

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: P838326

Luminaire Tested: HCSQ607D010-HM60525935-61SQLWW

Issue Date: 5/21/2024

**Test Information**

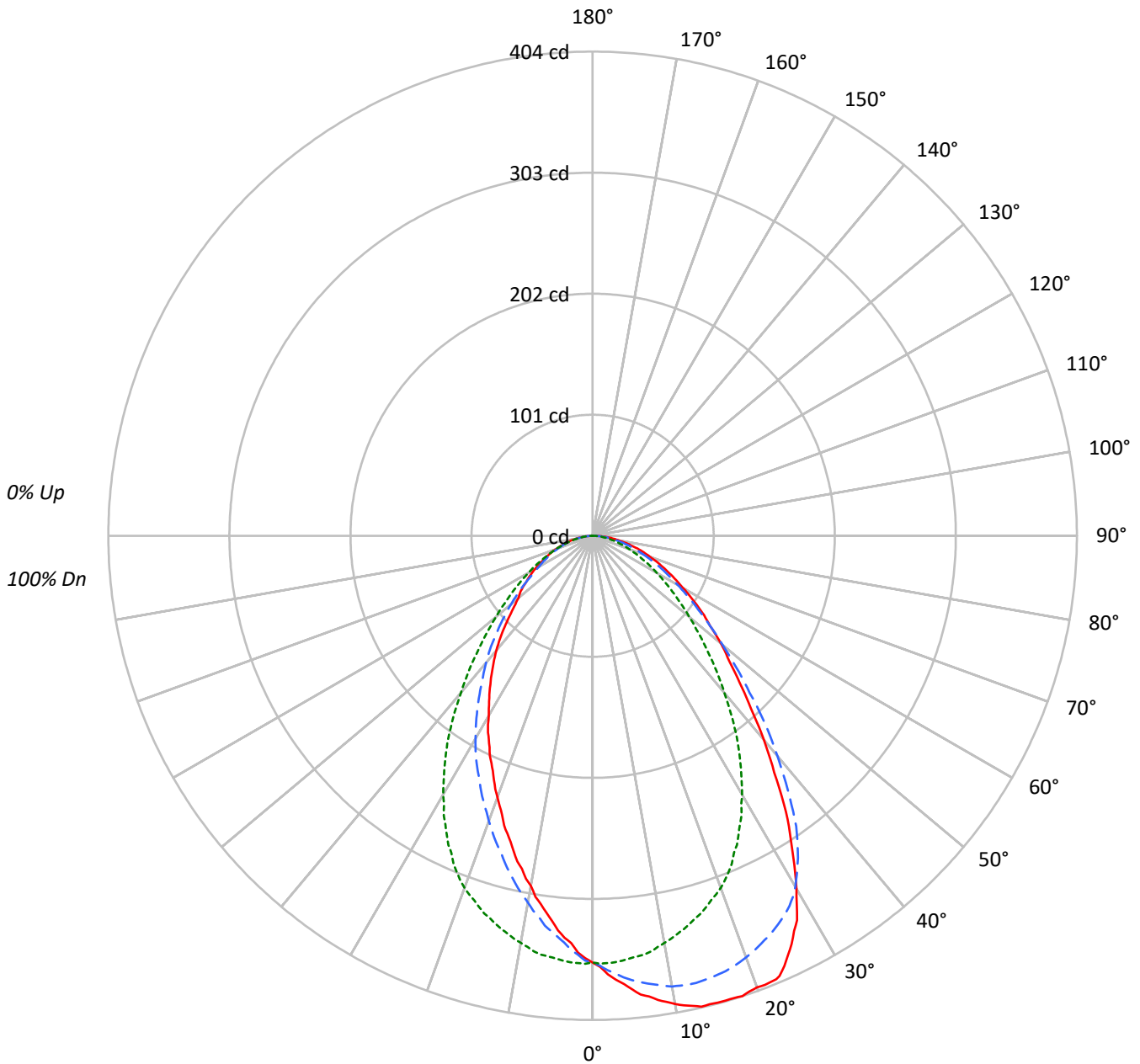
Test Method: LM-79-2019  
Report Number: P838326  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ607D010-HM60525935-61SQLWW  
Description: 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: 673.2 lumens  
Efficiency: N/A  
Efficacy: 84.2 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): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P838326  
CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

### Luminous Intensity Polar Plot





TEST NUMBER: P838326

CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87					87			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75					75			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66					66			
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58					58			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51					51			
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46					46			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42					42			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38					38			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34					34			
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32					32			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	34488	34488	34488	34488	34488
5°	36953	36195	34435	32655	32140
10°	39033	37572	33938	30564	29177
15°	40448	38267	33147	28333	26527
20°	41340	38593	32227	26093	23928
25°	41238	38587	30432	23922	21677
30°	38033	37843	27887	21869	19363
35°	33267	35006	24977	19561	17538
40°	28100	30300	21600	17502	15808
45°	23756	25380	18482	15358	13837
50°	21085	21280	15855	13383	12177
55°	18866	18216	13714	11519	11451
60°	16837	15878	11974	9978	10792
65°	15473	14109	10407	9261	9880
70°	14247	12633	9177	8639	9177
75°	13400	11285	7973	7860	8422
80°	12329	10098	7029	7252	7643
85°	12338	9114	5891	5891	6780

