

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: P837252

Luminaire Tested: HCSQ407D010-HM40525840-41SQMW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837252
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525840-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

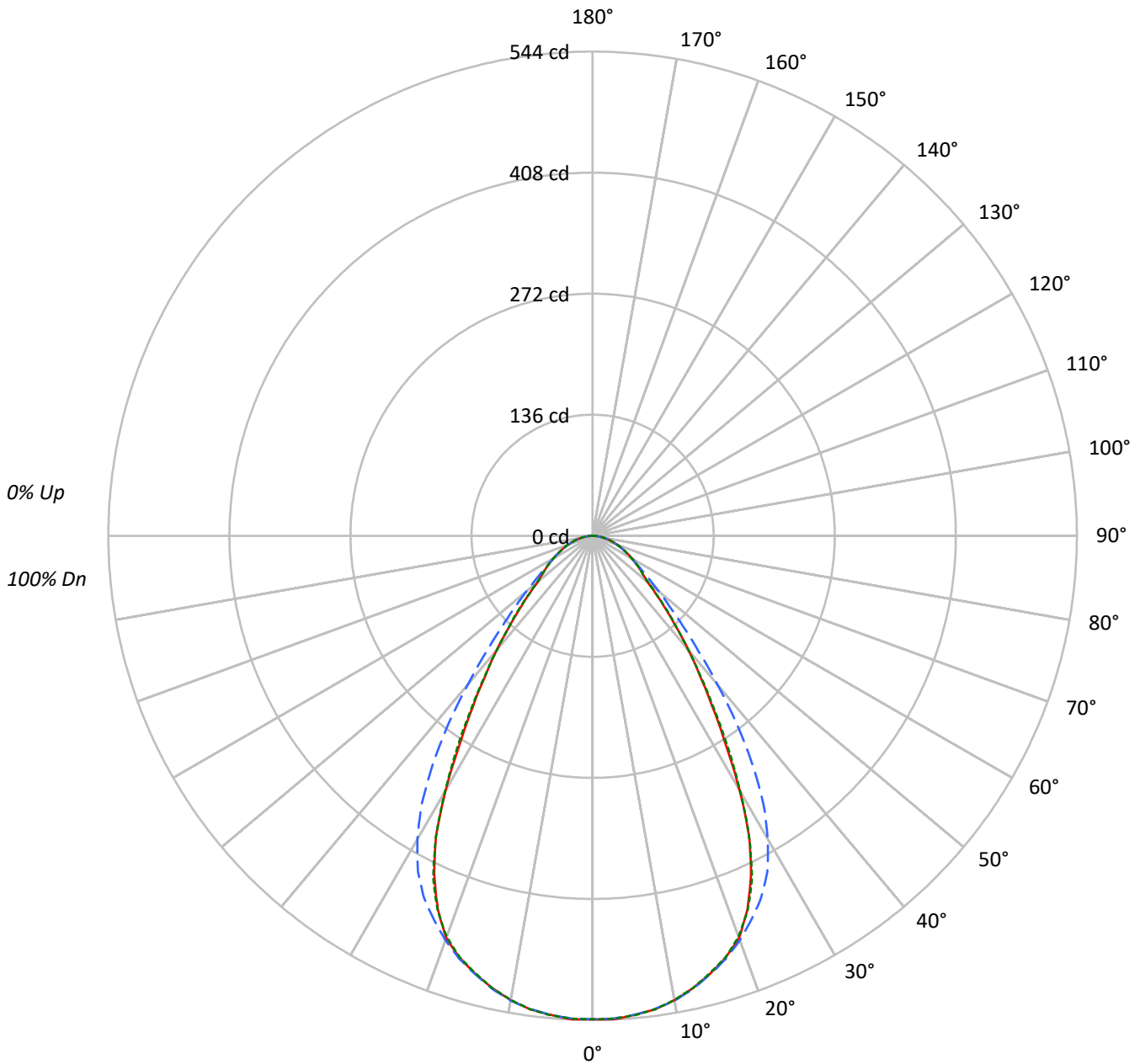
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 788.5 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	39	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	52632	52632	52632
5°	52551	52551	52590
10°	52116	52166	52077
15°	51109	51149	51019
20°	49577	49835	49402
25°	44990	47919	45311
30°	36926	44018	37071
35°	27756	36945	28158
40°	21144	27543	21094
45°	15796	19550	16084
50°	12027	14574	12283
55°	10843	11401	10843
60°	9901	9823	9823
65°	9009	9009	9009
70°	8384	8242	8242
75°	7748	7598	7748
80°	7085	6806	7085
85°	6113	6113	6113

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19550 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	6.5
10°-20°	143.5	18.2
20°-30°	197.3	25.0
30°-40°	167.9	21.3
40°-50°	101.5	12.9
50°-60°	59.8	7.6
60°-70°	39.2	5.0
70°-80°	21.8	2.8
80°-90°	6.4	0.8
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°	392.0	49.7
0°-40°	559.9	71.0
0°-60°	721.2	91.5
0°-90°	788.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	788.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	543	543	543	543	543	
5°	540	541	540	540	541	51
15°	510	511	510	510	509	143
25°	421	434	448	435	424	190
35°	235	258	312	266	238	149
45°	115	128	143	129	117	91
55°	64	65	68	65	64	58
65°	39	40	39	39	39	39
75°	21	21	20	20	21	22
85°	6	6	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	543.3	543.3	543.3	543.3	543.3
2.5°	543.8	542.5	542.9	542.5	542.9
5°	540.4	540.8	540.4	540.0	540.8
7.5°	536.6	536.2	536.2	535.7	536.6
10°	529.8	529.0	530.3	529.4	529.4
12.5°	520.5	521.8	521.4	521.4	520.5
15°	509.6	510.8	510.0	509.6	508.7
17.5°	496.9	497.7	498.2	496.5	496.5
20°	480.9	482.5	483.4	480.4	479.2
22.5°	454.3	461.9	466.5	461.4	455.1
25°	420.9	434.0	448.3	434.8	423.9
27.5°	380.8	399.4	425.1	402.3	380.8
30°	330.1	357.6	393.5	360.5	331.4
32.5°	277.8	306.9	357.2	312.0	283.7
35°	234.7	258.4	312.4	265.5	238.1
37.5°	197.6	217.8	265.5	222.5	199.7
40°	167.2	183.2	217.8	185.3	166.8
42.5°	138.1	153.2	176.5	155.4	139.7
45°	115.3	127.5	142.7	128.8	117.4
47.5°	95.8	106.0	116.9	106.0	97.1
50°	79.8	87.8	96.7	87.8	81.5
52.5°	71.3	73.9	79.8	74.3	71.3
55°	64.2	65.4	67.5	65.4	64.2
57.5°	57.4	58.3	57.8	57.8	57.4
60°	51.1	51.5	50.7	51.1	50.7
62.5°	45.2	45.2	44.3	45.2	44.8
65°	39.3	39.7	39.3	39.3	39.3
67.5°	34.2	34.2	33.8	34.2	34.2
70°	29.6	29.6	29.1	29.6	29.1
72.5°	24.9	24.9	24.5	24.5	24.5
75°	20.7	20.7	20.3	20.3	20.7
77.5°	16.5	16.5	16.0	16.5	16.5
80°	12.7	12.7	12.2	12.7	12.7
82.5°	8.9	8.9	8.9	9.3	9.3
85°	5.5	5.5	5.5	5.5	5.5
87.5°	2.5	2.5	2.5	2.5	3.0
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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