

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: P592684

Luminaire Tested: **HC420D010-HM40525950-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592684  
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: HC420D010-HM40525950-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1728.9 lumens  
Efficiency: N/A  
Efficacy: 86.4 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

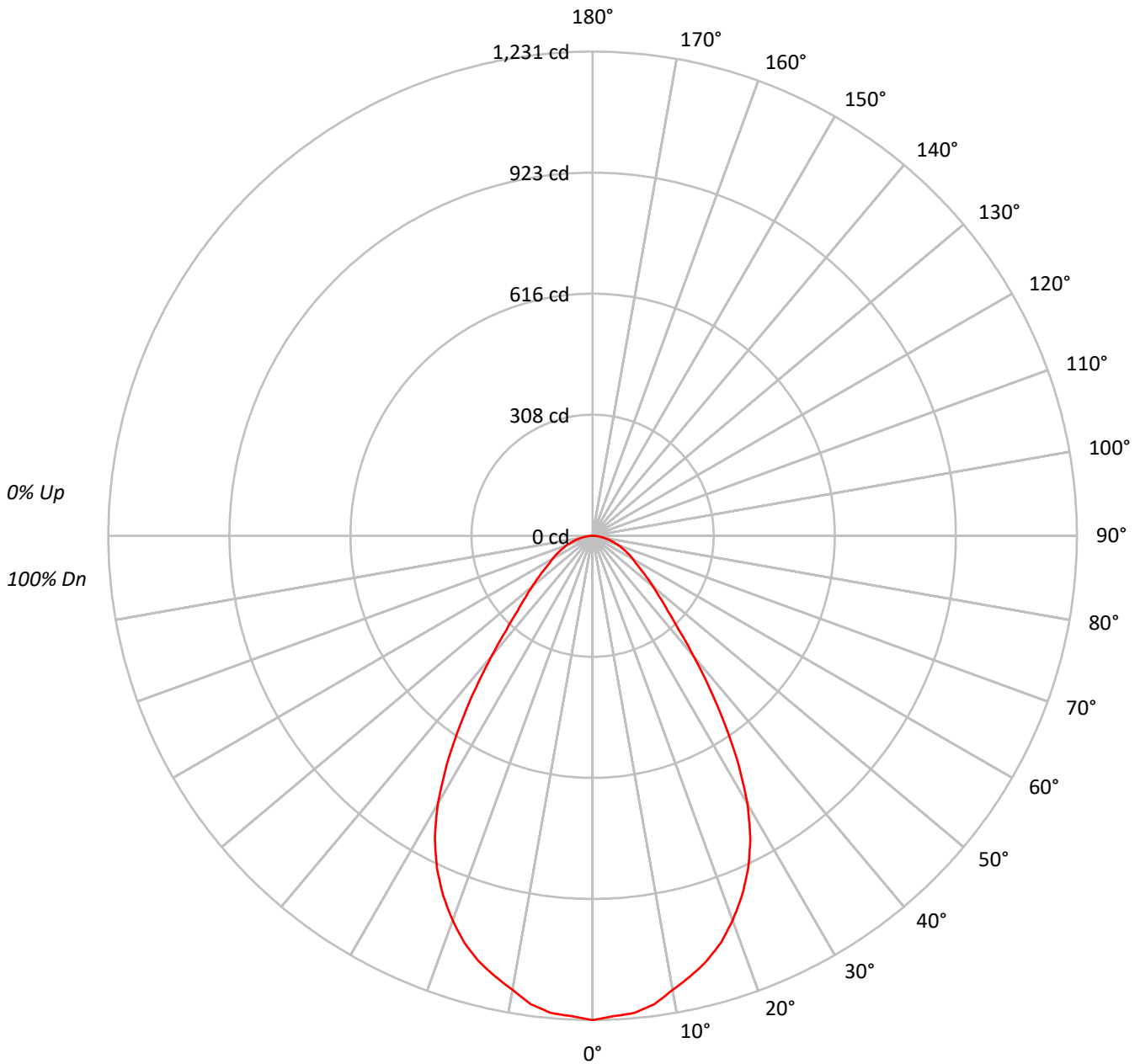
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20				
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°	151888
5°	150772
10°	146829
15°	142969
20°	136565
25°	127237
30°	112033
35°	88359
40°	64149
45°	47115
50°	38340
55°	32171
60°	29134
65°	26793
70°	24956
75°	22732
80°	20528
85°	17832



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.8	6.6
10°-20°	314.0	18.2
20°-30°	425.7	24.6
30°-40°	365.3	21.1
40°-50°	215.7	12.5
50°-60°	136.7	7.9
60°-70°	91.8	5.3
70°-80°	50.7	2.9
80°-90°	14.2	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°	854.5	49.4
0°-40°	1219.8	70.6
0°-60°	1572.2	90.9
0°-90°	1728.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1728.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1231	
5°	1218	115
15°	1120	314
25°	935	426
35°	587	365
45°	270	216
55°	150	137
65°	92	92
75°	48	51
85°	13	14
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1231.4
2.5°	1222.6
5°	1217.7
7.5°	1201.3
10°	1172.3
12.5°	1147.2
15°	1119.6
17.5°	1084.4
20°	1040.4
22.5°	991.5
25°	934.9
27.5°	868.3
30°	786.6
32.5°	689.8
35°	586.8
37.5°	487.6
40°	398.4
42.5°	324.1
45°	270.1
47.5°	231.2
50°	199.8
52.5°	173.4
55°	149.6
57.5°	130.6
60°	118.1
62.5°	105.5
65°	91.8
67.5°	80.4
70°	69.2
72.5°	57.8
75°	47.7
77.5°	37.7
80°	28.9
82.5°	20.1
85°	12.6
87.5°	5.0
90°	0.0



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— 0°-180°







(END OF REPORT)