

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: P838331

Luminaire Tested: HCSQ607D010-HM60525940-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838331
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-HM60525940-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

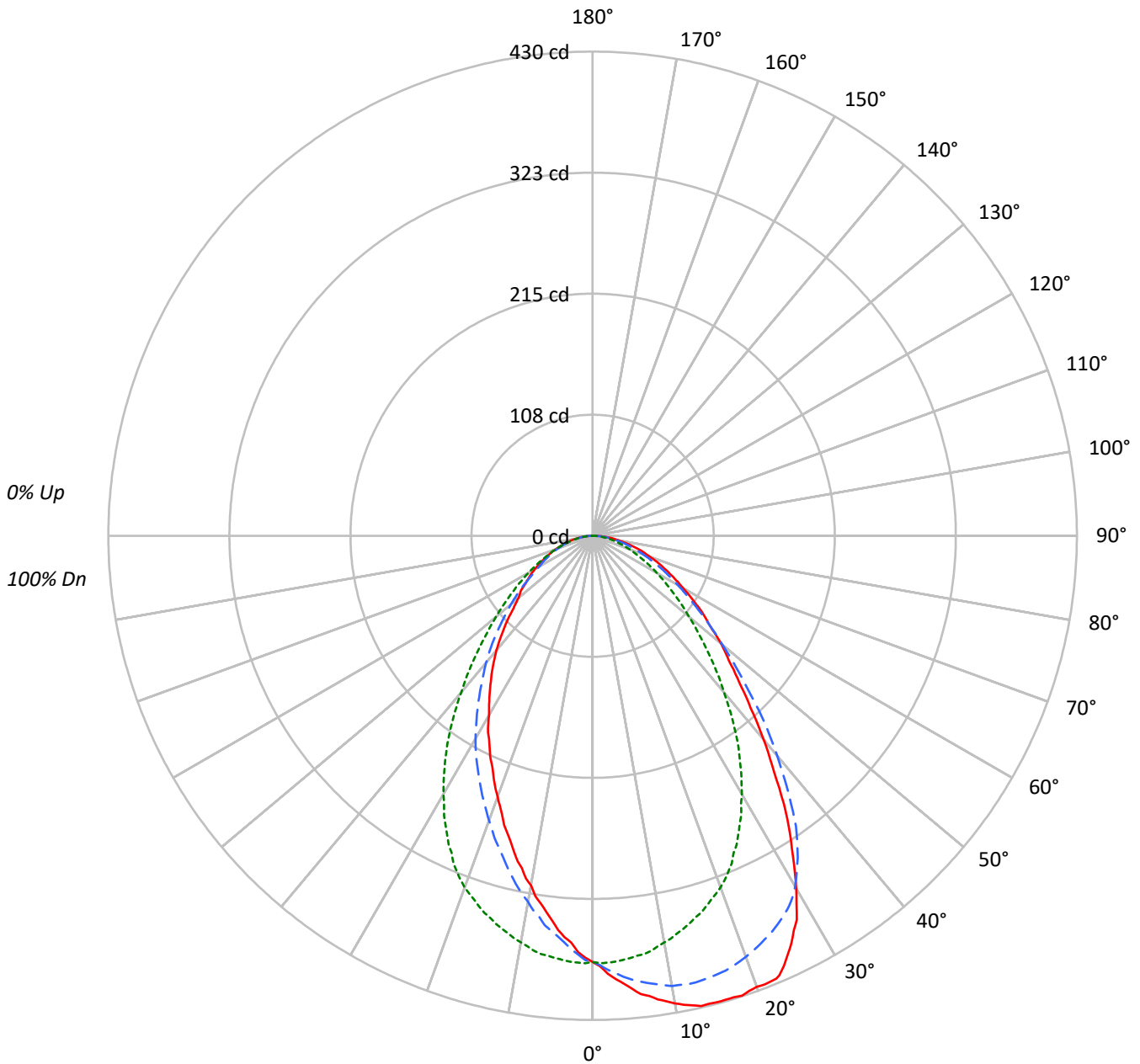
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 715.7 lumens
Efficiency: N/A
Efficacy: 89.5 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): 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			
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°	36667	36667	36667	36667	36667
5°	39287	38480	36613	34717	34162
10°	41492	39943	36072	32492	31016
15°	42996	40684	35233	30118	28202
20°	43948	41026	34258	27742	25443
25°	43836	41019	32356	25429	23046
30°	40438	40231	29643	23256	20583
35°	35372	37211	26550	20802	18638
40°	29883	32210	22953	18603	16807
45°	25263	26983	19660	16317	14714
50°	22411	22629	16850	14227	12946
55°	20048	19373	14576	12245	12177
60°	17903	16885	12710	10598	11470
65°	16436	15003	11049	9857	10499
70°	15154	13426	9744	9177	9744
75°	14261	11978	8497	8347	8946
80°	13110	10739	7476	7699	8145
85°	13116	9670	6336	6336	7225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 27209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	5.0
10°-20°	99.5	13.9
20°-30°	141.9	19.8
30°-40°	146.3	20.4
40°-50°	117.7	16.5
50°-60°	83.3	11.6
60°-70°	54.0	7.5
70°-80°	29.0	4.1
80°-90°	8.4	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°	277.1	38.7
0°-40°	423.4	59.2
0°-60°	624.4	87.2
0°-90°	715.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	715.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	378	378	378	378	378	
5°	404	396	376	357	351	39
15°	429	406	351	300	281	121
25°	410	384	303	238	216	187
35°	299	315	224	176	158	186
45°	184	197	144	119	107	144
55°	119	115	86	72	72	106
65°	72	65	48	43	46	72
75°	38	32	23	22	24	40
85°	12	9	6	6	6	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°	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5	378.5
1°	382.5	384.2	382.9	382.9	381.7	381.3	382.1	380.9	380.5	379.7	378.1
2°	389.4	388.2	387.8	388.2	385.8	385.8	384.6	382.1	380.9	379.3	374.8
3°	394.3	393.5	392.7	392.3	389.8	387.8	386.2	383.4	380.9	378.9	372.4
4°	398.8	398.8	397.9	396.3	393.9	391.5	388.2	385.0	381.3	377.7	369.2
5°	404.0	404.4	400.8	400.4	397.5	393.9	390.2	385.8	381.3	376.5	367.1
