

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: P579946

Luminaire Tested: **HC415D010-HM40525935-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579946  
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-HM40525935-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1226.7 lumens  
Efficiency: N/A  
Efficacy: 87.6 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

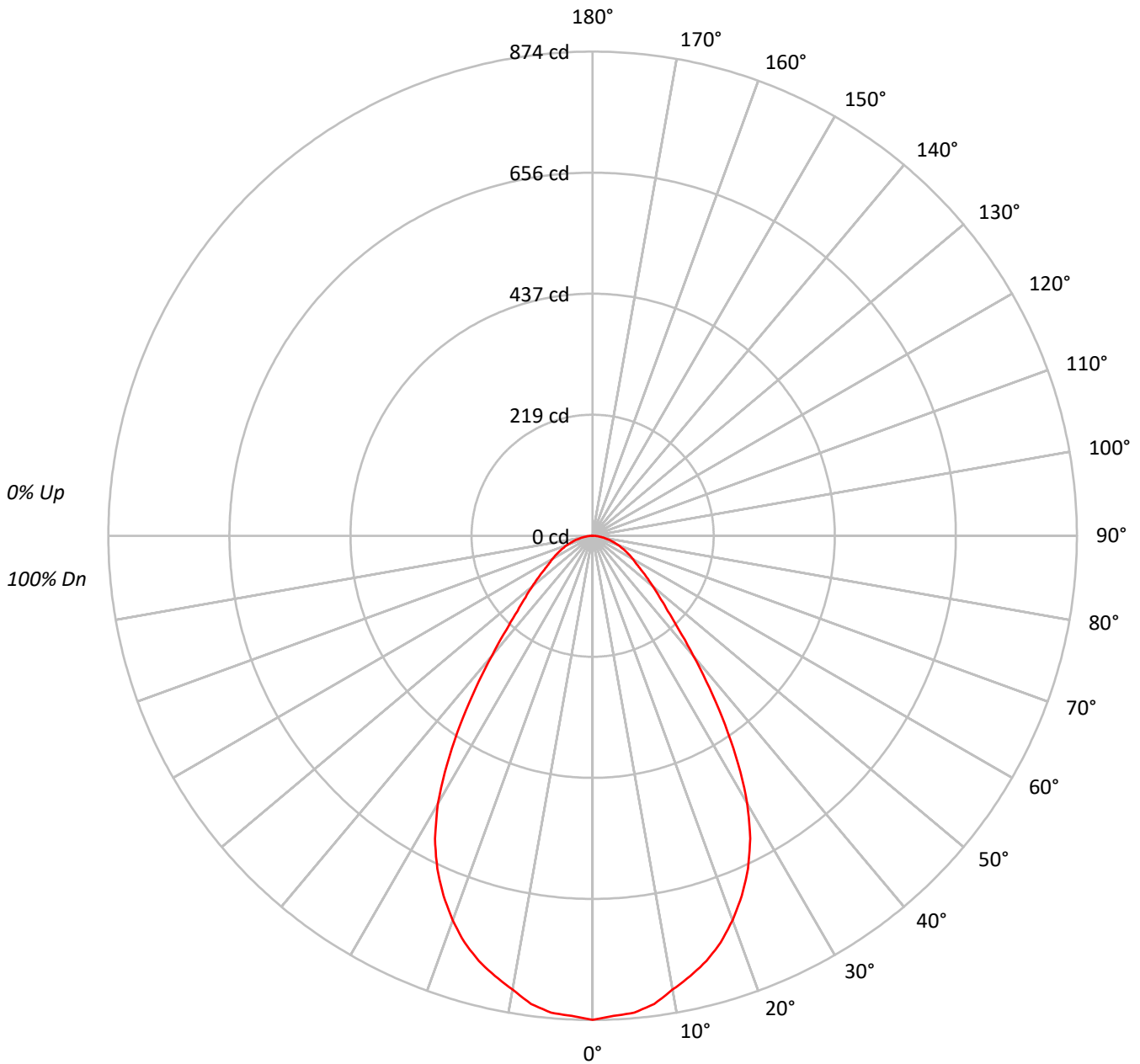
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	107779
5°	106978
10°	104182
15°	101442
20°	96910
25°	90273
30°	79503
35°	62700
40°	45519
45°	33440
50°	27210
55°	22816
60°	20673
65°	18971
70°	17671
75°	16156
80°	14562
85°	12596



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.5	6.6
10°-20°	222.8	18.2
20°-30°	302.1	24.6
30°-40°	259.2	21.1
40°-50°	153.1	12.5
50°-60°	97.0	7.9
60°-70°	65.1	5.3
70°-80°	36.0	2.9
80°-90°	10.0	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°	606.3	49.4
0°-40°	865.6	70.6
0°-60°	1115.6	90.9
0°-90°	1226.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1226.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	874	
5°	864	81
15°	794	223
25°	663	302
35°	416	259
45°	192	153
55°	106	97
65°	65	65
75°	34	36
85°	9	10
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	873.8
2.5°	867.5
5°	864.0
7.5°	852.4
10°	831.8
12.5°	814.1
15°	794.4
17.5°	769.5
20°	738.3
22.5°	703.5
25°	663.3
27.5°	616.1
30°	558.2
32.5°	489.5
35°	416.4
37.5°	346.0
40°	282.7
42.5°	230.0
45°	191.7
47.5°	164.1
50°	141.8
52.5°	123.0
55°	106.1
57.5°	92.8
60°	83.8
62.5°	74.9
65°	65.0
67.5°	57.1
70°	49.0
72.5°	41.0
75°	33.9
77.5°	26.7
80°	20.5
82.5°	14.2
85°	8.9
87.5°	3.5
90°	0.0



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— 0°-180°







(END OF REPORT)