

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: P838539

Luminaire Tested: HCSQ635D010-HM63040830-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838539
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-HM63040830-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

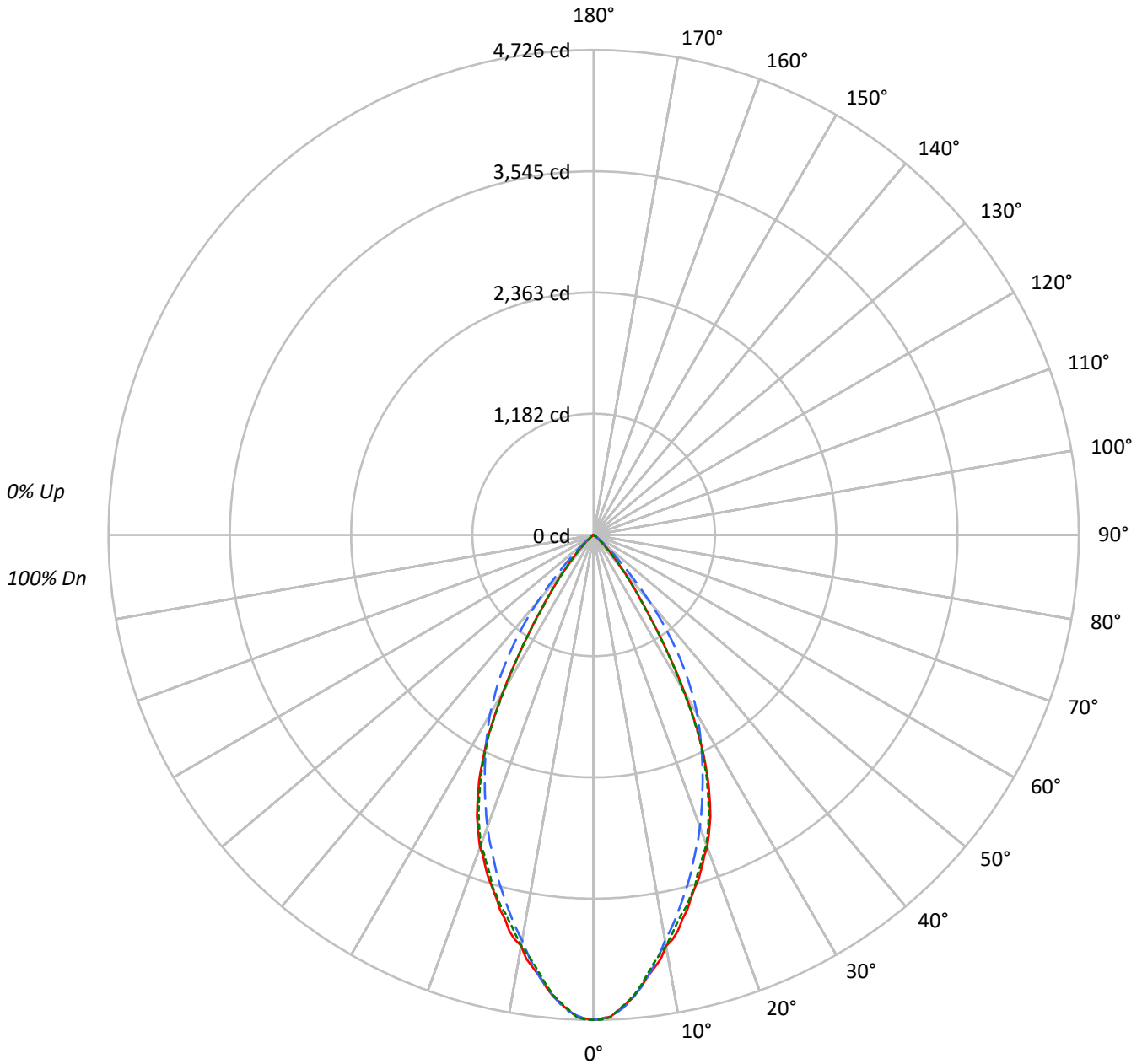
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3540.3 lumens
Efficiency: N/A
Efficacy: 104.1 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 (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	96	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°	203503	203503	203503
5°	195204	194862	194590
10°	177791	175373	177651
15°	163392	157410	162407
20°	148279	138730	147266
25°	125318	119242	123593
30°	87744	100382	86253
35°	47132	77002	46217
40°	23336	47645	23157
45°	10187	20088	9998
50°	3275	7294	3275
55°	1659	2372	1539
60°	1085	1085	1085
65°	805	805	805
70°	592	592	592
75°	532	532	532
80°	397	397	397
85°	790	790	790

