

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: P838442

Luminaire Tested: HCSQ620D010-HM60525930-61SQMB

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838442
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: HCSQ620D010-HM60525930-61SQMB
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

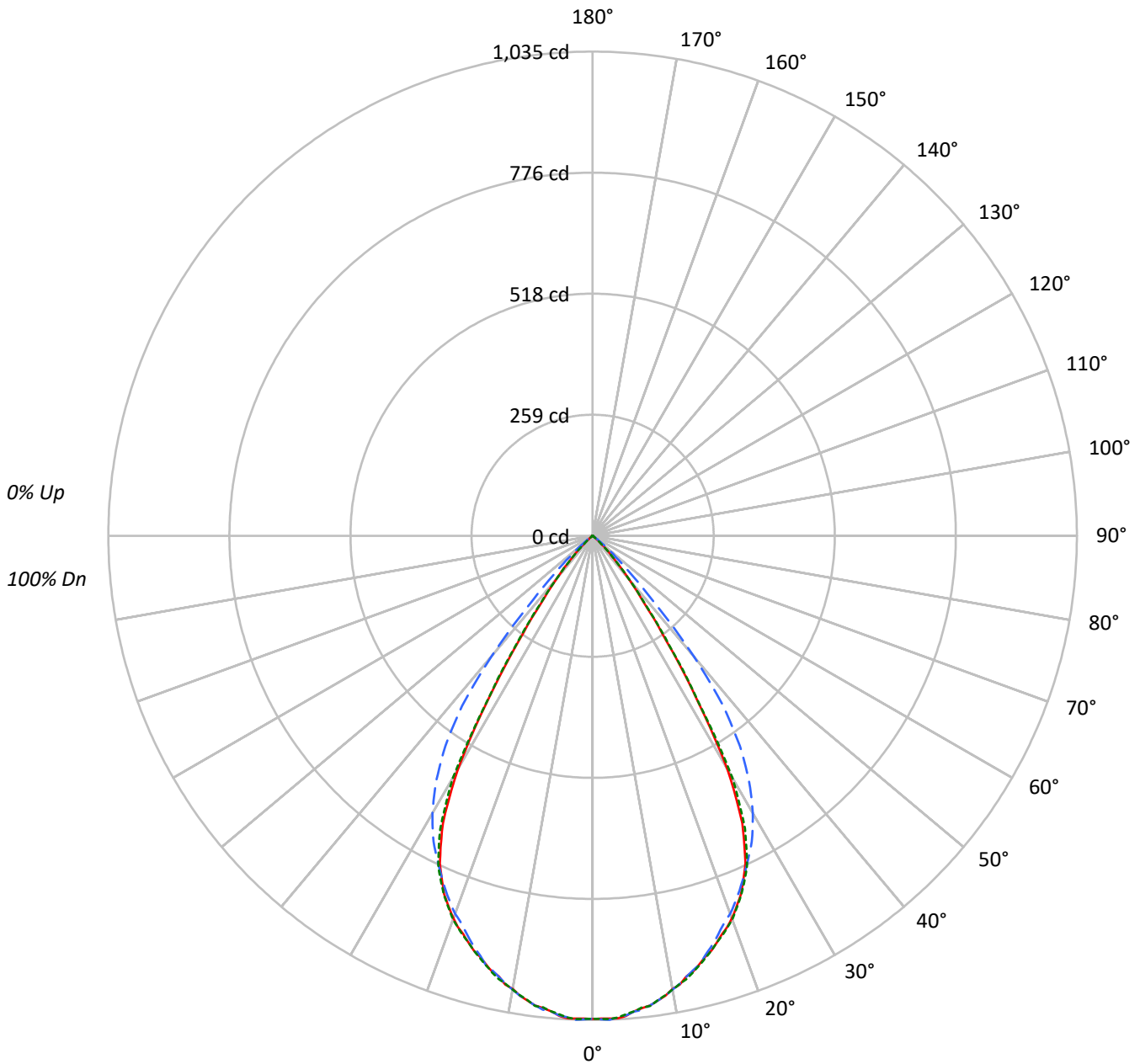
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1026.7 lumens
Efficiency: N/A
Efficacy: 51.3 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): 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: P838442
CATALOG NUMBER: HCSQ620D010-HM60525930-61SQMB

