

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: P838767

Luminaire Tested: HCSQ660D010-HM64560935-61SQMB

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838767
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ660D010-HM64560935-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

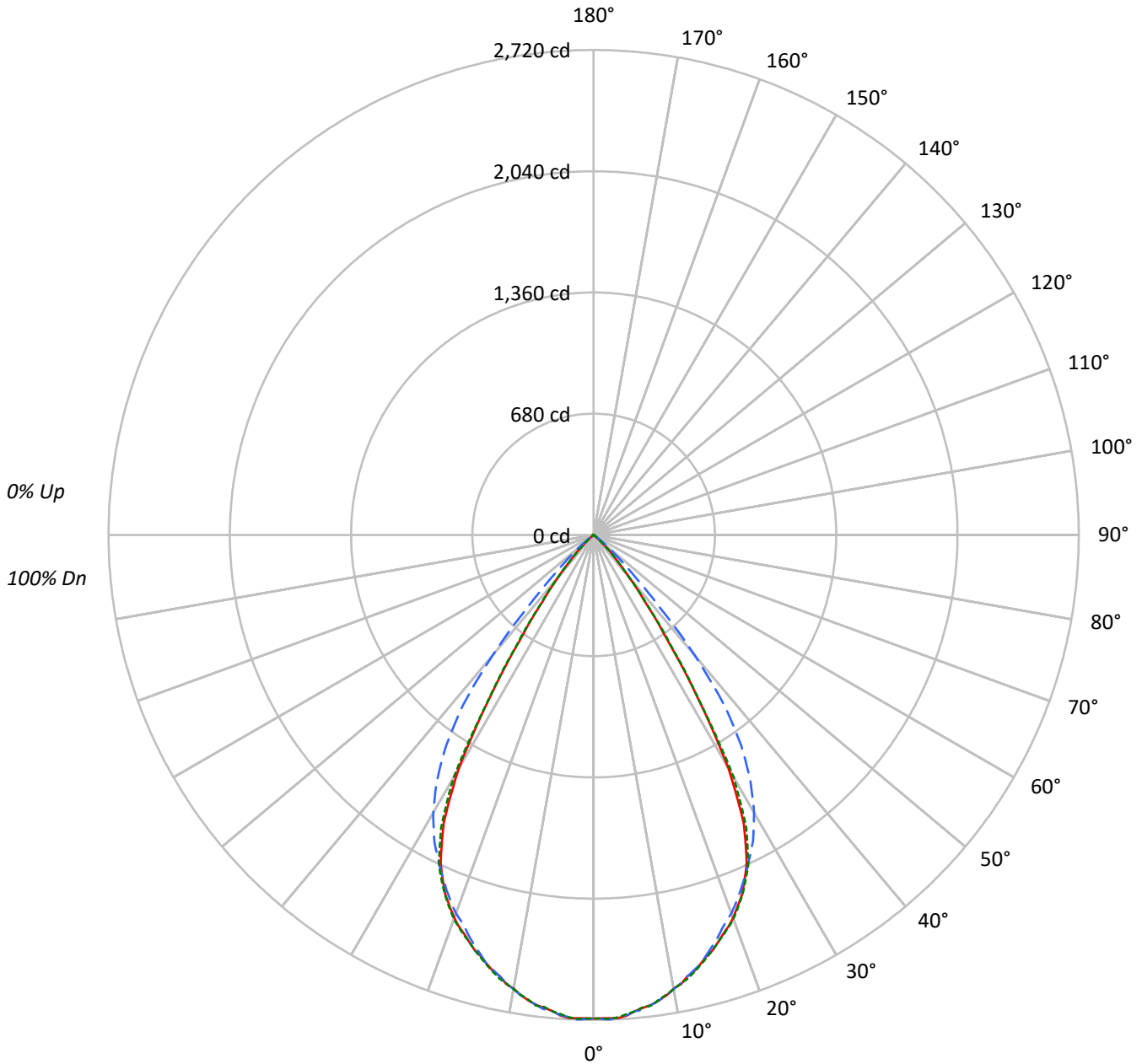
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2696.8 lumens
Efficiency: N/A
Efficacy: 48.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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					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	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81	81	81	81	81	81		
	4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65	65	65	65	65	65		
	7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60	60	60	60	60	60		
	8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56	56	56	56	56	56		
	9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53	53	53	53	53	53		
	10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50	50	50	50	50	50		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	116806	116806	116806
5°	115826	115921	115826
10°	112924	113116	113116
15°	109043	108744	109337
20°	104714	103500	105017
25°	96424	97161	97370
30°	75161	89405	78010
35°	38112	75757	39500
40°	17339	49545	17339
45°	6710	18651	6576
50°	1032	5908	1032
55°	330	1156	330
60°	189	189	189
65°	224	0	224
70°	0	0	277
75°	0	0	366
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 18651 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.3	9.4
10°-20°	687.0	25.5
20°-30°	926.1	34.3
30°-40°	651.1	24.1
40°-50°	166.3	6.2
50°-60°	11.5	0.4
60°-70°	1.4	0.1
70°-80°	0.2	0.0
80°-90°	0.0	0.0
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°	1866.4	69.2
0°-40°	2517.5	93.4
0°-60°	2695.2	99.9
0°-90°	2696.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2696.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2713	2713	2713	2713	2713	
