

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: P837303

Luminaire Tested: HCSQ410D010-HM40525935-41SQC

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ410D010-HM40525935-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

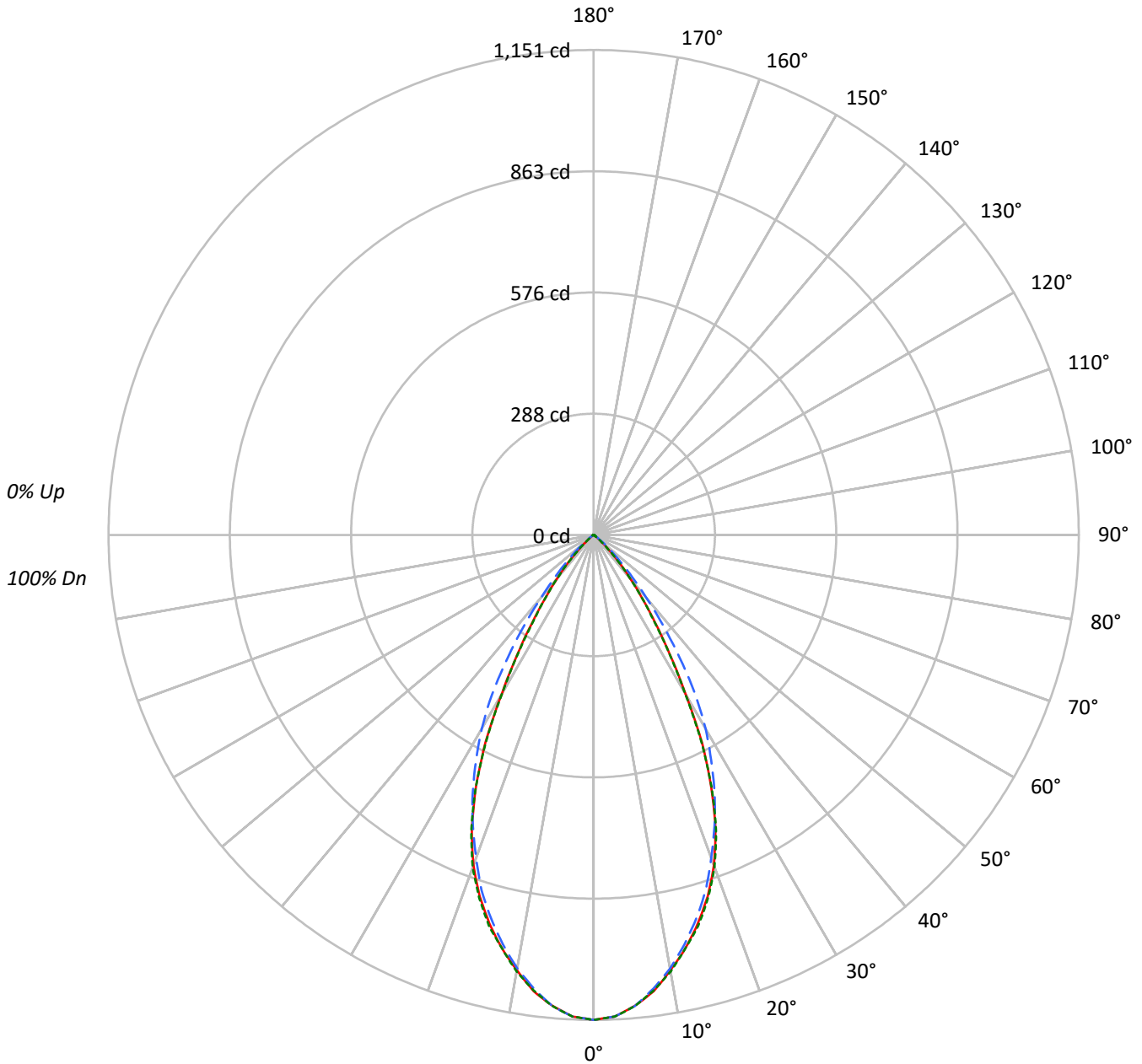
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 930.1 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.85 / 0.87
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					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	100	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94	94	94	94	94	94		
	2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87	87	87	87	87	87		
	3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81	81	81	81	81	81		
	4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76	76	76	76	76	76		
	5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71	71	71	71	71	71		
	6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66	66	66	66	66	66		
	7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62	62	62	62	62	62		
	8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58	58	58	58	58	58		
	9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55	55	55	55	55	55		
	10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52	52	52	52	52	52		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	111504	111504	111504
5°	109119	109168	109168
10°	103210	102747	103485
15°	95760	94456	96281
20°	85969	84041	86495
25°	70601	72653	70858
30°	48805	59365	48436
35°	30051	41936	29341
40°	16959	24521	16832
45°	7741	12289	7426
50°	1974	4928	2035
55°	946	1503	861
60°	639	543	717
65°	527	436	527
70°	397	397	538
75°	337	337	524
80°	502	502	502
85°	556	1000	1000

