

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: P837458

Luminaire Tested: HCSQ430D010-HM43040930-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837458
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: HCSQ430D010-HM43040930-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

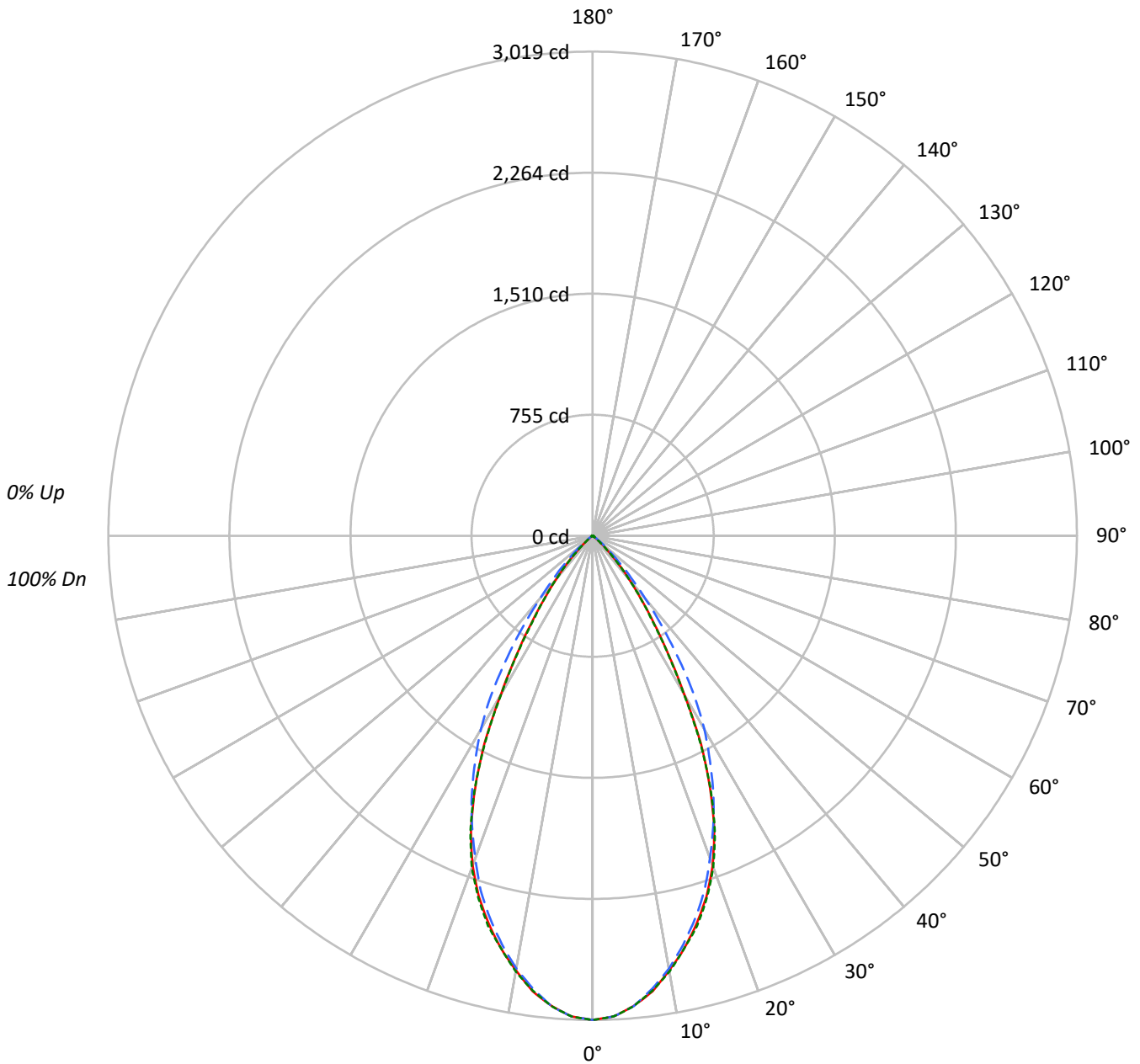
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2439.7 lumens
Efficiency: N/A
Efficacy: 86.5 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): 28.2
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									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°	292457	292457	292457
5°	286184	286300	286300
10°	270694	269484	271412
15°	251163	247723	252517
20°	225464	220412	226855
25°	185177	190553	185839
30°	128004	155690	127053
35°	78822	109973	76942
40°	44464	64306	44160
45°	20304	32223	19468
50°	5169	12931	5350
55°	2483	3935	2280
60°	1666	1434	1899
65°	1398	1123	1398
70°	1048	1048	1388
75°	936	936	1385
80°	1395	1395	1395
85°	1334	2779	2779

