

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: P593727

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

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P593727  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC850D010-HM82555850-81WDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WIDE DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5826.7 lumens  
Efficiency: N/A  
Efficacy: 142.1 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.05  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

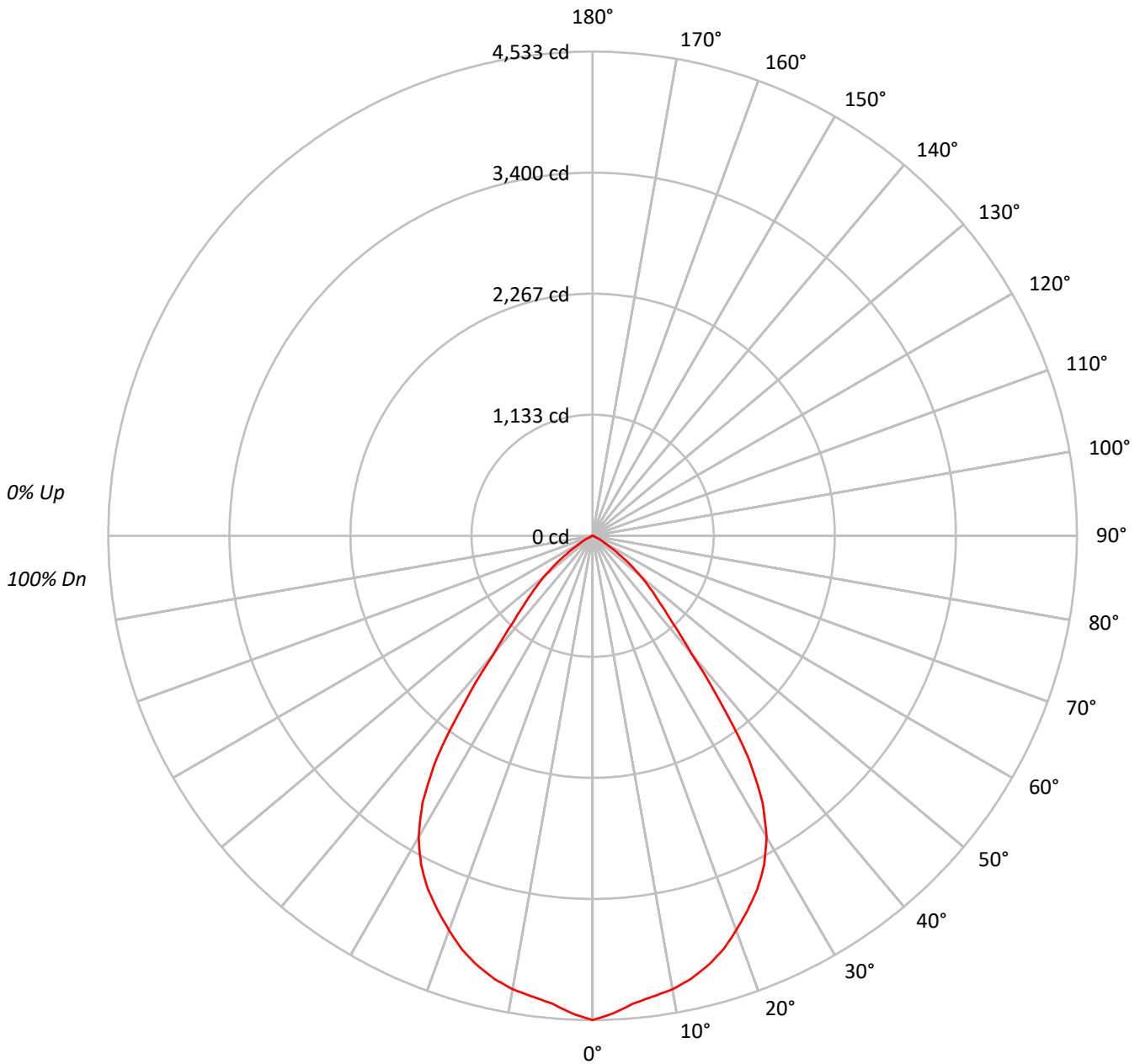
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92			
2	106	101	96	93	104	99	95	92	96	92	90	93	90	88	90	88	86	84			
3	100	93	87	83	98	91	86	82	89	84	81	86	83	79	84	81	78	77			
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	71	70			
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64			
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60	59			
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	63	59	55	54			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50			
9	70	59	53	48	69	59	52	48	58	52	48	57	51	48	56	51	47	46			
10	66	55	49	45	65	55	49	45	54	48	44	53	48	44	52	48	44	43			

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

	0°
0°	139793
5°	136034
10°	135002
15°	132989
20°	128964
25°	124154
30°	115971
35°	95974
40°	57942
45°	39026
50°	28122
55°	16037
60°	7062
65°	2525
70°	938
75°	417
80°	0
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	417.5	7.2
10°-20°	1170.7	20.1
20°-30°	1670.1	28.7
30°-40°	1520.8	26.1
40°-50°	717.4	12.3
50°-60°	282.1	4.8
60°-70°	45.0	0.8
70°-80°	3.2	0.1
80°-90°	0.0	0.0
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°	3258.3	55.9
0°-40°	4779.1	82.0
0°-60°	5778.6	99.2
0°-90°	5826.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5826.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	4533	
5°	4395	418
15°	4166	1171
25°	3649	1670
35°	2550	1521
45°	895	717
55°	298	282
65°	35	45
75°	4	3
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	4533.4
2.5°	4474.5
5°	4394.7
7.5°	4349.6
10°	4311.5
12.5°	4249.0
15°	4165.8
17.5°	4061.7
20°	3930.0
22.5°	3791.2
25°	3649.0
27.5°	3475.5
30°	3257.0
32.5°	2962.1
35°	2549.5
37.5°	1970.2
40°	1439.4
42.5°	1106.5
45°	894.9
47.5°	735.3
50°	586.2
52.5°	440.5
55°	298.3
57.5°	187.3
60°	114.5
62.5°	69.4
65°	34.6
67.5°	17.4
70°	10.4
72.5°	3.5
75°	3.5
77.5°	0.0
80°	0.0
82.5°	0.0
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)