

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: P838316

Luminaire Tested: HCSQ607D010-HM60525927-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838316
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: HCSQ607D010-HM60525927-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

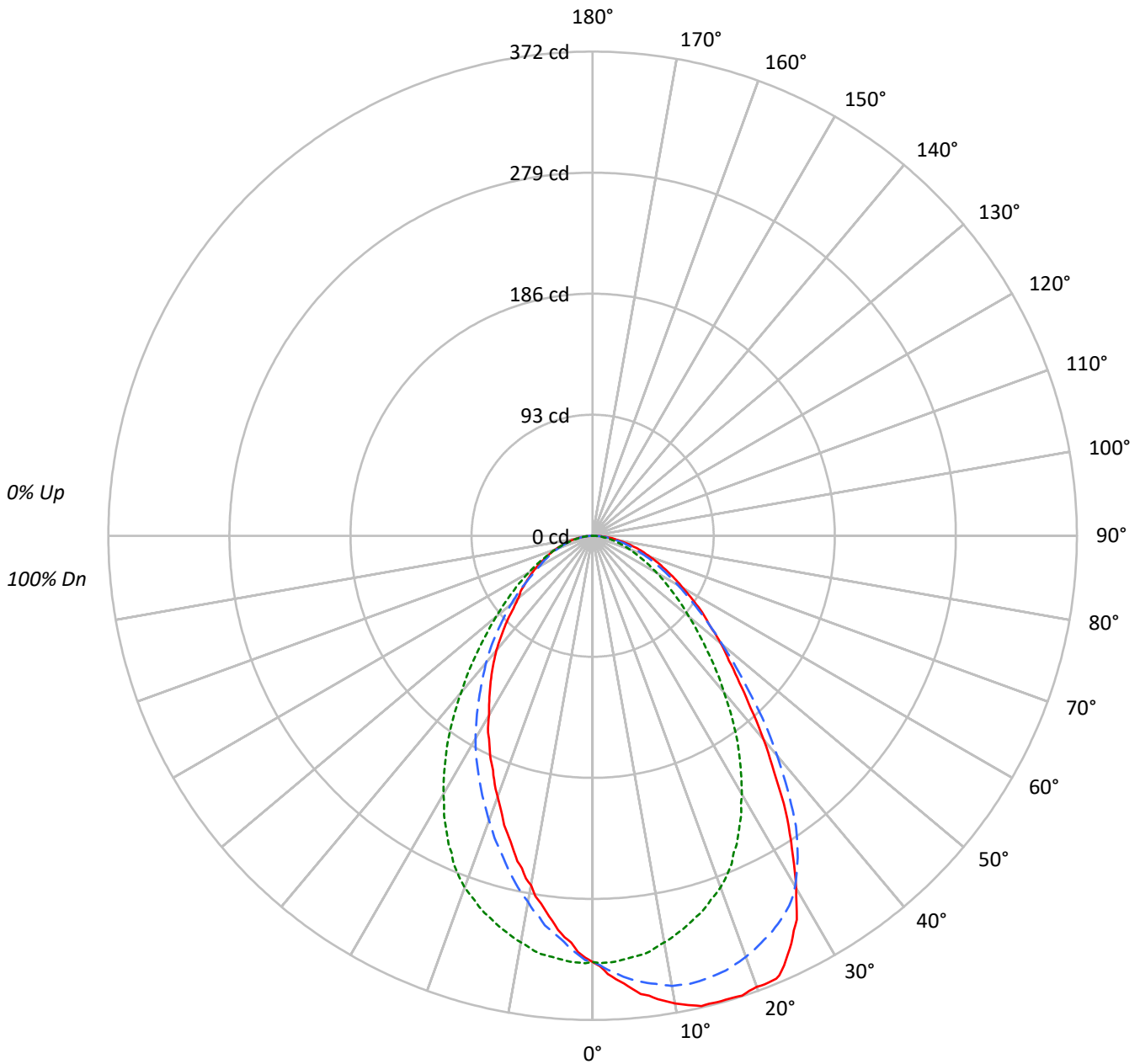
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 619.1 lumens
Efficiency: N/A
Efficacy: 77.4 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): 8
Input Voltage (V): NR
Input Current (Ain): 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	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°	31717	31717	31717	31717	31717
5°	33987	33287	31663	30029	29553
10°	35895	34552	31203	28104	26825
15°	37199	35193	30479	26046	24401
20°	38021	35484	29629	24000	22010
25°	37914	35482	27984	21998	19935
30°	34979	34800	25639	20113	17797
35°	30595	32191	22967	17988	16131
40°	25849	27860	19855	16086	14543
45°	21852	23345	17002	14125	12728
50°	19381	19577	14574	12313	11198
55°	17346	16755	12617	10590	10539
60°	15481	14599	11005	9164	9920
65°	14212	12974	9559	8527	9077
70°	13114	11627	8441	7931	8441
75°	12352	10349	7336	7224	7748
80°	11325	9289	6471	6639	7029
85°	11338	8392	5446	5446	6225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 23537 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.9	5.0
10°-20°	86.1	13.9
20°-30°	122.8	19.8
30°-40°	126.5	20.4
40°-50°	101.8	16.5
50°-60°	72.0	11.6
60°-70°	46.7	7.5
70°-80°	25.1	4.0
80°-90°	7.3	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°	239.7	38.7
0°-40°	366.2	59.2
0°-60°	540.1	87.2
0°-90°	619.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	619.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	327	327	327	327	327	
5°	350	342	326	309	304	34
15°	371	351	304	260	243	105
25°	355	332	262	206	186	162
35°	259	272	194	152	136	161
45°	160	170	124	103	93	125
55°	103	99	75	63	62	92
65°	62	57	42	37	40	62
75°	33	28	20	19	21	35
85°	10	8	5	5	6	11
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°	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4	327.4
1°	330.9	332.3	331.3	331.3	330.2	329.9	330.6	329.5	329.2	328.5	327.0
2°	336.9	335.8	335.5	335.8	333.7	333.7	332.7	330.6	329.5	328.1	324.2
3°	341.1	340.4	339.7	339.3	337.2	335.5	334.1	331.6	329.5	327.8	322.1
4°	344.9	344.9	344.2	342.8	340.7	338.6	335.8	333.0	329.9	326.7	319.3
5°	349.5	349.8	346.7	346.3	343.9	340.7	337.6	333.7	329.9	325.6	317.6
