

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: P838272

Luminaire Tested: HCSQ605D010-HM60525840-61SQMB

Issue Date: 5/21/2024



**Test Information**

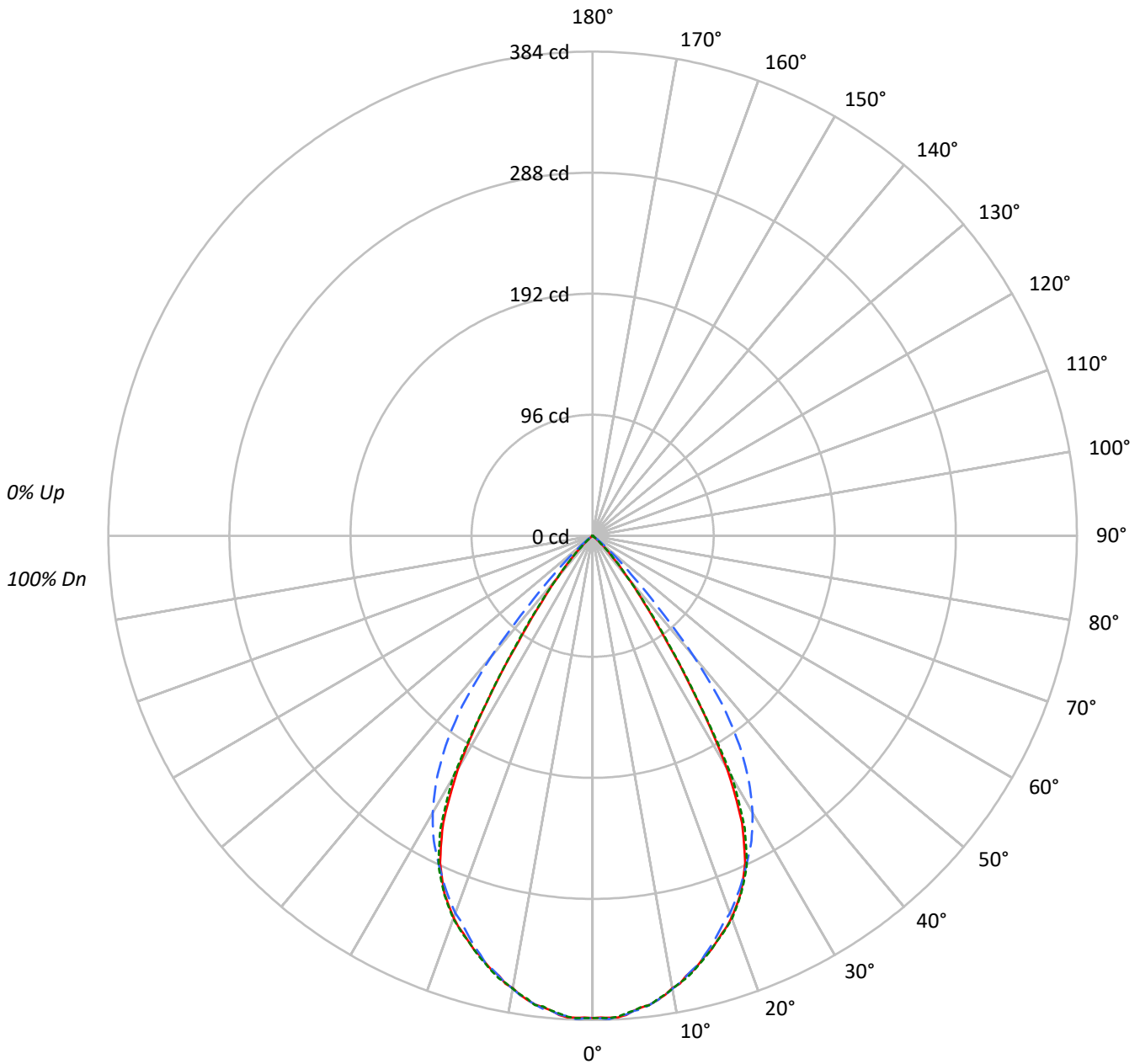
Test Method: LM-79-2019  
Report Number: P838272  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ605D010-HM60525840-61SQMB  
Description: 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: 380.2 lumens  
Efficiency: N/A  
Efficacy: 63.4 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): 6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P838272  
CATALOG NUMBER: HCSQ605D010-HM60525840-61SQMB

