

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: P837285

Luminaire Tested: HCSQ410D010-HM40525835-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837285
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: HCSQ410D010-HM40525835-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

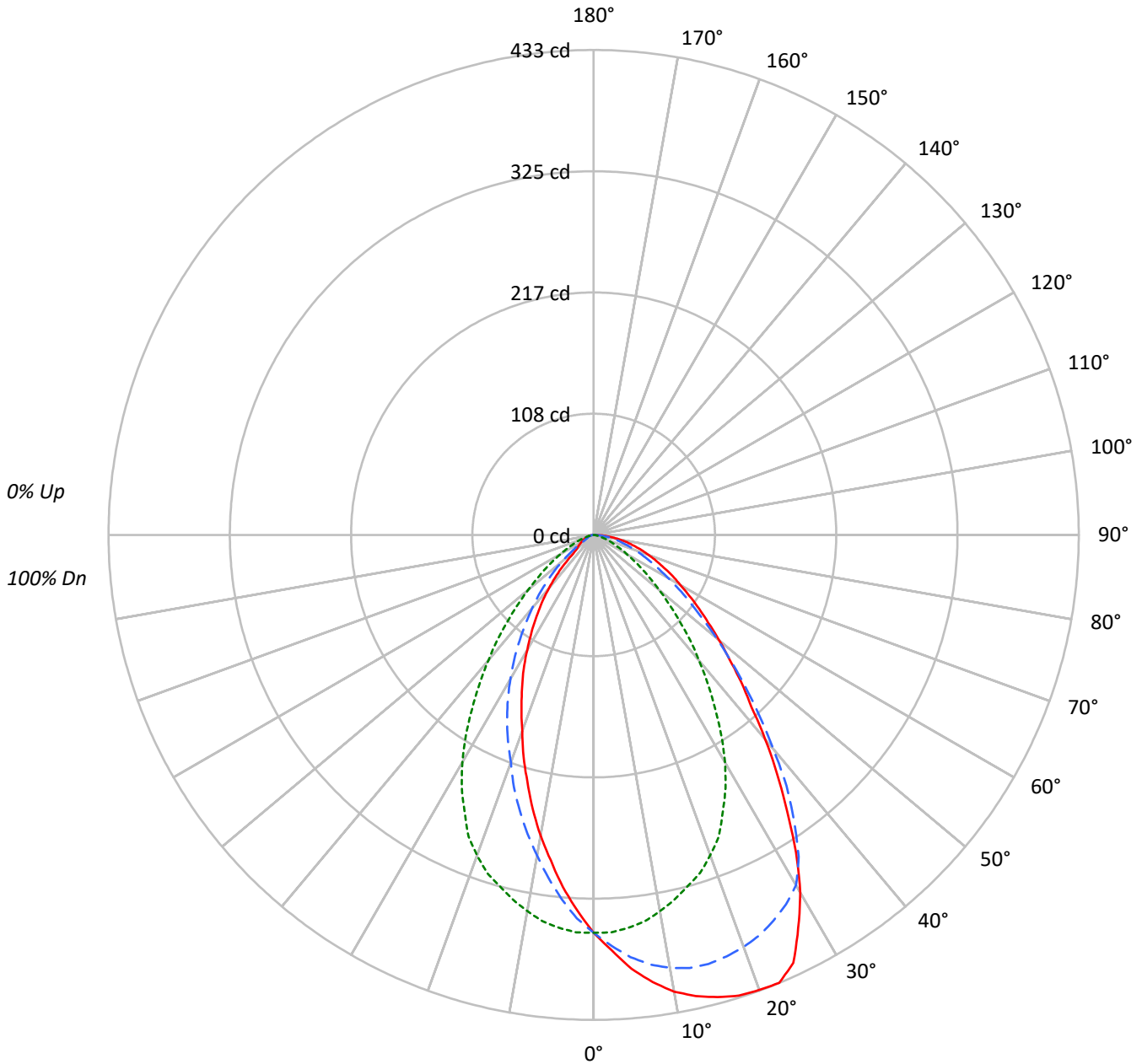
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 574.5 lumens
Efficiency: N/A
Efficacy: 58.0 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): 9.9
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										
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	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°	34410	34410	34410	34410	34410
5°	37828	36798	34250	31751	30671
10°	40735	38610	33554	28596	26816
15°	42845	39766	32545	25565	22887
20°	44567	40361	31371	22278	19216
25°	45076	40608	29138	19550	16151
30°	41255	40405	26209	16623	13244
35°	35574	36886	22340	13648	10490
40°	30136	31540	18476	10762	7841
45°	25537	26167	14769	8001	5042
50°	22019	21491	11469	5395	3044
55°	19406	17700	8766	2973	2719
60°	17283	14841	6549	1666	2441
65°	15817	12699	4860	1490	2201
70°	14700	10990	3569	1416	2153
75°	13774	9619	2433	1310	1871
80°	13222	8424	1674	1395	1674
85°	12894	7225	1112	1112	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 26578 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	5.8
10°-20°	91.7	16.0
20°-30°	128.2	22.3
30°-40°	125.3	21.8
40°-50°	90.9	15.8
50°-60°	54.8	9.5
60°-70°	30.8	5.4
70°-80°	15.2	2.7
80°-90°	4.2	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°	253.2	44.1
0°-40°	378.5	65.9
0°-60°	524.3	91.3
0°-90°	574.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	574.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	355	355	355	355	355	
5°	389	378	352	326	315	38
15°	427	396	324	255	228	121
25°	422	380	273	183	151	190
35°	301	312	189	115	89	188
45°	186	191	108	58	37	145
55°	115	105	52	18	16	103
65°	69	55	21	6	10	69
75°	37	26	6	4	5	40
85°	12	6	1	1	1	13
