

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: P580871

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580871  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560835-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5021.5 lumens  
Efficiency: N/A  
Efficacy: 104.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

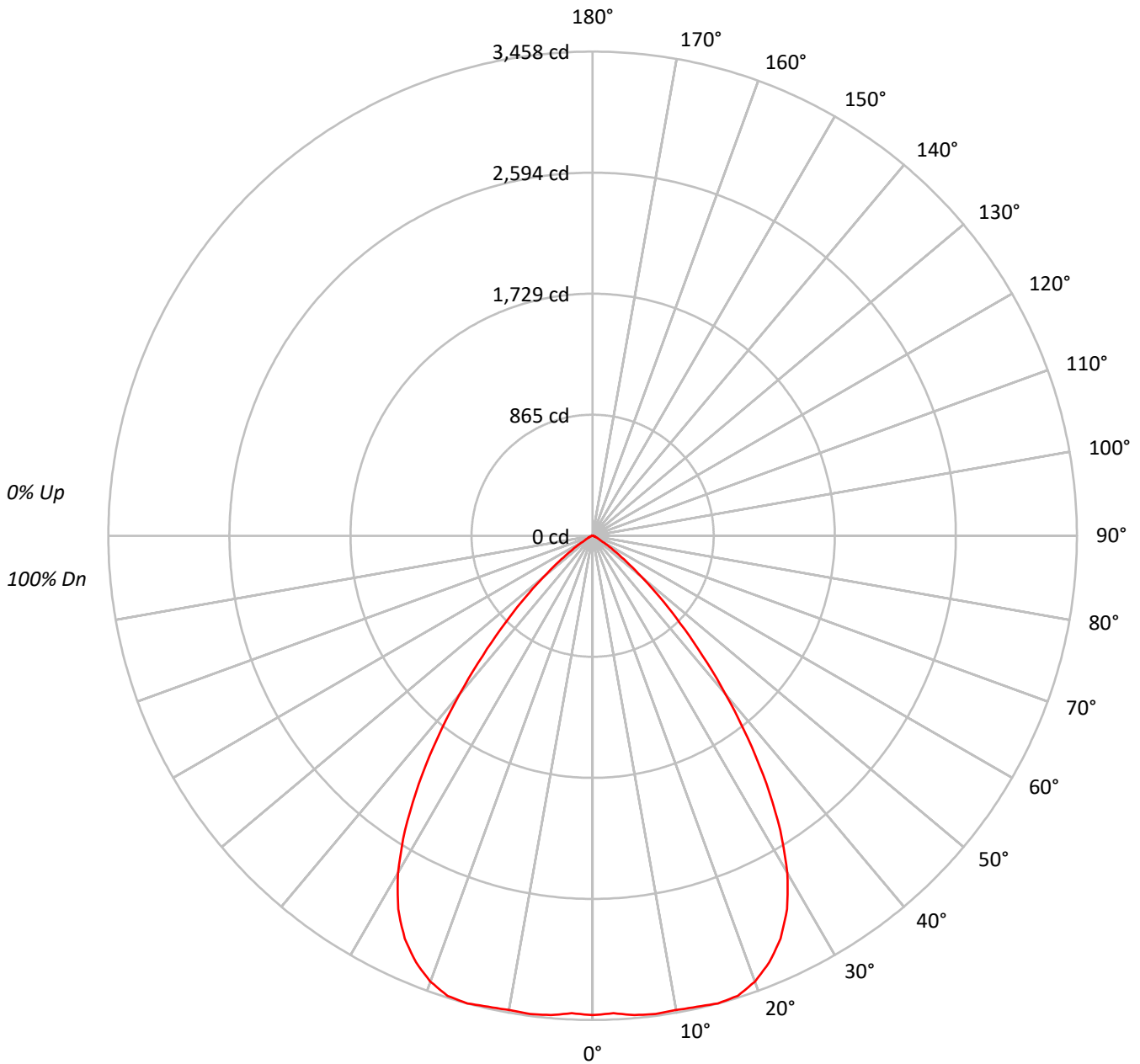
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	113	110	107	104	110	108	105	103	103	101	100	100	98	97	96	95	94	92	92	92	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84	84	84	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76	76	76	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69	69	69	69
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63	63	63	63
6	83	73	66	61	81	72	66	61	70	65	61	69	64	60	68	63	60	58	58	58	58
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53	53	53	53
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49	49	49	49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45	45	45	45
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43	42	42	42	42

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

	0°
0°	422212
5°	425373
10°	430692
15°	441512
20°	444754
25°	432026
30°	396104
35°	325924
40°	237580
45°	154220
50°	86927
55°	41289
60°	16306
65°	10098
70°	6816
75°	4480
80°	2202
85°	4387



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	328.0	6.5
10°-20°	974.8	19.4
20°-30°	1445.8	28.8
30°-40°	1335.4	26.6
40°-50°	697.3	13.9
50°-60°	191.1	3.8
60°-70°	36.8	0.7
70°-80°	10.3	0.2
80°-90°	2.1	0.0
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°	2748.6	54.7
0°-40°	4084.0	81.3
0°-60°	4972.3	99.0
0°-90°	5021.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5021.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3423	
5°	3436	328
15°	3458	975
25°	3174	1446
35°	2164	1335
45°	884	697
55°	192	191
65°	35	37
75°	9	10
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3423.0
2.5°	3413.4
5°	3435.5
7.5°	3445.0
10°	3438.7
12.5°	3445.0
15°	3457.5
17.5°	3445.0
20°	3388.3
22.5°	3297.1
25°	3174.4
27.5°	3007.6
30°	2781.1
32.5°	2494.8
35°	2164.5
37.5°	1818.5
40°	1475.5
42.5°	1160.9
45°	884.1
47.5°	648.0
50°	453.0
52.5°	302.0
55°	192.0
57.5°	113.2
60°	66.1
62.5°	47.2
65°	34.6
67.5°	25.1
70°	18.9
72.5°	12.6
75°	9.4
77.5°	6.3
80°	3.1
82.5°	3.1
85°	3.1
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)