

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: P838524

Luminaire Tested: HCSQ630D010-HM63040935-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838524
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040935-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

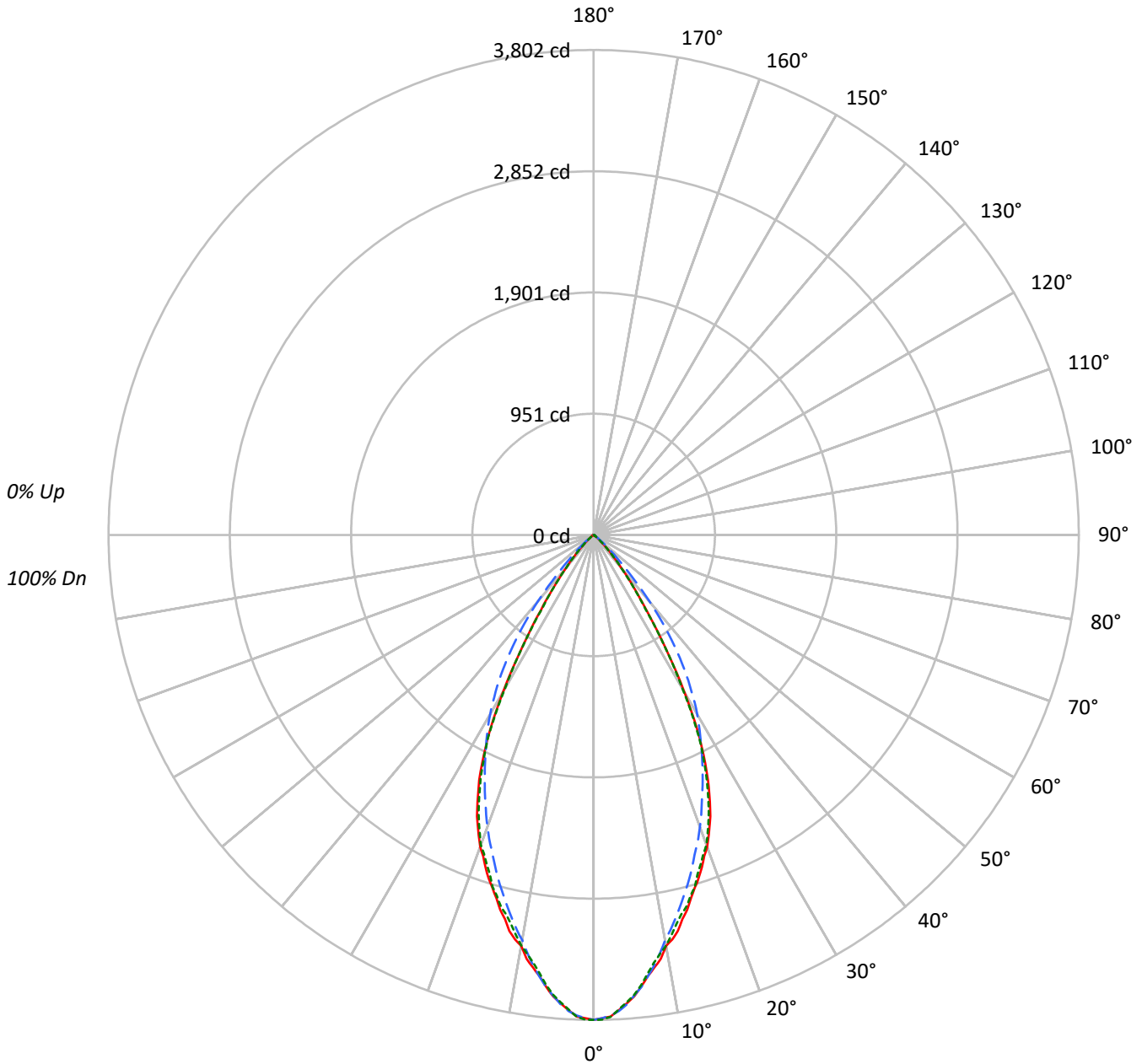
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2847.6 lumens
Efficiency: N/A
Efficacy: 101.0 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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: P838524
CATALOG NUMBER: HCSQ630D010-HM63040935-61SQC

Luminous Intensity Polar Plot





TEST NUMBER: P838524

CATALOG NUMBER: HCSQ630D010-HM63040935-61SQC

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	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100				
1	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94				94				
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87				87				
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81				81				
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76				76				
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71				71				
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66				66				
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62				62				
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59				59				
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55				55				
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52				52				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	163685	163685	163685
5°	157010	156738	156517
10°	143003	141062	142894
15°	131423	126614	130630
20°	119267	111587	118456
25°	100800	95911	99412
30°	70577	80739	69379
35°	37907	61938	37177
40°	18773	38326	18626
45°	8196	16160	8044
50°	2639	5868	2639
55°	1336	1907	1239
60°	878	878	878
65°	642	642	642
70°	478	478	478
75°	416	416	416
80°	322	322	322
85°	642	642	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°

