

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: P838413

Luminaire Tested: HCSQ615D010-HM60525940-61SQMW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838413
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ615D010-HM60525940-61SQMW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

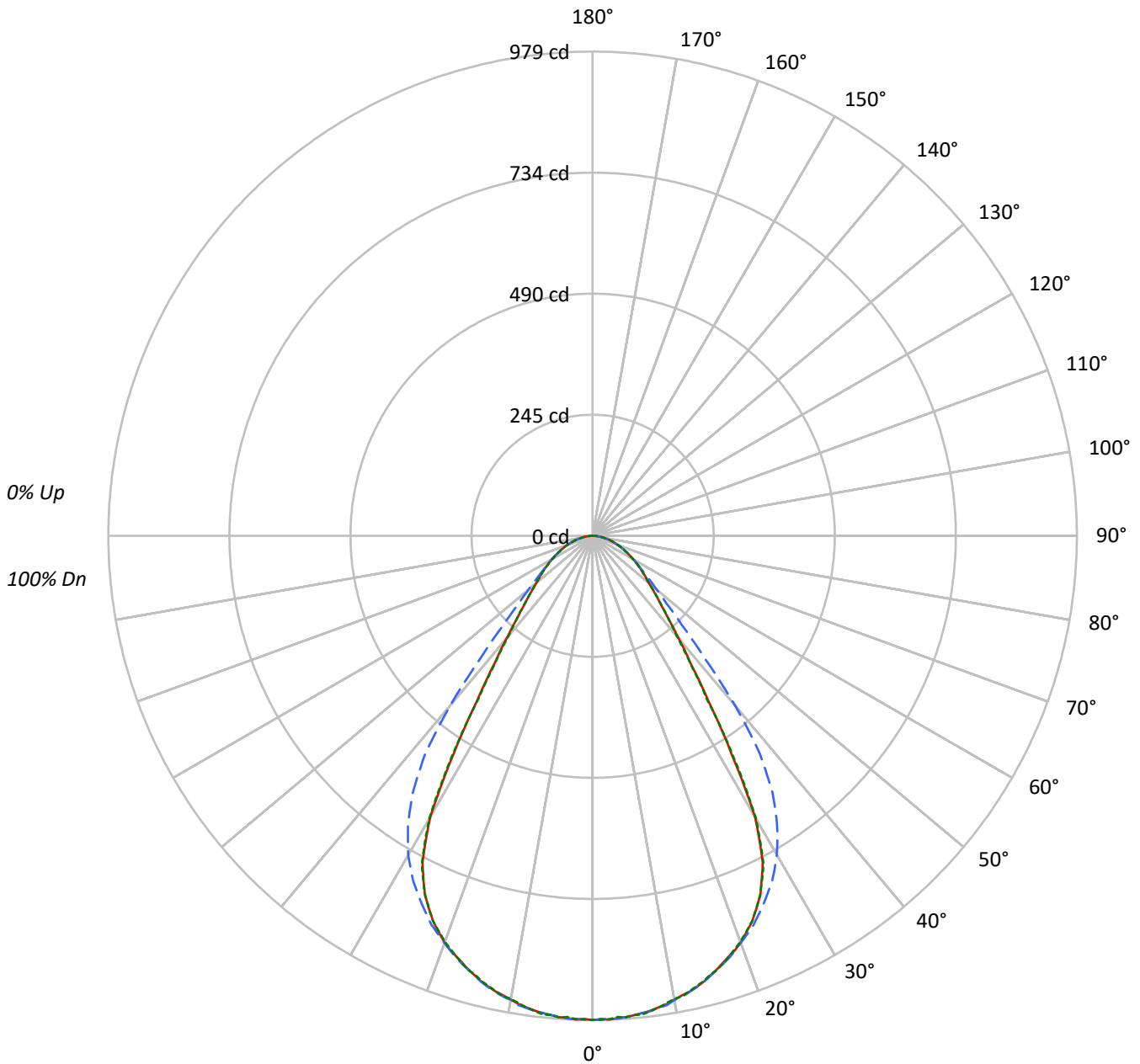
Lumens per Lamp: N/A
Luminaire Lumens: 1444.3 lumens
Efficiency: N/A
Efficacy: 103.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.08 / 1.11
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

