

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: P838375

Luminaire Tested: HCSQ615D010-HM60525827-61SQH

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838375  
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-HM60525827-61SQH  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: -

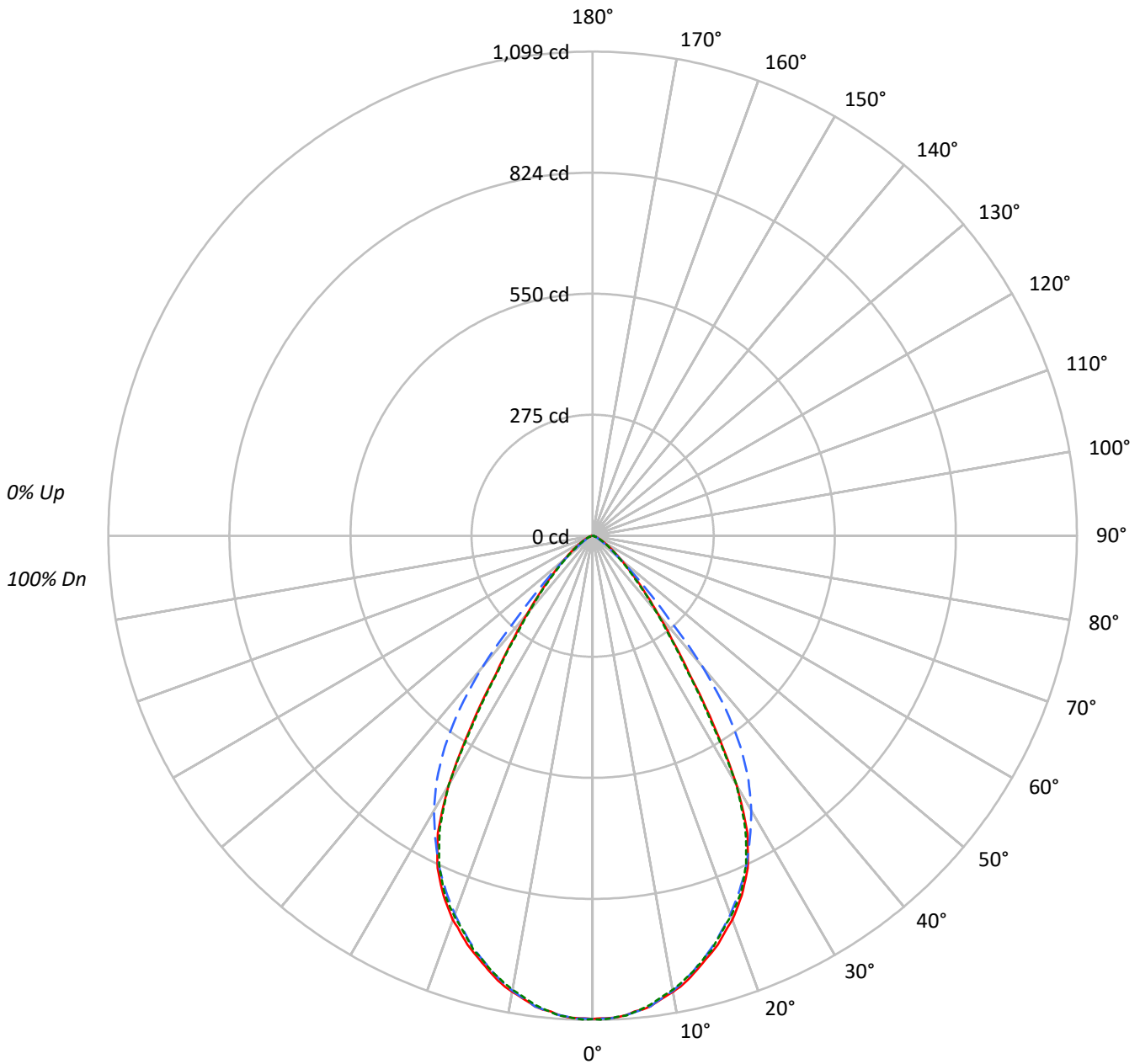
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1233.5 lumens  
Efficiency: N/A  
Efficacy: 88.1 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									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	79	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°	47223	47223	47223
5°	46851	46933	46907
10°	45958	45853	45744
15°	44334	44089	44062
20°	42506	41892	42089
25°	39564	39217	39131
30°	32515	35781	32420
35°	20078	30727	19600
40°	12888	21780	12444
45°	8409	10558	8001
50°	5580	5258	5218
55°	3791	2740	3513
60°	2566	1679	2359
65°	1793	1243	1610
70°	1146	919	1070
75°	815	715	715
80°	595	446	446
85°	296	593	296

