

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: P580854

Luminaire Tested: **HC4R50D010-HM44560830-42RMDC**

Issue Date: 9/23/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580854  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-13)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/23/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC4R50D010-HM44560830-42RMDC  
Description: HALO COMMERCIAL 4" ROUND, RETROFIT FRAME, WITH 4" MEDIUM DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4851.0 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Spacing Criteria (0/90/45): 1.02 / 1.02 / 0.96  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

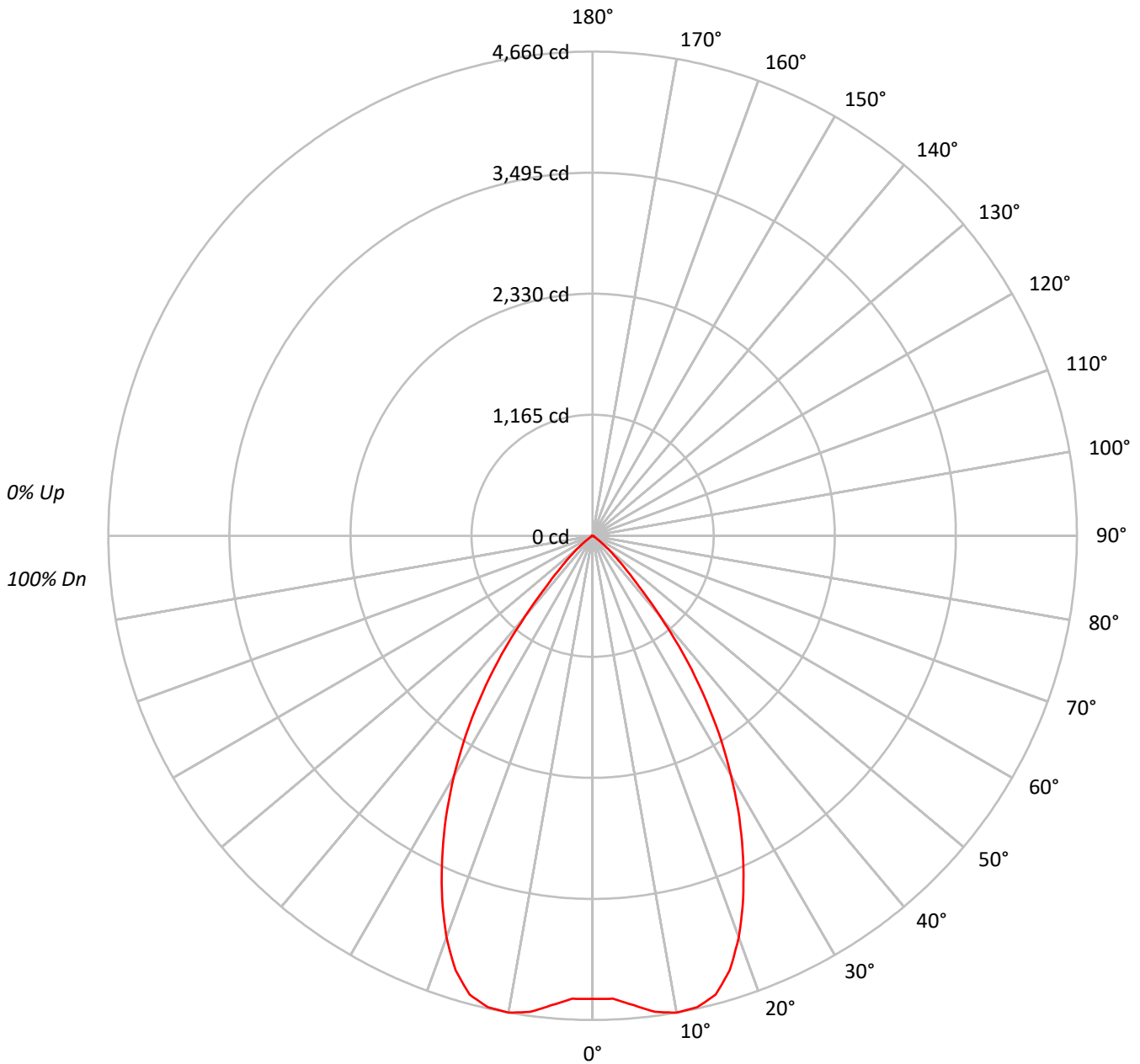
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93			
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86			
3	102	95	90	86	100	94	89	86	91	87	84	89	86	83	87	84	82	80			
4	97	89	83	79	95	88	82	78	86	81	77	84	80	77	82	78	76	74			
5	92	83	77	73	90	82	76	72	80	75	72	78	74	71	77	73	70	69			
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64			
7	82	73	66	62	81	72	66	62	71	65	62	69	65	61	68	64	61	60			
8	78	68	62	58	77	68	62	58	67	61	57	65	61	57	65	60	57	56			
9	74	64	58	54	73	64	58	54	63	57	54	62	57	54	61	57	53	52			
10	70	61	55	51	69	60	54	51	59	54	50	58	54	50	58	53	50	49			

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

	0°
0°	549727
5°	561497
10°	583658
15°	583894
20°	539840
25°	466513
30°	379526
35°	278809
40°	161145
45°	75287
50°	34809
55°	12107
60°	3848
65°	2743
70°	2272
75°	1477
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	437.5	9.0
10°-20°	1267.2	26.1
20°-30°	1560.6	32.2
30°-40°	1139.4	23.5
40°-50°	371.3	7.7
50°-60°	62.1	1.3
60°-70°	9.6	0.2
70°-80°	3.3	0.1
80°-90°	0.0	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°	3265.3	67.3
0°-40°	4404.7	90.8
0°-60°	4838.1	99.7
0°-90°	4851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4851.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4457	
5°	4535	437
15°	4572	1267
25°	3428	1561
35°	1852	1139
45°	432	371
55°	56	62
65°	9	10
75°	3	3
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	4456.8
2.5°	4459.9
5°	4534.9
7.5°	4622.5
10°	4660.0
12.5°	4647.5
15°	4572.5
17.5°	4384.8
20°	4112.7
22.5°	3784.4
25°	3427.8
27.5°	3055.7
30°	2664.7
32.5°	2264.4
35°	1851.6
37.5°	1435.6
40°	1000.8
42.5°	653.7
45°	431.6
47.5°	284.6
50°	181.4
52.5°	106.4
55°	56.3
57.5°	21.9
60°	15.6
62.5°	12.5
65°	9.4
67.5°	6.3
70°	6.3
72.5°	3.1
75°	3.1
77.5°	3.1
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)