

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: P838570

Luminaire Tested: HCSQ635D010-HM63040940-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838570
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040940-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

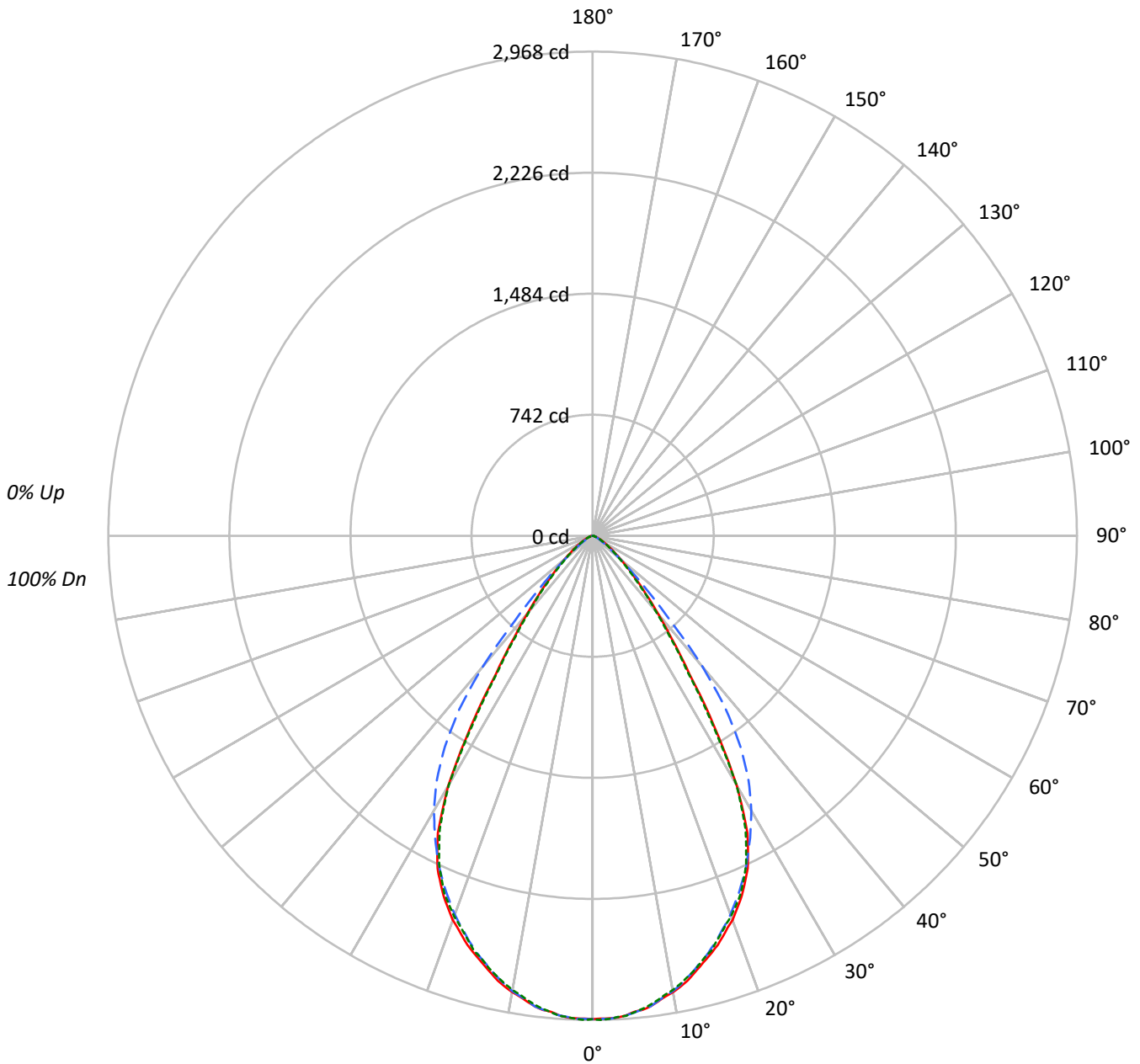
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3332.8 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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				100															
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92				92															
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85				85															
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78				78															
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71				71															
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66				66															
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61				61															
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56				56															
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52				52															
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48				48															
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45				45															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	127587	127587	127587
5°	126583	126799	126726
10°	124169	123880	123592
15°	119781	119121	119050
20°	114840	113186	113713
25°	106890	105954	105721
30°	87839	96664	87595
35°	54254	83021	52955
40°	34825	58841	33628
45°	22718	28521	21616
50°	15085	14200	14093
55°	10239	7401	9503
60°	6932	4529	6372
65°	4860	3352	4350
70°	3109	2480	2895
75°	2179	1913	1913
80°	1636	1215	1215
85°	790	1630	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.8	8.3
10°-20°	751.1	22.5
20°-30°	1014.0	30.4
30°-40°	791.3	23.7
40°-50°	331.5	9.9
50°-60°	112.4	3.4
60°-70°	40.1	1.2
70°-80°	13.0	0.4
80°-90°	2.6	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°	2041.8	61.3
0°-40°	2833.2	85.0
0°-60°	3277.0	98.3
0°-90°	3332.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3332.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2963	2963	2963	2963	2963	
