

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: P584597

Luminaire Tested: **HC840D010-HM82555930-81NDW**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584597  
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: HC840D010-HM82555930-81NDW  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3977.2 lumens  
Efficiency: N/A  
Efficacy: 97.0 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

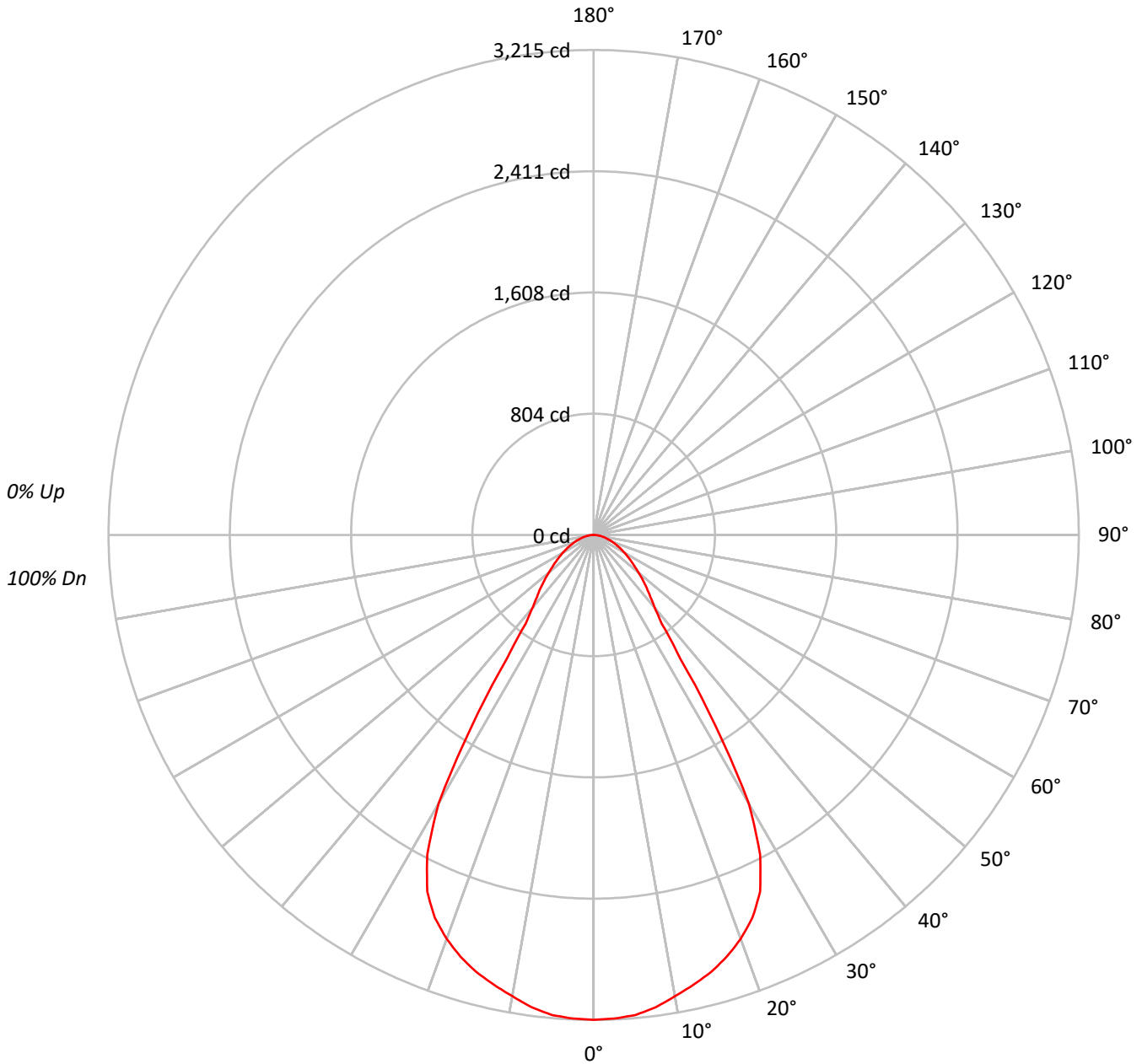
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	99136
5°	98871
10°	97221
15°	95801
20°	93507
25°	88762
30°	73211
35°	37693
40°	25235
45°	21639
50°	18671
55°	16295
60°	14481
65°	13010
70°	11793
75°	10616
80°	9483
85°	9482



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	302.0	7.6
10°-20°	844.3	21.2
20°-30°	1169.9	29.4
30°-40°	702.6	17.7
40°-50°	384.6	9.7
50°-60°	273.2	6.9
60°-70°	177.4	4.5
70°-80°	94.8	2.4
80°-90°	28.3	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°	2316.2	58.2
0°-40°	3018.8	75.9
0°-60°	3676.7	92.4
0°-90°	3977.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3977.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3215	
5°	3194	302
15°	3001	844
25°	2609	1170
35°	1001	703
45°	496	385
55°	303	273
65°	178	177
75°	89	95
85°	27	28
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3214.9
2.5°	3209.0
5°	3194.1
7.5°	3158.5
10°	3104.9
12.5°	3054.5
15°	3000.9
17.5°	2932.6
20°	2849.5
22.5°	2748.4
25°	2608.8
27.5°	2388.9
30°	2056.1
32.5°	1506.4
35°	1001.3
37.5°	739.8
40°	626.9
42.5°	555.6
45°	496.2
47.5°	439.7
50°	389.2
52.5°	341.6
55°	303.1
57.5°	267.4
60°	234.8
62.5°	205.0
65°	178.3
67.5°	151.5
70°	130.8
72.5°	107.0
75°	89.1
77.5°	71.3
80°	53.4
82.5°	38.7
85°	26.8
87.5°	11.9
90°	0.0



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— 0°-180°







(END OF REPORT)