

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: P838740

Luminaire Tested: HCSQ660D010-HM64560830-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838740
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-HM64560830-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

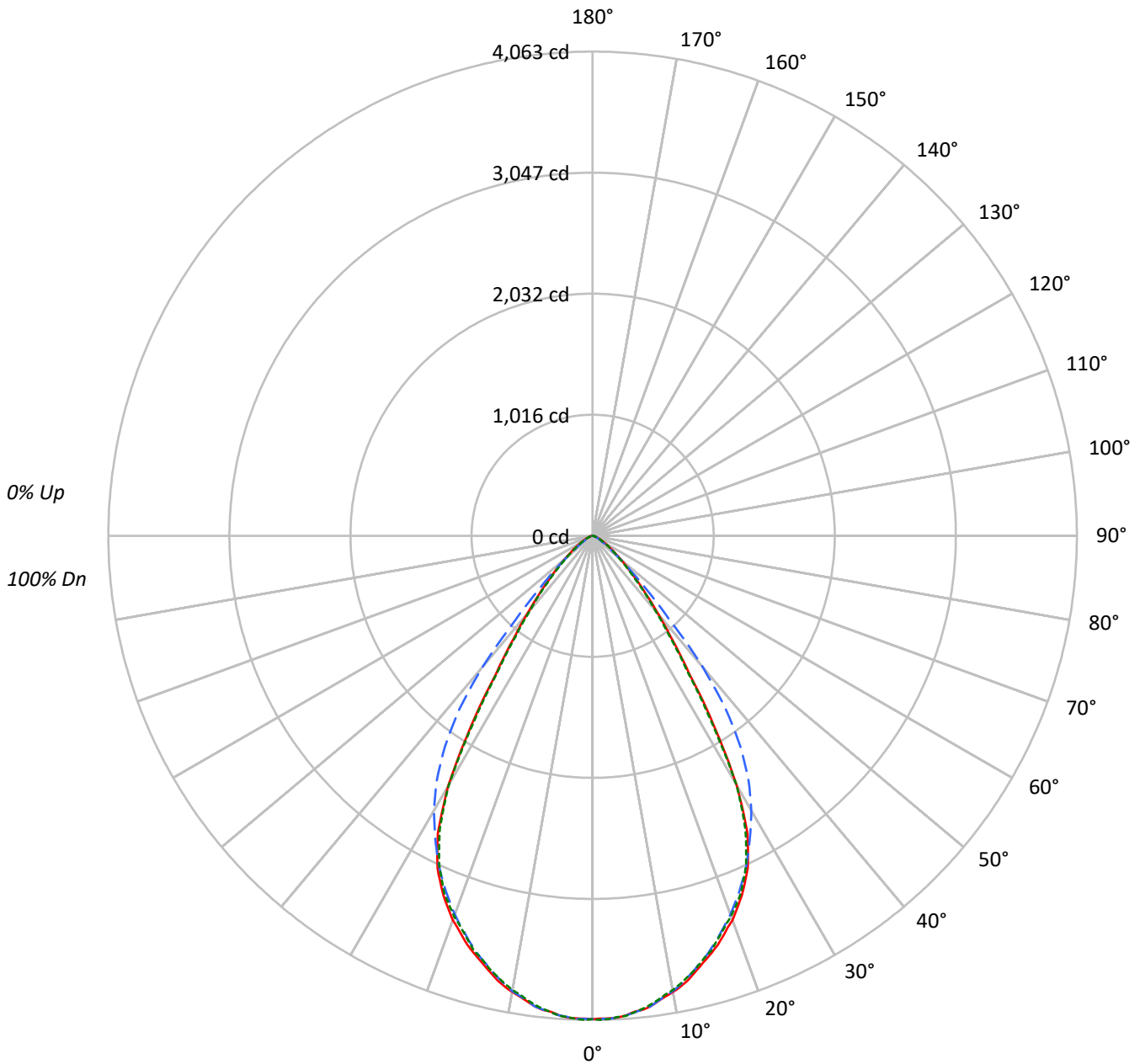
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4562.1 lumens
Efficiency: N/A
Efficacy: 81.5 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 (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

TEST NUMBER: P838740
CATALOG NUMBER: HCSQ660D010-HM64560830-61SQH

Luminous Intensity Polar Plot





TEST NUMBER: P838740

CATALOG NUMBER: HCSQ660D010-HM64560830-61SQH

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°	174655	174655	174655
5°	173278	173572	173473
10°	169970	169576	169183
15°	163967	163062	162964
20°	157205	154937	155660
25°	146321	145038	144720
30°	120244	132325	119906
35°	74264	113643	72487
40°	47673	80548	46026
45°	31096	39043	29592
50°	20644	19438	19291
55°	14015	10134	13001
60°	9489	6200	8714
65°	6642	4585	5960
70°	4242	3399	3965
75°	2994	2612	2612
80°	2232	1661	1661
85°	1087	2223	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 39043 cd/sqm



