

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: P838544

Luminaire Tested: HCSQ635D010-HM63040835-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838544
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: HCSQ635D010-HM63040835-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

Summary

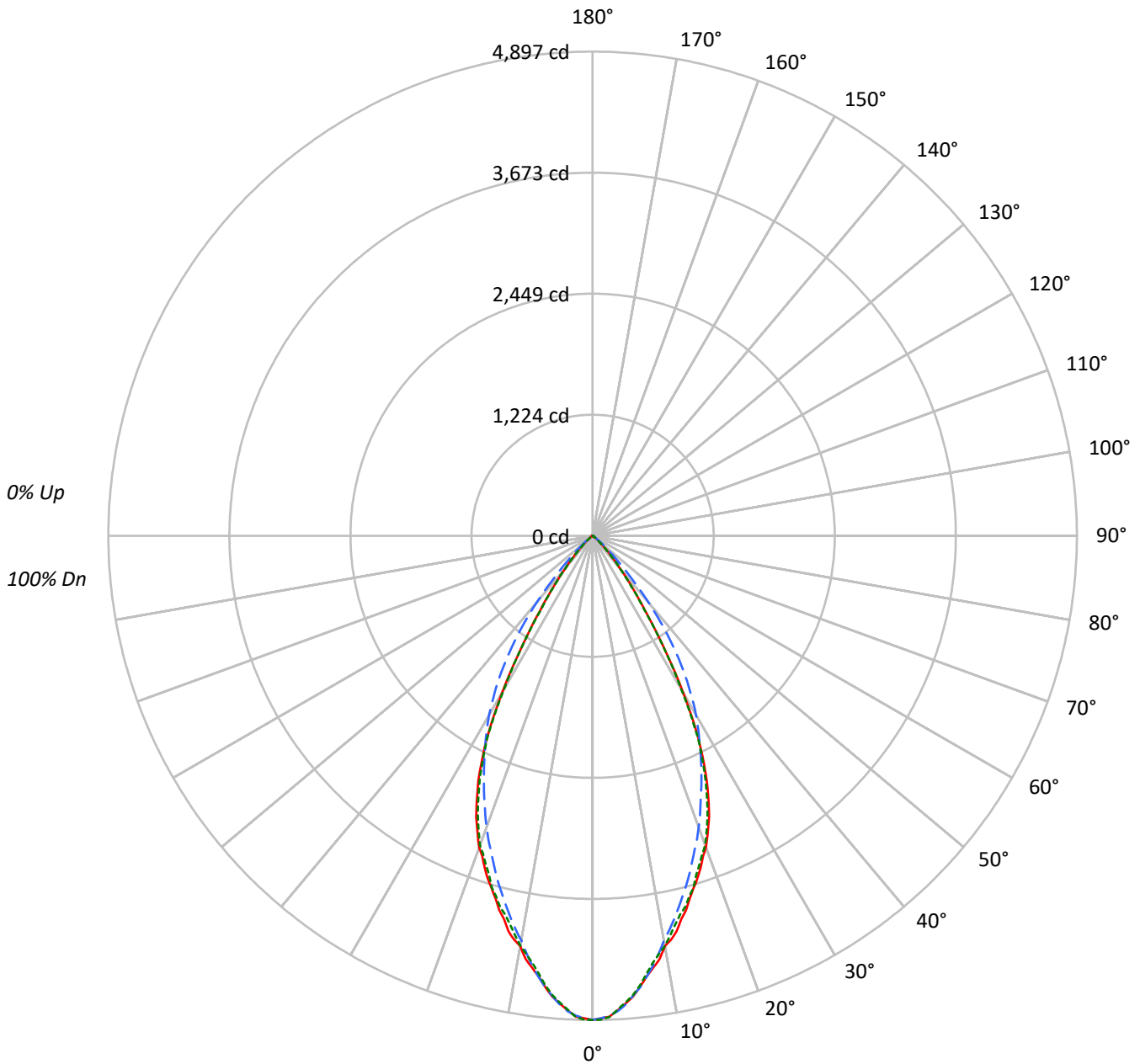
Lumens per Lamp: N/A
Luminaire Lumens: 3667.9 lumens
Efficiency: N/A
Efficacy: 107.9 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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

