

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: P838368

Luminaire Tested: HCSQ610D010-HM60525935-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838368
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: HCSQ610D010-HM60525935-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

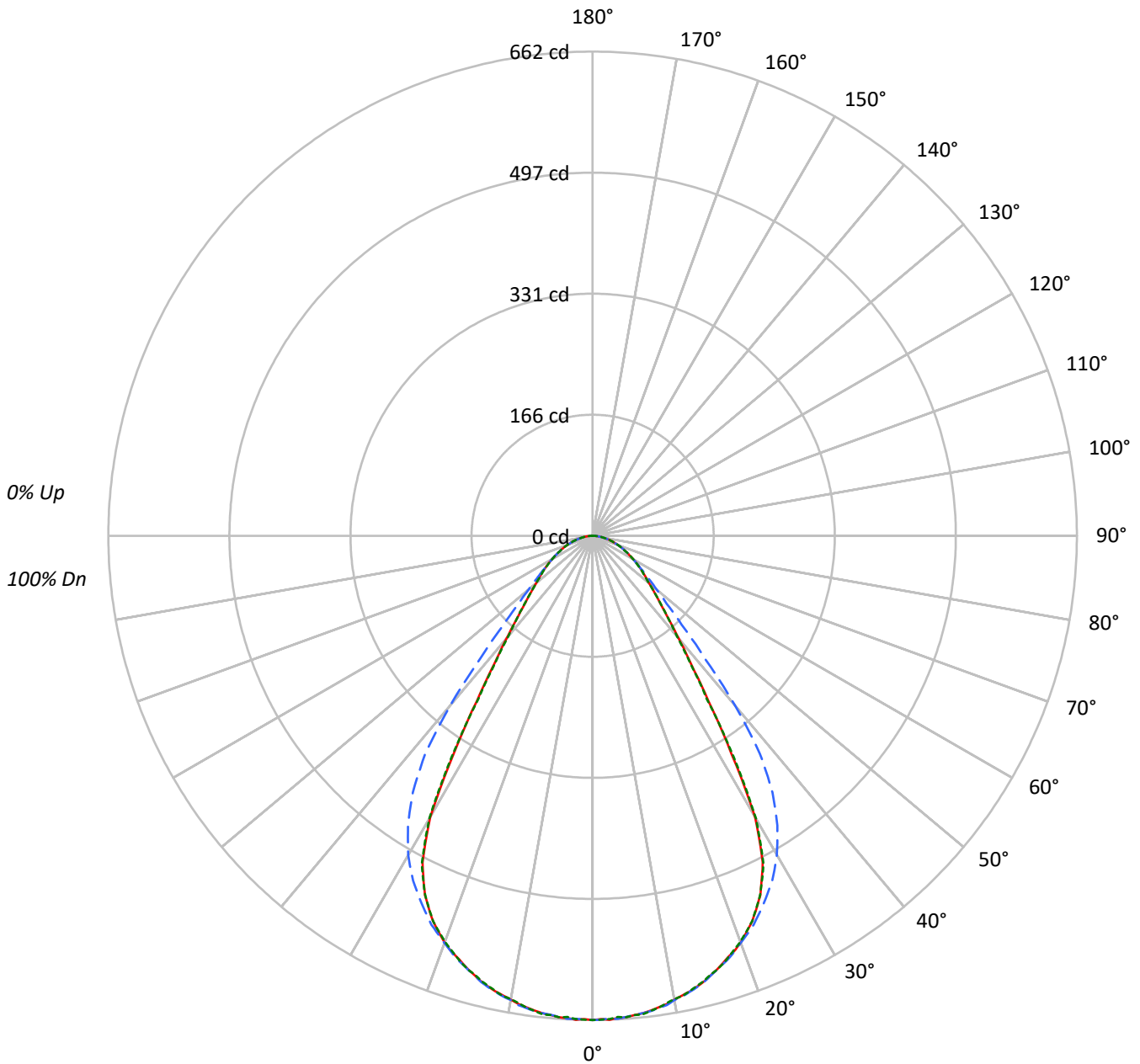
Lumens per Lamp: N/A
Luminaire Lumens: 976.7 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	28511	28511	28511
5°	28439	28422	28439
10°	28160	28182	28121
15°	27743	27761	27703
20°	27116	27139	27056
25°	25763	26314	25744
30°	22064	25052	22198
35°	14496	22522	14276
40°	10246	16985	10066
45°	7946	10455	8001
50°	6759	7623	6698
55°	6080	6253	6080
60°	5503	5503	5503
65°	5043	5002	5002
70°	4607	4607	4658
75°	4309	4159	4242
80°	3794	3794	3794
85°	3211	3211	3211

