

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: P838271

Luminaire Tested: HCSQ605D010-HM60525840-61SQLWW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838271
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-HM60525840-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: -

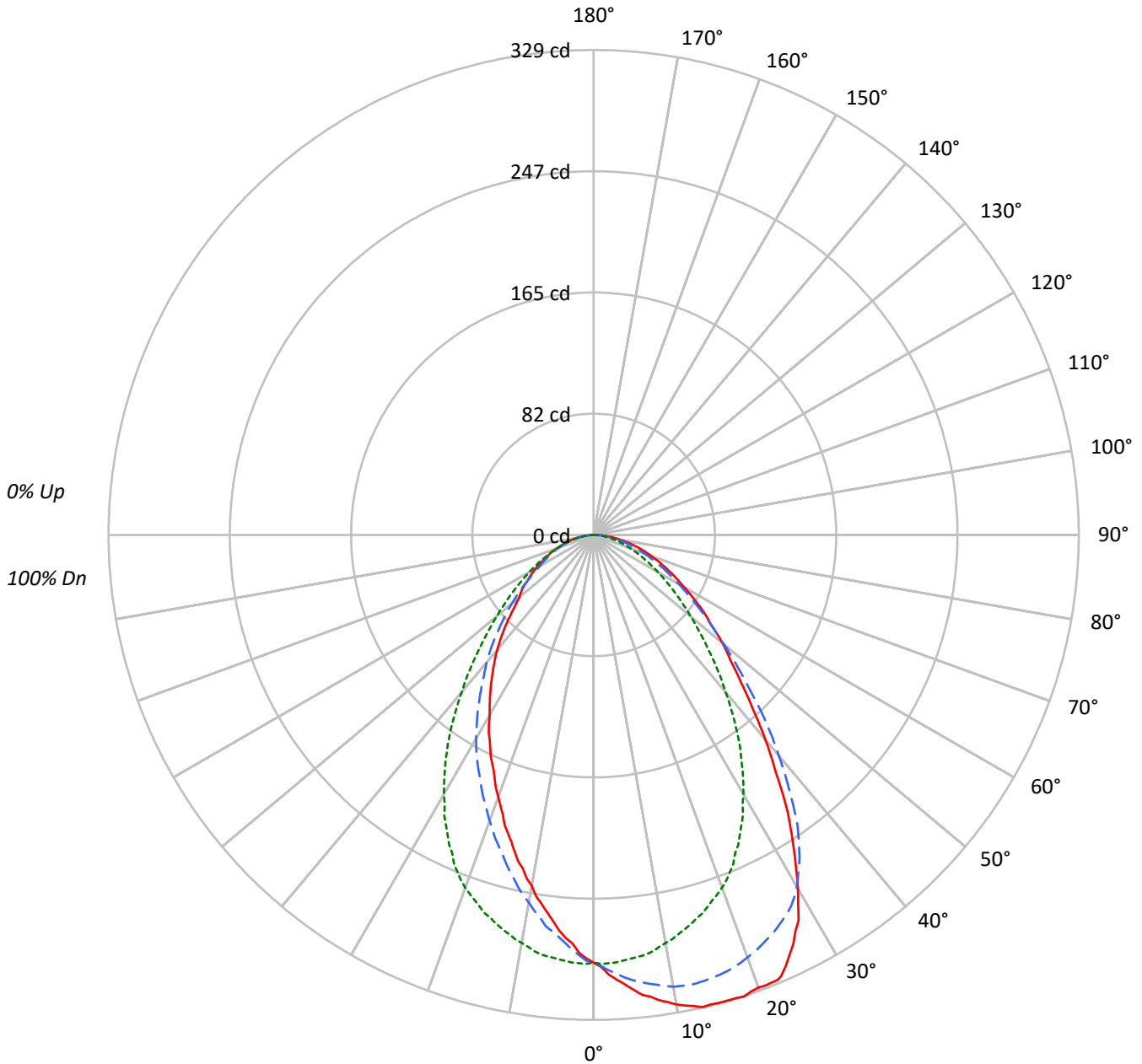
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 548.7 lumens
Efficiency: N/A
Efficacy: 91.4 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°	28104	28104	28104	28104	28104
5°	30117	29495	28065	26616	26188
10°	31813	30623	27652	24907	23776
15°	32966	31186	27009	23087	21623
20°	33691	31448	26258	21268	19505
25°	33606	31442	24799	19486	17669
30°	30997	30840	22730	17831	15773
35°	27118	28531	20353	15942	14286
40°	22902	24685	17603	14265	12886
45°	19358	20681	15070	12508	11275
50°	17181	17347	12916	10912	9932
55°	15370	14855	11181	9391	9340
60°	13718	12933	9746	8118	8796
65°	12607	11507	8481	7542	8046
70°	11613	10296	7478	7053	7478
75°	10929	9189	6513	6400	6850
80°	10042	8229	5746	5914	6248
85°	10004	7392	4780	4780	5558

