

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: P838573

Luminaire Tested: HCSQ635D010-HM63040940-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838573
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ635D010-HM63040940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

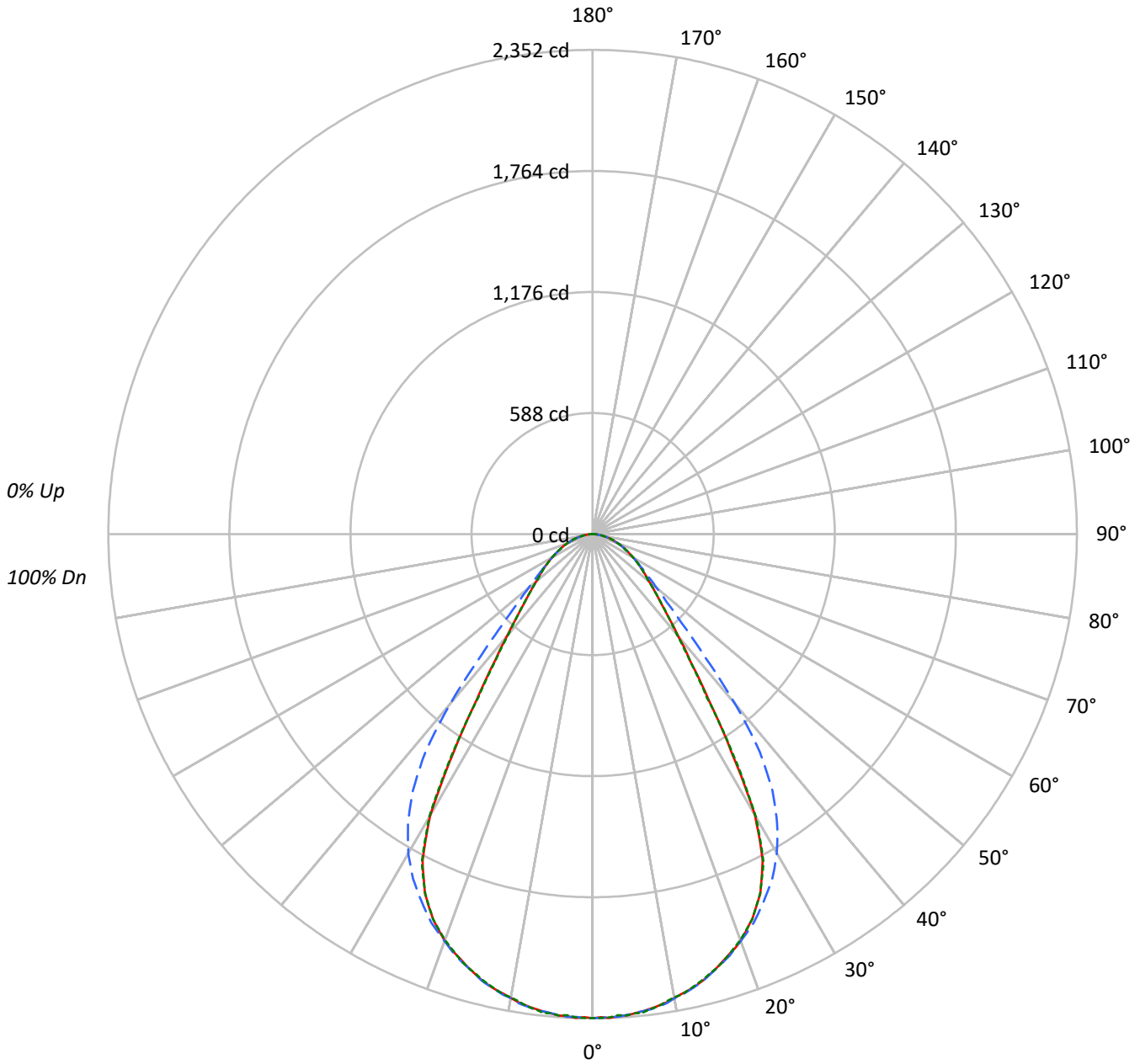
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3469.2 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
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									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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79																			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71																			
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64																			
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41																			
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	101267	101267	101267
5°	101014	100941	101014
10°	100027	100097	99882
15°	98536	98612	98389
20°	96316	96394	96091
25°	91512	93465	91431
30°	78363	88987	78855
35°	51489	79998	50711
40°	36398	60325	35752
45°	28222	37131	28423
50°	24000	27081	23779
55°	21589	22204	21589
60°	19530	19530	19530
65°	17920	17747	17747
70°	16340	16340	16554
75°	15305	14772	15038
80°	13439	13439	13439
85°	11362	11362	11362

