

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: P838535

Luminaire Tested: HCSQ635D010-HM63040827-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838535
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: HCSQ635D010-HM63040827-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

Summary

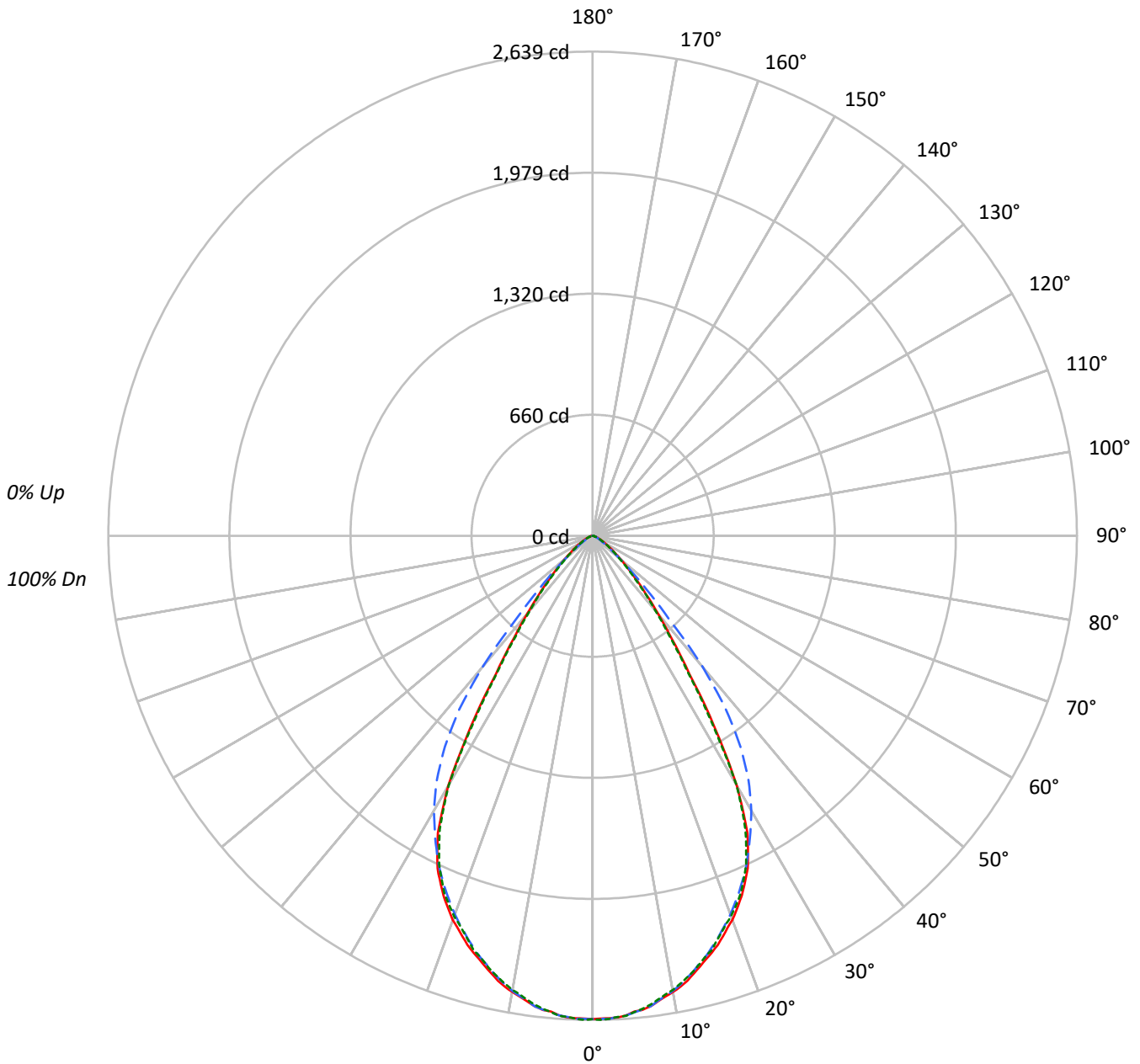
Lumens per Lamp: N/A
Luminaire Lumens: 2963.0 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 34
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					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°	113430	113430	113430
5°	112541	112727	112666
10°	110393	110135	109881
15°	106493	105905	105838
20°	102098	100627	101095
25°	95032	94196	93992
30°	78095	85940	77876
35°	48230	73807	47079
40°	30963	52316	29896
45°	20197	25355	19217
50°	13410	12626	12526
55°	9105	6583	8445
60°	6166	4030	5666
65°	4320	2975	3871
70°	2757	2203	2581
75°	1946	1697	1697
80°	1438	1091	1091
85°	741	1433	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 25355 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.0	8.3
10°-20°	667.8	22.5
20°-30°	901.5	30.4
30°-40°	703.5	23.7
40°-50°	294.7	9.9
50°-60°	99.9	3.4
60°-70°	35.6	1.2
70°-80°	11.6	0.4
80°-90°	2.4	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°	1815.3	61.3
0°-40°	2518.8	85.0
0°-60°	2913.4	98.3
0°-90°	2963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2634	2634	2634	2634	2634	
5°	2604	2607	2608	2604	2607	246
15°	2389	2383	2376	2373	2374	672
25°	2000	1992	1983	1983	1978	900
35°	918	1077	1404	1075	896	603
45°	332	355	416	339	316	266
55°	121	111	88	105	112	112
65°	42	35	29	34	38	44
75°	12	10	10	10	10	13
85°	2	2	3	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2634.5	2634.5	2634.5	2634.5	2634.5
1°	2631.6	2636.0	2633.1	2634.5	2638.9
