

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: P838276

Luminaire Tested: HCSQ605D010-HM60525927-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838276
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-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

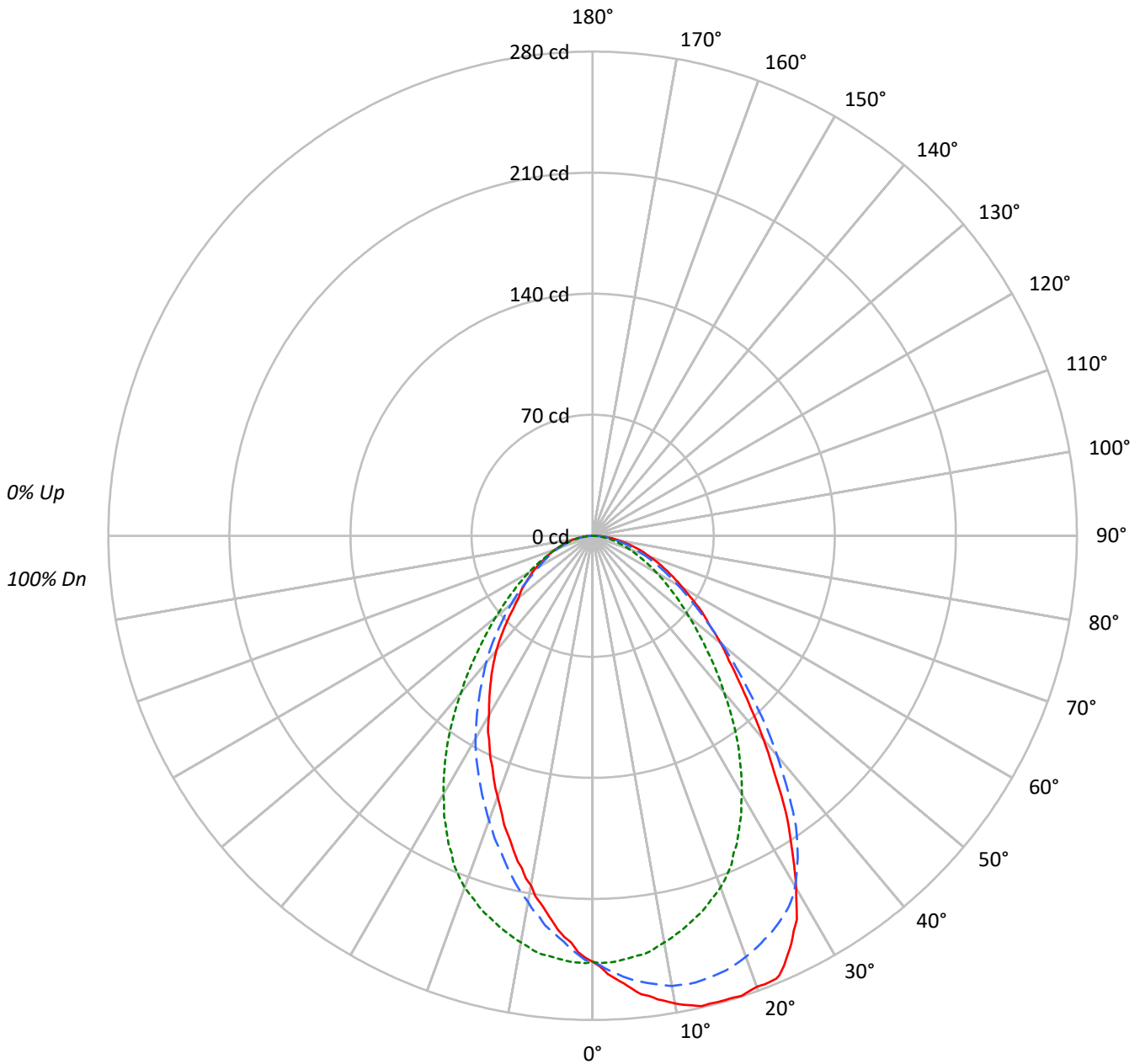
Lumens per Lamp: N/A
Luminaire Lumens: 466.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{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										
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°	23870	23870	23870	23870	23870
5°	25585	25055	23835	22610	22250
10°	27022	26009	23491	21150	20195
15°	28002	26492	22947	19607	18364
20°	28619	26711	22309	18062	16567
25°	28540	26712	21068	16557	15007
30°	26332	26193	19307	15146	13401
35°	23026	24232	17290	13541	12134
40°	19450	20974	14948	12115	10939
45°	16454	17571	12796	10631	9576
50°	14589	14732	10972	9269	8425
55°	13056	12608	9492	7972	7938
60°	11664	10986	8273	6898	7459
65°	10705	9765	7198	6418	6831
70°	9857	8752	6345	5976	6345
75°	9283	7804	5540	5427	5839
80°	8536	6974	4854	5021	5300
85°	8559	6336	4113	4113	4668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 17714 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.2	5.0
10°-20°	64.8	13.9
20°-30°	92.4	19.8
30°-40°	95.2	20.4
40°-50°	76.7	16.5
50°-60°	54.2	11.6
60°-70°	35.1	7.5
70°-80°	18.9	4.1
80°-90°	5.5	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°	180.4	38.7
0°-40°	275.7	59.2
0°-60°	406.6	87.2
0°-90°	466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	466.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	246	246	246	246	246	
5°	263	258	245	232	229	25
15°	279	264	229	196	183	79
25°	267	250	197	155	140	122
35°	195	205	146	114	103	121
45°	120	128	93	78	70	94
55°	77	75	56	47	47	69
65°	47	43	31	28	30	47
75°	25	21	15	14	16	26
85°	8	6	4	4	4	8
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°	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4	246.4
1°	249.1	250.1	249.3	249.3	248.6	248.3	248.8	248.0	247.8	247.2	246.2
2°	253.6	252.8	252.5	252.8	251.2	251.2	250.4	248.8	248.0	247.0	244.1
3°	256.7	256.2	255.7	255.4	253.8	252.5	251.5	249.6	248.0	246.7	242.5
4°	259.6	259.6	259.1	258.1	256.5	254.9	252.8	250.7	248.3	245.9	240.4
5°	263.1	263.3	261.0	260.7	258.8	256.5	254.1	251.2	248.3	245.1	239.1
