

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: P580833

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580833  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560827-41MDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4140.5 lumens  
Efficiency: N/A  
Efficacy: 86.3 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

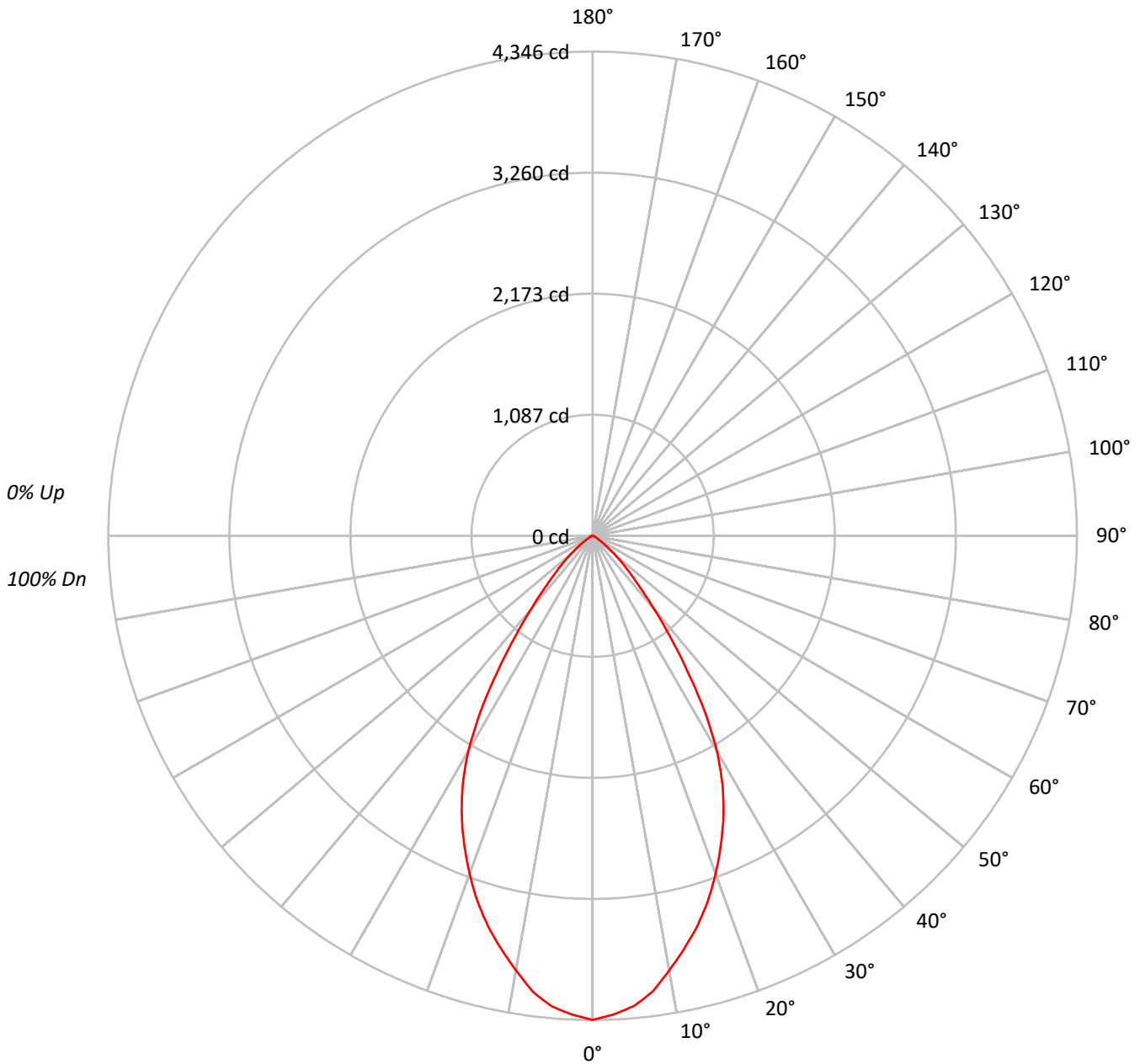
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93		
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86		
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79		
4	96	88	82	78	94	87	81	77	85	80	76	82	79	75	81	77	74	73		
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67		
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62		
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58		
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54		
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51		
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	47		

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

	0°
0°	536011
5°	524810
10°	495959
15°	463220
20°	423660
25°	378322
30°	317698
35°	223502
40°	137862
45°	82526
50°	48645
55°	24236
60°	12507
65°	8201
70°	5085
75°	4003
80°	1989
85°	3963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	395.8	9.6
10°-20°	1014.0	24.5
20°-30°	1264.6	30.5
30°-40°	931.5	22.5
40°-50°	383.1	9.3
50°-60°	111.9	2.7
60°-70°	28.8	0.7
70°-80°	8.9	0.2
80°-90°	1.9	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°	2674.4	64.6
0°-40°	3605.9	87.1
0°-60°	4100.9	99.0
0°-90°	4140.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4140.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4346	
5°	4239	396
15°	3628	1014
25°	2780	1265
35°	1484	932
45°	473	383
55°	113	112
65°	28	29
75°	8	9
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4345.6
2.5°	4300.6
5°	4238.6
7.5°	4126.0
10°	3959.8
12.5°	3796.5
15°	3627.5
17.5°	3438.8
20°	3227.6
22.5°	3007.9
25°	2779.8
27.5°	2526.3
30°	2230.6
32.5°	1872.9
35°	1484.3
37.5°	1140.7
40°	856.2
42.5°	633.6
45°	473.1
47.5°	349.3
50°	253.5
52.5°	174.6
55°	112.7
57.5°	67.6
60°	50.7
62.5°	36.6
65°	28.1
67.5°	19.7
70°	14.1
72.5°	11.3
75°	8.4
77.5°	5.6
80°	2.8
82.5°	2.8
85°	2.8
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)