

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



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: P837340

Luminaire Tested: HCSQ415D010-HM40525930-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837340
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ415D010-HM40525930-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

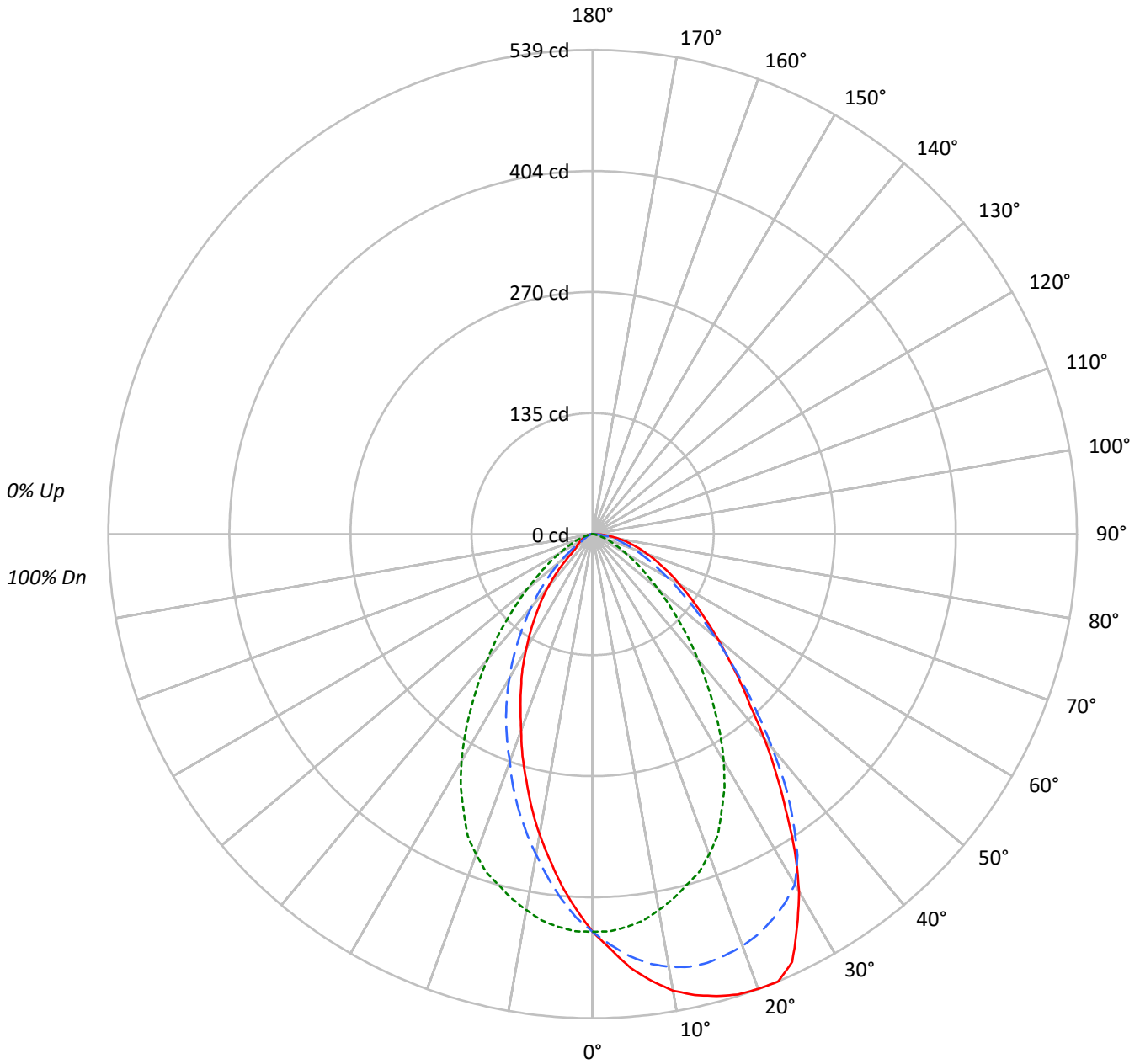
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 716.0 lumens
Efficiency: N/A
Efficacy: 51.1 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
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

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Luminous Intensity Polar Plot





