

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: P838699

Luminaire Tested: HCSQ655D010-HM64560830-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838699
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560830-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

Summary

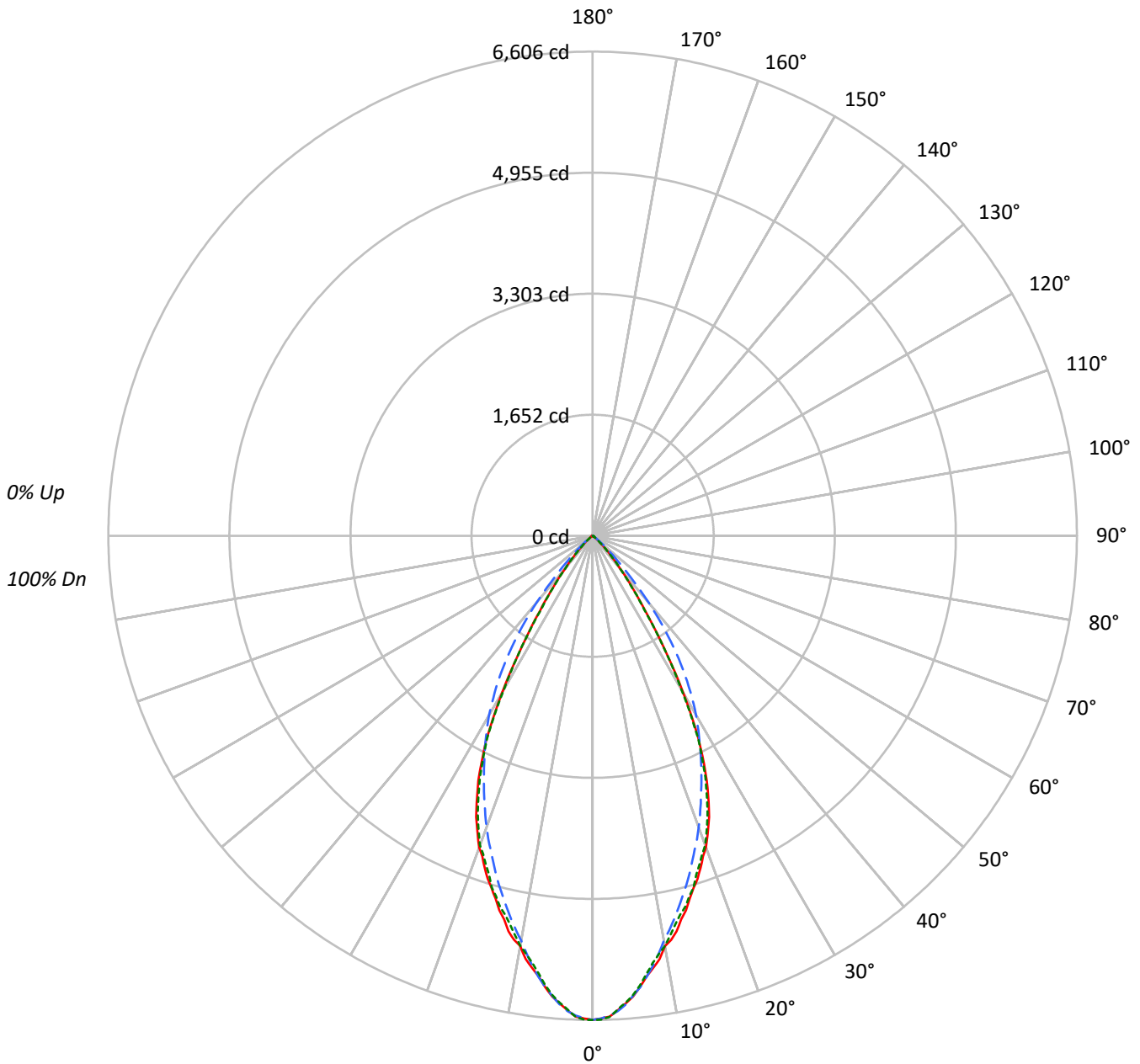
Lumens per Lamp: N/A
Luminaire Lumens: 4948.2 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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									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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	284434	284434	284434
5°	272836	272360	271980
10°	248499	245124	248307
15°	228373	220015	226996
20°	207253	193905	205837
25°	175157	166668	172748
30°	122640	140305	120557
35°	65875	107624	64598
40°	32616	66598	32369
45°	14242	28082	13974
50°	4582	10195	4582
55°	2320	3310	2154
60°	1524	1524	1524
65°	1121	1121	1121
70°	831	831	831
75°	732	732	732
80°	545	545	545
85°	1087	1087	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 28082 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	580.1	11.7
10°-20°	1400.8	28.3
20°-30°	1618.2	32.7
30°-40°	1010.5	20.4
40°-50°	280.8	5.7
50°-60°	39.3	0.8
60°-70°	11.5	0.2
70°-80°	4.9	0.1
80°-90°	2.1	0.0
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°	3599.1	72.7
0°-40°	4609.6	93.2
0°-60°	4929.6	99.6
0°-90°	4948.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4948.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6606	6606	6606	6606	6606	
5°	6313	6295	6302	6293	6293	582
15°	5123	5026	4936	5013	5092	1435
25°	3687	3579	3508	3577	3636	1647
35°	1253	1547	2048	1529	1229	833
45°	234	298	461	296	230	203
55°	31	31	44	31	29	31
65°	11	11	11	11	11	12
75°	4	4	4	4	4	5
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6606.2	6606.2	6606.2	6606.2	6606.2
1°	6586.3	6586.3	6586.3	6604.0	6604.0
2°	6566.5	6562.1	6551.0	6564.3	6570.9
