

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: P838770

Luminaire Tested: HCSQ660D010-HM64560940-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838770
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: HCSQ660D010-HM64560940-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

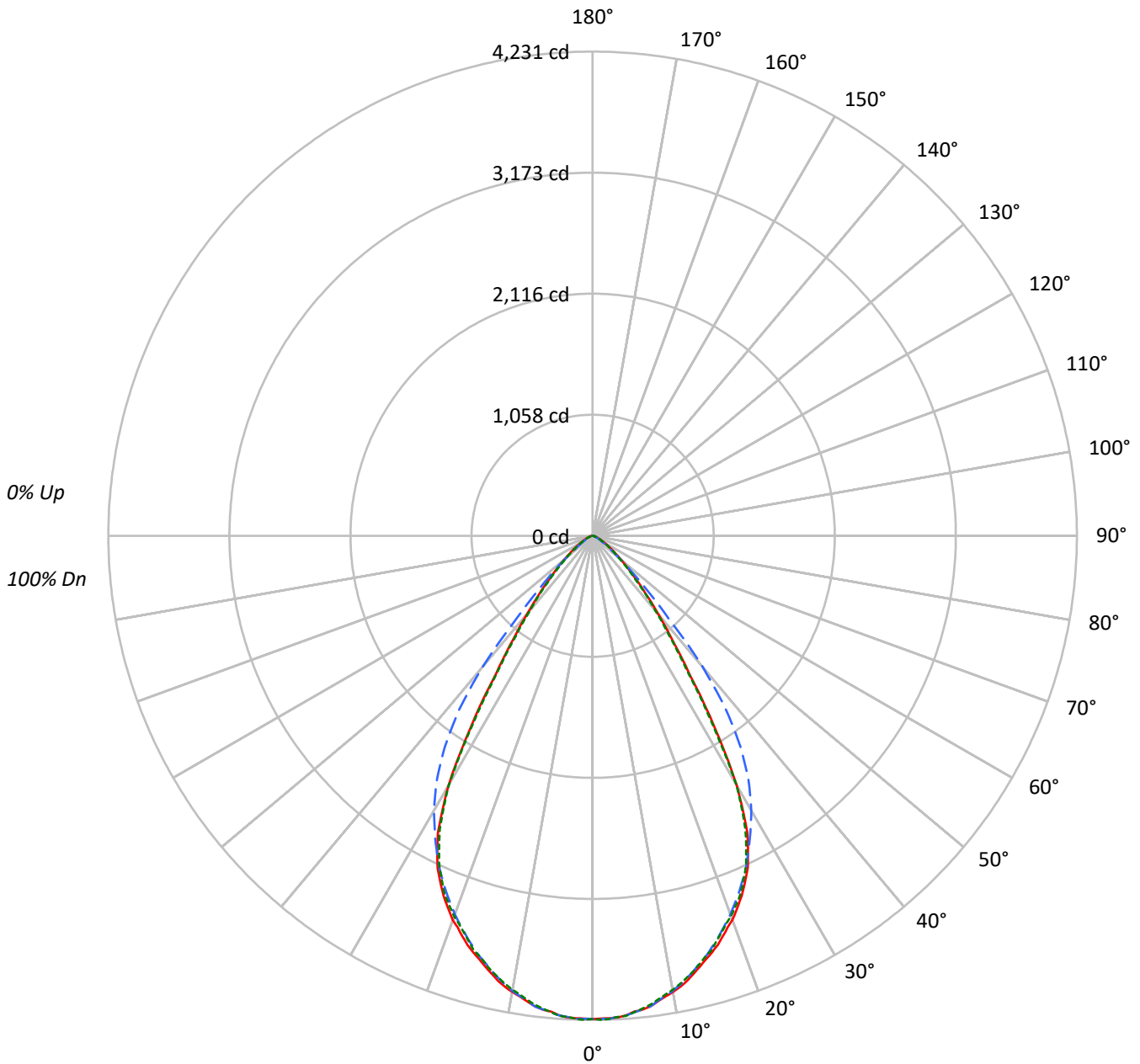
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4750.2 lumens
Efficiency: N/A
Efficacy: 84.8 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): 56
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			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°	181850	181850	181850
5°	180418	180721	180621
10°	176974	176563	176156
15°	170725	169784	169677
20°	163683	161319	162071
25°	152349	151014	150682
30°	125196	137774	124848
35°	77323	118326	75478
40°	49635	83869	47926
45°	32381	40650	30810
50°	21495	20242	20081
55°	14593	10554	13542
60°	9886	6458	9076
65°	6918	4778	6204
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: 40650 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	394.4	8.3
10°-20°	1070.6	22.5
20°-30°	1445.2	30.4
30°-40°	1127.9	23.7
40°-50°	472.5	9.9
50°-60°	160.2	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°	2910.2	61.3
0°-40°	4038.1	85.0
0°-60°	4670.7	98.3
0°-90°	4750.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4750.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4224	4224	4224	4224	4224	
5°	4174	4179	4181	4174	4179	395
15°	3830	3821	3809	3804	3807	1077
25°	3207	3193	3179	3179	3172	1442
35°	1471	1726	2251	1724	1436	967
45°	532	569	668	544	506	427
55°	194	178	141	169	180	180
