

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: P837644

Luminaire Tested: HCSQ455D010-HM44560835-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ455D010-HM44560835-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

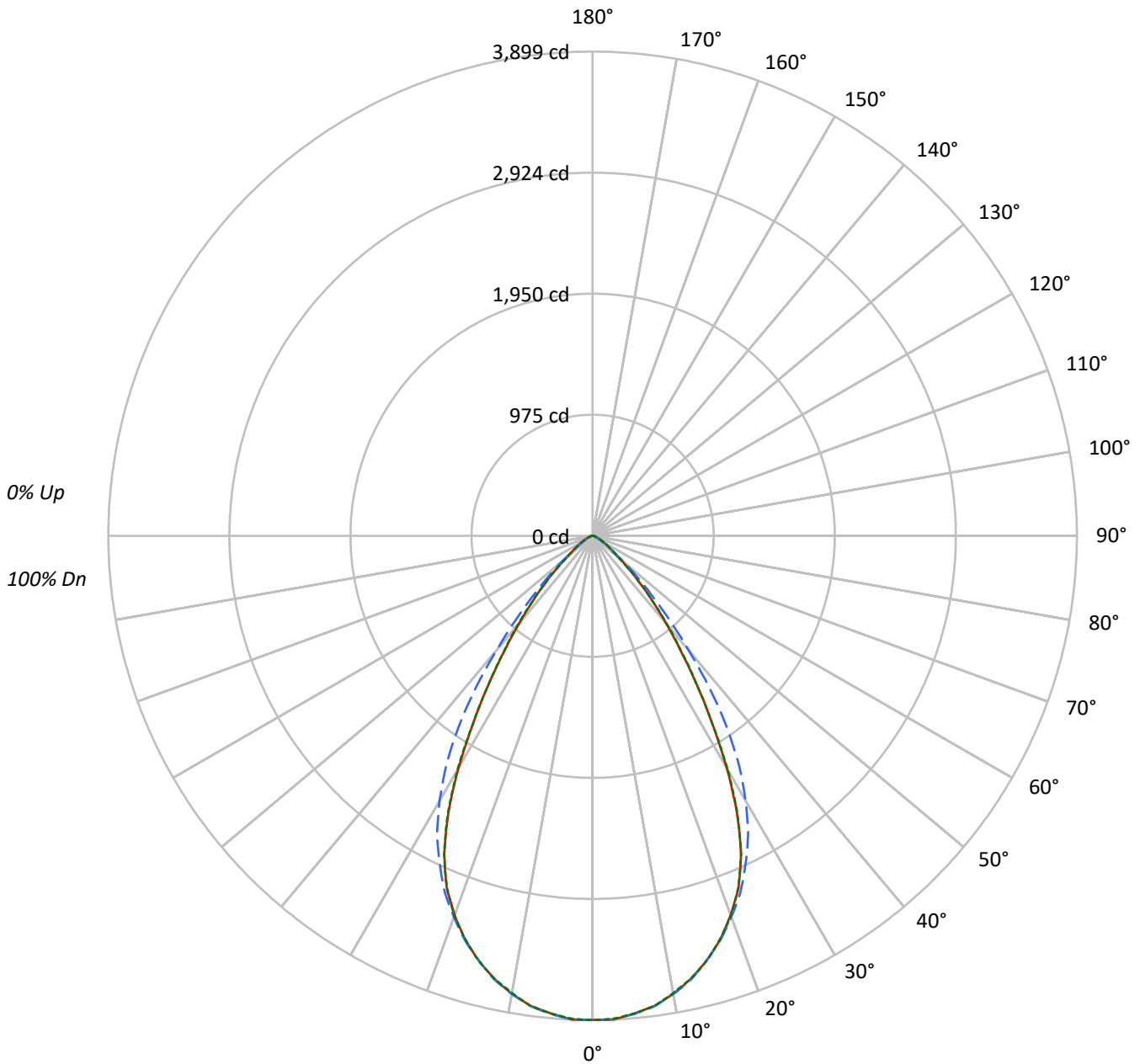
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4383.2 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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									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				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92				92															
2	107	101	97	93	104	100	95	92	96	93	90	93	90	88	90	88	86	85				85															
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77				77															
4	95	87	80	76	93	85	80	75	83	78	74	81	77	74	79	76	73	71				71															
5	89	80	74	69	88	79	73	69	77	72	68	76	71	68	74	70	67	65				65															
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60															
7	80	70	63	59	78	69	63	58	68	62	58	66	61	58	65	61	57	56				56															
8	75	65	59	54	74	65	58	54	63	58	54	62	57	54	61	57	53	52				52															
9	72	61	55	50	70	61	54	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45				45															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	377756	377756	377756
5°	375445	375922	375445
10°	368415	368651	367707
15°	355327	355087	355568
20°	334958	336690	335701
25°	302243	311510	302243
30°	241398	275617	243289
35°	172333	223032	172617
40°	116358	151678	118179
45°	73913	89750	74242
50°	42109	47911	40662
55°	27665	23190	27260
60°	19123	13524	18658
65°	13249	9948	13249
70°	9545	7506	9545
75°	6326	6326	6326
80°	4017	5356	5356
85°	5335	5335	5335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 89750 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.3	8.3
10°-20°	993.3	22.7
20°-30°	1300.5	29.7
30°-40°	1022.2	23.3
40°-50°	477.4	10.9
50°-60°	147.9	3.4
60°-70°	52.8	1.2
70°-80°	18.6	0.4
