

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: P838748

Luminaire Tested: HCSQ660D010-HM64560835-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838748
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: HCSQ660D010-HM64560835-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

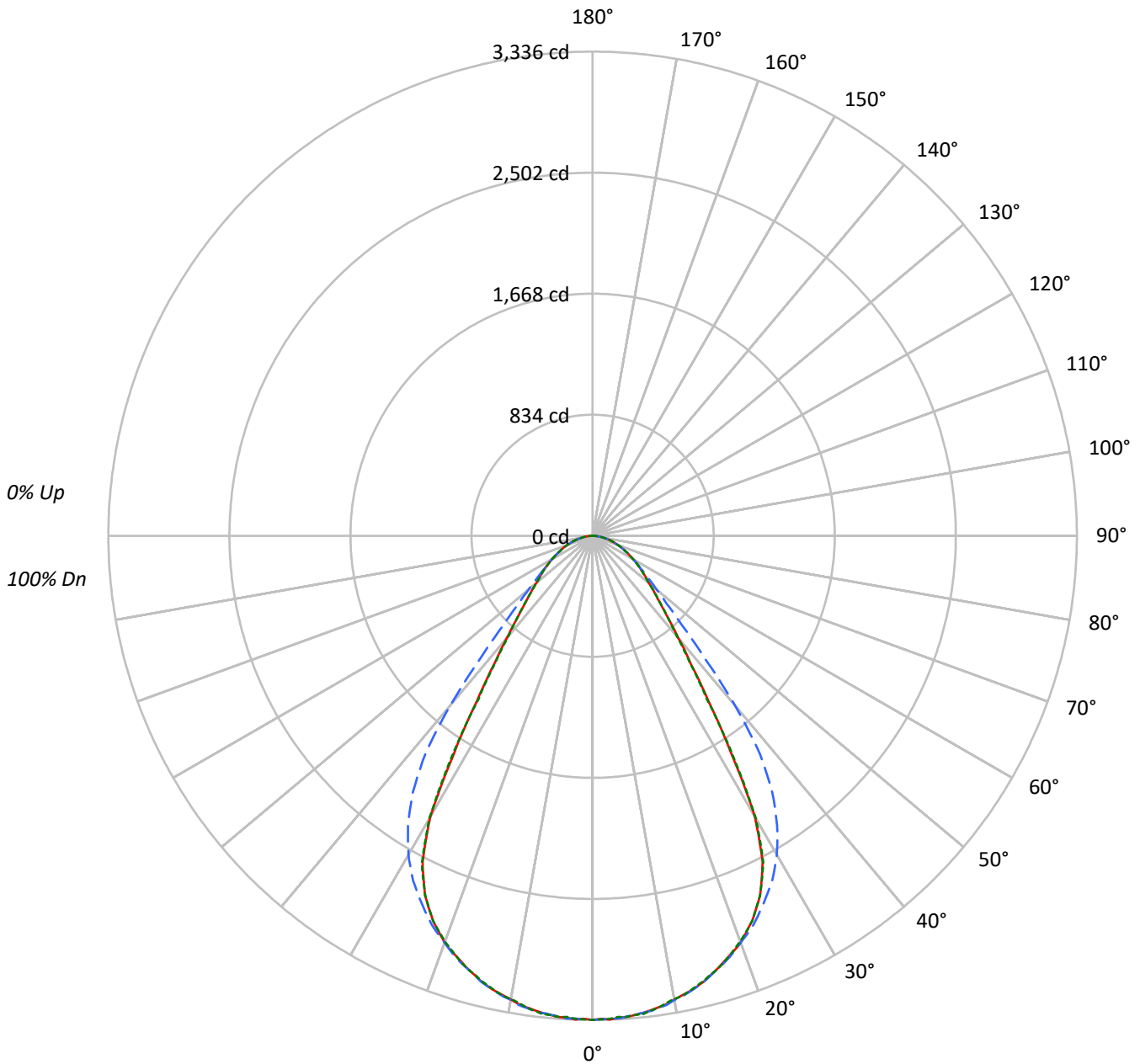
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4920.2 lumens
Efficiency: N/A
Efficacy: 87.9 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): 56
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

TEST NUMBER: P838748
CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838748

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMW

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	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°	143621	143621	143621
5°	143262	143158	143262
10°	141858	141963	141657
15°	139750	139852	139540
20°	136600	136710	136279
25°	129783	132553	129674
30°	111136	126205	111832
35°	73023	113453	71920
40°	51619	85550	50703
45°	40023	52658	40309
50°	34041	38408	33726
55°	30619	31497	30619
60°	27702	27702	27702
65°	25408	25174	25174
70°	23176	23176	23478
75°	21709	20944	21327
80°	19067	19067	19067
85°	16105	16105	16105

