

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: P838735

Luminaire Tested: HCSQ660D010-HM64560827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838735
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-HM64560827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

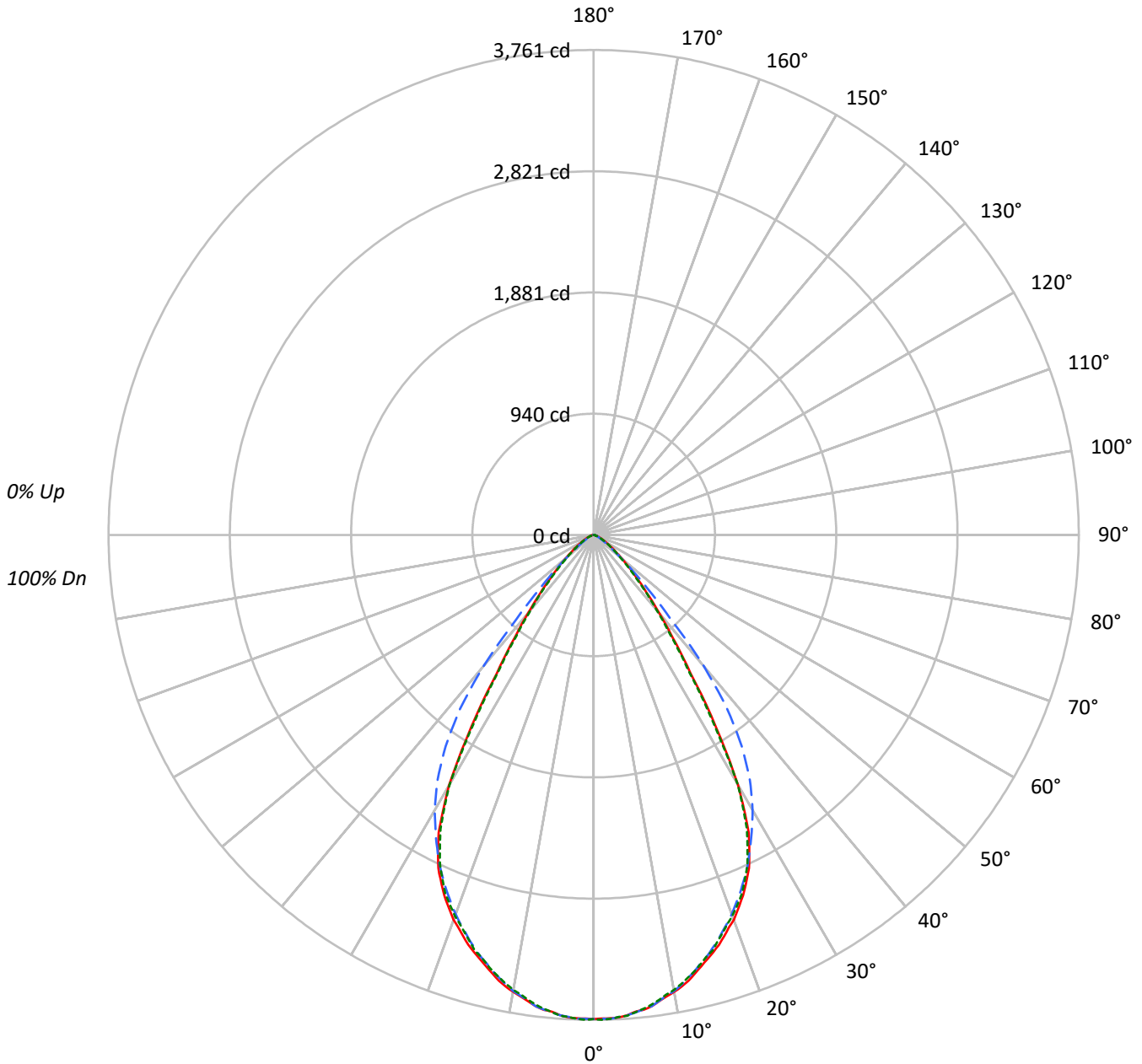
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4223.2 lumens
Efficiency: N/A
Efficacy: 75.4 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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CATALOG NUMBER: HCSQ660D010-HM64560827-61SQH

