

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: P837443

Luminaire Tested: HCSQ430D010-HM43040835-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837443
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-HM43040835-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

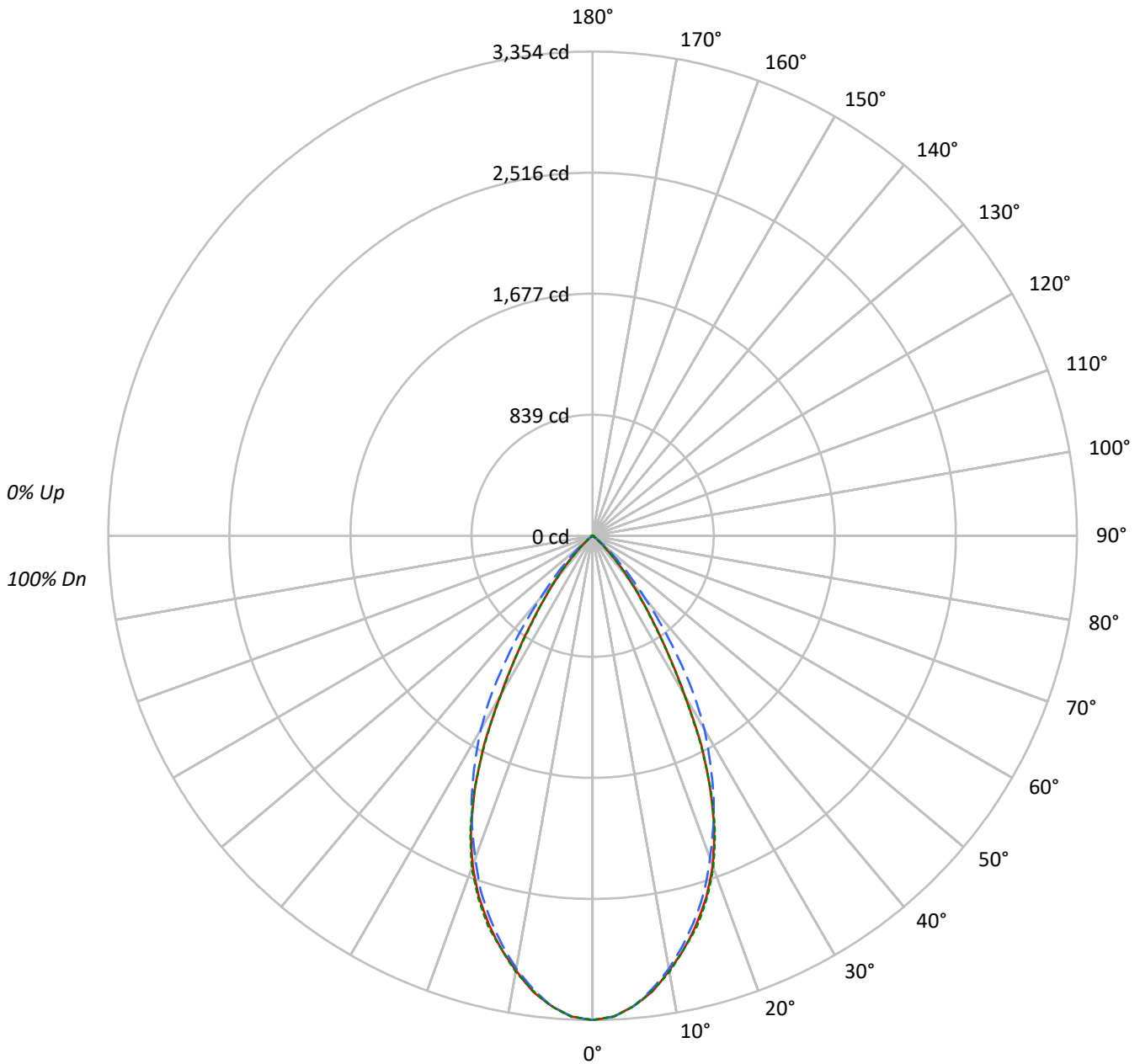
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2710.6 lumens
Efficiency: N/A
Efficacy: 96.1 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): 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°	324949	324949	324949
5°	317983	318119	318119
10°	300766	299428	301573
15°	279075	275244	280569
20°	250515	244897	252051
25°	205753	211717	206480
30°	142233	172995	141170
35°	87586	122189	85492
40°	49409	71451	49067
45°	22564	35812	21633
50°	5742	14363	5953
55°	2753	4374	2533
60°	1841	1589	2112
65°	1559	1238	1559
70°	1161	1161	1530
75°	1011	1011	1535
80°	1506	1506	1506
85°	1556	3001	3001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 35812 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	305.1	11.3
10°-20°	770.6	28.4
20°-30°	880.9	32.5
30°-40°	546.8	20.2
40°-50°	172.3	6.4
50°-60°	22.3	0.8
60°-70°	6.6	0.2
70°-80°	3.5	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°	1956.7	72.2
0°-40°	2503.5	92.4
0°-60°	2698.2	99.5
0°-90°	2710.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2710.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3354	3354	3354	3354	3354	
5°	3270	3267	3271	3268	3271	306
15°	2783	2762	2744	2762	2798	776
