

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: P837242

Luminaire Tested: HCSQ407D010-HM40525830-41SQMW

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837242
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525830-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

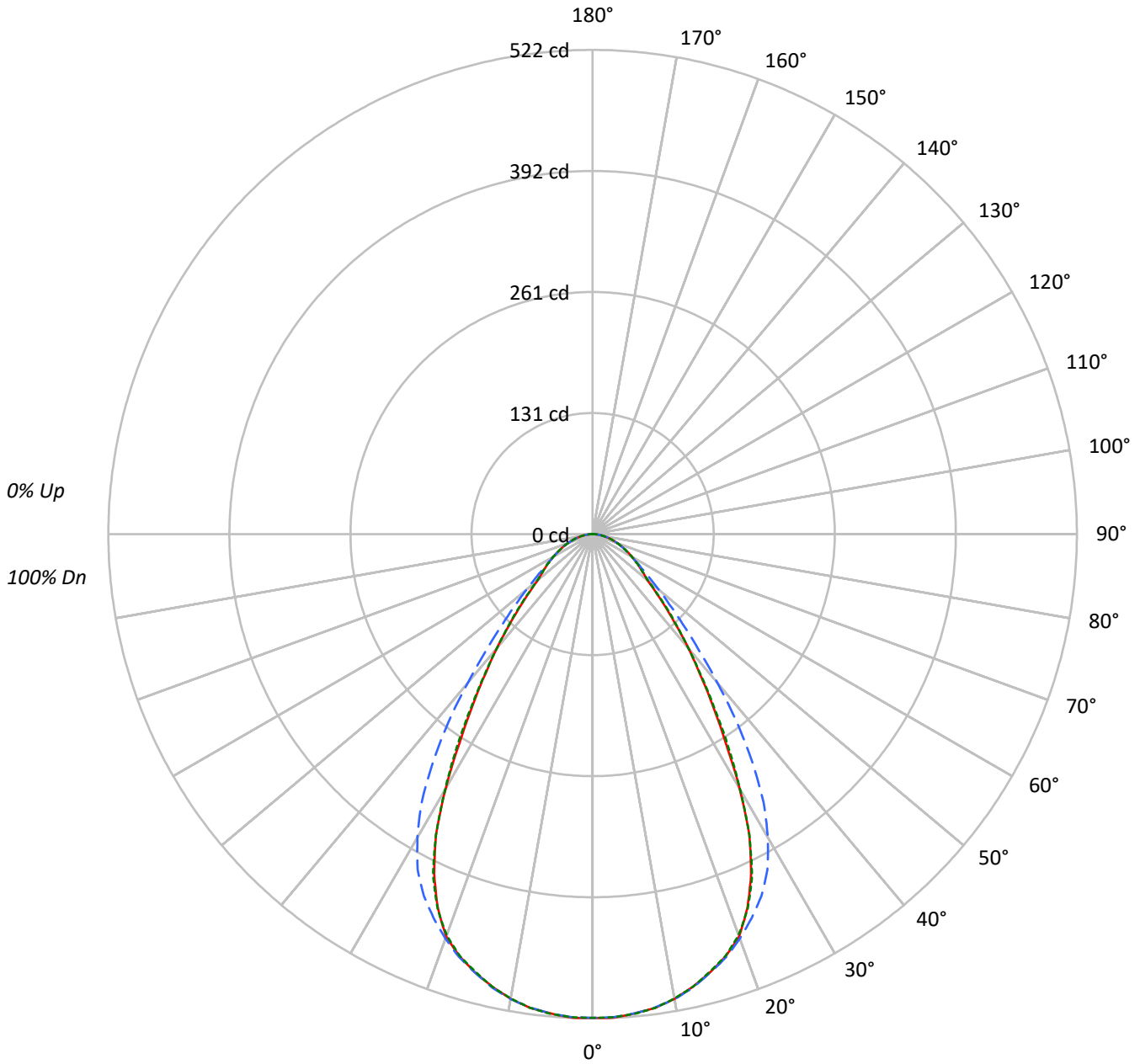
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 757.0 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8
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	76	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	79	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	50	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°	50530	50530	50530
5°	50451	50451	50490
10°	50041	50080	50001
15°	49063	49103	48983
20°	47598	47845	47423
25°	43194	46006	43494
30°	35460	42262	35595
35°	26656	35467	27035
40°	20297	26443	20247
45°	15166	18769	15440
50°	11544	13986	11786
55°	10404	10961	10404
60°	9494	9416	9416
65°	8642	8642	8642
70°	8044	7931	7931
75°	7449	7299	7449
80°	6806	6583	6806
85°	5891	5891	5891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18769 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.2	6.5
10°-20°	137.7	18.2
20°-30°	189.4	25.0
30°-40°	161.2	21.3
40°-50°	97.4	12.9
50°-60°	57.4	7.6
60°-70°	37.7	5.0
70°-80°	20.9	2.8
80°-90°	6.1	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°	376.3	49.7
0°-40°	537.6	71.0
0°-60°	692.4	91.5
0°-90°	757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	519	519	519	518	519	49
15°	489	490	490	489	488	138
25°	404	417	430	418	407	183
35°	225	248	300	255	229	143
45°	111	122	137	124	113	87
55°	62	63	65	63	62	55
65°	38	38	38	38	38	38
75°	20	20	20	20	20	21
85°	5	5	5	5	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.6	521.6	521.6	521.6	521.6
2.5°	522.0	520.8	521.2	520.8	521.2
5°	518.8	519.2	518.8	518.4	519.2
7.5°	515.2	514.7	514.7	514.3	515.2
10°	508.7	507.9	509.1	508.3	508.3
12.5°	499.8	501.0	500.6	500.6	499.8
15°	489.2	490.4	489.6	489.2	488.4
17.5°	477.1	477.9	478.3	476.6	476.6
20°	461.7	463.3	464.1	461.2	460.0
22.5°	436.1	443.4	447.9	443.0	436.9
25°	404.1	416.7	430.4	417.5	406.9
27.5°	365.6	383.4	408.2	386.3	365.6
30°	317.0	343.3	377.8	346.1	318.2
32.5°	266.7	294.7	342.9	299.5	272.4
35°	225.4	248.1	299.9	254.9	228.6
37.5°	189.7	209.1	254.9	213.6	191.7
40°	160.5	175.9	209.1	177.9	160.1
42.5°	132.5	147.1	169.4	149.2	134.2
45°	110.7	122.4	137.0	123.6	112.7
47.5°	92.0	101.7	112.3	101.7	93.2
50°	76.6	84.3	92.8	84.3	78.2
52.5°	68.5	70.9	76.6	71.3	68.5
55°	61.6	62.8	64.9	62.8	61.6
57.5°	55.1	55.9	55.5	55.5	55.1
60°	49.0	49.4	48.6	49.0	48.6
62.5°	43.4	43.4	42.6	43.4	43.0
65°	37.7	38.1	37.7	37.7	37.7
67.5°	32.8	32.8	32.4	32.8	32.8
70°	28.4	28.4	28.0	28.4	28.0
72.5°	23.9	23.9	23.5	23.5	23.5
75°	19.9	19.9	19.5	19.5	19.9
77.5°	15.8	15.8	15.4	15.8	15.8
80°	12.2	12.2	11.8	12.2	12.2
82.5°	8.5	8.5	8.5	8.9	8.9
85°	5.3	5.3	5.3	5.3	5.3
87.5°	2.4	2.4	2.4	2.4	2.8
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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