

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: P838321

Luminaire Tested: HCSQ607D010-HM60525930-61SQLWW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838321
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-HM60525930-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

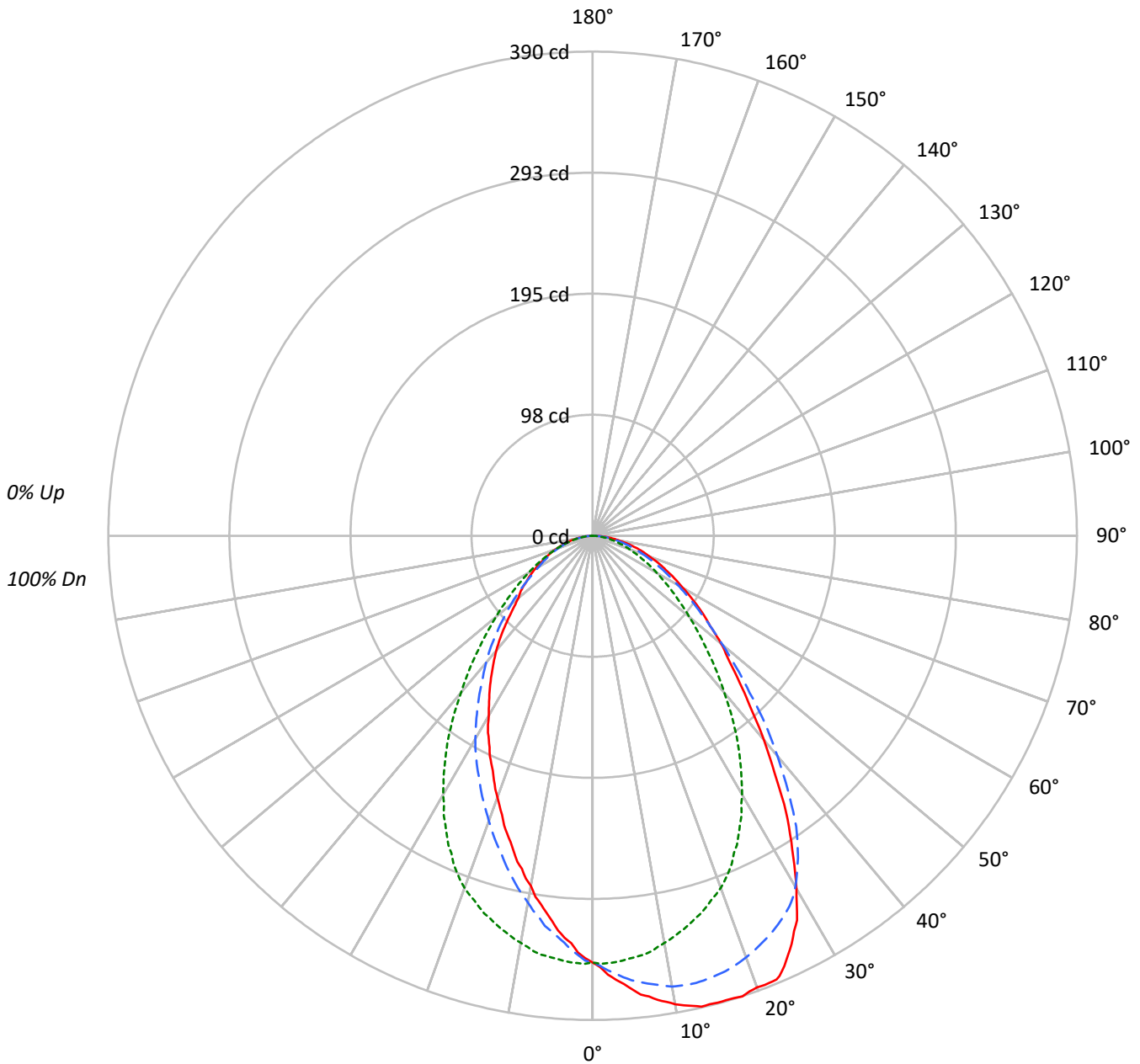
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 650.0 lumens
Efficiency: N/A
Efficacy: 81.2 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					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					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51					51			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42					42			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32					32			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	33296	33296	33296	33296	33296
5°	35679	34945	33248	31527	31031
10°	37686	36274	32757	29501	28163
15°	39044	36948	32003	27350	25615
20°	39907	37253	31113	25196	23103
25°	39806	37251	29384	23088	20929
30°	36724	36534	26925	21120	18692
35°	32120	33794	24114	18887	16935
40°	27126	29251	20854	16895	15264
45°	22934	24503	17851	14824	13358
50°	20361	20550	15312	12916	11755
55°	18207	17591	13242	11130	11063
60°	16256	15335	11548	9629	10404
65°	14923	13628	10040	8940	9536
70°	13766	12208	8866	8327	8866
75°	12951	10892	7711	7561	8122
80°	11883	9735	6750	6974	7364
85°	11893	8837	5780	5780	6558