Luminous Intensity Polar Plot





TEST NUMBER: P838442

CATALOG NUMBER: HCSQ620D010-HM60525930-61SQMB

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					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			
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93					93			
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87					87			
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81					81			
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75					75			
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70					70			
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65					65			
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60					60			
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56					56			
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53					53			
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50					50			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	44472	44472	44472
5°	44097	44132	44097
10°	42994	43068	43068
15°	41517	41401	41628
20°	39867	39404	39982
25°	36713	36989	37069
30°	28617	34041	29701
35°	14507	28840	15038
40°	6604	18862	6604
45°	2557	7100	2503
50°	395	2251	395
55°	128	443	128
60°	69	69	69
65°	82	0	82
70°	0	0	101
75°	0	0	133
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 7100 cd/sqm



TEST NUMBER: P838442
 CATALOG NUMBER: HCSQ620D010-HM60525930-61SQMB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	9.4
10°-20°	261.6	25.5
20°-30°	352.6	34.3
30°-40°	247.9	24.1
40°-50°	63.3	6.2
50°-60°	4.4	0.4
60°-70°	0.5	0.0
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°	710.6	69.2
0°-40°	958.5	93.4
0°-60°	1026.1	99.9
0°-90°	1026.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1026.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1020	1022	1021	1022	1020	96
15°	931	930	929	931	934	262
25°	773	775	779	781	780	345
35°	276	366	549	375	286	186
45°	42	63	117	64	41	37
55°	2	2	6	2	2	2
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: P838442

CATALOG NUMBER: HCSQ620D010-HM60525930-61SQMB

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1032.9	1032.9	1032.9	1032.9	1032.9
1°	1032.0	1032.9	1033.7	1033.7	1032.9
2°	1032.9	1030.4	1035.4	1032.9	1033.7
3°	1032.9	1027.8	1030.4	1032.0	1031.2
4°	1028.7	1025.3	1027.8	1027.0	1025.3
5°	1020.3	1022.0	1021.1	1022.0	1020.3
6°	1015.3	1016.9	1018.6	1016.1	1013.6
7°	1011.1	1010.2	1011.1	1012.7	1012.7
8°	1003.5	1005.2	1003.5	1004.4	1001.8
9°	995.1	995.1	995.1	996.8	994.3
10°	983.4	987.6	985.1	986.7	985.1
11°	977.5	975.8	975.8	976.7	975.8
12°	963.2	964.9	964.1	965.8	968.3
13°	955.7	956.5	953.2	957.4	957.4
14°	943.9	943.1	944.8	943.9	945.6
15°	931.4	929.7	928.8	931.4	933.9
16°	922.1	917.9	915.4	918.8	922.1
17°	908.7	904.5	901.1	907.9	908.7
18°	895.3	893.6	885.2	893.6	897.8
19°	884.4	878.5	870.9	880.2	885.2
20°	870.1	865.1	860.0	865.1	872.6
22.5°	829.0	824.8	820.6	826.5	830.7
25°	772.8	775.3	778.6	781.2	780.3
27.5°	693.1	715.7	736.7	723.3	705.6
30°	575.6	632.6	684.7	641.9	597.4
32.5°	417.0	514.3	622.6	533.6	421.2
35°	276.0	365.8	548.7	375.1	286.1
37.5°	179.6	245.8	458.1	246.7	187.9
40°	117.5	160.3	335.6	163.6	117.5
42.5°	72.2	101.5	203.9	105.7	72.2
45°	42.0	62.9	116.6	63.8	41.1
47.5°	19.3	34.4	66.3	33.6	20.1
50°	5.9	15.1	33.6	15.1	5.9
52.5°	2.5	4.2	15.9	4.2	2.5
55°	1.7	1.7	5.9	1.7	1.7
57.5°	1.7	0.8	1.7	1.7	1.7
60°	0.8	0.8	0.8	0.8	0.8
62.5°	0.8	0.8	0.8	0.8	0.8
65°	0.8	0.8	0.0	0.8	0.8
67.5°	0.8	0.0	0.0	0.0	0.8
70°	0.0	0.0	0.0	0.0	0.8
72.5°	0.0	0.0	0.0	0.0	0.8
75°	0.0	0.0	0.0	0.0	0.8



TEST NUMBER: P838442

CATALOG NUMBER: HCSQ620D010-HM60525930-61SQMB

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)