

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: P838303

Luminaire Tested: HCSQ607D010-HM60525830-61SQMW

Issue Date: 5/21/2024



**Test Information**

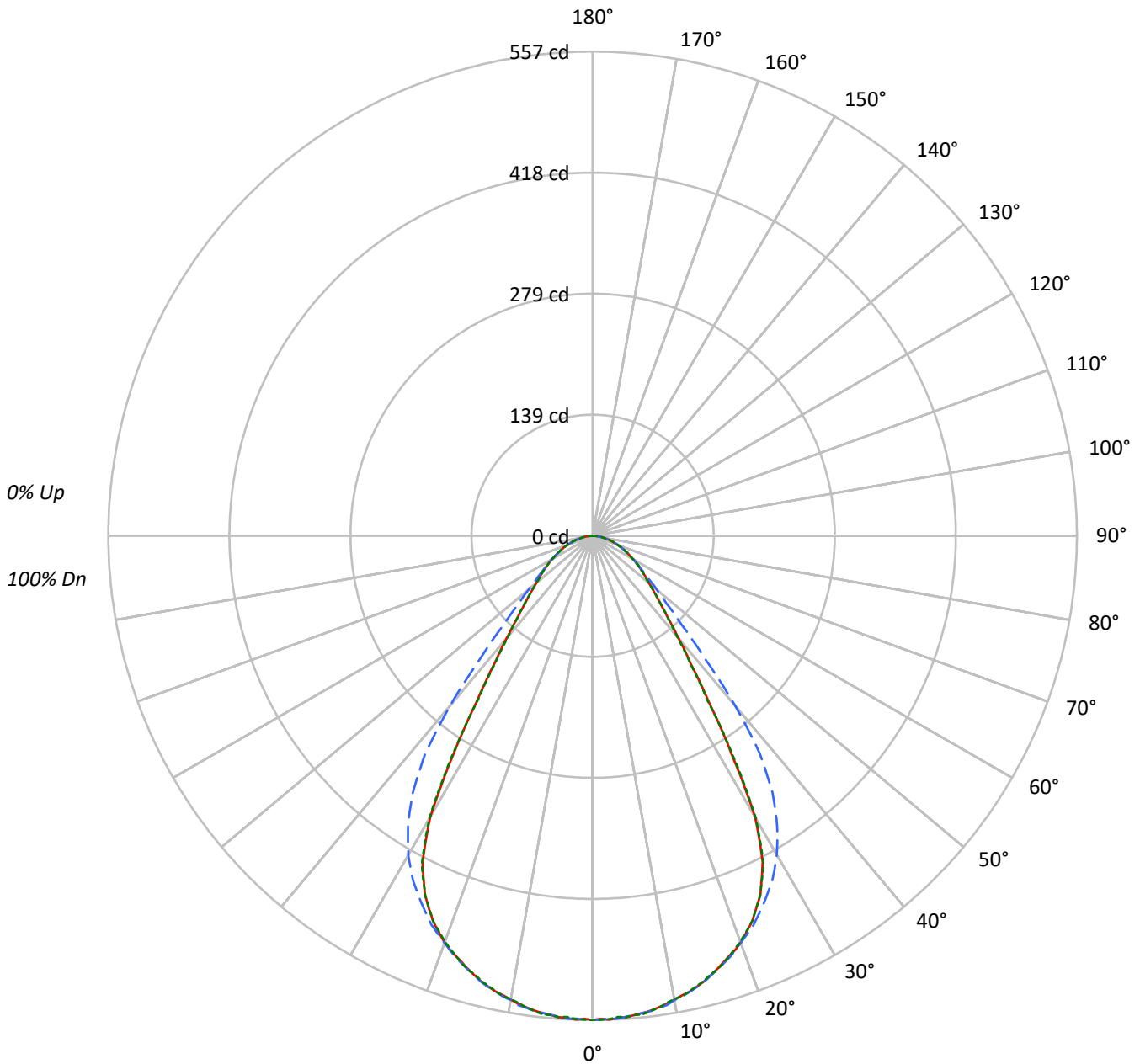
Test Method: LM-79-2019  
Report Number: P838303  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ607D010-HM60525830-61SQMW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 821.7 lumens  
Efficiency: N/A  
Efficacy: 102.7 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					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	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°	23986	23986	23986
5°	23927	23909	23927
10°	23692	23709	23657
15°	23339	23357	23304
20°	22813	22832	22758
25°	21673	22138	21654
30°	18559	21075	18678
35°	12194	18948	12010
40°	8622	14287	8470
45°	6686	8793	6734
50°	5687	6417	5633
55°	5112	5262	5112
60°	4624	4624	4624
65°	4248	4208	4208
70°	3877	3877	3915
75°	3627	3493	3560
80°	3174	3174	3174
85°	2668	2668	2668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 8793 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.5	6.4
10°-20°	147.5	17.9
20°-30°	210.2	25.6
30°-40°	179.2	21.8
40°-50°	99.2	12.1
50°-60°	62.4	7.6
60°-70°	41.5	5.0
70°-80°	22.8	2.8
80°-90°	6.5	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°	410.2	49.9
0°-40°	589.4	71.7
0°-60°	751.0	91.4
0°-90°	821.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	821.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	554	554	553	552	554	52
15°	524	524	524	524	523	147
25°	456	462	466	461	456	206
35°	232	274	360	274	228	151
45°	110	120	144	120	111	87
55°	68	69	70	69	68	61
65°	42	42	41	42	41	41
75°	22	21	21	21	21	23
85°	5	5	5	6	5	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	557.1	557.1	557.1	557.1	557.1