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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								
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78								
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69								
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62								
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55								
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50								
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45								
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42								
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	42877	42877	42877	42877	42877
5°	47135	45851	42681	39559	38217
10°	50769	48113	41807	35639	33416
15°	53396	49555	40548	31863	28523
20°	55536	50289	39093	27763	23948
25°	56171	50602	36311	24360	20138
30°	51412	50360	32653	20717	16500
35°	44325	45957	27839	17006	13068
40°	37559	39304	23029	13418	9763
45°	31826	32593	18413	9974	6275
50°	27445	26781	14287	6722	3783
55°	24169	22058	10928	3716	3395
60°	21526	18484	8157	2073	3042
65°	19714	15840	6052	1880	2728
70°	18326	13681	4447	1784	2663
75°	17143	11978	3069	1647	2358
80°	16458	10488	2120	1729	2120
85°	16006	9114	1445	1445	1445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 33114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.5	5.8
10°-20°	114.3	16.0
20°-30°	159.8	22.3
30°-40°	156.2	21.8
40°-50°	113.3	15.8
50°-60°	68.3	9.5
60°-70°	38.4	5.4
70°-80°	19.0	2.7
80°-90°	5.2	0.7
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°	315.5	44.1
0°-40°	471.7	65.9
0°-60°	653.3	91.3
0°-90°	716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	716.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	443	443	443	443	443	
5°	485	472	439	407	393	47
15°	532	494	404	318	284	151
25°	526	473	340	228	188	237
35°	375	389	235	144	110	235
45°	232	238	134	73	46	180
55°	143	131	65	22	20	129
65°	86	69	26	8	12	86
75°	46	32	8	4	6	49
85°	14	8	1	1	1	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	442.6	442.6	442.6	442.6	442.6	442.6	442.6	442.6	442.6
2.5°	462.7	461.5	457.7	450.2	442.6	433.8	426.9	421.9	418.1
5°	484.7	482.2	471.5	455.8	438.9	421.9	406.8	398.0	393.0
7.5°	501.6	497.2	482.2	460.2	433.8	408.1	384.9	371.1	365.4
10°	516.1	508.5	489.1	459.6	425.0	391.1	362.3	345.9	339.7
12.5°	525.5	517.3	493.5	458.9	415.6	374.2	340.3	318.9	312.7
15°	532.4	522.4	494.1	453.9	404.3	356.6	317.7	292.6	284.4
17.5°	537.4	523.6	491.6	448.3	394.3	338.4	294.5	267.5	259.3
20°	538.7	523.6	487.8	440.1	379.2	320.2	269.3	242.3	232.3
22.5°	539.3	521.7	482.2	430.1	363.5	299.5	248.6	220.4	209.7
25°	525.5	515.5	473.4	413.1	339.7	276.9	227.9	197.1	188.4
27.5°	492.9	492.2	463.3	390.5	317.7	252.4	206.6	177.0	168.9
30°	459.6	460.2	450.2	365.4	291.9	229.2	185.2	156.3	147.5
32.5°	418.8	425.0	424.4	337.1	264.3	207.2	164.5	137.5	128.7
35°	374.8	386.1	388.6	305.1	235.4	182.1	143.8	119.3	110.5
37.5°	335.3	346.6	352.2	276.9	208.4	160.1	124.3	103.0	94.2
40°	297.0	306.4	310.8	244.2	182.1	137.5	106.1	86.0	77.2
42.5°	259.9	273.7	272.5	216.6	158.8	119.3	89.8	69.7	60.9
45°	232.3	241.7	237.9	187.7	134.4	100.5	72.8	54.0	45.8
47.5°	204.7	211.6	205.9	163.2	113.6	82.9	59.0	39.6	30.8
50°	182.1	185.2	177.7	138.8	94.8	67.8	44.6	26.4	25.1
52.5°	160.7	162.6	151.9	118.0	78.5	54.6	32.6	20.7	22.0
55°	143.1	142.5	130.6	99.8	64.7	42.1	22.0	18.8	20.1
57.5°	126.2	124.3	112.4	82.9	52.7	32.6	13.2	16.3	17.6
60°	111.1	109.2	95.4	68.4	42.1	24.5	10.7	14.4	15.7
62.5°	99.2	94.8	81.0	56.5	33.9	17.6	9.4	12.6	13.8
65°	86.0	82.2	69.1	45.8	26.4	12.6	8.2	10.7	11.9
67.5°	75.3	70.9	58.4	37.7	21.3	8.8	7.5	9.4	10.7
70°	64.7	60.9	48.3	30.1	15.7	5.7	6.3	8.2	9.4
72.5°	55.9	51.5	40.2	23.9	11.9	4.4	5.7	6.9	7.5
75°	45.8	42.1	32.0	18.2	8.2	3.8	4.4	5.7	6.3
77.5°	38.3	34.5	25.1	13.8	5.7	3.1	3.8	5.0	5.0
80°	29.5	26.4	18.8	9.4	3.8	1.9	3.1	3.8	3.8
82.5°	21.3	18.8	13.2	6.3	1.9	1.9	1.9	2.5	2.5
85°	14.4	12.6	8.2	3.8	1.3	1.3	1.3	1.3	1.3
87.5°	8.2	6.3	3.8	1.3	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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Scaled Data Report





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

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