

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: P584901

Luminaire Tested: **HC850D010-HM82555940-81NDC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584901  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC850D010-HM82555940-81NDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5496.3 lumens  
Efficiency: N/A  
Efficacy: 114.5 lumens/watt  
Spacing Criteria (0/90/45): 0.22 / 0.22 / 0.27  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

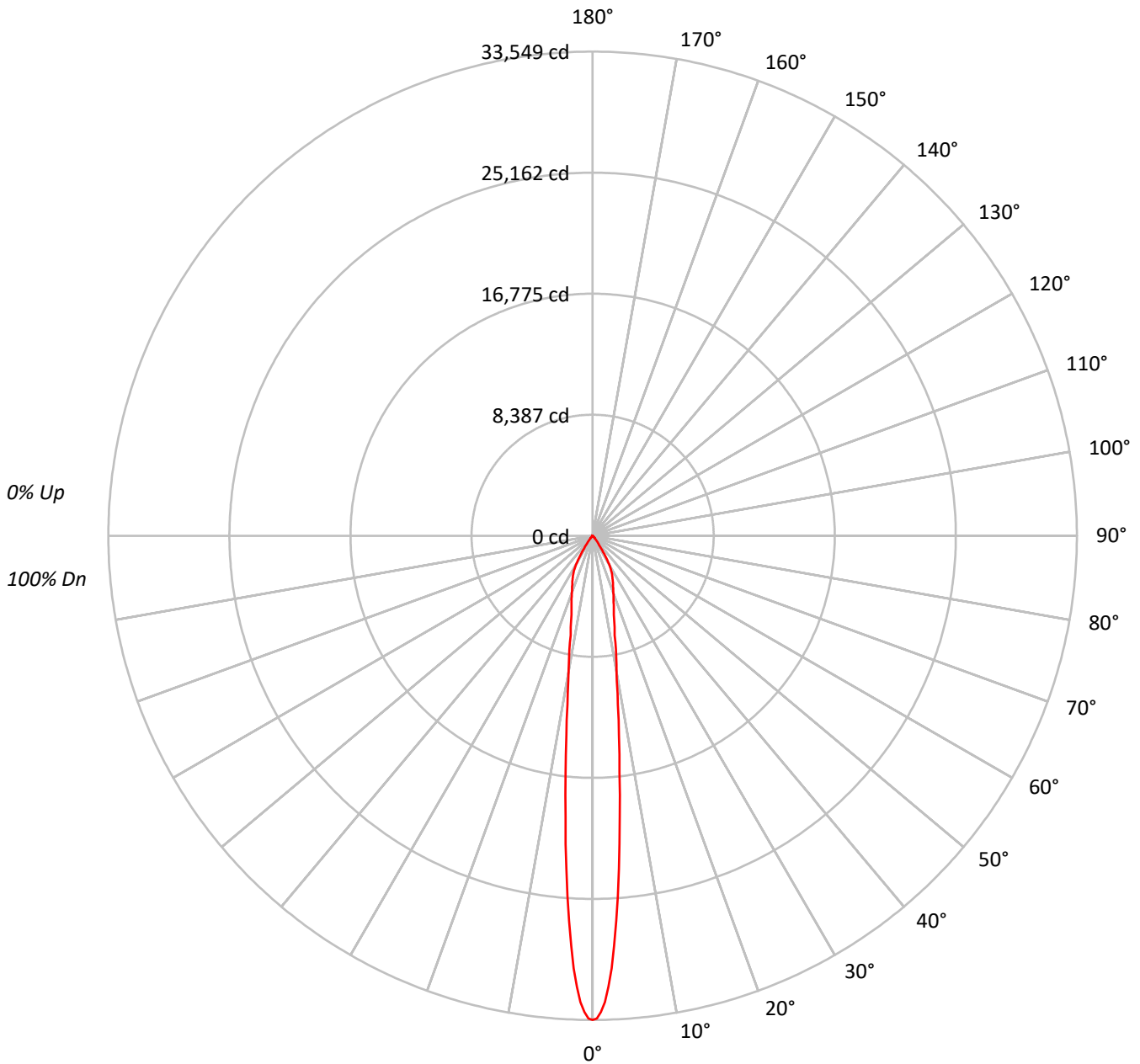
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96	96	96	96
2	110	106	103	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	91	91	91
3	106	101	97	93	104	99	96	93	97	94	91	95	92	90	92	90	89	87	87	87	87
4	102	96	91	88	100	95	91	88	93	89	87	91	88	86	89	87	85	83	83	83	83
5	98	92	87	83	97	91	86	83	89	85	82	87	84	82	86	83	81	80	80	80	80
6	95	88	83	79	93	87	82	79	86	82	79	84	81	78	83	80	78	76	76	76	76
7	91	84	79	76	90	83	79	76	82	78	75	81	78	75	80	77	75	73	73	73	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	77	74	72	71	71	71	71
9	85	78	73	70	84	77	73	70	76	72	70	76	72	69	75	72	69	68	68	68	68
10	83	75	70	67	82	75	70	67	74	70	67	73	69	67	73	69	67	66	66	66	66

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

	0°
0°	1034521
5°	663563
10°	299756
15°	180863
20°	137828
25°	111300
30°	81564
35°	29532
40°	11022
45°	5002
50°	1597
55°	398
60°	228
65°	270
70°	0
75°	0
80°	657
85°	1309



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1635.0	29.7
10°-20°	1660.6	30.2
20°-30°	1486.6	27.0
30°-40°	598.8	10.9
40°-50°	98.2	1.8
50°-60°	8.9	0.2
60°-70°	3.2	0.1
70°-80°	2.5	0.0
80°-90°	3.5	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°	4782.2	87.0
0°-40°	5381.0	97.9
0°-60°	5488.1	99.9
0°-90°	5497.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5496.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	33549	
5°	21437	###
15°	5665	1661
25°	3271	1487
35°	784	599
45°	115	98
55°	7	9
65°	4	3
75°	0	2
85°	4	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	33548.8
0.5°	33445.2
1°	33012.2
1.5°	32316.5
2°	31261.9
2.5°	30014.8
3°	28453.2
3.5°	26739.8
4°	25045.0
4.5°	23146.7
5°	21437.0
5.5°	19575.7
6°	18065.8
6.5°	16493.2
7°	15257.2
7.5°	13951.0
8°	12899.9
8.5°	11845.4
9°	11053.4
9.5°	10180.1
10°	9573.2
12.5°	7060.5
15°	5665.4
17.5°	4840.2
20°	4200.1
22.5°	3689.4
25°	3271.2
27.5°	2853.1
30°	2290.7
32.5°	1472.8
35°	784.5
37.5°	433.0
40°	273.8
42.5°	181.3
45°	114.7
47.5°	70.3
50°	33.3
52.5°	11.1
55°	7.4
57.5°	3.7
60°	3.7
62.5°	3.7
65°	3.7



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**CANDELA DISTRIBUTION (continued):**

	0°
72.5°	0.0
75°	0.0
77.5°	3.7
80°	3.7
82.5°	3.7
85°	3.7
87.5°	3.7
90°	0.0



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— 0°-180°







67.5°		3.7
70°		0.0



(END OF REPORT)