

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: P580947

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580947  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560935-41WDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4683.9 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

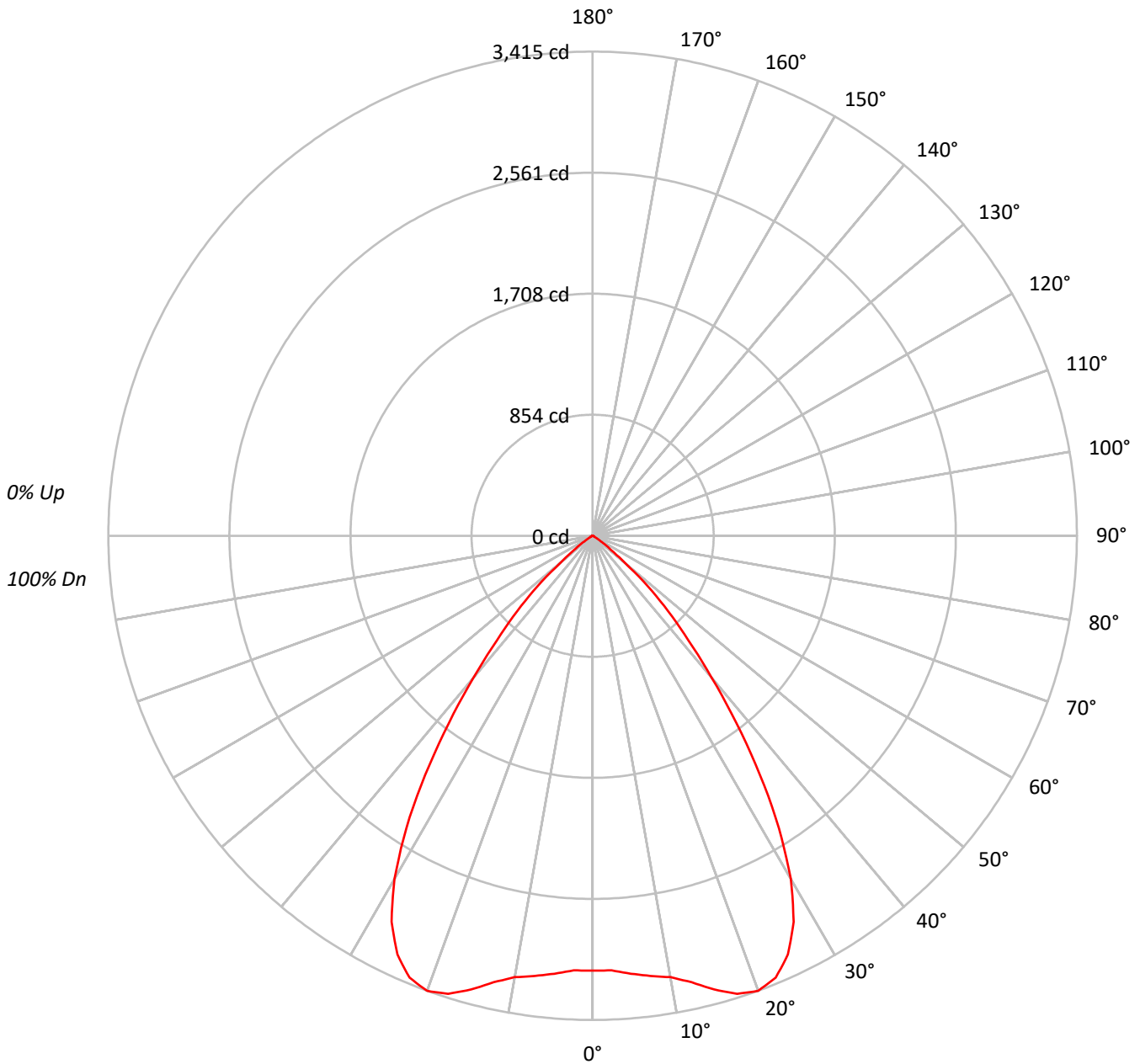
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92	92	92	92
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85	85	85	85
3	101	93	88	84	98	92	87	83	89	85	82	87	83	80	85	82	79	77	77	77	77
4	95	86	80	76	93	85	79	75	83	78	74	81	77	73	79	75	72	71	71	71	71
5	89	80	73	69	87	79	73	68	77	72	68	75	71	67	74	70	66	65	65	65	65
6	84	74	67	63	82	73	67	62	72	66	62	70	65	62	69	65	61	60	60	60	60
7	79	69	62	57	78	68	62	57	67	61	57	65	60	57	64	60	56	55	55	55	55
8	75	64	57	53	73	63	57	53	62	57	53	61	56	52	60	56	52	51	51	51	51
9	70	60	53	49	69	59	53	49	58	53	49	57	52	48	56	52	48	47	47	47	47
10	67	56	50	45	66	55	49	45	55	49	45	54	49	45	53	48	45	43	43	43	43

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

	0°
0°	378375
5°	383919
10°	395973
15°	423098
20°	448311
25°	443417
30°	397970
35°	309737
40°	209853
45°	131002
50°	56704
55°	18989
60°	4786
65°	3240
70°	1984
75°	1334
80°	1989
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	297.8	6.4
10°-20°	940.6	20.1
20°-30°	1473.7	31.5
30°-40°	1271.9	27.2
40°-50°	584.9	12.5
50°-60°	99.3	2.1
60°-70°	11.2	0.2
70°-80°	4.0	0.1
80°-90°	0.4	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°	2712.1	57.9
0°-40°	3984.0	85.1
0°-60°	4668.2	99.7
0°-90°	4683.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4683.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3068	
5°	3101	298
15°	3313	941
25°	3258	1474
35°	2057	1272
45°	751	585
55°	88	99
65°	11	11
75°	3	4
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3067.6
2.5°	3067.6
5°	3100.7
7.5°	3131.0
10°	3161.5
12.5°	3224.9
15°	3313.3
17.5°	3387.9
20°	3415.4
22.5°	3374.0
25°	3258.1
27.5°	3070.4
30°	2794.2
32.5°	2446.4
35°	2057.0
37.5°	1664.9
40°	1303.3
42.5°	996.7
45°	751.0
47.5°	527.4
50°	295.5
52.5°	163.0
55°	88.3
57.5°	44.2
60°	19.4
62.5°	13.8
65°	11.1
67.5°	8.3
70°	5.5
72.5°	5.5
75°	2.8
77.5°	2.8
80°	2.8
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)