3°	6484.8	6493.7	6498.1	6491.5	6476.0
4°	6401.0	6392.2	6416.4	6401.0	6387.7
5°	6312.7	6295.1	6301.7	6292.9	6292.9
6°	6189.2	6211.2	6193.6	6178.1	6169.3
7°	6054.6	6072.2	6061.2	6039.1	6023.7
8°	5948.7	5937.6	5920.0	5915.6	5889.1
9°	5847.2	5807.4	5767.7	5774.3	5781.0
10°	5683.9	5688.3	5606.7	5668.4	5679.5
11°	5615.5	5591.2	5483.1	5533.8	5551.5
12°	5516.2	5439.0	5346.3	5388.2	5421.3
13°	5372.8	5293.3	5209.5	5273.5	5306.6
14°	5264.7	5174.2	5068.3	5149.9	5218.3
15°	5123.4	5026.4	4935.9	5013.1	5092.5
16°	4999.9	4887.3	4796.9	4871.9	4991.0
17°	4891.8	4752.7	4642.4	4721.9	4836.6
18°	4766.0	4604.9	4503.4	4587.3	4717.4
19°	4627.0	4463.7	4373.2	4441.6	4591.7
20°	4523.3	4340.1	4232.0	4298.2	4492.4
22.5°	4152.6	3960.6	3861.3	3940.8	4095.2
25°	3687.0	3578.9	3508.3	3576.7	3636.3
27.5°	3135.4	3135.4	3159.7	3131.0	3113.3
30°	2466.8	2645.6	2822.1	2636.7	2424.9
32.5°	1800.5	2087.3	2442.6	2124.8	1798.3
35°	1253.3	1546.7	2047.6	1529.1	1229.0
37.5°	871.6	1065.7	1615.1	1076.8	860.5
40°	580.3	714.9	1184.9	728.1	575.9
42.5°	379.5	472.2	765.6	474.4	370.7
45°	233.9	297.9	461.2	295.7	229.5
47.5°	136.8	176.5	269.2	178.7	134.6
50°	68.4	103.7	152.2	101.5	68.4
52.5°	39.7	55.2	83.8	53.0	39.7
55°	30.9	30.9	44.1	30.9	28.7
57.5°	24.3	24.3	24.3	24.3	22.1
60°	17.7	19.9	17.7	17.7	17.7
62.5°	15.4	15.4	13.2	15.4	13.2
65°	11.0	11.0	11.0	11.0	11.0
67.5°	8.8	8.8	8.8	8.8	8.8
70°	6.6	6.6	6.6	6.6	6.6
72.5°	4.4	6.6	4.4	6.6	6.6
75°	4.4	4.4	4.4	4.4	4.4



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CANDELA DISTRIBUTION (continued):

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



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Scaled Data Report





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

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77.5°	4.4	4.4	4.4	4.4	2.2
80°	2.2	2.2	2.2	2.2	2.2

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