2°	2631.6	2631.6	2634.5	2633.1	2634.5
3°	2628.7	2628.7	2625.8	2625.8	2625.8
4°	2619.9	2619.9	2619.9	2617.0	2622.9
5°	2603.9	2606.8	2608.2	2603.9	2606.8
6°	2598.0	2599.5	2596.6	2595.1	2592.2
7°	2584.9	2580.5	2584.9	2574.6	2576.1
8°	2562.9	2562.9	2560.0	2557.1	2554.2
9°	2542.5	2542.5	2539.6	2535.2	2532.3
10°	2525.0	2520.6	2519.1	2514.7	2513.3
11°	2504.5	2495.7	2494.3	2489.9	2489.9
12°	2479.7	2475.3	2465.0	2463.6	2463.6
13°	2449.0	2444.6	2437.3	2431.4	2437.3
14°	2419.7	2416.8	2403.7	2408.1	2406.6
15°	2389.1	2383.2	2375.9	2373.0	2374.4
16°	2361.3	2351.1	2340.8	2342.3	2351.1
17°	2332.1	2317.5	2307.2	2305.8	2310.2
18°	2295.5	2283.9	2267.8	2273.6	2273.6
19°	2259.0	2242.9	2232.7	2231.3	2237.1
20°	2228.3	2203.5	2196.2	2194.7	2206.4
22.5°	2123.1	2098.3	2092.4	2098.3	2110.0
25°	2000.4	1991.6	1982.8	1982.8	1978.5
27.5°	1826.5	1847.0	1857.2	1836.7	1803.1
30°	1570.8	1657.0	1728.6	1646.8	1566.4
32.5°	1237.6	1415.9	1581.0	1411.5	1208.4
35°	917.6	1076.9	1404.2	1075.4	895.7
37.5°	707.2	809.5	1193.8	796.4	686.8
40°	550.9	610.8	930.8	603.5	531.9
42.5°	428.1	466.1	619.5	457.4	413.5
45°	331.7	355.1	416.4	339.0	315.6
47.5°	258.6	268.9	284.9	257.2	244.0
50°	200.2	200.2	188.5	192.9	187.0
52.5°	154.9	149.0	127.1	140.3	143.2
55°	121.3	111.1	87.7	105.2	112.5
57.5°	92.1	81.8	62.8	77.4	84.7
60°	71.6	61.4	46.8	58.4	65.8
62.5°	55.5	46.8	36.5	43.8	49.7
65°	42.4	35.1	29.2	33.6	38.0
67.5°	32.1	26.3	21.9	24.8	29.2
70°	21.9	20.5	17.5	19.0	20.5
72.5°	16.1	14.6	13.2	13.2	14.6
75°	11.7	10.2	10.2	10.2	10.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.9	2.9	2.9	2.9	2.9
85°	1.5	1.5	2.9	1.5	1.5
87.5°	1.5	1.5	1.5	1.5	1.5
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°	7.3	7.3	7.3	7.3	7.3
80°	5.8	5.8	4.4	4.4	4.4

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(END OF REPORT)