

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: P593797

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593797  
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: 5207.1 lumens  
Efficiency: N/A  
Efficacy: 108.5 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

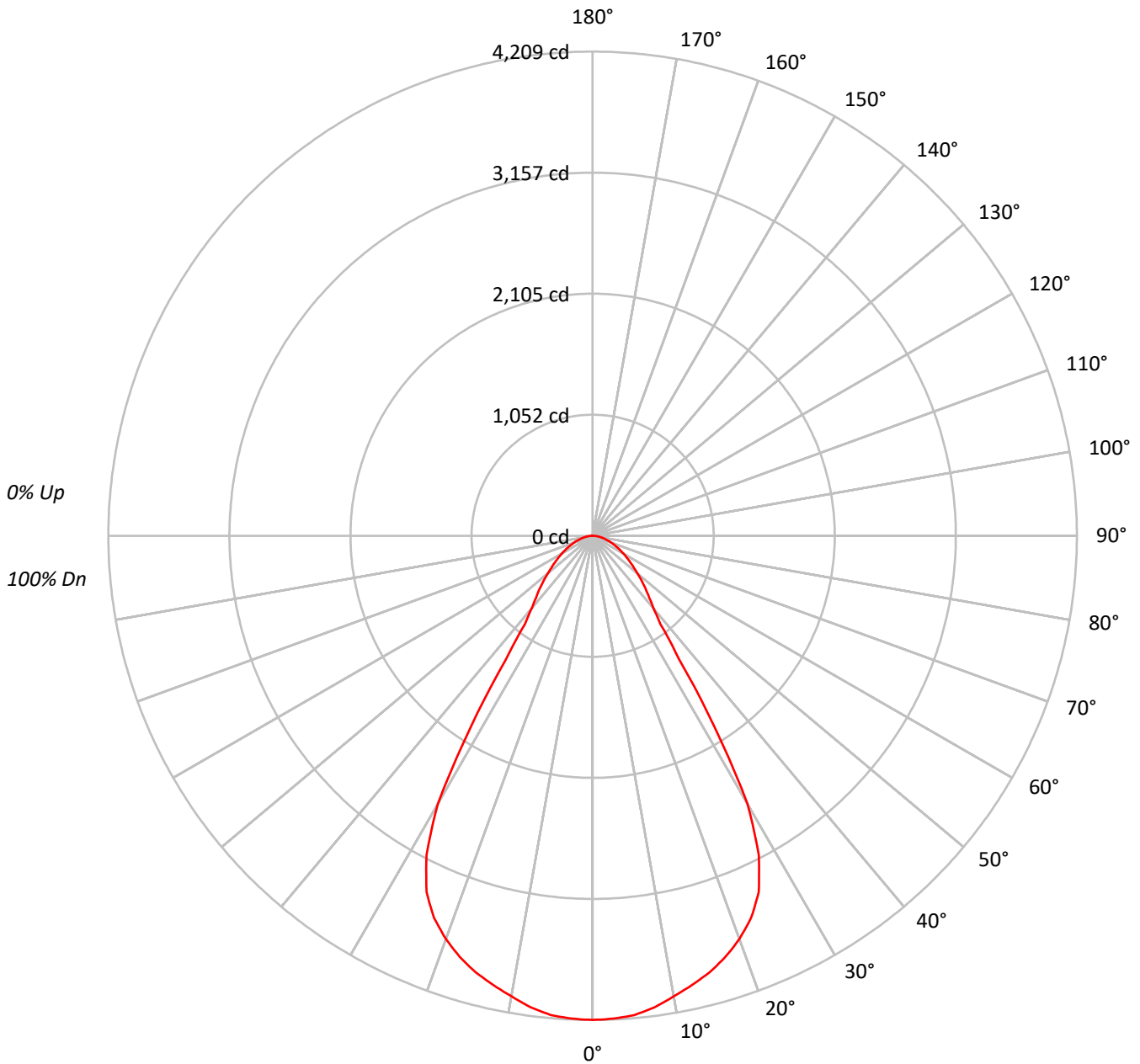
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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°	129793
5°	129447
10°	127286
15°	125430
20°	122421
25°	116209
30°	95853
35°	49348
40°	33040
45°	28328
50°	24447
55°	21333
60°	18952
65°	17030
70°	15426
75°	13904
80°	12431
85°	12383



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	395.4	7.6
10°-20°	1105.4	21.2
20°-30°	1531.6	29.4
30°-40°	919.9	17.7
40°-50°	503.6	9.7
50°-60°	357.8	6.9
60°-70°	232.2	4.5
70°-80°	124.1	2.4
80°-90°	37.0	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°	3032.4	58.2
0°-40°	3952.4	75.9
0°-60°	4813.7	92.4
0°-90°	5207.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5207.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4209	
5°	4182	395
15°	3929	1105
25°	3416	1532
35°	1311	920
45°	650	504
55°	397	358
65°	233	232
75°	117	124
85°	35	37
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4209.1
2.5°	4201.3
5°	4181.9
7.5°	4135.1
10°	4065.1
12.5°	3999.0
15°	3929.0
17.5°	3839.5
20°	3730.6
22.5°	3598.3
25°	3415.5
27.5°	3127.7
30°	2692.0
32.5°	1972.2
35°	1310.9
37.5°	968.6
40°	820.8
42.5°	727.5
45°	649.6
47.5°	575.7
50°	509.6
52.5°	447.4
55°	396.8
57.5°	350.1
60°	307.3
62.5°	268.4
65°	233.4
67.5°	198.4
70°	171.1
72.5°	140.0
75°	116.7
77.5°	93.4
80°	70.0
82.5°	50.6
85°	35.0
87.5°	15.5
90°	0.0



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— 0°-180°







(END OF REPORT)