80°-90°	5.1	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°	2659.2	60.7
0°-40°	3681.3	84.0
0°-60°	4306.7	98.3
0°-90°	4383.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4383.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3899	3899	3899	3899	3899	
5°	3861	3863	3866	3870	3861	365
15°	3543	3543	3540	3543	3545	992
25°	2828	2866	2914	2868	2828	1272
35°	1457	1590	1886	1609	1460	919
45°	540	604	655	592	542	430
55°	164	154	137	152	161	153
65°	58	53	43	51	58	60
75°	17	17	17	17	17	19
85°	5	5	5	5	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3899.4	3899.4	3899.4	3899.4	3899.4
2.5°	3899.4	3894.6	3897.0	3892.2	3892.2
5°	3860.8	3863.3	3865.7	3870.5	3860.8
7.5°	3817.5	3822.3	3819.9	3819.9	3819.9
10°	3745.2	3747.6	3747.6	3747.6	3738.0
12.5°	3653.7	3658.5	3660.9	3653.7	3653.7
15°	3542.9	3542.9	3540.5	3542.9	3545.3
17.5°	3410.5	3417.7	3417.7	3410.5	3408.0
20°	3249.1	3261.1	3265.9	3256.3	3256.3
22.5°	3068.4	3080.5	3109.4	3085.3	3066.0
25°	2827.6	2866.1	2914.3	2868.5	2827.6
27.5°	2516.9	2601.2	2712.0	2615.6	2524.1
30°	2158.0	2295.3	2463.9	2302.5	2174.9
32.5°	1791.9	1946.1	2194.2	1958.1	1791.9
35°	1457.2	1589.6	1885.9	1608.9	1459.6
37.5°	1158.5	1286.1	1546.3	1300.6	1175.4
40°	920.1	1023.6	1199.4	1021.2	934.5
42.5°	717.7	792.4	908.0	790.0	715.3
45°	539.5	604.5	655.1	592.5	541.9
47.5°	397.4	440.8	469.7	433.5	387.8
50°	279.4	310.7	317.9	303.5	269.8
52.5°	209.5	209.5	211.9	207.1	204.7
55°	163.8	154.1	137.3	151.7	161.4
57.5°	127.7	118.0	96.3	113.2	125.2
60°	98.7	89.1	69.8	86.7	96.3
62.5°	77.1	67.4	55.4	67.4	74.7
65°	57.8	53.0	43.4	50.6	57.8
67.5°	43.4	38.5	33.7	38.5	43.4
70°	33.7	31.3	26.5	28.9	33.7
72.5°	24.1	21.7	21.7	21.7	24.1
75°	16.9	16.9	16.9	16.9	16.9
77.5°	12.0	12.0	12.0	12.0	12.0
80°	7.2	7.2	9.6	9.6	9.6
82.5°	4.8	4.8	7.2	7.2	7.2
85°	4.8	4.8	4.8	4.8	4.8
87.5°	2.4	2.4	2.4	4.8	4.8
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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