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 10455 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	6.4
10°-20°	175.3	17.9
20°-30°	249.8	25.6
30°-40°	213.0	21.8
40°-50°	117.8	12.1
50°-60°	74.2	7.6
60°-70°	49.3	5.0
70°-80°	27.1	2.8
80°-90°	7.7	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°	487.6	49.9
0°-40°	700.6	71.7
0°-60°	892.7	91.4
0°-90°	976.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	976.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	658	659	658	657	658	62
15°	622	622	623	622	622	175
25°	542	549	554	548	542	245
35°	276	325	428	326	272	179
45°	130	143	172	142	131	103
55°	81	82	83	82	81	73
65°	50	50	49	50	49	49
75°	26	26	25	26	26	27
85°	6	6	6	7	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	662.2	662.2	662.2	662.2	662.2
1°	660.8	661.7	661.7	661.3	661.7
2°	662.2	660.8	660.8	660.8	661.3
3°	660.3	661.3	661.3	659.9	658.9
4°	659.9	659.4	659.4	660.8	659.9
5°	658.0	658.9	657.6	656.6	658.0
6°	656.2	656.6	656.2	656.6	658.0
7°	653.8	655.2	654.8	654.3	654.3
8°	651.1	652.9	652.0	652.0	651.5
9°	648.3	648.8	649.7	649.7	646.9
10°	644.1	645.5	644.6	645.1	643.2
11°	640.4	642.3	641.8	640.9	641.4
12°	637.2	638.1	637.7	636.3	636.7
13°	633.0	634.0	633.5	633.5	632.1
14°	628.4	627.5	628.9	627.9	627.5
15°	622.4	622.4	622.8	622.4	621.5
16°	616.8	617.3	617.3	616.8	617.3
17°	610.4	612.2	611.7	610.8	611.3
18°	604.3	605.7	606.2	605.7	604.3
19°	598.8	599.7	599.2	597.4	597.4
20°	591.8	592.3	592.3	591.4	590.5
22.5°	570.1	573.3	575.6	573.8	570.1
25°	542.3	548.8	553.9	548.3	541.9
27.5°	503.5	516.4	531.7	517.8	505.8
30°	443.8	473.4	503.9	476.2	446.5
32.5°	353.1	411.4	469.7	416.9	358.6
35°	275.8	325.3	428.5	325.8	271.6
37.5°	220.3	255.4	375.7	253.1	217.9
40°	182.3	205.9	302.2	205.0	179.1
42.5°	152.2	170.3	226.3	168.4	152.2
45°	130.5	143.0	171.7	142.1	131.4
47.5°	114.3	122.2	137.4	121.7	114.3
50°	100.9	105.5	113.8	105.0	100.0
52.5°	90.2	93.0	96.2	92.1	89.3
55°	81.0	82.4	83.3	81.9	81.0
57.5°	72.2	73.1	72.6	72.2	71.7
60°	63.9	64.3	63.9	64.3	63.9
62.5°	56.5	56.9	56.0	56.5	56.0
65°	49.5	50.0	49.1	49.5	49.1
67.5°	43.0	43.0	43.0	43.0	42.6
70°	36.6	37.0	36.6	37.0	37.0
72.5°	31.0	31.0	30.5	31.0	31.0
75°	25.9	25.5	25.0	25.5	25.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	11.1	11.1	10.6	11.1	11.1
85°	6.5	6.5	6.5	6.9	6.5
87.5°	3.2	2.8	2.8	3.2	3.2
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



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Scaled Data Report





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

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77.5°	20.4	20.4	19.9	20.4	20.4
80°	15.3	15.7	15.3	15.7	15.3

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Scaled Data Report



(END OF REPORT)