

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: P580948

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580948  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560935-41MDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3985.5 lumens  
Efficiency: N/A  
Efficacy: 83.0 lumens/watt  
Spacing Criteria (0/90/45): 1.04 / 1.04 / 1.01  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

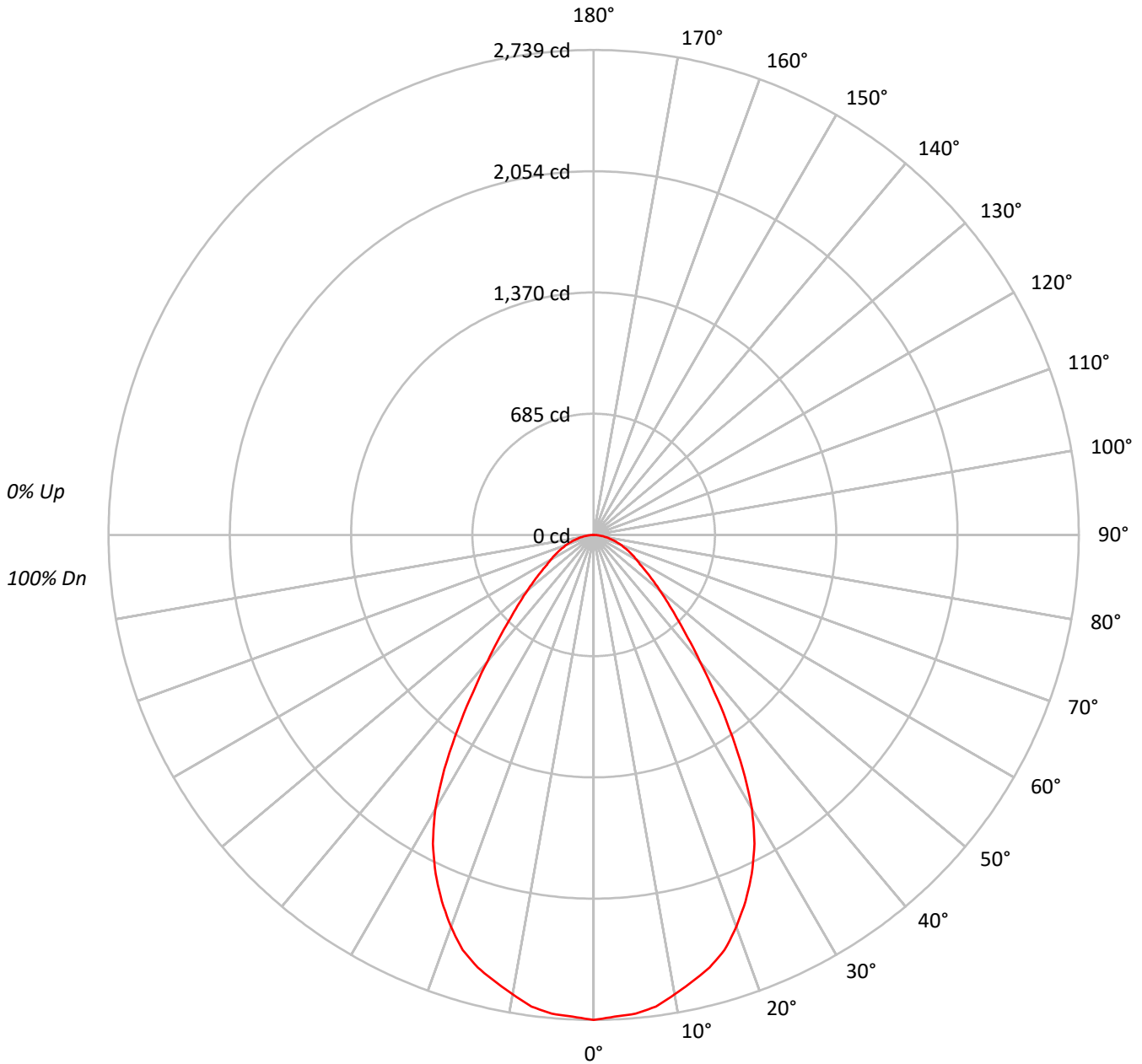
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63			63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57			57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52			52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47			47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44			44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40			40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37			37

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

	0°
0°	337893
5°	336101
10°	329954
15°	323009
20°	309187
25°	287505
30°	254475
35°	200840
40°	150276
45°	115617
50°	93777
55°	77804
60°	68802
65°	63684
70°	58784
75°	53948
80°	49083
85°	39060



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.6	6.4
10°-20°	709.4	17.8
20°-30°	963.2	24.2
30°-40°	834.4	20.9
40°-50°	523.8	13.1
50°-60°	329.6	8.3
60°-70°	216.5	5.4
70°-80°	119.4	3.0
80°-90°	32.7	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°	1929.2	48.4
0°-40°	2763.6	69.3
0°-60°	3616.9	90.8
0°-90°	3985.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3985.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2739	
5°	2714	257
15°	2530	709
25°	2112	963
35°	1334	834
45°	663	524
55°	362	330
65°	218	216
75°	113	119
85°	28	33
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2739.4
2.5°	2722.8
5°	2714.5
7.5°	2686.9
10°	2634.4
12.5°	2582.0
15°	2529.5
17.5°	2457.7
20°	2355.5
22.5°	2239.6
25°	2112.5
27.5°	1966.1
30°	1786.7
32.5°	1568.5
35°	1333.8
37.5°	1118.4
40°	933.3
42.5°	787.0
45°	662.8
47.5°	568.9
50°	488.7
52.5°	419.8
55°	361.8
57.5°	312.1
60°	278.9
62.5°	248.5
65°	218.2
67.5°	187.7
70°	163.0
72.5°	135.3
75°	113.2
77.5°	88.3
80°	69.1
82.5°	46.9
85°	27.6
87.5°	11.1
90°	0.0



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— 0°-180°







(END OF REPORT)