TEST NUMBER: P838740

CATALOG NUMBER: HCSQ660D010-HM64560830-61SQH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	378.8	8.3
10°-20°	1028.2	22.5
20°-30°	1388.0	30.4
30°-40°	1083.2	23.7
40°-50°	453.8	9.9
50°-60°	153.8	3.4
60°-70°	54.8	1.2
70°-80°	17.8	0.4
80°-90°	3.6	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°	2795.0	61.3
0°-40°	3878.3	85.0
0°-60°	4485.9	98.3
0°-90°	4562.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4562.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4056	4056	4056	4056	4056	
5°	4009	4014	4016	4009	4014	379
15°	3678	3670	3658	3654	3656	1035
25°	3080	3066	3053	3053	3046	1385
35°	1413	1658	2162	1656	1379	929
45°	511	547	641	522	486	410
55°	187	171	135	162	173	172
65°	65	54	45	52	58	67
75°	18	16	16	16	16	20
85°	2	2	4	2	2	4
90°	0	0	0	0	0	

TEST NUMBER: P838740

CATALOG NUMBER: HCSQ660D010-HM64560830-61SQH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4056.5	4056.5	4056.5	4056.5	<i>4056.5</i>
1°	<i>4052.0</i>	<i>4058.7</i>	<i>4054.2</i>	<i>4056.5</i>	<i>4063.2</i>
2°	4052.0	4052.0	4056.5	4054.2	<i>4056.5</i>
3°	4047.5	4047.5	4043.0	4043.0	<i>4043.0</i>
4°	4034.0	4034.0	4034.0	4029.5	<i>4038.5</i>
5°	4009.2	4013.7	4016.0	4009.2	<i>4013.7</i>
6°	4000.2	4002.5	3998.0	3995.7	<i>3991.2</i>
7°	3980.0	3973.2	3980.0	3964.2	<i>3966.5</i>
8°	3946.2	3946.2	3941.7	3937.2	<i>3932.7</i>
9°	3914.7	3914.7	3910.2	3903.5	<i>3899.0</i>
10°	3887.7	3881.0	3878.7	3872.0	<i>3869.7</i>
11°	3856.2	3842.7	3840.5	3833.7	<i>3833.7</i>
12°	3818.0	3811.2	3795.5	3793.2	<i>3793.2</i>
13°	3770.7	3764.0	3752.7	3743.7	<i>3752.7</i>
14°	3725.7	3721.2	3701.0	3707.7	<i>3705.5</i>
15°	3678.5	3669.5	3658.2	3653.7	<i>3656.0</i>
16°	3635.7	3620.0	3604.2	3606.5	<i>3620.0</i>
17°	3590.7	3568.2	3552.5	3550.2	<i>3557.0</i>
18°	3534.5	3516.5	3491.7	3500.7	<i>3500.7</i>
19°	3478.2	3453.5	3437.7	3435.5	<i>3444.5</i>
20°	3431.0	3392.8	3381.5	3379.3	<i>3397.3</i>
22.5°	3269.0	3230.8	3221.8	3230.8	<i>3248.8</i>
25°	3080.0	3066.5	3053.0	3053.0	<i>3046.3</i>
27.5°	2812.3	2843.8	2859.5	2828.0	<i>2776.3</i>
30°	2418.6	2551.3	2661.6	2535.6	<i>2411.8</i>
32.5°	1905.6	2180.1	2434.3	2173.3	<i>1860.6</i>
35°	1412.9	1658.1	2162.1	1655.9	<i>1379.1</i>
37.5°	1088.9	1246.4	1838.1	1226.2	<i>1057.4</i>
40°	848.2	940.4	1433.1	929.2	<i>818.9</i>
42.5°	659.2	717.7	953.9	704.2	<i>636.7</i>
45°	510.7	546.7	641.2	522.0	<i>486.0</i>
47.5°	398.2	414.0	438.7	396.0	<i>375.7</i>
50°	308.2	308.2	290.2	297.0	<i>288.0</i>
52.5°	238.5	229.5	195.7	216.0	<i>220.5</i>
55°	186.7	171.0	135.0	162.0	<i>173.2</i>
57.5°	141.7	126.0	96.7	119.2	<i>130.5</i>
60°	110.2	94.5	72.0	90.0	<i>101.2</i>
62.5°	85.5	72.0	56.2	67.5	<i>76.5</i>
65°	65.2	54.0	45.0	51.7	<i>58.5</i>
67.5°	49.5	40.5	33.7	38.2	<i>45.0</i>
70°	33.7	31.5	27.0	29.2	<i>31.5</i>
72.5°	24.7	22.5	20.2	20.2	<i>22.5</i>
75°	18.0	15.7	15.7	15.7	<i>15.7</i>



TEST NUMBER: P838740

CATALOG NUMBER: HCSQ660D010-HM64560830-61SQH

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.5	4.5	4.5	4.5	4.5
85°	2.2	2.2	4.5	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2
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



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

Scaled Data Report



77.5°	11.2	11.2	11.2	11.2	11.2
80°	9.0	9.0	6.7	6.7	6.7

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

Scaled Data Report



(END OF REPORT)