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 40°  
 Vertical Angle: 45°  
 Luminance: 25592 cd/sqm



TEST NUMBER: P838326

CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.6	5.0
10°-20°	93.6	13.9
20°-30°	133.5	19.8
30°-40°	137.6	20.4
40°-50°	110.8	16.5
50°-60°	78.3	11.6
60°-70°	50.8	7.5
70°-80°	27.3	4.1
80°-90°	7.9	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°	260.7	38.7
0°-40°	398.3	59.2
0°-60°	587.3	87.2
0°-90°	673.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	673.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	356	356	356	356	356	
5°	380	372	354	336	330	37
15°	403	382	330	282	264	114
25°	386	361	285	224	203	176
35°	281	296	211	165	148	175
45°	173	185	135	112	101	135
55°	112	108	81	68	68	100
65°	68	62	45	40	43	67
75°	36	30	21	21	22	38
85°	11	8	5	5	6	12
90°	0	0	0	0	0	



TEST NUMBER: P838326

CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0	356.0
1°	359.8	361.4	360.2	360.2	359.1	358.7	359.5	358.3	357.9	357.2	355.6
2°	366.3	365.2	364.8	365.2	362.9	362.9	361.7	359.5	358.3	356.8	352.6
3°	370.9	370.1	369.4	369.0	366.7	364.8	363.3	360.6	358.3	356.4	350.3
4°	375.1	375.1	374.3	372.8	370.5	368.2	365.2	362.1	358.7	355.3	347.3
5°	380.0	380.4	377.0	376.6	373.9	370.5	367.1	362.9	358.7	354.1	345.3
6°	385.0	383.1	382.3	379.7	375.8	372.8	368.6	364.0	358.3	353.0	341.2
7°	387.3	386.9	385.0	382.3	378.9	373.9	369.7	363.6	357.5	352.2	338.1
8°	391.1	391.1	388.8	385.4	380.4	375.8	370.5	363.3	357.2	350.3	333.9
9°	393.8	393.8	390.7	387.7	383.1	377.0	370.9	362.9	355.3	347.3	330.1
10°	396.8	396.0	393.8	389.2	385.4	378.5	370.9	362.5	354.1	345.0	326.3
11°	399.1	397.9	395.3	391.9	385.8	378.9	370.9	362.5	352.6	342.7	322.5
12°	401.0	400.2	396.8	392.6	386.5	379.7	370.5	361.0	349.9	339.6	317.5
13°	403.3	401.0	397.6	393.8	386.9	378.9	369.0	358.7	348.0	337.0	313.3
14°	402.9	402.5	399.5	394.1	386.5	378.1	368.6	356.4	345.3	333.9	308.4
15°	403.3	402.9	399.5	394.5	386.1	377.0	367.5	354.9	342.7	330.5	303.4
16°	403.3	403.3	398.7	393.8	385.8	375.8	365.2	353.4	340.0	327.8	299.2
17°	403.3	403.3	399.5	392.6	384.6	375.1	362.9	350.3	337.0	324.0	293.1
18°	404.0	402.9	397.9	392.2	383.1	373.2	361.4	348.0	334.3	319.8	288.9
19°	402.1	401.4	397.2	389.9	381.9	370.9	359.1	345.3	331.6	316.4	284.0
20°	401.0	402.1	396.4	388.8	379.7	369.0	356.8	342.7	327.8	312.6	279.0
21°	401.4	401.0	394.9	386.9	378.1	366.3	354.1	339.6	323.6	308.0	274.4
22.5°	400.6	399.5	393.0	384.2	373.6	362.9	349.5	334.7	317.5	300.0	265.7
23°	399.1	397.9	393.0	383.5	372.0	361.4	347.3	331.6	315.2	297.3	263.4
24°	393.0	392.6	390.3	380.8	370.1	358.3	344.6	326.7	308.4	289.7	257.7
25°	385.8	386.5	385.4	379.3	367.1	354.9	340.4	320.6	301.9	284.7	250.8
26°	378.9	378.9	378.1	375.8	364.0	351.1	334.3	313.3	295.4	277.5	243.6
27°	370.1	371.6	370.1	369.0	361.0	346.9	327.8	308.4	288.2	270.6	237.5
28°	363.3	363.3	362.5	360.6	357.9	341.9	321.0	301.1	281.3	264.5	230.6
29°	351.1	353.4	353.7	354.1	353.7	335.4	314.5	293.1	274.1	255.8	224.1
30°	340.0	342.3	343.8	346.5	346.9	329.7	306.8	286.6	267.2	249.3	218.4
32.5°	309.9	314.1	318.3	322.9	325.1	312.6	288.2	266.1	246.2	230.2	200.9
35°	281.3	282.5	287.0	297.7	300.0	292.0	266.1	245.1	226.4	211.2	184.5
37.5°	248.9	251.2	257.7	269.9	270.6	264.2	246.2	221.8	204.3	191.0	167.7
40°	222.2	223.4	227.9	238.2	241.7	237.5	221.8	199.7	183.7	170.8	151.7
42.5°	195.5	197.1	202.8	210.8	215.7	210.8	197.1	178.0	162.4	152.9	136.5
45°	173.4	175.3	180.7	185.3	186.8	183.7	171.5	155.9	144.8	134.9	122.4
47.5°	154.4	156.3	160.1	162.0	163.9	160.9	151.3	138.4	127.3	119.3	107.9
50°	139.9	139.5	142.2	142.9	142.9	139.5	131.5	120.8	111.7	105.2	95.7
52.5°	123.5	124.3	126.2	125.4	125.0	122.0	115.1	106.0	98.3	92.6	83.9
55°	111.7	110.5	111.7	110.9	109.4	106.3	100.2	92.6	86.1	81.2	73.2
57.5°	98.7	98.7	99.1	97.6	95.7	92.2	86.9	80.8	75.1	70.9	64.4
60°	86.9	87.7	87.3	85.8	83.9	80.0	75.9	69.8	64.8	61.8	55.7



