

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: P837198

Luminaire Tested: HCSQ405D010-HM40525830-41SQC

Issue Date: 5/17/2024



Test Information

Test Method: LM-79-2019
Report Number: P837198
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: HCSQ405D010-HM40525830-41SQC
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

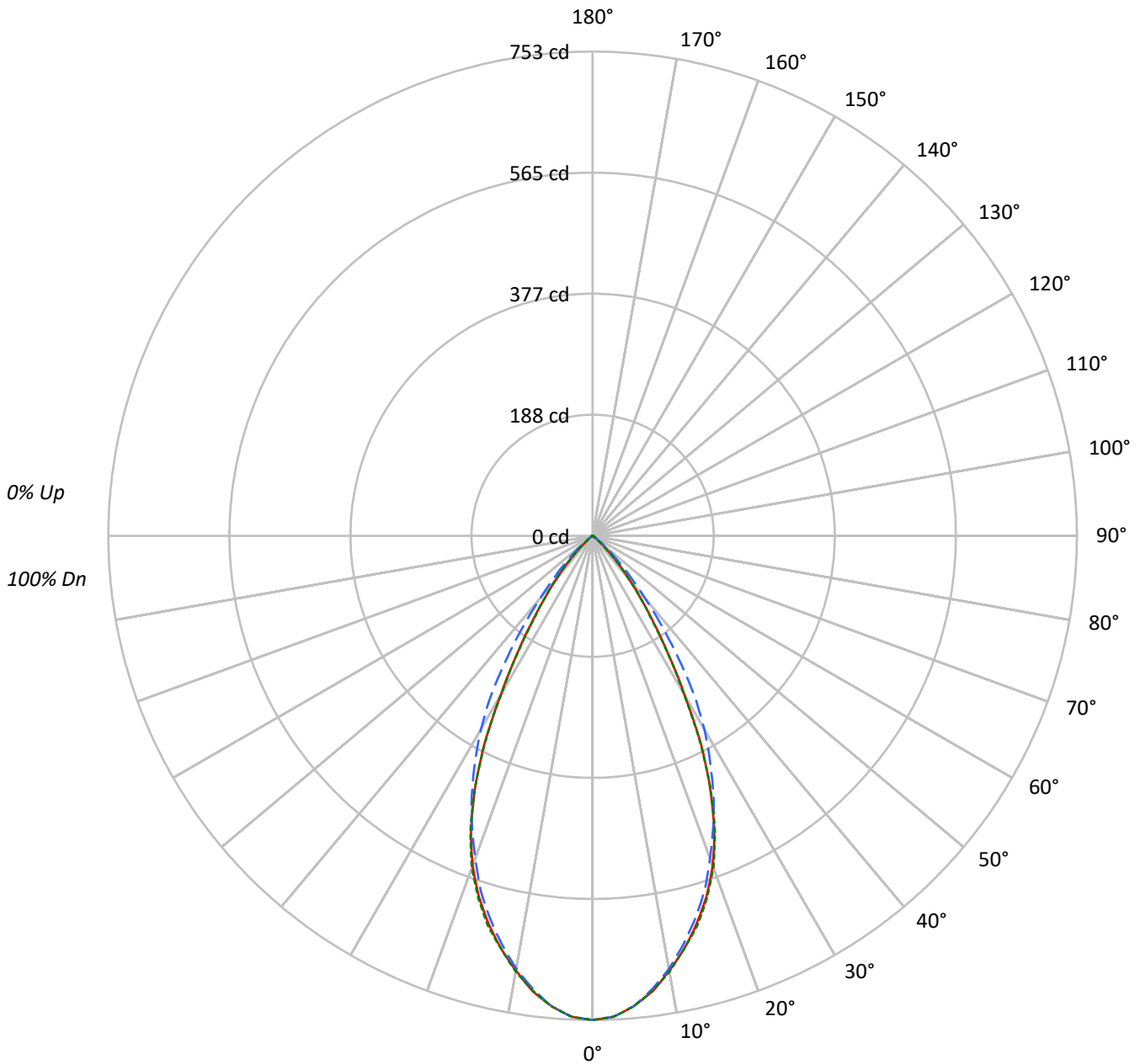
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 608.6 lumens
Efficiency: N/A
Efficacy: 101.4 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): 6
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									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	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94																			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	96	91	87	101	95	90	87	92	89	85	90	87	84	88	85	83	81																			
4	98	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76																			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71																			
6	88	79	73	69	87	79	73	69	77	72	68	76	71	68	74	70	68	66																			
7	84	75	69	65	82	74	68	64	73	68	64	72	67	64	70	66	63	62																			
8	80	70	64	60	79	70	64	60	69	64	60	68	63	60	67	63	60	58																			
9	76	67	61	57	75	66	60	57	65	60	56	64	60	56	63	59	56	55																			
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	72967	72967	72967
5°	71407	71437	71437
10°	67541	67236	67718
15°	62663	61810	63004
20°	56247	54990	56598
25°	46198	47545	46369
30°	31937	38850	31702
35°	19667	27437	19194
40°	11091	16048	11015
45°	5069	8042	4864
50°	1296	3225	1341
55°	625	980	574
60°	407	349	465
65°	344	275	344
70°	255	255	340
75°	225	225	337
80°	335	335	335
85°	333	667	667