6°	266.5	265.2	264.7	262.8	260.2	258.1	255.2	252.0	248.0	244.3	236.2
7°	268.1	267.8	266.5	264.7	262.3	258.8	255.9	251.7	247.5	243.8	234.0
8°	270.7	270.7	269.1	266.8	263.3	260.2	256.5	251.5	247.2	242.5	231.1
9°	272.6	272.6	270.5	268.3	265.2	261.0	256.7	251.2	245.9	240.4	228.5
10°	274.7	274.2	272.6	269.4	266.8	262.0	256.7	250.9	245.1	238.8	225.9
11°	276.3	275.5	273.6	271.2	267.0	262.3	256.7	250.9	244.1	237.2	223.2
12°	277.6	277.1	274.7	271.8	267.6	262.8	256.5	249.9	242.2	235.1	219.8
13°	279.2	277.6	275.2	272.6	267.8	262.3	255.4	248.3	240.9	233.3	216.9
14°	278.9	278.6	276.5	272.8	267.6	261.8	255.2	246.7	239.1	231.1	213.5
15°	279.2	278.9	276.5	273.1	267.3	261.0	254.4	245.7	237.2	228.8	210.0
16°	279.2	279.2	276.0	272.6	267.0	260.2	252.8	244.6	235.4	226.9	207.1
17°	279.2	279.2	276.5	271.8	266.2	259.6	251.2	242.5	233.3	224.3	202.9
18°	279.7	278.9	275.5	271.5	265.2	258.3	250.1	240.9	231.4	221.4	200.0
19°	278.4	277.8	274.9	269.9	264.4	256.7	248.6	239.1	229.6	219.0	196.6
20°	277.6	278.4	274.4	269.1	262.8	255.4	247.0	237.2	226.9	216.4	193.1
21°	277.8	277.6	273.4	267.8	261.8	253.6	245.1	235.1	224.0	213.2	190.0
22.5°	277.3	276.5	272.0	266.0	258.6	251.2	242.0	231.7	219.8	207.7	183.9
23°	276.3	275.5	272.0	265.4	257.5	250.1	240.4	229.6	218.2	205.8	182.3
24°	272.0	271.8	270.2	263.6	256.2	248.0	238.5	226.1	213.5	200.5	178.4
25°	267.0	267.6	266.8	262.5	254.1	245.7	235.6	221.9	209.0	197.1	173.6
26°	262.3	262.3	261.8	260.2	252.0	243.0	231.4	216.9	204.5	192.1	168.6
27°	256.2	257.3	256.2	255.4	249.9	240.1	226.9	213.5	199.5	187.3	164.4
28°	251.5	251.5	250.9	249.6	247.8	236.7	222.2	208.5	194.7	183.1	159.6
29°	243.0	244.6	244.9	245.1	244.9	232.2	217.7	202.9	189.7	177.1	155.2
30°	235.4	236.9	238.0	239.8	240.1	228.2	212.4	198.4	185.0	172.6	151.2
32.5°	214.5	217.4	220.3	223.5	225.1	216.4	199.5	184.2	170.5	159.4	139.1
35°	194.7	195.5	198.7	206.1	207.7	202.1	184.2	169.7	156.7	146.2	127.7
37.5°	172.3	173.9	178.4	186.8	187.3	182.9	170.5	153.6	141.4	132.2	116.1
40°	153.8	154.6	157.8	164.9	167.3	164.4	153.6	138.3	127.2	118.2	105.0
42.5°	135.4	136.4	140.4	145.9	149.3	145.9	136.4	123.2	112.4	105.8	94.5
45°	120.1	121.4	125.1	128.2	129.3	127.2	118.7	107.9	100.3	93.4	84.7
47.5°	106.9	108.2	110.8	112.1	113.5	111.3	104.8	95.8	88.1	82.6	74.7
50°	96.8	96.6	98.4	98.9	98.9	96.6	91.0	83.6	77.3	72.8	66.2
