

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: P838710

Luminaire Tested: HCSQ655D010-HM64560840-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838710
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-HM64560840-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

Summary

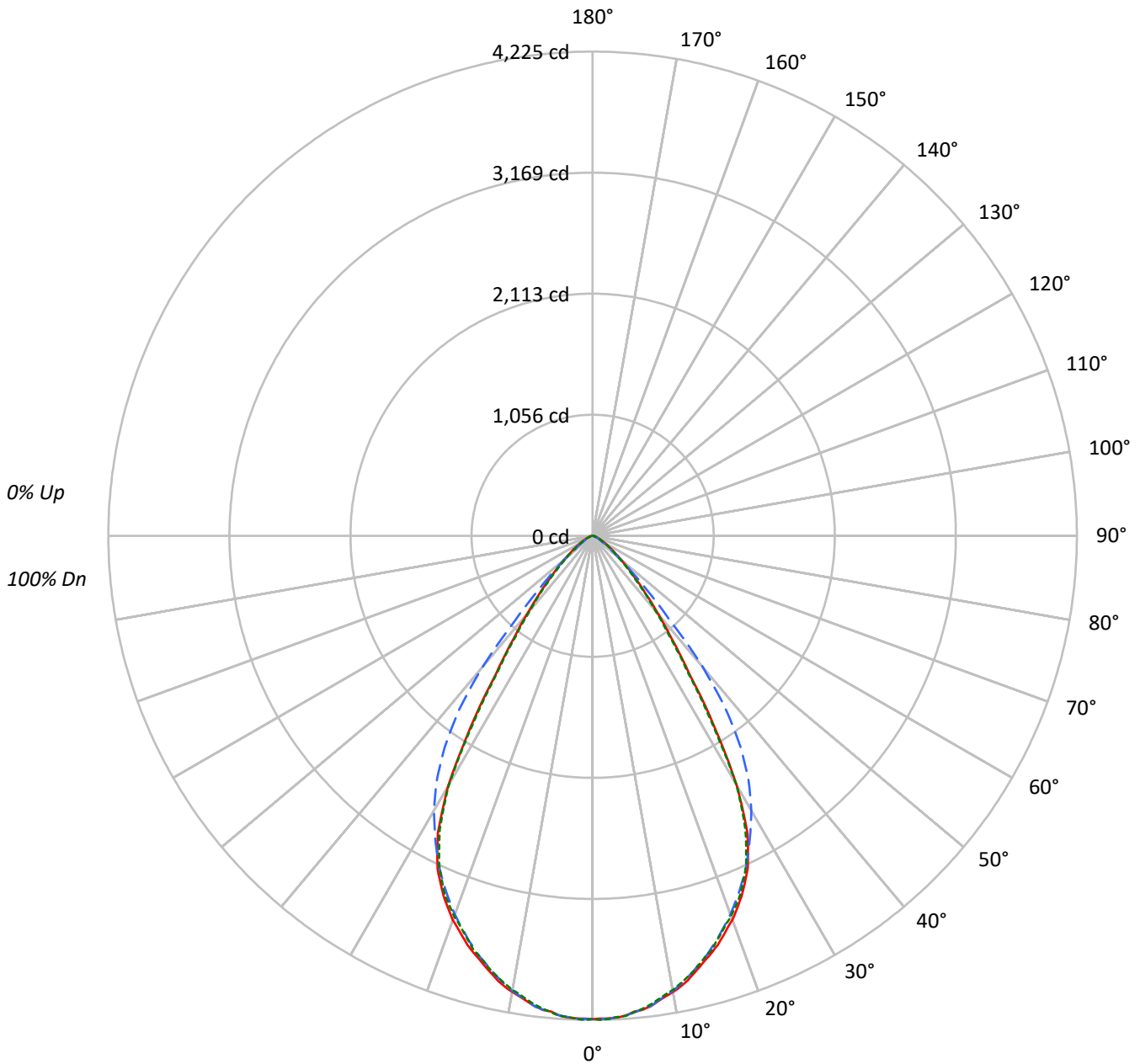
Lumens per Lamp: N/A
Luminaire Lumens: 4743.9 lumens
Efficiency: N/A
Efficacy: 87.8 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: HCSQ655D010-HM64560840-61SQH

