

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: P838695

Luminaire Tested: HCSQ655D010-HM64560827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838695
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

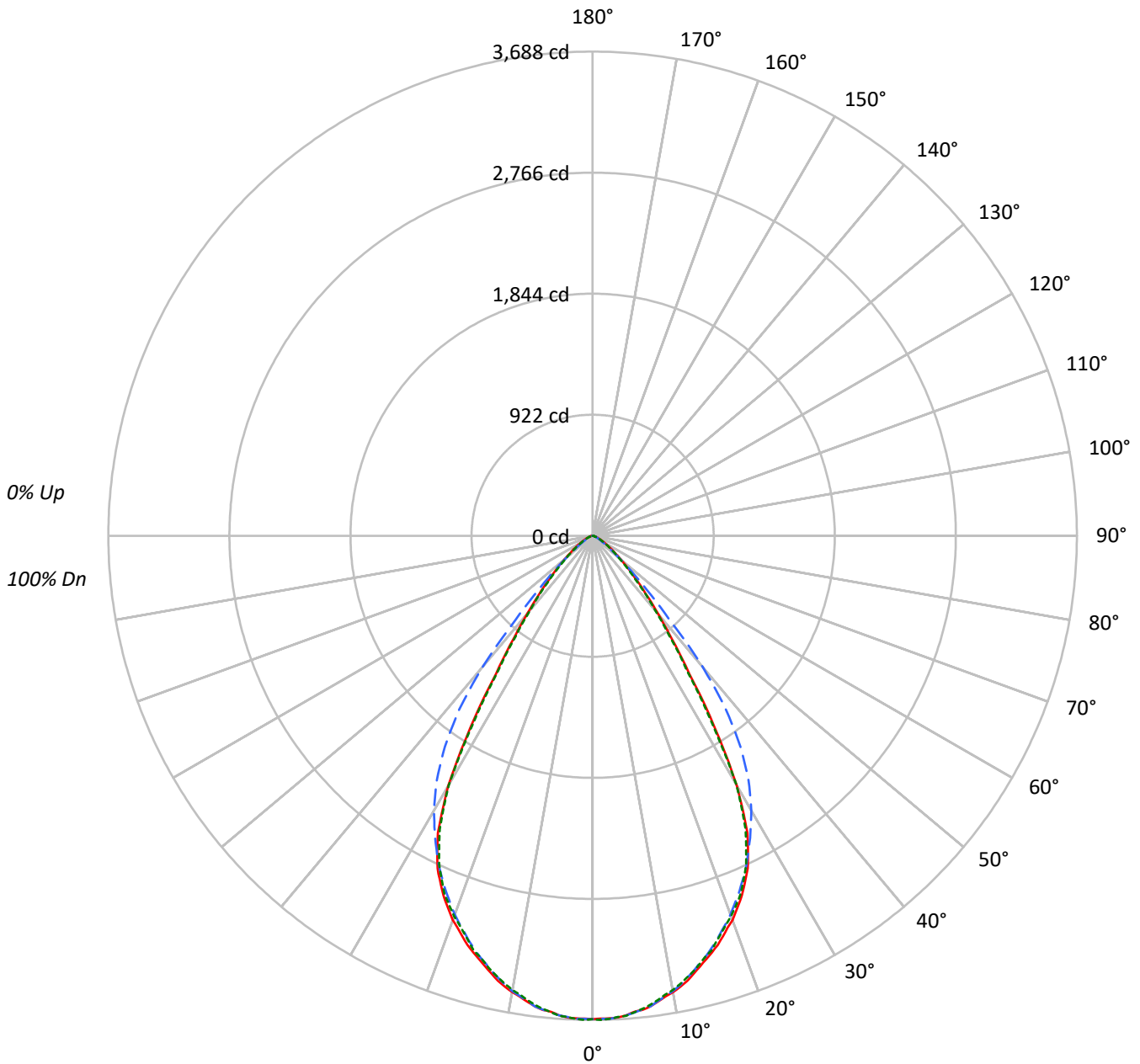
Lumens per Lamp: N/A
Luminaire Lumens: 4141.4 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71					71			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66					66			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61					61			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56					56			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52					52			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	158544	158544	158544
5°	157295	157559	157473
10°	154292	153938	153579
15°	148843	148023	147934
20°	142703	140646	141301
25°	132824	131660	131370
30°	109152	120120	108849
35°	67415	103162	65801
40°	43278	73123	41783
45°	28229	35444	26859
50°	18742	17650	17509
55°	12724	9195	11808
60°	8620	5632	7914
65°	6031	4157	5410
70°	3852	3084	3600
75°	2712	2379	2379
80°	2033	1512	1512
85°	988	2025	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 35444 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.9	8.3
10°-20°	933.4	22.5
20°-30°	1260.0	30.4
30°-40°	983.3	23.7
40°-50°	411.9	9.9
50°-60°	139.6	3.4
60°-70°	49.8	1.2
70°-80°	16.2	0.4
80°-90°	3.3	0.1
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°	2537.2	61.3
0°-40°	3520.6	85.0
0°-60°	4072.1	98.3
0°-90°	4141.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4141.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3682	3682	3682	3682	3682	
5°	3639	3644	3646	3639	3644	344
15°	3339	3331	3321	3317	3319	939
25°	2796	2784	2771	2771	2765	1258
35°	1283	1505	1963	1503	1252	843
45°	464	496	582	474	441	372
55°	170	155	122	147	157	157
65°	59	49	41	47	53	61
75°	16	14	14	14	14	18
85°	2	2	4	2	2	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3682.3	3682.3	3682.3	3682.3	3682.3
