

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: P838703

Luminaire Tested: HCSQ655D010-HM64560830-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838703
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560830-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

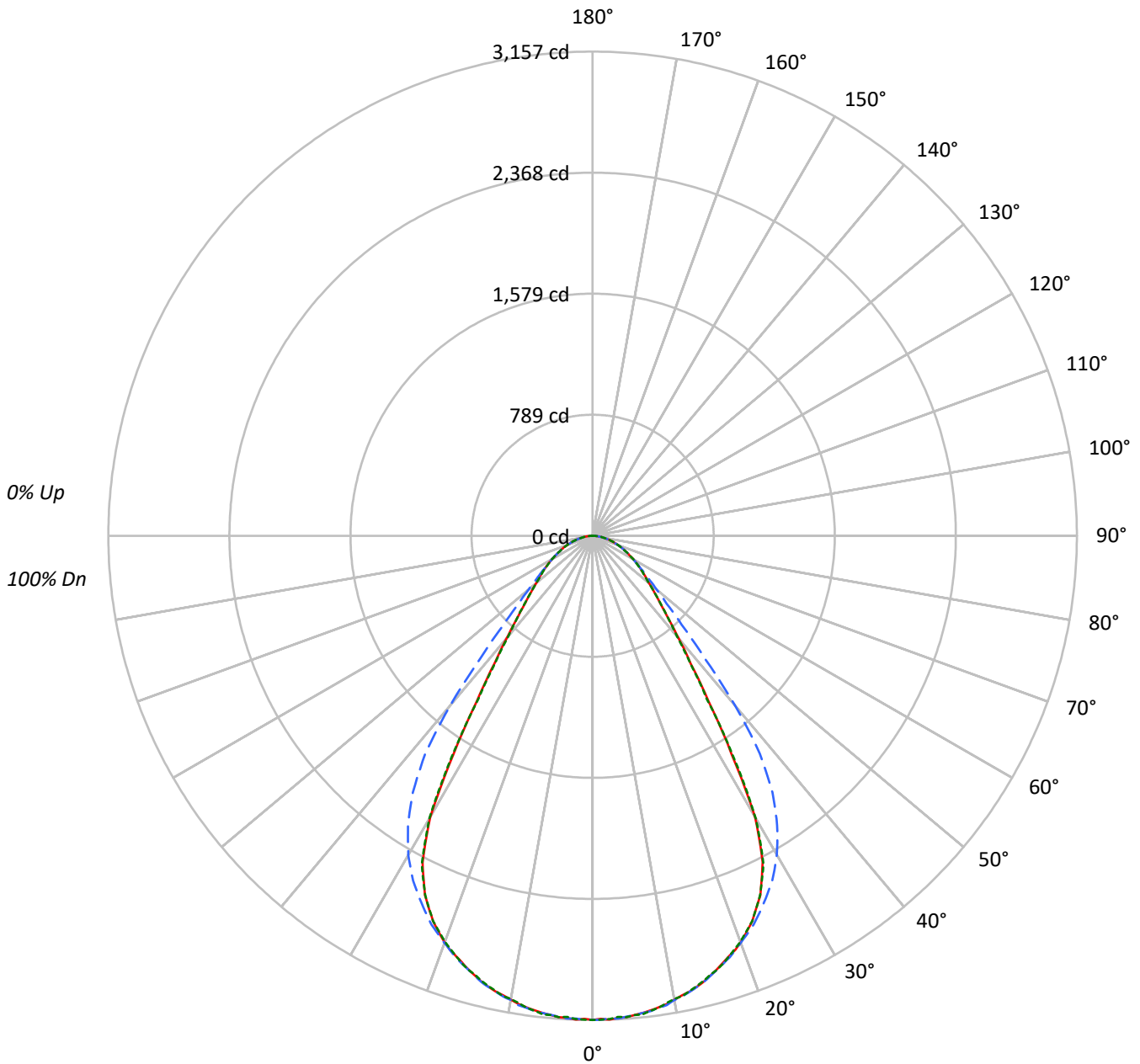
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4657.0 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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																			
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41																			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	135940	135940	135940
5°	135599	135504	135599
10°	134272	134369	134080
15°	132275	132373	132079
20°	129296	129397	128994
25°	122843	125465	122738
30°	105195	119454	105851
35°	69118	107388	68072
40°	48859	80975	47988
45°	37886	49838	38154
50°	32219	36358	31924
55°	28983	29808	28983
60°	26221	26221	26221
65°	24053	23829	23829
70°	21942	21942	22219
75°	20561	19813	20179
80°	18051	18051	18051
85°	15265	15265	15265

