

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: P838256

Luminaire Tested: HCSQ605D010-HM60525827-61SQLWW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838256
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-HM60525827-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

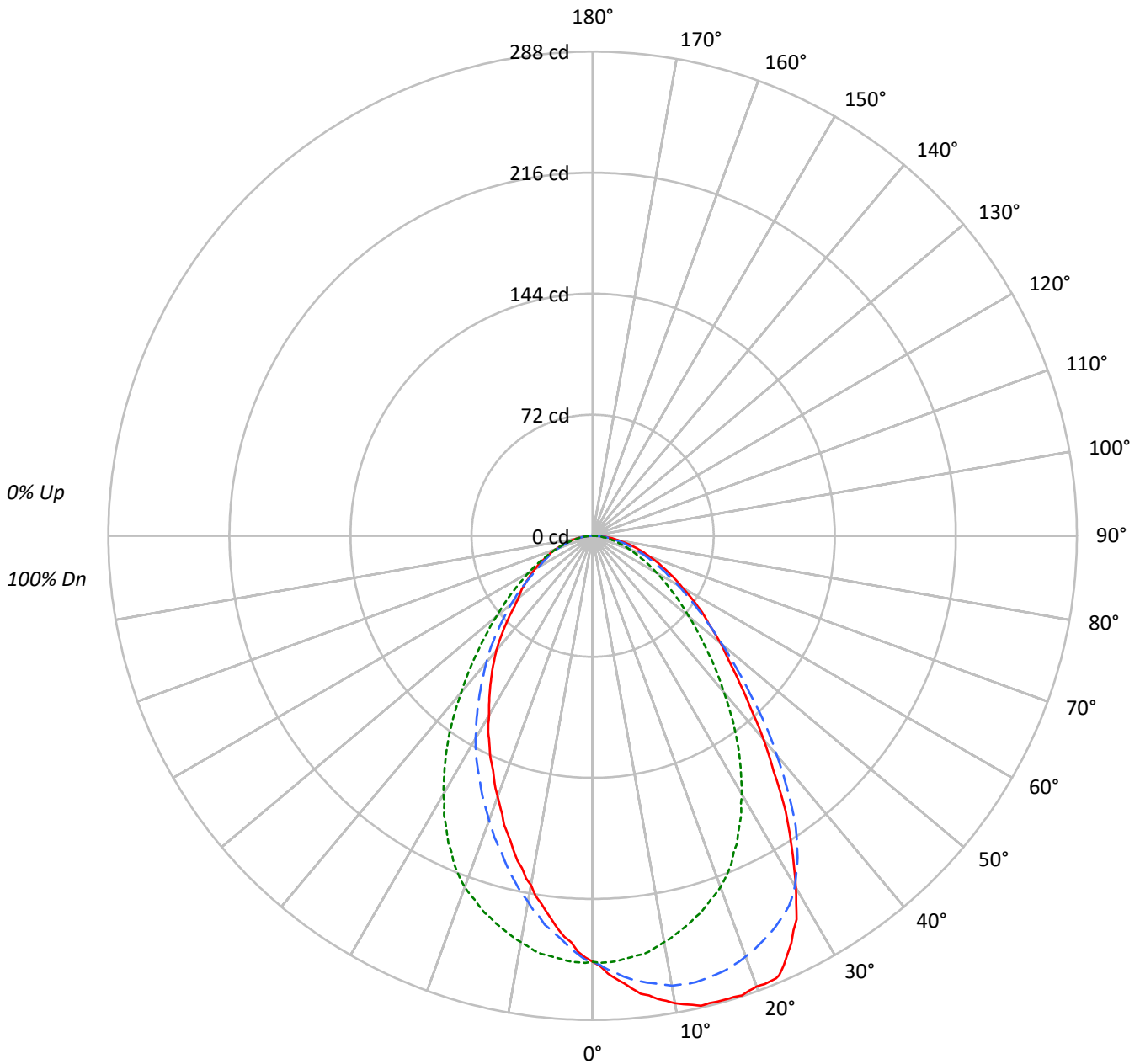
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 479.0 lumens
Efficiency: N/A
Efficacy: 79.8 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 (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°	24539	24539	24539	24539	24539
5°	26295	25751	24496	23232	22862
10°	27770	26732	24140	21740	20756
15°	28774	27224	23579	20159	18875
20°	29412	27454	22928	18567	17031
25°	29331	27455	21656	17017	15424
30°	27059	26925	19844	15560	13770
35°	23664	24900	17763	13920	12477
40°	19994	21555	15365	12444	11255
45°	16906	18057	13152	10919	9850
50°	14996	15146	11273	9525	8666
55°	13427	12963	9762	8192	8158
60°	11974	11305	8506	7091	7673
65°	11003	10040	7404	6579	7014
70°	10140	8979	6543	6146	6543
75°	9545	8010	5689	5577	5989
80°	8759	7197	4965	5133	5467
85°	8781	6447	4224	4224	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 18208 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	5.0
10°-20°	66.6	13.9
20°-30°	95.0	19.8
30°-40°	97.9	20.4
40°-50°	78.8	16.5
50°-60°	55.7	11.6
60°-70°	36.1	7.5
70°-80°	19.4	4.1
80°-90°	5.6	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°	185.5	38.7
0°-40°	283.3	59.2
0°-60°	417.9	87.2
0°-90°	479.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	479.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	253	253	253	253	253	
5°	270	265	252	239	235	26
15°	287	271	235	201	188	81
25°	274	257	203	159	144	125
35°	200	211	150	118	106	124
45°	123	132	96	80	72	96
55°	80	77	58	48	48	71
65°	48	44	32	29	31	48
75°	26	21	15	15	16	27
85°	8	6	4	4	4	9
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°	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3	253.3
1°	256.0	257.1	256.3	256.3	255.5	255.2	255.7	254.9	254.6	254.1	253.0
2°	260.6	259.8	259.5	259.8	258.2	258.2	257.4	255.7	254.9	253.8	250.9
3°	263.9	263.3	262.8	262.5	260.9	259.5	258.4	256.5	254.9	253.6	249.2
4°	266.9	266.9	266.3	265.2	263.6	262.0	259.8	257.6	255.2	252.7	247.1
5°	270.4	270.6	268.2	267.9	266.0	263.6	261.2	258.2	255.2	251.9	245.7