6°	409.3	407.3	406.5	403.6	399.6	396.3	391.9	387.0	380.9	375.2	362.7
7°	411.7	411.3	409.3	406.5	402.8	397.5	393.1	386.6	380.1	374.4	359.4
8°	415.8	415.8	413.3	409.7	404.4	399.6	393.9	386.2	379.7	372.4	355.0
9°	418.6	418.6	415.4	412.1	407.3	400.8	394.3	385.8	377.7	369.2	350.9
10°	421.8	421.0	418.6	413.7	409.7	402.4	394.3	385.4	376.5	366.7	346.9
11°	424.3	423.1	420.2	416.6	410.1	402.8	394.3	385.4	374.8	364.3	342.8
12°	426.3	425.5	421.8	417.4	410.9	403.6	393.9	383.8	372.0	361.1	337.6
13°	428.7	426.3	422.7	418.6	411.3	402.8	392.3	381.3	370.0	358.2	333.1
14°	428.3	427.9	424.7	419.0	410.9	402.0	391.9	378.9	367.1	355.0	327.8
15°	428.7	428.3	424.7	419.4	410.5	400.8	390.6	377.3	364.3	351.3	322.6
16°	428.7	428.7	423.9	418.6	410.1	399.6	388.2	375.7	361.5	348.5	318.1
17°	428.7	428.7	424.7	417.4	408.9	398.8	385.8	372.4	358.2	344.4	311.6
18°	429.5	428.3	423.1	417.0	407.3	396.7	384.2	370.0	355.4	340.0	307.2
19°	427.5	426.7	422.3	414.6	406.0	394.3	381.7	367.1	352.6	336.3	301.9
20°	426.3	427.5	421.4	413.3	403.6	392.3	379.3	364.3	348.5	332.3	296.6
21°	426.7	426.3	419.8	411.3	402.0	389.4	376.5	361.1	344.0	327.4	291.8
22.5°	425.9	424.7	417.8	408.5	397.1	385.8	371.6	355.8	337.6	318.9	282.4
23°	424.3	423.1	417.8	407.7	395.5	384.2	369.2	352.6	335.1	316.1	280.0
24°	417.8	417.4	415.0	404.8	393.5	380.9	366.3	347.3	327.8	308.0	273.9
25°	410.1	410.9	409.7	403.2	390.2	377.3	361.9	340.8	320.9	302.7	266.6
26°	402.8	402.8	402.0	399.6	387.0	373.2	355.4	333.1	314.1	295.0	258.9
27°	393.5	395.1	393.5	392.3	383.8	368.8	348.5	327.8	306.4	287.7	252.5
28°	386.2	386.2	385.4	383.4	380.5	363.5	341.2	320.1	299.1	281.2	245.2
29°	373.2	375.7	376.1	376.5	376.1	356.6	334.3	311.6	291.4	271.9	238.3
30°	361.5	363.9	365.5	368.4	368.8	350.5	326.2	304.7	284.1	265.0	232.2
32.5°	329.5	333.9	338.4	343.2	345.7	332.3	306.4	282.9	261.8	244.8	213.6
35°	299.1	300.3	305.1	316.5	318.9	310.4	282.9	260.6	240.7	224.5	196.1
37.5°	264.6	267.0	273.9	286.9	287.7	280.8	261.8	235.8	217.2	203.0	178.3
40°	236.3	237.5	242.3	253.3	256.9	252.5	235.8	212.3	195.3	181.5	161.3
42.5°	207.9	209.5	215.6	224.1	229.4	224.1	209.5	189.2	172.6	162.5	145.1
45°	184.4	186.4	192.1	196.9	198.6	195.3	182.4	165.7	154.0	143.5	130.1
47.5°	164.1	166.1	170.2	172.2	174.3	171.0	160.9	147.1	135.3	126.8	114.7
50°	148.7	148.3	151.2	152.0	152.0	148.3	139.8	128.5	118.7	111.8	101.7
52.5°	131.3	132.1	134.1	133.3	132.9	129.7	122.4	112.7	104.6	98.5	89.2
