| 45° | 31815 | 58814 | 32777 |
| 50° | 22801 | 34998 | 22801 |
| 55° | 17828 | 20801 | 18128 |
| 60° | 12951 | 15001 | 12951 |
| 65° | 10483 | 11696 | 10483 |
| 70° | 8976 | 9467 | 9467 |
| 75° | 7902 | 7902 | 7902 |
| 80° | 6868 | 6868 | 6868 |
| 85° | 5879 | 5879 | 5879 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 315.1 | 7.5 |
| 10°-20° | 836.7 | 19.8 |
| 20°-30° | 1088.2 | 25.8 |
| 30°-40° | 1004.8 | 23.8 |
| 40°-50° | 556.3 | 13.2 |
| 50°-60° | 240.7 | 5.7 |
| 60°-70° | 110.6 | 2.6 |
| 70°-80° | 53.3 | 1.3 |
| 80°-90° | 14.3 | 0.3 |
| 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° | 2240.0 | 53.1 |
| 0°-40° | 3244.8 | 76.9 |
| 0°-60° | 4041.8 | 95.8 |
| 0°-90° | 4220.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4220.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 3396 | 3396 | 3396 | 3396 | 3396 | |
| 5° | 3345 | 3349 | 3345 | 3349 | 3349 | 315 |
| 15° | 2981 | 2985 | 2989 | 2996 | 2996 | 834 |
| 25° | 2355 | 2363 | 2387 | 2391 | 2383 | 1078 |
| 35° | 1568 | 1627 | 1682 | 1647 | 1603 | 946 |
| 45° | 522 | 641 | 966 | 657 | 538 | 436 |
| 55° | 238 | 265 | 277 | 265 | 242 | 213 |
| 65° | 103 | 107 | 115 | 107 | 103 | 103 |
| 75° | 48 | 52 | 48 | 52 | 48 | 51 |
| 85° | 12 | 12 | 12 | 12 | 12 | 15 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P238197

CATALOG NUMBER: PRS640D010-S6M24-61SMDMW

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 3396.3 | 3396.3 | 3396.3 | 3396.3 | 3396.3 |
| 2.5° | 3384.5 | 3384.5 | 3384.5 | 3384.5 | 3384.5 |
| 5° | 3344.9 | 3348.8 | 3344.9 | 3348.8 | 3348.8 |
| 7.5° | 3285.5 | 3289.5 | 3285.5 | 3289.5 | 3289.5 |
| 10° | 3202.4 | 3202.4 | 3210.3 | 3210.3 | 3214.3 |
| 12.5° | 3099.5 | 3103.4 | 3107.4 | 3111.3 | 3115.3 |
| 15° | 2980.7 | 2984.7 | 2988.6 | 2996.5 | 2996.5 |
| 17.5° | 2850.1 | 2846.1 | 2858.0 | 2858.0 | 2865.9 |
| 20° | 2691.7 | 2699.7 | 2707.6 | 2711.5 | 2715.5 |
| 22.5° | 2525.5 | 2533.4 | 2549.2 | 2553.2 | 2557.2 |
| 25° | 2355.3 | 2363.2 | 2386.9 | 2390.9 | 2383.0 |
| 27.5° | 2173.2 | 2193.0 | 2212.8 | 2208.8 | 2204.9 |
| 30° | 1991.1 | 2003.0 | 2038.6 | 2026.7 | 2018.8 |
| 32.5° | 1785.3 | 1824.8 | 1856.5 | 1840.7 | 1816.9 |
| 35° | 1567.5 | 1626.9 | 1682.3 | 1646.7 | 1603.2 |
| 37.5° | 1270.7 | 1425.0 | 1496.3 | 1440.9 | 1310.2 |
| 40° | 965.9 | 1147.9 | 1318.2 | 1167.7 | 985.7 |
| 42.5° | 704.6 | 870.9 | 1140.0 | 890.6 | 716.5 |
| 45° | 522.5 | 641.3 | 965.9 | 657.1 | 538.3 |
| 47.5° | 407.7 | 490.8 | 736.3 | 490.8 | 411.7 |
| 50° | 340.4 | 384.0 | 522.5 | 387.9 | 340.4 |
| 52.5° | 285.0 | 316.7 | 372.1 | 316.7 | 285.0 |
| 55° | 237.5 | 265.2 | 277.1 | 265.2 | 241.5 |
| 57.5° | 190.0 | 217.7 | 213.8 | 217.7 | 194.0 |
| 60° | 150.4 | 170.2 | 174.2 | 170.2 | 150.4 |
| 62.5° | 114.8 | 130.6 | 142.5 | 130.6 | 114.8 |
| 65° | 102.9 | 106.9 | 114.8 | 106.9 | 102.9 |
| 67.5° | 87.1 | 91.0 | 91.0 | 91.0 | 87.1 |
| 70° | 71.3 | 75.2 | 75.2 | 75.2 | 75.2 |
| 72.5° | 59.4 | 63.3 | 63.3 | 63.3 | 59.4 |
| 75° | 47.5 | 51.5 | 47.5 | 51.5 | 47.5 |
| 77.5° | 35.6 | 39.6 | 39.6 | 39.6 | 39.6 |
| 80° | 27.7 | 27.7 | 27.7 | 27.7 | 27.7 |
| 82.5° | 19.8 | 19.8 | 19.8 | 19.8 | 19.8 |
| 85° | 11.9 | 11.9 | 11.9 | 11.9 | 11.9 |
| 87.5° | 7.9 | 7.9 | 4.0 | 7.9 | 7.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)