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20088 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	415.0	11.7
10°-20°	1002.2	28.3
20°-30°	1157.7	32.7
30°-40°	723.0	20.4
40°-50°	200.9	5.7
50°-60°	28.1	0.8
60°-70°	8.3	0.2
70°-80°	3.6	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°	2575.0	72.7
0°-40°	3298.0	93.2
0°-60°	3527.0	99.6
0°-90°	3540.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3540.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4726	4726	4726	4726	4726	
5°	4516	4504	4509	4502	4502	416
15°	3666	3596	3531	3587	3644	1027
25°	2638	2561	2510	2559	2602	1178
35°	897	1107	1465	1094	879	596
45°	167	213	330	212	164	145
55°	22	22	32	22	20	22
65°	8	8	8	8	8	8
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°	4726.5	4726.5	4726.5	4726.5	4726.5
1°	4712.3	4712.3	4712.3	4724.9	4724.9
2°	4698.1	4694.9	4687.0	4696.5	4701.2
3°	4639.6	4646.0	4649.1	4644.4	4633.3
4°	4579.7	4573.3	4590.7	4579.7	4570.2
5°	4516.5	4503.9	4508.6	4502.3	4502.3
6°	4428.1	4443.9	4431.3	4420.2	4413.9
7°	4331.8	4344.4	4336.5	4320.8	4309.7
8°	4256.0	4248.1	4235.5	4232.4	4213.4
9°	4183.4	4155.0	4126.6	4131.3	4136.1
10°	4066.6	4069.8	4011.3	4055.5	4063.4
11°	4017.7	4000.3	3922.9	3959.2	3971.9
12°	3946.6	3891.4	3825.1	3855.1	3878.7
13°	3844.0	3787.2	3727.2	3773.0	3796.6
14°	3766.7	3701.9	3626.2	3684.6	3733.5
15°	3665.6	3596.2	3531.4	3586.7	3643.5
16°	3577.2	3496.7	3432.0	3485.7	3570.9
17°	3499.9	3400.4	3321.5	3378.3	3460.4
18°	3409.9	3294.6	3222.0	3282.0	3375.1
19°	3310.4	3193.6	3128.9	3177.8	3285.2
20°	3236.2	3105.2	3027.8	3075.2	3214.1
22.5°	2971.0	2833.7	2762.6	2819.5	2930.0
25°	2637.9	2560.6	2510.0	2559.0	2601.6
27.5°	2243.3	2243.3	2260.6	2240.1	2227.5
30°	1764.9	1892.8	2019.1	1886.5	1734.9
32.5°	1288.2	1493.4	1747.6	1520.2	1286.6
35°	896.7	1106.6	1465.0	1094.0	879.3
37.5°	623.6	762.5	1155.6	770.4	615.7
40°	415.2	511.5	847.7	521.0	412.0
42.5°	271.5	337.8	547.8	339.4	265.2
45°	167.3	213.1	329.9	211.5	164.2
47.5°	97.9	126.3	192.6	127.9	96.3
50°	48.9	74.2	108.9	72.6	48.9
52.5°	28.4	39.5	60.0	37.9	28.4
55°	22.1	22.1	31.6	22.1	20.5
57.5°	17.4	17.4	17.4	17.4	15.8
60°	12.6	14.2	12.6	12.6	12.6
62.5°	11.1	11.1	9.5	11.1	9.5
65°	7.9	7.9	7.9	7.9	7.9
67.5°	6.3	6.3	6.3	6.3	6.3
70°	4.7	4.7	4.7	4.7	4.7
72.5°	3.2	4.7	3.2	4.7	4.7
75°	3.2	3.2	3.2	3.2	3.2



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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°	3.2	3.2	3.2	3.2	1.6
80°	1.6	1.6	1.6	1.6	1.6

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(END OF REPORT)