TEST NUMBER: P838326  
 CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	59.1	59.1	57.9	56.8	54.1	50.7	47.6	43.8	41.2	38.5	34.7
70°	50.3	51.1	49.6	47.6	45.7	43.5	40.0	37.0	34.3	32.4	29.4
72.5°	43.5	43.1	41.9	40.0	38.5	35.8	32.8	30.5	28.2	26.7	24.4
75°	35.8	35.8	34.7	33.2	31.3	29.0	26.7	24.8	22.9	21.3	20.2
77.5°	28.6	29.0	27.8	26.7	25.2	22.9	21.0	19.4	17.9	16.8	16.0
80°	22.1	22.5	21.3	20.6	18.7	17.5	16.0	14.5	13.3	12.6	12.2
82.5°	16.8	16.4	15.6	15.2	13.7	12.6	11.1	10.3	9.5	8.8	8.8
85°	11.1	10.7	10.3	9.9	8.8	7.6	7.2	6.5	5.7	5.3	5.3
87.5°	5.7	5.7	5.3	5.0	4.6	3.8	3.4	2.7	2.3	2.3	2.3
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: P838326

CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	356.0	356.0	356.0
1°	354.5	353.0	352.6
2°	349.9	347.6	348.0
3°	345.7	343.1	340.4
4°	340.4	336.2	336.2
5°	335.8	331.6	330.5
6°	331.6	324.8	323.2
7°	327.8	319.4	316.8
8°	321.3	312.9	310.3
9°	316.8	307.6	304.9
10°	310.7	301.5	296.6
11°	305.7	295.4	291.6
12°	300.4	287.8	284.0
13°	294.3	281.3	279.0
14°	288.6	276.0	271.8
15°	282.5	269.5	264.5
16°	276.0	263.0	258.4
17°	270.6	256.2	252.7
18°	265.3	250.1	244.7
19°	258.8	244.3	238.2
20°	253.1	237.1	232.1
21°	247.0	231.8	226.4
22.5°	238.6	221.5	216.5
23°	235.9	218.4	213.1
24°	229.9	212.3	207.7
25°	223.8	207.7	202.8
26°	218.4	200.9	196.3
27°	213.1	195.5	190.6
28°	207.4	189.8	186.0
29°	201.6	183.7	179.9
30°	195.5	179.5	173.1
32.5°	180.3	165.8	160.5
35°	165.4	152.9	148.3
37.5°	150.9	140.7	136.5
40°	138.4	129.2	125.0
42.5°	125.4	117.0	112.8
45°	112.1	105.2	101.0
47.5°	99.9	94.2	89.6
50°	88.8	83.1	80.8
52.5°	78.1	74.3	75.5
55°	68.2	68.2	67.8
57.5°	58.7	61.4	61.8
60°	51.5	54.9	55.7





TEST NUMBER: P838326

CATALOG NUMBER: HCSQ607D010-HM60525935-61SQLWW

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
67.5°	35.4	37.4	38.1
70°	30.5	32.0	32.4
72.5°	25.9	27.1	27.8
75°	21.0	22.5	22.5
77.5°	17.2	17.9	18.3
80°	13.0	13.3	13.7
82.5°	9.1	9.5	9.9
85°	5.3	5.7	6.1
87.5°	2.3	2.3	2.3
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°	77.0	77.8	76.6	74.7	72.8	69.4	65.6	60.2	56.4	53.4	48.0
65°	67.5	67.8	67.1	65.2	63.3	59.8	56.0	51.5	48.4	45.4	40.8

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°	46.1	48.8	49.2
65°	40.4	42.7	43.1

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

Scaled Data Report



(END OF REPORT)