

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: P593723

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593723  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC850D010-HM82555850-81NDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4696.1 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Spacing Criteria (0/90/45): 0.42 / 0.42 / 0.57  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

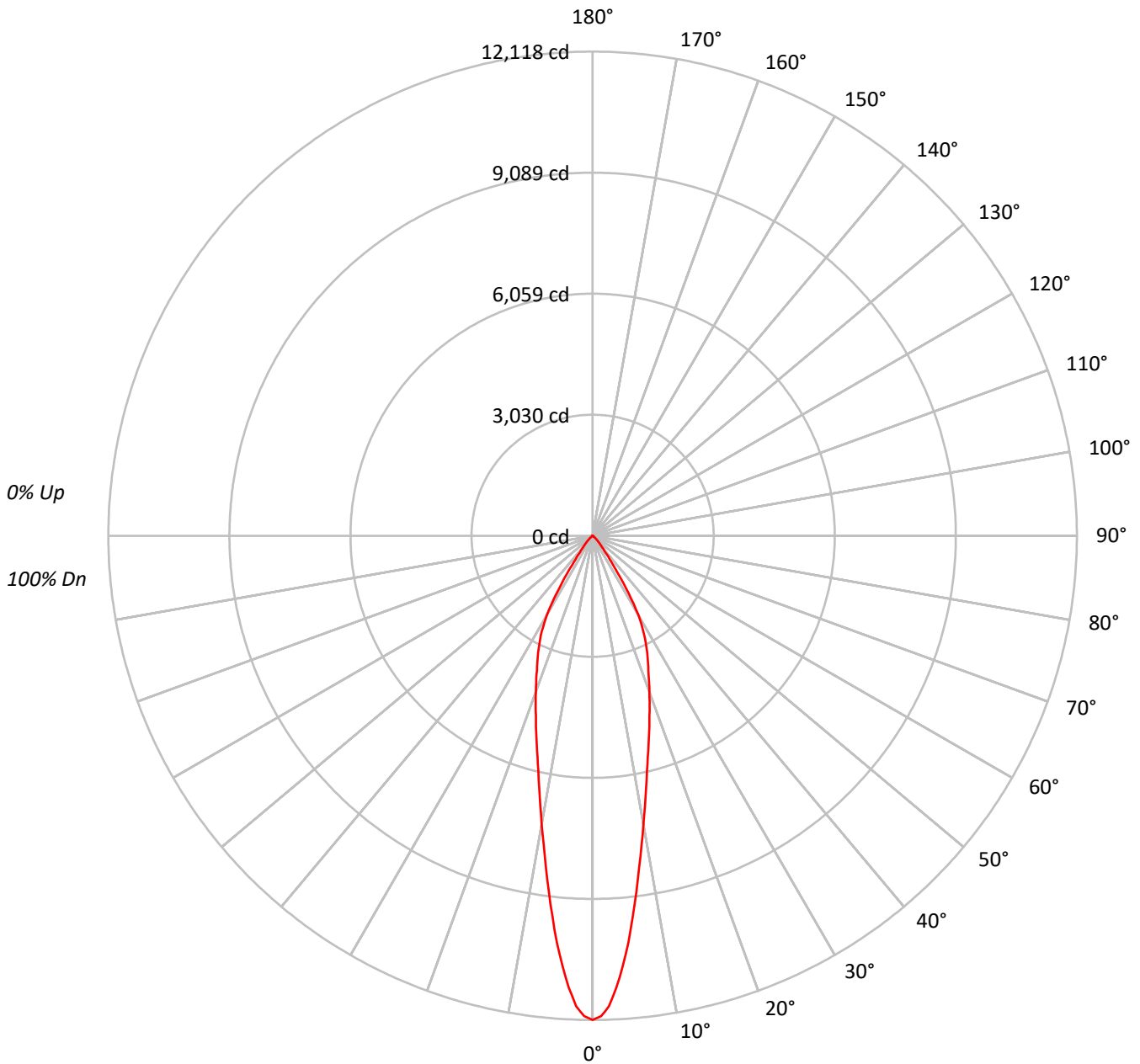
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95			95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89			89
3	104	99	94	91	102	97	93	90	95	91	88	92	90	87	90	88	86	84			84
4	100	93	88	84	98	92	87	84	90	86	83	88	85	82	86	83	81	80			80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75			75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	76	73	72			72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	76	72	69	68			68
8	84	76	71	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65			65
9	81	72	67	64	80	72	67	63	71	66	63	70	66	63	69	66	63	62			62
10	78	69	64	61	77	69	64	61	68	63	60	67	63	60	67	63	60	59			59

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

	0°
0°	373665
5°	316571
10°	229689
15°	172489
20°	136098
25°	109775
30°	81351
35°	32957
40°	13900
45°	7453
50°	3344
55°	1688
60°	1079
65°	766
70°	631
75°	417
80°	622
85°	1238



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	878.1	18.7
10°-20°	1517.5	32.3
20°-30°	1467.2	31.2
30°-40°	644.4	13.7
40°-50°	139.3	3.0
50°-60°	31.3	0.7
60°-70°	10.8	0.2
70°-80°	4.2	0.1
80°-90°	3.3	0.1
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°	3862.8	82.3
0°-40°	4507.2	96.0
0°-60°	4677.8	99.6
0°-90°	4696.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4696.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	12118	
5°	10227	878
15°	5403	1518
25°	3226	1467
35°	876	644
45°	171	139
55°	31	31
65°	10	11
75°	4	4
85°	4	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	12117.7
1°	12027.0
2°	11779.3
3°	11332.8
4°	10799.1
5°	10227.1
6°	9602.8
7°	8974.9
8°	8385.5
9°	7837.8
10°	7335.5
11°	6861.1
12°	6435.5
13°	6048.4
14°	5706.5
15°	5403.1
17.5°	4722.9
20°	4147.4
22.5°	3641.6
25°	3226.4
27.5°	2804.5
30°	2284.7
32.5°	1552.2
35°	875.5
37.5°	516.2
40°	345.3
42.5°	244.2
45°	170.9
47.5°	111.6
50°	69.7
52.5°	41.9
55°	31.4
57.5°	24.4
60°	17.5
62.5°	13.9
65°	10.5
67.5°	7.0
70°	7.0
72.5°	3.5
75°	3.5
77.5°	3.5
80°	3.5
82.5°	3.5



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**CANDELA DISTRIBUTION (continued):**

0°  
90° | 0.0



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— 0°-180°







85°	3.5
87.5°	3.5



(END OF REPORT)