

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: P838430

Luminaire Tested: HCSQ620D010-HM60525840-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838430
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: HCSQ620D010-HM60525840-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

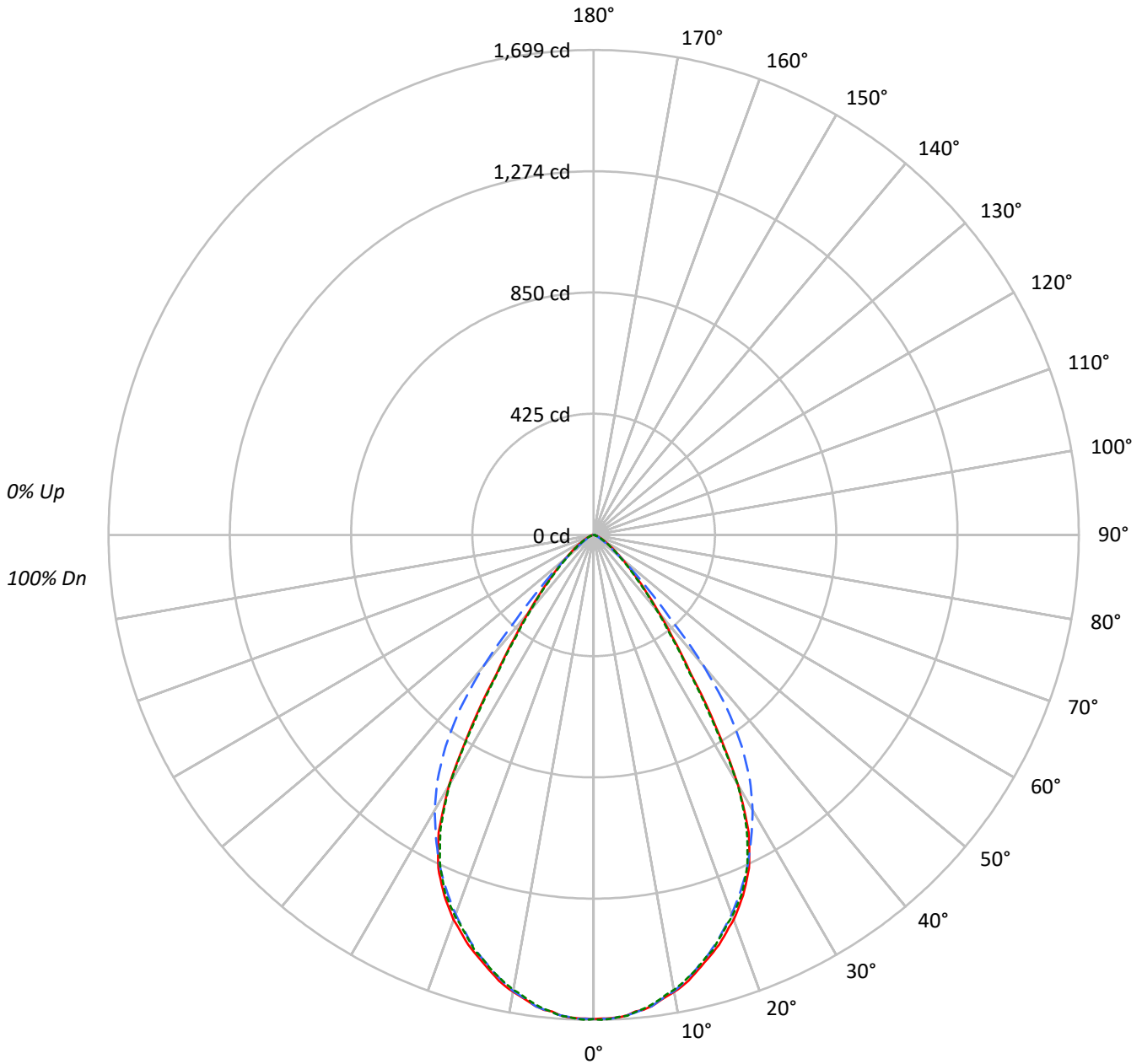
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1907.7 lumens
Efficiency: N/A
Efficacy: 95.4 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): 20
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: P838430
CATALOG NUMBER: HCSQ620D010-HM60525840-61SQH

Luminous Intensity Polar Plot





TEST NUMBER: P838430

CATALOG NUMBER: HCSQ620D010-HM60525840-61SQH

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	98	97	97	95	94	92	
	1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92	92	90	88	85	85	82	79	78
	2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85	85	82	79	78	78	76	71	71
	3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78	78	76	73	71	71	71	66	66
	4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71	71	68	67	66	66	66	61	61
	5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66	66	63	62	61	61	61	56	56
	6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61	61	60	59	58	58	58	52	52
	7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56	56	57	54	54	54	54	48	48
	8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52	52	54	50	50	50	50	48	48
	9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48	48	47	47	47	47	47	47	47
	10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45	45	47	47	47	47	47	45	45

