

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838343

Luminaire Tested: HCSQ610D010-HM60525830-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838343
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ610D010-HM60525830-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

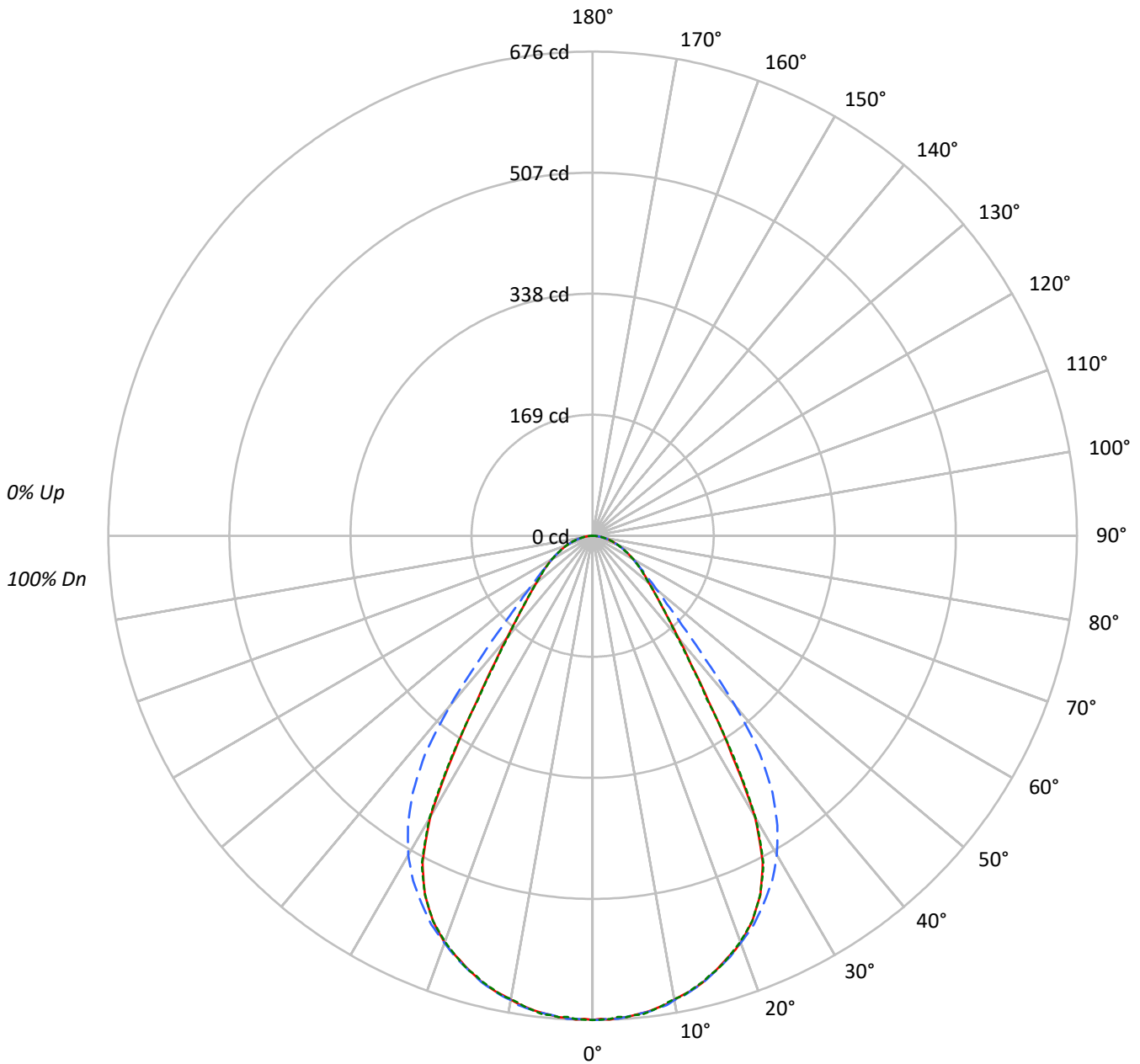
Lumens per Lamp: N/A
Luminaire Lumens: 997.3 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 9.9
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: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41																			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	29110	29110	29110
5°	29040	29018	29040
10°	28755	28776	28711
15°	28327	28345	28283
20°	27688	27711	27624
25°	26304	26870	26285
30°	22526	25579	22666
35°	14801	22996	14575
40°	10465	17339	10274
45°	8111	10674	8171
50°	6899	7783	6839
55°	6208	6381	6208
60°	5614	5614	5614
65°	5155	5104	5104
70°	4696	4696	4759
75°	4408	4242	4325
80°	3868	3868	3868
85°	3260	3260	3260