6°	273.9	272.5	272.0	270.1	267.4	265.2	262.2	259.0	254.9	251.1	242.7
7°	275.5	275.3	273.9	272.0	269.6	266.0	263.1	258.7	254.4	250.6	240.5
8°	278.2	278.2	276.6	274.2	270.6	267.4	263.6	258.4	254.1	249.2	237.6
9°	280.1	280.1	278.0	275.8	272.5	268.2	263.9	258.2	252.7	247.1	234.9
10°	282.3	281.8	280.1	276.9	274.2	269.3	263.9	257.9	251.9	245.4	232.1
11°	283.9	283.1	281.2	278.8	274.4	269.6	263.9	257.9	250.9	243.8	229.4
12°	285.3	284.8	282.3	279.3	275.0	270.1	263.6	256.8	249.0	241.6	225.9
13°	286.9	285.3	282.9	280.1	275.3	269.6	262.5	255.2	247.6	239.7	222.9
14°	286.6	286.4	284.2	280.4	275.0	269.0	262.2	253.6	245.7	237.6	219.4
15°	286.9	286.6	284.2	280.7	274.7	268.2	261.4	252.5	243.8	235.1	215.9
16°	286.9	286.9	283.7	280.1	274.4	267.4	259.8	251.4	241.9	233.2	212.9
17°	286.9	286.9	284.2	279.3	273.6	266.9	258.2	249.2	239.7	230.5	208.5
18°	287.5	286.6	283.1	279.1	272.5	265.5	257.1	247.6	237.8	227.5	205.6
19°	286.1	285.6	282.6	277.4	271.7	263.9	255.5	245.7	235.9	225.1	202.0
20°	285.3	286.1	282.0	276.6	270.1	262.5	253.8	243.8	233.2	222.4	198.5
21°	285.6	285.3	281.0	275.3	269.0	260.6	251.9	241.6	230.2	219.1	195.3
22.5°	285.0	284.2	279.6	273.4	265.8	258.2	248.7	238.1	225.9	213.4	189.0
23°	283.9	283.1	279.6	272.8	264.7	257.1	247.1	235.9	224.3	211.5	187.4
24°	279.6	279.3	277.7	270.9	263.3	254.9	245.2	232.4	219.4	206.1	183.3
25°	274.4	275.0	274.2	269.8	261.2	252.5	242.2	228.1	214.8	202.6	178.4
26°	269.6	269.6	269.0	267.4	259.0	249.8	237.8	222.9	210.2	197.4	173.3
27°	263.3	264.4	263.3	262.5	256.8	246.8	233.2	219.4	205.0	192.5	169.0
28°	258.4	258.4	257.9	256.5	254.6	243.3	228.3	214.2	200.1	188.2	164.1
29°	249.8	251.4	251.7	251.9	251.7	238.6	223.7	208.5	195.0	182.0	159.5
30°	241.9	243.5	244.6	246.5	246.8	234.6	218.3	203.9	190.1	177.4	155.4
32.5°	220.5	223.5	226.4	229.7	231.3	222.4	205.0	189.3	175.2	163.8	142.9
35°	200.1	201.0	204.2	211.8	213.4	207.7	189.3	174.4	161.1	150.2	131.3
37.5°	177.1	178.7	183.3	192.0	192.5	187.9	175.2	157.8	145.4	135.9	119.3
40°	158.1	158.9	162.2	169.5	171.9	169.0	157.8	142.1	130.7	121.5	107.9
42.5°	139.1	140.2	144.3	150.0	153.5	150.0	140.2	126.6	115.5	108.7	97.1
45°	123.4	124.7	128.5	131.8	132.9	130.7	122.0	110.9	103.1	96.0	87.1
47.5°	109.8	111.2	113.9	115.3	116.6	114.4	107.7	98.4	90.6	84.9	76.7
50°	99.5	99.3	101.2	101.7	101.7	99.3	93.6	86.0	79.5	74.8	68.1
