

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: P838765

Luminaire Tested: HCSQ660D010-HM64560935-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838765
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-HM64560935-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

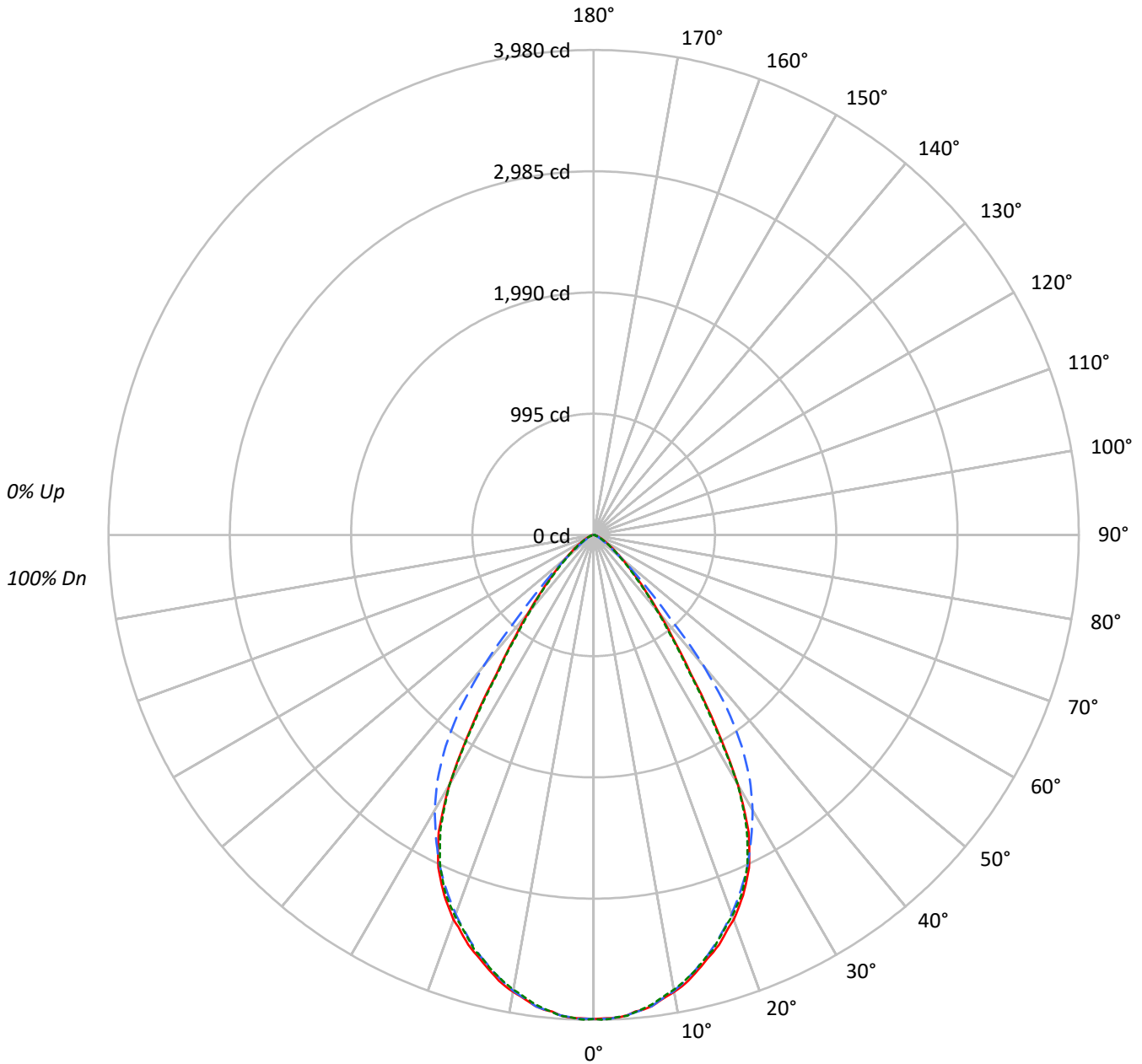
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4468.2 lumens
Efficiency: N/A
Efficacy: 79.8 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 (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				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	79	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°	171056	171056	171056
5°	169708	169993	169898
10°	166468	166083	165698
15°	160589	159706	159608
20°	153965	151743	152453
25°	143309	142050	141736
30°	117763	129596	117435
35°	72734	111298	70994
40°	46690	78890	45082
45°	30457	38239	28984
50°	20222	19036	18889
55°	13729	9924	12739
60°	9300	6071	8542
65°	6510	4493	5838
70°	4167	3323	3877
75°	2928	2562	2562
80°	2182	1636	1636
85°	1087	2174	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 38239 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.0	8.3
10°-20°	1007.0	22.5
20°-30°	1359.4	30.4
30°-40°	1060.9	23.7
40°-50°	444.4	9.9
50°-60°	150.7	3.4
60°-70°	53.7	1.2
70°-80°	17.4	0.4
80°-90°	3.6	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°	2737.4	61.3
0°-40°	3798.4	85.0
0°-60°	4393.5	98.3
0°-90°	4468.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4468.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3973	3973	3973	3973	3973	
5°	3927	3931	3933	3927	3931	371
15°	3603	3594	3583	3578	3581	1013
25°	3017	3003	2990	2990	2984	1357
35°	1384	1624	2118	1622	1351	910
45°	500	535	628	511	476	401
55°	183	168	132	159	170	169
65°	64	53	44	51	57	66
75°	18	15	15	15	15	19
85°	2	2	4	2	2	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3972.9	3972.9	3972.9	3972.9	3972.9