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°	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2	355.2
2.5°	371.3	370.3	367.3	361.2	355.2	348.1	342.6	338.6	335.6
5°	389.0	386.9	378.4	365.8	352.2	338.6	326.5	319.4	315.4
7.5°	402.6	399.0	386.9	369.3	348.1	327.5	308.8	297.8	293.2
10°	414.1	408.1	392.5	368.8	341.1	313.9	290.7	277.6	272.6
12.5°	421.7	415.2	396.0	368.3	333.5	300.3	273.1	255.9	250.9
15°	427.2	419.2	396.5	364.3	324.5	286.2	254.9	234.8	228.2
17.5°	431.3	420.2	394.5	359.7	316.4	271.6	236.3	214.6	208.1
20°	432.3	420.2	391.5	353.2	304.3	257.0	216.1	194.5	186.4
22.5°	432.8	418.7	386.9	345.1	291.7	240.3	199.5	176.8	168.3
25°	421.7	413.6	379.9	331.5	272.6	222.2	182.9	158.2	151.1
27.5°	395.5	395.0	371.8	313.4	254.9	202.5	165.8	142.1	135.5
30°	368.8	369.3	361.2	293.2	234.3	183.9	148.6	125.5	118.4
32.5°	336.1	341.1	340.6	270.6	212.1	166.3	132.0	110.3	103.3
35°	300.8	309.9	311.9	244.9	188.9	146.1	115.4	95.7	88.7
37.5°	269.0	278.1	282.6	222.2	167.3	128.5	99.8	82.6	75.6
40°	238.3	245.9	249.4	196.0	146.1	110.3	85.1	69.0	62.0
42.5°	208.6	219.7	218.7	173.8	127.5	95.7	72.0	55.9	48.9
45°	186.4	194.0	191.0	150.6	107.8	80.6	58.4	43.3	36.8
47.5°	164.2	169.8	165.3	131.0	91.2	66.5	47.4	31.7	24.7
50°	146.1	148.6	142.6	111.3	76.1	54.4	35.8	21.2	20.2
52.5°	129.0	130.5	121.9	94.7	63.0	43.8	26.2	16.6	17.6
55°	114.9	114.4	104.8	80.1	51.9	33.8	17.6	15.1	16.1
57.5°	101.3	99.8	90.2	66.5	42.3	26.2	10.6	13.1	14.1
60°	89.2	87.7	76.6	54.9	33.8	19.6	8.6	11.6	12.6
62.5°	79.6	76.1	65.0	45.3	27.2	14.1	7.6	10.1	11.1
65°	69.0	66.0	55.4	36.8	21.2	10.1	6.5	8.6	9.6
67.5°	60.5	56.9	46.9	30.2	17.1	7.1	6.0	7.6	8.6
70°	51.9	48.9	38.8	24.2	12.6	4.5	5.0	6.5	7.6
72.5°	44.8	41.3	32.2	19.1	9.6	3.5	4.5	5.5	6.0
75°	36.8	33.8	25.7	14.6	6.5	3.0	3.5	4.5	5.0
77.5°	30.7	27.7	20.2	11.1	4.5	2.5	3.0	4.0	4.0
80°	23.7	21.2	15.1	7.6	3.0	1.5	2.5	3.0	3.0
82.5°	17.1	15.1	10.6	5.0	1.5	1.5	1.5	2.0	2.0
85°	11.6	10.1	6.5	3.0	1.0	1.0	1.0	1.0	1.0
87.5°	6.5	5.0	3.0	1.0	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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