

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: P837203

Luminaire Tested: HCSQ405D010-HM40525835-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837203
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: HCSQ405D010-HM40525835-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

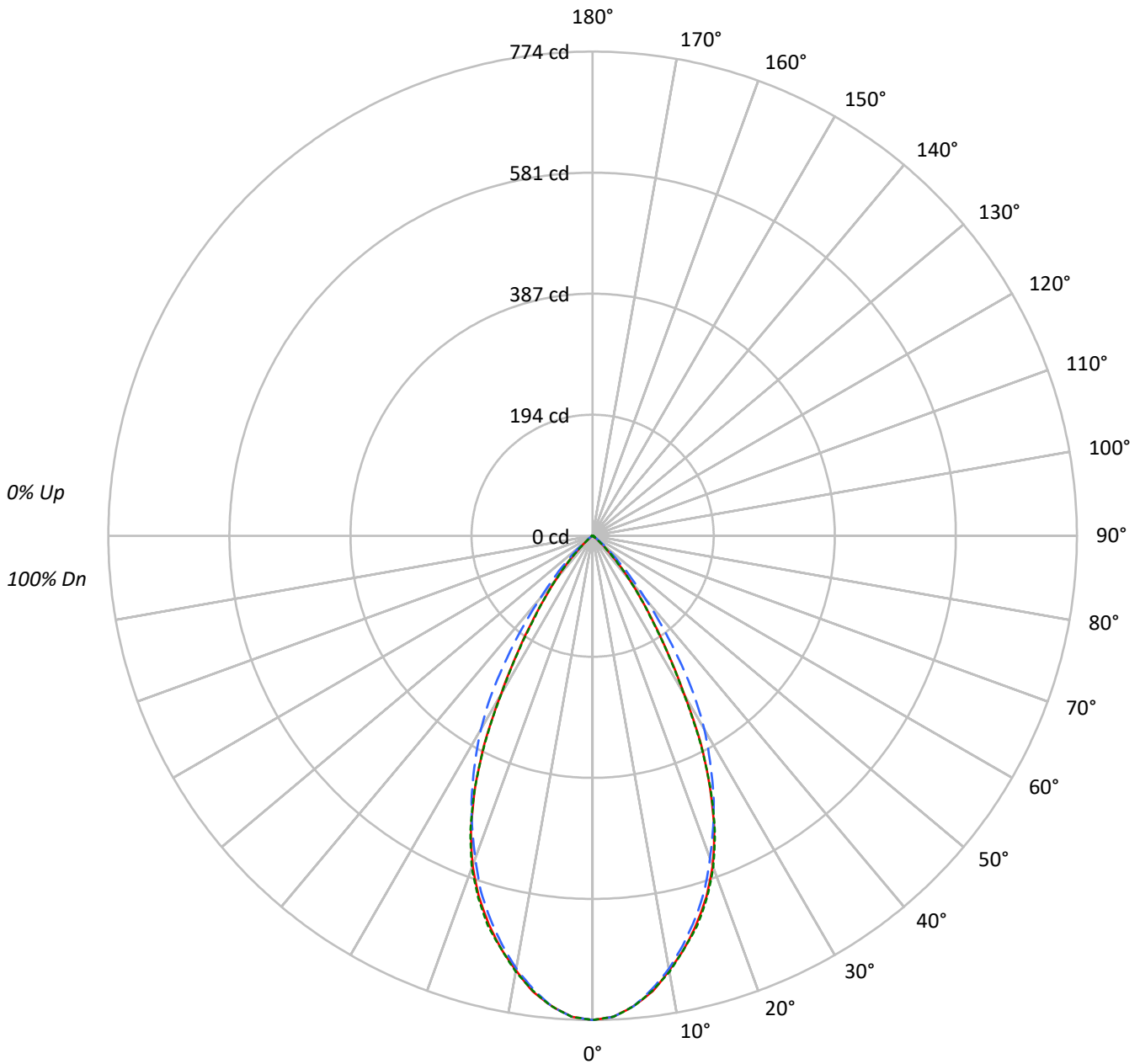
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 625.5 lumens
Efficiency: N/A
Efficacy: 104.3 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): 6
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	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°	74991	74991	74991
5°	73381	73411	73411
10°	69410	69105	69597
15°	64398	63515	64749
20°	57814	56515	58165
25°	47481	48860	47652
30°	32820	39924	32574
35°	20211	28194	19726
40°	11407	16491	11318
45°	5206	8261	4987
50°	1326	3316	1371
55°	642	1013	591
60°	426	368	484
65°	367	298	367
70°	255	255	368
75°	225	225	337
80°	335	335	335
85°	333	667	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 8261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.4	11.3
10°-20°	177.8	28.4
20°-30°	203.3	32.5
30°-40°	126.2	20.2
40°-50°	39.8	6.4
50°-60°	5.1	0.8
60°-70°	1.5	0.2
70°-80°	0.8	0.1
80°-90°	0.5	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°	451.6	72.2
0°-40°	577.8	92.4
0°-60°	622.7	99.5
0°-90°	625.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	625.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	755	754	755	754	755	71
15°	642	637	633	637	646	179
25°	444	450	457	450	446	199
35°	171	197	238	193	167	110
45°	38	46	60	46	36	32
55°	4	4	6	4	4	4
65°	2	2	1	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°	774.1	774.1	774.1	774.1	774.1
2.5°	769.4	770.0	769.4	770.6	769.4
5°	754.6	754.0	754.9	754.3	754.9
7.5°	734.5	730.7	730.4	732.9	733.3
10°	705.6	704.7	702.5	704.7	707.5
12.5°	676.1	672.3	669.2	673.6	676.1
15°	642.1	637.4	633.3	637.4	645.6
17.5°	604.8	598.2	594.7	599.4	607.3
20°	560.8	553.9	548.2	552.3	564.2
22.5°	508.0	507.4	503.6	505.8	510.2
25°	444.2	450.5	457.1	450.5	445.8
27.5°	374.2	391.1	406.2	386.4	371.3
30°	293.4	319.2	356.9	317.3	291.2
32.5°	226.8	253.8	301.9	250.4	224.9
35°	170.9	197.3	238.4	192.6	166.8
37.5°	125.7	145.5	181.3	144.2	125.7
40°	90.2	103.0	130.4	102.7	89.5
42.5°	62.5	71.0	91.1	70.4	60.6
45°	38.0	45.6	60.3	45.9	36.4
47.5°	20.1	28.9	38.0	27.6	20.1
50°	8.8	15.4	22.0	15.1	9.1
52.5°	4.7	6.6	11.9	6.6	4.7
55°	3.8	3.8	6.0	3.8	3.5
57.5°	2.8	2.8	3.1	2.8	2.8
60°	2.2	2.2	1.9	2.2	2.5
62.5°	1.9	1.9	1.6	1.9	1.9
65°	1.6	1.6	1.3	1.6	1.6
67.5°	1.3	1.3	1.3	1.3	1.3
70°	0.9	0.9	0.9	1.3	1.3
72.5°	0.9	0.9	0.9	0.9	0.9
75°	0.6	0.6	0.6	0.6	0.9
77.5°	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6
82.5°	0.3	0.6	0.6	0.6	0.6
85°	0.3	0.6	0.6	0.6	0.6
87.5°	0.3	0.3	0.6	0.6	0.6
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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