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 32223 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.6	11.3
10°-20°	693.6	28.4
20°-30°	792.8	32.5
30°-40°	492.2	20.2
40°-50°	155.1	6.4
50°-60°	20.1	0.8
60°-70°	5.9	0.2
70°-80°	3.2	0.1
80°-90°	2.2	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°	1761.0	72.2
0°-40°	2253.2	92.4
0°-60°	2428.4	99.5
0°-90°	2439.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2439.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3019	3019	3019	3019	3019	
5°	2943	2940	2944	2942	2944	275
15°	2504	2486	2470	2486	2518	698
25°	1732	1757	1783	1757	1739	777
35°	666	769	930	751	651	428
45°	148	178	235	179	142	125
55°	15	15	23	15	14	15
65°	6	6	5	6	6	6
75°	2	2	2	2	4	3
85°	1	2	2	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3018.9	3018.9	3018.9	3018.9	3018.9
2.5°	3000.5	3003.0	3000.5	3005.4	3000.5
5°	2942.9	2940.5	2944.1	2941.7	2944.1
7.5°	2864.5	2849.8	2848.6	2858.4	2859.6
10°	2751.8	2748.1	2739.5	2748.1	2759.1
12.5°	2636.6	2621.9	2609.7	2626.8	2636.6
15°	2504.3	2485.9	2470.0	2485.9	2517.8
17.5°	2358.5	2332.8	2319.3	2337.7	2368.3
20°	2187.0	2160.0	2138.0	2153.9	2200.5
22.5°	1981.1	1978.7	1964.0	1972.6	1989.7
25°	1732.4	1756.9	1782.7	1756.9	1738.6
27.5°	1459.2	1525.4	1584.2	1507.0	1448.2
30°	1144.3	1244.8	1391.8	1237.4	1135.8
32.5°	884.6	990.0	1177.4	976.5	877.2
35°	666.5	769.4	929.9	751.0	650.6
37.5°	490.1	567.3	706.9	562.4	490.1
40°	351.6	401.9	508.5	400.6	349.2
42.5°	243.8	276.9	355.3	274.4	236.5
45°	148.2	177.7	235.2	178.9	142.1
47.5°	78.4	112.7	148.2	107.8	78.4
50°	34.3	60.0	85.8	58.8	35.5
52.5°	18.4	25.7	46.6	25.7	18.4
55°	14.7	14.7	23.3	14.7	13.5
57.5°	11.0	11.0	12.3	11.0	11.0
60°	8.6	8.6	7.4	8.6	9.8
62.5°	7.4	7.4	6.1	7.4	7.4
65°	6.1	6.1	4.9	6.1	6.1
67.5°	4.9	4.9	4.9	4.9	4.9
70°	3.7	3.7	3.7	4.9	4.9
72.5°	3.7	3.7	3.7	3.7	3.7
75°	2.5	2.5	2.5	2.5	3.7
77.5°	2.5	2.5	2.5	2.5	2.5
80°	2.5	2.5	2.5	2.5	2.5
82.5°	1.2	2.5	2.5	2.5	2.5
85°	1.2	2.5	2.5	2.5	2.5
87.5°	1.2	1.2	2.5	2.5	2.5
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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