

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: P838396

Luminaire Tested: HCSQ615D010-HM60525927-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838396
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: HCSQ615D010-HM60525927-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

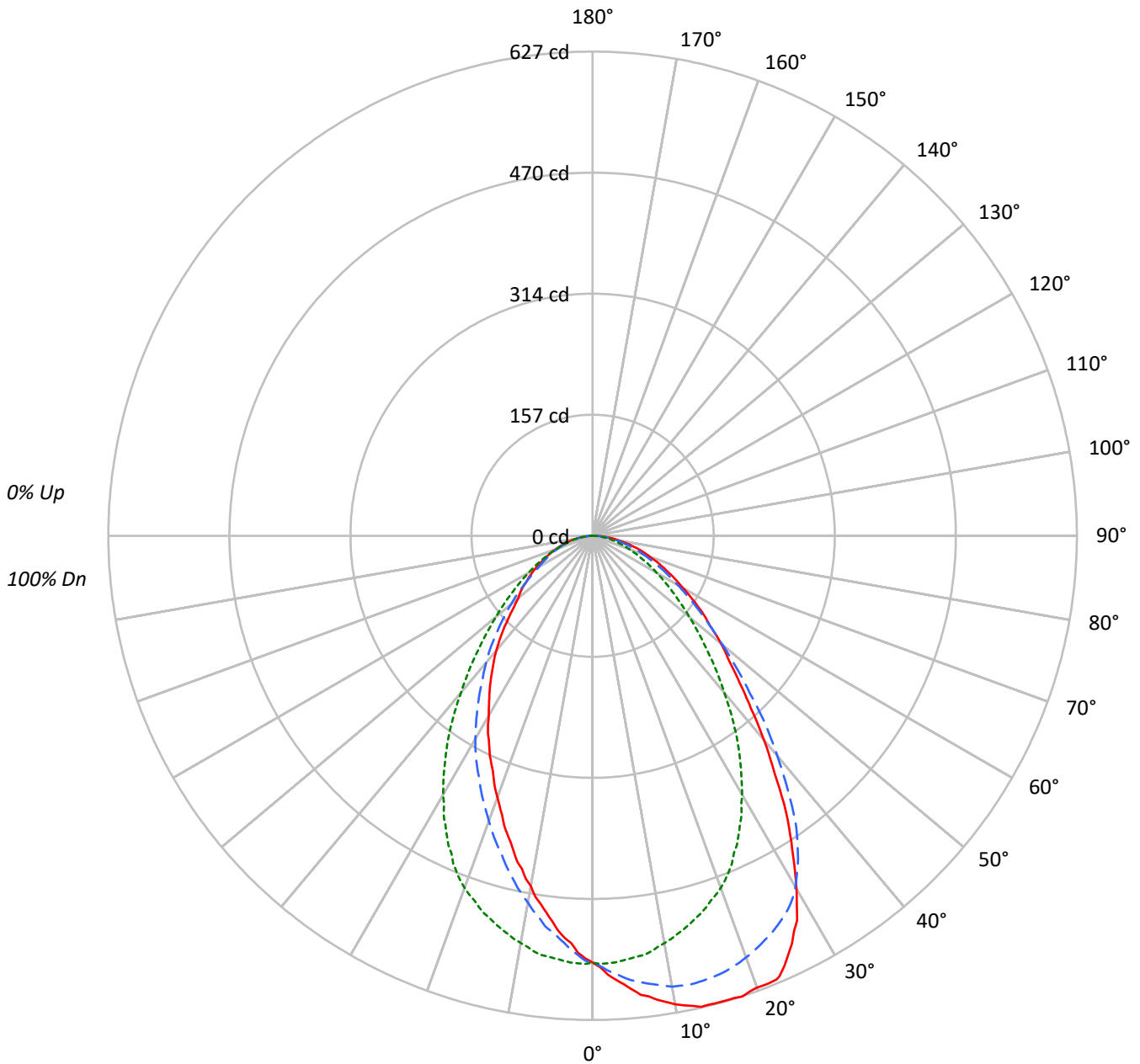
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1045.2 lumens
Efficiency: N/A
Efficacy: 74.7 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): 14
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									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°	53543	53543	53543	53543	53543
5°	57375	56193	53466	50694	49897
10°	60596	58328	52677	47444	45289
15°	62793	59413	51460	43978	41190
20°	64175	59907	50021	40505	37155
25°	64017	59901	47256	37134	33649
30°	59052	58750	43291	33961	30057
35°	51645	54342	38767	30370	27224
40°	43629	47038	33525	27164	24546
45°	36895	39402	28702	23838	21482
50°	32735	33043	24611	20783	18914
55°	29287	28282	21281	17886	17785
60°	26137	24655	18581	15481	16740
65°	24000	21903	16138	14373	15335
70°	22121	19615	14247	13397	14247
75°	20811	17498	12389	12165	13063
80°	19135	15677	10879	11213	11883
85°	19118	14116	9226	9226	10559