6°	354.0	352.3	351.6	349.1	345.6	342.8	339.0	334.8	329.5	324.6	313.7
7°	356.1	355.8	354.0	351.6	348.4	343.9	340.0	334.4	328.8	323.9	310.9
8°	359.6	359.6	357.5	354.4	349.8	345.6	340.7	334.1	328.5	322.1	307.1
9°	362.1	362.1	359.3	356.5	352.3	346.7	341.1	333.7	326.7	319.3	303.6
10°	364.9	364.2	362.1	357.9	354.4	348.1	341.1	333.4	325.6	317.2	300.1
11°	367.0	366.0	363.5	360.3	354.7	348.4	341.1	333.4	324.2	315.1	296.6
12°	368.8	368.1	364.9	361.1	355.4	349.1	340.7	332.0	321.8	312.3	292.0
13°	370.9	368.8	365.6	362.1	355.8	348.4	339.3	329.9	320.0	309.9	288.1
14°	370.5	370.2	367.4	362.5	355.4	347.7	339.0	327.8	317.6	307.1	283.6
15°	370.9	370.5	367.4	362.8	355.1	346.7	337.9	326.3	315.1	303.9	279.0
16°	370.9	370.9	366.7	362.1	354.7	345.6	335.8	324.9	312.7	301.5	275.2
17°	370.9	370.9	367.4	361.1	353.7	344.9	333.7	322.1	309.9	298.0	269.6
18°	371.6	370.5	366.0	360.7	352.3	343.2	332.3	320.0	307.4	294.1	265.7
19°	369.8	369.1	365.3	358.6	351.2	341.1	330.2	317.6	305.0	290.9	261.1
20°	368.8	369.8	364.6	357.5	349.1	339.3	328.1	315.1	301.5	287.4	256.6
21°	369.1	368.8	363.2	355.8	347.7	336.9	325.6	312.3	297.6	283.2	252.4
22.5°	368.4	367.4	361.4	353.3	343.5	333.7	321.4	307.8	292.0	275.9	244.3
23°	367.0	366.0	361.4	352.6	342.1	332.3	319.3	305.0	289.9	273.4	242.2
24°	361.4	361.1	358.9	350.2	340.4	329.5	316.9	300.4	283.6	266.4	237.0
25°	354.7	355.4	354.4	348.8	337.6	326.3	313.0	294.8	277.6	261.8	230.7
26°	348.4	348.4	347.7	345.6	334.8	322.8	307.4	288.1	271.7	255.2	224.0
27°	340.4	341.8	340.4	339.3	332.0	319.0	301.5	283.6	265.0	248.9	218.4
28°	334.1	334.1	333.4	331.6	329.2	314.4	295.2	276.9	258.7	243.3	212.1
29°	322.8	324.9	325.3	325.6	325.3	308.5	289.2	269.6	252.0	235.2	206.1
30°	312.7	314.8	316.2	318.6	319.0	303.2	282.2	263.6	245.7	229.2	200.9
32.5°	285.0	288.8	292.7	296.9	299.0	287.4	265.0	244.7	226.4	211.7	184.7
35°	258.7	259.7	264.0	273.8	275.9	268.5	244.7	225.4	208.2	194.2	169.7
37.5°	228.9	231.0	237.0	248.2	248.9	242.9	226.4	204.0	187.9	175.6	154.2
40°	204.4	205.4	209.6	219.1	222.2	218.4	204.0	183.7	169.0	157.0	139.5
42.5°	179.8	181.2	186.5	193.8	198.4	193.8	181.2	163.7	149.3	140.6	125.5
45°	159.5	161.2	166.2	170.4	171.8	169.0	157.7	143.4	133.2	124.1	112.5
47.5°	142.0	143.7	147.2	149.0	150.7	147.9	139.2	127.2	117.1	109.7	99.2
50°	128.6	128.3	130.7	131.5	131.5	128.3	120.9	111.1	102.7	96.7	88.0
52.5°	113.6	114.3	116.0	115.3	115.0	112.2	105.9	97.4	90.4	85.2	77.1
55°	102.7	101.7	102.7	102.0	100.6	97.8	92.2	85.2	79.2	74.7	67.3