5°	2680	2684	2682	2684	2680	253
15°	2446	2442	2440	2446	2453	688
25°	2030	2036	2045	2052	2050	907
35°	725	961	1441	985	752	488
45°	110	165	306	168	108	96
55°	4	4	15	4	4	5
65°	2	2	0	2	2	2
75°	0	0	0	0	2	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2712.9	2712.9	2712.9	2712.9	2712.9
1°	2710.7	2712.9	2715.1	2715.1	2712.9
2°	2712.9	2706.3	2719.5	2712.9	2715.1
3°	2712.9	2699.7	2706.3	2710.7	2708.5
4°	2701.9	2693.1	2699.7	2697.5	2693.1
5°	2679.9	2684.3	2682.1	2684.3	2679.9
6°	2666.6	2671.0	2675.5	2668.8	2662.2
7°	2655.6	2653.4	2655.6	2660.0	2660.0
8°	2635.8	2640.2	2635.8	2638.0	2631.4
9°	2613.7	2613.7	2613.7	2618.2	2611.5
10°	2582.9	2593.9	2587.3	2591.7	2587.3
11°	2567.5	2563.1	2563.1	2565.3	2563.1
12°	2530.0	2534.4	2532.2	2536.6	2543.2
13°	2510.2	2512.4	2503.6	2514.6	2514.6
14°	2479.3	2477.1	2481.5	2479.3	2483.7
15°	2446.3	2441.8	2439.6	2446.3	2452.9
16°	2422.0	2411.0	2404.4	2413.2	2422.0
17°	2386.8	2375.7	2366.9	2384.6	2386.8
18°	2351.5	2347.1	2325.0	2347.1	2358.1
19°	2322.8	2307.4	2287.6	2311.8	2325.0
20°	2285.4	2272.2	2258.9	2272.2	2292.0
22.5°	2177.4	2166.4	2155.4	2170.8	2181.8
25°	2029.7	2036.3	2045.2	2051.8	2049.6
27.5°	1820.4	1879.9	1935.0	1899.7	1853.4
30°	1511.8	1661.7	1798.3	1685.9	1569.1
32.5°	1095.3	1351.0	1635.2	1401.6	1106.3
35°	725.1	960.9	1441.3	985.1	751.5
37.5°	471.6	645.7	1203.3	647.9	493.7
40°	308.5	420.9	881.5	429.7	308.5
42.5°	189.5	266.7	535.5	277.7	189.5
45°	110.2	165.3	306.3	167.5	108.0
47.5°	50.7	90.4	174.1	88.2	52.9
50°	15.4	39.7	88.2	39.7	15.4
52.5°	6.6	11.0	41.9	11.0	6.6
55°	4.4	4.4	15.4	4.4	4.4
57.5°	4.4	2.2	4.4	4.4	4.4
60°	2.2	2.2	2.2	2.2	2.2
62.5°	2.2	2.2	2.2	2.2	2.2
65°	2.2	2.2	0.0	2.2	2.2
67.5°	2.2	0.0	0.0	0.0	2.2
70°	0.0	0.0	0.0	0.0	2.2
72.5°	0.0	0.0	0.0	0.0	2.2
75°	0.0	0.0	0.0	0.0	2.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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