

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: P837218

Luminaire Tested: HCSQ405D010-HM40525930-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837218
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-HM40525930-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

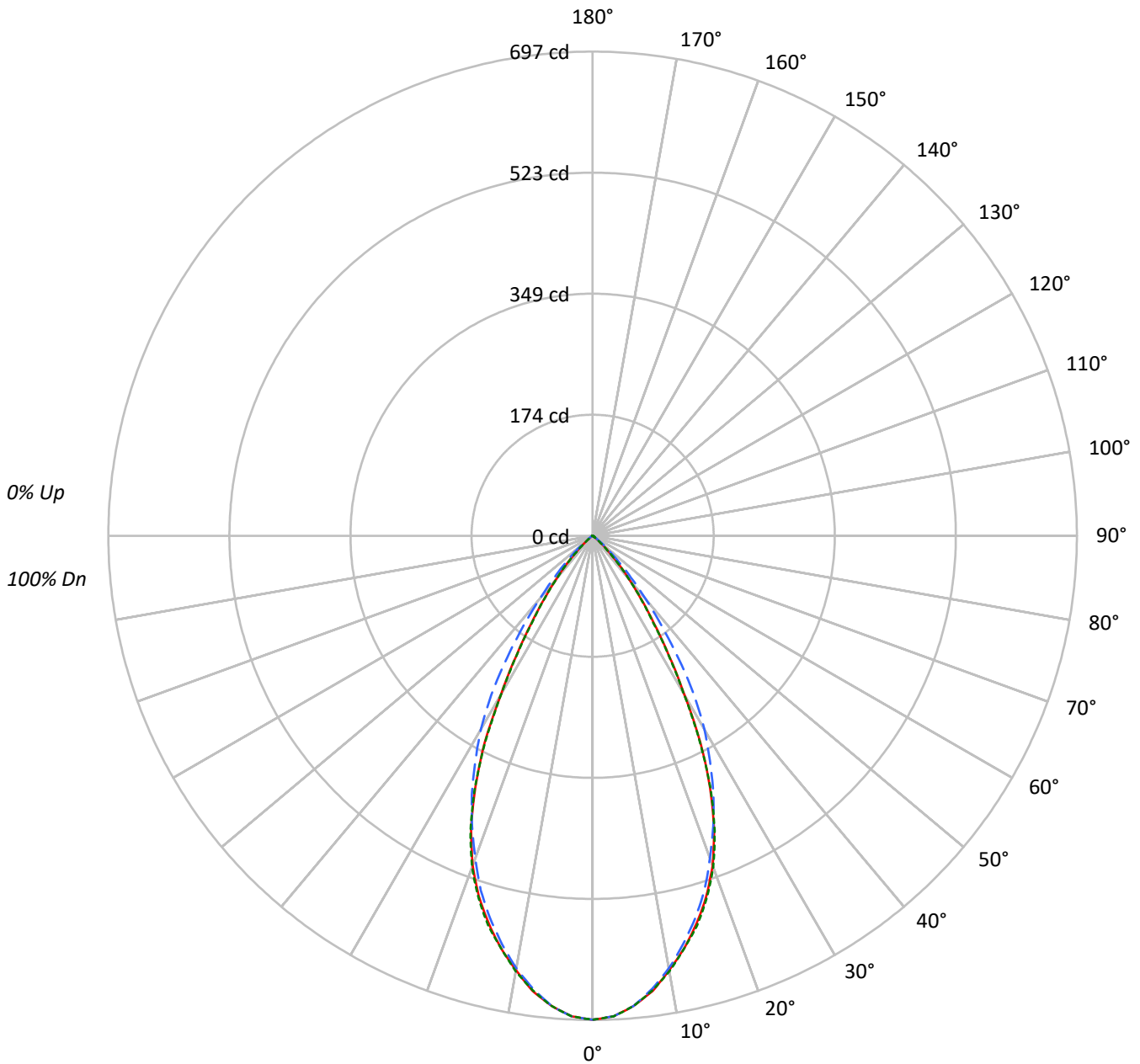
Lumens per Lamp: N/A
Luminaire Lumens: 563.0 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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					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	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°	67493	67493	67493
5°	66049	66069	66069
10°	62465	62189	62632
15°	57959	57167	58270
20°	52031	50866	52350
25°	42735	43975	42884
30°	29543	35930	29319
35°	18189	25379	17751
40°	10256	14834	10193
45°	4685	7439	4494
50°	1191	2984	1236
55°	574	912	524
60°	388	329	446
65°	321	252	321
70°	227	227	312
75°	225	225	299
80°	335	335	335
85°	333	667	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 7439 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	11.3
10°-20°	160.1	28.4
20°-30°	183.0	32.5
30°-40°	113.6	20.2
40°-50°	35.8	6.4
50°-60°	4.6	0.8
60°-70°	1.4	0.2
70°-80°	0.7	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°	406.4	72.2
0°-40°	520.0	92.4
0°-60°	560.4	99.5
0°-90°	563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	679	679	679	679	679	63
15°	578	574	570	574	581	161
25°	400	406	411	406	401	179
35°	154	178	215	173	150	99
45°	34	41	54	41	33	29
55°	3	3	5	3	3	3
65°	1	1	1	1	1	1
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°	696.7	696.7	696.7	696.7	696.7
2.5°	692.4	693.0	692.4	693.6	692.4
5°	679.2	678.6	679.4	678.9	679.4
7.5°	661.1	657.7	657.4	659.6	659.9
10°	635.0	634.2	632.2	634.2	636.7
12.5°	608.5	605.1	602.2	606.2	608.5
15°	577.9	573.7	570.0	573.7	581.0
17.5°	544.3	538.3	535.2	539.5	546.5
20°	504.7	498.5	493.4	497.1	507.8
22.5°	457.2	456.6	453.2	455.2	459.2
25°	399.8	405.5	411.4	405.5	401.2
27.5°	336.7	352.0	365.6	347.8	334.2
30°	264.1	287.3	321.2	285.6	262.1
32.5°	204.1	228.5	271.7	225.3	202.4
35°	153.8	177.6	214.6	173.3	150.1
37.5°	113.1	130.9	163.1	129.8	113.1
40°	81.1	92.7	117.3	92.5	80.6
42.5°	56.3	63.9	82.0	63.3	54.6
45°	34.2	41.0	54.3	41.3	32.8
47.5°	18.1	26.0	34.2	24.9	18.1
50°	7.9	13.9	19.8	13.6	8.2
52.5°	4.2	5.9	10.7	5.9	4.2
55°	3.4	3.4	5.4	3.4	3.1
57.5°	2.5	2.5	2.8	2.5	2.5
60°	2.0	2.0	1.7	2.0	2.3
62.5°	1.7	1.7	1.4	1.7	1.7
65°	1.4	1.4	1.1	1.4	1.4
67.5°	1.1	1.1	1.1	1.1	1.1
70°	0.8	0.8	0.8	1.1	1.1
72.5°	0.8	0.8	0.8	0.8	0.8
75°	0.6	0.6	0.6	0.6	0.8
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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