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8042 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	11.3
10°-20°	173.0	28.4
20°-30°	197.8	32.5
30°-40°	122.8	20.2
40°-50°	38.7	6.4
50°-60°	5.0	0.8
60°-70°	1.5	0.2
70°-80°	0.8	0.1
80°-90°	0.5	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°	439.4	72.2
0°-40°	562.2	92.4
0°-60°	605.9	99.5
0°-90°	608.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	608.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	734	734	735	734	735	69
15°	625	620	616	620	628	174
25°	432	438	445	438	434	194
35°	166	192	232	187	162	107
45°	37	44	59	45	36	31
55°	4	4	6	4	3	4
65°	2	2	1	2	2	1
75°	1	1	1	1	1	1
85°	0	1	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°	753.2	753.2	753.2	753.2	753.2
2.5°	748.6	749.2	748.6	749.8	748.6
5°	734.3	733.6	734.6	733.9	734.6
7.5°	714.7	711.0	710.7	713.2	713.5
10°	686.6	685.6	683.5	685.6	688.4
12.5°	657.8	654.2	651.1	655.4	657.8
15°	624.8	620.2	616.3	620.2	628.2
17.5°	588.4	582.0	578.7	583.2	590.9
20°	545.6	538.9	533.4	537.4	549.0
22.5°	494.3	493.7	490.0	492.2	496.4
25°	432.2	438.4	444.8	438.4	433.8
27.5°	364.1	380.6	395.2	376.0	361.3
30°	285.5	310.6	347.3	308.7	283.4
32.5°	220.7	247.0	293.8	243.6	218.9
35°	166.3	192.0	232.0	187.4	162.3
37.5°	122.3	141.5	176.4	140.3	122.3
40°	87.7	100.3	126.9	100.0	87.1
42.5°	60.8	69.1	88.6	68.5	59.0
45°	37.0	44.3	58.7	44.6	35.5
47.5°	19.6	28.1	37.0	26.9	19.6
50°	8.6	15.0	21.4	14.7	8.9
52.5°	4.6	6.4	11.6	6.4	4.6
55°	3.7	3.7	5.8	3.7	3.4
57.5°	2.8	2.8	3.1	2.8	2.8
60°	2.1	2.1	1.8	2.1	2.4
62.5°	1.8	1.8	1.5	1.8	1.8
65°	1.5	1.5	1.2	1.5	1.5
67.5°	1.2	1.2	1.2	1.2	1.2
70°	0.9	0.9	0.9	1.2	1.2
72.5°	0.9	0.9	0.9	0.9	0.9
75°	0.6	0.6	0.6	0.6	0.9
77.5°	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6
82.5°	0.3	0.6	0.6	0.6	0.6
85°	0.3	0.6	0.6	0.6	0.6
87.5°	0.3	0.3	0.6	0.6	0.6
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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