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 39731 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	5.0
10°-20°	145.3	13.9
20°-30°	207.3	19.8
30°-40°	213.6	20.4
40°-50°	171.9	16.5
50°-60°	121.6	11.6
60°-70°	78.8	7.5
70°-80°	42.3	4.0
80°-90°	12.2	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°	404.7	38.7
0°-40°	618.3	59.2
0°-60°	911.8	87.2
0°-90°	1045.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1045.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	553	553	553	553	553	
5°	590	578	550	521	513	57
15°	626	592	513	438	411	177
25°	599	560	442	347	315	273
35°	437	460	328	257	230	271
45°	269	288	210	174	157	210
55°	173	167	126	106	105	155
65°	105	96	70	63	67	104
75°	56	47	33	32	35	59
85°	17	13	8	8	10	19
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°	552.7	552.7	552.7	552.7	552.7	552.7	552.7	552.7	552.7	552.7	552.7
1°	558.6	561.0	559.2	559.2	557.4	556.9	558.0	556.3	555.7	554.5	552.1
2°	568.7	566.9	566.3	566.9	563.4	563.4	561.6	558.0	556.3	553.9	547.4
3°	575.8	574.6	573.4	572.8	569.3	566.3	564.0	559.8	556.3	553.3	543.8
4°	582.3	582.3	581.1	578.7	575.2	571.6	566.9	562.2	556.9	551.5	539.1
5°	590.0	590.6	585.3	584.7	580.5	575.2	569.9	563.4	556.9	549.8	536.1
6°	597.7	594.7	593.5	589.4	583.5	578.7	572.2	565.1	556.3	548.0	529.6
7°	601.2	600.6	597.7	593.5	588.2	580.5	574.0	564.5	555.1	546.8	524.9
8°	607.2	607.2	603.6	598.3	590.6	583.5	575.2	564.0	554.5	543.8	518.4
9°	611.3	611.3	606.6	601.8	594.7	585.3	575.8	563.4	551.5	539.1	512.5
10°	616.0	614.8	611.3	604.2	598.3	587.6	575.8	562.8	549.8	535.5	506.6
11°	619.6	617.8	613.7	608.3	598.9	588.2	575.8	562.8	547.4	532.0	500.6
12°	622.5	621.4	616.0	609.5	600.1	589.4	575.2	560.4	543.2	527.3	492.9
13°	626.1	622.5	617.2	611.3	600.6	588.2	572.8	556.9	540.3	523.1	486.4
14°	625.5	624.9	620.2	611.9	600.1	587.0	572.2	553.3	536.1	518.4	478.7
15°	626.1	625.5	620.2	612.5	599.5	585.3	570.5	550.9	532.0	513.1	471.0
16°	626.1	626.1	619.0	611.3	598.9	583.5	566.9	548.6	527.9	508.9	464.5
17°	626.1	626.1	620.2	609.5	597.1	582.3	563.4	543.8	523.1	503.0	455.1
18°	627.3	625.5	617.8	608.9	594.7	579.3	561.0	540.3	519.0	496.5	448.6
19°	624.3	623.1	616.6	605.4	593.0	575.8	557.4	536.1	514.8	491.2	440.9
20°	622.5	624.3	615.4	603.6	589.4	572.8	553.9	532.0	508.9	485.2	433.2
21°	623.1	622.5	613.1	600.6	587.0	568.7	549.8	527.3	502.4	478.1	426.1
22.5°	621.9	620.2	610.1	596.5	579.9	563.4	542.7	519.6	492.9	465.7	412.5
23°	619.6	617.8	610.1	595.3	577.6	561.0	539.1	514.8	489.4	461.6	408.9
24°	610.1	609.5	606.0	591.2	574.6	556.3	535.0	507.1	478.7	449.7	400.0
25°	598.9	600.1	598.3	588.8	569.9	550.9	528.4	497.7	468.7	442.1	389.4
26°	588.2	588.2	587.0	583.5	565.1	545.0	519.0	486.4	458.6	430.8	378.1
27°	574.6	577.0	574.6	572.8	560.4	538.5	508.9	478.7	447.4	420.2	368.7
28°	564.0	564.0	562.8	559.8	555.7	530.8	498.3	467.5	436.7	410.7	358.0
29°	545.0	548.6	549.2	549.8	549.2	520.8	488.2	455.1	425.5	397.1	348.0
30°	527.9	531.4	533.8	537.9	538.5	511.9	476.4	445.0	414.8	387.0	339.1