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 49838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.7	6.4
10°-20°	835.9	17.9
20°-30°	1191.2	25.6
30°-40°	1015.6	21.8
40°-50°	561.9	12.1
50°-60°	353.9	7.6
60°-70°	235.0	5.0
70°-80°	129.1	2.8
80°-90°	36.8	0.8
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°	2324.7	49.9
0°-40°	3340.4	71.7
0°-60°	4256.2	91.4
0°-90°	4657.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4657.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3157	3157	3157	3157	3157	
5°	3137	3142	3135	3131	3137	297
15°	2968	2968	2970	2968	2963	835
25°	2586	2617	2641	2614	2584	1168
35°	1315	1551	2043	1553	1295	855
45°	622	682	818	677	627	493
55°	386	393	397	390	386	347
65°	236	238	234	236	234	235
75°	124	121	119	121	121	130
85°	31	31	31	33	31	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3157.3	3157.3	3157.3	3157.3	3157.3
1°	3150.6	3155.0	3155.0	3152.8	3155.0
2°	3157.3	3150.6	3150.6	3150.6	3152.8
3°	3148.4	3152.8	3152.8	3146.2	3141.8
4°	3146.2	3144.0	3144.0	3150.6	3146.2
5°	3137.4	3141.8	3135.2	3130.8	3137.4
6°	3128.6	3130.8	3128.6	3130.8	3137.4
7°	3117.5	3124.2	3122.0	3119.7	3119.7
8°	3104.3	3113.1	3108.7	3108.7	3106.5
9°	3091.1	3093.3	3097.7	3097.7	3084.4
10°	3071.2	3077.8	3073.4	3075.6	3066.8
11°	3053.6	3062.4	3060.2	3055.8	3058.0
12°	3038.1	3042.5	3040.3	3033.7	3035.9
13°	3018.3	3022.7	3020.5	3020.5	3013.8
14°	2996.2	2991.8	2998.4	2994.0	2991.8
15°	2967.5	2967.5	2969.7	2967.5	2963.1
16°	2941.0	2943.2	2943.2	2941.0	2943.2
17°	2910.1	2919.0	2916.8	2912.3	2914.6
18°	2881.5	2888.1	2890.3	2888.1	2881.5
19°	2855.0	2859.4	2857.2	2848.4	2848.4
20°	2821.9	2824.1	2824.1	2819.7	2815.3
22.5°	2718.2	2733.6	2744.7	2735.8	2718.2
25°	2585.8	2616.7	2641.0	2614.5	2583.6
27.5°	2400.5	2462.3	2535.1	2468.9	2411.5
30°	2115.9	2257.1	2402.7	2270.3	2129.1
32.5°	1683.4	1961.4	2239.4	1987.9	1709.9
35°	1315.0	1551.0	2043.1	1553.3	1295.1
37.5°	1050.2	1217.9	1791.5	1206.9	1039.2
40°	869.3	981.8	1440.7	977.4	853.8
42.5°	725.9	811.9	1078.9	803.1	725.9
45°	622.2	681.8	818.5	677.3	626.6
47.5°	545.0	582.5	655.3	580.3	545.0
50°	481.0	503.0	542.8	500.8	476.6
52.5°	430.2	443.5	458.9	439.1	425.8
55°	386.1	392.7	397.1	390.5	386.1
57.5°	344.2	348.6	346.4	344.2	342.0
60°	304.5	306.7	304.5	306.7	304.5
62.5°	269.2	271.4	267.0	269.2	267.0
65°	236.1	238.3	233.9	236.1	233.9
67.5°	205.2	205.2	205.2	205.2	203.0
70°	174.3	176.5	174.3	176.5	176.5
72.5°	147.8	147.8	145.6	147.8	147.8
75°	123.6	121.3	119.1	121.3	121.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	53.0	53.0	50.7	53.0	53.0
85°	30.9	30.9	30.9	33.1	30.9
87.5°	15.4	13.2	13.2	15.4	15.4
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°	97.1	97.1	94.9	97.1	97.1
80°	72.8	75.0	72.8	75.0	72.8

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Scaled Data Report



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