

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: P592897

Luminaire Tested: **HC450D010-HM44560950-41NDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592897  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560950-41NDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4053.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

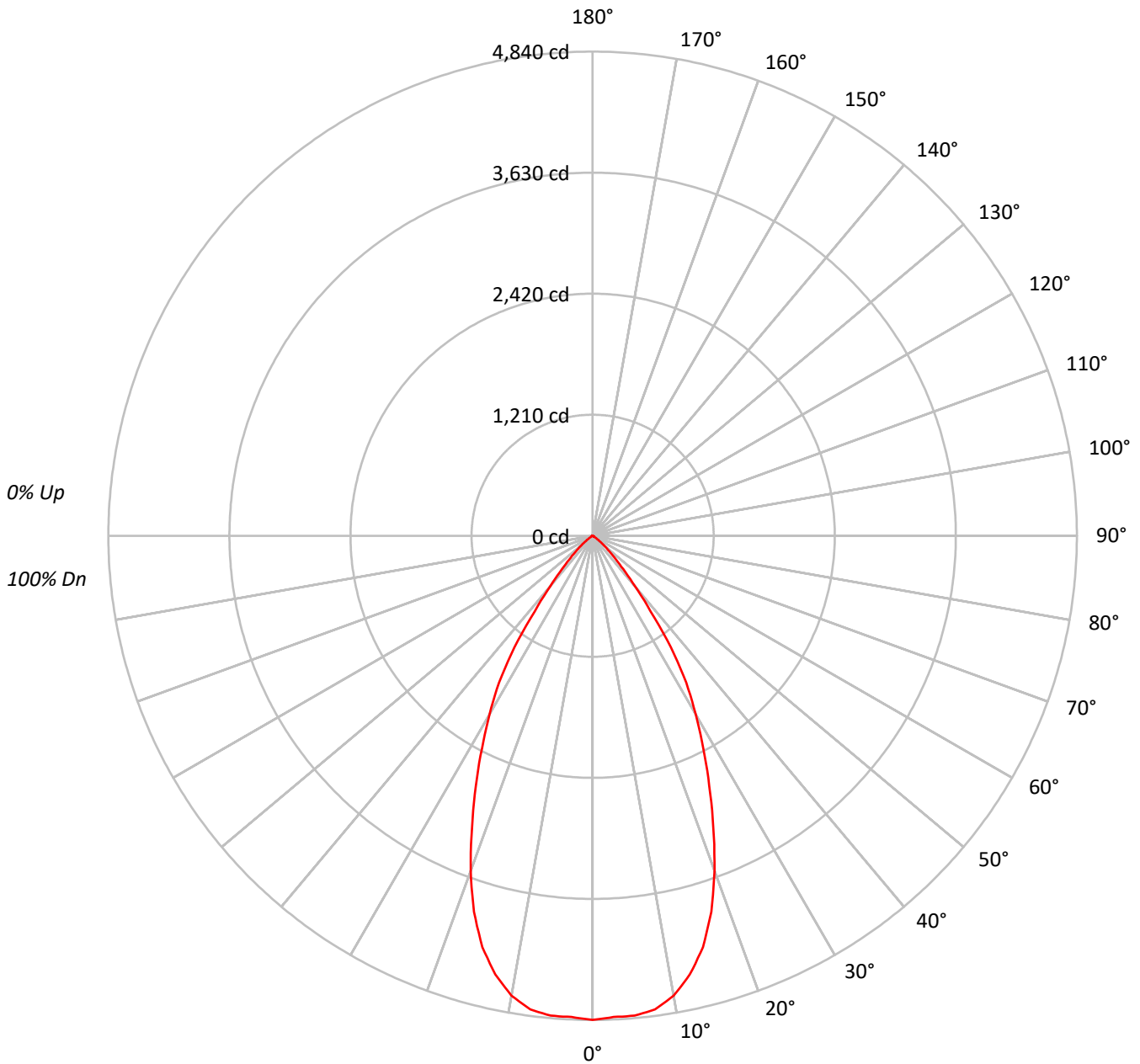
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	114	111	108	106	111	109	106	104	105	103	101	101	100	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	88	85	90	87	84	88	85	83	81			
4	97	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	78	73	69	77	72	68	75	71	68	74	70	67	66			
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62			
8	80	70	64	60	78	70	64	60	69	64	60	68	63	60	67	62	59	58			
9	76	66	61	57	75	66	60	57	65	60	56	64	59	56	63	59	56	55			
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	51			

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

	0°
0°	596956
5°	596190
10°	584572
15°	543554
20°	467462
25°	375532
30°	293201
35°	205282
40°	105337
45°	53482
50°	26788
55°	10000
60°	4046
65°	3210
70°	1947
75°	1334
80°	1989
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	455.3	11.2
10°-20°	1175.0	29.0
20°-30°	1265.8	31.2
30°-40°	831.7	20.5
40°-50°	258.6	6.4
50°-60°	50.8	1.3
60°-70°	10.8	0.3
70°-80°	4.0	0.1
80°-90°	1.1	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°	2896.0	71.5
0°-40°	3727.7	92.0
0°-60°	4037.1	99.6
0°-90°	4053.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4053.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4840	
5°	4815	455
15°	4257	1175
25°	2759	1266
35°	1363	832
45°	307	259
55°	46	51
65°	11	11
75°	3	4
85°	0	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4839.7
2.5°	4815.1
5°	4815.1
7.5°	4776.8
10°	4667.3
12.5°	4492.1
15°	4256.6
17.5°	3941.9
20°	3561.3
22.5°	3150.7
25°	2759.3
27.5°	2395.2
30°	2058.6
32.5°	1741.0
35°	1363.3
37.5°	949.9
40°	654.2
42.5°	451.7
45°	306.6
47.5°	208.0
50°	139.6
52.5°	87.6
55°	46.5
57.5°	19.2
60°	16.4
62.5°	13.7
65°	11.0
67.5°	8.2
70°	5.4
72.5°	5.4
75°	2.8
77.5°	2.8
80°	2.8
82.5°	2.8
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)