

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: P584579

Luminaire Tested: **HC840D010-HM82555927-81NDH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584579  
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: HC840D010-HM82555927-81NDH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3377.4 lumens  
Efficiency: N/A  
Efficacy: 82.4 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

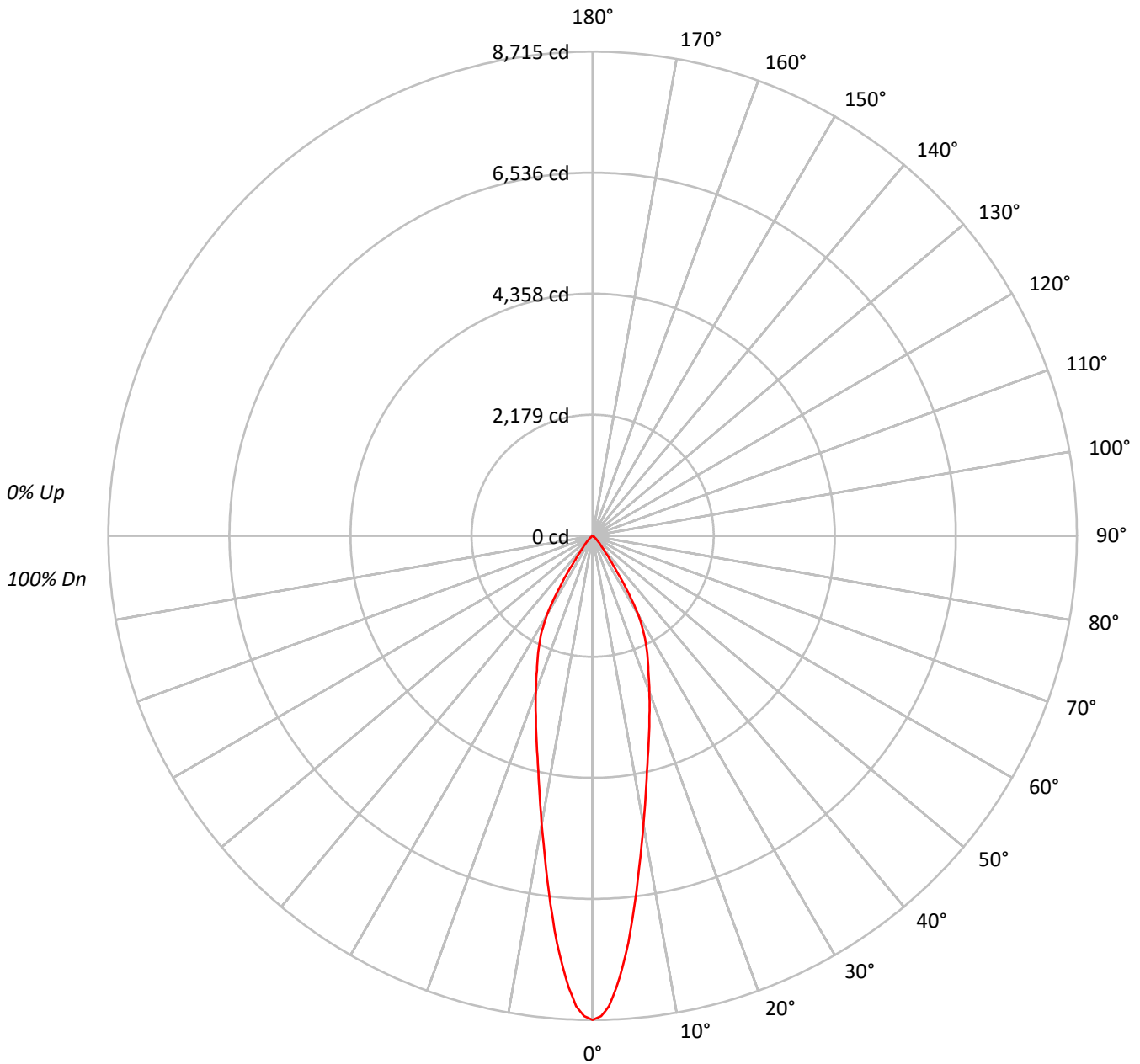
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	268742
5°	227680
10°	165193
15°	124054
20°	97878
25°	78953
30°	58509
35°	23701
40°	9999
45°	5360
50°	2408
55°	1215
60°	771
65°	547
70°	451
75°	298
80°	444
85°	885



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	631.5	18.7
10°-20°	1091.4	32.3
20°-30°	1055.2	31.2
30°-40°	463.5	13.7
40°-50°	100.2	3.0
50°-60°	22.5	0.7
60°-70°	7.7	0.2
70°-80°	3.0	0.1
80°-90°	2.4	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°	2778.2	82.3
0°-40°	3241.6	96.0
0°-60°	3364.3	99.6
0°-90°	3377.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3377.4	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	8715	
5°	7355	632
15°	3886	1091
25°	2320	1055
35°	630	463
45°	123	100
55°	23	23
65°	8	8
75°	2	3
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	8715.1
1°	8649.9
2°	8471.7
3°	8150.5
4°	7766.8
5°	7355.4
6°	6906.3
7°	6454.8
8°	6030.8
9°	5636.9
10°	5275.7
11°	4934.6
12°	4628.5
13°	4350.0
14°	4104.2
15°	3885.9
17.5°	3396.7
20°	2982.7
22.5°	2619.1
25°	2320.5
27.5°	2016.9
30°	1643.2
32.5°	1116.3
35°	629.6
37.5°	371.3
40°	248.4
42.5°	175.6
45°	122.9
47.5°	80.3
50°	50.2
52.5°	30.1
55°	22.6
57.5°	17.6
60°	12.5
62.5°	10.0
65°	7.5
67.5°	5.0
70°	5.0
72.5°	2.5
75°	2.5
77.5°	2.5
80°	2.5
82.5°	2.5



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**CANDELA DISTRIBUTION (continued):**

0°  
90° | 0.0



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— 0°-180°







85°	2.5
87.5°	2.5



(END OF REPORT)