

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: P838292

Luminaire Tested: HCSQ605D010-HM60525940-61SQMB

Issue Date: 5/21/2024

**Test Information**

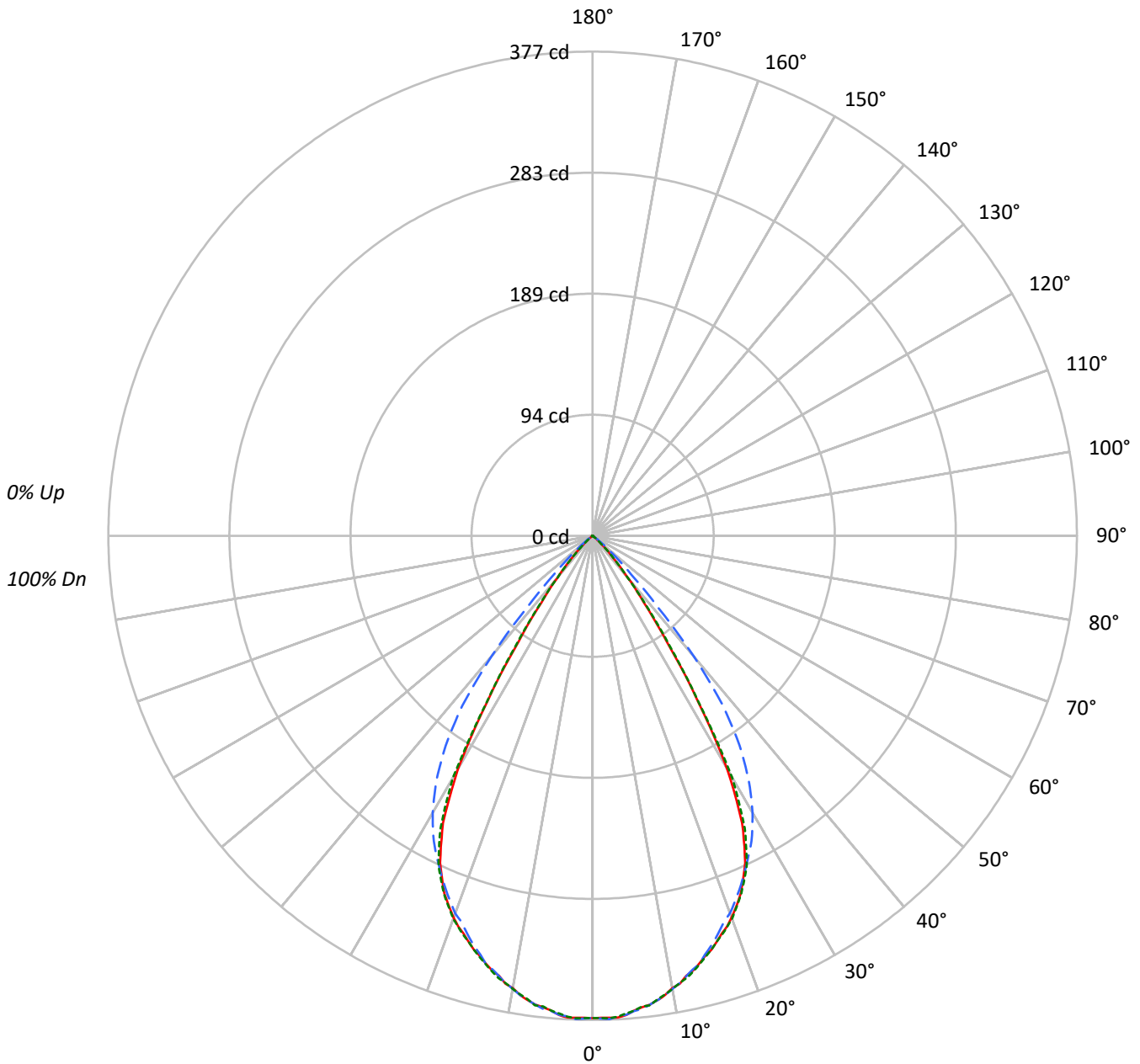
Test Method: LM-79-2019  
Report Number: P838292  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ605D010-HM60525940-61SQMB  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 373.4 lumens  
Efficiency: N/A  
Efficacy: 62.2 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 6  
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	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	106	104	105	103	101	101	99	98	97	96	95	93								
2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87								
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81								
4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75								
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70								
6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65								
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60								
8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56								
9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53								
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50								

