

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: P579892

Luminaire Tested: **HC415D010-HM40525840-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579892  
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-HM40525840-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1411.6 lumens  
Efficiency: N/A  
Efficacy: 100.8 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

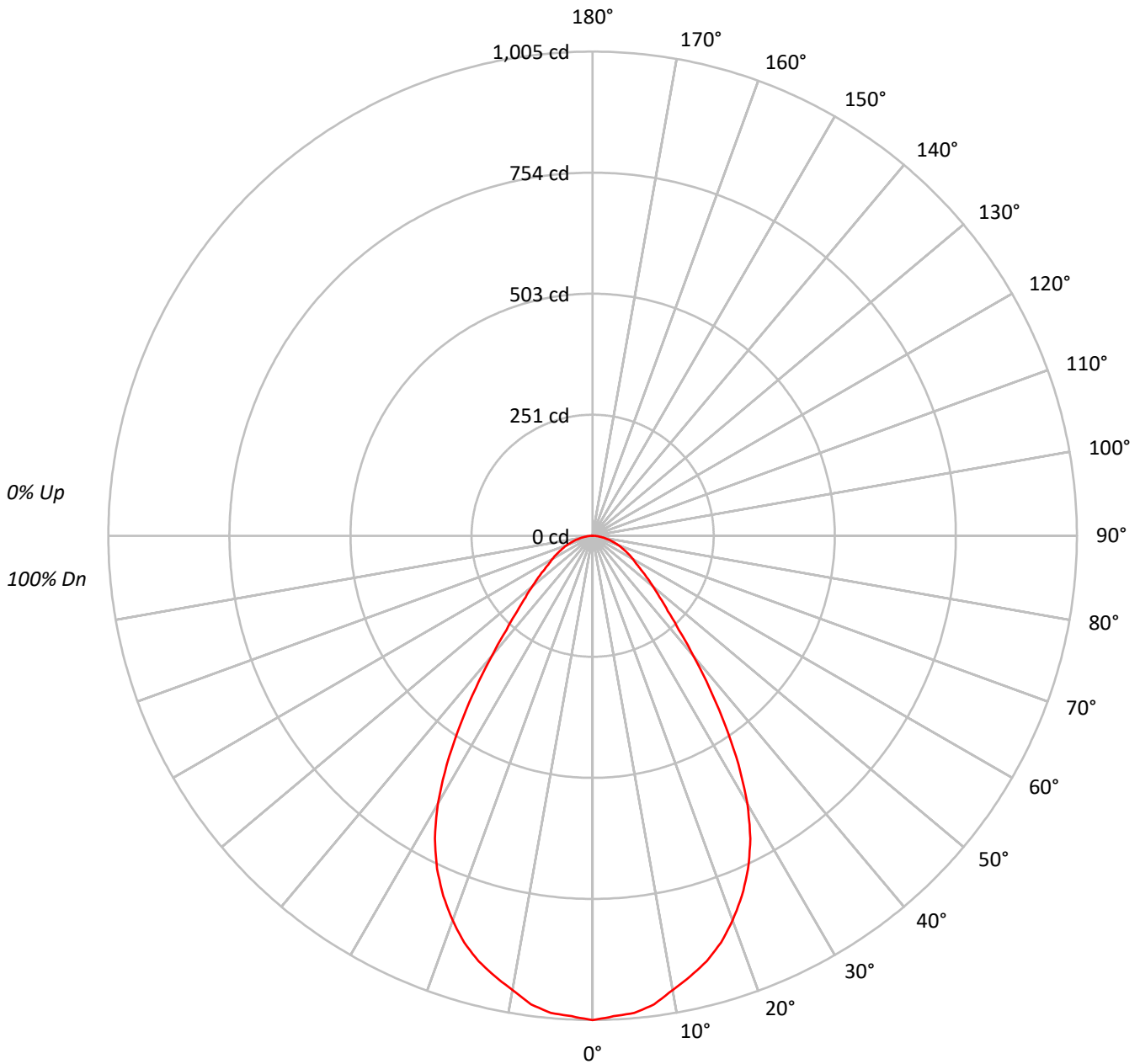
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	124012
5°	123099
10°	119888
15°	116728
20°	111507
25°	103883
30°	91481
35°	72142
40°	52362
45°	38481
50°	31317
55°	26257
60°	23781
65°	21860
70°	20340
75°	18586
80°	16764
85°	14435



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.7	6.6
10°-20°	256.4	18.2
20°-30°	347.6	24.6
30°-40°	298.3	21.1
40°-50°	176.1	12.5
50°-60°	111.6	7.9
60°-70°	75.0	5.3
70°-80°	41.4	2.9
80°-90°	11.6	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°	697.7	49.4
0°-40°	995.9	70.6
0°-60°	1283.7	90.9
0°-90°	1411.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1411.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1005	
5°	994	94
15°	914	256
25°	763	348
35°	479	298
45°	221	176
55°	122	112
65°	75	75
75°	39	41
85°	10	12
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1005.4
2.5°	998.3
5°	994.2
7.5°	980.8
10°	957.2
12.5°	936.7
15°	914.1
17.5°	885.4
20°	849.5
22.5°	809.4
25°	763.3
27.5°	708.9
30°	642.3
32.5°	563.3
35°	479.1
37.5°	398.1
40°	325.2
42.5°	264.7
45°	220.6
47.5°	188.7
50°	163.2
52.5°	141.6
55°	122.1
57.5°	106.7
60°	96.4
62.5°	86.2
65°	74.9
67.5°	65.6
70°	56.4
72.5°	47.2
75°	39.0
77.5°	30.8
80°	23.6
82.5°	16.4
85°	10.2
87.5°	4.1
90°	0.0



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— 0°-180°







(END OF REPORT)