

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: P837233

Luminaire Tested: HCSQ407D010-HM40525827-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837233
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-HM40525827-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

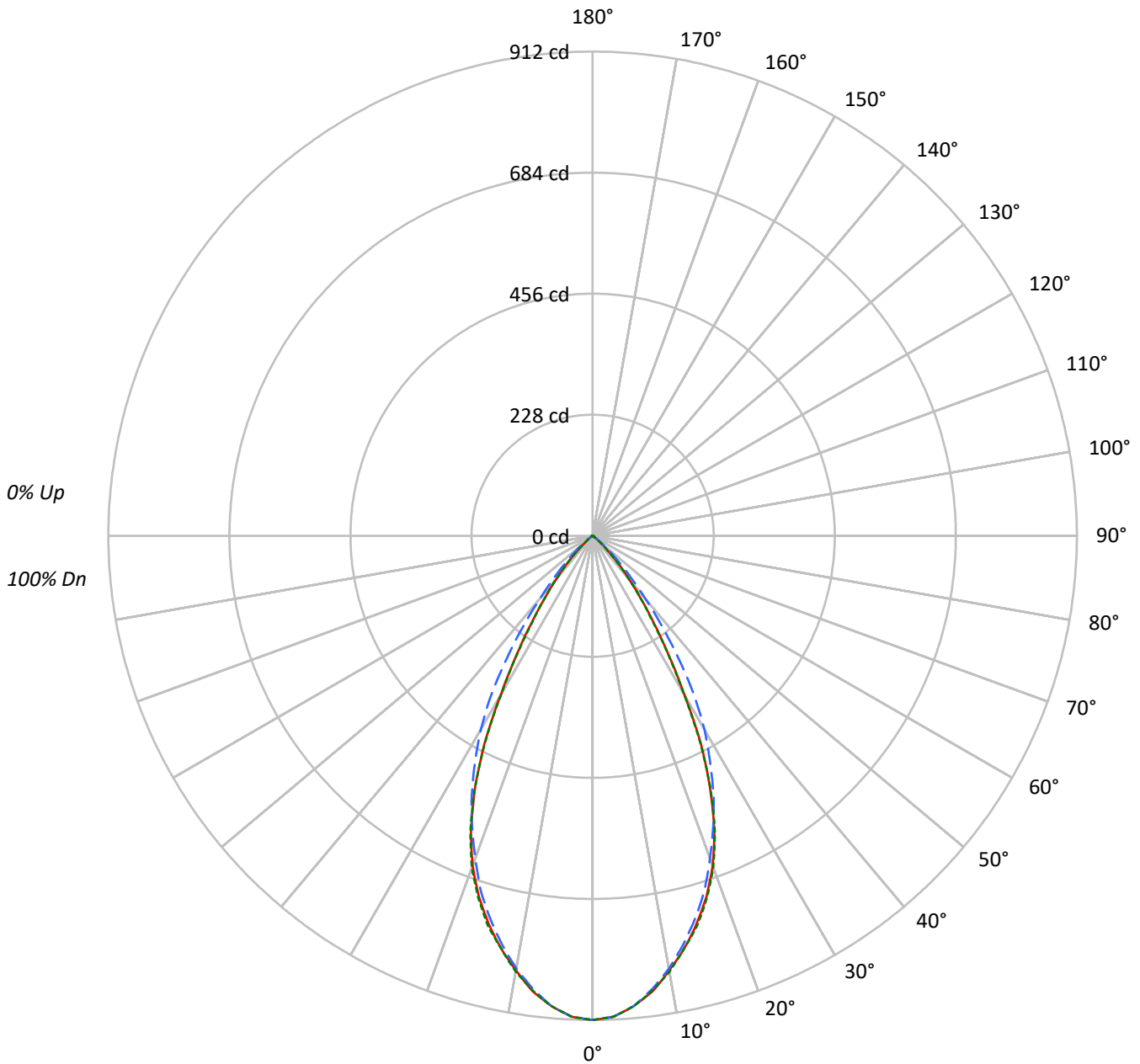
Lumens per Lamp: N/A
Luminaire Lumens: 737.0 lumens
Efficiency: N/A
Efficacy: 92.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 8
Input Voltage (V): NR
Input Current (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: 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	78	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°	88360	88360	88360
5°	86471	86500	86500
10°	81785	81421	82001
15°	75882	74849	76293
20°	68124	66598	68536
25°	55946	57571	56149
30°	38671	47038	38391
35°	23818	33232	23251
40°	13430	19425	13342
45°	6138	9741	5877
50°	1567	3903	1613
55°	743	1182	692
60°	504	426	581
65°	436	344	436
70°	312	312	425
75°	262	262	412
80°	391	391	391
85°	445	778	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 9741 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.0	11.3
10°-20°	209.5	28.4
20°-30°	239.5	32.5
30°-40°	148.7	20.2
40°-50°	46.9	6.4
50°-60°	6.1	0.8
60°-70°	1.8	0.2
70°-80°	0.9	0.1
80°-90°	0.6	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°	532.1	72.2
0°-40°	680.8	92.4
0°-60°	733.7	99.5
0°-90°	737.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	737.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	889	888	890	889	890	83
15°	757	751	746	751	761	211
25°	523	531	539	531	525	235
35°	201	232	281	227	197	129
45°	45	54	71	54	43	38
55°	4	4	7	4	4	4
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°	912.1	912.1	912.1	912.1	912.1
2.5°	906.6	907.3	906.6	908.0	906.6
5°	889.2	888.4	889.5	888.8	889.5
7.5°	865.5	861.0	860.7	863.6	864.0
10°	831.4	830.3	827.7	830.3	833.6
12.5°	796.6	792.2	788.5	793.7	796.6
15°	756.6	751.1	746.3	751.1	760.7
17.5°	712.6	704.8	700.7	706.3	715.6
20°	660.8	652.6	646.0	650.8	664.8
22.5°	598.6	597.8	593.4	596.0	601.2
25°	523.4	530.8	538.6	530.8	525.3
27.5°	440.9	460.9	478.6	455.3	437.6
30°	345.7	376.1	420.5	373.9	343.2
32.5°	267.3	299.1	355.7	295.0	265.0
35°	201.4	232.5	281.0	226.9	196.6
37.5°	148.1	171.4	213.6	169.9	148.1
40°	106.2	121.4	153.6	121.0	105.5
42.5°	73.7	83.7	107.4	82.9	71.4
45°	44.8	53.7	71.1	54.0	42.9
47.5°	23.7	34.1	44.8	32.6	23.7
50°	10.4	18.1	25.9	17.8	10.7
52.5°	5.6	7.8	14.1	7.8	5.6
55°	4.4	4.4	7.0	4.4	4.1
57.5°	3.3	3.3	3.7	3.3	3.3
60°	2.6	2.6	2.2	2.6	3.0
62.5°	2.2	2.2	1.9	2.2	2.2
65°	1.9	1.9	1.5	1.9	1.9
67.5°	1.5	1.5	1.5	1.5	1.5
70°	1.1	1.1	1.1	1.5	1.5
72.5°	1.1	1.1	1.1	1.1	1.1
75°	0.7	0.7	0.7	0.7	1.1
77.5°	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7
82.5°	0.4	0.7	0.7	0.7	0.7
85°	0.4	0.7	0.7	0.7	0.7
87.5°	0.4	0.4	0.7	0.7	0.7
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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