

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: P838512

Luminaire Tested: HCSQ630D010-HM63040840-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838512
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040840-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

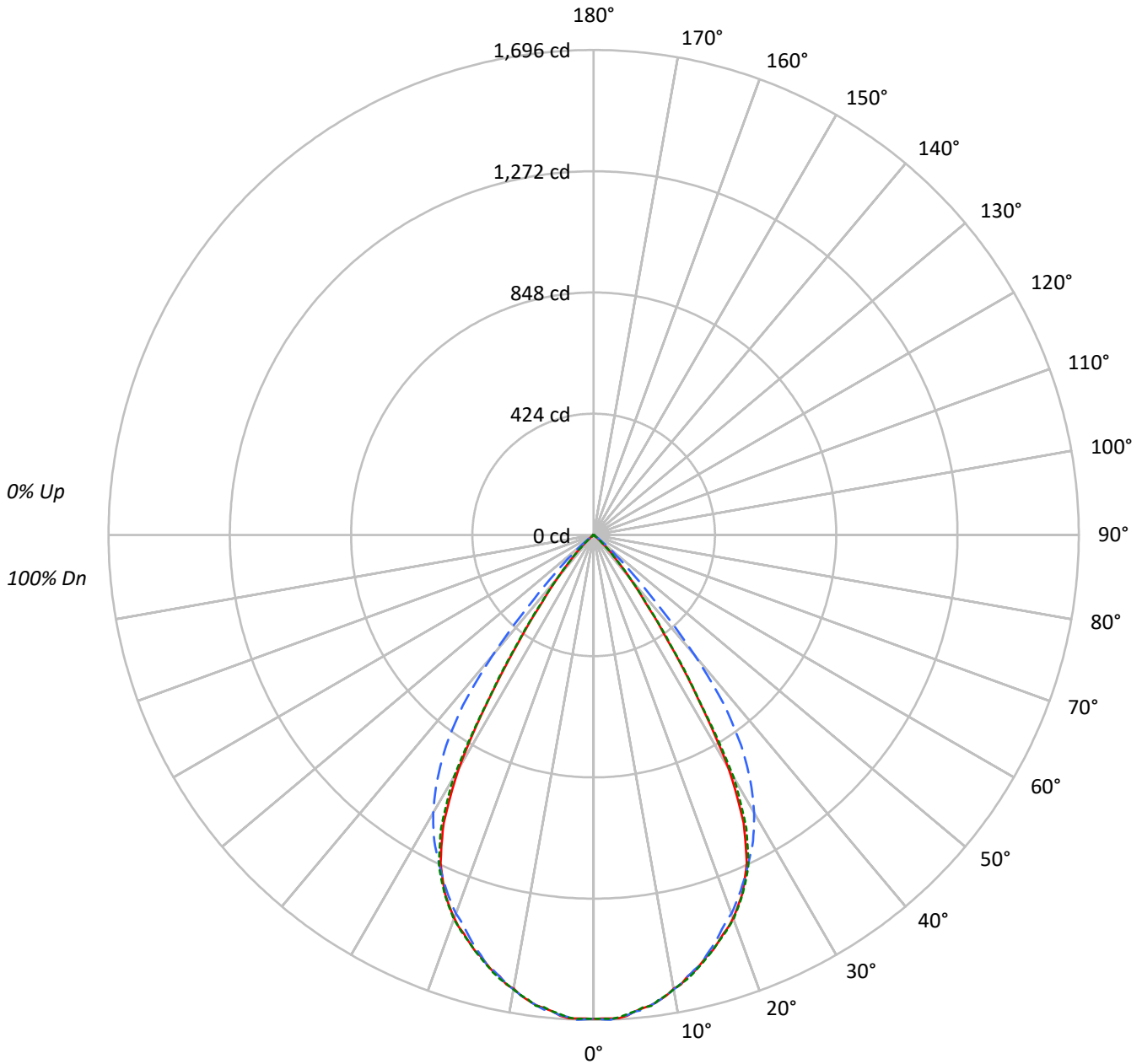
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1682.3 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03
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 (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