57.5°	90.8	90.8	91.1	89.7	88.0	84.8	79.9	74.3	69.1	65.2	59.2
60°	79.9	80.6	80.3	78.9	77.1	73.6	69.8	64.1	59.6	56.8	51.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	54.3	54.3	53.3	52.2	49.8	46.6	43.8	40.3	37.9	35.4	31.9
70°	46.3	47.0	45.6	43.8	42.1	40.0	36.8	34.0	31.5	29.8	27.0
72.5°	40.0	39.6	38.6	36.8	35.4	33.0	30.1	28.0	25.9	24.5	22.4
75°	33.0	33.0	31.9	30.5	28.7	26.6	24.5	22.8	21.0	19.6	18.6
77.5°	26.3	26.6	25.6	24.5	23.1	21.0	19.3	17.9	16.5	15.4	14.7
80°	20.3	20.7	19.6	18.9	17.2	16.1	14.7	13.3	12.3	11.6	11.2
82.5°	15.4	15.1	14.4	14.0	12.6	11.6	10.2	9.5	8.8	8.1	8.1
85°	10.2	9.8	9.5	9.1	8.1	7.0	6.7	6.0	5.3	4.9	4.9
87.5°	5.3	5.3	4.9	4.6	4.2	3.5	3.2	2.5	2.1	2.1	2.1
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°	327.4	327.4	327.4
1°	326.0	324.6	324.2
2°	321.8	319.7	320.0
3°	317.9	315.5	313.0
4°	313.0	309.2	309.2
5°	308.8	305.0	303.9
6°	305.0	298.7	297.3
7°	301.5	293.7	291.3
8°	295.5	287.8	285.3
9°	291.3	282.9	280.4
10°	285.7	277.3	272.7
11°	281.1	271.7	268.2
12°	276.2	264.7	261.1
13°	270.6	258.7	256.6
14°	265.4	253.8	249.9
15°	259.7	247.8	243.3
16°	253.8	241.9	237.7
17°	248.9	235.6	232.4
18°	244.0	230.0	225.0
19°	238.0	224.7	219.1
20°	232.8	218.0	213.5
21°	227.1	213.1	208.2
22.5°	219.4	203.7	199.1
23°	217.0	200.9	195.9
24°	211.4	195.2	191.0
25°	205.8	191.0	186.5
26°	200.9	184.7	180.5
27°	195.9	179.8	175.3
28°	190.7	174.6	171.1
29°	185.4	169.0	165.5
30°	179.8	165.1	159.1
32.5°	165.8	152.5	147.6
35°	152.1	140.6	136.4
37.5°	138.8	129.3	125.5
40°	127.2	118.8	115.0
42.5°	115.3	107.6	103.8
45°	103.1	96.7	92.9
47.5°	91.8	86.6	82.4
50°	81.7	76.4	74.3
52.5°	71.9	68.4	69.4
55°	62.7	62.7	62.4
57.5°	54.0	56.4	56.8
60°	47.3	50.5	51.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	32.6	34.4	35.1
70°	28.0	29.4	29.8
72.5°	23.8	24.9	25.6
75°	19.3	20.7	20.7
77.5°	15.8	16.5	16.8
80°	11.9	12.3	12.6
82.5°	8.4	8.8	9.1
85°	4.9	5.3	5.6
87.5°	2.1	2.1	2.1
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



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Scaled Data Report





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

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62.5°	70.8	71.5	70.5	68.7	67.0	63.8	60.3	55.4	51.9	49.1	44.2
65°	62.0	62.4	61.7	59.9	58.2	55.0	51.5	47.3	44.5	41.7	37.5

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62.5°	42.4	44.9	45.2
65°	37.2	39.3	39.6

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(END OF REPORT)