1°	555.9	556.7	556.7	556.3	556.7
2°	557.1	555.9	555.9	555.9	556.3
3°	555.5	556.3	556.3	555.1	554.3
4°	555.1	554.7	554.7	555.9	555.1
5°	553.6	554.3	553.2	552.4	553.6
6°	552.0	552.4	552.0	552.4	553.6
7°	550.1	551.2	550.8	550.4	550.4
8°	547.7	549.3	548.5	548.5	548.1
9°	545.4	545.8	546.6	546.6	544.2
10°	541.9	543.0	542.3	542.7	541.1
11°	538.8	540.3	539.9	539.2	539.5
12°	536.0	536.8	536.4	535.3	535.7
13°	532.5	533.3	532.9	532.9	531.8
14°	528.6	527.9	529.0	528.3	527.9
15°	523.6	523.6	524.0	523.6	522.8
16°	518.9	519.3	519.3	518.9	519.3
17°	513.5	515.0	514.6	513.9	514.2
18°	508.4	509.6	510.0	509.6	508.4
19°	503.7	504.5	504.1	502.6	502.6
20°	497.9	498.3	498.3	497.5	496.7
22.5°	479.6	482.3	484.3	482.7	479.6
25°	456.2	461.7	466.0	461.3	455.8
27.5°	423.5	434.4	447.3	435.6	425.5
30°	373.3	398.2	423.9	400.6	375.7
32.5°	297.0	346.1	395.1	350.7	301.7
35°	232.0	273.7	360.5	274.1	228.5
37.5°	185.3	214.9	316.1	212.9	183.4
40°	153.4	173.2	254.2	172.5	150.7
42.5°	128.1	143.3	190.4	141.7	128.1
45°	109.8	120.3	144.4	119.5	110.6
47.5°	96.2	102.8	115.6	102.4	96.2
50°	84.9	88.8	95.8	88.4	84.1
52.5°	75.9	78.2	81.0	77.5	75.1
55°	68.1	69.3	70.1	68.9	68.1
57.5°	60.7	61.5	61.1	60.7	60.3
60°	53.7	54.1	53.7	54.1	53.7
62.5°	47.5	47.9	47.1	47.5	47.1
65°	41.7	42.0	41.3	41.7	41.3
67.5°	36.2	36.2	36.2	36.2	35.8
70°	30.8	31.1	30.8	31.1	31.1
72.5°	26.1	26.1	25.7	26.1	26.1
75°	21.8	21.4	21.0	21.4	21.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	9.3	9.3	9.0	9.3	9.3
85°	5.4	5.4	5.4	5.8	5.4
87.5°	2.7	2.3	2.3	2.7	2.7
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°	17.1	17.1	16.7	17.1	17.1
80°	12.8	13.2	12.8	13.2	12.8

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Scaled Data Report



(END OF REPORT)