

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: P837239

Luminaire Tested: HCSQ407D010-HM40525830-41SQH

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837239
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: HCSQ407D010-HM40525830-41SQH
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

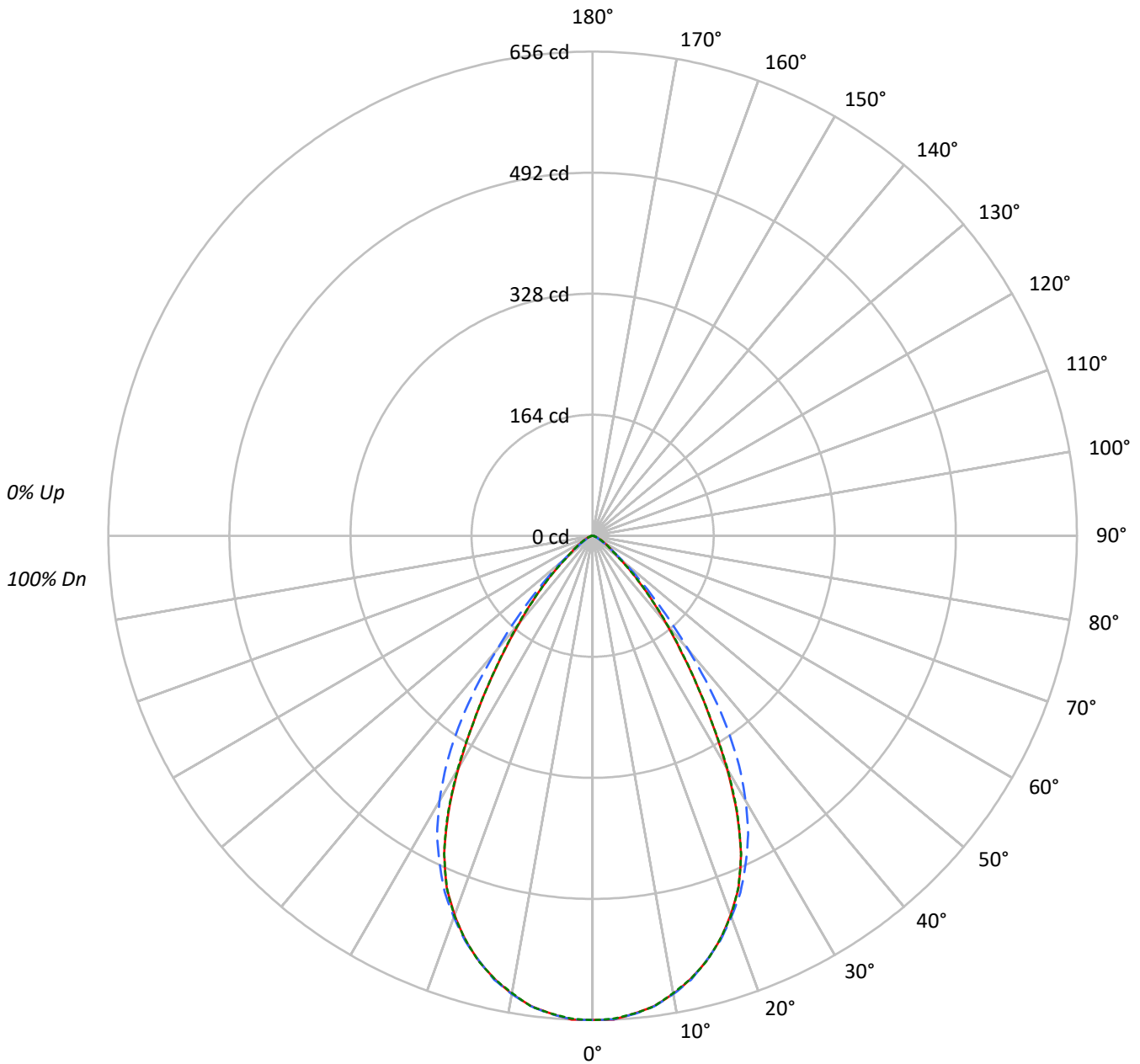
Lumens per Lamp: N/A
Luminaire Lumens: 737.5 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 0.98 / 0.98 / 1.01
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 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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CATALOG NUMBER: HCSQ407D010-HM40525830-41SQH

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					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°	63560	63560	63560
5°	63180	63258	63180
10°	61993	62032	61875
15°	59795	59744	59835
20°	56361	56649	56484
25°	50858	52419	50858
30°	40617	46378	40942
35°	28998	37525	29045
40°	19576	25520	19880
45°	12440	15098	12495
50°	7083	8063	6842
55°	4662	3902	4594
60°	3216	2286	3139
65°	2223	1673	2223
70°	1614	1275	1614
75°	1048	1048	1048
80°	669	893	893
85°	889	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 15098 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	8.3
10°-20°	167.1	22.7
20°-30°	218.8	29.7
30°-40°	172.0	23.3
40°-50°	80.3	10.9
50°-60°	24.9	3.4
60°-70°	8.9	1.2
70°-80°	3.1	0.4
80°-90°	0.9	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°	447.4	60.7
0°-40°	619.4	84.0
0°-60°	724.7	98.3
0°-90°	737.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	737.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	656	656	656	656	656	
5°	650	650	650	651	650	61
15°	596	596	596	596	597	167
25°	476	482	490	483	476	214
35°	245	268	317	271	246	155
45°	91	102	110	100	91	72
55°	28	26	23	26	27	26
65°	10	9	7	8	10	10
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	656.1	656.1	656.1	656.1	656.1
2.5°	656.1	655.3	655.7	654.9	654.9
5°	649.7	650.1	650.5	651.3	649.7
7.5°	642.4	643.2	642.8	642.8	642.8
10°	630.2	630.6	630.6	630.6	629.0
12.5°	614.8	615.6	616.0	614.8	614.8
15°	596.2	596.2	595.7	596.2	596.6
17.5°	573.9	575.1	575.1	573.9	573.5
20°	546.7	548.7	549.5	547.9	547.9
22.5°	516.3	518.3	523.2	519.2	515.9
25°	475.8	482.3	490.4	482.7	475.8
27.5°	423.5	437.7	456.3	440.1	424.7
30°	363.1	386.2	414.6	387.4	366.0
32.5°	301.5	327.5	369.2	329.5	301.5
35°	245.2	267.5	317.3	270.7	245.6
37.5°	194.9	216.4	260.2	218.8	197.8
40°	154.8	172.2	201.8	171.8	157.2
42.5°	120.8	133.3	152.8	132.9	120.4
45°	90.8	101.7	110.2	99.7	91.2
47.5°	66.9	74.2	79.0	72.9	65.2
50°	47.0	52.3	53.5	51.1	45.4
52.5°	35.3	35.3	35.7	34.9	34.4
55°	27.6	25.9	23.1	25.5	27.2
57.5°	21.5	19.9	16.2	19.0	21.1
60°	16.6	15.0	11.8	14.6	16.2
62.5°	13.0	11.3	9.3	11.3	12.6
65°	9.7	8.9	7.3	8.5	9.7
67.5°	7.3	6.5	5.7	6.5	7.3
70°	5.7	5.3	4.5	4.9	5.7
72.5°	4.1	3.6	3.6	3.6	4.1
75°	2.8	2.8	2.8	2.8	2.8
77.5°	2.0	2.0	2.0	2.0	2.0
80°	1.2	1.2	1.6	1.6	1.6
82.5°	0.8	0.8	1.2	1.2	1.2
85°	0.8	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.4	0.8	0.8
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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