

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: P838281

Luminaire Tested: HCSQ605D010-HM60525930-61SQLWW

Issue Date: 5/21/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P838281  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ605D010-HM60525930-61SQLWW  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: -

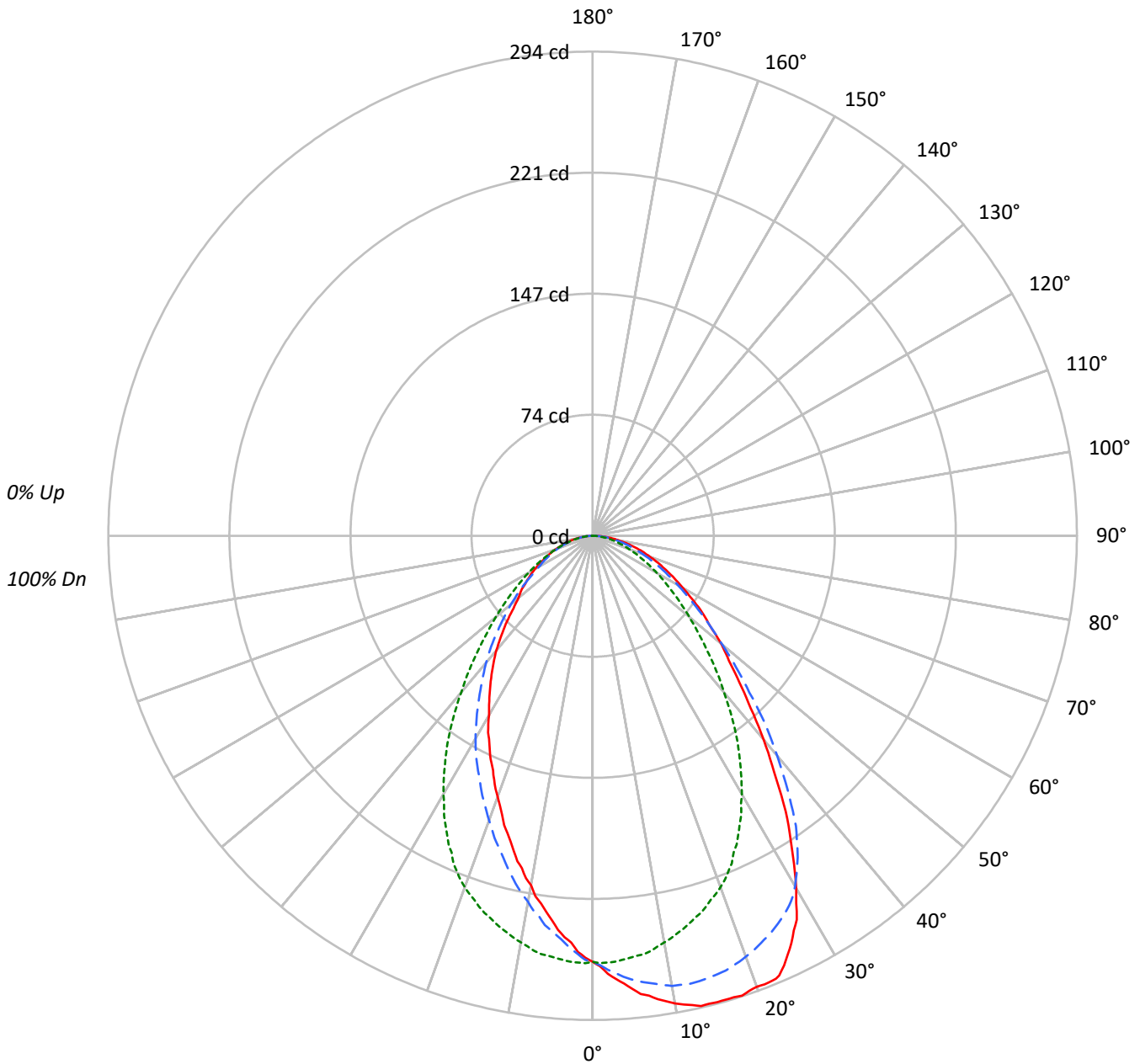
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 489.3 lumens  
Efficiency: N/A  
Efficacy: 81.5 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' 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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32								

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

	0°	45°	90°	135°	180°
0°	25062	25062	25062	25062	25062
5°	26859	26305	25021	23728	23358
10°	28370	27307	24661	22212	21199
15°	29396	27811	24090	20590	19276
20°	30041	28041	23412	18959	17392
25°	29961	28043	22116	17380	15756
30°	27641	27501	20269	15896	14072
35°	24173	25438	18153	14215	12749
40°	20424	22017	15694	12722	11495
45°	17262	18441	13440	11152	10056
50°	15327	15471	11529	9721	8847
55°	13714	13242	9965	8377	8327
60°	12245	11538	8699	7246	7828
65°	11232	10258	7564	6739	7175
70°	10367	9177	6656	6288	6656
75°	9732	8197	5802	5689	6101
80°	8982	7336	5077	5244	5579
85°	8892	6614	4335	4335	4891

