

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: P838353

Luminaire Tested: HCSQ610D010-HM60525840-61SQMW

Issue Date: 5/21/2024

**Test Information**

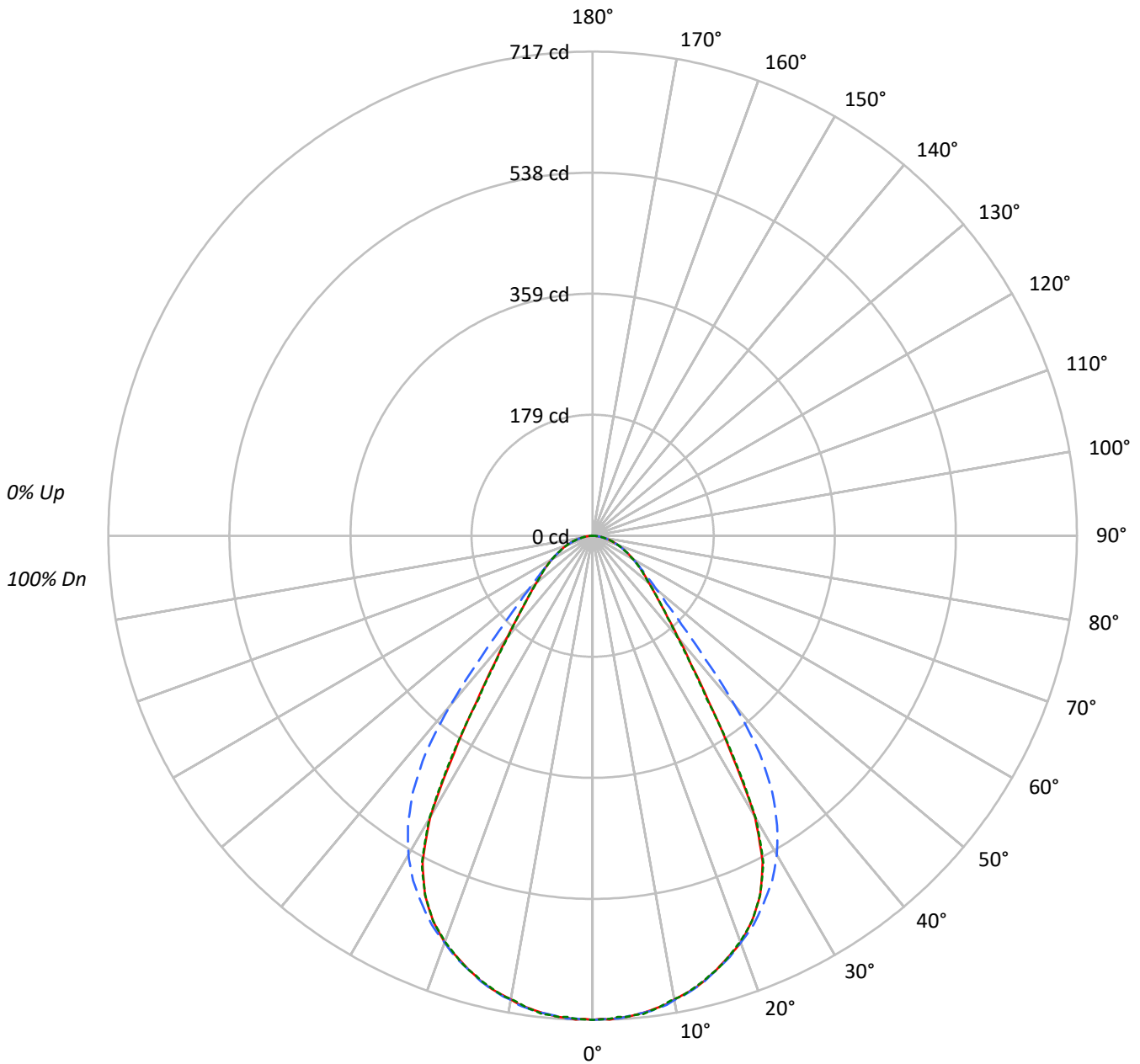
Test Method: LM-79-2019  
Report Number: P838353  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ610D010-HM60525840-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1057.5 lumens  
Efficiency: N/A  
Efficacy: 106.8 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: P838353  
CATALOG NUMBER: HCSQ610D010-HM60525840-61SQMW