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 10674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.7	6.4
10°-20°	179.0	17.9
20°-30°	255.1	25.6
30°-40°	217.5	21.8
40°-50°	120.3	12.1
50°-60°	75.8	7.6
60°-70°	50.3	5.0
70°-80°	27.7	2.8
80°-90°	7.9	0.8
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°	497.8	49.9
0°-40°	715.3	71.7
0°-60°	911.4	91.4
0°-90°	997.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	997.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	672	673	671	670	672	64
15°	636	636	636	636	634	179
25°	554	560	566	560	553	250
35°	282	332	438	333	277	183
45°	133	146	175	145	134	106
55°	83	84	85	84	83	74
65°	51	51	50	51	50	50
75°	26	26	26	26	26	28
85°	7	7	7	7	7	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.1	676.1	676.1	676.1	676.1
1°	674.7	675.6	675.6	675.2	675.6
2°	676.1	674.7	674.7	674.7	675.2
3°	674.2	675.2	675.2	673.7	672.8
4°	673.7	673.3	673.3	674.7	673.7
5°	671.9	672.8	671.4	670.4	671.9
6°	670.0	670.4	670.0	670.4	671.9
7°	667.6	669.0	668.5	668.1	668.1
8°	664.8	666.7	665.7	665.7	665.2
9°	661.9	662.4	663.4	663.4	660.5
10°	657.7	659.1	658.2	658.6	656.7
11°	653.9	655.8	655.3	654.4	654.8
12°	650.6	651.5	651.1	649.7	650.1
13°	646.3	647.3	646.8	646.8	645.4
14°	641.6	640.7	642.1	641.1	640.7
15°	635.5	635.5	635.9	635.5	634.5
16°	629.8	630.3	630.3	629.8	630.3
17°	623.2	625.1	624.6	623.7	624.1
18°	617.0	618.5	618.9	618.5	617.0
19°	611.4	612.3	611.9	610.0	610.0
20°	604.3	604.8	604.8	603.8	602.9
22.5°	582.1	585.4	587.8	585.9	582.1
25°	553.7	560.4	565.6	559.9	553.3
27.5°	514.1	527.3	542.9	528.7	516.4
30°	453.1	483.3	514.5	486.2	455.9
32.5°	360.5	420.0	479.6	425.7	366.2
35°	281.6	332.1	437.5	332.6	277.3
37.5°	224.9	260.8	383.6	258.4	222.5
40°	186.2	210.3	308.5	209.3	182.8
42.5°	155.4	173.9	231.0	172.0	155.4
45°	133.2	146.0	175.3	145.0	134.2
47.5°	116.7	124.7	140.3	124.3	116.7
50°	103.0	107.7	116.2	107.3	102.1
52.5°	92.1	95.0	98.3	94.0	91.2
55°	82.7	84.1	85.0	83.6	82.7
57.5°	73.7	74.7	74.2	73.7	73.2
60°	65.2	65.7	65.2	65.7	65.2
62.5°	57.6	58.1	57.2	57.6	57.2
65°	50.6	51.0	50.1	50.6	50.1
67.5°	43.9	43.9	43.9	43.9	43.5
70°	37.3	37.8	37.3	37.8	37.8
72.5°	31.7	31.7	31.2	31.7	31.7
75°	26.5	26.0	25.5	26.0	26.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	11.3	11.3	10.9	11.3	11.3
85°	6.6	6.6	6.6	7.1	6.6
87.5°	3.3	2.8	2.8	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	20.8	20.8	20.3	20.8	20.8
80°	15.6	16.1	15.6	16.1	15.6

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(END OF REPORT)