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: P838413

CATALOG NUMBER: HCSQ615D010-HM60525940-61SQMW

Luminous Intensity Polar Plot





TEST NUMBER: P838413
 CATALOG NUMBER: HCSQ615D010-HM60525940-61SQMW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89		
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79		
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71		
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64		
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58		
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53		
7	75	63	56	51	73	63	56	51	61	55	51	60	54	50	59	54	50	48		
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44		
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41		
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42160	42160	42160
5°	42053	42023	42053
10°	41643	41674	41582
15°	41022	41053	40964
20°	40101	40133	40004
25°	38100	38913	38067
30°	32624	37049	32828
35°	21434	33303	21114
40°	15153	25112	14883
45°	11752	15460	11831
50°	9994	11273	9900
55°	8985	9248	8985
60°	8129	8129	8129
65°	7457	7386	7386
70°	6810	6810	6886
75°	6371	6155	6255
80°	5604	5604	5604
85°	4742	4742	4742

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15460 cd/sqm



TEST NUMBER: P838413

CATALOG NUMBER: HCSQ615D010-HM60525940-61SQMW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	6.4
10°-20°	259.2	17.9
20°-30°	369.4	25.6
30°-40°	315.0	21.8
40°-50°	174.3	12.1
50°-60°	109.8	7.6
60°-70°	72.9	5.0
70°-80°	40.0	2.8
80°-90°	11.4	0.8
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°	721.0	49.9
0°-40°	1036.0	71.7
0°-60°	1320.0	91.4
0°-90°	1444.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1444.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	979	979	979	979	979	
5°	973	974	972	971	973	92
15°	920	920	921	920	919	259
25°	802	812	819	811	801	362
35°	408	481	634	482	402	265
45°	193	211	254	210	194	153
55°	120	122	123	121	120	108
65°	73	74	72	73	72	73
75°	38	38	37	38	38	40
85°	10	10	10	10	10	11
90°	0	0	0	0	0	



TEST NUMBER: P838413

CATALOG NUMBER: HCSQ615D010-HM60525940-61SQMW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	979.2	979.2	979.2	979.2	979.2
1°	977.1	978.5	978.5	977.8	978.5
2°	979.2	977.1	977.1	977.1	977.8
3°	976.4	977.8	977.8	975.8	974.4
4°	975.8	975.1	975.1	977.1	975.8
5°	973.0	974.4	972.3	971.0	973.0
6°	970.3	971.0	970.3	971.0	973.0
7°	966.9	968.9	968.2	967.5	967.5
8°	962.8	965.5	964.1	964.1	963.4
9°	958.6	959.3	960.7	960.7	956.6
10°	952.5	954.5	953.2	953.9	951.1
11°	947.0	949.8	949.1	947.7	948.4
12°	942.2	943.6	942.9	940.9	941.5
13°	936.1	937.4	936.8	936.8	934.7
14°	929.2	927.9	929.9	928.5	927.9
15°	920.3	920.3	921.0	920.3	919.0
16°	912.1	912.8	912.8	912.1	912.8
17°	902.5	905.3	904.6	903.2	903.9
18°	893.6	895.7	896.4	895.7	893.6
19°	885.4	886.8	886.1	883.4	883.4
20°	875.2	875.9	875.9	874.5	873.1
22.5°	843.0	847.8	851.2	848.5	843.0
25°	802.0	811.5	819.1	810.8	801.3
27.5°	744.5	763.6	786.2	765.7	747.9
30°	656.2	700.0	745.2	704.1	660.3
32.5°	522.1	608.3	694.5	616.5	530.3
35°	407.8	481.0	633.6	481.7	401.7
37.5°	325.7	377.7	555.6	374.3	322.3
40°	269.6	304.5	446.8	303.1	264.8
42.5°	225.1	251.8	334.6	249.1	225.1
45°	193.0	211.4	253.9	210.1	194.3
47.5°	169.0	180.6	203.2	180.0	169.0
50°	149.2	156.0	168.3	155.3	147.8
52.5°	133.4	137.5	142.3	136.2	132.1
55°	119.7	121.8	123.2	121.1	119.7
57.5°	106.7	108.1	107.4	106.7	106.1
60°	94.4	95.1	94.4	95.1	94.4
62.5°	83.5	84.2	82.8	83.5	82.8
65°	73.2	73.9	72.5	73.2	72.5
67.5°	63.6	63.6	63.6	63.6	63.0
70°	54.1	54.7	54.1	54.7	54.7
72.5°	45.8	45.8	45.2	45.8	45.8
75°	38.3	37.6	37.0	37.6	37.6



TEST NUMBER: P838413

CATALOG NUMBER: HCSQ615D010-HM60525940-61SQMW

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	16.4	16.4	15.7	16.4	16.4
85°	9.6	9.6	9.6	10.3	9.6
87.5°	4.8	4.1	4.1	4.8	4.8
90°	0.0	0.0	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





77.5°	30.1	30.1	29.4	30.1	30.1
80°	22.6	23.3	22.6	23.3	22.6

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

Scaled Data Report



(END OF REPORT)