

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: P593729

Luminaire Tested: **HC850D010-HM82555850-81NDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593729  
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-HM82555850-81NDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4644.1 lumens  
Efficiency: N/A  
Efficacy: 113.3 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

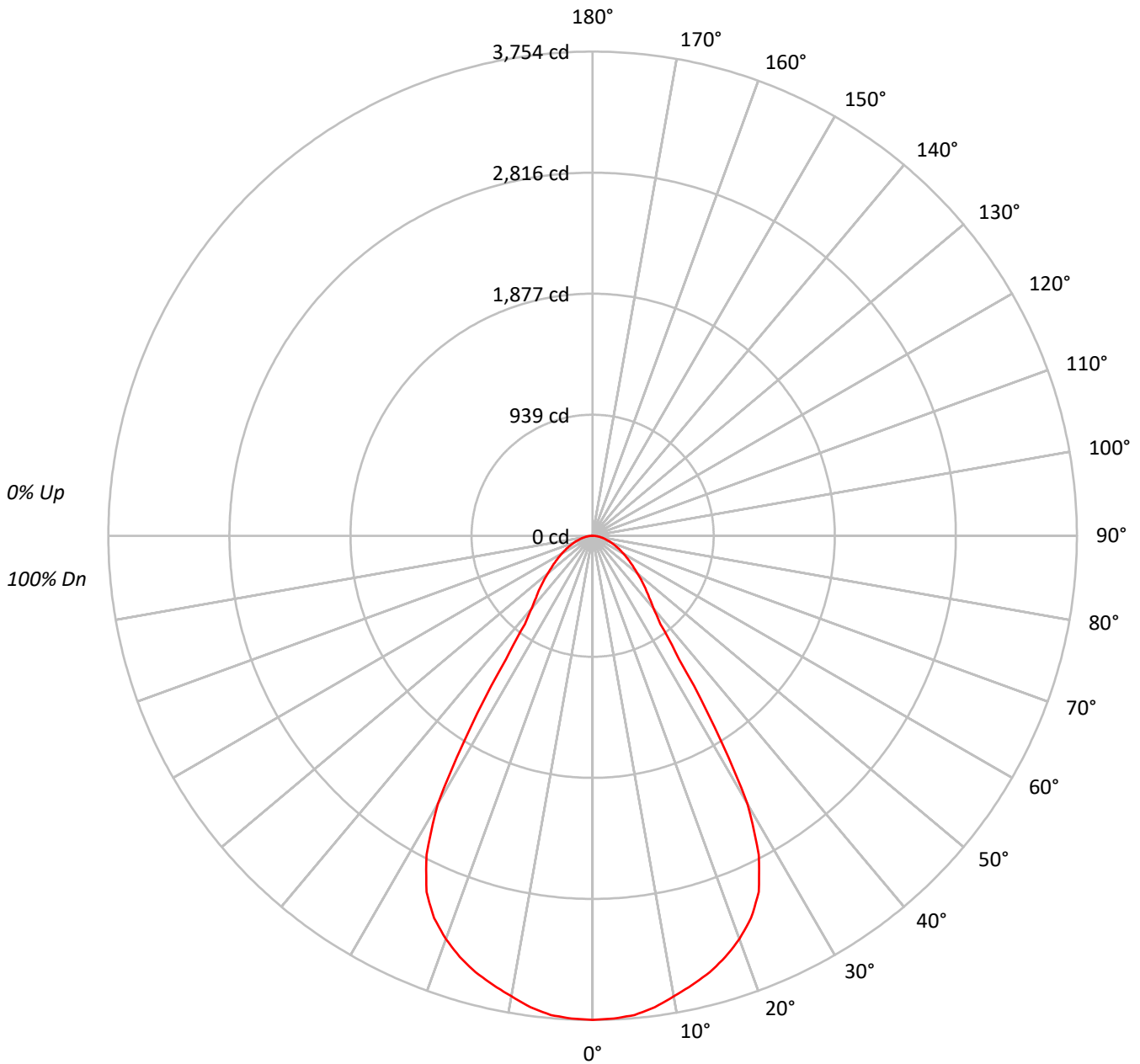
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	115756
5°	115446
10°	113522
15°	111865
20°	109180
25°	103644
30°	85485
35°	44014
40°	29470
45°	25267
50°	21804
55°	19026
60°	16904
65°	15184
70°	13767
75°	12403
80°	11099
85°	11039



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	352.6	7.6
10°-20°	985.9	21.2
20°-30°	1366.0	29.4
30°-40°	820.4	17.7
40°-50°	449.2	9.7
50°-60°	319.1	6.9
60°-70°	207.2	4.5
70°-80°	110.7	2.4
80°-90°	33.0	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°	2704.5	58.2
0°-40°	3524.9	75.9
0°-60°	4293.2	92.4
0°-90°	4644.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4644.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3754	
5°	3730	353
15°	3504	986
25°	3046	1366
35°	1169	820
45°	579	449
55°	354	319
65°	208	207
75°	104	111
85°	31	33
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3753.9
2.5°	3747.0
5°	3729.6
7.5°	3687.9
10°	3625.5
12.5°	3566.5
15°	3504.1
17.5°	3424.2
20°	3327.1
22.5°	3209.2
25°	3046.2
27.5°	2789.4
30°	2400.8
32.5°	1758.9
35°	1169.2
37.5°	863.8
40°	732.1
42.5°	648.8
45°	579.4
47.5°	513.5
50°	454.5
52.5°	399.0
55°	353.9
57.5°	312.3
60°	274.1
62.5°	239.4
65°	208.1
67.5°	177.0
70°	152.7
72.5°	125.0
75°	104.1
77.5°	83.3
80°	62.5
82.5°	45.1
85°	31.2
87.5°	13.9
90°	0.0



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— 0°-180°







(END OF REPORT)