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°	4223.6	4223.6	4223.6	4223.6	4223.6
1°	4218.9	4225.9	4221.3	4223.6	4230.6
2°	4218.9	4218.9	4223.6	4221.3	4223.6
3°	4214.2	4214.2	4209.6	4209.6	4209.6
4°	4200.2	4200.2	4200.2	4195.5	4204.9
5°	4174.4	4179.1	4181.4	4174.4	4179.1
6°	4165.0	4167.4	4162.7	4160.4	4155.7
7°	4144.0	4136.9	4144.0	4127.6	4129.9
8°	4108.8	4108.8	4104.1	4099.5	4094.8
9°	4076.0	4076.0	4071.3	4064.3	4059.6
10°	4047.9	4040.9	4038.5	4031.5	4029.2
11°	4015.1	4001.1	3998.7	3991.7	3991.7
12°	3975.3	3968.3	3951.9	3949.5	3949.5
13°	3926.1	3919.1	3907.4	3898.0	3907.4
14°	3879.3	3874.6	3853.5	3860.5	3858.2
15°	3830.1	3820.7	3809.0	3804.3	3806.6
16°	3785.6	3769.2	3752.8	3755.1	3769.2
17°	3738.7	3715.3	3698.9	3696.5	3703.6
18°	3680.1	3661.4	3635.6	3645.0	3645.0
19°	3621.6	3595.8	3579.4	3577.1	3586.4
20°	3572.4	3532.6	3520.8	3518.5	3537.2
22.5°	3403.7	3363.9	3354.5	3363.9	3382.6
25°	3206.9	3192.9	3178.8	3178.8	3171.8
27.5°	2928.2	2961.0	2977.4	2944.6	2890.7
30°	2518.2	2656.4	2771.2	2640.0	2511.2
32.5°	1984.1	2269.9	2534.6	2262.9	1937.3
35°	1471.1	1726.5	2251.2	1724.1	1436.0
37.5°	1133.8	1297.8	1913.9	1276.7	1101.0
40°	883.1	979.2	1492.2	967.5	852.7
42.5°	686.4	747.3	993.2	733.2	662.9
45°	531.8	569.2	667.6	543.5	506.0
47.5°	414.6	431.0	456.8	412.3	391.2
50°	320.9	320.9	302.2	309.2	299.8
52.5°	248.3	238.9	203.8	224.9	229.6
55°	194.4	178.0	140.6	168.7	180.4
57.5°	147.6	131.2	100.7	124.2	135.9
60°	114.8	98.4	75.0	93.7	105.4
62.5°	89.0	75.0	58.6	70.3	79.6
65°	67.9	56.2	46.9	53.9	60.9
67.5°	51.5	42.2	35.1	39.8	46.9
70°	35.1	32.8	28.1	30.5	32.8
72.5°	25.8	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)