

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: P592658

Luminaire Tested: **HC420D010-HM40525850-41MDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-5)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525850-41MDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2051.1 lumens  
Efficiency: N/A  
Efficacy: 102.6 lumens/watt  
Spacing Criteria (0/90/45): 0.9 / 0.9 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

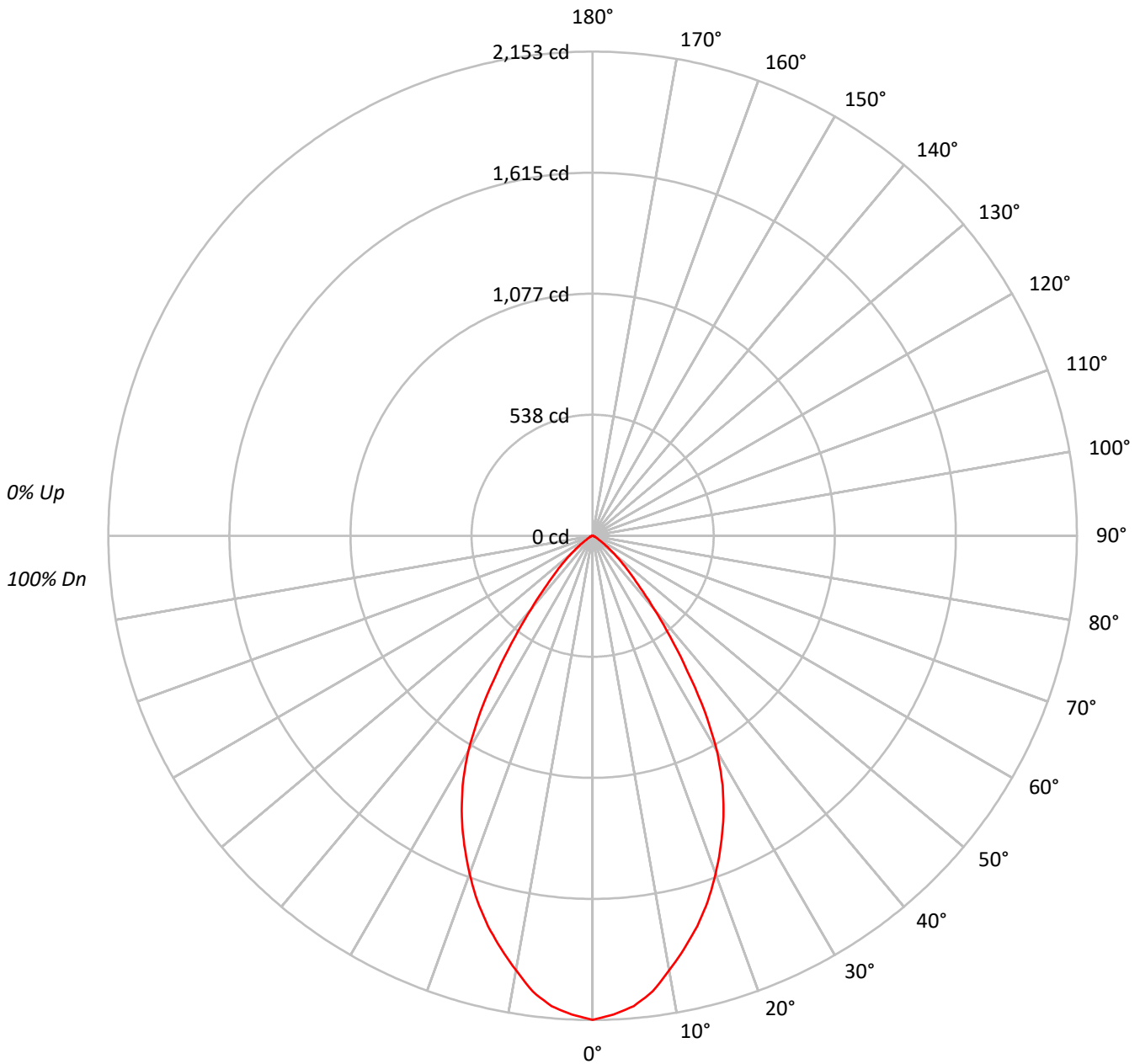
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				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	113	110	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93				93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86				86
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79				79
4	96	88	82	78	94	87	81	77	85	80	76	82	79	75	81	77	74	73				73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67				67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62				62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58				58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54				54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51				51
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	47				47

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

	0°
0°	265526
5°	259978
10°	245687
15°	229458
20°	209861
25°	187405
30°	157368
35°	110704
40°	68303
45°	40871
50°	24102
55°	12021
60°	6192
65°	4086
70°	2524
75°	1954
80°	994
85°	1981



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.1	9.6
10°-20°	502.3	24.5
20°-30°	626.4	30.5
30°-40°	461.4	22.5
40°-50°	189.8	9.3
50°-60°	55.5	2.7
60°-70°	14.2	0.7
70°-80°	4.4	0.2
80°-90°	1.0	0.0
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°	1324.8	64.6
0°-40°	1786.2	87.1
0°-60°	2031.5	99.0
0°-90°	2051.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2051.1	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2153	
5°	2100	196
15°	1797	502
25°	1377	626
35°	735	461
45°	234	190
55°	56	55
65°	14	14
75°	4	4
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2152.7
2.5°	2130.4
5°	2099.7
7.5°	2043.8
10°	1961.6
12.5°	1880.6
15°	1796.9
17.5°	1703.5
20°	1598.8
22.5°	1490.1
25°	1377.0
27.5°	1251.5
30°	1104.9
32.5°	927.8
35°	735.2
37.5°	565.0
40°	424.2
42.5°	313.9
45°	234.3
47.5°	173.0
50°	125.6
52.5°	86.5
55°	55.9
57.5°	33.5
60°	25.1
62.5°	18.1
65°	14.0
67.5°	9.7
70°	7.0
72.5°	5.6
75°	4.1
77.5°	2.8
80°	1.4
82.5°	1.4
85°	1.4
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)