

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: P580850

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580850  
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-HM44560830-41WDWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5048.0 lumens  
Efficiency: N/A  
Efficacy: 105.2 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

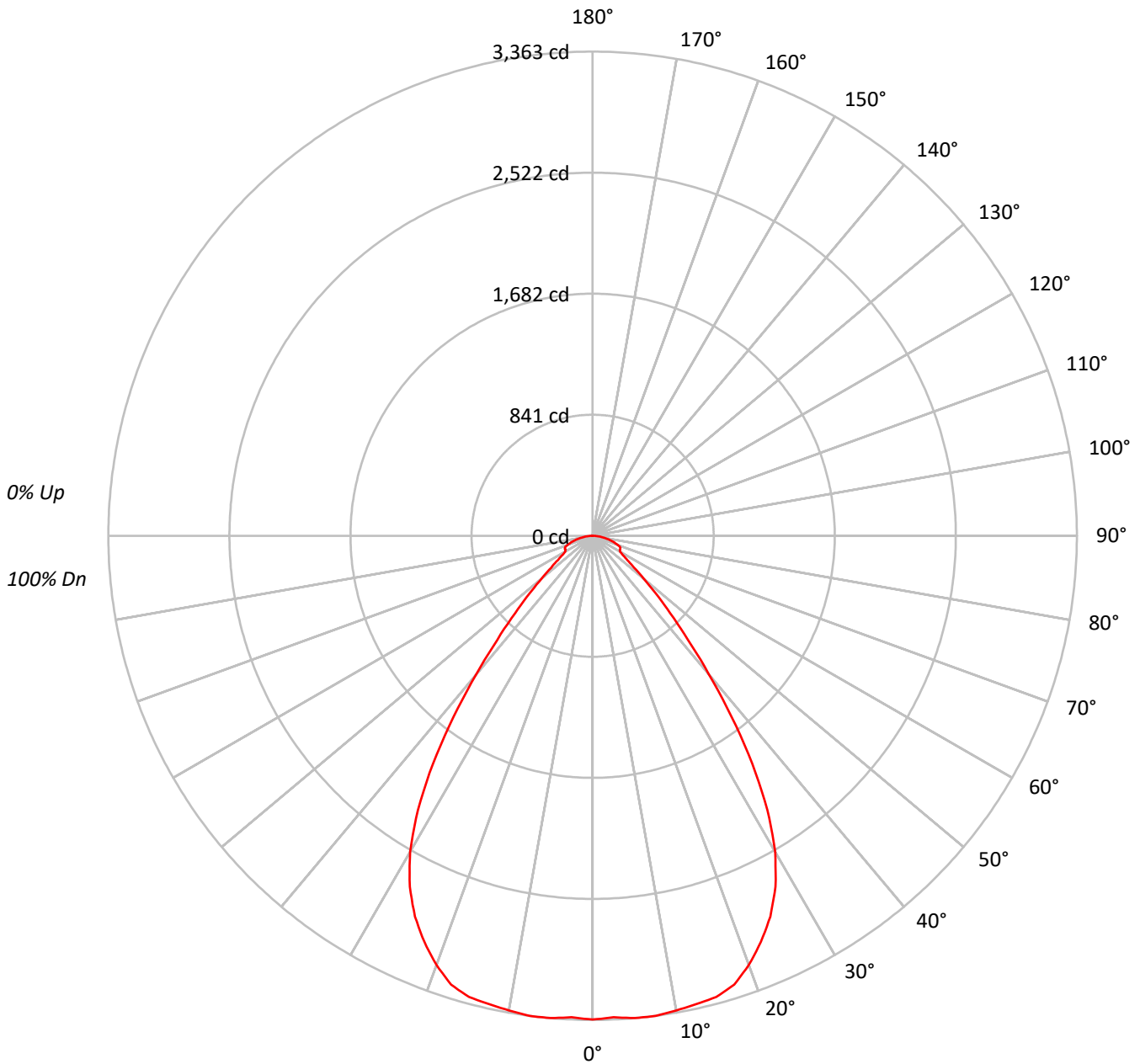
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90		
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80		
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72		
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65		
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59		
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54		
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49		
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46		
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42		
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39		

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

	0°
0°	414429
5°	416396
10°	419244
15°	423443
20°	416375
25°	397226
30°	360896
35°	291111
40°	201995
45°	132607
50°	88827
55°	63224
60°	54025
65°	62108
70°	66538
75°	64099
80°	57820
85°	53071



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	320.5	6.3
10°-20°	931.5	18.5
20°-30°	1330.9	26.4
30°-40°	1188.9	23.6
40°-50°	609.8	12.1
50°-60°	277.2	5.5
60°-70°	206.8	4.1
70°-80°	140.7	2.8
80°-90°	41.7	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°	2582.9	51.2
0°-40°	3771.9	74.7
0°-60°	4658.9	92.3
0°-90°	5048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5048.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3360	
5°	3363	320
15°	3316	932
25°	2919	1331
35°	1933	1189
45°	760	610
55°	294	277
65°	213	207
75°	134	141
85°	38	42
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3359.9
2.5°	3347.3
5°	3363.0
7.5°	3363.0
10°	3347.3
12.5°	3331.7
15°	3316.0
17.5°	3269.1
20°	3172.1
22.5°	3053.2
25°	2918.7
27.5°	2749.8
30°	2533.9
32.5°	2258.6
35°	1933.3
37.5°	1586.1
40°	1254.5
42.5°	979.1
45°	760.2
47.5°	594.3
50°	462.9
52.5°	362.9
55°	294.0
57.5°	247.2
60°	219.0
62.5°	212.8
65°	212.8
67.5°	206.5
70°	184.5
72.5°	159.5
75°	134.5
77.5°	106.4
80°	81.4
82.5°	59.4
85°	37.5
87.5°	15.6
90°	0.0



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— 0°-180°







(END OF REPORT)