32.5°	481.1	487.6	494.1	501.2	504.8	485.2	447.4	413.1	382.3	357.4	311.9
35°	436.7	438.5	445.6	462.2	465.7	453.3	413.1	380.5	351.5	327.8	286.4
37.5°	386.4	390.0	400.0	419.0	420.2	410.1	382.3	344.4	317.2	296.5	260.4
40°	345.0	346.8	353.9	369.9	375.2	368.7	344.4	310.1	285.2	265.1	235.5
42.5°	303.6	305.9	314.8	327.2	334.9	327.2	305.9	276.4	252.1	237.3	211.9
45°	269.3	272.2	280.5	287.6	290.0	285.2	266.3	242.0	224.9	209.5	190.0
47.5°	239.7	242.6	248.5	251.5	254.5	249.7	234.9	214.8	197.7	185.2	167.5
50°	217.2	216.6	220.7	221.9	221.9	216.6	204.2	187.6	173.4	163.3	148.5
52.5°	191.7	192.9	195.9	194.7	194.1	189.4	178.7	164.5	152.7	143.8	130.2
55°	173.4	171.6	173.4	172.2	169.8	165.1	155.6	143.8	133.7	126.0	113.6
57.5°	153.3	153.3	153.9	151.5	148.5	143.2	134.9	125.5	116.6	110.1	100.0
60°	134.9	136.1	135.5	133.1	130.2	124.3	117.8	108.3	100.6	95.9	86.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	91.7	91.7	89.9	88.2	84.0	78.7	74.0	68.1	63.9	59.8	53.9
70°	78.1	79.3	76.9	74.0	71.0	67.5	62.1	57.4	53.3	50.3	45.6
72.5°	67.5	66.9	65.1	62.1	59.8	55.6	50.9	47.3	43.8	41.4	37.9
75°	55.6	55.6	53.9	51.5	48.5	45.0	41.4	38.5	35.5	33.1	31.4
77.5°	44.4	45.0	43.2	41.4	39.1	35.5	32.5	30.2	27.8	26.0	24.9
80°	34.3	34.9	33.1	32.0	29.0	27.2	24.9	22.5	20.7	19.5	18.9
82.5°	26.0	25.4	24.3	23.7	21.3	19.5	17.2	16.0	14.8	13.6	13.6
85°	17.2	16.6	16.0	15.4	13.6	11.8	11.2	10.1	8.9	8.3	8.3
87.5°	8.9	8.9	8.3	7.7	7.1	5.9	5.3	4.1	3.6	3.6	3.6
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°	552.7	552.7	552.7
1°	550.3	548.0	547.4
2°	543.2	539.7	540.3
3°	536.7	532.6	528.4
4°	528.4	521.9	521.9
5°	521.3	514.8	513.1
6°	514.8	504.2	501.8
7°	508.9	495.9	491.8
8°	498.9	485.8	481.7
9°	491.8	477.6	473.4
10°	482.3	468.1	460.4
11°	474.6	458.6	452.7
12°	466.3	446.8	440.9
13°	456.8	436.7	433.2
14°	448.0	428.4	421.9
15°	438.5	418.4	410.7
16°	428.4	408.3	401.2
17°	420.2	397.7	392.3
18°	411.9	388.2	379.9
19°	401.8	379.3	369.9
20°	392.9	368.1	360.4
21°	383.5	359.8	351.5
22.5°	370.4	343.8	336.1
23°	366.3	339.1	330.8
24°	356.8	329.6	322.5
25°	347.4	322.5	314.8
26°	339.1	311.9	304.8
27°	330.8	303.6	295.9
28°	321.9	294.7	288.8
29°	313.0	285.2	279.3
30°	303.6	278.7	268.7
32.5°	279.9	257.4	249.1
35°	256.8	237.3	230.2
37.5°	234.3	218.4	211.9
40°	214.8	200.6	194.1
42.5°	194.7	181.7	175.2
45°	174.0	163.3	156.8
47.5°	155.0	146.2	139.1
50°	137.9	129.0	125.5
52.5°	121.3	115.4	117.2
55°	105.9	105.9	105.3
57.5°	91.1	95.3	95.9
60°	79.9	85.2	86.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	55.0	58.0	59.2
70°	47.3	49.7	50.3
72.5°	40.2	42.0	43.2
75°	32.5	34.9	34.9
77.5°	26.6	27.8	28.4
80°	20.1	20.7	21.3
82.5°	14.2	14.8	15.4
85°	8.3	8.9	9.5
87.5°	3.6	3.6	3.6
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°	119.5	120.7	118.9	116.0	113.0	107.7	101.8	93.5	87.6	82.8	74.6
65°	104.7	105.3	104.2	101.2	98.2	92.9	87.0	79.9	75.2	70.4	63.3

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62.5°	71.6	75.7	76.3
65°	62.7	66.3	66.9

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Scaled Data Report



(END OF REPORT)