

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: P579928

Luminaire Tested: **HC415D010-HM40525930-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579928  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC415D010-HM40525930-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1164.5 lumens  
Efficiency: N/A  
Efficacy: 83.2 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.01  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

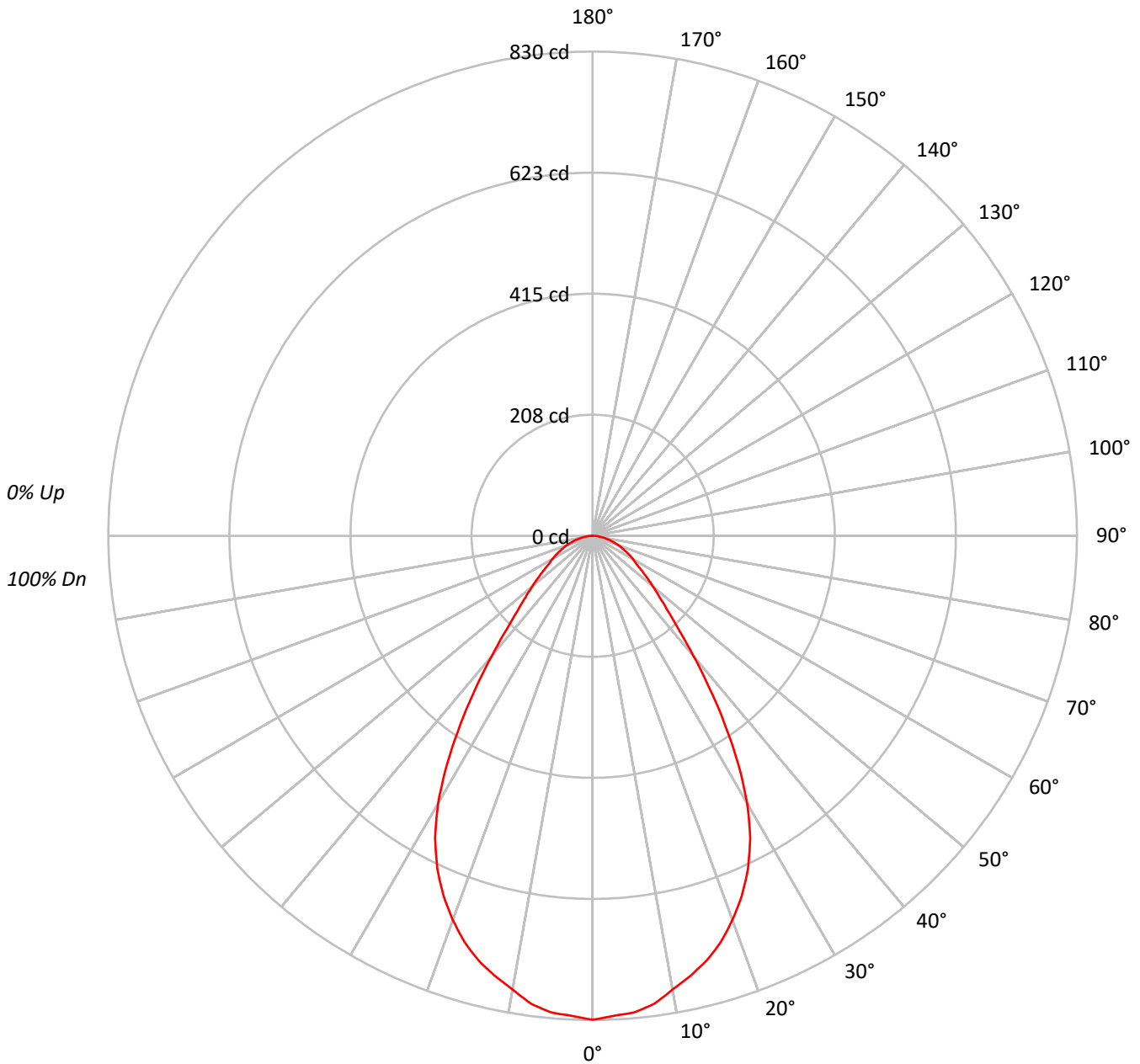
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	104	101	109	105	102	100	101	99	97	98	96	94	94	92	91	89		
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79		
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71		
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64		
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58		
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	52		
7	75	63	56	51	73	62	56	51	61	55	50	60	54	50	59	53	50	48		
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44		
9	66	55	48	43	65	54	47	43	53	47	43	52	47	43	51	46	42	41		
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38		

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

	0°
0°	102328
5°	101555
10°	98921
15°	96309
20°	91988
25°	85714
30°	75458
35°	59523
40°	43201
45°	31748
50°	25829
55°	21655
60°	19637
65°	18008
70°	16770
75°	15346
80°	13780
85°	11888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.3	6.6
10°-20°	211.5	18.2
20°-30°	286.8	24.6
30°-40°	246.1	21.1
40°-50°	145.3	12.5
50°-60°	92.1	7.9
60°-70°	61.8	5.3
70°-80°	34.1	2.9
80°-90°	9.5	0.8
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°	575.6	49.4
0°-40°	821.7	70.6
0°-60°	1059.1	90.9
0°-90°	1164.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1164.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	830	
5°	820	77
15°	754	212
25°	630	287
35°	395	246
45°	182	145
55°	101	92
65°	62	62
75°	32	34
85°	8	10
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	829.6
2.5°	823.6
5°	820.2
7.5°	809.2
10°	789.8
12.5°	772.8
15°	754.2
17.5°	730.5
20°	700.8
22.5°	667.9
25°	629.8
27.5°	584.9
30°	529.8
32.5°	464.7
35°	395.3
37.5°	328.5
40°	268.3
42.5°	218.4
45°	182.0
47.5°	155.8
50°	134.6
52.5°	116.8
55°	100.7
57.5°	88.0
60°	79.6
62.5°	71.1
65°	61.7
67.5°	54.1
70°	46.5
72.5°	38.9
75°	32.2
77.5°	25.4
80°	19.4
82.5°	13.5
85°	8.4
87.5°	3.4
90°	0.0



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— 0°-180°







(END OF REPORT)