

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: P837236

Luminaire Tested: HCSQ407D010-HM40525827-41SQMB

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837236
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: HCSQ407D010-HM40525827-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

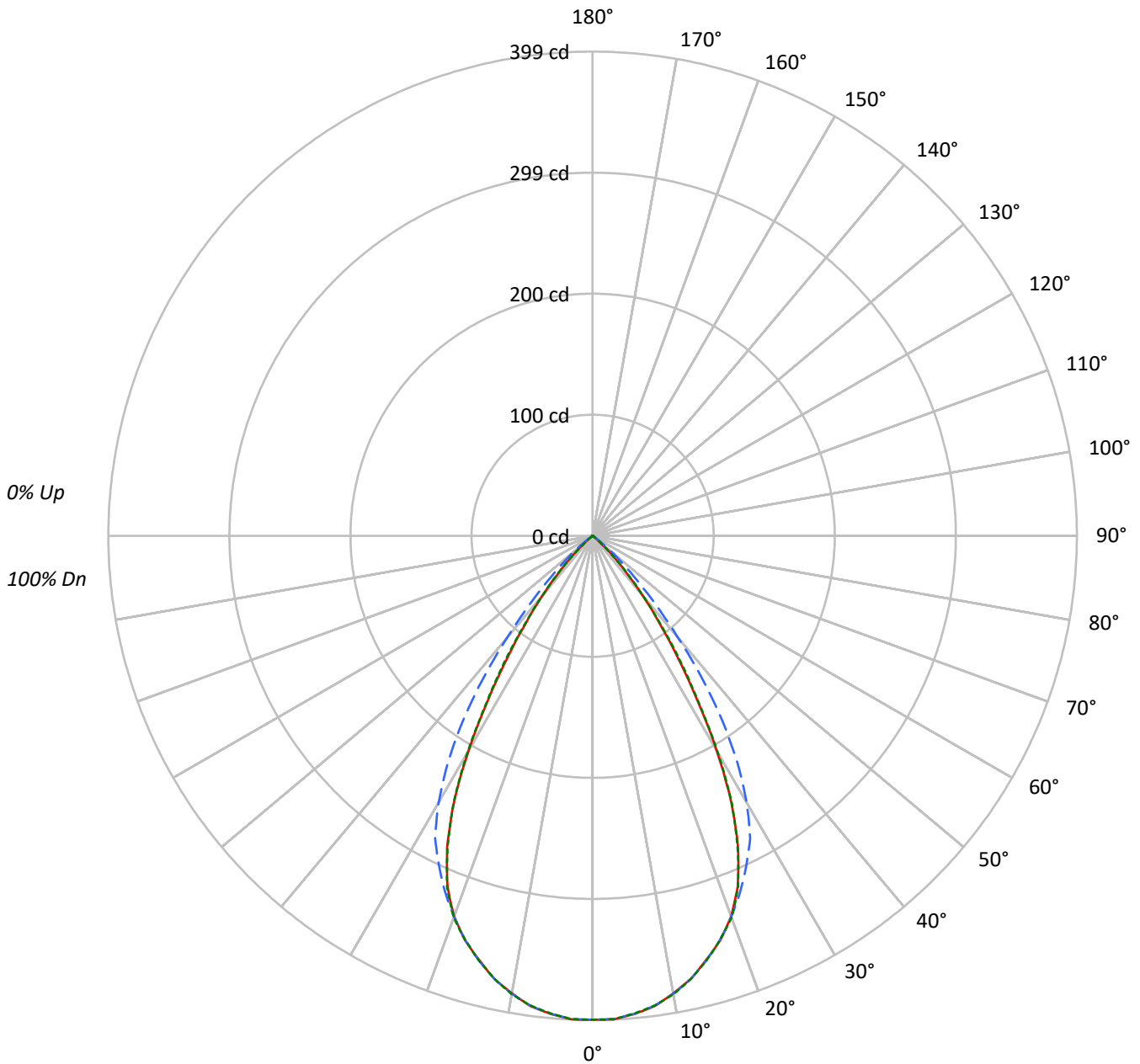
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 398.4 lumens
Efficiency: N/A
Efficacy: 49.8 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): 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					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°	38634	38634	38634
5°	38461	38461	38422
10°	37666	37695	37735
15°	36286	36326	36326
20°	34402	34433	34515
25°	30325	32024	30207
30°	22887	28391	23088
35°	14345	22092	14830
40°	8094	13759	8094
45°	3398	6946	3343
50°	271	2683	332
55°	118	557	118
60°	136	78	136
65°	92	92	92
70°	113	113	113
75°	150	150	150
80°	0	223	223
85°	0	445	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6946 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	9.4
10°-20°	101.7	25.5
20°-30°	131.9	33.1
30°-40°	93.8	23.5
40°-50°	30.4	7.6
50°-60°	2.2	0.5
60°-70°	0.4	0.1
70°-80°	0.4	0.1
80°-90°	0.3	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°	271.0	68.0
0°-40°	364.7	91.5
0°-60°	397.3	99.7
0°-90°	398.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	398.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	396	396	396	396	395	37
15°	362	363	362	363	362	102
25°	284	291	300	293	283	127
35°	121	144	187	145	125	78
45°	25	35	51	36	24	21
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	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	398.8	398.8	398.8	398.8	398.8
2.5°	398.8	398.8	398.4	398.4	398.8
5°	395.5	395.8	395.5	395.5	395.1
7.5°	391.0	391.0	390.6	390.6	390.6
10°	382.9	383.2	383.2	383.2	383.6
12.5°	374.0	374.0	374.0	374.0	374.0
15°	361.8	362.9	362.2	362.9	362.2
17.5°	349.6	349.6	349.2	350.0	349.2
20°	333.7	333.7	334.0	334.8	334.8
22.5°	312.6	316.3	317.8	317.0	313.3
25°	283.7	291.1	299.6	292.6	282.6
27.5°	247.5	261.5	281.1	263.8	248.2
30°	204.6	225.7	253.8	226.4	206.4
32.5°	160.2	184.6	222.0	186.4	161.7
35°	121.3	143.5	186.8	145.0	125.4
37.5°	89.5	109.9	148.3	110.6	92.1
40°	64.0	78.8	108.8	80.3	64.0
42.5°	41.1	55.9	76.6	56.2	42.9
45°	24.8	35.1	50.7	35.9	24.4
47.5°	11.1	20.0	31.4	20.7	11.1
50°	1.8	8.1	17.8	8.5	2.2
52.5°	1.1	1.5	8.5	1.5	1.1
55°	0.7	0.7	3.3	0.7	0.7
57.5°	0.7	0.7	0.7	0.7	0.7
60°	0.7	0.4	0.4	0.4	0.7
62.5°	0.4	0.4	0.4	0.4	0.4
65°	0.4	0.4	0.4	0.4	0.4
67.5°	0.4	0.4	0.4	0.4	0.4
70°	0.4	0.4	0.4	0.4	0.4
72.5°	0.4	0.4	0.4	0.4	0.4
75°	0.4	0.4	0.4	0.4	0.4
77.5°	0.4	0.4	0.4	0.4	0.4
80°	0.0	0.4	0.4	0.4	0.4
82.5°	0.0	0.4	0.4	0.4	0.4
85°	0.0	0.0	0.4	0.4	0.4
87.5°	0.0	0.0	0.4	0.4	0.4
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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