

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: P579994

Luminaire Tested: **HC420D010-HM40525830-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579994  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525830-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2091.9 lumens  
Efficiency: N/A  
Efficacy: 104.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

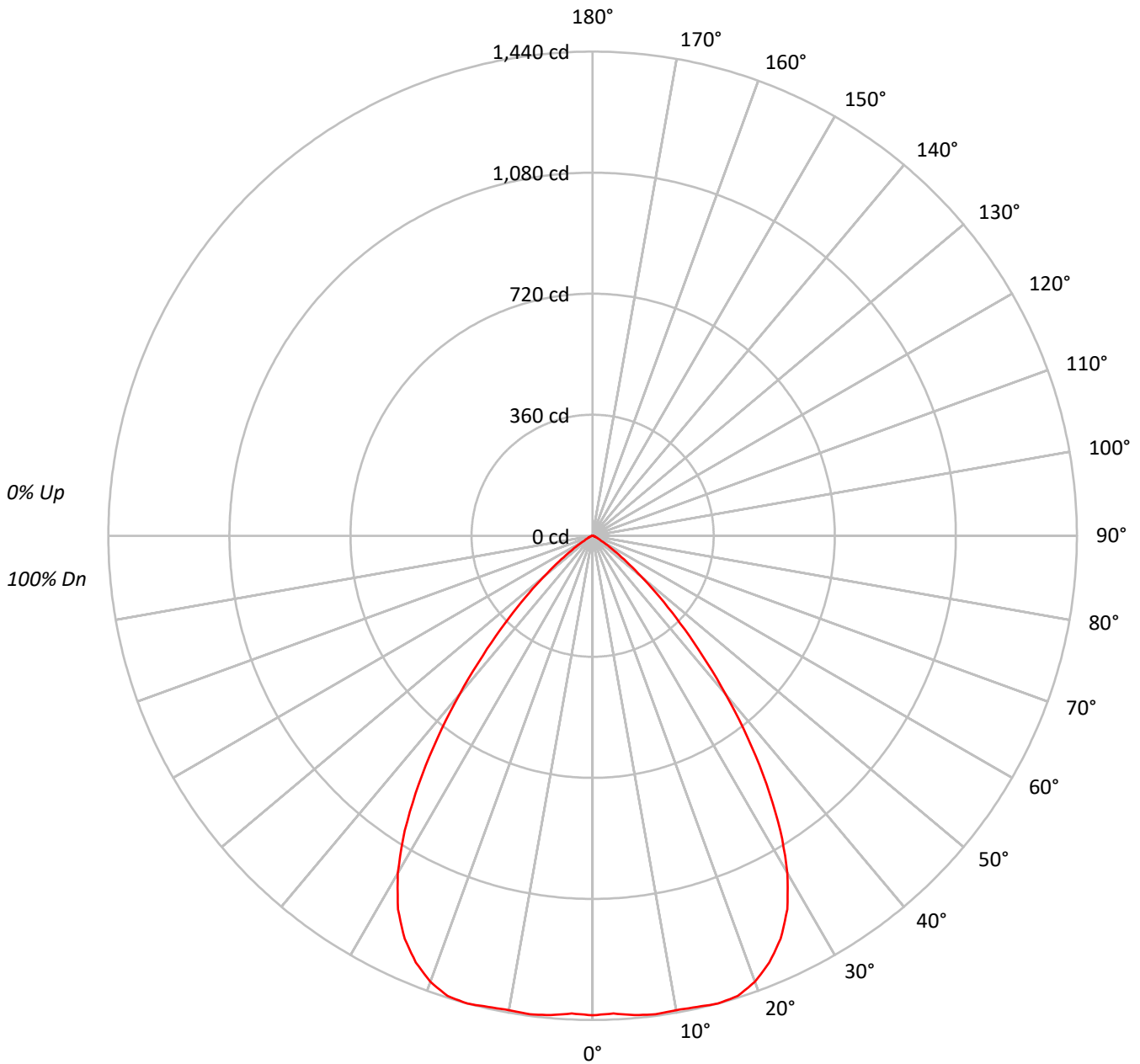
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20				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	107	104	110	108	105	103	103	101	100	100	98	97	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84				84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				69
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63				63
6	83	73	66	61	81	72	66	61	70	65	61	69	64	60	68	63	60	58				58
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53				53
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49				49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45				45
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43	42				42

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

	0°
0°	175891
5°	177207
10°	179418
15°	183934
20°	185276
25°	179974
30°	165016
35°	135775
40°	98977
45°	64245
50°	36210
55°	17182
60°	6784
65°	4232
70°	2849
75°	1859
80°	923
85°	1840



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.7	6.5
10°-20°	406.1	19.4
20°-30°	602.3	28.8
30°-40°	556.3	26.6
40°-50°	290.5	13.9
50°-60°	79.6	3.8
60°-70°	15.3	0.7
70°-80°	4.3	0.2
80°-90°	0.9	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°	1145.0	54.7
0°-40°	1701.3	81.3
0°-60°	2071.4	99.0
0°-90°	2091.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2091.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1426	
5°	1431	137
15°	1440	406
25°	1322	602
35°	902	556
45°	368	290
55°	80	80
65°	14	15
75°	4	4
85°	1	1
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1426.0
2.5°	1422.1
5°	1431.2
7.5°	1435.1
10°	1432.5
12.5°	1435.1
15°	1440.4
17.5°	1435.1
20°	1411.5
22.5°	1373.5
25°	1322.4
27.5°	1253.0
30°	1158.6
32.5°	1039.3
35°	901.7
37.5°	757.5
40°	614.7
42.5°	483.6
45°	368.3
47.5°	270.0
50°	188.7
52.5°	125.8
55°	79.9
57.5°	47.1
60°	27.5
62.5°	19.6
65°	14.5
67.5°	10.4
70°	7.9
72.5°	5.3
75°	3.9
77.5°	2.6
80°	1.3
82.5°	1.3
85°	1.3
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)