

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: P838715

Luminaire Tested: HCSQ655D010-HM64560927-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838715
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-HM64560927-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

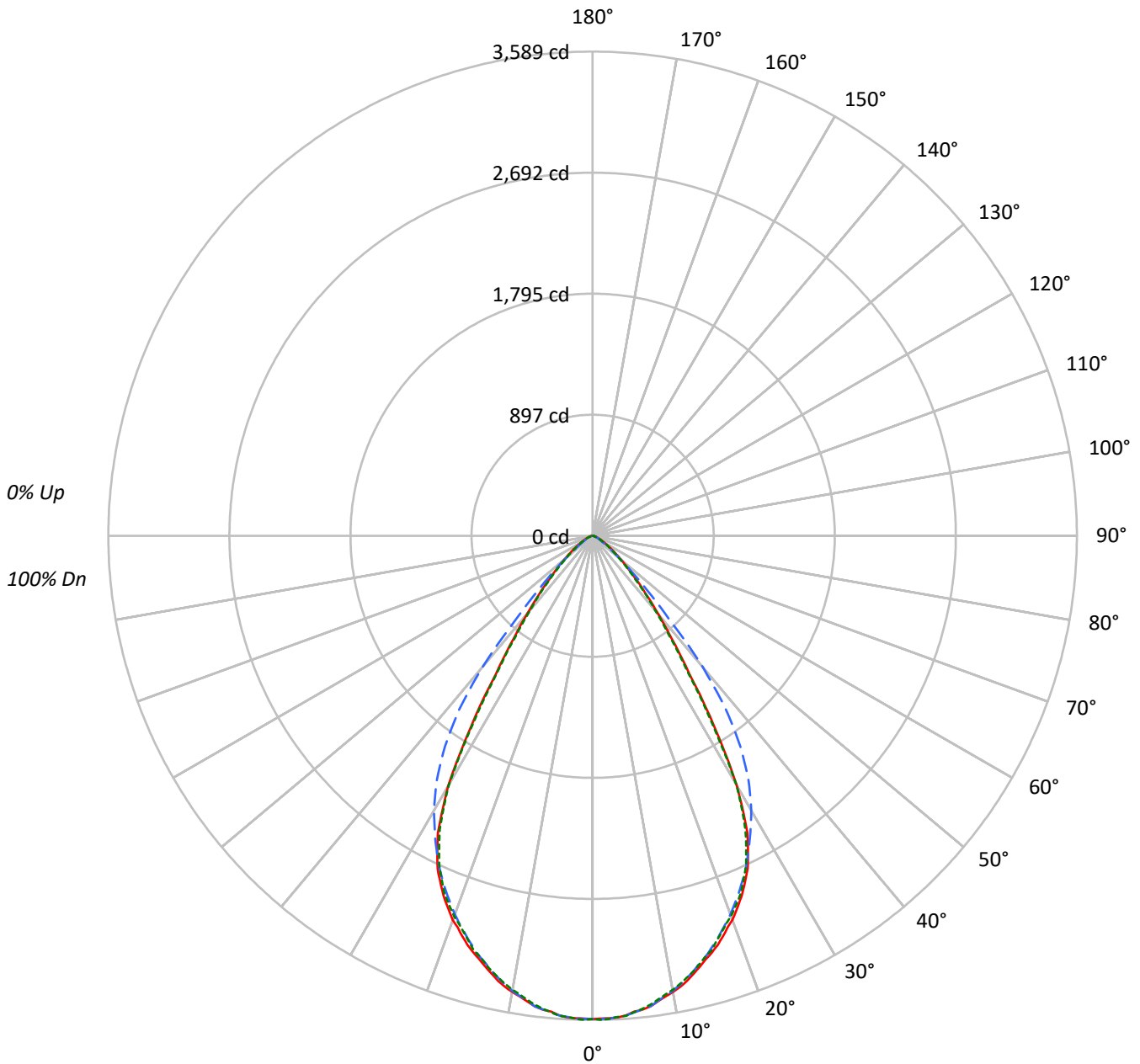
Lumens per Lamp: N/A
Luminaire Lumens: 4029.5 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
Input Voltage (V): NR
Input Current (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					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	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°	154260	154260	154260
5°	153047	153302	153215
10°	150121	149776	149426
15°	144818	144025	143936
20°	138850	136843	137484
25°	129237	128102	127821
30°	106204	116873	105906
35°	65591	100371	64025
40°	42103	71145	40653
45°	27467	34482	26134
50°	18233	17168	17040
55°	12378	8948	11485
60°	8387	5477	7698
65°	5868	4045	5267
70°	3751	2996	3500
75°	2645	2312	2312
80°	1959	1488	1488
85°	988	1976	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 34482 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	334.6	8.3
10°-20°	908.1	22.5
20°-30°	1225.9	30.4
30°-40°	956.8	23.7
40°-50°	400.8	9.9
50°-60°	135.9	3.4
60°-70°	48.5	1.2
70°-80°	15.7	0.4
80°-90°	3.2	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°	2468.7	61.3
0°-40°	3425.4	85.0
0°-60°	3962.1	98.3
0°-90°	4029.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4029.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3583	3583	3583	3583	3583	
5°	3541	3545	3547	3541	3545	335
15°	3249	3241	3231	3227	3229	914
25°	2720	2708	2696	2696	2691	1224
35°	1248	1464	1910	1462	1218	821
45°	451	483	566	461	429	362
55°	165	151	119	143	153	152
65°	58	48	40	46	52	59
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°	3582.8	3582.8	3582.8	3582.8	3582.8