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12289 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	11.3
10°-20°	264.4	28.4
20°-30°	302.3	32.5
30°-40°	187.7	20.2
40°-50°	59.1	6.4
50°-60°	7.7	0.8
60°-70°	2.3	0.2
70°-80°	1.2	0.1
80°-90°	0.8	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°	671.4	72.2
0°-40°	859.1	92.4
0°-60°	925.9	99.5
0°-90°	930.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	930.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1122	1121	1123	1122	1123	105
15°	955	948	942	948	960	266
25°	660	670	680	670	663	296
35°	254	293	355	286	248	163
45°	56	68	90	68	54	48
55°	6	6	9	6	5	6
65°	2	2	2	2	2	2
75°	1	1	1	1	1	1
85°	0	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1144.0	1145.0	1144.0	1145.9	1144.0
5°	1122.1	1121.1	1122.6	1121.6	1122.6
7.5°	1092.2	1086.6	1086.1	1089.9	1090.3
10°	1049.2	1047.8	1044.5	1047.8	1052.0
12.5°	1005.3	999.7	995.0	1001.6	1005.3
15°	954.8	947.8	941.8	947.8	960.0
17.5°	899.3	889.4	884.3	891.3	903.0
20°	833.9	823.6	815.2	821.2	839.0
22.5°	755.4	754.4	748.8	752.1	758.6
25°	660.5	669.9	679.7	669.9	662.9
27.5°	556.4	581.6	604.0	574.6	552.2
30°	436.3	474.6	530.7	471.8	433.0
32.5°	337.3	377.5	448.9	372.3	334.5
35°	254.1	293.4	354.6	286.4	248.1
37.5°	186.9	216.3	269.5	214.4	186.9
40°	134.1	153.2	193.9	152.8	133.1
42.5°	93.0	105.6	135.5	104.6	90.2
45°	56.5	67.7	89.7	68.2	54.2
47.5°	29.9	43.0	56.5	41.1	29.9
50°	13.1	22.9	32.7	22.4	13.5
52.5°	7.0	9.8	17.8	9.8	7.0
55°	5.6	5.6	8.9	5.6	5.1
57.5°	4.2	4.2	4.7	4.2	4.2
60°	3.3	3.3	2.8	3.3	3.7
62.5°	2.8	2.8	2.3	2.8	2.8
65°	2.3	2.3	1.9	2.3	2.3
67.5°	1.9	1.9	1.9	1.9	1.9
70°	1.4	1.4	1.4	1.9	1.9
72.5°	1.4	1.4	1.4	1.4	1.4
75°	0.9	0.9	0.9	0.9	1.4
77.5°	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9
82.5°	0.5	0.9	0.9	0.9	0.9
85°	0.5	0.9	0.9	0.9	0.9
87.5°	0.5	0.5	0.9	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report





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

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