

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: P838760

Luminaire Tested: HCSQ660D010-HM64560930-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838760
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: HCSQ660D010-HM64560930-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

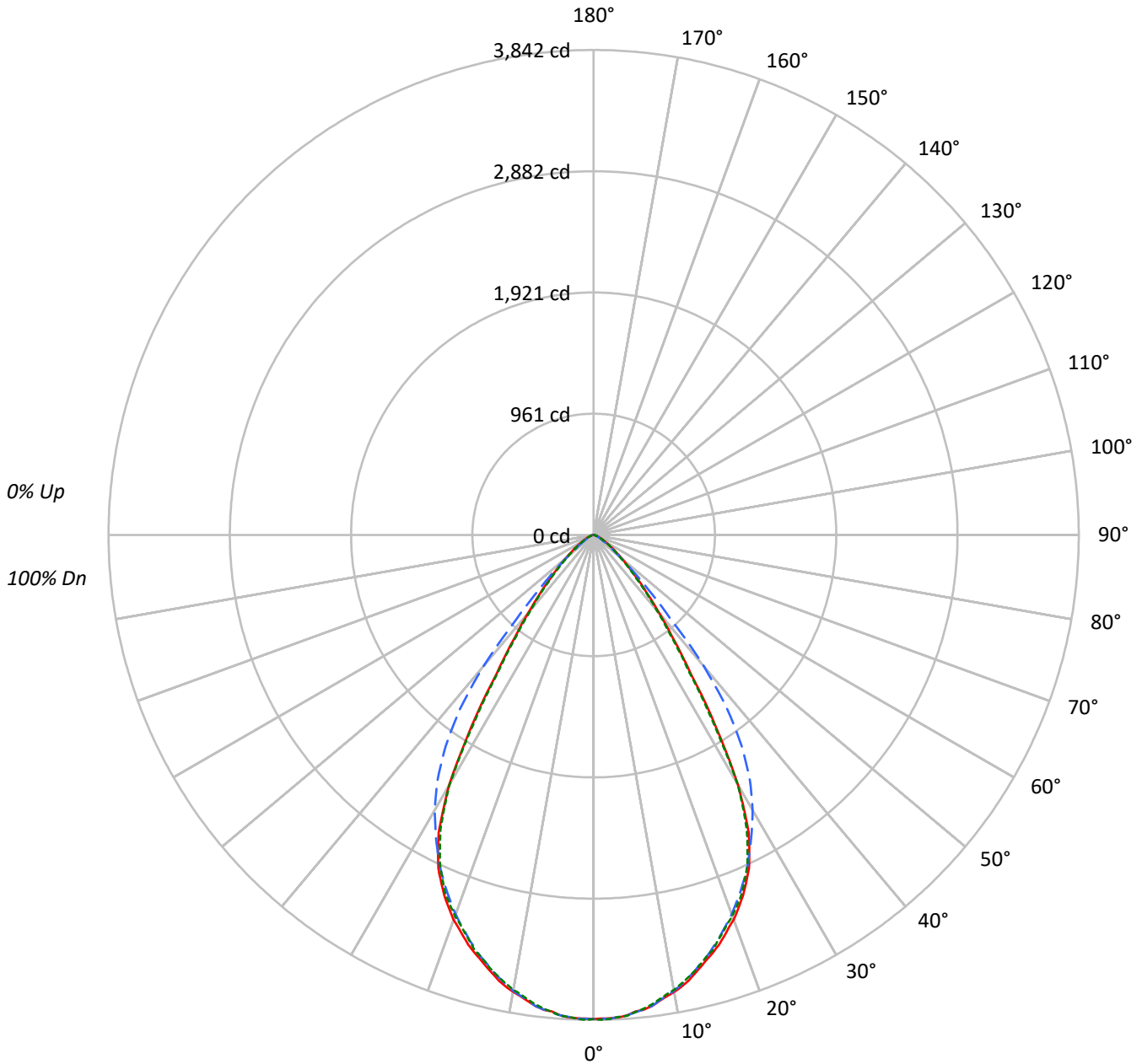
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4313.8 lumens
Efficiency: N/A
Efficacy: 77.0 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): 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