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 20852 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.4	5.0
10°-20°	76.3	13.9
20°-30°	108.8	19.8
30°-40°	112.1	20.4
40°-50°	90.3	16.5
50°-60°	63.8	11.6
60°-70°	41.4	7.5
70°-80°	22.2	4.1
80°-90°	6.4	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°	212.4	38.7
0°-40°	324.6	59.2
0°-60°	478.6	87.2
0°-90°	548.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	548.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	290	290	290	290	290	
5°	310	303	289	274	269	30
15°	329	311	269	230	216	93
25°	314	294	232	182	165	143
35°	229	241	172	135	121	142
45°	141	151	110	91	82	110
55°	91	88	66	56	55	81
65°	55	50	37	33	35	55
75°	29	25	17	17	18	31
85°	9	7	4	4	5	10
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°	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1	290.1
1°	293.2	294.5	293.6	293.6	292.6	292.3	292.9	292.0	291.7	291.1	289.8
2°	298.5	297.6	297.3	297.6	295.7	295.7	294.8	292.9	292.0	290.8	287.3
3°	302.3	301.6	301.0	300.7	298.8	297.3	296.0	293.9	292.0	290.4	285.5
4°	305.7	305.7	305.0	303.8	301.9	300.1	297.6	295.1	292.3	289.5	283.0
5°	309.7	310.0	307.2	306.9	304.7	301.9	299.1	295.7	292.3	288.6	281.4
6°	313.7	312.2	311.6	309.4	306.3	303.8	300.4	296.7	292.0	287.7	278.0
7°	315.6	315.3	313.7	311.6	308.8	304.7	301.3	296.4	291.4	287.0	275.5
8°	318.7	318.7	316.9	314.1	310.0	306.3	301.9	296.0	291.1	285.5	272.1
9°	320.9	320.9	318.4	315.9	312.2	307.2	302.3	295.7	289.5	283.0	269.0
10°	323.4	322.8	320.9	317.2	314.1	308.5	302.3	295.4	288.6	281.1	265.9
11°	325.2	324.3	322.1	319.3	314.4	308.8	302.3	295.4	287.3	279.3	262.8
12°	326.8	326.2	323.4	320.0	315.0	309.4	301.9	294.2	285.2	276.8	258.8
13°	328.7	326.8	324.0	320.9	315.3	308.8	300.7	292.3	283.6	274.6	255.3
14°	328.3	328.0	325.6	321.2	315.0	308.2	300.4	290.4	281.4	272.1	251.3
15°	328.7	328.3	325.6	321.5	314.7	307.2	299.5	289.2	279.3	269.3	247.3
16°	328.7	328.7	324.9	320.9	314.4	306.3	297.6	288.0	277.1	267.2	243.9
17°	328.7	328.7	325.6	320.0	313.4	305.7	295.7	285.5	274.6	264.0	238.9
18°	329.3	328.3	324.3	319.6	312.2	304.1	294.5	283.6	272.4	260.6	235.5
19°	327.7	327.1	323.7	317.8	311.3	302.3	292.6	281.4	270.3	257.8	231.4
20°	326.8	327.7	323.1	316.9	309.4	300.7	290.8	279.3	267.2	254.7	227.4
21°	327.1	326.8	321.8	315.3	308.2	298.5	288.6	276.8	263.7	251.0	223.7
22.5°	326.5	325.6	320.3	313.1	304.4	295.7	284.9	272.7	258.8	244.5	216.5
23°	325.2	324.3	320.3	312.5	303.2	294.5	283.0	270.3	256.9	242.3	214.7
24°	320.3	320.0	318.1	310.3	301.6	292.0	280.8	266.2	251.3	236.1	210.0
25°	314.4	315.0	314.1	309.1	299.1	289.2	277.4	261.2	246.0	232.0	204.4
26°	308.8	308.8	308.2	306.3	296.7	286.1	272.4	255.3	240.7	226.1	198.5
27°	301.6	302.9	301.6	300.7	294.2	282.7	267.2	251.3	234.8	220.6	193.5
28°	296.0	296.0	295.4	293.9	291.7	278.6	261.6	245.4	229.3	215.6	187.9
29°	286.1	288.0	288.3	288.6	288.3	273.4	256.3	238.9	223.4	208.4	182.7
30°	277.1	279.0	280.2	282.4	282.7	268.7	250.1	233.6	217.8	203.2	178.0