1°	3578.8	3584.8	3580.8	3582.8	3588.7
2°	3578.8	3578.8	3582.8	3580.8	3582.8
3°	3574.8	3574.8	3570.9	3570.9	3570.9
4°	3562.9	3562.9	3562.9	3558.9	3566.9
5°	3541.1	3545.0	3547.0	3541.1	3545.0
6°	3533.1	3535.1	3531.1	3529.1	3525.2
7°	3515.2	3509.3	3515.2	3501.3	3503.3
8°	3485.4	3485.4	3481.4	3477.5	3473.5
9°	3457.6	3457.6	3453.6	3447.7	3443.7
10°	3433.7	3427.8	3425.8	3419.8	3417.8
11°	3405.9	3394.0	3392.0	3386.1	3386.1
12°	3372.1	3366.2	3352.3	3350.3	3350.3
13°	3330.4	3324.5	3314.5	3306.6	3314.5
14°	3290.7	3286.7	3268.8	3274.8	3272.8
15°	3248.9	3241.0	3231.1	3227.1	3229.1
16°	3211.2	3197.3	3183.4	3185.4	3197.3
17°	3171.4	3151.6	3137.7	3135.7	3141.6
18°	3121.8	3105.9	3084.0	3092.0	3092.0
19°	3072.1	3050.2	3036.3	3034.3	3042.3
20°	3030.4	2996.6	2986.6	2984.7	3000.6
22.5°	2887.3	2853.5	2845.6	2853.5	2869.4
25°	2720.4	2708.4	2696.5	2696.5	2690.6
27.5°	2483.9	2511.7	2525.6	2497.8	2452.1
30°	2136.2	2253.4	2350.8	2239.5	2130.2
32.5°	1683.1	1925.5	2150.1	1919.6	1643.3
35°	1247.9	1464.5	1909.6	1462.5	1218.1
37.5°	961.8	1100.9	1623.5	1083.0	933.9
40°	749.1	830.6	1265.8	820.7	723.3
42.5°	582.2	633.9	842.5	622.0	562.4
45°	451.1	482.9	566.3	461.0	429.2
47.5°	351.7	365.6	387.5	349.7	331.8
50°	272.2	272.2	256.3	262.3	254.4
52.5°	210.6	202.7	172.9	190.8	194.7
55°	164.9	151.0	119.2	143.1	153.0
57.5°	125.2	111.3	85.4	105.3	115.3
60°	97.4	83.5	63.6	79.5	89.4
62.5°	75.5	63.6	49.7	59.6	67.6
65°	57.6	47.7	39.7	45.7	51.7
67.5°	43.7	35.8	29.8	33.8	39.7
70°	29.8	27.8	23.8	25.8	27.8
72.5°	21.9	19.9	17.9	17.9	19.9
75°	15.9	13.9	13.9	13.9	13.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.0	4.0	4.0	4.0	4.0
85°	2.0	2.0	4.0	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°	9.9	9.9	9.9	9.9	9.9
80°	7.9	7.9	6.0	6.0	6.0

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(END OF REPORT)