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 37131 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	6.4
10°-20°	622.7	17.9
20°-30°	887.3	25.6
30°-40°	756.6	21.8
40°-50°	418.6	12.1
50°-60°	263.7	7.6
60°-70°	175.1	5.0
70°-80°	96.2	2.8
80°-90°	27.4	0.8
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°	1731.8	49.9
0°-40°	2488.4	71.7
0°-60°	3170.6	91.4
0°-90°	3469.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3469.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2352	2352	2352	2352	2352	
5°	2337	2340	2336	2332	2337	222
15°	2211	2211	2212	2211	2207	622
25°	1926	1949	1967	1948	1925	870
35°	980	1155	1522	1157	965	637
45°	464	508	610	505	467	367
55°	288	293	296	291	288	258
65°	176	178	174	176	174	175
75°	92	90	89	90	90	97
85°	23	23	23	25	23	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2352.0	2352.0	2352.0	2352.0	2352.0
1°	2347.0	2350.3	2350.3	2348.7	2350.3
2°	2352.0	2347.0	2347.0	2347.0	2348.7
3°	2345.4	2348.7	2348.7	2343.8	2340.5
4°	2343.8	2342.1	2342.1	2347.0	2343.8
5°	2337.2	2340.5	2335.5	2332.2	2337.2
6°	2330.6	2332.2	2330.6	2332.2	2337.2
7°	2322.4	2327.3	2325.7	2324.0	2324.0
8°	2312.5	2319.1	2315.8	2315.8	2314.2
9°	2302.7	2304.3	2307.6	2307.6	2297.7
10°	2287.9	2292.8	2289.5	2291.2	2284.6
11°	2274.7	2281.3	2279.7	2276.4	2278.0
12°	2263.2	2266.5	2264.9	2259.9	2261.6
13°	2248.4	2251.7	2250.1	2250.1	2245.1
14°	2232.0	2228.7	2233.6	2230.3	2228.7
15°	2210.6	2210.6	2212.3	2210.6	2207.3
16°	2190.9	2192.5	2192.5	2190.9	2192.5
17°	2167.9	2174.5	2172.8	2169.5	2171.2
18°	2146.5	2151.5	2153.1	2151.5	2146.5
19°	2126.8	2130.1	2128.4	2121.9	2121.9
20°	2102.1	2103.8	2103.8	2100.5	2097.2
22.5°	2024.9	2036.4	2044.6	2038.0	2024.9
25°	1926.3	1949.3	1967.4	1947.6	1924.6
27.5°	1788.2	1834.2	1888.5	1839.2	1796.4
30°	1576.2	1681.4	1789.9	1691.2	1586.1
32.5°	1254.1	1461.1	1668.2	1480.9	1273.8
35°	979.6	1155.4	1522.0	1157.1	964.8
37.5°	782.3	907.3	1334.6	899.0	774.1
40°	647.6	731.4	1073.3	728.1	636.1
42.5°	540.7	604.8	803.7	598.3	540.7
45°	463.5	507.9	609.8	504.6	466.8
47.5°	406.0	433.9	488.1	432.3	406.0
50°	358.3	374.7	404.3	373.1	355.0
52.5°	320.5	330.4	341.9	327.1	317.2
55°	287.6	292.6	295.8	290.9	287.6
57.5°	256.4	259.7	258.0	256.4	254.8
60°	226.8	228.5	226.8	228.5	226.8
62.5°	200.5	202.2	198.9	200.5	198.9
65°	175.9	177.5	174.2	175.9	174.2
67.5°	152.9	152.9	152.9	152.9	151.2
70°	129.8	131.5	129.8	131.5	131.5
72.5°	110.1	110.1	108.5	110.1	110.1
75°	92.0	90.4	88.8	90.4	90.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	39.4	39.4	37.8	39.4	39.4
85°	23.0	23.0	23.0	24.7	23.0
87.5°	11.5	9.9	9.9	11.5	11.5
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°	72.3	72.3	70.7	72.3	72.3
80°	54.2	55.9	54.2	55.9	54.2

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