

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: P838406

Luminaire Tested: HCSQ615D010-HM60525935-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838406
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-HM60525935-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

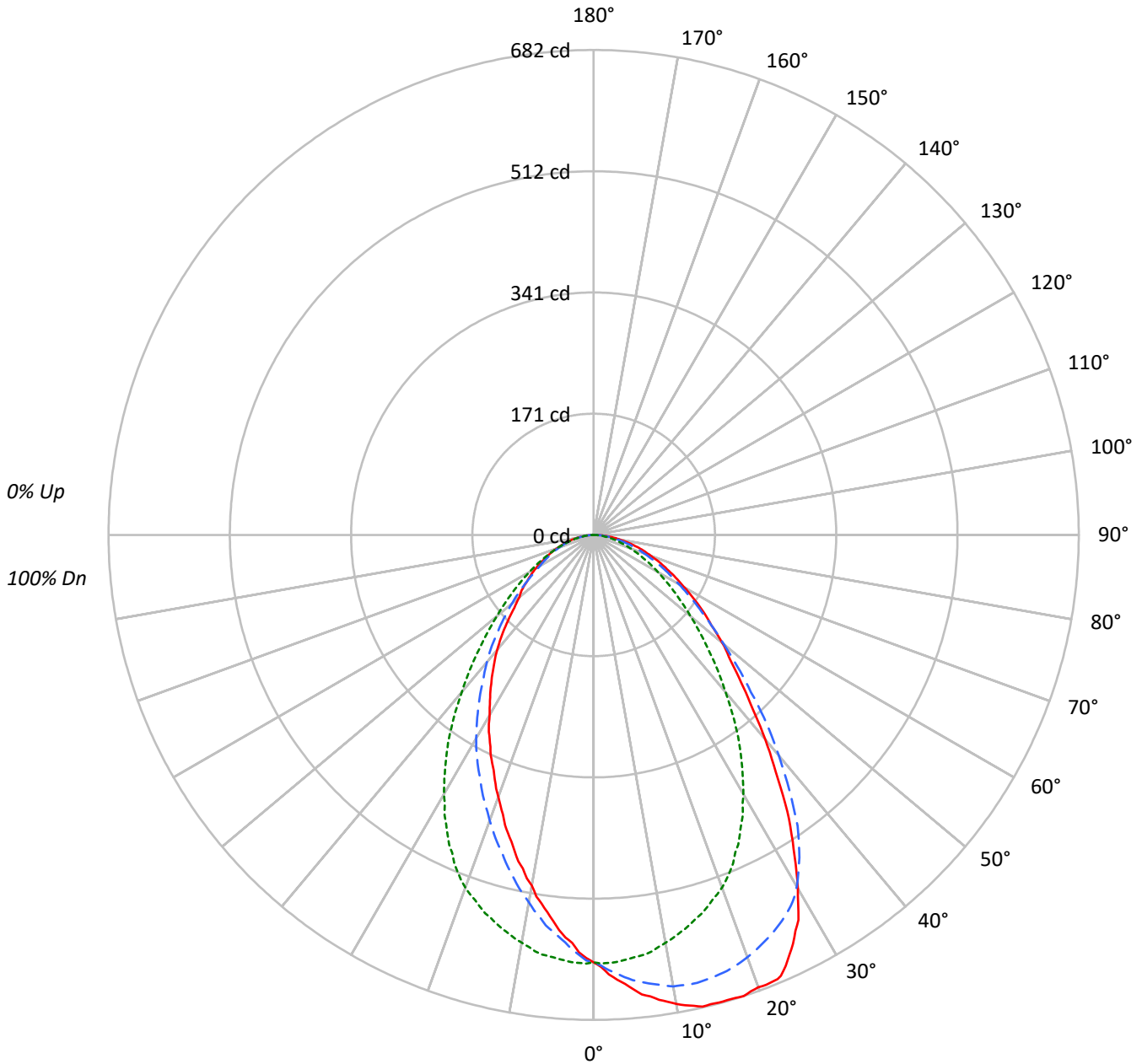
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1136.6 lumens
Efficiency: N/A
Efficacy: 81.2 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

TEST NUMBER: P838406
CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

Luminous Intensity Polar Plot





TEST NUMBER: P838406

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

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°	58222	58222	58222	58222	58222
5°	62393	61109	58133	55128	54253
10°	65898	63429	57291	51595	49244
15°	68279	64604	55953	47820	44791
20°	69794	65144	54402	44052	40402
25°	69607	65139	51382	40372	36589
30°	64209	63884	47072	36926	32675
35°	56163	59090	42161	33031	29601
40°	47449	51148	36459	29541	26696
45°	40114	42848	31209	25921	23359
50°	35598	35930	26766	22592	20557
55°	31837	30756	23156	19457	19339
60°	28423	26805	20189	16837	18213
65°	26109	23817	17559	15633	16665
70°	24047	21328	15493	14587	15493
75°	22645	19033	13475	13250	14223
80°	20809	17043	11827	12218	12943
85°	20785	15395	10004	10004	11449

