

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: P838515

Luminaire Tested: HCSQ630D010-HM63040927-61SQH

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838515
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: HCSQ630D010-HM63040927-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

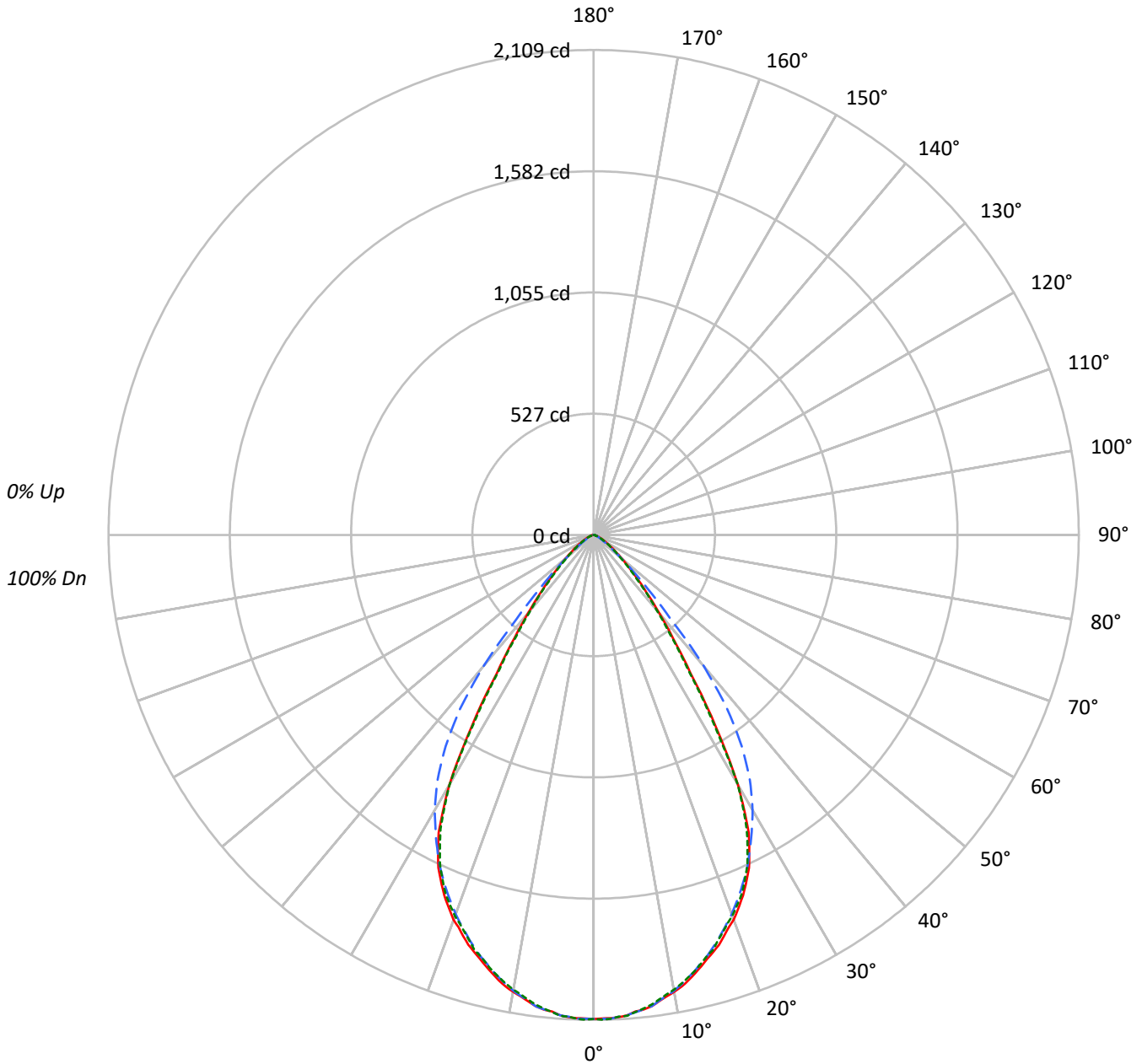
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2367.7 lumens
Efficiency: N/A
Efficacy: 84.0 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): 28.2
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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CATALOG NUMBER: HCSQ630D010-HM63040927-61SQH