1°	3968.5	3975.1	3970.7	3972.9	3979.5
2°	3968.5	3968.5	3972.9	3970.7	3972.9
3°	3964.1	3964.1	3959.7	3959.7	3959.7
4°	3950.8	3950.8	3950.8	3946.4	3955.2
5°	3926.6	3931.0	3933.2	3926.6	3931.0
6°	3917.8	3920.0	3915.6	3913.4	3909.0
7°	3898.0	3891.3	3898.0	3882.5	3884.7
8°	3864.9	3864.9	3860.5	3856.1	3851.7
9°	3834.1	3834.1	3829.6	3823.0	3818.6
10°	3807.6	3801.0	3798.8	3792.2	3790.0
11°	3776.8	3763.5	3761.3	3754.7	3754.7
12°	3739.3	3732.7	3717.3	3715.1	3715.1
13°	3693.0	3686.4	3675.4	3666.6	3675.4
14°	3649.0	3644.6	3624.7	3631.3	3629.1
15°	3602.7	3593.9	3582.9	3578.5	3580.7
16°	3560.8	3545.4	3530.0	3532.2	3545.4
17°	3516.8	3494.7	3479.3	3477.1	3483.7
18°	3461.7	3444.0	3419.8	3428.6	3428.6
19°	3406.6	3382.3	3366.9	3364.7	3373.5
20°	3360.3	3322.8	3311.8	3309.6	3327.3
22.5°	3201.7	3164.2	3155.4	3164.2	3181.8
25°	3016.6	3003.3	2990.1	2990.1	2983.5
27.5°	2754.4	2785.2	2800.6	2769.8	2719.1
30°	2368.7	2498.7	2606.7	2483.3	2362.1
32.5°	1866.3	2135.2	2384.2	2128.6	1822.3
35°	1383.8	1624.0	2117.5	1621.8	1350.7
37.5°	1066.5	1220.7	1800.2	1200.9	1035.6
40°	830.7	921.1	1403.6	910.0	802.1
42.5°	645.6	702.9	934.3	689.7	623.6
45°	500.2	535.4	628.0	511.2	476.0
47.5°	390.0	405.4	429.7	387.8	368.0
50°	301.9	301.9	284.2	290.9	282.0
52.5°	233.6	224.8	191.7	211.5	215.9
55°	182.9	167.5	132.2	158.7	169.7
57.5°	138.8	123.4	94.7	116.8	127.8
60°	108.0	92.5	70.5	88.1	99.2
62.5°	83.7	70.5	55.1	66.1	74.9
65°	63.9	52.9	44.1	50.7	57.3
67.5°	48.5	39.7	33.1	37.5	44.1
70°	33.1	30.8	26.4	28.6	30.8
72.5°	24.2	22.0	19.8	19.8	22.0
75°	17.6	15.4	15.4	15.4	15.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.4	4.4	4.4	4.4	4.4
85°	2.2	2.2	4.4	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2
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°	11.0	11.0	11.0	11.0	11.0
80°	8.8	8.8	6.6	6.6	6.6

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Scaled Data Report



(END OF REPORT)