

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: P580860

Luminaire Tested: **HC450D010-HM44560830-41PSMDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580860  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560830-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4422.5 lumens  
Efficiency: N/A  
Efficacy: 92.1 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

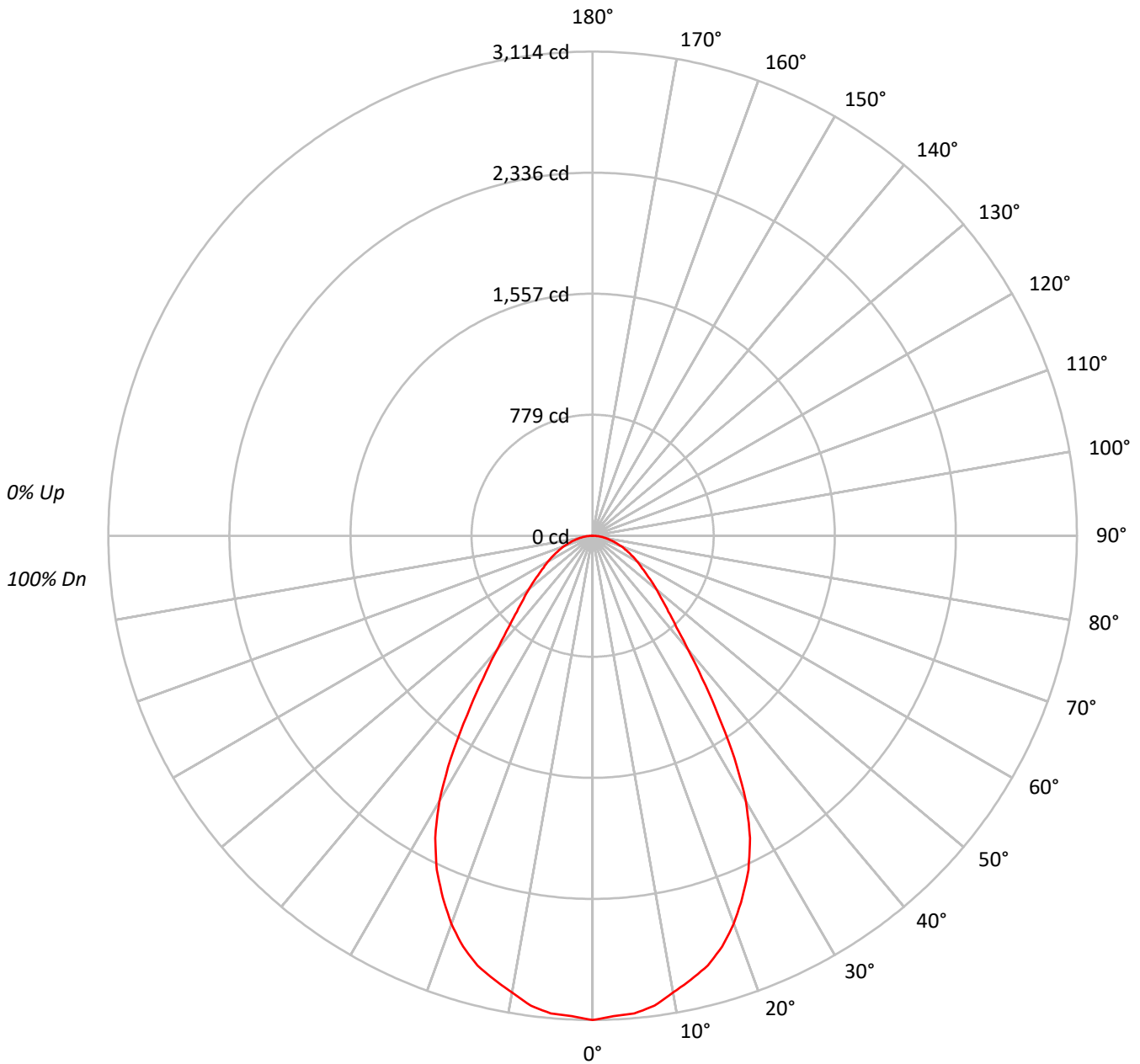
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78			78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			70
4	90	80	73	68	88	79	72	67	77	71	66	74	69	65	72	68	65	63			63
5	84	74	66	61	82	72	66	60	71	64	60	69	63	59	67	62	59	57			57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52			52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47			47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44			44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40			40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37

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

	0°
0°	384135
5°	381740
10°	373616
15°	365341
20°	348460
25°	322563
30°	280567
35°	211877
40°	153561
45°	119995
50°	102605
55°	88750
60°	81753
65°	74833
70°	69892
75°	64099
80°	60022
85°	57458



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	291.2	6.6
10°-20°	801.4	18.1
20°-30°	1077.7	24.4
30°-40°	886.1	20.0
40°-50°	544.2	12.3
50°-60°	376.6	8.5
60°-70°	256.7	5.8
70°-80°	143.1	3.2
80°-90°	45.5	1.0
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°	2170.3	49.1
0°-40°	3056.4	69.1
0°-60°	3977.2	89.9
0°-90°	4422.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4422.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3114	
5°	3083	291
15°	2861	801
25°	2370	1078
35°	1407	886
45°	688	544
55°	413	377
65°	256	257
75°	134	143
85°	41	46
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3114.3
2.5°	3092.4
5°	3083.1
7.5°	3048.7
10°	2983.0
12.5°	2923.6
15°	2861.0
17.5°	2770.4
20°	2654.7
22.5°	2517.1
25°	2370.1
27.5°	2191.9
30°	1969.9
32.5°	1697.9
35°	1407.1
37.5°	1156.9
40°	953.7
42.5°	797.4
45°	687.9
47.5°	603.4
50°	534.7
52.5°	472.1
55°	412.7
57.5°	369.0
60°	331.4
62.5°	293.9
65°	256.4
67.5°	225.2
70°	193.8
72.5°	162.6
75°	134.5
77.5°	106.3
80°	84.5
82.5°	62.5
85°	40.6
87.5°	21.9
90°	0.0



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— 0°-180°







(END OF REPORT)