TEST NUMBER: P838512
CATALOG NUMBER: HCSQ630D010-HM63040840-61SQMB

Luminous Intensity Polar Plot





TEST NUMBER: P838512

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQMB

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	50	30	10	0		
RCR	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81	81	81	81	81	81		
	4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65	65	65	65	65	65		
	7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60	60	60	60	60	60		
	8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56	56	56	56	56	56		
	9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53	53	53	53	53	53		
	10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50	50	50	50	50	50		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	72867	72867	72867
5°	72255	72316	72255
10°	70446	70564	70564
15°	68021	67838	68208
20°	65324	64568	65512
25°	60153	60609	60742
30°	46888	55777	48667
35°	23773	47258	24641
40°	10819	30907	10819
45°	4183	11636	4104
50°	643	3684	643
55°	203	721	203
60°	121	121	121
65°	143	0	143
70°	0	0	176
75°	0	0	233
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11636 cd/sqm



TEST NUMBER: P838512
 CATALOG NUMBER: HCSQ630D010-HM63040840-61SQMB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.0	9.4
10°-20°	428.6	25.5
20°-30°	577.7	34.3
30°-40°	406.2	24.1
40°-50°	103.7	6.2
50°-60°	7.1	0.4
60°-70°	0.9	0.1
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	1164.3	69.2
0°-40°	1570.5	93.4
0°-60°	1681.3	99.9
0°-90°	1682.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1682.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1692	1692	1692	1692	1692	
5°	1672	1674	1673	1674	1672	158
15°	1526	1523	1522	1526	1530	430
25°	1266	1270	1276	1280	1279	566
35°	452	599	899	614	469	304
45°	69	103	191	104	67	60
55°	3	3	10	3	3	3
65°	1	1	0	1	1	1
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P838512

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQMB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1692.4	1692.4	1692.4	1692.4	1692.4
1°	1691.0	1692.4	1693.8	1693.8	1692.4
2°	1692.4	1688.3	1696.5	1692.4	1693.8
3°	1692.4	1684.2	1688.3	1691.0	1689.7
4°	1685.5	1680.0	1684.2	1682.8	1680.0
5°	1671.8	1674.5	1673.2	1674.5	1671.8
6°	1663.5	1666.3	1669.0	1664.9	1660.8
7°	1656.7	1655.3	1656.7	1659.4	1659.4
8°	1644.3	1647.0	1644.3	1645.7	1641.5
9°	1630.5	1630.5	1630.5	1633.3	1629.2
10°	1611.3	1618.2	1614.0	1616.8	1614.0
11°	1601.7	1598.9	1598.9	1600.3	1598.9
12°	1578.3	1581.0	1579.7	1582.4	1586.5
13°	1565.9	1567.3	1561.8	1568.7	1568.7
14°	1546.7	1545.3	1548.0	1546.7	1549.4
15°	1526.0	1523.3	1521.9	1526.0	1530.2
16°	1510.9	1504.1	1499.9	1505.4	1510.9
17°	1488.9	1482.1	1476.6	1487.6	1488.9
18°	1466.9	1464.2	1450.4	1464.2	1471.1
19°	1449.1	1439.4	1427.1	1442.2	1450.4
20°	1425.7	1417.4	1409.2	1417.4	1429.8
22.5°	1358.3	1351.4	1344.6	1354.2	1361.1
25°	1266.2	1270.3	1275.8	1280.0	1278.6
27.5°	1135.6	1172.7	1207.1	1185.1	1156.2
30°	943.1	1036.6	1121.9	1051.7	978.9
32.5°	683.3	842.8	1020.1	874.4	690.2
35°	452.3	599.4	899.1	614.5	468.8
37.5°	294.2	402.8	750.7	404.2	308.0
40°	192.5	262.6	549.9	268.1	192.5
42.5°	118.2	166.4	334.1	173.2	118.2
45°	68.7	103.1	191.1	104.5	67.4
47.5°	31.6	56.4	108.6	55.0	33.0
50°	9.6	24.7	55.0	24.7	9.6
52.5°	4.1	6.9	26.1	6.9	4.1
55°	2.7	2.7	9.6	2.7	2.7
57.5°	2.7	1.4	2.7	2.7	2.7
60°	1.4	1.4	1.4	1.4	1.4
62.5°	1.4	1.4	1.4	1.4	1.4
65°	1.4	1.4	0.0	1.4	1.4
67.5°	1.4	0.0	0.0	0.0	1.4
70°	0.0	0.0	0.0	0.0	1.4
72.5°	0.0	0.0	0.0	0.0	1.4
75°	0.0	0.0	0.0	0.0	1.4



TEST NUMBER: P838512

CATALOG NUMBER: HCSQ630D010-HM63040840-61SQMB

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



77.5°	0.0	0.0	0.0	0.0	0.0
80°	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



(END OF REPORT)