

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



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: P837256

Luminaire Tested: HCSQ407D010-HM40525927-41SQMB

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837256
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525927-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

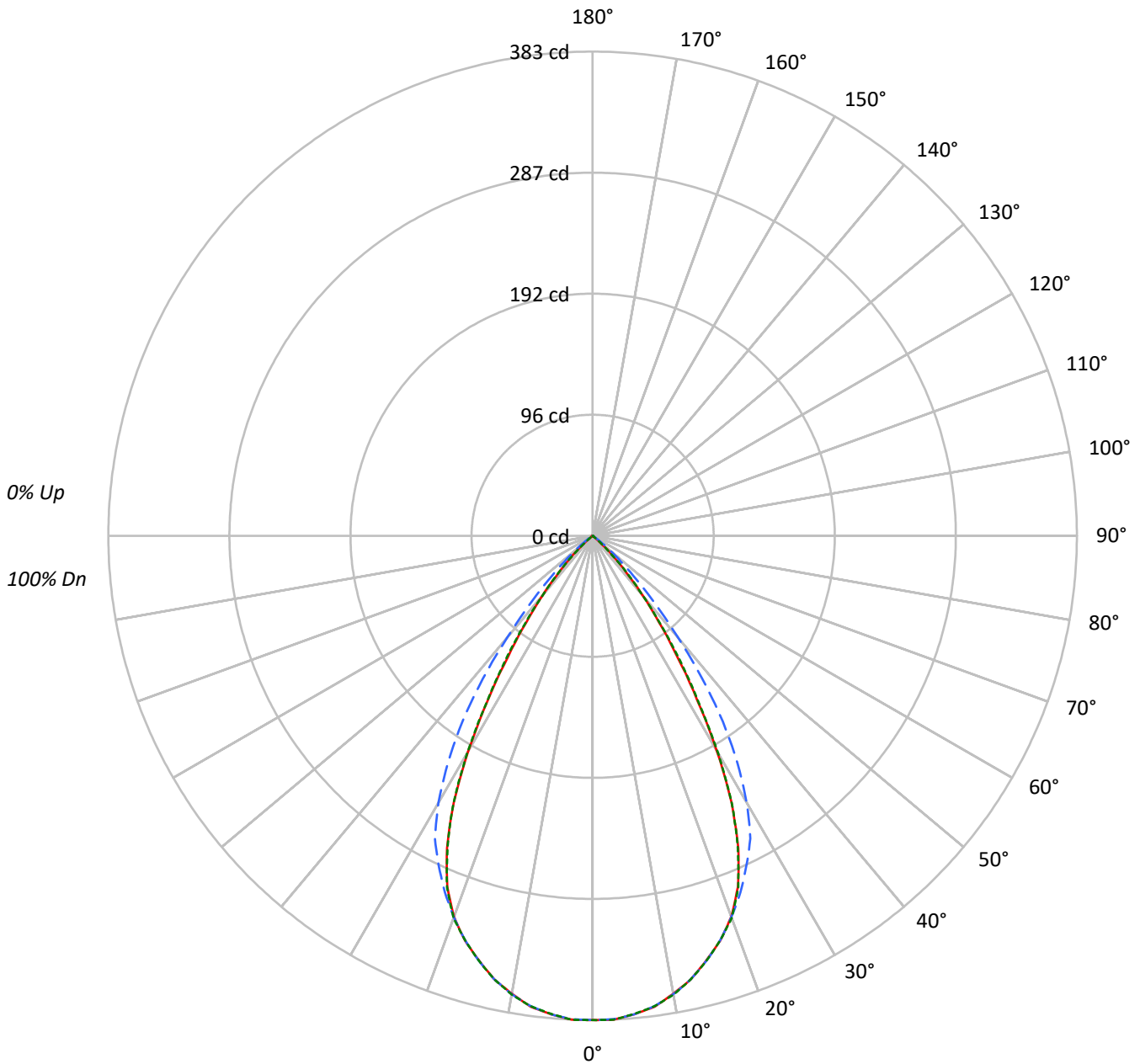
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 382.8 lumens
Efficiency: N/A
Efficacy: 47.9 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.99
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93																			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87																			
3	102	96	91	86	100	94	90	86	92	88	84	89	86	83	87	84	82	80																			
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74																			
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69																			
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64																			
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	64	61	60																			
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56																			
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52																			
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	37113	37113	37113
5°	36944	36944	36914
10°	36180	36220	36249
15°	34862	34892	34892
20°	33052	33082	33155
25°	29138	30774	29021
30°	21981	27272	22182
35°	13789	21228	14251
40°	7777	13215	7777
45°	3261	6672	3220
50°	271	2577	316
55°	118	540	118
60°	136	78	136
65°	92	92	92
70°	113	113	113
75°	150	150	150
80°	0	223	223
85°	0	445	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.9	9.4
10°-20°	97.7	25.5
20°-30°	126.7	33.1
30°-40°	90.1	23.5
40°-50°	29.2	7.6
50°-60°	2.1	0.6
60°-70°	0.4	0.1
70°-80°	0.4	0.1
80°-90°	0.3	0.1
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°	260.3	68.0
0°-40°	350.4	91.5
0°-60°	381.7	99.7
0°-90°	382.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	382.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	383	383	383	383	383	
5°	380	380	380	380	380	36
15°	348	349	348	349	348	98
25°	273	280	288	281	272	122
35°	117	138	180	139	120	75
45°	24	34	49	34	24	20
55°	1	1	3	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	383.1	383.1	383.1	383.1	383.1
2.5°	383.1	383.1	382.8	382.8	383.1
5°	379.9	380.3	379.9	379.9	379.6
7.5°	375.7	375.7	375.3	375.3	375.3
10°	367.8	368.2	368.2	368.2	368.5
12.5°	359.3	359.3	359.3	359.3	359.3
15°	347.6	348.6	347.9	348.6	347.9
17.5°	335.8	335.8	335.5	336.2	335.5
20°	320.6	320.6	320.9	321.6	321.6
22.5°	300.3	303.9	305.3	304.6	301.0
25°	272.6	279.7	287.9	281.1	271.5
27.5°	237.8	251.3	270.1	253.4	238.5
30°	196.5	216.8	243.8	217.5	198.3
32.5°	153.9	177.3	213.2	179.1	155.3
35°	116.6	137.9	179.5	139.3	120.5
37.5°	86.0	105.6	142.5	106.3	88.5
40°	61.5	75.7	104.5	77.1	61.5
42.5°	39.4	53.7	73.6	54.0	41.2
45°	23.8	33.8	48.7	34.5	23.5
47.5°	10.7	19.2	30.2	19.9	10.7
50°	1.8	7.8	17.1	8.2	2.1
52.5°	1.1	1.4	8.2	1.4	1.1
55°	0.7	0.7	3.2	0.7	0.7
57.5°	0.7	0.7	0.7	0.7	0.7
60°	0.7	0.4	0.4	0.4	0.7
62.5°	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4
80°	0.0	0.4	0.4	0.4	0.4
82.5°	0.0	0.4	0.4	0.4	0.4
85°	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.4	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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Scaled Data Report





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

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