

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: P580965

Luminaire Tested: **HC450D010-HM44560940-41WDC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580965  
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-HM44560940-41WDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4647.3 lumens  
Efficiency: N/A  
Efficacy: 96.8 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

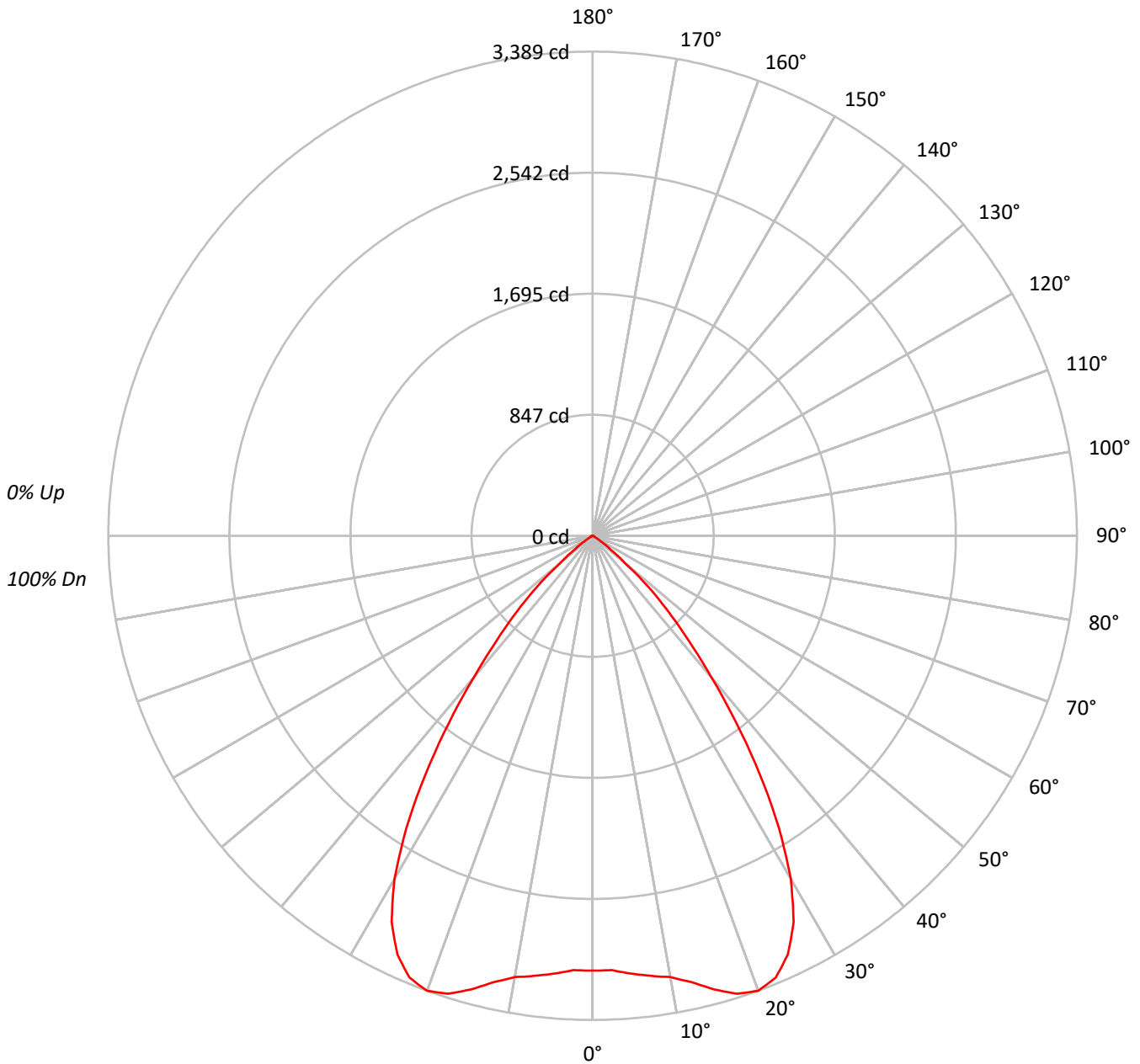
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	375415
5°	380922
10°	392879
15°	419803
20°	444833
25°	439960
30°	394865
35°	307328
40°	208210
45°	129973
50°	56243
55°	18860
60°	4736
65°	3210
70°	1947
75°	1334
80°	1989
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.5	6.4
10°-20°	933.2	20.1
20°-30°	1462.2	31.5
30°-40°	1262.0	27.2
40°-50°	580.3	12.5
50°-60°	98.5	2.1
60°-70°	11.1	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°	2690.9	57.9
0°-40°	3952.9	85.1
0°-60°	4631.8	99.7
0°-90°	4647.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4647.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3044	
5°	3076	296
15°	3288	933
25°	3233	1462
35°	2041	1262
45°	745	580
55°	88	99
65°	11	11
75°	3	4
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3043.6
2.5°	3043.6
5°	3076.5
7.5°	3106.7
10°	3136.8
12.5°	3199.8
15°	3287.5
17.5°	3361.4
20°	3388.9
22.5°	3347.7
25°	3232.7
27.5°	3046.4
30°	2772.4
32.5°	2427.2
35°	2041.0
37.5°	1652.0
40°	1293.1
42.5°	989.0
45°	745.1
47.5°	523.3
50°	293.1
52.5°	161.6
55°	87.7
57.5°	43.8
60°	19.2
62.5°	13.7
65°	11.0
67.5°	8.2
70°	5.4
72.5°	5.4
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)