

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: P838311

Luminaire Tested: HCSQ607D010-HM60525840-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838311
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-HM60525840-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

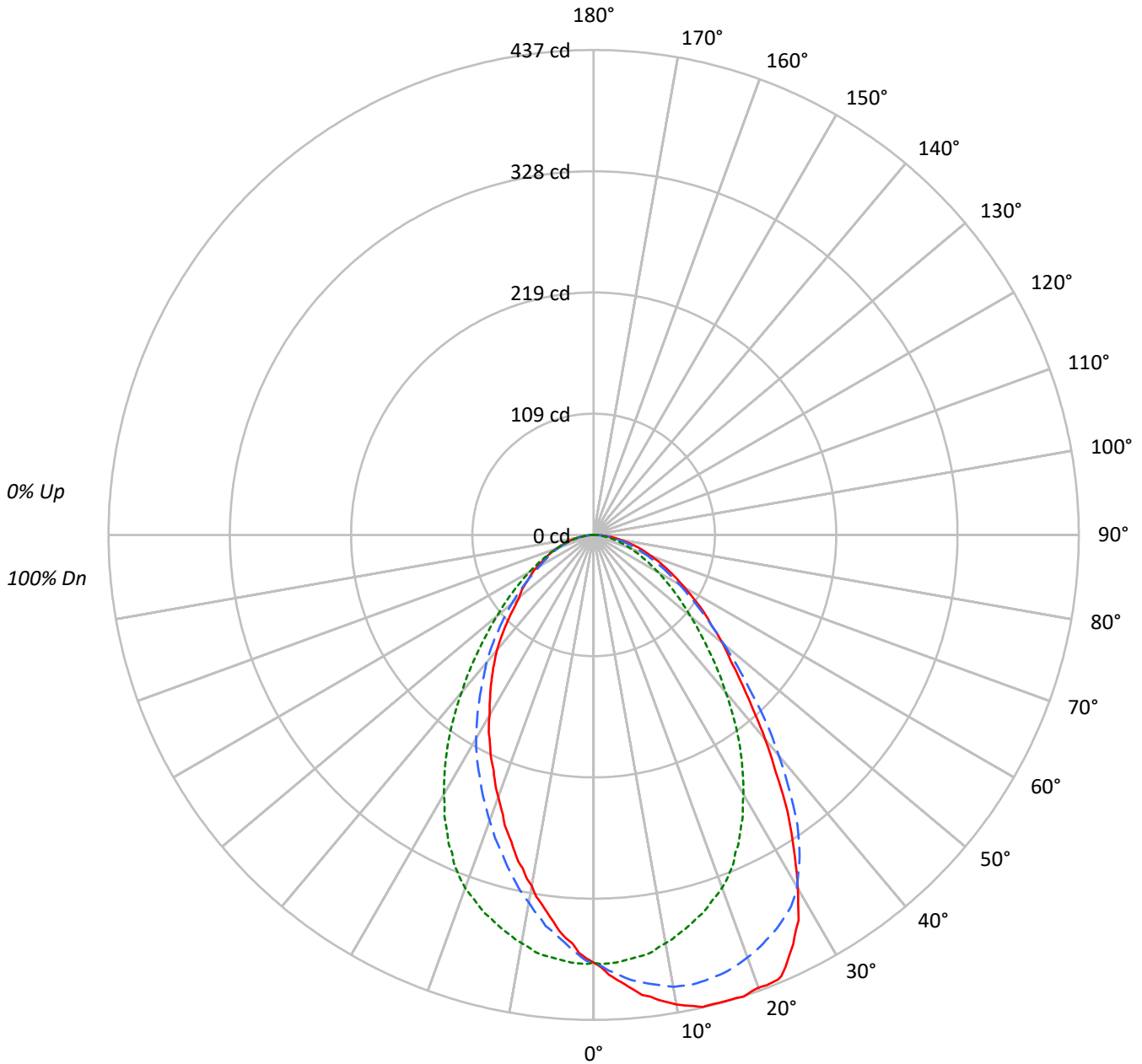
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 728.9 lumens
Efficiency: N/A
Efficacy: 91.1 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 (A_{in}): 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	100	100	100	100		
	1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87	87	87	87	87	87		
	2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75	75	75	75	75	75		
	3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66	66	66	66	66	66		
	4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58	58	58	58	58	58		
	5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51	51	51	51	51	51		
	6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46	46	46	46	46	46		
	7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42	42	42	42	42	42		
	8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38	38	38	38	38	38		
	9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34	34	34	34	34	34		
	10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32	32	32	32	32	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	37336	37336	37336	37336	37336
5°	40007	39185	37284	35358	34794
10°	42260	40676	36741	33082	31587
15°	43788	41426	35885	30670	28724
20°	44753	41778	34887	28247	25907
25°	44637	41773	32954	25889	23462
30°	41176	40969	30192	23681	20963
35°	36023	37897	27035	21181	18981
40°	30427	32798	23383	18944	17123
45°	25729	27476	20016	16618	14988
50°	22833	23044	17166	14498	13187
55°	20420	19719	14846	12481	12414
60°	18232	17195	12962	10792	11683
65°	16734	15278	11255	10017	10682
70°	15437	13667	9942	9347	9942
75°	14523	12202	8646	8497	9095
80°	13333	10935	7587	7810	8312
85°	13338	9893	6447	6447	7336