### Luminous Intensity Polar Plot





TEST NUMBER: P838272

CATALOG NUMBER: HCSQ605D010-HM60525840-61SQMB

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16469	16469	16469
5°	16333	16346	16333
10°	15923	15949	15949
15°	15374	15334	15418
20°	14767	14593	14809
25°	13596	13701	13729
30°	10600	12608	11002
35°	5372	10680	5571
40°	2445	6986	2445
45°	944	2630	926
50°	147	831	147
55°	45	165	45
60°	26	26	26
65°	31	0	31
70°	0	0	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 2630 cd/sqm



TEST NUMBER: P838272

CATALOG NUMBER: HCSQ605D010-HM60525840-61SQMB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.7	9.4
10°-20°	96.9	25.5
20°-30°	130.6	34.3
30°-40°	91.8	24.1
40°-50°	23.4	6.2
50°-60°	1.6	0.4
60°-70°	0.2	0.0
70°-80°	0.0	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°	263.2	69.2
0°-40°	355.0	93.4
0°-60°	380.0	99.9
0°-90°	380.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	380.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	382	382	382	382	382	
5°	378	378	378	378	378	36
15°	345	344	344	345	346	97
25°	286	287	288	289	289	128
35°	102	136	203	139	106	69
45°	16	23	43	24	15	14
55°	1	1	2	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



TEST NUMBER: P838272

CATALOG NUMBER: HCSQ605D010-HM60525840-61SQMB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	382.5	382.5	382.5	382.5	382.5
1°	382.2	382.5	382.8	382.8	382.5
2°	382.5	381.6	383.5	382.5	382.8
3°	382.5	380.7	381.6	382.2	381.9
4°	381.0	379.7	380.7	380.4	379.7
5°	377.9	378.5	378.2	378.5	377.9
6°	376.0	376.6	377.3	376.3	375.4
7°	374.5	374.1	374.5	375.1	375.1
8°	371.7	372.3	371.7	372.0	371.0
9°	368.6	368.6	368.6	369.2	368.2
10°	364.2	365.8	364.8	365.4	364.8
11°	362.0	361.4	361.4	361.7	361.4
12°	356.7	357.4	357.1	357.7	358.6
13°	353.9	354.3	353.0	354.6	354.6
14°	349.6	349.3	349.9	349.6	350.2
15°	344.9	344.3	344.0	344.9	345.9
16°	341.5	340.0	339.0	340.3	341.5
17°	336.5	335.0	333.7	336.2	336.5
18°	331.6	331.0	327.8	331.0	332.5
19°	327.5	325.4	322.6	326.0	327.8
20°	322.3	320.4	318.5	320.4	323.2
22.5°	307.0	305.5	303.9	306.1	307.6
25°	286.2	287.1	288.4	289.3	289.0
27.5°	256.7	265.1	272.8	267.9	261.3
30°	213.2	234.3	253.6	237.7	221.3
32.5°	154.4	190.5	230.6	197.6	156.0
35°	102.2	135.5	203.2	138.9	106.0
37.5°	66.5	91.1	169.7	91.4	69.6
40°	43.5	59.4	124.3	60.6	43.5
42.5°	26.7	37.6	75.5	39.2	26.7
45°	15.5	23.3	43.2	23.6	15.2
47.5°	7.1	12.7	24.5	12.4	7.5
50°	2.2	5.6	12.4	5.6	2.2
52.5°	0.9	1.6	5.9	1.6	0.9
55°	0.6	0.6	2.2	0.6	0.6
57.5°	0.6	0.3	0.6	0.6	0.6
60°	0.3	0.3	0.3	0.3	0.3
62.5°	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.0	0.3	0.3
67.5°	0.3	0.0	0.0	0.0	0.3
70°	0.0	0.0	0.0	0.0	0.3
72.5°	0.0	0.0	0.0	0.0	0.3
75°	0.0	0.0	0.0	0.0	0.3



TEST NUMBER: P838272

CATALOG NUMBER: HCSQ605D010-HM60525840-61SQMB

**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)