

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: P580904

Luminaire Tested: **HC450D010-HM44560927-41WDWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580904  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560927-41WDWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3939.7 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.14 / 1.07  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

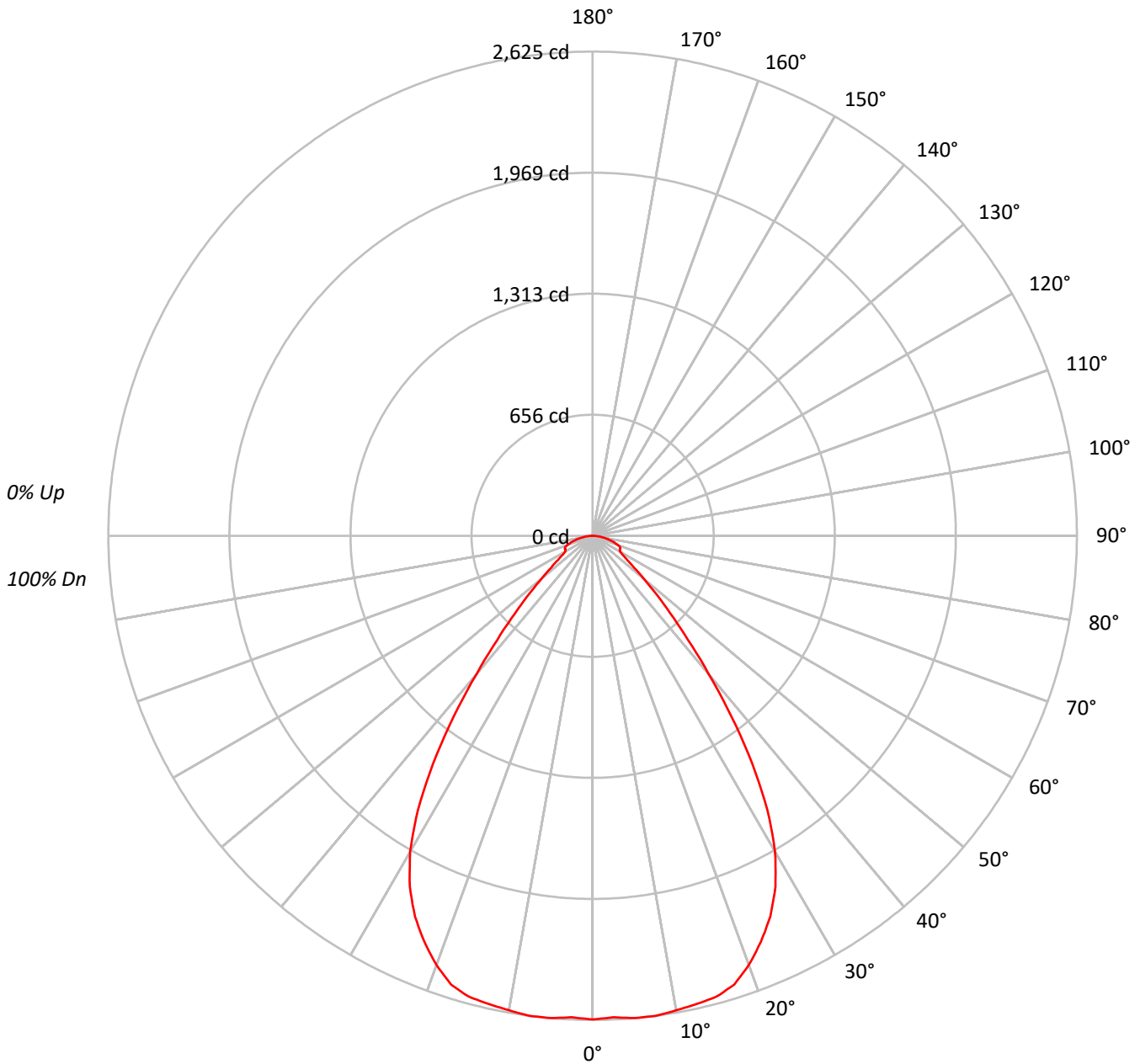
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90	90	90	90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80	80	80	80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72	72	72	72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65	65	65	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59	59	59	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54	54	54	54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49	49	49	49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46	46	46	46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42	42	42	42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39	39	39	39

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

	0°
0°	323449
5°	324982
10°	327212
15°	330492
20°	324978
25°	310029
30°	281678
35°	227191
40°	157635
45°	103511
50°	69330
55°	49353
60°	42160
65°	48449
70°	51932
75°	49992
80°	45034
85°	41466



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.1	6.3
10°-20°	727.0	18.5
20°-30°	1038.7	26.4
30°-40°	927.9	23.6
40°-50°	475.9	12.1
50°-60°	216.3	5.5
60°-70°	161.3	4.1
70°-80°	109.7	2.8
80°-90°	32.5	0.8
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°	2015.9	51.2
0°-40°	2943.8	74.7
0°-60°	3636.1	92.3
0°-90°	3939.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3939.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2622	
5°	2625	250
15°	2588	727
25°	2278	1039
35°	1509	928
45°	593	476
55°	230	216
65°	166	161
75°	105	110
85°	29	33
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	2622.3
2.5°	2612.5
5°	2624.7
7.5°	2624.7
10°	2612.5
12.5°	2600.2
15°	2588.1
17.5°	2551.4
20°	2475.8
22.5°	2382.9
25°	2278.0
27.5°	2146.1
30°	1977.7
32.5°	1762.8
35°	1508.8
37.5°	1237.8
40°	979.0
42.5°	764.2
45°	593.4
47.5°	463.9
50°	361.3
52.5°	283.2
55°	229.5
57.5°	192.8
60°	170.9
62.5°	166.0
65°	166.0
67.5°	161.2
70°	144.0
72.5°	124.5
75°	104.9
77.5°	83.0
80°	63.4
82.5°	46.4
85°	29.3
87.5°	12.2
90°	0.0



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— 0°-180°







(END OF REPORT)