

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: P580939

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580939  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560935-41WDBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3579.8 lumens  
Efficiency: N/A  
Efficacy: 74.6 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.03  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

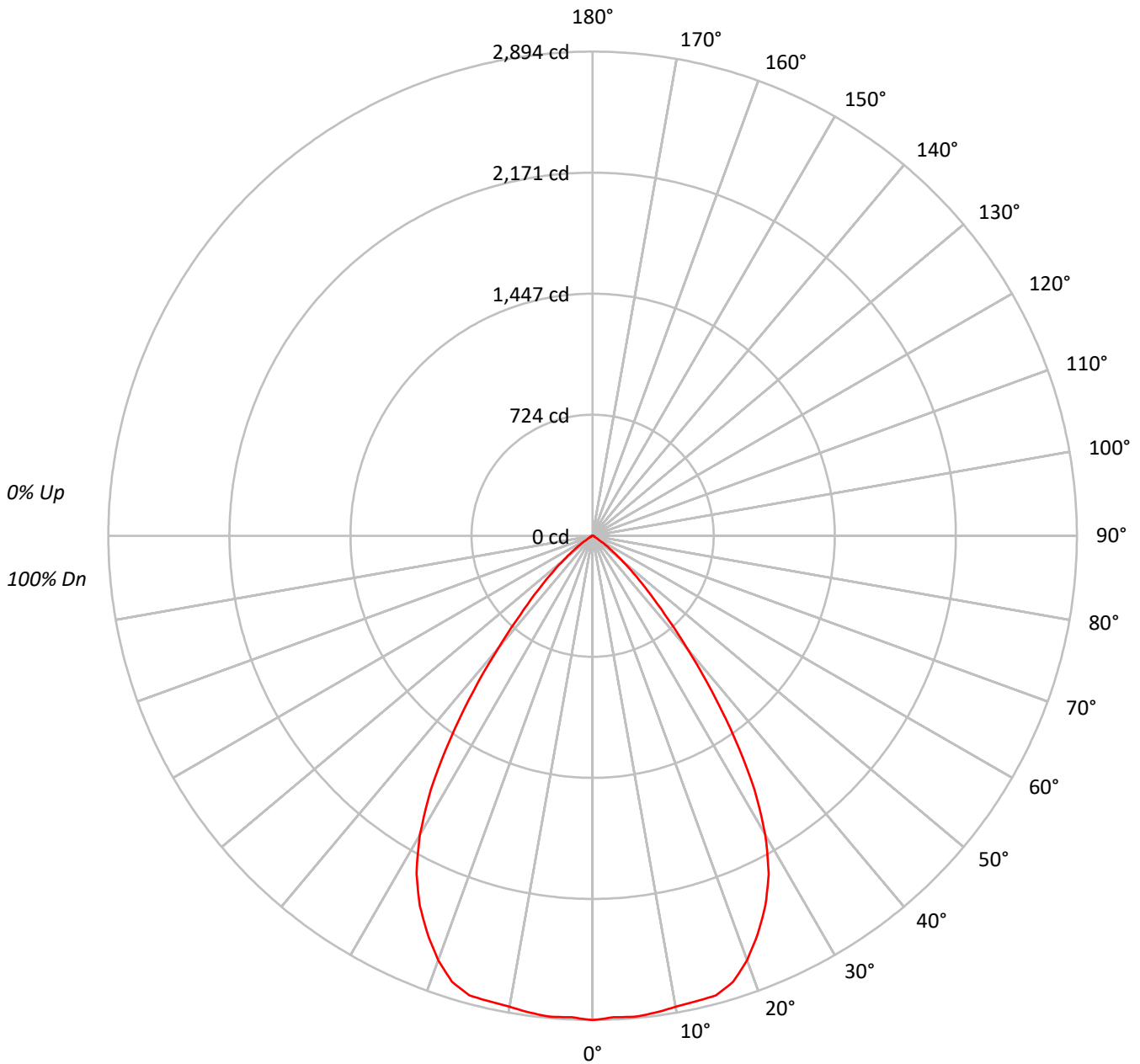
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94	93				93															
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85				85															
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78				78															
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72				72															
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66				66															
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61				61															
7	80	70	64	59	79	69	63	59	68	63	59	67	62	58	66	61	58	56				56															
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52				52															
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49				49															
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45				45															

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

	0°
0°	357012
5°	357348
10°	358023
15°	363259
20°	354197
25°	332321
30°	293956
35°	223517
40°	140825
45°	80852
50°	42888
55°	17806
60°	4761
65°	4028
70°	2993
75°	2621
80°	1989
85°	3963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	274.5	7.7
10°-20°	796.5	22.3
20°-30°	1111.6	31.1
30°-40°	914.8	25.6
40°-50°	376.8	10.5
50°-60°	84.9	2.4
60°-70°	13.7	0.4
70°-80°	5.1	0.1
80°-90°	1.9	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°	2182.7	61.0
0°-40°	3097.4	86.5
0°-60°	3559.2	99.4
0°-90°	3579.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3579.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2894	
5°	2886	274
15°	2845	797
25°	2442	1112
35°	1484	915
45°	464	377
55°	83	85
65°	14	14
75°	6	5
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2894.4
2.5°	2880.5
5°	2886.1
7.5°	2875.0
10°	2858.5
12.5°	2850.2
15°	2844.7
17.5°	2795.1
20°	2698.4
22.5°	2577.0
25°	2441.8
27.5°	2279.1
30°	2063.9
32.5°	1799.0
35°	1484.4
37.5°	1167.1
40°	874.6
42.5°	637.4
45°	463.5
47.5°	331.1
50°	223.5
52.5°	140.7
55°	82.8
57.5°	41.4
60°	19.3
62.5°	16.6
65°	13.8
67.5°	11.1
70°	8.3
72.5°	5.5
75°	5.5
77.5°	2.8
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)