

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO COMMERCIAL

Report Number: P580837

Luminaire Tested: **HC450D010-HM44560827-41MDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580837  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560827-41MDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4348.8 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1 / 0.96  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

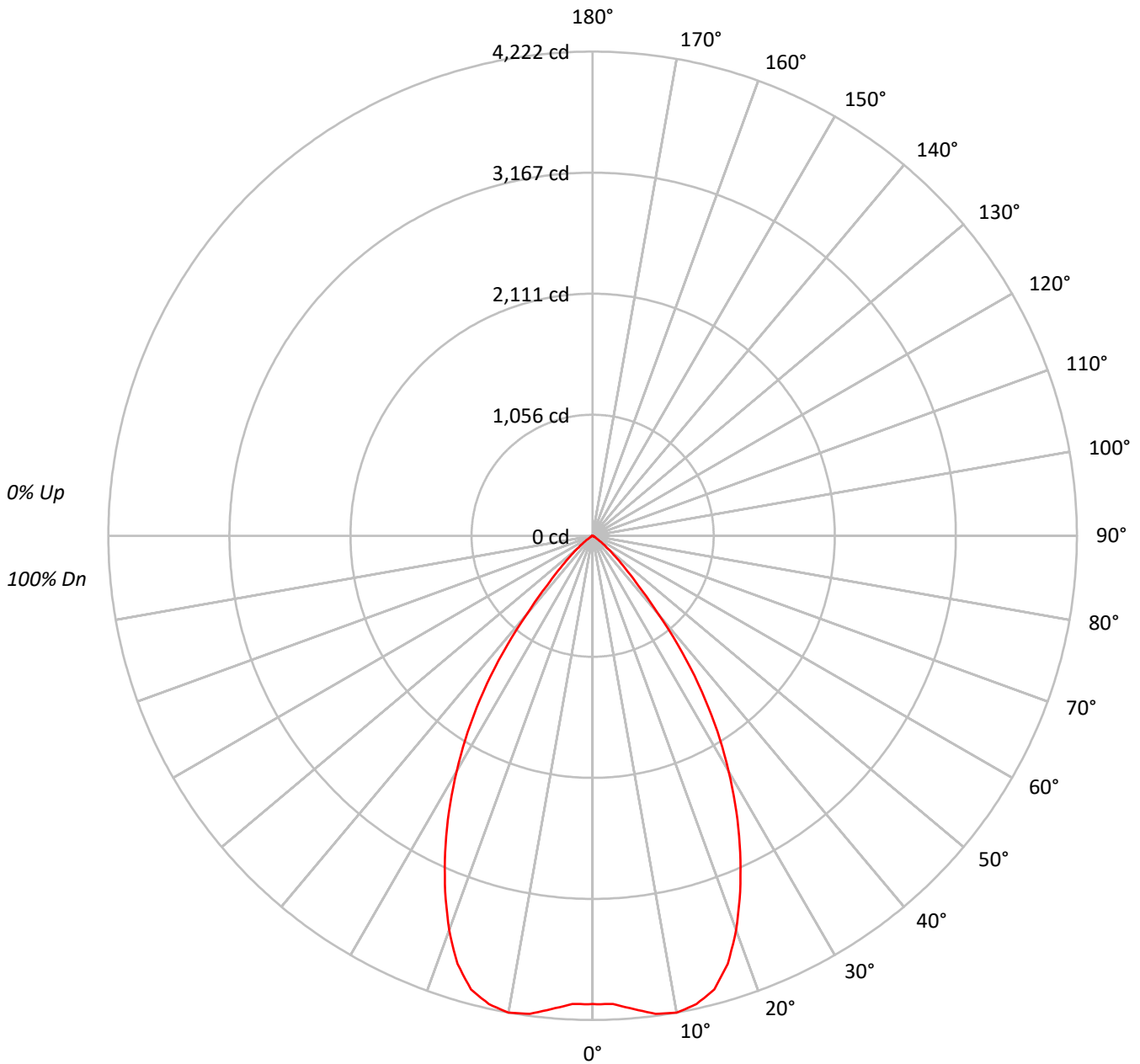
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	86			
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80			
4	97	89	83	79	95	88	82	78	86	81	77	84	80	77	82	78	76	74			
5	91	83	77	72	90	82	76	72	80	75	72	78	74	71	77	73	70	69			
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64			
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60			
8	78	68	62	58	77	68	62	58	67	61	57	65	61	57	65	60	57	56			
9	74	64	58	54	73	64	58	54	63	57	54	62	57	54	61	57	53	52			
10	70	61	55	51	69	60	54	51	59	54	50	58	54	50	58	53	50	49			

**AVERAGE LUMINANCE (cd/sqm):**

	0°
0°	503731
5°	512985
10°	528799
15°	522931
20°	480195
25°	414265
30°	337595
35°	249973
40°	143401
45°	69321
50°	32986
55°	11526
60°	4169
65°	2452
70°	2020
75°	1334
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	398.5	9.2
10°-20°	1135.3	26.1
20°-30°	1386.4	31.9
30°-40°	1019.2	23.4
40°-50°	337.8	7.8
50°-60°	59.7	1.4
60°-70°	9.0	0.2
70°-80°	2.9	0.1
80°-90°	0.0	0.0
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°	2920.2	67.1
0°-40°	3939.4	90.6
0°-60°	4336.9	99.7
0°-90°	4348.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4348.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4084	
5°	4143	398
15°	4095	1135
25°	3044	1386
35°	1660	1019
45°	397	338
55°	54	60
65°	8	9
75°	3	3
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4083.9
2.5°	4086.7
5°	4143.1
7.5°	4205.1
10°	4222.0
12.5°	4182.6
15°	4095.1
17.5°	3914.8
20°	3658.3
22.5°	3359.5
25°	3043.9
27.5°	2714.1
30°	2370.3
32.5°	2026.5
35°	1660.1
37.5°	1288.0
40°	890.6
42.5°	589.0
45°	397.4
47.5°	264.9
50°	171.9
52.5°	101.5
55°	53.6
57.5°	22.6
60°	16.9
62.5°	11.3
65°	8.4
67.5°	5.6
70°	5.6
72.5°	2.8
75°	2.8
77.5°	2.8
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)