55°	118.7	117.5	118.7	117.9	116.3	113.1	106.6	98.5	91.6	86.3	77.8
57.5°	105.0	105.0	105.4	103.7	101.7	98.1	92.4	85.9	79.8	75.4	68.5
60°	92.4	93.2	92.8	91.2	89.2	85.1	80.6	74.2	68.9	65.6	59.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	62.8	62.8	61.6	60.4	57.5	53.9	50.7	46.6	43.8	40.9	36.9
70°	53.5	54.3	52.7	50.7	48.6	46.2	42.5	39.3	36.5	34.4	31.2
72.5°	46.2	45.8	44.6	42.5	40.9	38.1	34.9	32.4	30.0	28.4	25.9
75°	38.1	38.1	36.9	35.3	33.2	30.8	28.4	26.3	24.3	22.7	21.5
77.5°	30.4	30.8	29.6	28.4	26.7	24.3	22.3	20.7	19.0	17.8	17.0
80°	23.5	23.9	22.7	21.9	19.9	18.6	17.0	15.4	14.2	13.4	13.0
82.5°	17.8	17.4	16.6	16.2	14.6	13.4	11.8	10.9	10.1	9.3	9.3
85°	11.8	11.3	10.9	10.5	9.3	8.1	7.7	6.9	6.1	5.7	5.7
87.5°	6.1	6.1	5.7	5.3	4.9	4.1	3.6	2.8	2.4	2.4	2.4
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°	378.5	378.5	378.5
1°	376.9	375.2	374.8
2°	372.0	369.6	370.0
3°	367.5	364.7	361.9
4°	361.9	357.4	357.4
5°	357.0	352.6	351.3
6°	352.6	345.3	343.6
7°	348.5	339.6	336.7
8°	341.6	332.7	329.9
9°	336.7	327.0	324.2
10°	330.3	320.5	315.3
11°	325.0	314.1	310.0
12°	319.3	306.0	301.9
13°	312.8	299.1	296.6
14°	306.8	293.4	288.9
15°	300.3	286.5	281.2
16°	293.4	279.6	274.7
17°	287.7	272.3	268.7
18°	282.0	265.8	260.2
19°	275.2	259.8	253.3
20°	269.1	252.1	246.8
21°	262.6	246.4	240.7
22.5°	253.7	235.4	230.2
23°	250.8	232.2	226.5
24°	244.4	225.7	220.9
25°	237.9	220.9	215.6
26°	232.2	213.6	208.7
27°	226.5	207.9	202.6
28°	220.4	201.8	197.8
29°	214.4	195.3	191.3
30°	207.9	190.9	184.0
32.5°	191.7	176.3	170.6
35°	175.9	162.5	157.6
37.5°	160.5	149.5	145.1
40°	147.1	137.4	132.9
42.5°	133.3	124.4	119.9
45°	119.1	111.8	107.4
47.5°	106.2	100.1	95.2
50°	94.4	88.3	85.9
52.5°	83.1	79.0	80.2
55°	72.5	72.5	72.1
57.5°	62.4	65.2	65.6
60°	54.7	58.4	59.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	37.7	39.7	40.5
70°	32.4	34.0	34.4
72.5°	27.6	28.8	29.6
75°	22.3	23.9	23.9
77.5°	18.2	19.0	19.5
80°	13.8	14.2	14.6
82.5°	9.7	10.1	10.5
85°	5.7	6.1	6.5
87.5°	2.4	2.4	2.4
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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Scaled Data Report





62.5°	81.9	82.7	81.5	79.4	77.4	73.8	69.7	64.0	60.0	56.7	51.1
65°	71.7	72.1	71.3	69.3	67.3	63.6	59.6	54.7	51.5	48.2	43.4

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62.5°	49.0	51.9	52.3
65°	43.0	45.4	45.8

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Scaled Data Report



(END OF REPORT)