

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: P838333

Luminaire Tested: HCSQ607D010-HM60525940-61SQMW

Issue Date: 5/21/2024

**Test Information**

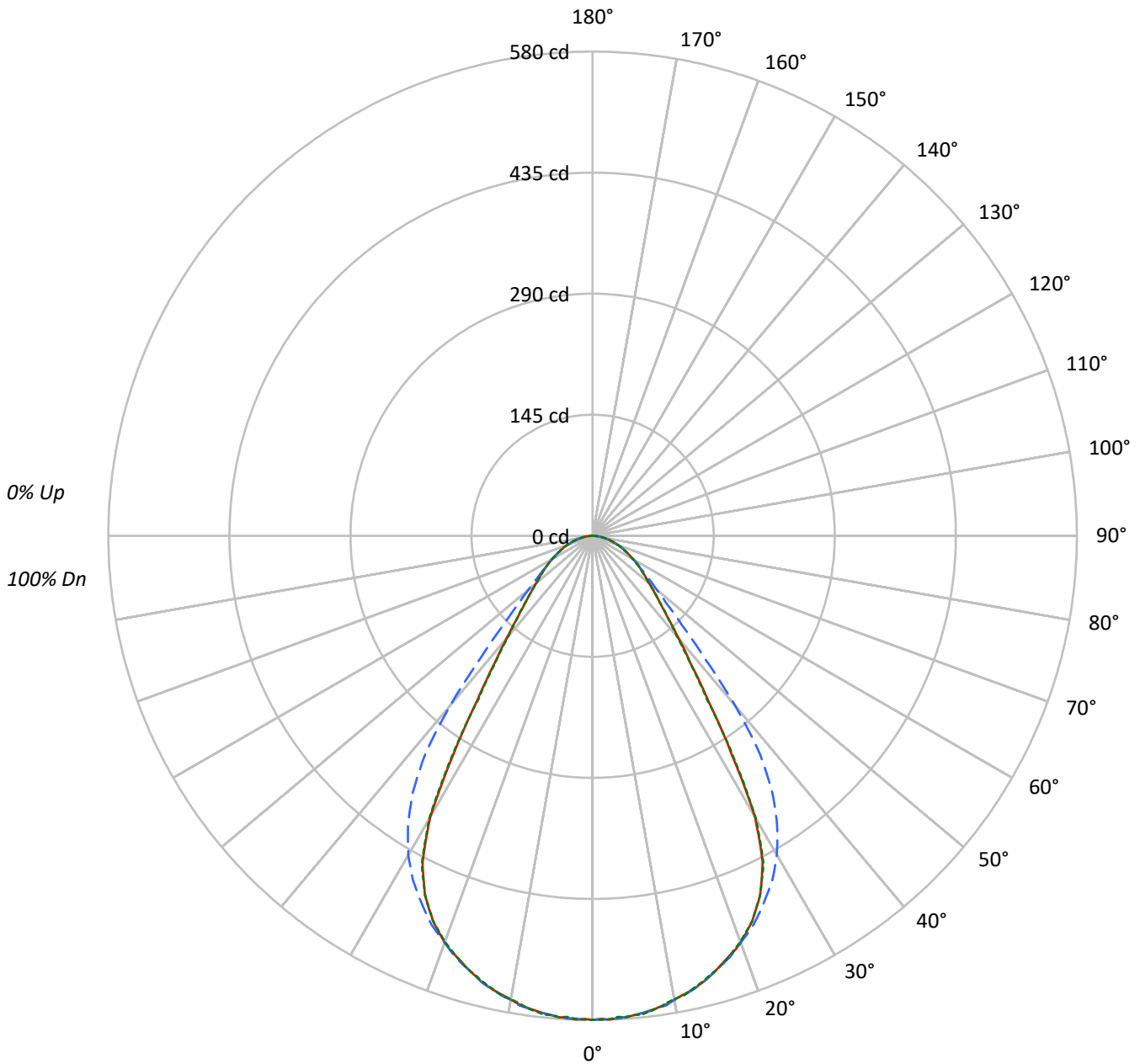
Test Method: LM-79-2019  
Report Number: P838333  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ607D010-HM60525940-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 855.5 lumens  
Efficiency: N/A  
Efficacy: 106.9 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): 8  
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	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°	24972	24972	24972
5°	24912	24895	24912
10°	24667	24684	24632
15°	24302	24320	24262
20°	23753	23771	23698
25°	22566	23050	22547
30°	19325	21945	19444
35°	12699	19726	12504
40°	8976	14878	8819
45°	6960	9158	7008
50°	5921	6678	5861
55°	5322	5480	5322
60°	4814	4814	4814
65°	4422	4381	4381
70°	4028	4028	4079
75°	3776	3643	3710
80°	3322	3322	3322
85°	2816	2816	2816

