

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: P580878

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580878  
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-HM44560835-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4446.2 lumens  
Efficiency: N/A  
Efficacy: 92.6 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

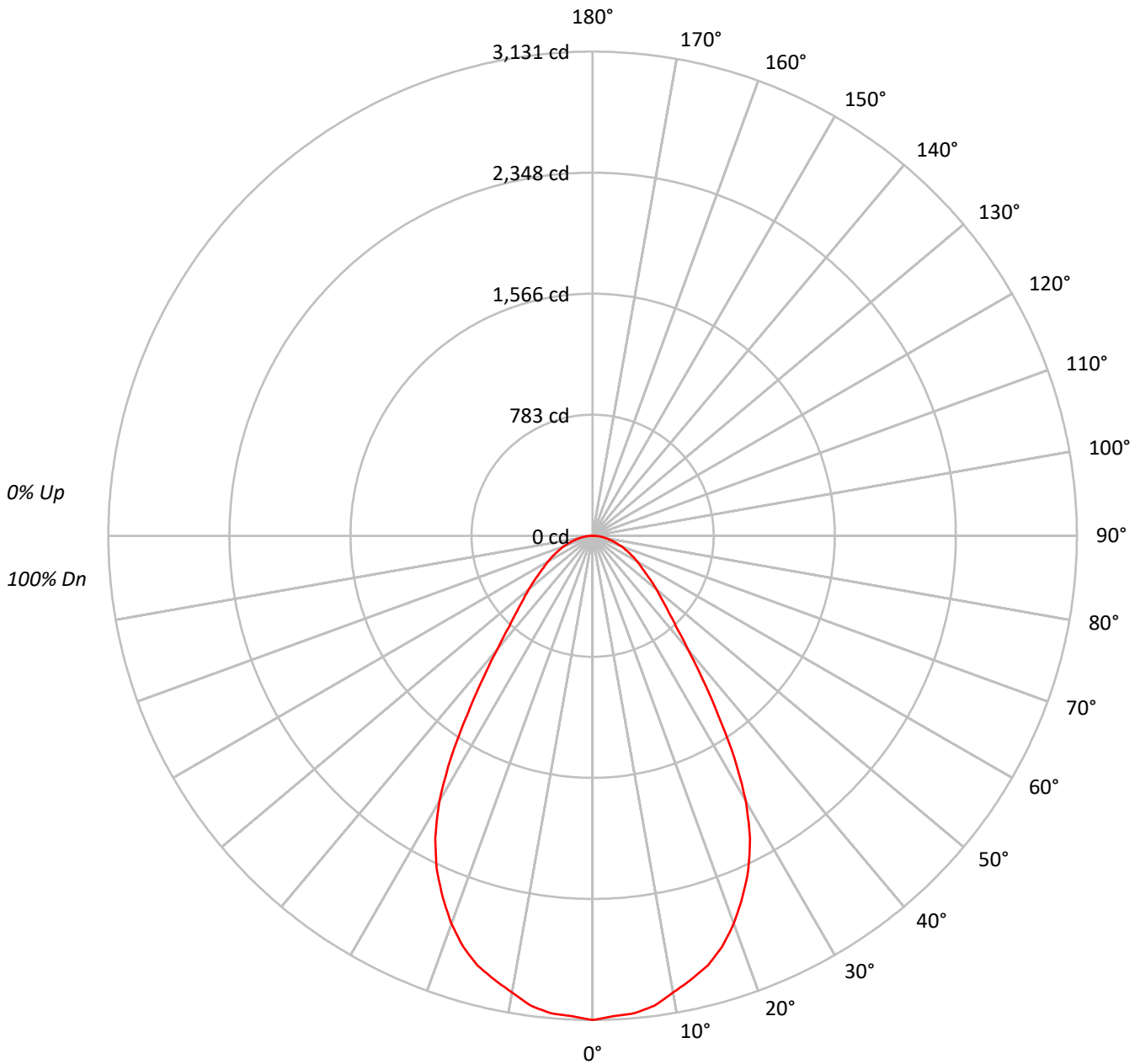
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	386195
5°	383783
10°	375620
15°	367294
20°	350324
25°	324292
30°	282063
35°	213007
40°	154382
45°	120623
50°	103161
55°	89223
60°	82198
65°	75242
70°	70288
75°	64432
80°	60306
85°	57741



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	292.7	6.6
10°-20°	805.7	18.1
20°-30°	1083.4	24.4
30°-40°	890.9	20.0
40°-50°	547.1	12.3
50°-60°	378.6	8.5
60°-70°	258.1	5.8
70°-80°	143.8	3.2
80°-90°	45.8	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°	2181.9	49.1
0°-40°	3072.7	69.1
0°-60°	3998.5	89.9
0°-90°	4446.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4446.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3131	
5°	3100	293
15°	2876	806
25°	2383	1083
35°	1415	891
45°	692	547
55°	415	379
65°	258	258
75°	135	144
85°	41	46
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3131.0
2.5°	3109.0
5°	3099.6
7.5°	3065.0
10°	2999.0
12.5°	2939.2
15°	2876.3
17.5°	2785.2
20°	2668.9
22.5°	2530.6
25°	2382.8
27.5°	2203.6
30°	1980.4
32.5°	1707.0
35°	1414.6
37.5°	1163.1
40°	958.8
42.5°	801.6
45°	691.5
47.5°	606.7
50°	537.6
52.5°	474.7
55°	414.9
57.5°	371.0
60°	333.2
62.5°	295.5
65°	257.8
67.5°	226.4
70°	194.9
72.5°	163.5
75°	135.2
77.5°	106.9
80°	84.9
82.5°	62.9
85°	40.8
87.5°	22.0
90°	0.0



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— 0°-180°







(END OF REPORT)