

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: P580885

Luminaire Tested: **HC450D010-HM44560840-41WDBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-11)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560840-41WDBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4649.2 lumens  
Efficiency: N/A  
Efficacy: 96.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.03  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

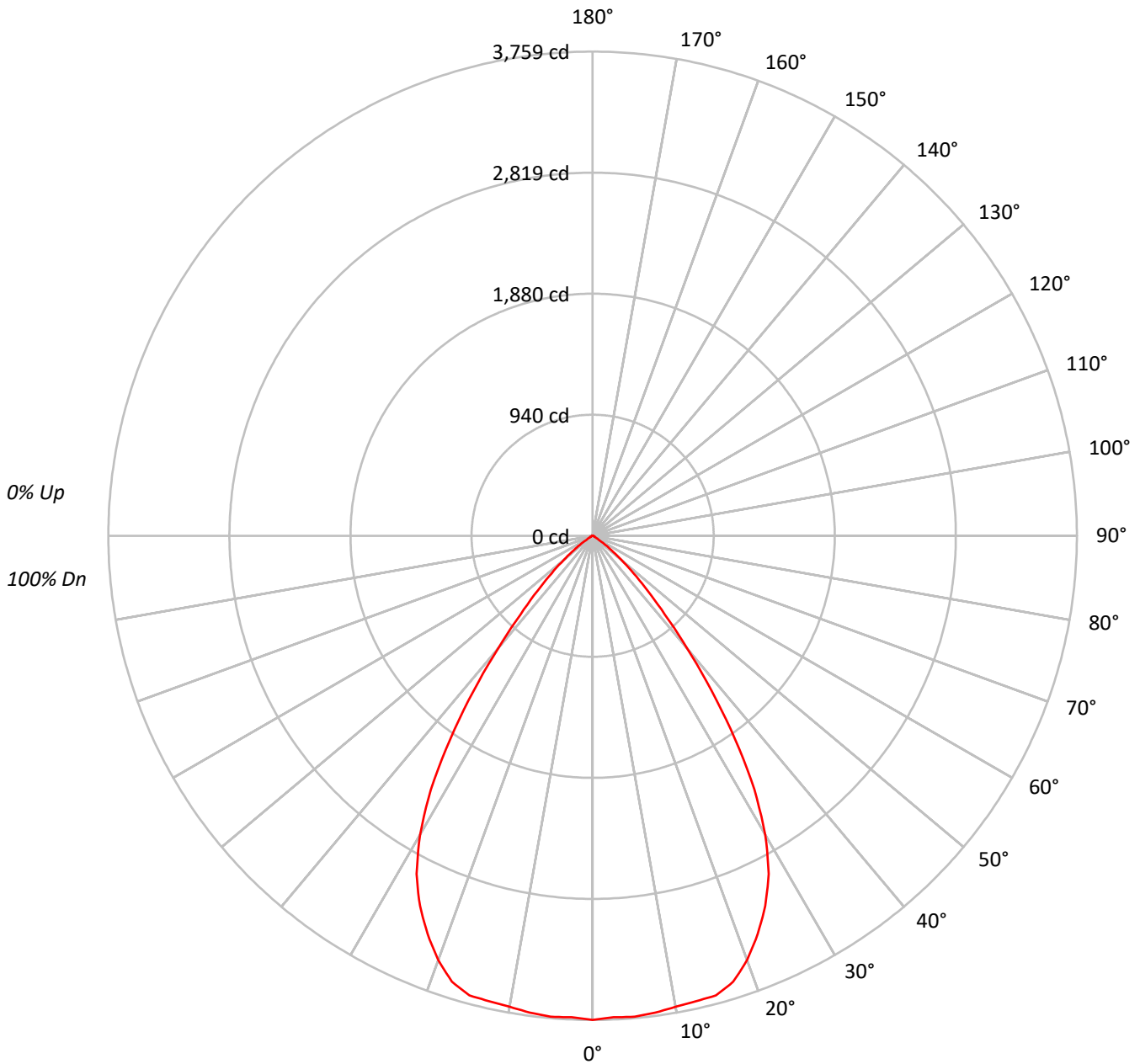
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	111	108	106	103	104	102	100	100	99	97	97	96	94	93	93	93	93
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87	85	85	85	85
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80	78	78	78	78
4	95	87	81	77	93	86	80	76	84	79	75	82	78	74	80	76	73	72	72	72	72
5	90	81	75	70	88	80	74	70	78	73	69	76	72	68	75	71	68	66	66	66	66
6	85	75	69	64	83	74	68	64	73	67	63	71	67	63	70	66	62	61	61	61	61
7	80	70	64	59	79	69	63	59	68	63	59	67	62	58	66	61	58	56	56	56	56
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52	52	52	52
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49	49	49	49
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45	45	45	45

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

	0°
0°	463656
5°	464102
10°	464972
15°	471776
20°	460033
25°	431604
30°	381762
35°	290313
40°	182914
45°	105011
50°	55706
55°	23118
60°	6192
65°	5224
70°	3859
75°	3431
80°	2486
85°	4953



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	356.5	7.7
10°-20°	1034.5	22.3
20°-30°	1443.7	31.1
30°-40°	1188.1	25.6
40°-50°	489.4	10.5
50°-60°	110.3	2.4
60°-70°	17.7	0.4
70°-80°	6.6	0.1
80°-90°	2.4	0.1
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°	2834.7	61.0
0°-40°	4022.8	86.5
0°-60°	4622.5	99.4
0°-90°	4649.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4649.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3759	
5°	3748	356
15°	3694	1035
25°	3171	1444
35°	1928	1188
45°	602	489
55°	108	110
65°	18	18
75°	7	7
85°	4	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3759.0
2.5°	3741.1
5°	3748.3
7.5°	3733.9
10°	3712.4
12.5°	3701.7
15°	3694.5
17.5°	3630.1
20°	3504.7
22.5°	3346.9
25°	3171.3
27.5°	2959.9
30°	2680.4
32.5°	2336.4
35°	1928.0
37.5°	1515.8
40°	1136.0
42.5°	827.8
45°	602.0
47.5°	430.1
50°	290.3
52.5°	182.8
55°	107.5
57.5°	53.8
60°	25.1
62.5°	21.5
65°	17.9
67.5°	14.3
70°	10.7
72.5°	7.2
75°	7.2
77.5°	3.5
80°	3.5
82.5°	3.5
85°	3.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)