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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°	210839	210839	210839
5°	202244	201890	201605
10°	184201	181700	184056
15°	169285	163089	168264
20°	153626	143734	152577
25°	129836	123541	128049
30°	90911	104002	89365
35°	48829	79777	47883
40°	24179	49365	23994
45°	10558	20812	10357
50°	3396	7562	3396
55°	1719	2455	1599
60°	1128	1128	1128
65°	835	835	835
70°	617	617	617
75°	549	549	549
80°	397	397	397
85°	790	790	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20812 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.0	11.7
10°-20°	1038.4	28.3
20°-30°	1199.5	32.7
30°-40°	749.1	20.4
40°-50°	208.1	5.7
50°-60°	29.1	0.8
60°-70°	8.6	0.2
70°-80°	3.7	0.1
80°-90°	1.5	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°	2667.8	72.7
0°-40°	3416.9	93.2
0°-60°	3654.1	99.6
0°-90°	3667.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3667.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4897	4897	4897	4897	4897	
5°	4679	4666	4671	4665	4665	431
15°	3798	3726	3659	3716	3775	1064
25°	2733	2653	2600	2651	2695	1221
35°	929	1146	1518	1133	911	617
45°	173	221	342	219	170	150
55°	23	23	33	23	21	23
65°	8	8	8	8	8	9
75°	3	3	3	3	3	3
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°	4896.9	4896.9	4896.9	4896.9	4896.9
1°	4882.2	4882.2	4882.2	4895.2	4895.2
2°	4867.4	4864.2	4856.0	4865.8	4870.7
3°	4806.9	4813.5	4816.7	4811.8	4800.4
4°	4744.8	4738.2	4756.2	4744.8	4735.0
5°	4679.4	4666.3	4671.2	4664.6	4664.6
6°	4587.8	4604.1	4591.0	4579.6	4573.0
7°	4488.0	4501.1	4492.9	4476.5	4465.1
8°	4409.5	4401.3	4388.2	4385.0	4365.3
9°	4334.2	4304.8	4275.4	4280.3	4285.2
10°	4213.2	4216.5	4156.0	4201.8	4209.9
11°	4162.5	4144.5	4064.4	4102.0	4115.1
12°	4088.9	4031.7	3963.0	3994.1	4018.6
13°	3982.6	3923.7	3861.6	3909.0	3933.5
14°	3902.5	3835.4	3756.9	3817.4	3868.1
15°	3797.8	3725.8	3658.8	3716.0	3774.9
16°	3706.2	3622.8	3555.7	3611.3	3699.6
17°	3626.0	3523.0	3441.2	3500.1	3585.2
18°	3532.8	3413.4	3338.2	3400.3	3496.8
19°	3429.8	3308.7	3241.7	3292.4	3403.6
20°	3352.9	3217.2	3137.0	3186.1	3330.0
22.5°	3078.1	2935.8	2862.2	2921.1	3035.6
25°	2733.0	2652.9	2600.5	2651.3	2695.4
27.5°	2324.1	2324.1	2342.1	2320.9	2307.8
30°	1828.6	1961.0	2091.9	1954.5	1797.5
32.5°	1334.6	1547.2	1810.6	1575.0	1333.0
35°	929.0	1146.5	1517.8	1133.4	911.0
37.5°	646.0	790.0	1197.2	798.2	637.9
40°	430.2	529.9	878.3	539.7	426.9
42.5°	281.3	350.0	567.5	351.6	274.8
45°	173.4	220.8	341.8	219.2	170.1
47.5°	101.4	130.8	199.5	132.5	99.8
50°	50.7	76.9	112.9	75.2	50.7
52.5°	29.4	40.9	62.2	39.3	29.4
55°	22.9	22.9	32.7	22.9	21.3
57.5°	18.0	18.0	18.0	18.0	16.4
60°	13.1	14.7	13.1	13.1	13.1
62.5°	11.4	11.4	9.8	11.4	9.8
65°	8.2	8.2	8.2	8.2	8.2
67.5°	6.5	6.5	6.5	6.5	6.5
70°	4.9	4.9	4.9	4.9	4.9
72.5°	3.3	4.9	3.3	4.9	4.9
75°	3.3	3.3	3.3	3.3	3.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6	1.6
87.5°	1.6	1.6	1.6	1.6	1.6
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°	3.3	3.3	3.3	3.3	1.6
80°	1.6	1.6	1.6	1.6	1.6

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