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°	161674	161674	161674
5°	160399	160671	160580
10°	157339	156976	156609
15°	151781	150947	150853
20°	145521	143422	144091
25°	135446	134259	133964
30°	111305	122486	110997
35°	68745	105196	67105
40°	44132	74562	42609
45°	28789	36138	27388
50°	19110	17998	17858
55°	12979	9383	12040
60°	8783	5735	8069
65°	6153	4248	5512
70°	3928	3147	3676
75°	2778	2429	2429
80°	2058	1537	1537
85°	1037	2075	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 36138 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.7	8.3
10°-20°	951.8	22.5
20°-30°	1284.8	30.4
30°-40°	1002.7	23.7
40°-50°	420.1	9.9
50°-60°	142.4	3.4
60°-70°	50.8	1.2
70°-80°	16.5	0.4
80°-90°	3.4	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°	2587.3	61.3
0°-40°	3590.0	85.0
0°-60°	4152.5	98.3
0°-90°	4223.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4223.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3755	3755	3755	3755	3755	
5°	3711	3715	3718	3711	3715	351
15°	3405	3397	3386	3382	3384	958
25°	2851	2839	2826	2826	2820	1282
35°	1308	1535	2001	1533	1277	860
45°	473	506	594	483	450	379
55°	173	158	125	150	160	160
65°	60	50	42	48	54	62
75°	17	15	15	15	15	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°	3755.0	3755.0	3755.0	3755.0	3755.0
1°	3750.8	3757.1	3752.9	3755.0	3761.2
2°	3750.8	3750.8	3755.0	3752.9	3755.0
3°	3746.6	3746.6	3742.5	3742.5	3742.5
4°	3734.2	3734.2	3734.2	3730.0	3738.3
5°	3711.2	3715.4	3717.5	3711.2	3715.4
6°	3702.9	3705.0	3700.8	3698.7	3694.6
7°	3684.2	3677.9	3684.2	3669.6	3671.7
8°	3652.9	3652.9	3648.8	3644.6	3640.4
9°	3623.8	3623.8	3619.6	3613.4	3609.2
10°	3598.8	3592.5	3590.5	3584.2	3582.1
11°	3569.6	3557.1	3555.0	3548.8	3548.8
12°	3534.2	3528.0	3513.4	3511.3	3511.3
13°	3490.5	3484.2	3473.8	3465.5	3473.8
14°	3448.8	3444.7	3425.9	3432.2	3430.1
15°	3405.1	3396.8	3386.4	3382.2	3384.3
16°	3365.5	3350.9	3336.4	3338.5	3350.9
17°	3323.9	3303.0	3288.5	3286.4	3292.6
18°	3271.8	3255.1	3232.2	3240.6	3240.6
19°	3219.7	3196.8	3182.3	3180.2	3188.5
20°	3176.0	3140.6	3130.2	3128.1	3144.8
22.5°	3026.1	2990.7	2982.3	2990.7	3007.3
25°	2851.1	2838.6	2826.1	2826.1	2819.9
27.5°	2603.3	2632.4	2647.0	2617.9	2570.0
30°	2238.8	2361.7	2463.7	2347.1	2232.6
32.5°	1764.0	2018.1	2253.4	2011.8	1722.3
35°	1307.9	1534.9	2001.4	1532.8	1276.7
37.5°	1008.0	1153.8	1701.5	1135.0	978.8
40°	785.2	870.5	1326.6	860.1	758.1
42.5°	610.2	664.4	883.0	651.9	589.4
45°	472.8	506.1	593.5	483.2	449.8
47.5°	368.6	383.2	406.1	366.5	347.8
50°	285.3	285.3	268.7	274.9	266.6
52.5°	220.8	212.4	181.2	199.9	204.1
55°	172.9	158.3	125.0	149.9	160.4
57.5°	131.2	116.6	89.6	110.4	120.8
60°	102.0	87.5	66.6	83.3	93.7
62.5°	79.1	66.6	52.1	62.5	70.8
65°	60.4	50.0	41.7	47.9	54.1
67.5°	45.8	37.5	31.2	35.4	41.7
70°	31.2	29.2	25.0	27.1	29.2
72.5°	22.9	20.8	18.7	18.7	20.8
75°	16.7	14.6	14.6	14.6	14.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.2	4.2	4.2	4.2	4.2
85°	2.1	2.1	4.2	2.1	2.1
87.5°	2.1	2.1	2.1	2.1	2.1
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°	10.4	10.4	10.4	10.4	10.4
80°	8.3	8.3	6.2	6.2	6.2

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(END OF REPORT)