1°	3678.2	3684.3	3680.3	3682.3	3688.4
2°	3678.2	3678.2	3682.3	3680.3	3682.3
3°	3674.1	3674.1	3670.0	3670.0	3670.0
4°	3661.9	3661.9	3661.9	3657.8	3666.0
5°	3639.4	3643.5	3645.5	3639.4	3643.5
6°	3631.2	3633.3	3629.2	3627.2	3623.1
7°	3612.9	3606.7	3612.9	3598.6	3600.6
8°	3582.2	3582.2	3578.1	3574.1	3570.0
9°	3553.6	3553.6	3549.6	3543.4	3539.3
10°	3529.1	3523.0	3521.0	3514.8	3512.8
11°	3500.5	3488.3	3486.2	3480.1	3480.1
12°	3465.8	3459.7	3445.4	3443.4	3443.4
13°	3422.9	3416.8	3406.6	3398.4	3406.6
14°	3382.1	3378.0	3359.6	3365.7	3363.7
15°	3339.2	3331.0	3320.8	3316.7	3318.8
16°	3300.4	3286.1	3271.8	3273.8	3286.1
17°	3259.5	3239.1	3224.8	3222.8	3228.9
18°	3208.5	3192.1	3169.7	3177.8	3177.8
19°	3157.4	3135.0	3120.7	3118.6	3126.8
20°	3114.5	3079.8	3069.6	3067.6	3083.9
22.5°	2967.5	2932.8	2924.6	2932.8	2949.1
25°	2795.9	2783.7	2771.4	2771.4	2765.3
27.5°	2552.9	2581.5	2595.8	2567.2	2520.2
30°	2195.5	2316.0	2416.1	2301.7	2189.4
32.5°	1729.8	1979.0	2209.8	1972.9	1689.0
35°	1282.6	1505.2	1962.7	1503.1	1251.9
37.5°	988.5	1131.4	1668.6	1113.1	959.9
40°	770.0	853.7	1301.0	843.5	743.4
42.5°	598.4	651.5	865.9	639.2	578.0
45°	463.6	496.3	582.1	473.8	441.1
47.5°	361.5	375.8	398.3	359.4	341.1
50°	279.8	279.8	263.5	269.6	261.4
52.5°	216.5	208.3	177.7	196.1	200.1
55°	169.5	155.2	122.5	147.0	157.3
57.5°	128.7	114.4	87.8	108.2	118.5
60°	100.1	85.8	65.4	81.7	91.9
62.5°	77.6	65.4	51.1	61.3	69.4
65°	59.2	49.0	40.8	47.0	53.1
67.5°	44.9	36.8	30.6	34.7	40.8
70°	30.6	28.6	24.5	26.6	28.6
72.5°	22.5	20.4	18.4	18.4	20.4
75°	16.3	14.3	14.3	14.3	14.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.1	4.1	4.1	4.1	4.1
85°	2.0	2.0	4.1	2.0	2.0
87.5°	2.0	2.0	2.0	2.0	2.0
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°	10.2	10.2	10.2	10.2	10.2
80°	8.2	8.2	6.1	6.1	6.1

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(END OF REPORT)