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	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°	90641	90641	90641
5°	89928	90079	90028
10°	88209	88004	87803
15°	85093	84625	84571
20°	81585	80408	80783
25°	75935	75270	75103
30°	62404	68673	62230
35°	38543	58979	37618
40°	24742	41805	23887
45°	16136	20264	15356
50°	10717	10088	10014
55°	7274	5262	6748
60°	4926	3221	4521
65°	3454	2384	3097
70°	2203	1762	2052
75°	1547	1364	1364
80°	1165	868	868
85°	593	1136	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 20264 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.6	8.3
10°-20°	533.6	22.5
20°-30°	720.3	30.4
30°-40°	562.2	23.7
40°-50°	235.5	9.9
50°-60°	79.8	3.4
60°-70°	28.5	1.2
70°-80°	9.3	0.4
80°-90°	1.9	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°	1450.5	61.3
0°-40°	2012.7	85.0
0°-60°	2328.1	98.3
0°-90°	2367.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2367.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2105	2105	2105	2105	2105	
5°	2081	2083	2084	2081	2083	197
15°	1909	1904	1898	1896	1897	537
25°	1598	1591	1584	1584	1581	719
35°	733	860	1122	859	716	482
45°	265	284	333	271	252	213
55°	97	89	70	84	90	89
65°	34	28	23	27	30	35
75°	9	8	8	8	8	10
85°	1	1	2	1	1	2
90°	0	0	0	0	0	



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CATALOG NUMBER: HCSQ630D010-HM63040927-61SQH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2105.2	2105.2	2105.2	2105.2	2105.2
1°	2102.8	2106.3	2104.0	2105.2	2108.7
2°	2102.8	2102.8	2105.2	2104.0	2105.2
3°	2100.5	2100.5	2098.2	2098.2	2098.2
4°	2093.5	2093.5	2093.5	2091.2	2095.8
5°	2080.7	2083.0	2084.2	2080.7	2083.0
6°	2076.0	2077.2	2074.8	2073.7	2071.3
7°	2065.5	2062.0	2065.5	2057.3	2058.5
8°	2048.0	2048.0	2045.6	2043.3	2041.0
9°	2031.6	2031.6	2029.3	2025.8	2023.4
10°	2017.6	2014.1	2012.9	2009.4	2008.3
11°	2001.3	1994.3	1993.1	1989.6	1989.6
12°	1981.4	1977.9	1969.7	1968.6	1968.6
13°	1956.9	1953.4	1947.6	1942.9	1947.6
14°	1933.5	1931.2	1920.7	1924.2	1923.0
15°	1909.0	1904.4	1898.5	1896.2	1897.3
16°	1886.8	1878.7	1870.5	1871.7	1878.7
17°	1863.5	1851.8	1843.6	1842.5	1846.0
18°	1834.3	1825.0	1812.1	1816.8	1816.8
19°	1805.1	1792.3	1784.1	1782.9	1787.6
20°	1780.6	1760.7	1754.9	1753.7	1763.1
22.5°	1696.5	1676.7	1672.0	1676.7	1686.0
25°	1598.4	1591.4	1584.4	1584.4	1580.9
27.5°	1459.5	1475.8	1484.0	1467.7	1440.8
30°	1255.2	1324.1	1381.3	1315.9	1251.7
32.5°	989.0	1131.4	1263.3	1127.9	965.6
35°	733.3	860.5	1122.1	859.4	715.7
37.5°	565.1	646.8	953.9	636.3	548.8
40°	440.2	488.1	743.8	482.2	425.0
42.5°	342.1	372.5	495.1	365.5	330.4
45°	265.0	283.7	332.8	270.9	252.2
47.5°	206.7	214.8	227.7	205.5	195.0
50°	160.0	160.0	150.6	154.1	149.5
52.5°	123.8	119.1	101.6	112.1	114.4
55°	96.9	88.7	70.1	84.1	89.9
57.5°	73.6	65.4	50.2	61.9	67.7
60°	57.2	49.0	37.4	46.7	52.5
62.5°	44.4	37.4	29.2	35.0	39.7
65°	33.9	28.0	23.4	26.9	30.4
67.5°	25.7	21.0	17.5	19.8	23.4
70°	17.5	16.3	14.0	15.2	16.3
72.5°	12.8	11.7	10.5	10.5	11.7
75°	9.3	8.2	8.2	8.2	8.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.3	2.3	2.3	2.3	2.3
85°	1.2	1.2	2.3	1.2	1.2
87.5°	1.2	1.2	1.2	1.2	1.2
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°	5.8	5.8	5.8	5.8	5.8
80°	4.7	4.7	3.5	3.5	3.5

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(END OF REPORT)