

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: P838568

Luminaire Tested: HCSQ635D010-HM63040935-61SQMW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838568
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-HM63040935-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

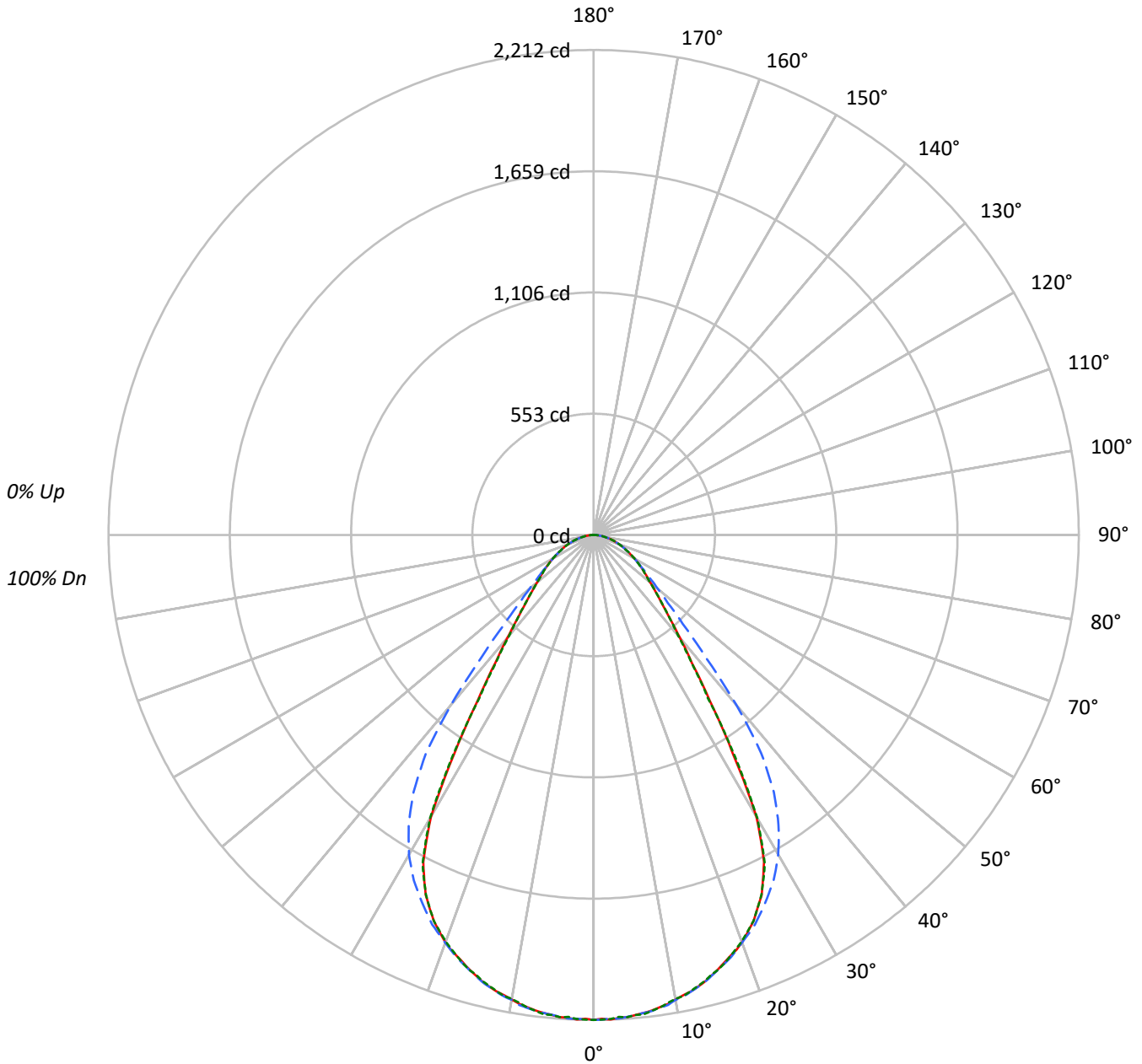
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3263.3 lumens
Efficiency: N/A
Efficacy: 96.0 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 (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									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°	95252	95252	95252
5°	95015	94950	95015
10°	94090	94155	93954
15°	92688	92755	92550
20°	90602	90671	90387
25°	86077	87916	86006
30°	73710	83703	74172
35°	48430	75247	47699
40°	34235	56739	33628
45°	26548	34926	26737
50°	22573	25474	22366
55°	20313	20891	20313
60°	18376	18376	18376
65°	16851	16698	16698
70°	15371	15371	15572
75°	14406	13891	14140
80°	12645	12645	12645
85°	10671	10671	10671

