

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: P838348

Luminaire Tested: HCSQ610D010-HM60525835-61SQMW

Issue Date: 5/21/2024



**Test Information**

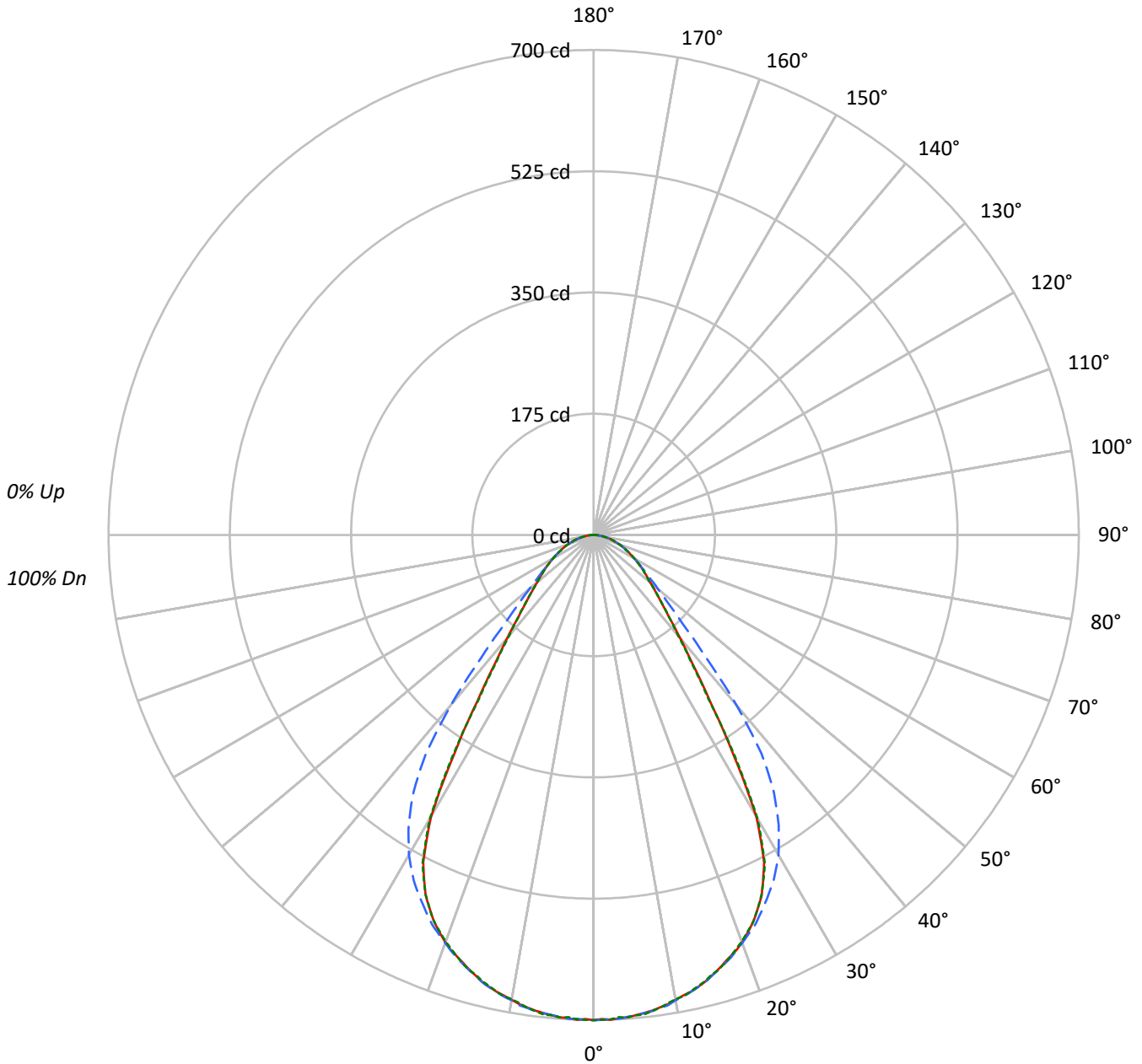
Test Method: LM-79-2019  
Report Number: P838348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ610D010-HM60525835-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1033.2 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 9.9  
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: P838348  
CATALOG NUMBER: HCSQ610D010-HM60525835-61SQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P838348  
 CATALOG NUMBER: HCSQ610D010-HM60525835-61SQMW