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 43197 cd/sqm



TEST NUMBER: P838406

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	5.0
10°-20°	158.0	13.9
20°-30°	225.4	19.8
30°-40°	232.3	20.4
40°-50°	187.0	16.5
50°-60°	132.2	11.6
60°-70°	85.7	7.5
70°-80°	46.0	4.1
80°-90°	13.3	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°	440.1	38.7
0°-40°	672.3	59.2
0°-60°	991.5	87.2
0°-90°	1136.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1136.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	601	601	601	601	601	
5°	642	628	598	567	558	62
15°	681	644	558	477	447	193
25°	651	609	481	378	342	297
35°	475	500	356	279	250	295
45°	293	313	228	189	170	229
55°	188	182	137	115	114	169
65°	114	104	77	68	73	114
75°	60	51	36	35	38	64
85°	19	14	9	9	10	21
90°	0	0	0	0	0	



TEST NUMBER: P838406

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0	601.0
1°	607.5	610.0	608.1	608.1	606.2	605.5	606.8	604.9	604.2	603.0	600.4
2°	618.4	616.5	615.8	616.5	612.6	612.6	610.7	606.8	604.9	602.3	595.2
3°	626.1	624.8	623.6	622.9	619.0	615.8	613.3	608.8	604.9	601.7	591.4
4°	633.2	633.2	631.9	629.3	625.5	621.6	616.5	611.3	605.5	599.7	586.2
5°	641.6	642.2	636.4	635.8	631.3	625.5	619.7	612.6	605.5	597.8	583.0
6°	649.9	646.7	645.4	640.9	634.5	629.3	622.3	614.5	604.9	595.9	575.9
7°	653.8	653.2	649.9	645.4	639.6	631.3	624.2	613.9	603.6	594.6	570.8
8°	660.2	660.2	656.4	650.6	642.2	634.5	625.5	613.3	603.0	591.4	563.7
9°	664.7	664.7	659.6	654.4	646.7	636.4	626.1	612.6	599.7	586.2	557.3
10°	669.9	668.6	664.7	657.0	650.6	639.0	626.1	612.0	597.8	582.4	550.8
11°	673.7	671.8	667.3	661.5	651.2	639.6	626.1	612.0	595.2	578.5	544.4
12°	677.0	675.7	669.9	662.8	652.5	640.9	625.5	609.4	590.7	573.4	536.0
13°	680.8	677.0	671.2	664.7	653.2	639.6	622.9	605.5	587.5	568.9	529.0
14°	680.2	679.5	674.4	665.4	652.5	638.4	622.3	601.7	583.0	563.7	520.6
15°	680.8	680.2	674.4	666.0	651.9	636.4	620.3	599.1	578.5	557.9	512.2
16°	680.8	680.8	673.1	664.7	651.2	634.5	616.5	596.5	574.0	553.4	505.1
17°	680.8	680.8	674.4	662.8	649.3	633.2	612.6	591.4	568.9	547.0	494.9
18°	682.1	680.2	671.8	662.2	646.7	630.0	610.0	587.5	564.3	539.9	487.8
19°	678.9	677.6	670.5	658.3	644.8	626.1	606.2	583.0	559.8	534.1	479.4
20°	677.0	678.9	669.2	656.4	640.9	622.9	602.3	578.5	553.4	527.7	471.0
21°	677.6	677.0	666.7	653.2	638.4	618.4	597.8	573.4	546.3	519.9	463.3
22.5°	676.3	674.4	663.4	648.6	630.6	612.6	590.1	565.0	536.0	506.4	448.5
23°	673.7	671.8	663.4	647.4	628.1	610.0	586.2	559.8	532.2	501.9	444.7
24°	663.4	662.8	658.9	642.9	624.8	604.9	581.7	551.5	520.6	489.1	435.0
25°	651.2	652.5	650.6	640.3	619.7	599.1	574.6	541.2	509.7	480.7	423.4
26°	639.6	639.6	638.4	634.5	614.5	592.7	564.3	529.0	498.7	468.5	411.2
27°	624.8	627.4	624.8	622.9	609.4	585.6	553.4	520.6	486.5	456.9	400.9
28°	613.3	613.3	612.0	608.8	604.2	577.2	541.8	508.4	474.9	446.6	389.3
29°	592.7	596.5	597.2	597.8	597.2	566.3	530.9	494.9	462.7	431.8	378.4
30°	574.0	577.9	580.4	584.9	585.6	556.6	518.0	483.9	451.1	420.8	368.7
32.5°	523.2	530.2	537.3	545.0	548.9	527.7	486.5	449.2	415.7	388.7	339.1
35°	474.9	476.8	484.6	502.6	506.4	492.9	449.2	413.8	382.2	356.5	311.5
37.5°	420.2	424.1	435.0	455.6	456.9	445.9	415.7	374.5	344.9	322.4	283.1
40°	375.2	377.1	384.8	402.2	408.0	400.9	374.5	337.2	310.2	288.3	256.1
42.5°	330.1	332.7	342.3	355.9	364.2	355.9	332.7	300.5	274.1	258.0	230.4
45°	292.8	296.0	305.0	312.7	315.3	310.2	289.6	263.2	244.5	227.8	206.6
47.5°	260.6	263.8	270.3	273.5	276.7	271.6	255.5	233.6	214.9	201.4	182.1
50°	236.2	235.5	240.0	241.3	241.3	235.5	222.0	204.0	188.5	177.6	161.5
52.5°	208.5	209.8	213.0	211.7	211.1	205.9	194.3	178.9	166.0	156.4	141.6
55°	188.5	186.6	188.5	187.3	184.7	179.5	169.2	156.4	145.4	137.1	123.6
57.5°	166.7	166.7	167.3	164.7	161.5	155.7	146.7	136.4	126.8	119.7	108.8
60°	146.7	148.0	147.4	144.8	141.6	135.1	128.1	117.8	109.4	104.2	94.0