5°	2929	2932	2934	2929	2932	277
15°	2687	2681	2672	2669	2671	756
25°	2250	2240	2230	2230	2225	1012
35°	1032	1211	1580	1210	1008	679
45°	373	399	468	381	355	299
55°	136	125	99	118	127	126
65°	48	39	33	38	43	49
75°	13	12	12	12	12	14
85°	2	2	3	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2963.3	2963.3	2963.3	2963.3	2963.3
1°	2960.0	2965.0	2961.7	2963.3	2968.3
2°	2960.0	2960.0	2963.3	2961.7	2963.3
3°	2956.8	2956.8	2953.5	2953.5	2953.5
4°	2946.9	2946.9	2946.9	2943.6	2950.2
5°	2928.8	2932.1	2933.8	2928.8	2932.1
6°	2922.2	2923.9	2920.6	2919.0	2915.7
7°	2907.5	2902.5	2907.5	2896.0	2897.6
8°	2882.8	2882.8	2879.5	2876.2	2872.9
9°	2859.8	2859.8	2856.5	2851.6	2848.3
10°	2840.1	2835.1	2833.5	2828.6	2826.9
11°	2817.1	2807.2	2805.6	2800.6	2800.6
12°	2789.1	2784.2	2772.7	2771.0	2771.0
13°	2754.6	2749.7	2741.5	2734.9	2741.5
14°	2721.7	2718.4	2703.7	2708.6	2706.9
15°	2687.2	2680.6	2672.4	2669.1	2670.8
16°	2656.0	2644.5	2633.0	2634.6	2644.5
17°	2623.1	2606.7	2595.2	2593.5	2598.5
18°	2582.0	2568.9	2550.8	2557.4	2557.4
19°	2540.9	2522.9	2511.4	2509.7	2516.3
20°	2506.4	2478.5	2470.3	2468.6	2481.8
22.5°	2388.1	2360.2	2353.6	2360.2	2373.3
25°	2250.0	2240.2	2230.3	2230.3	2225.4
27.5°	2054.4	2077.5	2089.0	2066.0	2028.2
30°	1766.8	1863.8	1944.3	1852.3	1761.9
32.5°	1392.1	1592.6	1778.3	1587.7	1359.2
35°	1032.2	1211.3	1579.5	1209.7	1007.5
37.5°	795.5	910.5	1342.8	895.7	772.5
40°	619.6	687.0	1046.9	678.8	598.3
42.5°	481.6	524.3	696.9	514.4	465.1
45°	373.1	399.4	468.4	381.3	355.0
47.5°	290.9	302.4	320.5	289.3	274.5
50°	225.2	225.2	212.0	216.9	210.4
52.5°	174.2	167.6	143.0	157.8	161.1
55°	136.4	124.9	98.6	118.3	126.6
57.5°	103.5	92.0	70.7	87.1	95.3
60°	80.5	69.0	52.6	65.7	74.0
62.5°	62.5	52.6	41.1	49.3	55.9
65°	47.7	39.4	32.9	37.8	42.7
67.5°	36.2	29.6	24.7	27.9	32.9
70°	24.7	23.0	19.7	21.4	23.0
72.5°	18.1	16.4	14.8	14.8	16.4
75°	13.1	11.5	11.5	11.5	11.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	3.3	3.3	3.3	3.3	3.3
85°	1.6	1.6	3.3	1.6	1.6
87.5°	1.6	1.6	1.6	1.6	1.6
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°	8.2	8.2	8.2	8.2	8.2
80°	6.6	6.6	4.9	4.9	4.9

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(END OF REPORT)