

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: P837448

Luminaire Tested: HCSQ430D010-HM43040840-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837448
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-HM43040840-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

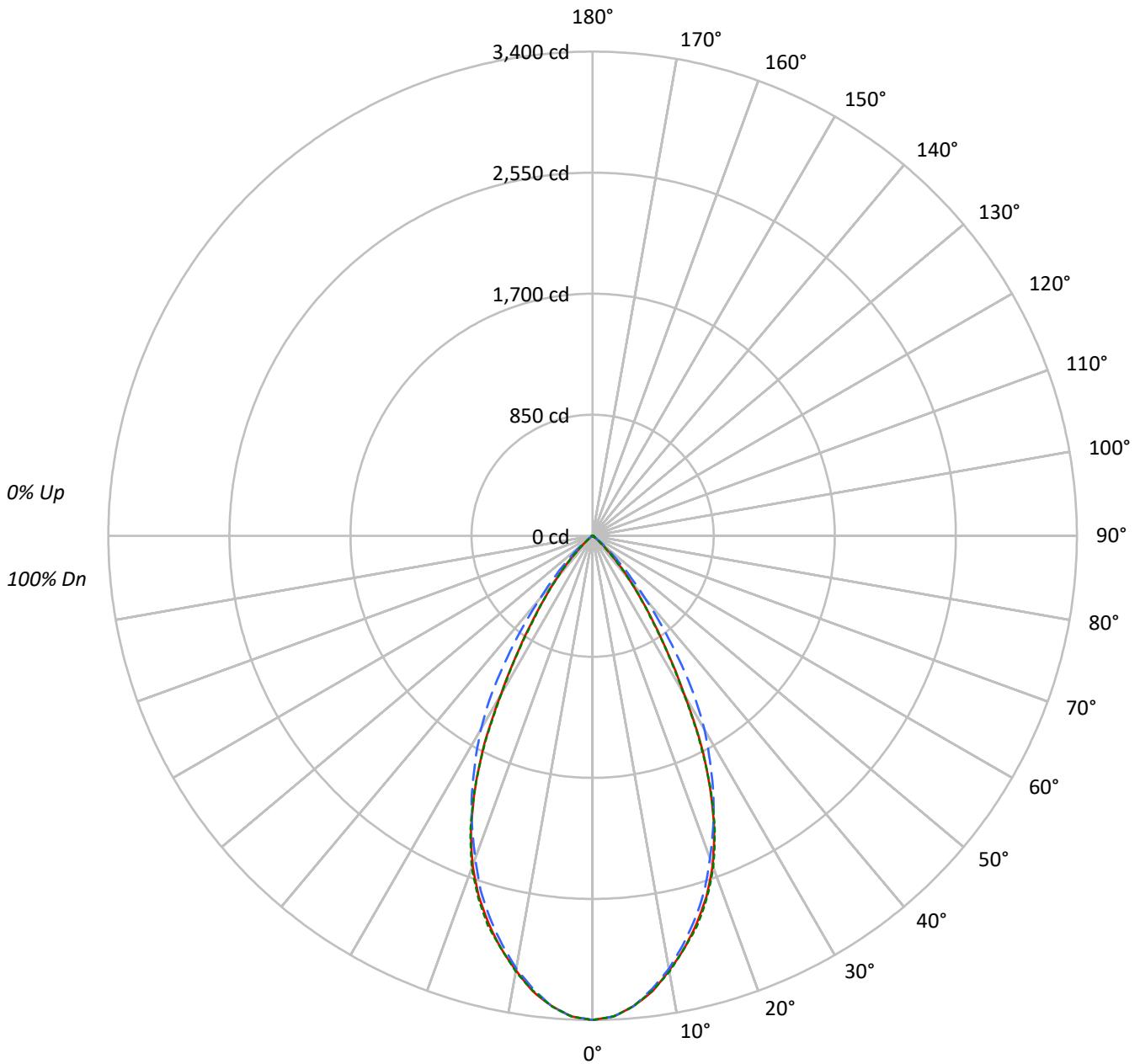
Lumens per Lamp: N/A
Luminaire Lumens: 2747.3 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	329338	329338	329338
5°	322272	322408	322408
10°	304829	303471	305645
15°	282836	278964	284360
20°	253897	248206	255453
25°	208532	214582	209270
30°	144146	175321	143072
35°	88768	123845	86640
40°	50079	72412	49725
45°	22866	36292	21920
50°	5817	14559	6028
55°	2804	4425	2567
60°	1879	1608	2131
65°	1582	1261	1582
70°	1161	1161	1558
75°	1048	1048	1535
80°	1562	1562	1562
85°	1556	3112	3112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 36292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	309.3	11.3
10°-20°	781.0	28.4
20°-30°	892.8	32.5
30°-40°	554.2	20.2
40°-50°	174.6	6.4
50°-60°	22.6	0.8
60°-70°	6.7	0.2
70°-80°	3.6	0.1
80°-90°	2.4	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°	1983.1	72.2
0°-40°	2537.3	92.4
0°-60°	2734.6	99.5
0°-90°	2747.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2747.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3400	3400	3400	3400	3400	
5°	3314	3311	3315	3313	3315	310
15°	2820	2799	2782	2799	2835	786
25°	1951	1978	2008	1978	1958	875
35°	751	866	1047	846	733	482