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	73031	73031	73031
5°	72454	72580	72536
10°	71071	70909	70743
15°	68564	68186	68141
20°	65736	64788	65090
25°	61184	60647	60514
30°	50278	55329	50139
35°	31053	47521	30312
40°	19936	33684	19245
45°	13006	16325	12373
50°	8634	8132	8065
55°	5863	4234	5435
60°	3970	2592	3643
65°	2781	1915	2496
70°	1775	1423	1662
75°	1248	1098	1098
80°	942	694	694
85°	445	939	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16325 cd/sqm



TEST NUMBER: P838430
 CATALOG NUMBER: HCSQ620D010-HM60525840-61SQH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	8.3
10°-20°	429.9	22.5
20°-30°	580.4	30.4
30°-40°	453.0	23.7
40°-50°	189.8	9.9
50°-60°	64.3	3.4
60°-70°	22.9	1.2
70°-80°	7.5	0.4
80°-90°	1.5	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°	1168.7	61.3
0°-40°	1621.7	85.0
0°-60°	1875.8	98.3
0°-90°	1907.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1907.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1696	1696	1696	1696	1696	
5°	1676	1678	1679	1676	1678	159
15°	1538	1534	1530	1528	1529	433
25°	1288	1282	1277	1277	1274	579
35°	591	693	904	692	577	389
45°	214	229	268	218	203	171
55°	78	72	56	68	72	72
65°	27	23	19	22	24	28
75°	8	7	7	7	7	8
85°	1	1	2	1	1	2
90°	0	0	0	0	0	



TEST NUMBER: P838430

CATALOG NUMBER: HCSQ620D010-HM60525840-61SQH

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1696.2	1696.2	1696.2	1696.2	1696.2
1°	1694.3	1697.1	1695.3	1696.2	1699.0
2°	1694.3	1694.3	1696.2	1695.3	1696.2
3°	1692.4	1692.4	1690.6	1690.6	1690.6
4°	1686.8	1686.8	1686.8	1684.9	1688.7
5°	1676.4	1678.3	1679.3	1676.4	1678.3
6°	1672.7	1673.6	1671.7	1670.8	1668.9
7°	1664.2	1661.4	1664.2	1657.6	1658.6
8°	1650.1	1650.1	1648.2	1646.3	1644.5
9°	1636.9	1636.9	1635.1	1632.2	1630.4
10°	1625.6	1622.8	1621.9	1619.1	1618.1
11°	1612.5	1606.8	1605.9	1603.1	1603.1
12°	1596.5	1593.7	1587.1	1586.1	1586.1
13°	1576.7	1573.9	1569.2	1565.4	1569.2
14°	1557.9	1556.0	1547.6	1550.4	1549.4
15°	1538.2	1534.4	1529.7	1527.8	1528.7
16°	1520.3	1513.7	1507.1	1508.1	1513.7
17°	1501.5	1492.1	1485.5	1484.5	1487.4
18°	1477.9	1470.4	1460.1	1463.8	1463.8
19°	1454.4	1444.1	1437.5	1436.6	1440.3
20°	1434.7	1418.7	1414.0	1413.0	1420.6
22.5°	1366.9	1350.9	1347.2	1350.9	1358.5
25°	1287.9	1282.3	1276.6	1276.6	1273.8
27.5°	1176.0	1189.1	1195.7	1182.5	1160.9
30°	1011.3	1066.8	1112.9	1060.2	1008.5
32.5°	796.8	911.6	1017.9	908.8	778.0
35°	590.8	693.3	904.1	692.4	576.7
37.5°	455.3	521.2	768.6	512.7	442.2
40°	354.7	393.2	599.3	388.5	342.4
42.5°	275.6	300.1	398.9	294.5	266.2
45°	213.6	228.6	268.1	218.3	203.2
47.5°	166.5	173.1	183.4	165.6	157.1
50°	128.9	128.9	121.4	124.2	120.4
52.5°	99.7	96.0	81.8	90.3	92.2
55°	78.1	71.5	56.4	67.7	72.4
57.5°	59.3	52.7	40.5	49.9	54.6
60°	46.1	39.5	30.1	37.6	42.3
62.5°	35.7	30.1	23.5	28.2	32.0
65°	27.3	22.6	18.8	21.6	24.5
67.5°	20.7	16.9	14.1	16.0	18.8
70°	14.1	13.2	11.3	12.2	13.2
72.5°	10.3	9.4	8.5	8.5	9.4
75°	7.5	6.6	6.6	6.6	6.6



TEST NUMBER: P838430

CATALOG NUMBER: HCSQ620D010-HM60525840-61SQH

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.9	1.9	1.9	1.9	1.9
85°	0.9	0.9	1.9	0.9	0.9
87.5°	0.9	0.9	0.9	0.9	0.9
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





77.5°	4.7	4.7	4.7	4.7	4.7
80°	3.8	3.8	2.8	2.8	2.8

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

Scaled Data Report



(END OF REPORT)