TEST NUMBER: P838406
 CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	99.7	99.7	97.8	95.9	91.4	85.6	80.4	74.0	69.5	65.0	58.6
70°	84.9	86.2	83.7	80.4	77.2	73.4	67.6	62.4	57.9	54.7	49.5
72.5°	73.4	72.7	70.8	67.6	65.0	60.5	55.3	51.5	47.6	45.0	41.2
75°	60.5	60.5	58.6	56.0	52.8	48.9	45.0	41.8	38.6	36.0	34.1
77.5°	48.3	48.9	47.0	45.0	42.5	38.6	35.4	32.8	30.2	28.3	27.0
80°	37.3	38.0	36.0	34.7	31.5	29.6	27.0	24.5	22.5	21.2	20.6
82.5°	28.3	27.7	26.4	25.7	23.2	21.2	18.7	17.4	16.1	14.8	14.8
85°	18.7	18.0	17.4	16.7	14.8	12.9	12.2	10.9	9.7	9.0	9.0
87.5°	9.7	9.7	9.0	8.4	7.7	6.4	5.8	4.5	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P838406

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	601.0	601.0	601.0
1°	598.5	595.9	595.2
2°	590.7	586.9	587.5
3°	583.7	579.1	574.6
4°	574.6	567.6	567.6
5°	566.9	559.8	557.9
6°	559.8	548.3	545.7
7°	553.4	539.3	534.7
8°	542.5	528.3	523.8
9°	534.7	519.3	514.8
10°	524.5	509.0	500.6
11°	516.1	498.7	492.3
12°	507.1	485.8	479.4
13°	496.8	474.9	471.0
14°	487.1	465.9	458.8
15°	476.8	455.0	446.6
16°	465.9	444.0	436.3
17°	456.9	432.4	426.6
18°	447.9	422.1	413.1
19°	436.9	412.5	402.2
20°	427.3	400.3	391.9
21°	417.0	391.2	382.2
22.5°	402.8	373.9	365.5
23°	398.3	368.7	359.7
24°	388.0	358.4	350.7
25°	377.7	350.7	342.3
26°	368.7	339.1	331.4
27°	359.7	330.1	321.7
28°	350.1	320.5	314.0
29°	340.4	310.2	303.7
30°	330.1	303.1	292.1
32.5°	304.4	279.9	270.9
35°	279.3	258.0	250.3
37.5°	254.8	237.5	230.4
40°	233.6	218.1	211.1
42.5°	211.7	197.6	190.5
45°	189.2	177.6	170.5
47.5°	168.6	158.9	151.2
50°	149.9	140.3	136.4
52.5°	131.9	125.5	127.4
55°	115.2	115.2	114.5
57.5°	99.1	103.6	104.2
60°	86.9	92.7	94.0



TEST NUMBER: P838406

CATALOG NUMBER: HCSQ615D010-HM60525935-61SQLWW

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	59.8	63.1	64.3
70°	51.5	54.1	54.7
72.5°	43.8	45.7	47.0
75°	35.4	38.0	38.0
77.5°	29.0	30.2	30.9
80°	21.9	22.5	23.2
82.5°	15.4	16.1	16.7
85°	9.0	9.7	10.3
87.5°	3.9	3.9	3.9
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



Report Generated By 670245859 / DESKTOP-T8S5UU9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report





62.5°	130.0	131.3	129.3	126.1	122.9	117.1	110.7	101.7	95.2	90.1	81.1
65°	113.9	114.5	113.3	110.0	106.8	101.0	94.6	86.9	81.7	76.6	68.9

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



62.5°	77.9	82.4	83.0
65°	68.2	72.1	72.7

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



(END OF REPORT)