

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: P838395

Luminaire Tested: HCSQ615D010-HM60525927-61SQH

Issue Date: 5/21/2024

**Test Information**

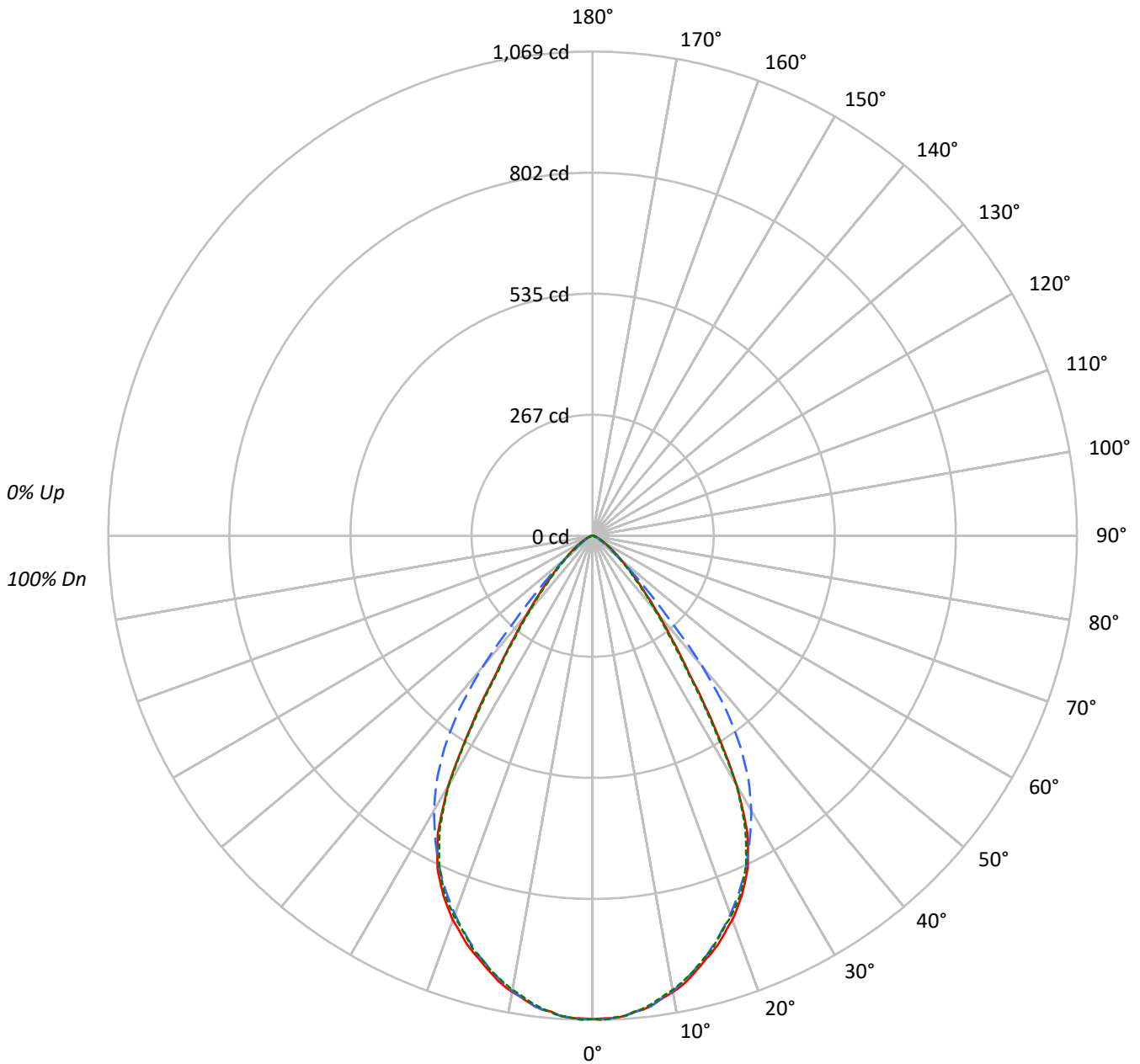
Test Method: LM-79-2019  
Report Number: P838395  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ615D010-HM60525927-61SQH  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1200.2 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 14  
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

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### Luminous Intensity Polar Plot





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**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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92								
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85								
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78								
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71								
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66								
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61								
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56								
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52								
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48								
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45								