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 10558 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.4	8.3
10°-20°	278.0	22.5
20°-30°	375.3	30.4
30°-40°	292.9	23.7
40°-50°	122.7	9.9
50°-60°	41.6	3.4
60°-70°	14.8	1.2
70°-80°	4.8	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°	755.7	61.3
0°-40°	1048.6	85.0
0°-60°	1212.9	98.3
0°-90°	1233.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1233.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1084	1085	1086	1084	1085	103
15°	995	992	989	988	988	280
25°	833	829	826	826	824	375
35°	382	448	585	448	373	251
45°	138	148	173	141	131	111
55°	50	46	36	44	47	47
65°	18	15	12	14	16	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°	1096.8	1096.8	1096.8	1096.8	1096.8
1°	1095.6	1097.4	1096.2	1096.8	1098.6
2°	1095.6	1095.6	1096.8	1096.2	1096.8
3°	1094.4	1094.4	1093.2	1093.2	1093.2
4°	1090.7	1090.7	1090.7	1089.5	1092.0
5°	1084.0	1085.3	1085.9	1084.0	1085.3
6°	1081.6	1082.2	1081.0	1080.4	1079.2
7°	1076.1	1074.3	1076.1	1071.9	1072.5
8°	1067.0	1067.0	1065.8	1064.6	1063.4
9°	1058.5	1058.5	1057.3	1055.5	1054.2
10°	1051.2	1049.4	1048.8	1046.9	1046.3
11°	1042.7	1039.0	1038.4	1036.6	1036.6
12°	1032.3	1030.5	1026.3	1025.6	1025.6
13°	1019.6	1017.7	1014.7	1012.3	1014.7
14°	1007.4	1006.2	1000.7	1002.5	1001.9
15°	994.6	992.2	989.1	987.9	988.5
16°	983.1	978.8	974.5	975.2	978.8
17°	970.9	964.8	960.6	959.9	961.8
18°	955.7	950.8	944.1	946.6	946.6
19°	940.5	933.8	929.5	928.9	931.4
20°	927.7	917.4	914.3	913.7	918.6
22.5°	883.9	873.6	871.1	873.6	878.4
25°	832.8	829.2	825.5	825.5	823.7
27.5°	760.4	768.9	773.2	764.7	750.7
30°	654.0	689.8	719.7	685.6	652.1
32.5°	515.3	589.5	658.2	587.6	503.1
35°	382.0	448.3	584.6	447.7	372.9
37.5°	294.4	337.0	497.0	331.5	285.9
40°	229.3	254.3	387.5	251.2	221.4
42.5°	178.2	194.1	257.9	190.4	172.2
45°	138.1	147.8	173.4	141.1	131.4
47.5°	107.7	111.9	118.6	107.1	101.6
50°	83.3	83.3	78.5	80.3	77.9
52.5°	64.5	62.0	52.9	58.4	59.6
55°	50.5	46.2	36.5	43.8	46.8
57.5°	38.3	34.1	26.2	32.2	35.3
60°	29.8	25.5	19.5	24.3	27.4
62.5°	23.1	19.5	15.2	18.2	20.7
65°	17.6	14.6	12.2	14.0	15.8
67.5°	13.4	10.9	9.1	10.3	12.2
70°	9.1	8.5	7.3	7.9	8.5
72.5°	6.7	6.1	5.5	5.5	6.1
75°	4.9	4.3	4.3	4.3	4.3



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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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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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(END OF REPORT)