

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: P584852

Luminaire Tested: **HC850D010-HM82555927-81NDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584852  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC850D010-HM82555927-81NDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3745.0 lumens  
Efficiency: N/A  
Efficacy: 78.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.06 / 0.92  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

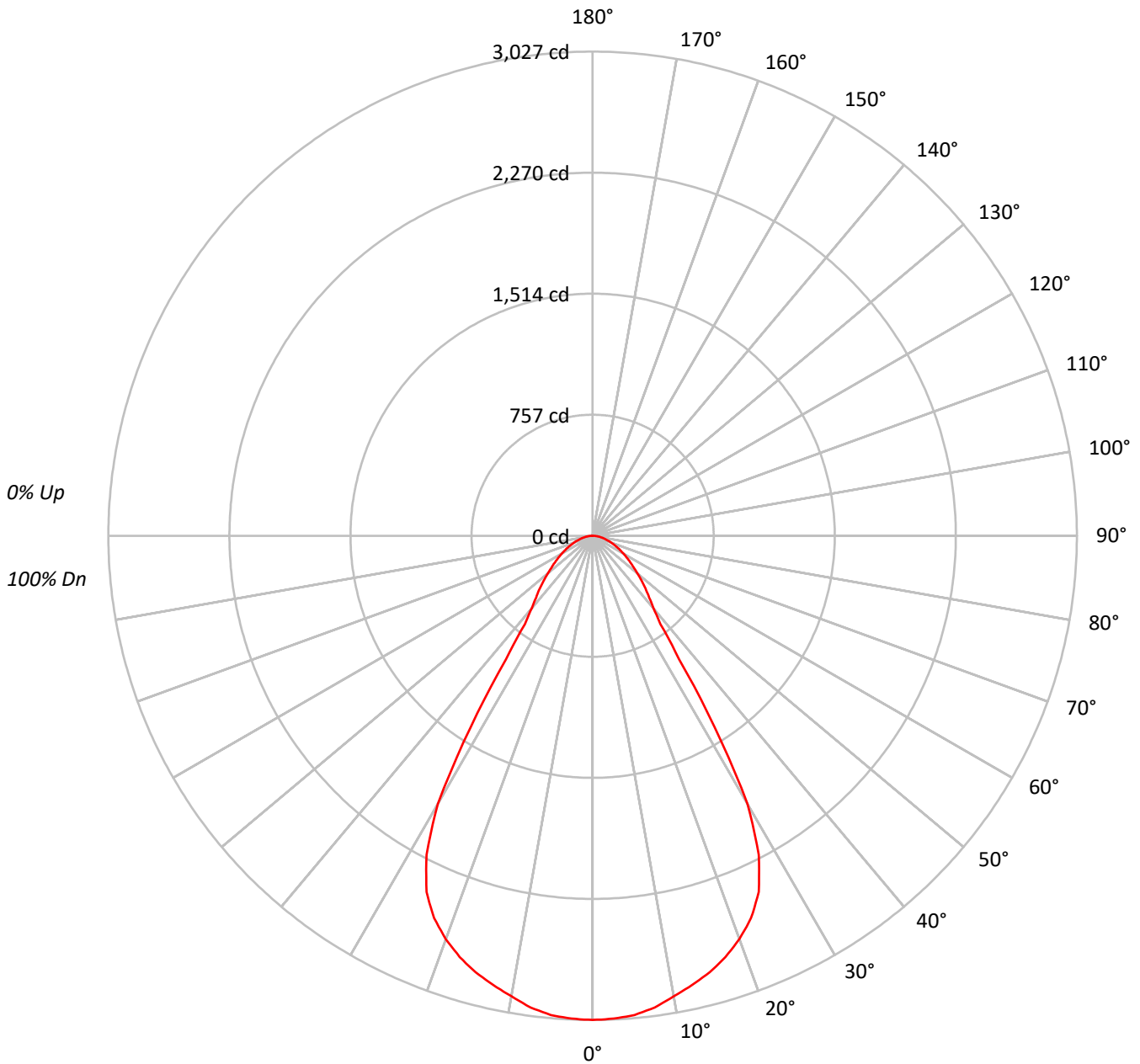
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20																	
RC	80									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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																											
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81																											
3	98	90	84	79	96	89	83	79	86	81	77	84	80	76	81	78	75	73																											
4	92	83	76	71	90	82	76	71	80	74	70	77	73	69	75	72	68	67																											
5	87	77	70	65	85	76	69	64	74	68	64	72	67	63	70	66	63	61																											
6	82	71	64	59	80	70	64	59	69	63	58	67	62	58	66	61	58	56																											
7	77	66	59	54	76	66	59	54	64	58	54	63	58	54	62	57	53	52																											
8	73	62	55	50	71	61	55	50	60	54	50	59	54	50	58	53	49	48																											
9	69	58	51	47	68	57	51	47	56	51	46	55	50	46	55	50	46	45																											
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43	42																											

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

	0°
0°	93345
5°	93098
10°	91547
15°	90208
20°	88047
25°	83577
30°	68938
35°	35491
40°	23762
45°	20374
50°	17582
55°	15344
60°	13636
65°	12251
70°	11099
75°	9996
80°	8950
85°	8881



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	284.4	7.6
10°-20°	795.0	21.2
20°-30°	1101.5	29.4
30°-40°	661.6	17.7
40°-50°	362.2	9.7
50°-60°	257.3	6.9
60°-70°	167.1	4.5
70°-80°	89.3	2.4
80°-90°	26.6	0.7
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°	2180.9	58.2
0°-40°	2842.6	75.9
0°-60°	3462.1	92.4
0°-90°	3745.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3745.0	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3027	
5°	3008	284
15°	2826	795
25°	2456	1102
35°	943	662
45°	467	362
55°	285	257
65°	168	167
75°	84	89
85°	25	27
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3027.1
2.5°	3021.5
5°	3007.6
7.5°	2974.1
10°	2923.7
12.5°	2876.1
15°	2825.7
17.5°	2761.4
20°	2683.1
22.5°	2587.9
25°	2456.4
27.5°	2249.4
30°	1936.1
32.5°	1418.5
35°	942.8
37.5°	696.6
40°	590.3
42.5°	523.1
45°	467.2
47.5°	414.1
50°	366.5
52.5°	321.7
55°	285.4
57.5°	251.8
60°	221.1
62.5°	193.0
65°	167.9
67.5°	142.7
70°	123.1
72.5°	100.8
75°	83.9
77.5°	67.1
80°	50.4
82.5°	36.4
85°	25.1
87.5°	11.2
90°	0.0



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— 0°-180°







(END OF REPORT)