

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: P838373

Luminaire Tested: HCSQ610D010-HM60525940-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838373
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-HM60525940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

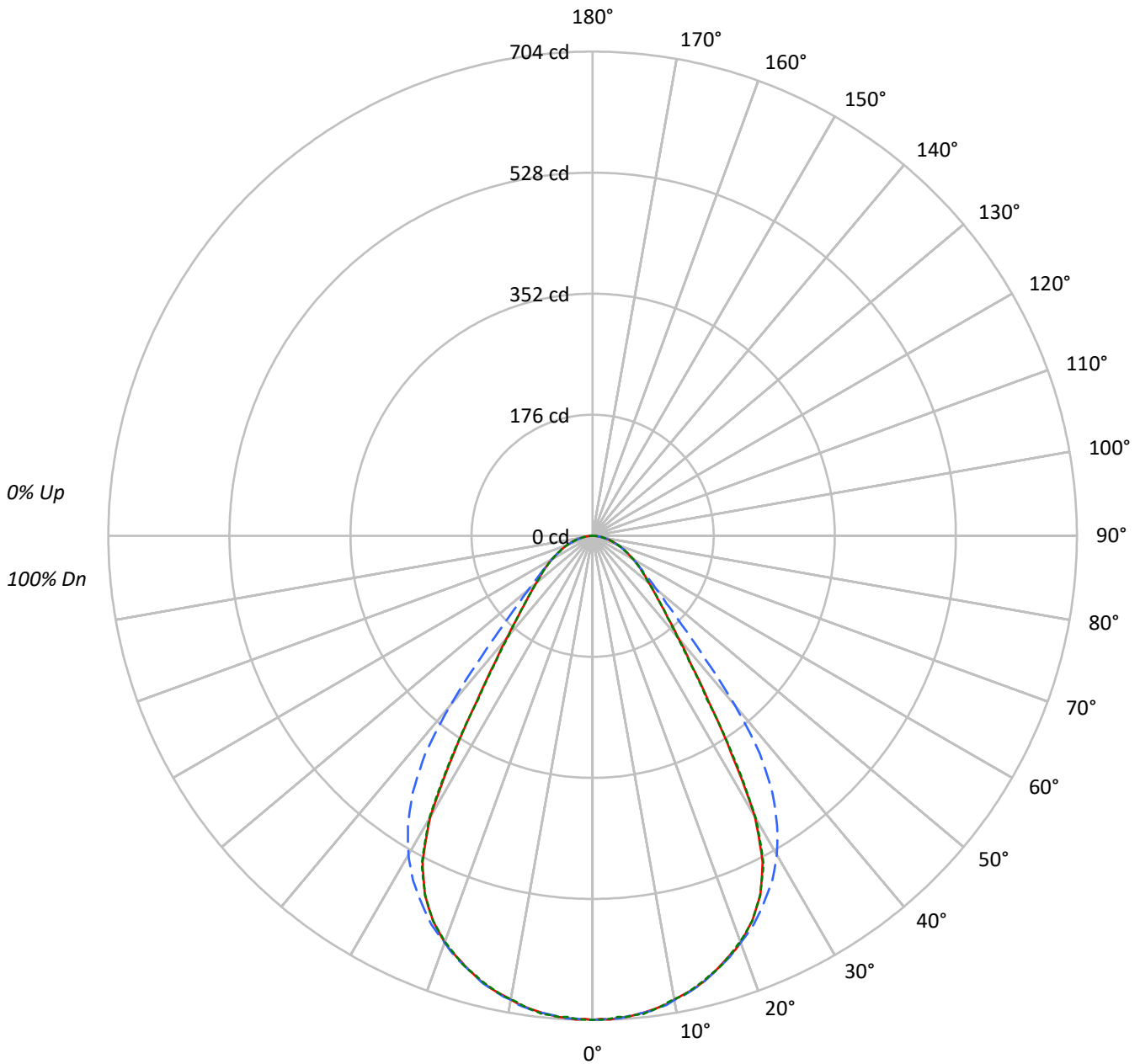
Lumens per Lamp: N/A
Luminaire Lumens: 1038.4 lumens
Efficiency: N/A
Efficacy: 104.9 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	30311	30311	30311
5°	30232	30211	30232
10°	29939	29961	29896
15°	29495	29517	29450
20°	28829	28852	28761
25°	27392	27977	27369
30°	23456	26633	23600
35°	15411	23942	15180
40°	10893	18053	10701
45°	8445	11112	8506
50°	7181	8105	7120
55°	6463	6643	6463
60°	5847	5847	5847
65°	5359	5308	5308
70°	4897	4897	4960
75°	4575	4425	4508
80°	4017	4017	4017
85°	3409	3409	3409