52.5°	87.9	88.4	89.8	89.2	89.0	86.8	81.9	75.4	70.0	65.9	59.7
55°	79.5	78.6	79.5	78.9	77.8	75.7	71.3	65.9	61.3	57.8	52.1
57.5°	70.2	70.2	70.5	69.4	68.1	65.6	61.8	57.5	53.4	50.4	45.8
60°	61.8	62.4	62.1	61.0	59.7	57.0	54.0	49.6	46.1	43.9	39.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	42.0	42.0	41.2	40.4	38.5	36.1	33.9	31.2	29.3	27.4	24.7
70°	35.8	36.3	35.3	33.9	32.5	30.9	28.5	26.3	24.4	23.1	20.9
72.5°	30.9	30.6	29.8	28.5	27.4	25.5	23.3	21.7	20.1	19.0	17.4
75°	25.5	25.5	24.7	23.6	22.2	20.6	19.0	17.6	16.3	15.2	14.4
77.5°	20.3	20.6	19.8	19.0	17.9	16.3	14.9	13.8	12.7	11.9	11.4
80°	15.7	16.0	15.2	14.6	13.3	12.5	11.4	10.3	9.5	8.9	8.7
82.5°	11.9	11.7	11.1	10.8	9.8	8.9	7.9	7.3	6.8	6.2	6.2
85°	7.9	7.6	7.3	7.1	6.2	5.4	5.2	4.6	4.1	3.8	3.8
87.5°	4.1	4.1	3.8	3.5	3.3	2.7	2.4	1.9	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°	253.3	253.3	253.3
1°	252.2	251.1	250.9
2°	249.0	247.3	247.6
3°	246.0	244.1	242.2
4°	242.2	239.2	239.2
5°	238.9	235.9	235.1
6°	235.9	231.1	230.0
7°	233.2	227.3	225.4
8°	228.6	222.6	220.7
9°	225.4	218.9	217.0
10°	221.0	214.5	211.0
11°	217.5	210.2	207.5
12°	213.7	204.7	202.0
13°	209.4	200.1	198.5
14°	205.3	196.3	193.4
15°	201.0	191.7	188.2
16°	196.3	187.1	183.9
17°	192.5	182.2	179.8
18°	188.7	177.9	174.1
19°	184.1	173.8	169.5
20°	180.1	168.7	165.2
21°	175.7	164.9	161.1
22.5°	169.8	157.6	154.0
23°	167.9	155.4	151.6
24°	163.5	151.1	147.8
25°	159.2	147.8	144.3
26°	155.4	142.9	139.7
27°	151.6	139.1	135.6
28°	147.5	135.1	132.3
29°	143.5	130.7	128.0
30°	139.1	127.7	123.1
32.5°	128.3	118.0	114.2
35°	117.7	108.7	105.5
37.5°	107.4	100.1	97.1
40°	98.4	91.9	89.0
42.5°	89.2	83.3	80.3
45°	79.7	74.8	71.9
47.5°	71.1	67.0	63.7
50°	63.2	59.1	57.5
52.5°	55.6	52.9	53.7
55°	48.5	48.5	48.3
57.5°	41.8	43.7	43.9
60°	36.6	39.1	39.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	25.2	26.6	27.1
70°	21.7	22.8	23.1
72.5°	18.4	19.3	19.8
75°	14.9	16.0	16.0
77.5°	12.2	12.7	13.0
80°	9.2	9.5	9.8
82.5°	6.5	6.8	7.1
85°	3.8	4.1	4.3
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°	54.8	55.3	54.5	53.2	51.8	49.4	46.6	42.8	40.1	38.0	34.2
65°	48.0	48.3	47.7	46.4	45.0	42.6	39.9	36.6	34.4	32.3	29.0

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62.5°	32.8	34.7	35.0
65°	28.7	30.4	30.6

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(END OF REPORT)