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	181609	181609	181609
5°	180176	180483	180379
10°	176738	176327	175920
15°	170493	169557	169450
20°	163463	161104	161855
25°	152150	150815	150482
30°	125032	137590	124684
35°	77223	118168	75378
40°	49573	83757	47859
45°	32333	40595	30768
50°	21468	20215	20055
55°	14578	10539	13519
60°	9868	6450	9068
65°	6907	4768	6194
70°	4419	3537	4129
75°	3111	2728	2728
80°	2331	1736	1736
85°	1136	2322	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 40595 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	393.9	8.3
10°-20°	1069.1	22.5
20°-30°	1443.3	30.4
30°-40°	1126.4	23.7
40°-50°	471.8	9.9
50°-60°	160.0	3.4
60°-70°	57.1	1.2
70°-80°	18.6	0.4
80°-90°	3.8	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°	2906.3	61.3
0°-40°	4032.7	85.0
0°-60°	4664.5	98.3
0°-90°	4743.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4743.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4218	4218	4218	4218	4218	
5°	4169	4174	4176	4169	4174	394
15°	3825	3816	3804	3799	3802	1076
25°	3203	3189	3175	3175	3168	1441
35°	1469	1724	2248	1722	1434	966
45°	531	568	667	543	505	426
55°	194	178	140	168	180	179
65°	68	56	47	54	61	70
75°	19	16	16	16	16	21
85°	2	2	5	2	2	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4218.0	4218.0	4218.0	4218.0	4218.0
1°	4213.3	4220.3	4215.6	4218.0	4225.0
2°	4213.3	4213.3	4218.0	4215.6	4218.0
3°	4208.6	4208.6	4203.9	4203.9	4203.9
4°	4194.6	4194.6	4194.6	4189.9	4199.2
5°	4168.8	4173.5	4175.9	4168.8	4173.5
6°	4159.5	4161.8	4157.1	4154.8	4150.1
7°	4138.4	4131.4	4138.4	4122.0	4124.4
8°	4103.3	4103.3	4098.7	4094.0	4089.3
9°	4070.6	4070.6	4065.9	4058.9	4054.2
10°	4042.5	4035.5	4033.1	4026.1	4023.8
11°	4009.8	3995.7	3993.4	3986.4	3986.4
12°	3970.0	3963.0	3946.6	3944.3	3944.3
13°	3920.9	3913.8	3902.1	3892.8	3902.1
14°	3874.1	3869.4	3848.3	3855.4	3853.0
15°	3824.9	3815.6	3803.9	3799.2	3801.5
16°	3780.5	3764.1	3747.7	3750.1	3764.1
17°	3733.7	3710.3	3693.9	3691.6	3698.6
18°	3675.2	3656.5	3630.8	3640.1	3640.1
19°	3616.7	3591.0	3574.6	3572.3	3581.6
20°	3567.6	3527.8	3516.1	3513.8	3532.5
22.5°	3399.2	3359.4	3350.0	3359.4	3378.1
25°	3202.7	3188.6	3174.6	3174.6	3167.6
27.5°	2924.3	2957.0	2973.4	2940.6	2886.8
30°	2514.9	2652.9	2767.5	2636.5	2507.9
32.5°	1981.5	2266.9	2531.2	2259.9	1934.7
35°	1469.2	1724.1	2248.2	1721.8	1434.1
37.5°	1132.3	1296.0	1911.3	1275.0	1099.5
40°	882.0	977.9	1490.2	966.2	851.5
42.5°	685.4	746.3	991.9	732.2	662.1
45°	531.0	568.5	666.7	542.7	505.3
47.5°	414.1	430.5	456.2	411.7	390.7
50°	320.5	320.5	301.8	308.8	299.4
52.5°	248.0	238.6	203.5	224.6	229.3
55°	194.2	177.8	140.4	168.4	180.1
57.5°	147.4	131.0	100.6	124.0	135.7
60°	114.6	98.3	74.9	93.6	105.3
62.5°	88.9	74.9	58.5	70.2	79.5
65°	67.8	56.1	46.8	53.8	60.8
67.5°	51.5	42.1	35.1	39.8	46.8
70°	35.1	32.8	28.1	30.4	32.8
72.5°	25.7	23.4	21.1	21.1	23.4
75°	18.7	16.4	16.4	16.4	16.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.7	4.7	4.7	4.7	4.7
85°	2.3	2.3	4.7	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
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°	11.7	11.7	11.7	11.7	11.7
80°	9.4	9.4	7.0	7.0	7.0

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Scaled Data Report



(END OF REPORT)