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 52658 cd/sqm



TEST NUMBER: P838748

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	314.5	6.4
10°-20°	883.1	17.9
20°-30°	1258.5	25.6
30°-40°	1073.0	21.8
40°-50°	593.6	12.1
50°-60°	373.9	7.6
60°-70°	248.3	5.0
70°-80°	136.4	2.8
80°-90°	38.8	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°	2456.1	49.9
0°-40°	3529.1	71.7
0°-60°	4496.7	91.4
0°-90°	4920.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4920.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3336	3336	3336	3336	3336	
5°	3315	3319	3312	3308	3315	314
15°	3135	3135	3138	3135	3130	883
25°	2732	2765	2790	2762	2730	1234
35°	1389	1639	2158	1641	1368	903
45°	657	720	865	716	662	521
55°	408	415	420	413	408	366
65°	249	252	247	249	247	248
75°	130	128	126	128	128	137
85°	33	33	33	35	33	39
90°	0	0	0	0	0	



TEST NUMBER: P838748

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3335.7	3335.7	3335.7	3335.7	3335.7
1°	3328.7	3333.3	3333.3	3331.0	3333.3
2°	3335.7	3328.7	3328.7	3328.7	3331.0
3°	3326.3	3331.0	3331.0	3324.0	3319.3
4°	3324.0	3321.7	3321.7	3328.7	3324.0
5°	3314.7	3319.3	3312.3	3307.7	3314.7
6°	3305.3	3307.7	3305.3	3307.7	3314.7
7°	3293.7	3300.7	3298.4	3296.0	3296.0
8°	3279.7	3289.0	3284.4	3284.4	3282.0
9°	3265.7	3268.1	3272.7	3272.7	3258.7
10°	3244.7	3251.7	3247.1	3249.4	3240.1
11°	3226.1	3235.4	3233.1	3228.4	3230.8
12°	3209.8	3214.4	3212.1	3205.1	3207.4
13°	3188.8	3193.5	3191.1	3191.1	3184.1
14°	3165.5	3160.8	3167.8	3163.2	3160.8
15°	3135.2	3135.2	3137.5	3135.2	3130.5
16°	3107.2	3109.5	3109.5	3107.2	3109.5
17°	3074.6	3083.9	3081.6	3076.9	3079.2
18°	3044.3	3051.3	3053.6	3051.3	3044.3
19°	3016.3	3021.0	3018.6	3009.3	3009.3
20°	2981.3	2983.7	2983.7	2979.0	2974.3
22.5°	2871.8	2888.1	2899.8	2890.4	2871.8
25°	2731.9	2764.6	2790.2	2762.2	2729.6
27.5°	2536.1	2601.4	2678.3	2608.4	2547.8
30°	2235.4	2384.6	2538.5	2398.6	2249.4
32.5°	1778.5	2072.3	2366.0	2100.2	1806.5
35°	1389.3	1638.7	2158.5	1641.0	1368.3
37.5°	1109.6	1286.7	1892.8	1275.1	1097.9
40°	918.4	1037.3	1522.1	1032.6	902.1
42.5°	766.9	857.8	1139.9	848.5	766.9
45°	657.3	720.3	864.8	715.6	662.0
47.5°	575.8	615.4	692.3	613.1	575.8
50°	508.2	531.5	573.4	529.1	503.5
52.5°	454.5	468.5	484.8	463.9	449.9
55°	407.9	414.9	419.6	412.6	407.9
57.5°	363.6	368.3	366.0	363.6	361.3
60°	321.7	324.0	321.7	324.0	321.7
62.5°	284.4	286.7	282.1	284.4	282.1
65°	249.4	251.7	247.1	249.4	247.1
67.5°	216.8	216.8	216.8	216.8	214.5
70°	184.1	186.5	184.1	186.5	186.5
72.5°	156.2	156.2	153.8	156.2	156.2
75°	130.5	128.2	125.9	128.2	128.2



TEST NUMBER: P838748

CATALOG NUMBER: HCSQ660D010-HM64560835-61SQMW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	55.9	55.9	53.6	55.9	55.9
85°	32.6	32.6	32.6	35.0	32.6
87.5°	16.3	14.0	14.0	16.3	16.3
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

Scaled Data Report





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

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

Scaled Data Report



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

Scaled Data Report





77.5°	102.6	102.6	100.2	102.6	102.6
80°	76.9	79.3	76.9	79.3	76.9

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

Scaled Data Report



(END OF REPORT)