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 27702 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	5.0
10°-20°	101.3	13.9
20°-30°	144.5	19.8
30°-40°	149.0	20.4
40°-50°	119.9	16.5
50°-60°	84.8	11.6
60°-70°	55.0	7.5
70°-80°	29.5	4.0
80°-90°	8.5	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°	282.2	38.7
0°-40°	431.2	59.2
0°-60°	635.9	87.2
0°-90°	728.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	728.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	385	385	385	385	385	
5°	411	403	383	364	358	40
15°	437	413	358	306	286	123
25°	418	391	308	242	220	190
35°	305	320	229	179	160	189
45°	188	201	146	121	109	147
55°	121	117	88	74	74	108
65°	73	67	49	44	47	73
75°	39	33	23	23	24	41
85°	12	9	6	6	7	13
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°	385.4	385.4	385.4	385.4	385.4	385.4	385.4	385.4	385.4	385.4	385.4
1°	389.6	391.2	390.0	390.0	388.7	388.3	389.2	387.9	387.5	386.7	385.0
2°	396.6	395.3	394.9	395.3	392.9	392.9	391.6	389.2	387.9	386.3	381.7
3°	401.5	400.7	399.9	399.5	397.0	394.9	393.3	390.4	387.9	385.9	379.3
4°	406.1	406.1	405.3	403.6	401.1	398.6	395.3	392.0	388.3	384.6	376.0
5°	411.4	411.9	408.1	407.7	404.8	401.1	397.4	392.9	388.3	383.4	373.9
6°	416.8	414.7	413.9	411.0	406.9	403.6	399.1	394.1	387.9	382.1	369.3
7°	419.3	418.9	416.8	413.9	410.2	404.8	400.3	393.7	387.1	381.3	366.0
8°	423.4	423.4	420.9	417.2	411.9	406.9	401.1	393.3	386.7	379.3	361.5
9°	426.3	426.3	423.0	419.7	414.7	408.1	401.5	392.9	384.6	376.0	357.4
10°	429.6	428.8	426.3	421.3	417.2	409.8	401.5	392.5	383.4	373.5	353.3
11°	432.1	430.8	427.9	424.2	417.6	410.2	401.5	392.5	381.7	371.0	349.1
12°	434.1	433.3	429.6	425.1	418.5	411.0	401.1	390.8	378.8	367.7	343.8
13°	436.6	434.1	430.4	426.3	418.9	410.2	399.5	388.3	376.8	364.8	339.2
14°	436.2	435.8	432.5	426.7	418.5	409.4	399.1	385.9	373.9	361.5	333.9
15°	436.6	436.2	432.5	427.1	418.0	408.1	397.8	384.2	371.0	357.8	328.5
16°	436.6	436.6	431.7	426.3	417.6	406.9	395.3	382.6	368.1	354.9	324.0
17°	436.6	436.6	432.5	425.1	416.4	406.1	392.9	379.3	364.8	350.8	317.4
18°	437.4	436.2	430.8	424.6	414.7	404.0	391.2	376.8	361.9	346.2	312.8
19°	435.4	434.6	430.0	422.2	413.5	401.5	388.7	373.9	359.0	342.5	307.4
20°	434.1	435.4	429.2	420.9	411.0	399.5	386.3	371.0	354.9	338.4	302.1
21°	434.6	434.1	427.5	418.9	409.4	396.6	383.4	367.7	350.4	333.4	297.1
22.5°	433.7	432.5	425.5	416.0	404.4	392.9	378.4	362.3	343.8	324.8	287.6
23°	432.1	430.8	425.5	415.2	402.8	391.2	376.0	359.0	341.3	321.9	285.2
24°	425.5	425.1	422.6	412.3	400.7	387.9	373.1	353.7	333.9	313.6	279.0
25°	417.6	418.5	417.2	410.6	397.4	384.2	368.5	347.1	326.8	308.3	271.5
26°	410.2	410.2	409.4	406.9	394.1	380.1	361.9	339.2	319.8	300.4	263.7
27°	400.7	402.4	400.7	399.5	390.8	375.5	354.9	333.9	312.0	293.0	257.1
28°	393.3	393.3	392.5	390.4	387.5	370.2	347.5	326.0	304.6	286.4	249.7
29°	380.1	382.6	383.0	383.4	383.0	363.2	340.5	317.4	296.7	276.9	242.7
30°	368.1	370.6	372.2	375.1	375.5	357.0	332.2	310.3	289.3	269.9	236.5
32.5°	335.5	340.0	344.6	349.5	352.0	338.4	312.0	288.1	266.6	249.3	217.5