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

	0°	45°	90°
0°	45949	45949	45949
5°	45584	45662	45636
10°	44717	44612	44507
15°	43135	42898	42872
20°	41356	40760	40953
25°	38495	38157	38072
30°	31635	34811	31545
35°	19537	29897	19069
40°	12539	21189	12107
45°	8184	10272	7782
50°	5432	5117	5077
55°	3686	2665	3423
60°	2497	1628	2291
65°	1752	1202	1569
70°	1120	894	1045
75°	782	682	682
80°	595	446	446
85°	296	593	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 10272 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.7	8.3
10°-20°	270.5	22.5
20°-30°	365.2	30.4
30°-40°	285.0	23.7
40°-50°	119.4	9.9
50°-60°	40.5	3.4
60°-70°	14.4	1.2
70°-80°	4.7	0.4
80°-90°	1.0	0.1
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°	735.3	61.3
0°-40°	1020.3	85.0
0°-60°	1180.1	98.3
0°-90°	1200.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1200.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1055	1056	1056	1055	1056	100
15°	968	965	962	961	962	272
25°	810	807	803	803	801	364
35°	372	436	569	436	363	244
45°	134	144	169	137	128	108
55°	49	45	36	43	46	45
65°	17	14	12	14	15	18
75°	5	4	4	4	4	5
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1067.2	1067.2	1067.2	1067.2	1067.2
1°	1066.0	1067.8	1066.6	1067.2	1068.9
2°	1066.0	1066.0	1067.2	1066.6	1067.2
3°	1064.8	1064.8	1063.6	1063.6	1063.6
4°	1061.3	1061.3	1061.3	1060.1	1062.4
5°	1054.7	1055.9	1056.5	1054.7	1055.9
6°	1052.4	1053.0	1051.8	1051.2	1050.0
7°	1047.0	1045.3	1047.0	1042.9	1043.5
8°	1038.2	1038.2	1037.0	1035.8	1034.6
9°	1029.9	1029.9	1028.7	1026.9	1025.7
10°	1022.8	1021.0	1020.4	1018.6	1018.0
11°	1014.5	1010.9	1010.4	1008.6	1008.6
12°	1004.4	1002.7	998.5	997.9	997.9
13°	992.0	990.2	987.3	984.9	987.3
14°	980.2	979.0	973.7	975.4	974.8
15°	967.7	965.4	962.4	961.2	961.8
16°	956.5	952.3	948.2	948.8	952.3
17°	944.7	938.7	934.6	934.0	935.8
18°	929.9	925.1	918.6	921.0	921.0
19°	915.1	908.5	904.4	903.8	906.2
20°	902.6	892.6	889.6	889.0	893.8
22.5°	860.0	850.0	847.6	850.0	854.7
25°	810.3	806.7	803.2	803.2	801.4
27.5°	739.9	748.1	752.3	744.0	730.4
30°	636.3	671.2	700.2	667.1	634.5
32.5°	501.3	573.5	640.4	571.8	489.5
35°	371.7	436.2	568.8	435.6	362.8
37.5°	286.5	327.9	483.6	322.6	278.2
40°	223.1	247.4	377.0	244.4	215.4
42.5°	173.4	188.8	251.0	185.3	167.5
45°	134.4	143.8	168.7	137.3	127.8
47.5°	104.8	108.9	115.4	104.2	98.8
50°	81.1	81.1	76.4	78.1	75.8
52.5°	62.7	60.4	51.5	56.8	58.0
55°	49.1	45.0	35.5	42.6	45.6
57.5°	37.3	33.1	25.5	31.4	34.3
60°	29.0	24.9	18.9	23.7	26.6
62.5°	22.5	18.9	14.8	17.8	20.1
65°	17.2	14.2	11.8	13.6	15.4
67.5°	13.0	10.7	8.9	10.1	11.8
70°	8.9	8.3	7.1	7.7	8.3
72.5°	6.5	5.9	5.3	5.3	5.9
75°	4.7	4.1	4.1	4.1	4.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	1.2	1.2	1.2	1.2	1.2
85°	0.6	0.6	1.2	0.6	0.6
87.5°	0.6	0.6	0.6	0.6	0.6
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



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Scaled Data Report





— 0°-180°    - - 45°-225°    - - - - 90°-270°

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Scaled Data Report





77.5°	3.0	3.0	3.0	3.0	3.0
80°	2.4	2.4	1.8	1.8	1.8

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Scaled Data Report



(END OF REPORT)