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 24702 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	5.0
10°-20°	90.4	13.9
20°-30°	128.9	19.8
30°-40°	132.8	20.4
40°-50°	106.9	16.5
50°-60°	75.6	11.6
60°-70°	49.0	7.5
70°-80°	26.3	4.1
80°-90°	7.6	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°	251.7	38.7
0°-40°	384.5	59.2
0°-60°	567.0	87.2
0°-90°	650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	650.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	344	344	344	344	344	
5°	367	359	342	324	319	36
15°	389	368	319	273	255	110
25°	372	348	275	216	196	170
35°	272	286	204	160	143	169
45°	167	179	130	108	98	131
55°	108	104	78	66	66	96
65°	65	59	44	39	42	65
75°	35	29	21	20	22	37
85°	11	8	5	5	6	12
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°	343.7	343.7	343.7	343.7	343.7	343.7	343.7	343.7	343.7	343.7	343.7
1°	347.4	348.9	347.8	347.8	346.7	346.3	347.0	345.9	345.6	344.8	343.3
2°	353.7	352.5	352.2	352.5	350.3	350.3	349.2	347.0	345.9	344.5	340.4
3°	358.1	357.3	356.6	356.2	354.0	352.2	350.7	348.1	345.9	344.1	338.2
4°	362.1	362.1	361.4	359.9	357.7	355.5	352.5	349.6	346.3	343.0	335.3
5°	366.9	367.3	364.0	363.6	361.0	357.7	354.4	350.3	346.3	341.9	333.4
6°	371.7	369.8	369.1	366.5	362.9	359.9	355.9	351.4	345.9	340.8	329.4
7°	373.9	373.5	371.7	369.1	365.8	361.0	357.0	351.1	345.2	340.0	326.4
8°	377.6	377.6	375.4	372.1	367.3	362.9	357.7	350.7	344.8	338.2	322.4
9°	380.1	380.1	377.2	374.3	369.8	364.0	358.1	350.3	343.0	335.3	318.7
10°	383.1	382.4	380.1	375.7	372.1	365.4	358.1	350.0	341.9	333.0	315.0
11°	385.3	384.2	381.6	378.3	372.4	365.8	358.1	350.0	340.4	330.8	311.3
12°	387.1	386.4	383.1	379.0	373.2	366.5	357.7	348.5	337.8	327.9	306.5
13°	389.3	387.1	383.8	380.1	373.5	365.8	356.2	346.3	336.0	325.3	302.5
14°	389.0	388.6	385.7	380.5	373.2	365.1	355.9	344.1	333.4	322.4	297.7
15°	389.3	389.0	385.7	380.9	372.8	364.0	354.8	342.6	330.8	319.1	292.9
16°	389.3	389.3	384.9	380.1	372.4	362.9	352.5	341.1	328.3	316.5	288.9
17°	389.3	389.3	385.7	379.0	371.3	362.1	350.3	338.2	325.3	312.8	283.0
18°	390.1	389.0	384.2	378.7	369.8	360.3	348.9	336.0	322.7	308.8	278.9
19°	388.2	387.5	383.5	376.5	368.7	358.1	346.7	333.4	320.2	305.4	274.2
20°	387.1	388.2	382.7	375.4	366.5	356.2	344.5	330.8	316.5	301.8	269.4
21°	387.5	387.1	381.3	373.5	365.1	353.7	341.9	327.9	312.4	297.3	265.0
22.5°	386.8	385.7	379.4	370.9	360.6	350.3	337.5	323.1	306.5	289.6	256.5
23°	385.3	384.2	379.4	370.2	359.2	348.9	335.3	320.2	304.3	287.0	254.3
24°	379.4	379.0	376.8	367.6	357.3	345.9	332.7	315.4	297.7	279.7	248.8
25°	372.4	373.2	372.1	366.2	354.4	342.6	328.6	309.5	291.5	274.9	242.1
26°	365.8	365.8	365.1	362.9	351.4	338.9	322.7	302.5	285.2	267.9	235.2
27°	357.3	358.8	357.3	356.2	348.5	334.9	316.5	297.7	278.2	261.3	229.3
28°	350.7	350.7	350.0	348.1	345.6	330.1	309.9	290.7	271.6	255.4	222.6
29°	338.9	341.1	341.5	341.9	341.5	323.8	303.6	283.0	264.6	246.9	216.4
30°	328.3	330.5	331.9	334.5	334.9	318.3	296.2	276.7	258.0	240.7	210.9