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 9158 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.7	6.4
10°-20°	153.6	17.9
20°-30°	218.8	25.6
30°-40°	186.6	21.8
40°-50°	103.2	12.1
50°-60°	65.0	7.6
60°-70°	43.2	5.0
70°-80°	23.7	2.8
80°-90°	6.7	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°	427.1	49.9
0°-40°	613.6	71.7
0°-60°	781.9	91.4
0°-90°	855.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	855.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	580	580	580	580	580	
5°	576	577	576	575	576	55
15°	545	545	546	545	544	153
25°	475	481	485	480	475	215
35°	242	285	375	285	238	157
45°	114	125	150	124	115	91
55°	71	72	73	72	71	64
65°	43	44	43	43	43	43
75°	23	22	22	22	22	24
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	580.0	580.0	580.0	580.0	580.0
1°	578.8	579.6	579.6	579.2	579.6
2°	580.0	578.8	578.8	578.8	579.2
3°	578.4	579.2	579.2	578.0	577.2
4°	578.0	577.6	577.6	578.8	578.0
5°	576.4	577.2	576.0	575.2	576.4
6°	574.7	575.2	574.7	575.2	576.4
7°	572.7	573.9	573.5	573.1	573.1
8°	570.3	571.9	571.1	571.1	570.7
9°	567.9	568.3	569.1	569.1	566.6
10°	564.2	565.4	564.6	565.0	563.4
11°	561.0	562.6	562.2	561.4	561.8
12°	558.1	558.9	558.5	557.3	557.7
13°	554.5	555.3	554.9	554.9	553.7
14°	550.4	549.6	550.8	550.0	549.6
15°	545.2	545.2	545.6	545.2	544.3
16°	540.3	540.7	540.7	540.3	540.7
17°	534.6	536.2	535.8	535.0	535.4
18°	529.4	530.6	531.0	530.6	529.4
19°	524.5	525.3	524.9	523.3	523.3
20°	518.4	518.8	518.8	518.0	517.2
22.5°	499.4	502.2	504.2	502.6	499.4
25°	475.0	480.7	485.2	480.3	474.6
27.5°	441.0	452.3	465.7	453.6	443.0
30°	388.7	414.6	441.4	417.1	391.1
32.5°	309.3	360.3	411.4	365.2	314.1
35°	241.6	284.9	375.3	285.3	237.9
37.5°	192.9	223.7	329.1	221.7	190.9
40°	159.7	180.4	264.7	179.6	156.9
42.5°	133.4	149.2	198.2	147.5	133.4
45°	114.3	125.2	150.4	124.4	115.1
47.5°	100.1	107.0	120.4	106.6	100.1
50°	88.4	92.4	99.7	92.0	87.5
52.5°	79.0	81.5	84.3	80.7	78.2
55°	70.9	72.1	73.0	71.7	70.9
57.5°	63.2	64.0	63.6	63.2	62.8
60°	55.9	56.3	55.9	56.3	55.9
62.5°	49.4	49.9	49.0	49.4	49.0
65°	43.4	43.8	43.0	43.4	43.0
67.5°	37.7	37.7	37.7	37.7	37.3
70°	32.0	32.4	32.0	32.4	32.4
72.5°	27.2	27.2	26.8	27.2	27.2
75°	22.7	22.3	21.9	22.3	22.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	9.7	9.7	9.3	9.7	9.7
85°	5.7	5.7	5.7	6.1	5.7
87.5°	2.8	2.4	2.4	2.8	2.8
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°	17.8	17.8	17.4	17.8	17.8
80°	13.4	13.8	13.4	13.8	13.4

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Scaled Data Report



(END OF REPORT)