

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: P837396

Luminaire Tested: HCSQ425D010-HM40525827-41SQMB

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837396
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525827-41SQMB
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: -

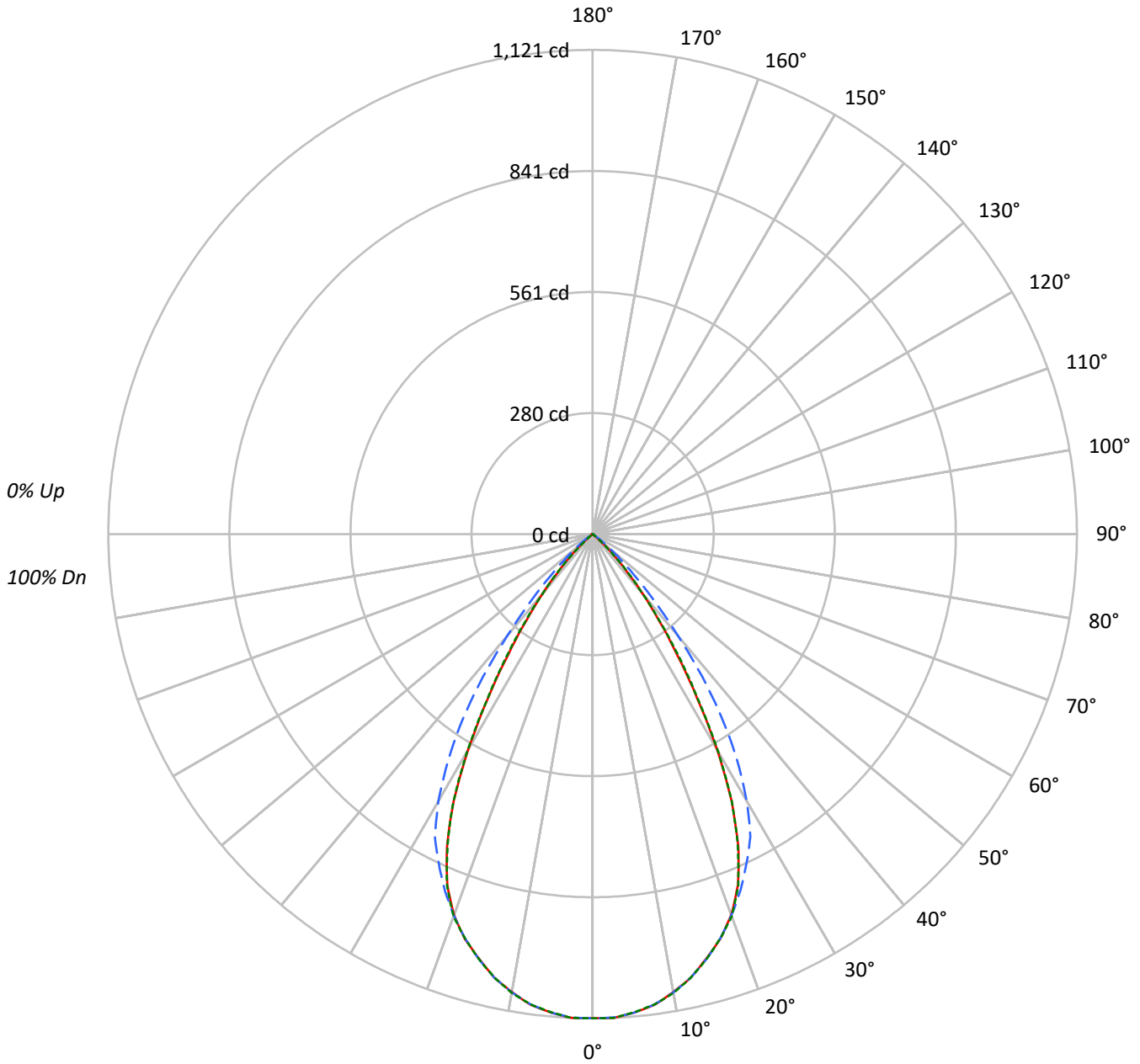
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1119.9 lumens
Efficiency: N/A
Efficacy: 40.4 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 0.96 / 0.99
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (Ain): 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					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								
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93								
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87								
3	102	96	91	87	100	94	90	86	92	88	84	89	86	83	87	84	82	80								
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74								
5	92	83	77	73	90	82	77	73	80	76	72	79	75	71	77	74	71	69								
6	87	78	72	67	85	77	71	67	76	70	67	74	70	66	73	69	66	64								
7	82	73	67	63	81	72	66	62	71	66	62	70	65	62	69	65	61	60								
8	78	69	62	58	77	68	62	58	67	62	58	66	61	58	65	61	57	56								
9	74	65	58	54	73	64	58	54	63	58	54	62	57	54	61	57	54	52								
10	71	61	55	51	70	60	55	51	60	54	51	59	54	51	58	54	50	49								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	108617	108617	108617
5°	108127	108127	108020
10°	105895	105994	106102
15°	102018	102128	102128
20°	96722	96825	97041
25°	85277	90055	84935
30°	64343	79814	64925
35°	40351	62112	41700
40°	22750	38672	22750
45°	9549	19523	9398
50°	784	7520	934
55°	355	1588	355
60°	407	194	407
65°	229	229	229
70°	283	283	283
75°	374	374	374
80°	0	558	558
85°	0	1112	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 19523 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	9.4
10°-20°	285.9	25.5
20°-30°	370.9	33.1
30°-40°	263.7	23.5
40°-50°	85.5	7.6
50°-60°	6.2	0.6