**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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

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

	0°	45°	90°
0°	30160	30160	30160
5°	30086	30064	30086
10°	29791	29813	29747
15°	29348	29370	29303
20°	28687	28710	28618
25°	27255	27834	27231
30°	23337	26504	23486
35°	15332	23826	15101
40°	10842	17963	10645
45°	8403	11058	8464
50°	7147	8065	7080
55°	6433	6613	6433
60°	5821	5821	5821
65°	5338	5287	5287
70°	4872	4872	4935
75°	4558	4392	4475
80°	4017	4017	4017
85°	3409	3409	3409

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 11058 cd/sqm



TEST NUMBER: P838348

CATALOG NUMBER: HCSQ610D010-HM60525835-61SQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.0	6.4
10°-20°	185.5	17.9
20°-30°	264.3	25.6
30°-40°	225.3	21.8
40°-50°	124.7	12.1
50°-60°	78.5	7.6
60°-70°	52.1	5.0
70°-80°	28.6	2.8
80°-90°	8.1	0.8
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°	515.8	49.9
0°-40°	741.1	71.7
0°-60°	944.3	91.4
0°-90°	1033.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1033.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	696	697	696	695	696	66
15°	658	658	659	658	657	185
25°	574	581	586	580	573	259
35°	292	344	453	345	287	190
45°	138	151	182	150	139	109
55°	86	87	88	87	86	77
65°	52	53	52	52	52	52
75°	27	27	26	27	27	29
85°	7	7	7	7	7	8
90°	0	0	0	0	0	



TEST NUMBER: P838348

CATALOG NUMBER: HCSQ610D010-HM60525835-61SQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	700.5	700.5	700.5	700.5	700.5
1°	699.0	700.0	700.0	699.5	700.0
2°	700.5	699.0	699.0	699.0	699.5
3°	698.5	699.5	699.5	698.0	697.1
4°	698.0	697.5	697.5	699.0	698.0
5°	696.1	697.1	695.6	694.6	696.1
6°	694.1	694.6	694.1	694.6	696.1
7°	691.7	693.1	692.7	692.2	692.2
8°	688.7	690.7	689.7	689.7	689.2
9°	685.8	686.3	687.3	687.3	684.3
10°	681.4	682.9	681.9	682.4	680.4
11°	677.5	679.4	678.9	678.0	678.5
12°	674.1	675.0	674.5	673.1	673.6
13°	669.6	670.6	670.1	670.1	668.7
14°	664.8	663.8	665.2	664.3	663.8
15°	658.4	658.4	658.9	658.4	657.4
16°	652.5	653.0	653.0	652.5	653.0
17°	645.7	647.6	647.1	646.2	646.6
18°	639.3	640.8	641.3	640.8	639.3
19°	633.4	634.4	633.9	632.0	632.0
20°	626.1	626.6	626.6	625.6	624.6
22.5°	603.1	606.5	608.9	607.0	603.1
25°	573.7	580.6	585.9	580.1	573.2
27.5°	532.6	546.3	562.4	547.8	535.0
30°	469.4	500.8	533.1	503.7	472.4
32.5°	373.5	435.2	496.9	441.0	379.4
35°	291.7	344.1	453.3	344.6	287.3
37.5°	233.0	270.2	397.5	267.8	230.6
40°	192.9	217.8	319.6	216.9	189.4
42.5°	161.0	180.1	239.4	178.2	161.0
45°	138.0	151.3	181.6	150.3	139.0
47.5°	120.9	129.2	145.4	128.7	120.9
50°	106.7	111.6	120.4	111.1	105.7
52.5°	95.5	98.4	101.8	97.4	94.5
55°	85.7	87.1	88.1	86.6	85.7
57.5°	76.4	77.3	76.9	76.4	75.9
60°	67.6	68.0	67.6	68.0	67.6
62.5°	59.7	60.2	59.2	59.7	59.2
65°	52.4	52.9	51.9	52.4	51.9
67.5°	45.5	45.5	45.5	45.5	45.0
70°	38.7	39.2	38.7	39.2	39.2
72.5°	32.8	32.8	32.3	32.8	32.8
75°	27.4	26.9	26.4	26.9	26.9



TEST NUMBER: P838348

CATALOG NUMBER: HCSQ610D010-HM60525835-61SQMW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	11.7	11.7	11.3	11.7	11.7
85°	6.9	6.9	6.9	7.3	6.9
87.5°	3.4	2.9	2.9	3.4	3.4
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°	21.5	21.5	21.0	21.5	21.5
80°	16.2	16.6	16.2	16.6	16.2

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

Scaled Data Report



(END OF REPORT)