### Luminous Intensity Polar Plot





TEST NUMBER: P838353

CATALOG NUMBER: HCSQ610D010-HM60525840-61SQMW

**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	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°	30867	30867	30867
5°	30790	30768	30790
10°	30490	30512	30447
15°	30034	30057	29990
20°	29361	29384	29292
25°	27896	28490	27867
30°	23884	27125	24033
35°	15695	24383	15458
40°	11095	18385	10898
45°	8604	11319	8665
50°	7315	8252	7248
55°	6583	6771	6583
60°	5950	5950	5950
65°	5461	5410	5410
70°	4985	4985	5048
75°	4675	4508	4591
80°	4091	4091	4091
85°	3458	3458	3458

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 11319 cd/sqm



TEST NUMBER: P838353

CATALOG NUMBER: HCSQ610D010-HM60525840-61SQMW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	6.4
10°-20°	189.8	17.9
20°-30°	270.5	25.6
30°-40°	230.6	21.8
40°-50°	127.6	12.1
50°-60°	80.4	7.6
60°-70°	53.4	5.0
70°-80°	29.3	2.8
80°-90°	8.3	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°	527.9	49.9
0°-40°	758.5	71.7
0°-60°	966.4	91.4
0°-90°	1057.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1057.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	717	717	717	717	717	
5°	712	713	712	711	712	68
15°	674	674	674	674	673	190
25°	587	594	600	594	587	265
35°	299	352	464	353	294	194
45°	141	155	186	154	142	112
55°	88	89	90	89	88	79
65°	54	54	53	54	53	53
75°	28	28	27	28	28	29
85°	7	7	7	8	7	8
90°	0	0	0	0	0	



TEST NUMBER: P838353

CATALOG NUMBER: HCSQ610D010-HM60525840-61SQMW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	716.9	716.9	716.9	716.9	716.9
1°	715.4	716.4	716.4	715.9	716.4
2°	716.9	715.4	715.4	715.4	715.9
3°	714.9	715.9	715.9	714.4	713.4
4°	714.4	713.9	713.9	715.4	714.4
5°	712.4	713.4	711.9	710.9	712.4
6°	710.4	710.9	710.4	710.9	712.4
7°	707.9	709.4	708.9	708.4	708.4
8°	704.9	706.9	705.9	705.9	705.4
9°	701.9	702.4	703.4	703.4	700.4
10°	697.4	698.9	697.9	698.4	696.4
11°	693.4	695.4	694.9	693.9	694.4
12°	689.9	690.9	690.4	688.8	689.4
13°	685.3	686.3	685.8	685.8	684.3
14°	680.3	679.3	680.8	679.8	679.3
15°	673.8	673.8	674.3	673.8	672.8
16°	667.8	668.3	668.3	667.8	668.3
17°	660.8	662.8	662.3	661.3	661.8
18°	654.3	655.8	656.3	655.8	654.3
19°	648.3	649.3	648.8	646.8	646.8
20°	640.8	641.3	641.3	640.3	639.3
22.5°	617.2	620.7	623.2	621.2	617.2
25°	587.2	594.2	599.7	593.7	586.6
27.5°	545.1	559.1	575.6	560.6	547.6
30°	480.4	512.5	545.6	515.5	483.4
32.5°	382.2	445.4	508.5	451.4	388.3
35°	298.6	352.2	463.9	352.7	294.1
37.5°	238.5	276.5	406.8	274.0	236.0
40°	197.4	222.9	327.1	221.9	193.9
42.5°	164.8	184.4	245.0	182.4	164.8
45°	141.3	154.8	185.9	153.8	142.3
47.5°	123.7	132.3	148.8	131.8	123.7
50°	109.2	114.2	123.2	113.7	108.2
52.5°	97.7	100.7	104.2	99.7	96.7
55°	87.7	89.2	90.2	88.7	87.7
57.5°	78.2	79.2	78.7	78.2	77.7
60°	69.1	69.6	69.1	69.6	69.1
62.5°	61.1	61.6	60.6	61.1	60.6
65°	53.6	54.1	53.1	53.6	53.1
67.5°	46.6	46.6	46.6	46.6	46.1
70°	39.6	40.1	39.6	40.1	40.1
72.5°	33.6	33.6	33.1	33.6	33.6
75°	28.1	27.6	27.1	27.6	27.6



TEST NUMBER: P838353

CATALOG NUMBER: HCSQ610D010-HM60525840-61SQMW

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	12.0	12.0	11.5	12.0	12.0
85°	7.0	7.0	7.0	7.5	7.0
87.5°	3.5	3.0	3.0	3.5	3.5
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°	22.0	22.0	21.5	22.0	22.0
80°	16.5	17.0	16.5	17.0	16.5

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

Scaled Data Report



(END OF REPORT)