

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: P838345

Luminaire Tested: HCSQ610D010-HM60525835-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838345
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: HCSQ610D010-HM60525835-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

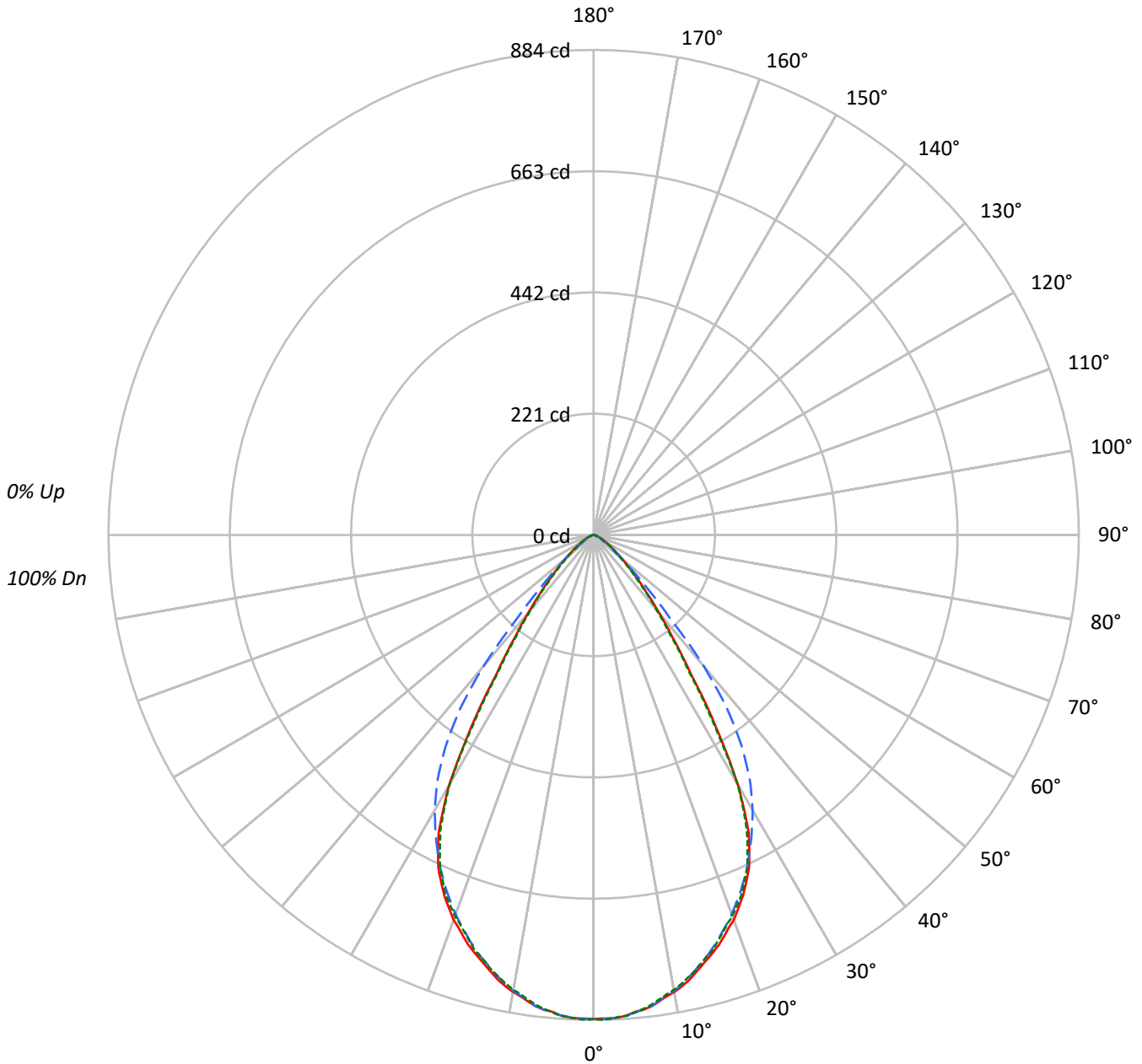
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 992.6 lumens
Efficiency: N/A
Efficacy: 100.3 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): 9.9
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	78	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°	38001	38001	38001
5°	37701	37766	37744
10°	36983	36895	36808
15°	35673	35477	35455
20°	34204	33709	33865
25°	31834	31559	31487
30°	26161	28791	26086
35°	16157	24725	15774
40°	10370	17525	10016
45°	6765	8494	6436
50°	4495	4227	4200
55°	3048	2207	2830
60°	2067	1352	1894
65°	1447	998	1294
70°	919	743	869
75°	649	566	566
80°	496	372	372
85°	247	494	247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 8494 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.4	8.3
10°-20°	223.7	22.5
20°-30°	302.0	30.4
30°-40°	235.7	23.7
40°-50°	98.7	9.9
50°-60°	33.5	3.4
60°-70°	11.9	1.2
70°-80°	3.9	0.4
80°-90°	0.8	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°	608.1	61.3
0°-40°	843.8	85.0
0°-60°	976.0	98.3
0°-90°	992.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	992.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	883	883	883	883	883	
5°	872	873	874	872	873	83
15°	800	798	796	795	795	225
25°	670	667	664	664	663	301
35°	307	361	470	360	300	202
45°	111	119	140	114	106	89
55°	41	37	29	35	38	38
65°	14	12	10	11	13	15
75°	4	3	3	3	3	4
85°	0	0	1	0	0	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.6	882.6	882.6	882.6	<i>882.6</i>
1°	<i>881.6</i>	<i>883.1</i>	<i>882.1</i>	<i>882.6</i>	<i>884.0</i>
2°	881.6	881.6	882.6	882.1	<i>882.6</i>