25°	1925	1952	1981	1952	1932	864
35°	741	855	1033	834	723	476
45°	165	197	261	199	158	139
55°	16	16	26	16	15	16
65°	7	7	5	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°	3354.3	3354.3	3354.3	3354.3	3354.3
2.5°	3333.9	3336.6	3333.9	3339.3	3333.9
5°	3269.9	3267.2	3271.3	3268.5	3271.3
7.5°	3182.8	3166.4	3165.1	3176.0	3177.3
10°	3057.5	3053.5	3043.9	3053.5	3065.7
12.5°	2929.6	2913.2	2899.6	2918.7	2929.6
15°	2782.6	2762.1	2744.4	2762.1	2797.5
17.5°	2620.6	2592.0	2577.0	2597.4	2631.4
20°	2430.0	2400.0	2375.5	2393.2	2444.9
22.5°	2201.3	2198.5	2182.2	2191.7	2210.8
25°	1924.9	1952.1	1980.7	1952.1	1931.7
27.5°	1621.3	1694.9	1760.2	1674.4	1609.1
30°	1271.5	1383.1	1546.5	1374.9	1262.0
32.5°	982.9	1100.0	1308.2	1085.0	974.7
35°	740.6	854.9	1033.2	834.5	722.9
37.5°	544.5	630.3	785.5	624.8	544.5
40°	390.7	446.5	565.0	445.2	388.0
42.5°	270.9	307.7	394.8	304.9	262.7
45°	164.7	197.4	261.4	198.8	157.9
47.5°	87.1	125.2	164.7	119.8	87.1
50°	38.1	66.7	95.3	65.3	39.5
52.5°	20.4	28.6	51.7	28.6	20.4
55°	16.3	16.3	25.9	16.3	15.0
57.5°	12.3	12.3	13.6	12.3	12.3
60°	9.5	9.5	8.2	9.5	10.9
62.5°	8.2	8.2	6.8	8.2	8.2
65°	6.8	6.8	5.4	6.8	6.8
67.5°	5.4	5.4	5.4	5.4	5.4
70°	4.1	4.1	4.1	5.4	5.4
72.5°	4.1	4.1	4.1	4.1	4.1
75°	2.7	2.7	2.7	2.7	4.1
77.5°	2.7	2.7	2.7	2.7	2.7
80°	2.7	2.7	2.7	2.7	2.7
82.5°	1.4	2.7	2.7	2.7	2.7
85°	1.4	2.7	2.7	2.7	2.7
87.5°	1.4	1.4	2.7	2.7	2.7
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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