32.5°	252.6	256.0	259.4	263.1	265.0	254.7	234.8	216.8	200.7	187.6	163.7
35°	229.3	230.2	233.9	242.6	244.5	238.0	216.8	199.7	184.5	172.1	150.3
37.5°	202.8	204.7	210.0	219.9	220.6	215.3	200.7	180.8	166.5	155.6	136.7
40°	181.1	182.0	185.8	194.2	196.9	193.5	180.8	162.8	149.7	139.2	123.6
42.5°	159.4	160.6	165.3	171.8	175.8	171.8	160.6	145.1	132.3	124.6	111.2
45°	141.3	142.9	147.2	151.0	152.2	149.7	139.8	127.1	118.0	110.0	99.7
47.5°	125.8	127.4	130.5	132.0	133.6	131.1	123.3	112.8	103.8	97.2	87.9
50°	114.0	113.7	115.9	116.5	116.5	113.7	107.2	98.5	91.0	85.7	78.0
52.5°	100.6	101.3	102.8	102.2	101.9	99.4	93.8	86.4	80.1	75.5	68.3
55°	91.0	90.1	91.0	90.4	89.2	86.7	81.7	75.5	70.2	66.2	59.6
57.5°	80.5	80.5	80.8	79.5	78.0	75.2	70.8	65.9	61.2	57.8	52.5
60°	70.8	71.4	71.1	69.9	68.3	65.2	61.8	56.8	52.8	50.3	45.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	48.1	48.1	47.2	46.3	44.1	41.3	38.8	35.7	33.5	31.4	28.3
70°	41.0	41.6	40.4	38.8	37.3	35.4	32.6	30.1	28.0	26.4	23.9
72.5°	35.4	35.1	34.2	32.6	31.4	29.2	26.7	24.9	23.0	21.7	19.9
75°	29.2	29.2	28.3	27.0	25.5	23.6	21.7	20.2	18.6	17.4	16.5
77.5°	23.3	23.6	22.7	21.7	20.5	18.6	17.1	15.8	14.6	13.7	13.0
80°	18.0	18.3	17.4	16.8	15.2	14.3	13.0	11.8	10.9	10.3	9.9
82.5°	13.7	13.4	12.7	12.4	11.2	10.3	9.0	8.4	7.8	7.1	7.1
85°	9.0	8.7	8.4	8.1	7.1	6.2	5.9	5.3	4.7	4.3	4.3
87.5°	4.7	4.7	4.3	4.0	3.7	3.1	2.8	2.2	1.9	1.9	1.9
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°	290.1	290.1	290.1
1°	288.9	287.7	287.3
2°	285.2	283.3	283.6
3°	281.8	279.6	277.4
4°	277.4	274.0	274.0
5°	273.7	270.3	269.3
6°	270.3	264.7	263.4
7°	267.2	260.3	258.1
8°	261.9	255.0	252.9
9°	258.1	250.7	248.5
10°	253.2	245.7	241.7
11°	249.1	240.7	237.6
12°	244.8	234.5	231.4
13°	239.8	229.3	227.4
14°	235.2	224.9	221.5
15°	230.2	219.6	215.6
16°	224.9	214.3	210.6
17°	220.6	208.8	206.0
18°	216.2	203.8	199.4
19°	210.9	199.1	194.2
20°	206.3	193.2	189.2
21°	201.3	188.9	184.5
22.5°	194.5	180.5	176.4
23°	192.3	178.0	173.6
24°	187.3	173.0	169.3
25°	182.3	169.3	165.3
26°	178.0	163.7	160.0
27°	173.6	159.4	155.3
28°	169.0	154.7	151.6
29°	164.3	149.7	146.6
30°	159.4	146.3	141.0
32.5°	146.9	135.1	130.8
35°	134.8	124.6	120.8
37.5°	123.0	114.6	111.2
40°	112.8	105.3	101.9
42.5°	102.2	95.4	91.9
45°	91.3	85.7	82.3
47.5°	81.4	76.7	73.0
50°	72.4	67.7	65.9
52.5°	63.7	60.6	61.5
55°	55.6	55.6	55.3
57.5°	47.8	50.0	50.3
60°	41.9	44.7	45.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	28.9	30.4	31.1
70°	24.9	26.1	26.4
72.5°	21.1	22.1	22.7
75°	17.1	18.3	18.3
77.5°	14.0	14.6	14.9
80°	10.6	10.9	11.2
82.5°	7.5	7.8	8.1
85°	4.3	4.7	5.0
87.5°	1.9	1.9	1.9
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°	62.7	63.4	62.4	60.9	59.3	56.5	53.4	49.1	46.0	43.5	39.1
65°	55.0	55.3	54.7	53.1	51.6	48.8	45.7	41.9	39.5	37.0	33.2

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62.5°	37.6	39.8	40.1
65°	32.9	34.8	35.1

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(END OF REPORT)