

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: P838549

Luminaire Tested: HCSQ635D010-HM63040840-61SQC

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838549
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-HM63040840-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

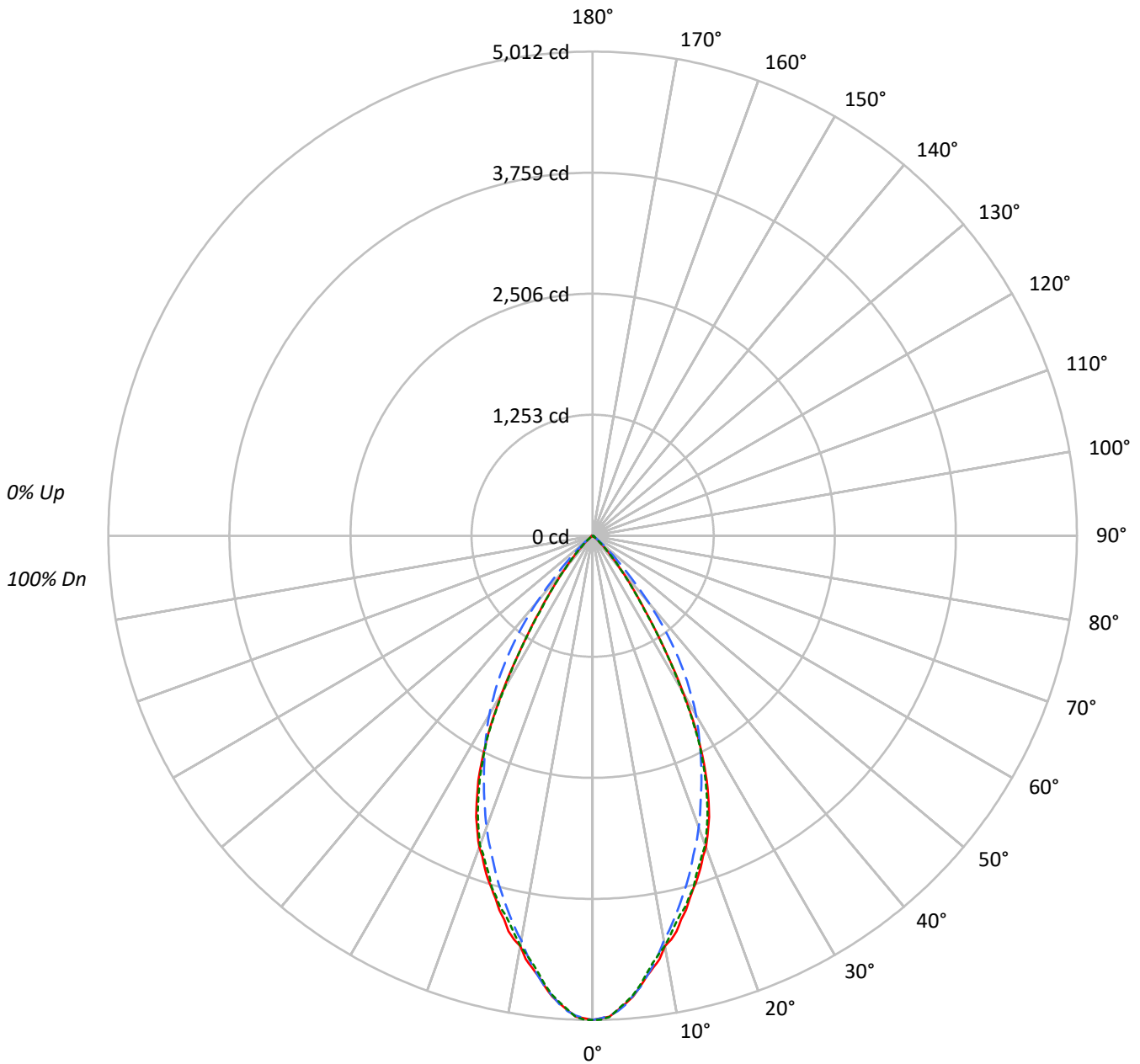
Lumens per Lamp: N/A
Luminaire Lumens: 3753.9 lumens
Efficiency: N/A
Efficacy: 110.4 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HCSQ635D010-HM63040840-61SQC