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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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78								
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71								
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66								
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61								
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56								
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52								
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48								
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	165144	165144	165144
5°	163843	164120	164029
10°	160714	160343	159971
15°	155039	154183	154090
20°	148646	146501	147184
25°	138354	137142	136838
30°	113696	125116	113378
35°	70222	107456	68545
40°	45077	76164	43520
45°	29404	36918	27979
50°	19519	18380	18239
55°	13257	9578	12296
60°	8973	5864	8241
65°	6286	4330	5634
70°	4016	3210	3751
75°	2828	2479	2479
80°	2108	1587	1587
85°	1037	2124	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 36918 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	358.2	8.3
10°-20°	972.2	22.5
20°-30°	1312.4	30.4
30°-40°	1024.3	23.7
40°-50°	429.1	9.9
50°-60°	145.5	3.4
60°-70°	51.9	1.2
70°-80°	16.9	0.4
80°-90°	3.4	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°	2642.8	61.3
0°-40°	3667.1	85.0
0°-60°	4241.6	98.3
0°-90°	4313.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4313.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3836	3836	3836	3836	3836	
5°	3791	3795	3797	3791	3795	359
15°	3478	3470	3459	3455	3457	978
25°	2912	2900	2887	2887	2880	1310
35°	1336	1568	2044	1566	1304	879
45°	483	517	606	494	460	388
55°	177	162	128	153	164	163
65°	62	51	42	49	55	63
75°	17	15	15	15	15	19
85°	2	2	4	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3835.6	3835.6	3835.6	3835.6	<i>3835.6</i>
1°	<i>3831.3</i>	<i>3837.7</i>	<i>3833.4</i>	<i>3835.6</i>	<i>3842.0</i>
2°	3831.3	3831.3	3835.6	3833.4	<i>3835.6</i>
3°	3827.1	3827.1	3822.8	3822.8	<i>3822.8</i>
4°	3814.3	3814.3	3814.3	3810.0	<i>3818.6</i>
5°	3790.9	3795.2	3797.3	3790.9	<i>3795.2</i>
6°	3782.4	3784.5	3780.3	3778.1	<i>3773.9</i>
7°	3763.2	3756.9	3763.2	3748.4	<i>3750.5</i>
8°	3731.3	3731.3	3727.1	3722.8	<i>3718.6</i>
9°	3701.5	3701.5	3697.3	3690.9	<i>3686.7</i>
10°	3676.0	3669.6	3667.5	3661.1	<i>3659.0</i>
11°	3646.2	3633.5	3631.3	3625.0	<i>3625.0</i>
12°	3610.1	3603.7	3588.8	3586.7	<i>3586.7</i>
13°	3565.4	3559.0	3548.4	3539.9	<i>3548.4</i>
14°	3522.9	3518.6	3499.5	3505.8	<i>3503.7</i>
15°	3478.2	3469.7	3459.0	3454.8	<i>3456.9</i>
16°	3437.8	3422.9	3408.0	3410.1	<i>3422.9</i>
17°	3395.2	3373.9	3359.1	3356.9	<i>3363.3</i>
18°	3342.0	3325.0	3301.6	3310.1	<i>3310.1</i>
19°	3288.8	3265.4	3250.6	3248.4	<i>3256.9</i>
20°	3244.2	3208.0	3197.4	3195.2	<i>3212.3</i>
22.5°	3091.0	3054.8	3046.3	3054.8	<i>3071.9</i>
25°	2912.3	2899.5	2886.8	2886.8	<i>2880.4</i>
27.5°	2659.2	2688.9	2703.8	2674.1	<i>2625.1</i>
30°	2286.9	2412.4	2516.6	2397.5	<i>2280.5</i>
32.5°	1801.8	2061.4	2301.8	2055.0	<i>1759.3</i>
35°	1336.0	1567.8	2044.4	1565.7	<i>1304.1</i>
37.5°	1029.6	1178.5	1738.0	1159.4	<i>999.8</i>
40°	802.0	889.2	1355.1	878.6	<i>774.3</i>
42.5°	623.3	678.6	902.0	665.9	<i>602.0</i>
45°	482.9	516.9	606.3	493.5	<i>459.5</i>
47.5°	376.5	391.4	414.8	374.4	<i>355.3</i>
50°	291.4	291.4	274.4	280.8	<i>272.3</i>
52.5°	225.5	217.0	185.1	204.2	<i>208.5</i>
55°	176.6	161.7	127.6	153.2	<i>163.8</i>
57.5°	134.0	119.1	91.5	112.7	<i>123.4</i>
60°	104.2	89.3	68.1	85.1	<i>95.7</i>
62.5°	80.8	68.1	53.2	63.8	<i>72.3</i>
65°	61.7	51.1	42.5	48.9	<i>55.3</i>
67.5°	46.8	38.3	31.9	36.2	<i>42.5</i>
70°	31.9	29.8	25.5	27.7	<i>29.8</i>
72.5°	23.4	21.3	19.1	19.1	<i>21.3</i>
75°	17.0	14.9	14.9	14.9	<i>14.9</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.3	4.3	4.3	4.3	4.3
85°	2.1	2.1	4.3	2.1	2.1
87.5°	2.1	2.1	2.1	2.1	2.1
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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— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	10.6	10.6	10.6	10.6	10.6
80°	8.5	8.5	6.4	6.4	6.4

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Scaled Data Report



(END OF REPORT)