

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: P837263

Luminaire Tested: HCSQ407D010-HM40525935-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837263
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-HM40525935-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

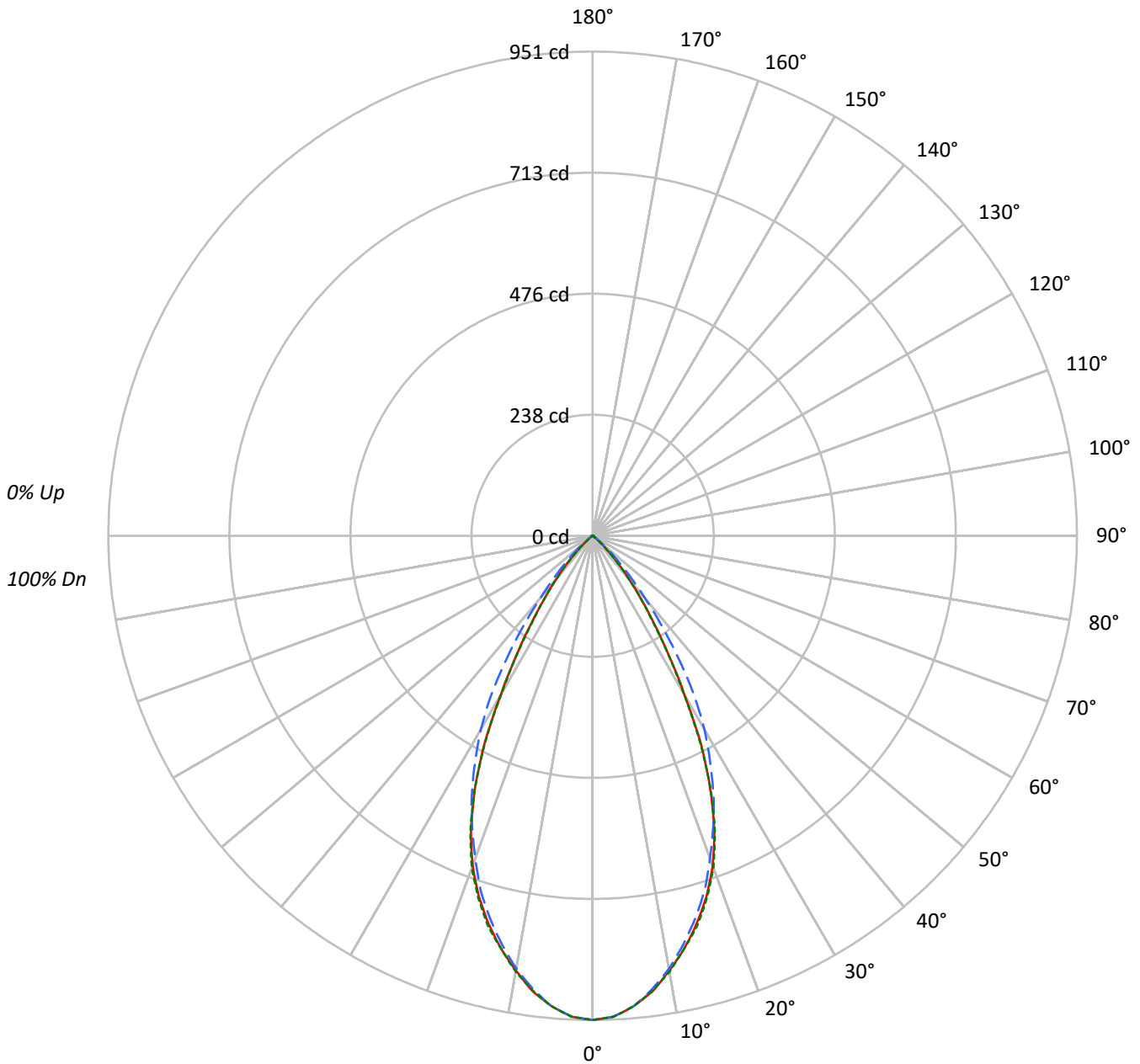
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 768.7 lumens
Efficiency: N/A
Efficacy: 96.1 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 (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					70					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	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	71	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°	92148	92148	92148
5°	90176	90215	90215
10°	85297	84913	85523
15°	79141	78058	79562
20°	71041	69443	71474
25°	58351	60040	58554
30°	40337	49052	40035
35°	24835	34651	24244
40°	14012	20259	13911
45°	6398	10152	6138
50°	1628	4069	1688
55°	777	1233	709
60°	523	446	601
65°	436	344	436
70°	340	340	425
75°	299	299	449
80°	446	446	446
85°	445	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10152 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	11.3
10°-20°	218.5	28.4
20°-30°	249.8	32.5
30°-40°	155.1	20.2
40°-50°	48.9	6.4
50°-60°	6.3	0.8
60°-70°	1.8	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°	554.9	72.2
0°-40°	709.9	92.4
0°-60°	765.1	99.5
0°-90°	768.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	768.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	951	951	951	951	951	
5°	927	926	928	927	928	87
15°	789	783	778	783	793	220
25°	546	554	562	554	548	245
35°	210	242	293	237	205	135
45°	47	56	74	56	45	39
55°	5	5	7	5	4	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°	951.2	951.2	951.2	951.2	951.2
2.5°	945.4	946.2	945.4	947.0	945.4
5°	927.3	926.5	927.7	926.9	927.7
7.5°	902.6	897.9	897.6	900.6	901.0
10°	867.1	865.9	863.2	865.9	869.4
12.5°	830.8	826.1	822.3	827.7	830.8
15°	789.1	783.3	778.3	783.3	793.3
17.5°	743.1	735.0	730.8	736.6	746.2
20°	689.1	680.6	673.6	678.7	693.3
22.5°	624.2	623.5	618.8	621.5	626.9
25°	545.9	553.6	561.7	553.6	547.8
27.5°	459.8	480.6	499.2	474.8	456.3
30°	360.6	392.2	438.5	389.9	357.9
32.5°	278.7	311.9	371.0	307.7	276.4
35°	210.0	242.4	293.0	236.6	205.0
37.5°	154.4	178.7	222.7	177.2	154.4
40°	110.8	126.6	160.2	126.2	110.0
42.5°	76.8	87.2	112.0	86.5	74.5
45°	46.7	56.0	74.1	56.4	44.8
47.5°	24.7	35.5	46.7	34.0	24.7
50°	10.8	18.9	27.0	18.5	11.2
52.5°	5.8	8.1	14.7	8.1	5.8
55°	4.6	4.6	7.3	4.6	4.2
57.5°	3.5	3.5	3.9	3.5	3.5
60°	2.7	2.7	2.3	2.7	3.1
62.5°	2.3	2.3	1.9	2.3	2.3
65°	1.9	1.9	1.5	1.9	1.9
67.5°	1.5	1.5	1.5	1.5	1.5
70°	1.2	1.2	1.2	1.5	1.5
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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