

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: P838354

Luminaire Tested: HCSQ610D010-HM60525927-61SQC

Issue Date: 5/21/2024



**Test Information**

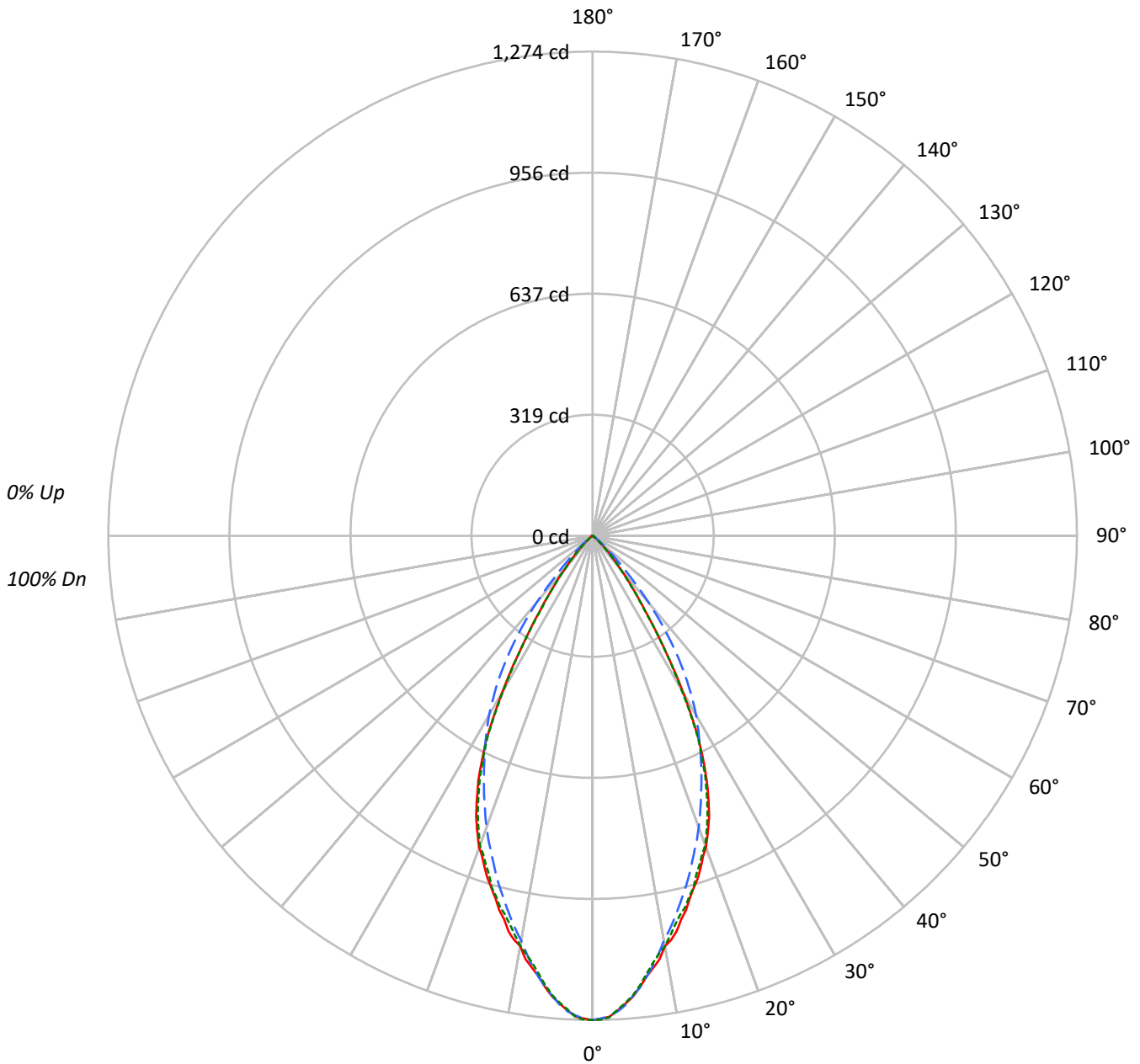
Test Method: LM-79-2019  
Report Number: P838354  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ610D010-HM60525927-61SQC  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 954.4 lumens  
Efficiency: N/A  
Efficacy: 96.4 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85  
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: P838354  
CATALOG NUMBER: HCSQ610D010-HM60525927-61SQC

