

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: P837268

Luminaire Tested: HCSQ407D010-HM40525940-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837268
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ407D010-HM40525940-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

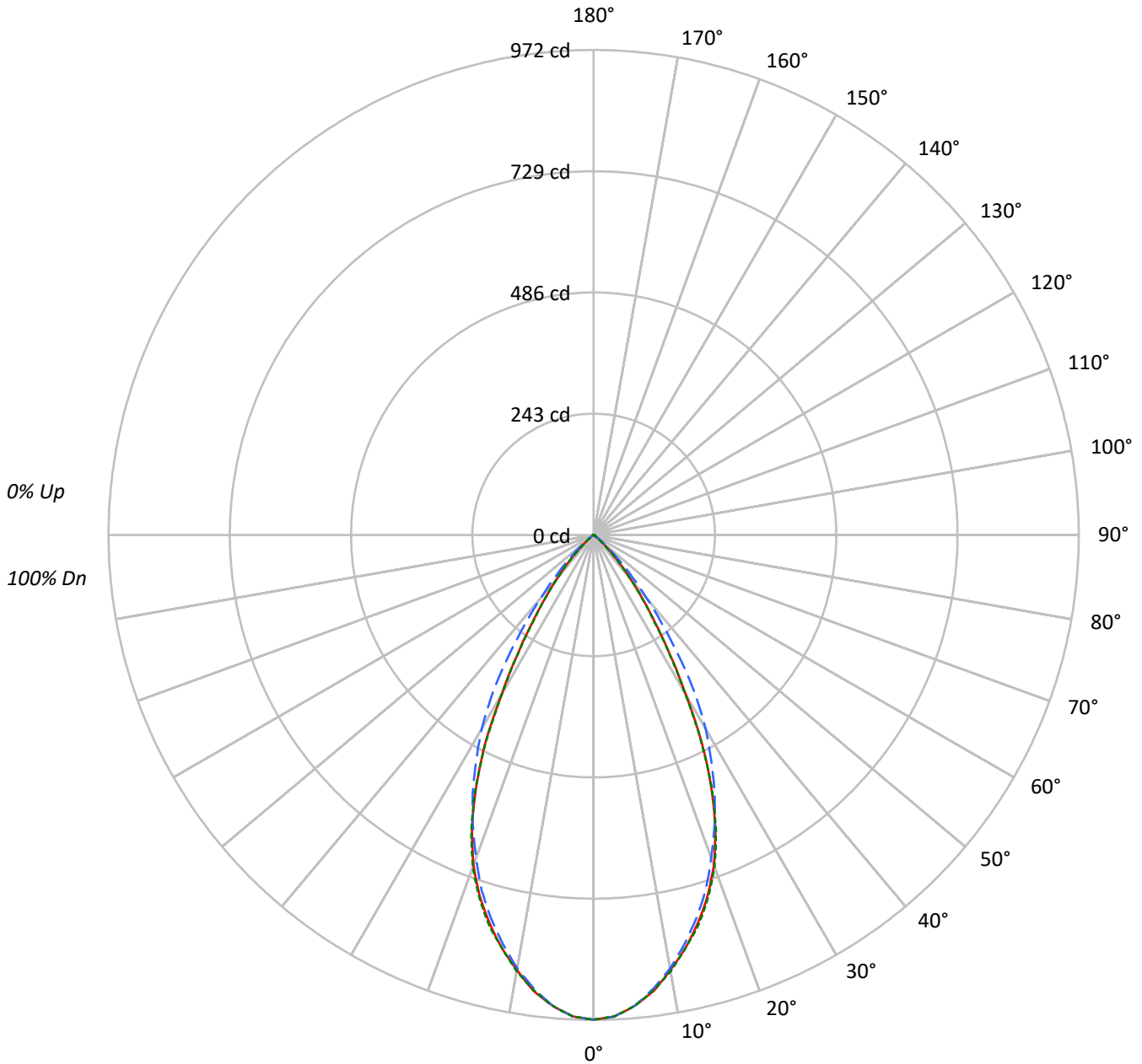
Lumens per Lamp: N/A
Luminaire Lumens: 785.2 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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									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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71																			
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66																			
7	84	75	69	65	82	74	68	64	73	68	64	71	67	64	70	66	63	62																			
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58																			
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55																			
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	94124	94124	94124
5°	92101	92140	92140
10°	87116	86733	87352
15°	80836	79723	81267
20°	72557	70938	73010
25°	59591	61323	59805
30°	41199	50103	40886
35°	25367	35396	24764
40°	14315	20689	14214
45°	6535	10371	6261
50°	1658	4160	1718
55°	794	1267	726
60°	543	465	620
65°	458	367	458
70°	340	340	453
75°	299	299	449
80°	446	446	446
85°	445	889	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10371 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.4	11.3
10°-20°	223.2	28.4
20°-30°	255.2	32.5
30°-40°	158.4	20.2
40°-50°	49.9	6.4
50°-60°	6.5	0.8
60°-70°	1.9	0.2
70°-80°	1.0	0.1
80°-90°	0.7	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°	566.7	72.2
0°-40°	725.1	92.4
0°-60°	781.5	99.5
0°-90°	785.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	785.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	947	946	948	947	948	89
15°	806	800	795	800	810	225
25°	558	565	574	565	560	250
35°	214	248	299	242	209	138
45°	48	57	76	58	46	40
55°	5	5	8	5	4	5
65°	2	2	2	2	2	2
75°	1	1	1	1	1	1
85°	0	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	971.6	971.6	971.6	971.6	971.6
2.5°	965.7	966.4	965.7	967.2	965.7
5°	947.1	946.3	947.5	946.7	947.5
7.5°	921.9	917.2	916.8	919.9	920.3
10°	885.6	884.4	881.7	884.4	888.0
12.5°	848.5	843.8	839.9	845.4	848.5
15°	806.0	800.0	794.9	800.0	810.3
17.5°	759.0	750.8	746.4	752.3	762.2
20°	703.8	695.2	688.1	693.2	708.2
22.5°	637.6	636.8	632.1	634.8	640.4
25°	557.5	565.4	573.7	565.4	559.5
27.5°	469.6	490.9	509.8	485.0	466.1
30°	368.3	400.6	447.9	398.2	365.5
32.5°	284.7	318.6	378.9	314.3	282.3
35°	214.5	247.6	299.3	241.7	209.4
37.5°	157.7	182.6	227.5	181.0	157.7
40°	113.2	129.3	163.6	128.9	112.4
42.5°	78.5	89.1	114.3	88.3	76.1
45°	47.7	57.2	75.7	57.6	45.7
47.5°	25.2	36.3	47.7	34.7	25.2
50°	11.0	19.3	27.6	18.9	11.4
52.5°	5.9	8.3	15.0	8.3	5.9
55°	4.7	4.7	7.5	4.7	4.3
57.5°	3.5	3.5	3.9	3.5	3.5
60°	2.8	2.8	2.4	2.8	3.2
62.5°	2.4	2.4	2.0	2.4	2.4
65°	2.0	2.0	1.6	2.0	2.0
67.5°	1.6	1.6	1.6	1.6	1.6
70°	1.2	1.2	1.2	1.6	1.6
72.5°	1.2	1.2	1.2	1.2	1.2
75°	0.8	0.8	0.8	0.8	1.2
77.5°	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8
82.5°	0.4	0.8	0.8	0.8	0.8
85°	0.4	0.8	0.8	0.8	0.8
87.5°	0.4	0.4	0.8	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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