

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: P837206

Luminaire Tested: HCSQ405D010-HM40525835-41SQMB

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ405D010-HM40525835-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

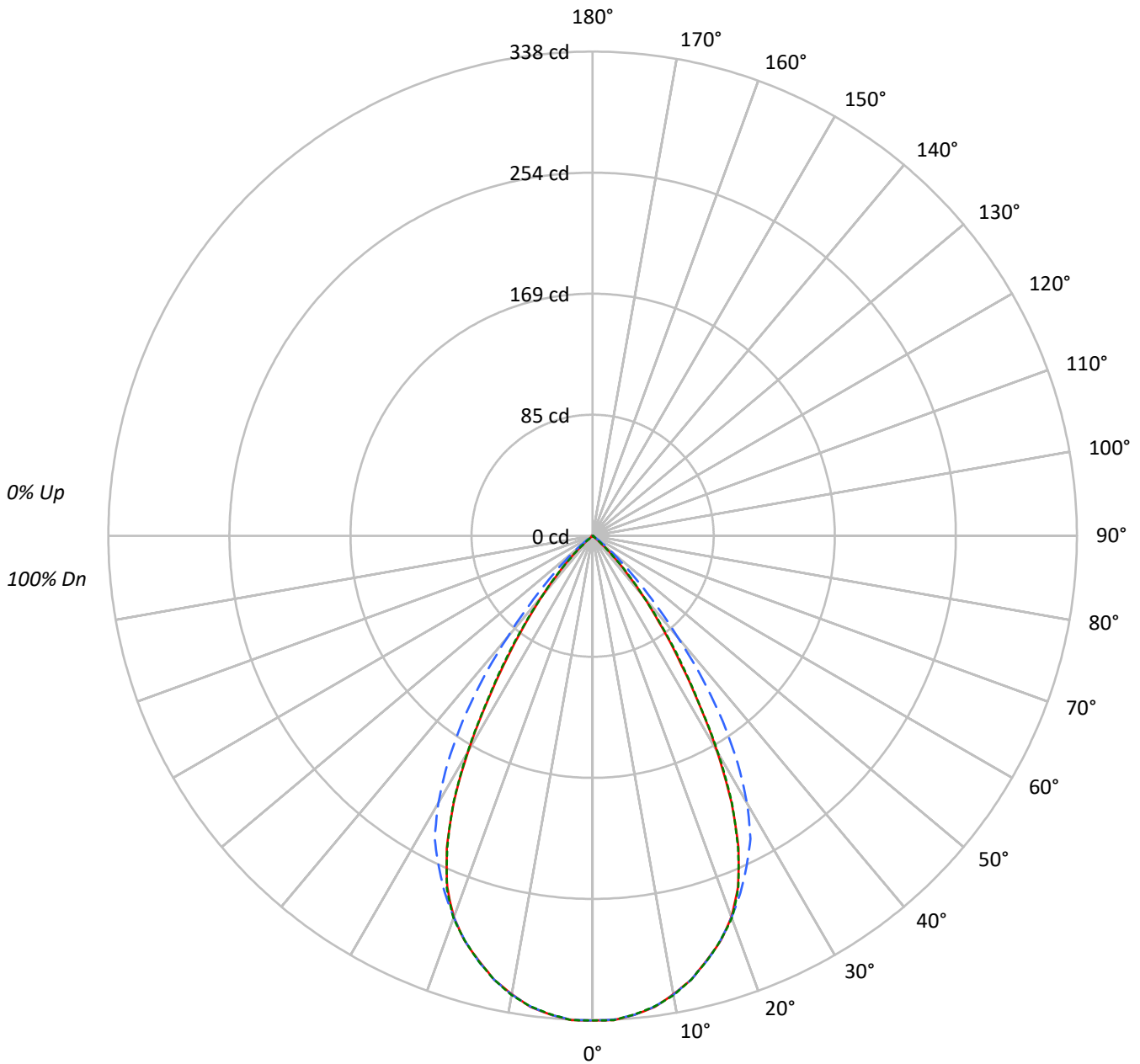
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 338.0 lumens
Efficiency: N/A
Efficacy: 56.3 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.99
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	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87								
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80								
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74								
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69								
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64								
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60								
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56								
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52								
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32783	32783	32783
5°	32636	32636	32606
10°	31960	32000	32029
15°	30790	30830	30830
20°	29196	29227	29289
25°	25739	27182	25643
30°	19419	24095	19598
35°	12181	18745	12583
40°	6867	11672	6867
45°	2877	5891	2836
50°	241	2276	286
55°	101	473	101
60°	116	58	116
65°	69	69	69
70°	85	85	85
75°	112	112	112
80°	0	167	167
85°	0	333	333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5891 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	9.4
10°-20°	86.3	25.5
20°-30°	111.9	33.1
30°-40°	79.6	23.5
40°-50°	25.8	7.6
50°-60°	1.8	0.5
60°-70°	0.3	0.1
70°-80°	0.3	0.1
80°-90°	0.2	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°	230.0	68.0
0°-40°	309.5	91.6
0°-60°	337.2	99.8
0°-90°	338.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	338.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	338	338	338	338	338	
5°	336	336	336	336	335	32
15°	307	308	307	308	307	86
25°	241	247	254	248	240	108
35°	103	122	158	123	106	66
45°	21	30	43	30	21	17
55°	1	1	3	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	338.4	338.4	338.4	338.4	338.4
2.5°	338.4	338.4	338.1	338.1	338.4
5°	335.6	335.9	335.6	335.6	335.3
7.5°	331.8	331.8	331.5	331.5	331.5
10°	324.9	325.3	325.3	325.3	325.6
12.5°	317.4	317.4	317.4	317.4	317.4
15°	307.0	308.0	307.4	308.0	307.4
17.5°	296.7	296.7	296.4	297.0	296.4
20°	283.2	283.2	283.5	284.1	284.1
22.5°	265.3	268.4	269.7	269.1	265.9
25°	240.8	247.1	254.3	248.3	239.9
27.5°	210.0	222.0	238.6	223.8	210.7
30°	173.6	191.5	215.4	192.1	175.2
32.5°	135.9	156.7	188.4	158.2	137.2
35°	103.0	121.8	158.5	123.1	106.4
37.5°	76.0	93.2	125.9	93.9	78.2
40°	54.3	66.9	92.3	68.1	54.3
42.5°	34.8	47.4	65.0	47.7	36.4
45°	21.0	29.8	43.0	30.5	20.7
47.5°	9.4	17.0	26.7	17.6	9.4
50°	1.6	6.9	15.1	7.2	1.9
52.5°	0.9	1.3	7.2	1.3	0.9
55°	0.6	0.6	2.8	0.6	0.6
57.5°	0.6	0.6	0.6	0.6	0.6
60°	0.6	0.3	0.3	0.3	0.6
62.5°	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.3	0.3	0.3
67.5°	0.3	0.3	0.3	0.3	0.3
70°	0.3	0.3	0.3	0.3	0.3
72.5°	0.3	0.3	0.3	0.3	0.3
75°	0.3	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3
80°	0.0	0.3	0.3	0.3	0.3
82.5°	0.0	0.3	0.3	0.3	0.3
85°	0.0	0.0	0.3	0.3	0.3
87.5°	0.0	0.0	0.3	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





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

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