

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: P584255

Luminaire Tested: **HC830D010-HM82555830-81NDC**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P584255  
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: HC830D010-HM82555830-81NDC  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3221.8 lumens  
Efficiency: N/A  
Efficacy: 115.1 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

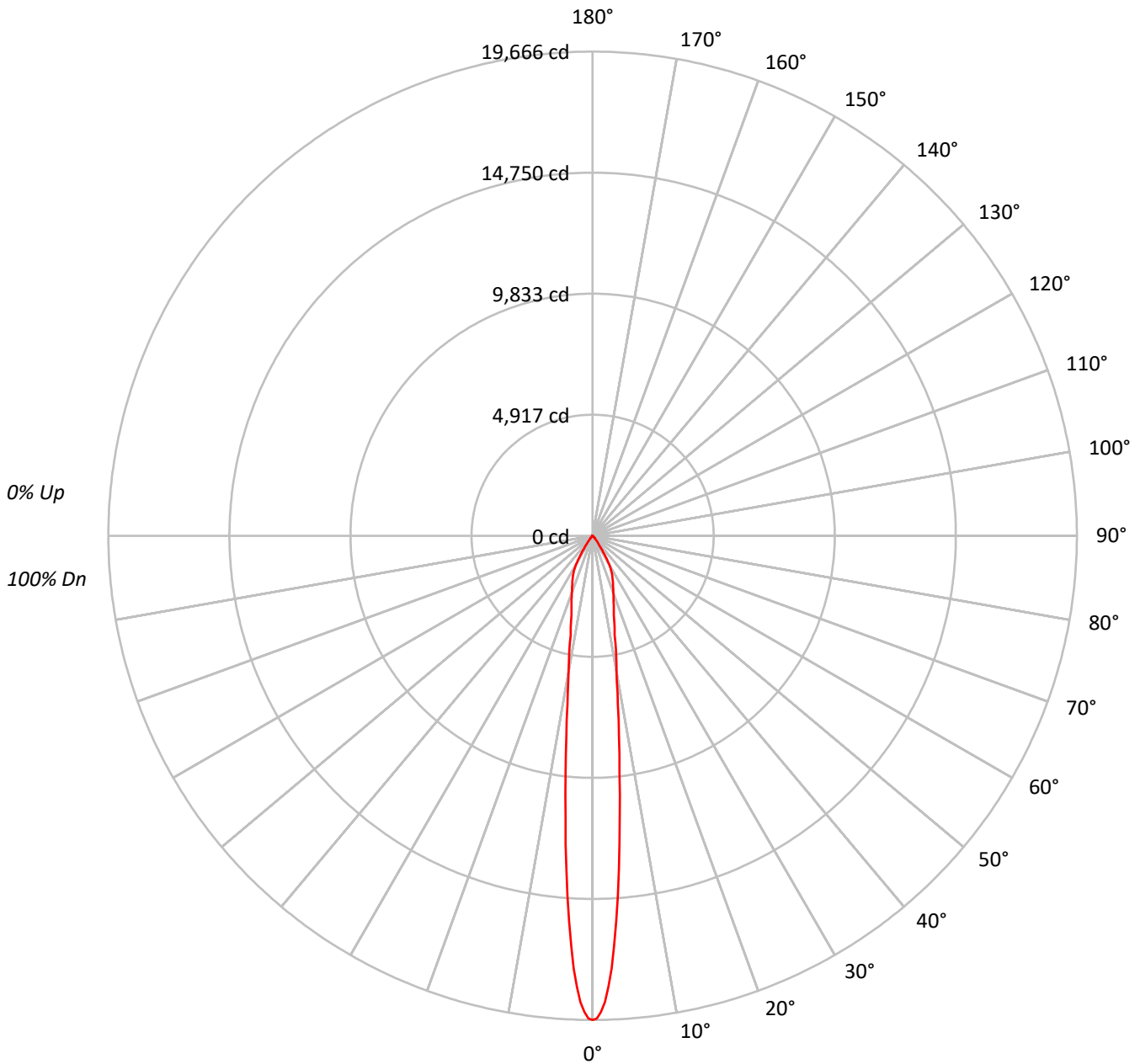
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	606430
5°	388975
10°	175714
15°	106023
20°	80795
25°	65245
30°	47809
35°	17313
40°	6461
45°	2935
50°	935
55°	231
60°	130
65°	153
70°	0
75°	0
80°	373
85°	743



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	958.4	29.7
10°-20°	973.5	30.2
20°-30°	871.4	27.0
30°-40°	351.0	10.9
40°-50°	57.6	1.8
50°-60°	5.2	0.2
60°-70°	1.8	0.1
70°-80°	1.4	0.0
80°-90°	2.0	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°	2803.3	87.0
0°-40°	3154.3	97.9
0°-60°	3217.1	99.9
0°-90°	3222.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3221.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	19666	
5°	12566	958
15°	3321	973
25°	1918	871
35°	460	351
45°	67	58
55°	4	5
65°	2	2
75°	0	1
85°	2	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	19666.1
0.5°	19605.3
1°	19351.6
1.5°	18943.7
2°	18325.5
2.5°	17594.5
3°	16679.1
3.5°	15674.7
4°	14681.2
4.5°	13568.4
5°	12566.2
5.5°	11475.2
6°	10590.1
6.5°	9668.1
7°	8943.7
7.5°	8177.9
8°	7561.9
8.5°	6943.6
9°	6479.5
9.5°	5967.5
10°	5611.7
12.5°	4138.9
15°	3321.1
17.5°	2837.3
20°	2462.1
22.5°	2162.7
25°	1917.6
27.5°	1672.4
30°	1342.7
32.5°	863.3
35°	459.9
37.5°	253.9
40°	160.5
42.5°	106.3
45°	67.3
47.5°	41.3
50°	19.5
52.5°	6.5
55°	4.3
57.5°	2.1
60°	2.1
62.5°	2.1
65°	2.1



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**CANDELA DISTRIBUTION (continued):**

	0°
72.5°	0.0
75°	0.0
77.5°	2.1
80°	2.1
82.5°	2.1
85°	2.1
87.5°	2.1
90°	0.0



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— 0°-180°







67.5°		2.1
70°		0.0



(END OF REPORT)