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	6.4
10°-20°	186.4	17.9
20°-30°	265.6	25.6
30°-40°	226.5	21.8
40°-50°	125.3	12.1
50°-60°	78.9	7.6
60°-70°	52.4	5.0
70°-80°	28.8	2.8
80°-90°	8.2	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°	518.3	49.9
0°-40°	744.8	71.7
0°-60°	949.0	91.4
0°-90°	1038.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1038.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	700	700	699	698	700	66
15°	662	662	662	662	661	186
25°	577	583	589	583	576	260
35°	293	346	456	346	289	191
45°	139	152	182	151	140	110
55°	86	88	88	87	86	77
65°	53	53	52	53	52	52
75°	28	27	27	27	27	29
85°	7	7	7	7	7	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	704.0	704.0	704.0	704.0	704.0
1°	702.5	703.5	703.5	703.0	703.5
2°	704.0	702.5	702.5	702.5	703.0
3°	702.0	703.0	703.0	701.5	700.5
4°	701.5	701.0	701.0	702.5	701.5
5°	699.5	700.5	699.0	698.1	699.5
6°	697.6	698.1	697.6	698.1	699.5
7°	695.1	696.6	696.1	695.6	695.6
8°	692.2	694.1	693.1	693.1	692.7
9°	689.2	689.7	690.7	690.7	687.7
10°	684.8	686.3	685.3	685.8	683.8
11°	680.8	682.8	682.3	681.3	681.8
12°	677.4	678.4	677.9	676.4	676.9
13°	673.0	674.0	673.5	673.5	672.0
14°	668.1	667.1	668.5	667.6	667.1
15°	661.7	661.7	662.2	661.7	660.7
16°	655.8	656.3	656.3	655.8	656.3
17°	648.9	650.8	650.3	649.4	649.9
18°	642.5	644.0	644.4	644.0	642.5
19°	636.6	637.6	637.1	635.1	635.1
20°	629.2	629.7	629.7	628.7	627.7
22.5°	606.1	609.5	612.0	610.0	606.1
25°	576.6	583.4	588.9	583.0	576.1
27.5°	535.2	549.0	565.2	550.5	537.7
30°	471.8	503.3	535.7	506.2	474.7
32.5°	375.4	437.3	499.3	443.2	381.3
35°	293.2	345.8	455.5	346.3	288.8
37.5°	234.2	271.6	399.5	269.1	231.7
40°	193.8	218.9	321.2	217.9	190.4
42.5°	161.8	181.0	240.6	179.1	161.8
45°	138.7	152.0	182.5	151.0	139.7
47.5°	121.5	129.9	146.1	129.4	121.5
50°	107.2	112.2	121.0	111.7	106.3
52.5°	95.9	98.9	102.3	97.9	94.9
55°	86.1	87.6	88.5	87.1	86.1
57.5°	76.7	77.7	77.2	76.7	76.3
60°	67.9	68.4	67.9	68.4	67.9
62.5°	60.0	60.5	59.5	60.0	59.5
65°	52.6	53.1	52.1	52.6	52.1
67.5°	45.8	45.8	45.8	45.8	45.3
70°	38.9	39.4	38.9	39.4	39.4
72.5°	33.0	33.0	32.5	33.0	33.0
75°	27.5	27.1	26.6	27.1	27.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	<i>11.8</i>	11.8	11.3	11.8	11.8
85°	<i>6.9</i>	6.9	6.9	7.4	6.9
87.5°	<i>3.4</i>	3.0	3.0	3.4	3.4
90°	<i>0.0</i>	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°	21.6	21.6	21.2	21.6	21.6
80°	16.2	16.7	16.2	16.7	16.2

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Scaled Data Report



(END OF REPORT)