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 40°  
 Vertical Angle: 45°  
 Luminance: 18591 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.4	5.0
10°-20°	68.0	13.9
20°-30°	97.0	19.8
30°-40°	100.0	20.4
40°-50°	80.5	16.5
50°-60°	56.9	11.6
60°-70°	36.9	7.5
70°-80°	19.8	4.0
80°-90°	5.7	1.2
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°	189.4	38.7
0°-40°	289.4	59.2
0°-60°	426.8	87.2
0°-90°	489.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	489.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	259	259	259	259	259	
5°	276	270	257	244	240	27
15°	293	277	240	205	192	83
25°	280	262	207	163	147	128
35°	204	215	154	120	108	127
45°	126	135	98	81	73	98
55°	81	78	59	50	49	73
65°	49	45	33	29	31	49
75°	26	22	16	15	16	28
85°	8	6	4	4	4	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	258.7	258.7	258.7	258.7	258.7	258.7	258.7	258.7	258.7	258.7	258.7
1°	261.5	262.6	261.8	261.8	260.9	260.7	261.2	260.4	260.1	259.6	258.5
2°	266.2	265.4	265.1	265.4	263.7	263.7	262.9	261.2	260.4	259.3	256.2
3°	269.5	269.0	268.4	268.1	266.5	265.1	264.0	262.1	260.4	259.0	254.6
4°	272.6	272.6	272.0	270.9	269.3	267.6	265.4	263.2	260.7	258.2	252.4
5°	276.2	276.5	274.0	273.7	271.7	269.3	266.8	263.7	260.7	257.3	251.0
6°	279.8	278.4	277.8	275.9	273.1	270.9	267.9	264.5	260.4	256.5	247.9
7°	281.4	281.2	279.8	277.8	275.3	271.7	268.7	264.3	259.8	256.0	245.7
8°	284.2	284.2	282.6	280.1	276.5	273.1	269.3	264.0	259.6	254.6	242.7
9°	286.2	286.2	283.9	281.7	278.4	274.0	269.5	263.7	258.2	252.4	239.9
10°	288.4	287.8	286.2	282.8	280.1	275.1	269.5	263.4	257.3	250.7	237.1
11°	290.0	289.2	287.3	284.8	280.3	275.3	269.5	263.4	256.2	249.0	234.4
12°	291.4	290.9	288.4	285.3	280.9	275.9	269.3	262.3	254.3	246.8	230.8
13°	293.1	291.4	288.9	286.2	281.2	275.3	268.1	260.7	252.9	244.9	227.7
14°	292.8	292.5	290.3	286.4	280.9	274.8	267.9	259.0	251.0	242.7	224.1
15°	293.1	292.8	290.3	286.7	280.6	274.0	267.0	257.9	249.0	240.2	220.5
16°	293.1	293.1	289.8	286.2	280.3	273.1	265.4	256.8	247.1	238.2	217.5
17°	293.1	293.1	290.3	285.3	279.5	272.6	263.7	254.6	244.9	235.5	213.0
18°	293.6	292.8	289.2	285.0	278.4	271.2	262.6	252.9	242.9	232.4	210.0
19°	292.2	291.7	288.6	283.4	277.6	269.5	260.9	251.0	241.0	229.9	206.4
20°	291.4	292.2	288.1	282.6	275.9	268.1	259.3	249.0	238.2	227.1	202.8
21°	291.7	291.4	287.0	281.2	274.8	266.2	257.3	246.8	235.2	223.8	199.4
22.5°	291.1	290.3	285.6	279.2	271.5	263.7	254.0	243.2	230.8	218.0	193.1
23°	290.0	289.2	285.6	278.7	270.4	262.6	252.4	241.0	229.1	216.1	191.4
24°	285.6	285.3	283.7	276.7	269.0	260.4	250.4	237.4	224.1	210.5	187.3
25°	280.3	280.9	280.1	275.6	266.8	257.9	247.4	233.0	219.4	206.9	182.3
26°	275.3	275.3	274.8	273.1	264.5	255.1	242.9	227.7	214.7	201.7	177.0
27°	269.0	270.1	269.0	268.1	262.3	252.1	238.2	224.1	209.4	196.7	172.6
28°	264.0	264.0	263.4	262.1	260.1	248.5	233.2	218.8	204.4	192.2	167.6
29°	255.1	256.8	257.1	257.3	257.1	243.8	228.5	213.0	199.2	185.9	162.9
30°	247.1	248.8	249.9	251.8	252.1	239.6	223.0	208.3	194.2	181.2	158.7
32.5°	225.2	228.3	231.3	234.6	236.3	227.1	209.4	193.4	178.9	167.3	146.0