45°	167	200	265	201	160	141
55°	17	17	26	17	15	16
65°	7	7	6	7	7	7
75°	3	3	3	3	4	3
85°	1	3	3	3	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3399.6	3399.6	3399.6	3399.6	3399.6
2.5°	3378.9	3381.6	3378.9	3384.4	3378.9
5°	3314.0	3311.3	3315.4	3312.6	3315.4
7.5°	3225.7	3209.2	3207.8	3218.8	3220.2
10°	3098.8	3094.7	3085.0	3094.7	3107.1
12.5°	2969.1	2952.5	2938.7	2958.1	2969.1
15°	2820.1	2799.4	2781.5	2799.4	2835.3
17.5°	2655.9	2626.9	2611.8	2632.5	2667.0
20°	2462.8	2432.4	2407.6	2425.5	2477.9
22.5°	2231.0	2228.2	2211.7	2221.3	2240.6
25°	1950.9	1978.5	2007.5	1978.5	1957.8
27.5°	1643.2	1717.7	1783.9	1697.0	1630.8
30°	1288.6	1401.8	1567.3	1393.5	1279.0
32.5°	996.1	1114.8	1325.9	1099.6	987.9
35°	750.6	866.4	1047.2	845.8	732.6
37.5°	551.9	638.8	796.1	633.3	551.9
40°	396.0	452.5	572.6	451.2	393.2
42.5°	274.6	311.8	400.1	309.1	266.3
45°	166.9	200.1	264.9	201.4	160.0
47.5°	88.3	126.9	166.9	121.4	88.3
50°	38.6	67.6	96.6	66.2	40.0
52.5°	20.7	29.0	52.4	29.0	20.7
55°	16.6	16.6	26.2	16.6	15.2
57.5°	12.4	12.4	13.8	12.4	12.4
60°	9.7	9.7	8.3	9.7	11.0
62.5°	8.3	8.3	6.9	8.3	8.3
65°	6.9	6.9	5.5	6.9	6.9
67.5°	5.5	5.5	5.5	5.5	5.5
70°	4.1	4.1	4.1	5.5	5.5
72.5°	4.1	4.1	4.1	4.1	4.1
75°	2.8	2.8	2.8	2.8	4.1
77.5°	2.8	2.8	2.8	2.8	2.8
80°	2.8	2.8	2.8	2.8	2.8
82.5°	1.4	2.8	2.8	2.8	2.8
85°	1.4	2.8	2.8	2.8	2.8
87.5°	1.4	1.4	2.8	2.8	2.8
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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