

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: P837243

Luminaire Tested: HCSQ407D010-HM40525835-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837243
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525835-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

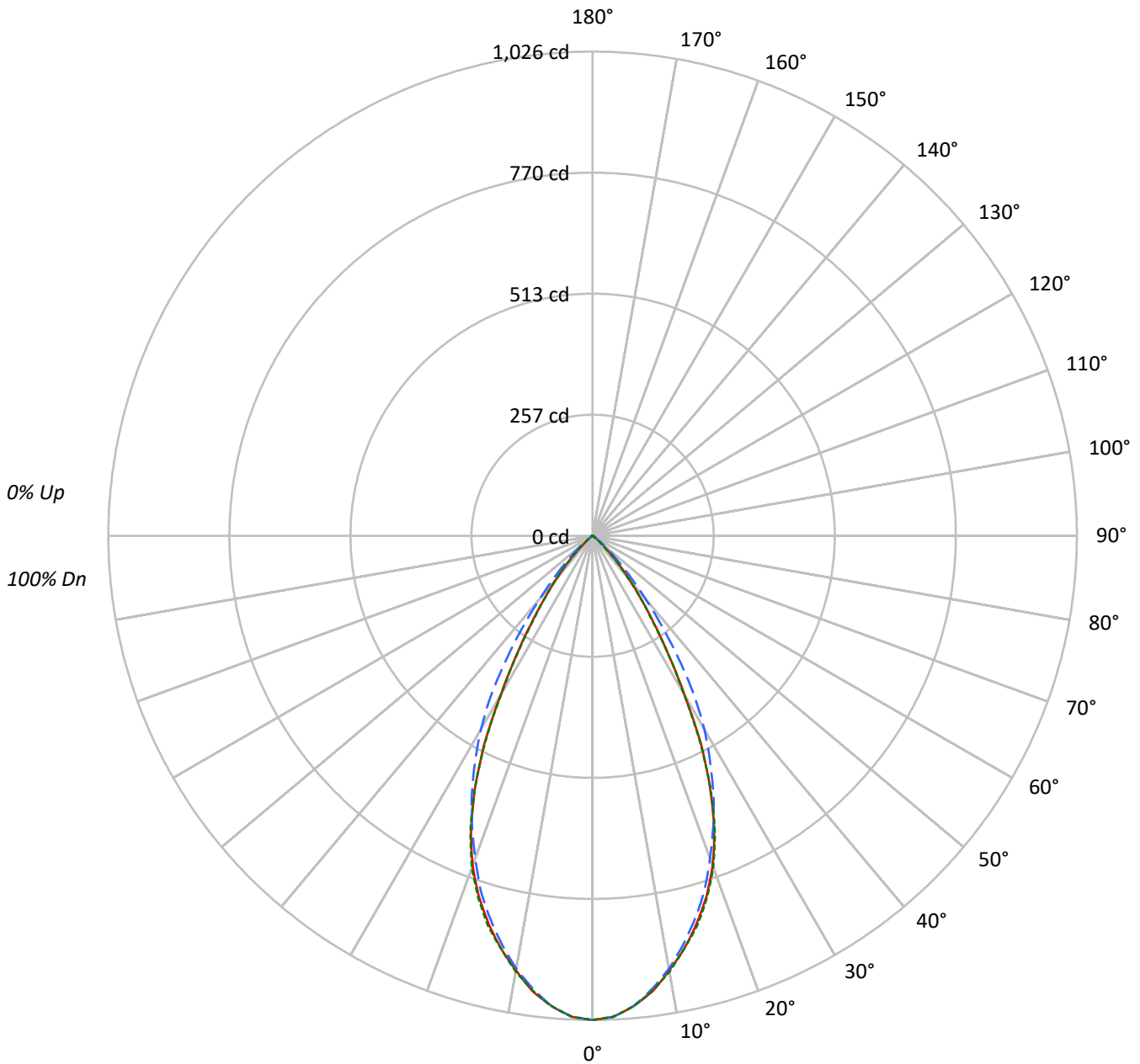
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 829.2 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	79	75	72	71																			
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66																			
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62																			
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58																			
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55																			
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	99404	99404	99404
5°	97275	97314	97314
10°	92005	91602	92251
15°	85369	84206	85831
20°	76639	74917	77103
25°	62948	64765	63161
30°	43514	52922	43190
35°	26787	37383	26148
40°	15112	21853	15011
45°	6905	10960	6617
50°	1763	4401	1824
55°	844	1334	777
60°	562	484	639
65°	481	390	481
70°	340	340	482
75°	299	299	449
80°	446	446	446
85°	445	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10960 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.3	11.3
10°-20°	235.7	28.4
20°-30°	269.5	32.5
30°-40°	167.3	20.2
40°-50°	52.7	6.4
50°-60°	6.8	0.8
60°-70°	2.0	0.2
70°-80°	1.0	0.1
80°-90°	0.7	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°	598.6	72.2
0°-40°	765.9	92.4
0°-60°	825.4	99.5
0°-90°	829.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	829.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1026	1026	1026	1026	1026	
5°	1000	1000	1001	1000	1001	93
15°	851	845	840	845	856	237
25°	589	597	606	597	591	264
35°	226	262	316	255	221	146
45°	50	60	80	61	48	43
55°	5	5	8	5	5	5
65°	2	2	2	2	2	2
75°	1	1	1	1	1	1
85°	0	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1026.1	1026.1	1026.1	1026.1	1026.1
2.5°	1019.9	1020.7	1019.9	1021.6	1019.9
5°	1000.3	999.5	1000.7	999.9	1000.7
7.5°	973.7	968.7	968.2	971.6	972.0
10°	935.3	934.1	931.2	934.1	937.8
12.5°	896.2	891.2	887.0	892.9	896.2
15°	851.2	845.0	839.6	845.0	855.8
17.5°	801.7	792.9	788.3	794.6	805.0
20°	743.4	734.2	726.7	732.1	747.9
22.5°	673.4	672.6	667.6	670.5	676.3
25°	588.9	597.2	605.9	597.2	590.9
27.5°	496.0	518.5	538.5	512.2	492.2
30°	389.0	423.1	473.1	420.6	386.1
32.5°	300.7	336.5	400.2	331.9	298.2
35°	226.5	261.5	316.1	255.3	221.1
37.5°	166.6	192.8	240.3	191.2	166.6
40°	119.5	136.6	172.8	136.2	118.7
42.5°	82.9	94.1	120.8	93.3	80.4
45°	50.4	60.4	80.0	60.8	48.3
47.5°	26.7	38.3	50.4	36.6	26.7
50°	11.7	20.4	29.2	20.0	12.1
52.5°	6.2	8.7	15.8	8.7	6.2
55°	5.0	5.0	7.9	5.0	4.6
57.5°	3.7	3.7	4.2	3.7	3.7
60°	2.9	2.9	2.5	2.9	3.3
62.5°	2.5	2.5	2.1	2.5	2.5
65°	2.1	2.1	1.7	2.1	2.1
67.5°	1.7	1.7	1.7	1.7	1.7
70°	1.2	1.2	1.2	1.7	1.7
72.5°	1.2	1.2	1.2	1.2	1.2
75°	0.8	0.8	0.8	0.8	1.2
77.5°	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8
82.5°	0.4	0.8	0.8	0.8	0.8
85°	0.4	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





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

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