3°	880.6	880.6	879.6	879.6	<i>879.6</i>
4°	877.7	877.7	877.7	876.7	<i>878.7</i>
5°	872.3	873.3	873.8	872.3	<i>873.3</i>
6°	870.3	870.8	869.8	869.4	<i>868.4</i>
7°	865.9	864.5	865.9	862.5	<i>863.0</i>
8°	858.6	858.6	857.6	856.6	<i>855.6</i>
9°	851.7	851.7	850.8	849.3	<i>848.3</i>
10°	845.9	844.4	843.9	842.4	<i>841.9</i>
11°	839.0	836.1	835.6	834.1	<i>834.1</i>
12°	830.7	829.2	825.8	825.3	<i>825.3</i>
13°	820.4	818.9	816.5	814.5	<i>816.5</i>
14°	810.6	809.6	805.2	806.7	<i>806.2</i>
15°	800.3	798.4	795.9	794.9	<i>795.4</i>
16°	791.0	787.6	784.2	784.7	<i>787.6</i>
17°	781.2	776.3	772.9	772.4	<i>773.9</i>
18°	769.0	765.1	759.7	761.7	<i>761.7</i>
19°	756.8	751.4	748.0	747.5	<i>749.4</i>
20°	746.5	738.2	735.7	735.2	<i>739.1</i>
22.5°	711.2	702.9	701.0	702.9	<i>706.8</i>
25°	670.1	667.2	664.3	664.3	<i>662.8</i>
27.5°	611.9	618.7	622.2	615.3	<i>604.0</i>
30°	526.2	555.1	579.1	551.7	<i>524.7</i>
32.5°	414.6	474.3	529.6	472.9	<i>404.8</i>
35°	307.4	360.8	470.4	360.3	<i>300.1</i>
37.5°	236.9	271.2	399.9	266.8	<i>230.1</i>
40°	184.5	204.6	311.8	202.2	<i>178.2</i>
42.5°	143.4	156.2	207.5	153.2	<i>138.5</i>
45°	111.1	118.9	139.5	113.6	<i>105.7</i>
47.5°	86.6	90.1	95.5	86.2	<i>81.7</i>
50°	67.1	67.1	63.1	64.6	<i>62.7</i>
52.5°	51.9	49.9	42.6	47.0	<i>48.0</i>
55°	40.6	37.2	29.4	35.2	<i>37.7</i>
57.5°	30.8	27.4	21.0	25.9	<i>28.4</i>
60°	24.0	20.6	15.7	19.6	<i>22.0</i>
62.5°	18.6	15.7	12.2	14.7	<i>16.6</i>
65°	14.2	11.7	9.8	11.3	<i>12.7</i>
67.5°	10.8	8.8	7.3	8.3	<i>9.8</i>
70°	7.3	6.9	5.9	6.4	<i>6.9</i>
72.5°	5.4	4.9	4.4	4.4	<i>4.9</i>
75°	3.9	3.4	3.4	3.4	<i>3.4</i>



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.0	1.0	1.0	1.0	1.0
85°	0.5	0.5	1.0	0.5	0.5
87.5°	0.5	0.5	0.5	0.5	0.5
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°	2.4	2.4	2.4	2.4	2.4
80°	2.0	2.0	1.5	1.5	1.5

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Scaled Data Report



(END OF REPORT)