### Luminous Intensity Polar Plot





TEST NUMBER: P838354

CATALOG NUMBER: HCSQ610D010-HM60525927-61SQC

**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	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

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

	0°	45°	90°
0°	54857	54857	54857
5°	52621	52530	52456
10°	47930	47279	47891
15°	44049	42435	43781
20°	39972	37397	39702
25°	33782	32148	33316
30°	23655	27061	23252
35°	12704	20756	12457
40°	6289	12843	6244
45°	2746	5413	2697
50°	884	1969	884
55°	450	638	413
60°	293	293	293
65°	214	214	214
70°	164	164	164
75°	150	150	150
80°	99	99	99
85°	198	198	198

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5413 cd/sqm



TEST NUMBER: P838354  
 CATALOG NUMBER: HCSQ610D010-HM60525927-61SQC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.9	11.7
10°-20°	270.2	28.3
20°-30°	312.1	32.7
30°-40°	194.9	20.4
40°-50°	54.2	5.7
50°-60°	7.6	0.8
60°-70°	2.2	0.2
70°-80°	1.0	0.1
80°-90°	0.4	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
<hr/>		
0°-30°	694.2	72.7
0°-40°	889.1	93.2
0°-60°	950.8	99.6
0°-90°	954.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	954.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1274	1274	1274	1274	1274	
5°	1218	1214	1215	1214	1214	112
15°	988	969	952	967	982	277
25°	711	690	677	690	701	318
35°	242	298	395	295	237	161
45°	45	58	89	57	44	39
55°	6	6	8	6	6	6
65°	2	2	2	2	2	2
75°	1	1	1	1	1	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



TEST NUMBER: P838354

CATALOG NUMBER: HCSQ610D010-HM60525927-61SQC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1274.1	1274.1	1274.1	1274.1	1274.1
1°	1270.3	1270.3	1270.3	1273.7	1273.7
2°	1266.5	1265.6	1263.5	1266.1	1267.3
3°	1250.7	1252.4	1253.3	1252.0	1249.0
4°	1234.6	1232.9	1237.6	1234.6	1232.0
5°	1217.5	1214.1	1215.4	1213.7	1213.7
6°	1193.7	1198.0	1194.6	1191.6	1189.9
7°	1167.8	1171.2	1169.0	1164.8	1161.8
8°	1147.3	1145.2	1141.8	1140.9	1135.8
9°	1127.8	1120.1	1112.4	1113.7	1115.0
10°	1096.3	1097.1	1081.4	1093.3	1095.4
11°	1083.1	1078.4	1057.5	1067.3	1070.7
12°	1063.9	1049.0	1031.2	1039.2	1045.6
13°	1036.3	1020.9	1004.8	1017.1	1023.5
14°	1015.4	998.0	977.5	993.3	1006.5
15°	988.2	969.4	952.0	966.9	982.2
16°	964.3	942.6	925.2	939.7	962.6
17°	943.5	916.7	895.4	910.7	932.8
18°	919.2	888.2	868.6	884.8	909.9
19°	892.4	860.9	843.5	856.7	885.6
20°	872.4	837.1	816.2	829.0	866.5
22.5°	800.9	763.9	744.7	760.1	789.9
25°	711.1	690.3	676.7	689.8	701.3
27.5°	604.7	604.7	609.4	603.9	600.5
30°	475.8	510.3	544.3	508.6	467.7
32.5°	347.3	402.6	471.1	409.8	346.8
35°	241.7	298.3	394.9	294.9	237.0
37.5°	168.1	205.5	311.5	207.7	166.0
40°	111.9	137.9	228.5	140.4	111.1
42.5°	73.2	91.1	147.7	91.5	71.5
45°	45.1	57.5	88.9	57.0	44.3
47.5°	26.4	34.0	51.9	34.5	26.0
50°	13.2	20.0	29.4	19.6	13.2
52.5°	7.7	10.6	16.2	10.2	7.7
55°	6.0	6.0	8.5	6.0	5.5
57.5°	4.7	4.7	4.7	4.7	4.3
60°	3.4	3.8	3.4	3.4	3.4
62.5°	3.0	3.0	2.6	3.0	2.6
65°	2.1	2.1	2.1	2.1	2.1
67.5°	1.7	1.7	1.7	1.7	1.7
70°	1.3	1.3	1.3	1.3	1.3
72.5°	0.9	1.3	0.9	1.3	1.3
75°	0.9	0.9	0.9	0.9	0.9



TEST NUMBER: P838354

CATALOG NUMBER: HCSQ610D010-HM60525927-61SQC

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.4
87.5°	0.4	0.4	0.4	0.4	0.4
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



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

Scaled Data Report



77.5°	0.9	0.9	0.9	0.9	0.4
80°	0.4	0.4	0.4	0.4	0.4

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

Scaled Data Report



(END OF REPORT)