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 34926 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.6	6.4
10°-20°	585.7	17.9
20°-30°	834.7	25.6
30°-40°	711.7	21.8
40°-50°	393.7	12.1
50°-60°	248.0	7.6
60°-70°	164.7	5.0
70°-80°	90.5	2.8
80°-90°	25.8	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°	1629.0	49.9
0°-40°	2340.7	71.7
0°-60°	2982.4	91.4
0°-90°	3263.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3263.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2212	2212	2212	2212	2212	
5°	2198	2202	2197	2194	2198	208
15°	2079	2079	2081	2079	2076	585
25°	1812	1834	1851	1832	1810	818
35°	921	1087	1432	1088	908	599
45°	436	478	574	475	439	346
55°	271	275	278	274	271	243
65°	165	167	164	165	164	165
75°	87	85	84	85	85	91
85°	22	22	22	23	22	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2212.3	2212.3	2212.3	2212.3	2212.3
1°	2207.7	2210.8	2210.8	2209.3	2210.8
2°	2212.3	2207.7	2207.7	2207.7	2209.3
3°	2206.2	2209.3	2209.3	2204.6	2201.5
4°	2204.6	2203.1	2203.1	2207.7	2204.6
5°	2198.4	2201.5	2196.9	2193.8	2198.4
6°	2192.3	2193.8	2192.3	2193.8	2198.4
7°	2184.5	2189.2	2187.6	2186.1	2186.1
8°	2175.2	2181.4	2178.3	2178.3	2176.8
9°	2166.0	2167.5	2170.6	2170.6	2161.3
10°	2152.1	2156.7	2153.6	2155.1	2149.0
11°	2139.7	2145.9	2144.3	2141.2	2142.8
12°	2128.9	2132.0	2130.4	2125.8	2127.3
13°	2114.9	2118.0	2116.5	2116.5	2111.9
14°	2099.5	2096.4	2101.0	2097.9	2096.4
15°	2079.4	2079.4	2080.9	2079.4	2076.3
16°	2060.8	2062.4	2062.4	2060.8	2062.4
17°	2039.2	2045.4	2043.8	2040.7	2042.3
18°	2019.1	2023.7	2025.3	2023.7	2019.1
19°	2000.5	2003.6	2002.1	1995.9	1995.9
20°	1977.4	1978.9	1978.9	1975.8	1972.7
22.5°	1904.7	1915.5	1923.2	1917.1	1904.7
25°	1811.9	1833.6	1850.6	1832.0	1810.4
27.5°	1682.1	1725.4	1776.4	1730.0	1689.8
30°	1482.6	1581.6	1683.6	1590.8	1491.9
32.5°	1179.6	1374.4	1569.2	1393.0	1198.2
35°	921.4	1086.8	1431.6	1088.4	907.5
37.5°	735.9	853.4	1255.4	845.7	728.2
40°	609.1	688.0	1009.5	684.9	598.3
42.5°	508.6	568.9	756.0	562.7	508.6
45°	436.0	477.7	573.6	474.6	439.1
47.5°	381.9	408.1	459.2	406.6	381.9
50°	337.0	352.5	380.3	350.9	333.9
52.5°	301.5	310.7	321.6	307.7	298.4
55°	270.6	275.2	278.3	273.6	270.6
57.5°	241.2	244.3	242.7	241.2	239.6
60°	213.4	214.9	213.4	214.9	213.4
62.5°	188.6	190.2	187.1	188.6	187.1
65°	165.4	167.0	163.9	165.4	163.9
67.5°	143.8	143.8	143.8	143.8	142.2
70°	122.1	123.7	122.1	123.7	123.7
72.5°	103.6	103.6	102.0	103.6	103.6
75°	86.6	85.0	83.5	85.0	85.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	37.1	37.1	35.6	37.1	37.1
85°	21.6	21.6	21.6	23.2	21.6
87.5°	10.8	9.3	9.3	10.8	10.8
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°	68.0	68.0	66.5	68.0	68.0
80°	51.0	52.6	51.0	52.6	51.0

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