35°	204.4	205.3	208.6	216.3	218.0	212.2	193.4	178.1	164.5	153.5	134.1
37.5°	180.9	182.6	187.3	196.1	196.7	192.0	178.9	161.2	148.5	138.8	121.9
40°	161.5	162.3	165.7	173.1	175.6	172.6	161.2	145.2	133.5	124.1	110.3
42.5°	142.1	143.2	147.4	153.2	156.8	153.2	143.2	129.4	118.0	111.1	99.2
45°	126.0	127.4	131.3	134.6	135.7	133.5	124.7	113.3	105.3	98.1	88.9
47.5°	112.2	113.6	116.3	117.7	119.1	116.9	110.0	100.6	92.5	86.7	78.4
50°	101.7	101.4	103.3	103.9	103.9	101.4	95.6	87.8	81.2	76.5	69.5
52.5°	89.8	90.3	91.7	91.1	90.9	88.6	83.7	77.0	71.5	67.3	60.9
55°	81.2	80.3	81.2	80.6	79.5	77.3	72.9	67.3	62.6	59.0	53.2
57.5°	71.7	71.7	72.0	70.9	69.5	67.0	63.2	58.7	54.6	51.5	46.8
60°	63.2	63.7	63.4	62.3	60.9	58.2	55.1	50.7	47.1	44.9	40.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	42.9	42.9	42.1	41.3	39.3	36.8	34.6	31.9	29.9	28.0	25.2
70°	36.6	37.1	36.0	34.6	33.2	31.6	29.1	26.9	24.9	23.5	21.3
72.5°	31.6	31.3	30.5	29.1	28.0	26.0	23.8	22.2	20.5	19.4	17.7
75°	26.0	26.0	25.2	24.1	22.7	21.1	19.4	18.0	16.6	15.5	14.7
77.5°	20.8	21.1	20.2	19.4	18.3	16.6	15.2	14.1	13.0	12.2	11.6
80°	16.1	16.3	15.5	15.0	13.6	12.7	11.6	10.5	9.7	9.1	8.9
82.5°	12.2	11.9	11.4	11.1	10.0	9.1	8.0	7.5	6.9	6.4	6.4
85°	8.0	7.8	7.5	7.2	6.4	5.5	5.3	4.7	4.2	3.9	3.9
87.5°	4.2	4.2	3.9	3.6	3.3	2.8	2.5	1.9	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	258.7	258.7	258.7
1°	257.6	256.5	256.2
2°	254.3	252.6	252.9
3°	251.2	249.3	247.4
4°	247.4	244.3	244.3
5°	244.0	241.0	240.2
6°	241.0	236.0	234.9
7°	238.2	232.1	230.2
8°	233.5	227.4	225.5
9°	230.2	223.5	221.6
10°	225.8	219.1	215.5
11°	222.2	214.7	211.9
12°	218.3	209.1	206.4
13°	213.9	204.4	202.8
14°	209.7	200.6	197.5
15°	205.3	195.8	192.2
16°	200.6	191.1	187.8
17°	196.7	186.2	183.7
18°	192.8	181.7	177.8
19°	188.1	177.6	173.1
20°	183.9	172.3	168.7
21°	179.5	168.4	164.5
22.5°	173.4	160.9	157.3
23°	171.5	158.7	154.8
24°	167.0	154.3	151.0
25°	162.6	151.0	147.4
26°	158.7	146.0	142.7
27°	154.8	142.1	138.5
28°	150.7	138.0	135.2
29°	146.5	133.5	130.7
30°	142.1	130.5	125.8
32.5°	131.0	120.5	116.6
35°	120.2	111.1	107.8
37.5°	109.7	102.2	99.2
40°	100.6	93.9	90.9
42.5°	91.1	85.0	82.0
45°	81.4	76.5	73.4
47.5°	72.6	68.4	65.1
50°	64.5	60.4	58.7
52.5°	56.8	54.0	54.8
55°	49.6	49.6	49.3
57.5°	42.7	44.6	44.9
60°	37.4	39.9	40.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
67.5°	25.8	27.1	27.7
70°	22.2	23.3	23.5
72.5°	18.8	19.7	20.2
75°	15.2	16.3	16.3
77.5°	12.5	13.0	13.3
80°	9.4	9.7	10.0
82.5°	6.6	6.9	7.2
85°	3.9	4.2	4.4
87.5°	1.7	1.7	1.7
90°	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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





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

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Scaled Data Report





62.5°	56.0	56.5	55.7	54.3	52.9	50.4	47.6	43.8	41.0	38.8	34.9
65°	49.0	49.3	48.8	47.4	46.0	43.5	40.7	37.4	35.2	33.0	29.6

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Scaled Data Report



62.5°	33.5	35.5	35.7
65°	29.4	31.0	31.3

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Scaled Data Report



(END OF REPORT)