Vertical Angle: 45°

Luminance: 16160 cd/sqm



TEST NUMBER: P838524
 CATALOG NUMBER: HCSQ630D010-HM63040935-61SQC

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.8	11.7
10°-20°	806.1	28.3
20°-30°	931.2	32.7
30°-40°	581.5	20.4
40°-50°	161.6	5.7
50°-60°	22.6	0.8
60°-70°	6.6	0.2
70°-80°	2.8	0.1
80°-90°	1.2	0.0
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°	2071.2	72.7
0°-40°	2652.7	93.2
0°-60°	2836.9	99.6
0°-90°	2847.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2847.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3802	3802	3802	3802	3802	
5°	3633	3623	3626	3621	3621	335
15°	2948	2892	2840	2885	2931	826
25°	2122	2060	2019	2058	2093	948
35°	721	890	1178	880	707	479
45°	135	171	265	170	132	117
55°	18	18	25	18	16	18
65°	6	6	6	6	6	7
75°	2	2	2	2	2	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



TEST NUMBER: P838524

CATALOG NUMBER: HCSQ630D010-HM63040935-61SQC

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3801.7	3801.7	3801.7	3801.7	3801.7
1°	3790.3	3790.3	3790.3	3800.4	3800.4
2°	3778.8	3776.3	3770.0	3777.6	3781.4
3°	3731.9	3736.9	3739.5	3735.7	3726.8
4°	3683.6	3678.5	3692.5	3683.6	3676.0
5°	3632.8	3622.7	3626.5	3621.4	3621.4
6°	3561.7	3574.4	3564.3	3555.4	3550.3
7°	3484.3	3494.4	3488.1	3475.4	3466.5
8°	3423.3	3417.0	3406.8	3404.3	3389.0
9°	3364.9	3342.0	3319.2	3323.0	3326.8
10°	3270.9	3273.5	3226.5	3262.0	3268.4
11°	3231.6	3217.6	3155.4	3184.6	3194.8
12°	3174.4	3130.0	3076.7	3100.8	3119.8
13°	3091.9	3046.2	2997.9	3034.8	3053.8
14°	3029.7	2977.6	2916.7	2963.7	3003.0
15°	2948.4	2892.5	2840.5	2884.9	2930.6
16°	2877.3	2812.5	2760.5	2803.7	2872.2
17°	2815.1	2735.1	2671.6	2717.3	2783.3
18°	2742.7	2650.0	2591.6	2639.9	2714.8
19°	2662.7	2568.8	2516.7	2556.1	2642.4
20°	2603.0	2497.6	2435.4	2473.5	2585.3
22.5°	2389.7	2279.2	2222.1	2267.8	2356.7
25°	2121.8	2059.6	2018.9	2058.3	2092.6
27.5°	1804.3	1804.3	1818.3	1801.8	1791.7
30°	1419.6	1522.5	1624.0	1517.4	1395.5
32.5°	1036.1	1201.2	1405.6	1222.8	1034.9
35°	721.2	890.1	1178.4	880.0	707.3
37.5°	501.6	613.3	929.5	619.6	495.2
40°	334.0	411.4	681.9	419.0	331.4
42.5°	218.4	271.7	440.6	273.0	213.3
45°	134.6	171.4	265.4	170.1	132.1
47.5°	78.7	101.6	154.9	102.9	77.5
50°	39.4	59.7	87.6	58.4	39.4
52.5°	22.9	31.7	48.3	30.5	22.9
55°	17.8	17.8	25.4	17.8	16.5
57.5°	14.0	14.0	14.0	14.0	12.7
60°	10.2	11.4	10.2	10.2	10.2
62.5°	8.9	8.9	7.6	8.9	7.6
65°	6.3	6.3	6.3	6.3	6.3
67.5°	5.1	5.1	5.1	5.1	5.1
70°	3.8	3.8	3.8	3.8	3.8
72.5°	2.5	3.8	2.5	3.8	3.8
75°	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P838524

CATALOG NUMBER: HCSQ630D010-HM63040935-61SQC

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3
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



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

Scaled Data Report



77.5°	2.5	2.5	2.5	2.5	1.3
80°	1.3	1.3	1.3	1.3	1.3

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

Scaled Data Report



(END OF REPORT)