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

	0°	45°	90°
0°	16172	16172	16172
5°	16039	16052	16039
10°	15634	15660	15660
15°	15097	15057	15138
20°	14497	14332	14543
25°	13349	13454	13482
30°	10406	12379	10803
35°	5277	10491	5472
40°	2400	6863	2400
45°	932	2582	913
50°	141	817	141
55°	45	158	45
60°	26	26	26
65°	31	0	31
70°	0	0	38
75°	0	0	50
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 2582 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.1	9.4
10°-20°	95.1	25.5
20°-30°	128.2	34.3
30°-40°	90.2	24.1
40°-50°	23.0	6.2
50°-60°	1.6	0.4
60°-70°	0.2	0.1
70°-80°	0.0	0.0
80°-90°	0.0	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
0°-30°	258.4	69.2
0°-40°	348.6	93.4
0°-60°	373.2	99.9
0°-90°	373.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	373.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	376	376	376	376	376	
5°	371	372	371	372	371	35
15°	339	338	338	339	340	95
25°	281	282	283	284	284	126
35°	100	133	200	136	104	68
45°	15	23	42	23	15	13
55°	1	1	2	1	1	1
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	375.6	375.6	375.6	375.6	375.6
1°	375.3	375.6	375.9	375.9	375.6
2°	375.6	374.7	376.6	375.6	375.9
3°	375.6	373.8	374.7	375.3	375.0
4°	374.1	372.9	373.8	373.5	372.9
5°	371.1	371.7	371.4	371.7	371.1
6°	369.2	369.8	370.4	369.5	368.6
7°	367.7	367.4	367.7	368.3	368.3
8°	365.0	365.6	365.0	365.3	364.3
9°	361.9	361.9	361.9	362.5	361.6
10°	357.6	359.2	358.2	358.9	358.2
11°	355.5	354.9	354.9	355.2	354.9
12°	350.3	350.9	350.6	351.2	352.1
13°	347.6	347.9	346.6	348.2	348.2
14°	343.3	343.0	343.6	343.3	343.9
15°	338.7	338.1	337.8	338.7	339.6
16°	335.4	333.8	332.9	334.1	335.4
17°	330.5	328.9	327.7	330.2	330.5
18°	325.6	325.0	321.9	325.0	326.5
19°	321.6	319.5	316.7	320.1	321.9
20°	316.4	314.6	312.8	314.6	317.4
22.5°	301.5	300.0	298.4	300.6	302.1
25°	281.0	282.0	283.2	284.1	283.8
27.5°	252.1	260.3	267.9	263.0	256.6
30°	209.3	230.1	249.0	233.4	217.3
32.5°	151.7	187.1	226.4	194.1	153.2
35°	100.4	133.0	199.6	136.4	104.1
37.5°	65.3	89.4	166.6	89.7	68.4
40°	42.7	58.3	122.1	59.5	42.7
42.5°	26.2	36.9	74.2	38.4	26.2
45°	15.3	22.9	42.4	23.2	15.0
47.5°	7.0	12.5	24.1	12.2	7.3
50°	2.1	5.5	12.2	5.5	2.1
52.5°	0.9	1.5	5.8	1.5	0.9
55°	0.6	0.6	2.1	0.6	0.6
57.5°	0.6	0.3	0.6	0.6	0.6
60°	0.3	0.3	0.3	0.3	0.3
62.5°	0.3	0.3	0.3	0.3	0.3
65°	0.3	0.3	0.0	0.3	0.3
67.5°	0.3	0.0	0.0	0.0	0.3
70°	0.0	0.0	0.0	0.0	0.3
72.5°	0.0	0.0	0.0	0.0	0.3
75°	0.0	0.0	0.0	0.0	0.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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