

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: P580942

Luminaire Tested: **HC450D010-HM44560935-41NDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580942  
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-HM44560935-41NDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3830.9 lumens  
Efficiency: N/A  
Efficacy: 79.8 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

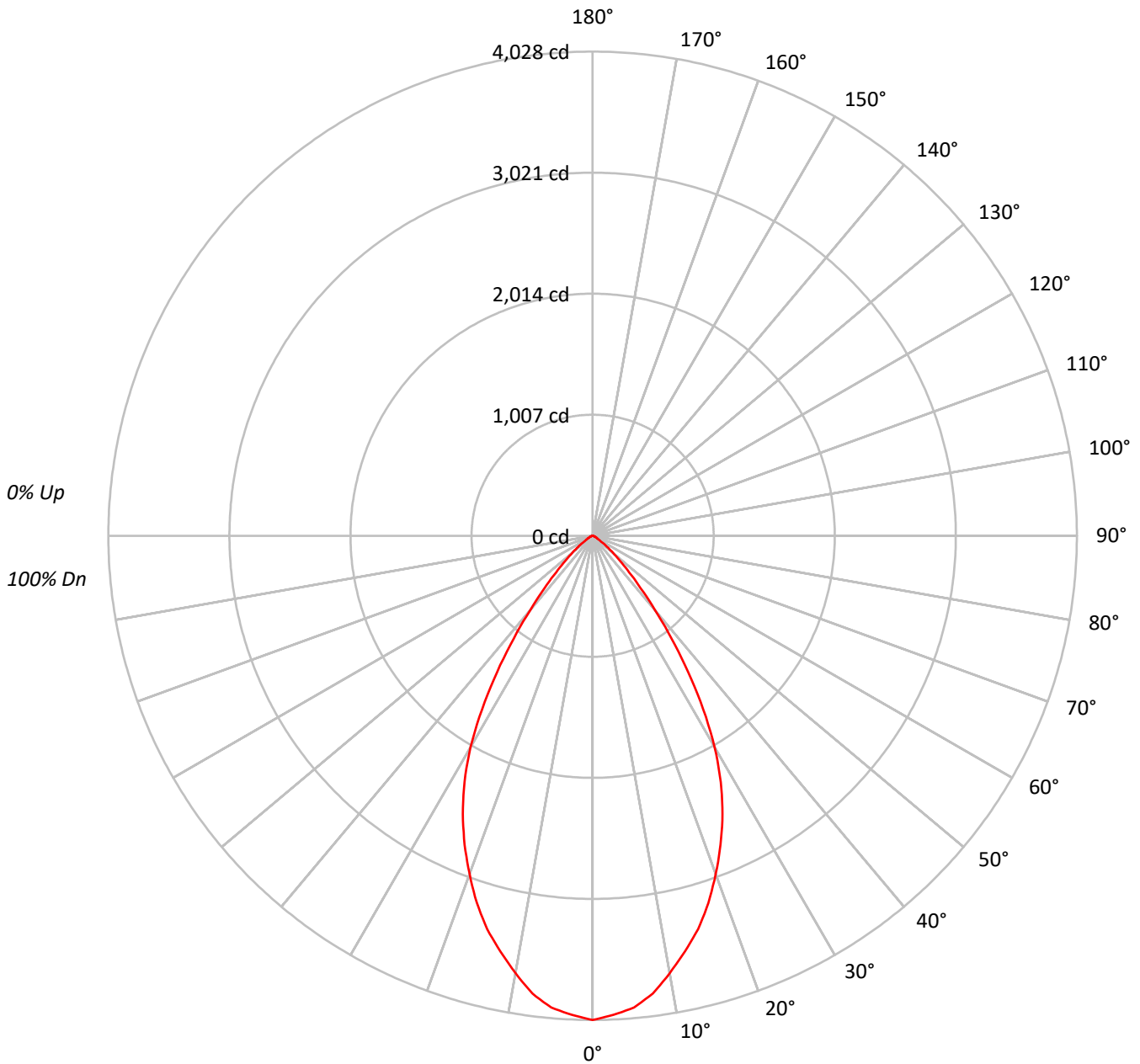
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	82	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°	496886
5°	487838
10°	462730
15°	432662
20°	392958
25°	347727
30°	289227
35°	208564
40°	130166
45°	75078
50°	42351
55°	20171
60°	11570
65°	8843
70°	5987
75°	3956
80°	3907
85°	3963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	368.3	9.6
10°-20°	945.2	24.7
20°-30°	1162.5	30.3
30°-40°	863.3	22.5
40°-50°	351.0	9.2
50°-60°	97.2	2.5
60°-70°	30.2	0.8
70°-80°	10.2	0.3
80°-90°	3.0	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°	2476.0	64.6
0°-40°	3339.3	87.2
0°-60°	3787.5	98.9
0°-90°	3830.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3830.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4028	
5°	3940	368
15°	3388	945
25°	2555	1162
35°	1385	863
45°	430	351
55°	94	97
65°	30	30
75°	8	10
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4028.4
2.5°	3989.7
5°	3940.0
7.5°	3840.7
10°	3694.5
12.5°	3542.7
15°	3388.2
17.5°	3203.3
20°	2993.7
22.5°	2781.2
25°	2555.0
27.5°	2309.4
30°	2030.7
32.5°	1713.4
35°	1385.1
37.5°	1076.1
40°	808.4
42.5°	590.5
45°	430.4
47.5°	309.1
50°	220.7
52.5°	151.8
55°	93.8
57.5°	60.7
60°	46.9
62.5°	38.6
65°	30.3
67.5°	22.0
70°	16.6
72.5°	13.8
75°	8.3
77.5°	5.5
80°	5.5
82.5°	2.8
85°	2.8
87.5°	2.8
90°	0.0



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— 0°-180°







(END OF REPORT)