

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: P580870

Luminaire Tested: **HC450D010-HM44560835-41NDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580870  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560835-41NDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4364.4 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

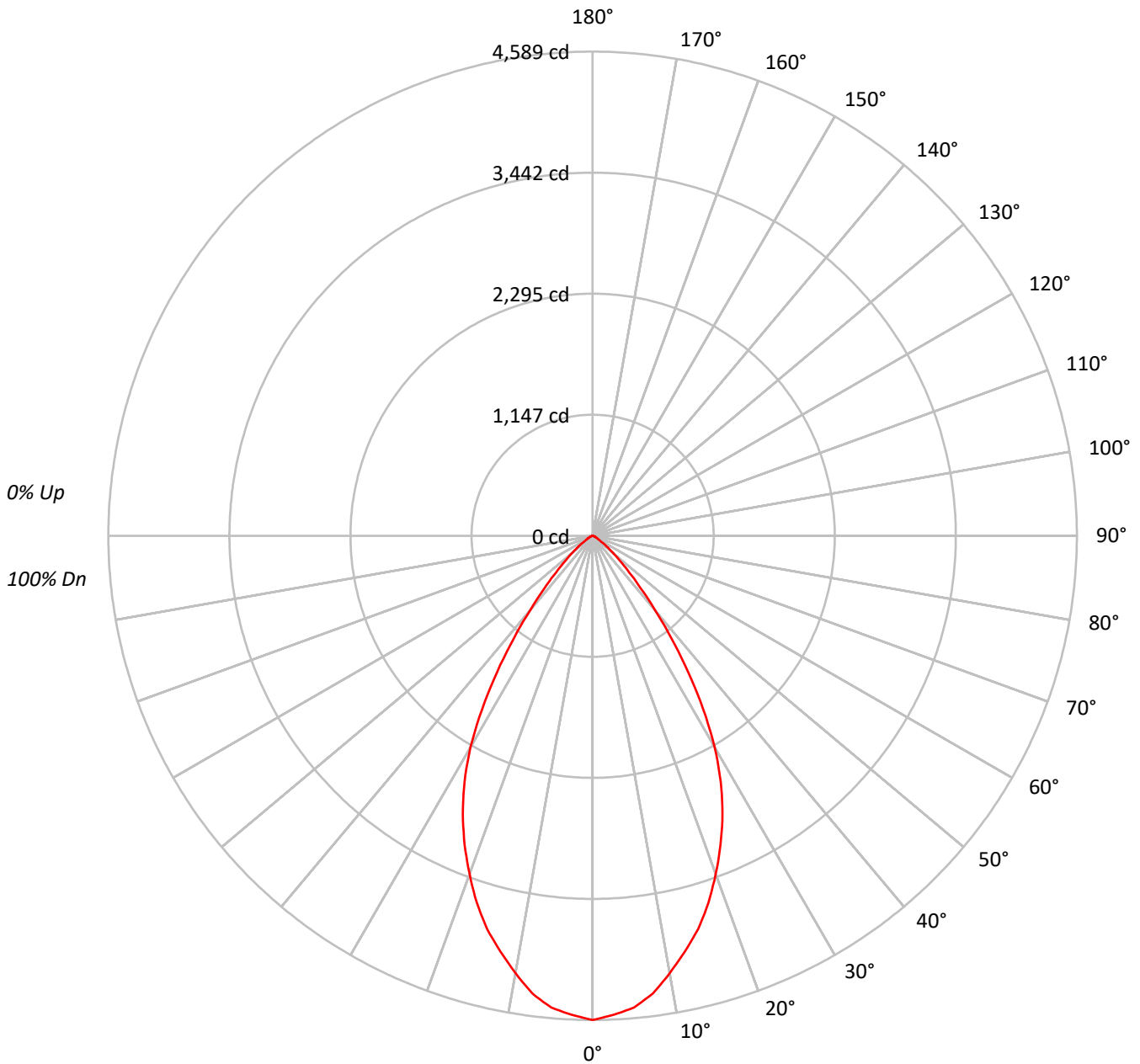
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86	86	86	86
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79	79	79	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73	73	73	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63	63	63	63
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58	58	58	58
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	54	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	51
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48	48	48	48

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

	0°
0°	566082
5°	555789
10°	527171
15°	492922
20°	447681
25°	396137
30°	329505
35°	237611
40°	148296
45°	85544
50°	48261
55°	22967
60°	13198
65°	10069
70°	6780
75°	4480
80°	4475
85°	4387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	419.6	9.6
10°-20°	1076.8	24.7
20°-30°	1324.4	30.3
30°-40°	983.6	22.5
40°-50°	399.9	9.2
50°-60°	110.7	2.5
60°-70°	34.5	0.8
70°-80°	11.6	0.3
80°-90°	3.4	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°	2820.8	64.6
0°-40°	3804.3	87.2
0°-60°	4314.9	98.9
0°-90°	4364.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4364.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4589	
5°	4489	420
15°	3860	1077
25°	2911	1324
35°	1578	984
45°	490	400
55°	107	111
65°	34	34
75°	9	12
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4589.4
2.5°	4545.3
5°	4488.8
7.5°	4375.6
10°	4209.0
12.5°	4036.1
15°	3860.1
17.5°	3649.4
20°	3410.6
22.5°	3168.6
25°	2910.7
27.5°	2631.0
30°	2313.5
32.5°	1952.1
35°	1578.0
37.5°	1225.9
40°	921.0
42.5°	672.7
45°	490.4
47.5°	352.0
50°	251.5
52.5°	172.9
55°	106.8
57.5°	69.2
60°	53.5
62.5°	44.1
65°	34.5
67.5°	25.1
70°	18.8
72.5°	15.7
75°	9.4
77.5°	6.3
80°	6.3
82.5°	3.1
85°	3.1
87.5°	3.1
90°	0.0



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— 0°-180°







(END OF REPORT)