52.5°	85.5	86.0	87.3	86.8	86.5	84.4	79.7	73.4	68.1	64.1	58.0
55°	77.3	76.5	77.3	76.8	75.7	73.6	69.4	64.1	59.6	56.2	50.7
57.5°	68.3	68.3	68.6	67.5	66.2	63.9	60.2	55.9	52.0	49.1	44.6
60°	60.2	60.7	60.4	59.4	58.0	55.4	52.5	48.3	44.9	42.7	38.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	40.9	40.9	40.1	39.3	37.5	35.1	33.0	30.3	28.5	26.6	24.0
70°	34.8	35.4	34.3	33.0	31.7	30.1	27.7	25.6	23.7	22.4	20.3
72.5°	30.1	29.8	29.0	27.7	26.6	24.8	22.7	21.1	19.5	18.5	16.9
75°	24.8	24.8	24.0	23.0	21.6	20.1	18.5	17.2	15.8	14.8	14.0
77.5°	19.8	20.1	19.3	18.5	17.4	15.8	14.5	13.5	12.4	11.6	11.1
80°	15.3	15.6	14.8	14.2	12.9	12.1	11.1	10.0	9.2	8.7	8.4
82.5°	11.6	11.3	10.8	10.6	9.5	8.7	7.7	7.1	6.6	6.1	6.1
85°	7.7	7.4	7.1	6.9	6.1	5.3	5.0	4.5	4.0	3.7	3.7
87.5°	4.0	4.0	3.7	3.4	3.2	2.6	2.4	1.8	1.6	1.6	1.6
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°	246.4	246.4	246.4
1°	245.4	244.3	244.1
2°	242.2	240.6	240.9
3°	239.3	237.5	235.6
4°	235.6	232.7	232.7
5°	232.5	229.6	228.8
6°	229.6	224.8	223.8
7°	226.9	221.1	219.3
8°	222.4	216.6	214.8
9°	219.3	212.9	211.1
10°	215.0	208.7	205.3
11°	211.6	204.5	201.9
12°	207.9	199.2	196.6
13°	203.7	194.7	193.1
14°	199.7	191.0	188.1
15°	195.5	186.5	183.1
16°	191.0	182.1	178.9
17°	187.3	177.3	174.9
18°	183.6	173.1	169.4
19°	179.2	169.1	164.9
20°	175.2	164.1	160.7
21°	171.0	160.4	156.7
22.5°	165.2	153.3	149.9
23°	163.3	151.2	147.5
24°	159.1	147.0	143.8
25°	154.9	143.8	140.4
26°	151.2	139.1	135.9
27°	147.5	135.4	131.9
28°	143.5	131.4	128.8
29°	139.6	127.2	124.5
30°	135.4	124.3	119.8
32.5°	124.8	114.8	111.1
35°	114.5	105.8	102.6
37.5°	104.5	97.4	94.5
40°	95.8	89.4	86.5
42.5°	86.8	81.0	78.1
45°	77.6	72.8	69.9
47.5°	69.1	65.2	62.0
50°	61.5	57.5	55.9
52.5°	54.1	51.5	52.2
55°	47.2	47.2	47.0
57.5°	40.6	42.5	42.7
60°	35.6	38.0	38.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	24.5	25.9	26.4
70°	21.1	22.2	22.4
72.5°	17.9	18.7	19.3
75°	14.5	15.6	15.6
77.5°	11.9	12.4	12.7
80°	9.0	9.2	9.5
82.5°	6.3	6.6	6.9
85°	3.7	4.0	4.2
87.5°	1.6	1.6	1.6
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°	53.3	53.8	53.0	51.7	50.4	48.0	45.4	41.7	39.1	36.9	33.2
65°	46.7	47.0	46.4	45.1	43.8	41.4	38.8	35.6	33.5	31.4	28.2

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62.5°	31.9	33.8	34.0
65°	28.0	29.6	29.8

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(END OF REPORT)