60°-70°	1.0	0.1
70°-80°	1.0	0.1
80°-90°	0.7	0.1
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°	761.8	68.0
0°-40°	1025.5	91.6
0°-60°	1117.1	99.8
0°-90°	1119.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1119.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1112	1113	1112	1112	1111	105
15°	1017	1020	1018	1020	1018	286
25°	798	819	842	823	795	357
35°	341	404	525	408	353	218
45°	70	99	142	101	69	58
55°	2	2	9	2	2	2
65°	1	1	1	1	1	1
75°	1	1	1	1	1	1
85°	0	0	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1121.2	1121.2	1121.2	1121.2	1121.2
2.5°	1121.2	1121.2	1120.2	1120.2	1121.2
5°	1111.9	1112.9	1111.9	1111.9	1110.8
7.5°	1099.4	1099.4	1098.3	1098.3	1098.3
10°	1076.5	1077.5	1077.5	1077.5	1078.6
12.5°	1051.5	1051.5	1051.5	1051.5	1051.5
15°	1017.2	1020.3	1018.3	1020.3	1018.3
17.5°	982.9	982.9	981.8	983.9	981.8
20°	938.2	938.2	939.2	941.3	941.3
22.5°	878.9	889.3	893.4	891.4	881.0
25°	797.8	818.6	842.5	822.7	794.6
27.5°	695.8	735.3	790.5	741.6	697.9
30°	575.2	634.5	713.5	636.5	580.4
32.5°	450.4	519.0	624.1	524.2	454.5
35°	341.2	403.6	525.2	407.7	352.6
37.5°	251.7	308.9	417.1	311.0	259.0
40°	179.9	221.5	305.8	225.7	179.9
42.5°	115.5	157.1	215.3	158.1	120.7
45°	69.7	98.8	142.5	100.9	68.6
47.5°	31.2	56.2	88.4	58.2	31.2
50°	5.2	22.9	49.9	23.9	6.2
52.5°	3.1	4.2	23.9	4.2	3.1
55°	2.1	2.1	9.4	2.1	2.1
57.5°	2.1	2.1	2.1	2.1	2.1
60°	2.1	1.0	1.0	1.0	2.1
62.5°	1.0	1.0	1.0	1.0	1.0
65°	1.0	1.0	1.0	1.0	1.0
67.5°	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	1.0	1.0	1.0
72.5°	1.0	1.0	1.0	1.0	1.0
75°	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0
80°	0.0	1.0	1.0	1.0	1.0
82.5°	0.0	1.0	1.0	1.0	1.0
85°	0.0	0.0	1.0	1.0	1.0
87.5°	0.0	0.0	1.0	1.0	1.0
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



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Scaled Data Report





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

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