35°	304.6	305.8	310.7	322.3	324.8	316.1	288.1	265.4	245.1	228.6	199.7
37.5°	269.5	272.0	279.0	292.2	293.0	286.0	266.6	240.2	221.2	206.8	181.6
40°	240.6	241.8	246.8	257.9	261.6	257.1	240.2	216.2	198.9	184.9	164.2
42.5°	211.7	213.4	219.5	228.2	233.6	228.2	213.4	192.7	175.8	165.5	147.7
45°	187.8	189.8	195.6	200.6	202.2	198.9	185.7	168.8	156.8	146.1	132.5
47.5°	167.1	169.2	173.3	175.4	177.5	174.2	163.8	149.8	137.8	129.2	116.8
50°	151.5	151.0	153.9	154.8	154.8	151.0	142.4	130.8	120.9	113.9	103.6
52.5°	133.7	134.5	136.6	135.8	135.4	132.1	124.6	114.7	106.5	100.3	90.8
55°	120.9	119.7	120.9	120.1	118.4	115.1	108.5	100.3	93.3	87.9	79.2
57.5°	106.9	106.9	107.3	105.6	103.6	99.9	94.1	87.5	81.3	76.8	69.7
60°	94.1	94.9	94.5	92.9	90.8	86.7	82.1	75.5	70.2	66.9	60.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	64.0	64.0	62.7	61.5	58.6	54.9	51.6	47.5	44.6	41.7	37.6
70°	54.5	55.3	53.6	51.6	49.5	47.0	43.3	40.0	37.1	35.1	31.8
72.5°	47.0	46.6	45.4	43.3	41.7	38.8	35.5	33.0	30.5	28.9	26.4
75°	38.8	38.8	37.6	35.9	33.8	31.4	28.9	26.8	24.8	23.1	21.9
77.5°	31.0	31.4	30.1	28.9	27.2	24.8	22.7	21.0	19.4	18.2	17.3
80°	23.9	24.3	23.1	22.3	20.2	19.0	17.3	15.7	14.4	13.6	13.2
82.5°	18.2	17.7	16.9	16.5	14.9	13.6	12.0	11.1	10.3	9.5	9.5
85°	12.0	11.6	11.1	10.7	9.5	8.3	7.8	7.0	6.2	5.8	5.8
87.5°	6.2	6.2	5.8	5.4	5.0	4.1	3.7	2.9	2.5	2.5	2.5
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°	385.4	385.4	385.4
1°	383.8	382.1	381.7
2°	378.8	376.4	376.8
3°	374.3	371.4	368.5
4°	368.5	364.0	364.0
5°	363.6	359.0	357.8
6°	359.0	351.6	350.0
7°	354.9	345.8	342.9
8°	347.9	338.8	335.9
9°	342.9	333.0	330.1
10°	336.3	326.4	321.1
11°	331.0	319.8	315.7
12°	325.2	311.6	307.4
13°	318.6	304.6	302.1
14°	312.4	298.8	294.2
15°	305.8	291.8	286.4
16°	298.8	284.7	279.8
17°	293.0	277.3	273.6
18°	287.2	270.7	264.9
19°	280.2	264.5	257.9
20°	274.0	256.7	251.3
21°	267.4	250.9	245.1
22.5°	258.3	239.8	234.4
23°	255.4	236.5	230.7
24°	248.8	229.9	224.9
25°	242.2	224.9	219.5
26°	236.5	217.5	212.5
27°	230.7	211.7	206.3
28°	224.5	205.5	201.4
29°	218.3	198.9	194.8
30°	211.7	194.4	187.4
32.5°	195.2	179.5	173.7
35°	179.1	165.5	160.5
37.5°	163.4	152.3	147.7
40°	149.8	139.9	135.4
42.5°	135.8	126.7	122.2
45°	121.3	113.9	109.4
47.5°	108.1	101.9	97.0
50°	96.2	90.0	87.5
52.5°	84.6	80.5	81.7
55°	73.9	73.9	73.5
57.5°	63.6	66.4	66.9
60°	55.7	59.4	60.3



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CATALOG NUMBER: HCSQ607D010-HM60525840-61SQLWW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	38.4	40.4	41.3
70°	33.0	34.7	35.1
72.5°	28.1	29.3	30.1
75°	22.7	24.3	24.3
77.5°	18.6	19.4	19.8
80°	14.0	14.4	14.9
82.5°	9.9	10.3	10.7
85°	5.8	6.2	6.6
87.5°	2.5	2.5	2.5
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°	83.4	84.2	82.9	80.9	78.8	75.1	71.0	65.2	61.1	57.8	52.0
65°	73.0	73.5	72.6	70.6	68.5	64.8	60.7	55.7	52.4	49.1	44.2

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62.5°	49.9	52.8	53.2
65°	43.7	46.2	46.6

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Scaled Data Report



(END OF REPORT)