32.5°	299.2	303.2	307.3	311.7	313.9	301.8	278.2	256.9	237.7	222.3	193.9
35°	271.6	272.7	277.1	287.4	289.6	281.9	256.9	236.6	218.6	203.9	178.1
37.5°	240.3	242.5	248.8	260.5	261.3	255.0	237.7	214.2	197.3	184.4	161.9
40°	214.5	215.7	220.1	230.0	233.3	229.3	214.2	192.8	177.4	164.9	146.5
42.5°	188.8	190.3	195.8	203.5	208.3	203.5	190.3	171.9	156.8	147.6	131.7
45°	167.4	169.3	174.4	178.9	180.3	177.4	165.6	150.5	139.8	130.3	118.1
47.5°	149.0	150.9	154.6	156.4	158.2	155.3	146.1	133.6	122.9	115.2	104.1
50°	135.1	134.7	137.3	138.0	138.0	134.7	127.0	116.7	107.8	101.6	92.4
52.5°	119.2	120.0	121.8	121.1	120.7	117.8	111.1	102.3	94.9	89.4	81.0
55°	107.8	106.7	107.8	107.1	105.6	102.7	96.8	89.4	83.2	78.4	70.7
57.5°	95.3	95.3	95.7	94.2	92.4	89.1	83.9	78.0	72.5	68.4	62.2
60°	83.9	84.6	84.3	82.8	81.0	77.3	73.2	67.3	62.6	59.6	53.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	57.0	57.0	55.9	54.8	52.3	48.9	46.0	42.3	39.7	37.2	33.5
70°	48.6	49.3	47.8	46.0	44.2	42.0	38.6	35.7	33.1	31.3	28.3
72.5°	42.0	41.6	40.5	38.6	37.2	34.6	31.6	29.4	27.2	25.8	23.6
75°	34.6	34.6	33.5	32.0	30.2	28.0	25.8	23.9	22.1	20.6	19.5
77.5°	27.6	28.0	26.9	25.8	24.3	22.1	20.2	18.8	17.3	16.2	15.5
80°	21.3	21.7	20.6	19.9	18.0	16.9	15.5	14.0	12.9	12.1	11.8
82.5°	16.2	15.8	15.1	14.7	13.2	12.1	10.7	9.9	9.2	8.5	8.5
85°	10.7	10.3	9.9	9.6	8.5	7.4	7.0	6.3	5.5	5.2	5.2
87.5°	5.5	5.5	5.2	4.8	4.4	3.7	3.3	2.6	2.2	2.2	2.2
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°	343.7	343.7	343.7
1°	342.2	340.8	340.4
2°	337.8	335.6	336.0
3°	333.8	331.2	328.6
4°	328.6	324.6	324.6
5°	324.2	320.2	319.1
6°	320.2	313.5	312.1
7°	316.5	308.4	305.8
8°	310.2	302.1	299.6
9°	305.8	297.0	294.4
10°	299.9	291.1	286.3
11°	295.1	285.2	281.5
12°	290.0	277.8	274.2
13°	284.1	271.6	269.4
14°	278.6	266.4	262.4
15°	272.7	260.2	255.4
16°	266.4	253.9	249.5
17°	261.3	247.3	244.0
18°	256.1	241.4	236.3
19°	249.9	235.9	230.0
20°	244.4	228.9	224.1
21°	238.5	223.7	218.6
22.5°	230.4	213.8	209.0
23°	227.8	210.9	205.7
24°	221.9	205.0	200.6
25°	216.0	200.6	195.8
26°	210.9	193.9	189.5
27°	205.7	188.8	184.0
28°	200.2	183.3	179.6
29°	194.7	177.4	173.7
30°	188.8	173.3	167.1
32.5°	174.1	160.1	154.9
35°	159.7	147.6	143.2
37.5°	145.7	135.8	131.7
40°	133.6	124.8	120.7
42.5°	121.1	113.0	108.9
45°	108.2	101.6	97.5
47.5°	96.4	90.9	86.5
50°	85.7	80.2	78.0
52.5°	75.4	71.8	72.9
55°	65.9	65.9	65.5
57.5°	56.7	59.2	59.6
60°	49.7	53.0	53.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	34.2	36.1	36.8
70°	29.4	30.9	31.3
72.5°	25.0	26.1	26.9
75°	20.2	21.7	21.7
77.5°	16.6	17.3	17.7
80°	12.5	12.9	13.2
82.5°	8.8	9.2	9.6
85°	5.2	5.5	5.9
87.5°	2.2	2.2	2.2
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°	74.3	75.1	74.0	72.1	70.3	67.0	63.3	58.1	54.5	51.5	46.4
65°	65.1	65.5	64.8	62.9	61.1	57.8	54.1	49.7	46.7	43.8	39.4

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62.5°	44.5	47.1	47.5
65°	39.0	41.2	41.6

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(END OF REPORT)