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°	215782	215782	215782
5°	206981	206622	206333
10°	188520	185958	188371
15°	173252	166909	172209
20°	157227	147102	156155
25°	132881	126439	131052
30°	93039	106438	91458
35°	49975	81649	49008
40°	24742	50523	24556
45°	10802	21299	10601
50°	3476	7737	3476
55°	1757	2515	1636
60°	1154	1154	1154
65°	856	856	856
70°	629	629	629
75°	549	549	549
80°	422	422	422
85°	840	840	840

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	440.1	11.7
10°-20°	1062.7	28.3
20°-30°	1227.6	32.7
30°-40°	766.6	20.4
40°-50°	213.0	5.7
50°-60°	29.8	0.8
60°-70°	8.8	0.2
70°-80°	3.7	0.1
80°-90°	1.6	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°	2730.4	72.7
0°-40°	3497.0	93.2
0°-60°	3739.7	99.6
0°-90°	3753.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3753.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5012	5012	5012	5012	5012	
5°	4789	4776	4781	4774	4774	441
15°	3887	3813	3744	3803	3863	1089
25°	2797	2715	2662	2713	2759	1249
35°	951	1173	1553	1160	932	632
45°	177	226	350	224	174	154
55°	23	23	34	23	22	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°	5011.7	5011.7	5011.7	5011.7	5011.7
1°	4996.6	4996.6	4996.6	5010.0	5010.0
2°	4981.5	4978.2	4969.8	4979.9	4984.9
3°	4919.6	4926.3	4929.6	4924.6	4912.9
4°	4856.0	4849.3	4867.7	4856.0	4845.9
5°	4789.0	4775.6	4780.7	4774.0	4774.0
6°	4695.3	4712.0	4698.6	4686.9	4680.2
7°	4593.2	4606.6	4598.2	4581.5	4569.7
8°	4512.8	4504.5	4491.1	4487.7	4467.6
9°	4435.8	4405.7	4375.6	4380.6	4385.6
10°	4312.0	4315.3	4253.4	4300.2	4308.6
11°	4260.1	4241.7	4159.6	4198.1	4211.5
12°	4184.7	4126.2	4055.9	4087.7	4112.8
13°	4075.9	4015.7	3952.1	4000.6	4025.7
14°	3993.9	3925.3	3844.9	3906.9	3958.8
15°	3886.8	3813.1	3744.5	3803.1	3863.4
16°	3793.1	3707.7	3639.1	3696.0	3786.4
17°	3711.0	3605.6	3521.9	3582.1	3669.2
18°	3615.6	3493.4	3416.4	3480.0	3578.8
19°	3510.2	3386.3	3317.7	3369.6	3483.4
20°	3431.5	3292.6	3210.5	3260.8	3408.1
22.5°	3150.3	3004.6	2929.3	2989.6	3106.8
25°	2797.1	2715.1	2661.5	2713.4	2758.6
27.5°	2378.6	2378.6	2397.0	2375.3	2361.9
30°	1871.4	2007.0	2140.9	2000.3	1839.6
32.5°	1365.9	1583.5	1853.0	1612.0	1364.2
35°	950.8	1173.4	1553.4	1160.0	932.4
37.5°	661.2	808.5	1225.3	816.9	652.8
40°	440.2	542.3	898.9	552.4	436.9
42.5°	287.9	358.2	580.8	359.9	281.2
45°	177.4	226.0	349.8	224.3	174.1
47.5°	103.8	133.9	204.2	135.6	102.1
50°	51.9	78.7	115.5	77.0	51.9
52.5°	30.1	41.8	63.6	40.2	30.1
55°	23.4	23.4	33.5	23.4	21.8
57.5°	18.4	18.4	18.4	18.4	16.7
60°	13.4	15.1	13.4	13.4	13.4
62.5°	11.7	11.7	10.0	11.7	10.0
65°	8.4	8.4	8.4	8.4	8.4
67.5°	6.7	6.7	6.7	6.7	6.7
70°	5.0	5.0	5.0	5.0	5.0
72.5°	3.3	5.0	3.3	5.0	5.0
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°	1.7	1.7	1.7	1.7	1.7
85°	1.7	1.7	1.7	1.7	1.7
87.5°	1.7	1.7	1.7	1.7	1.7
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	1.7
80°	1.7	1.7	1.7	1.7	1.7

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(END OF REPORT)