

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: P592685

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592685  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525950-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1776.7 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

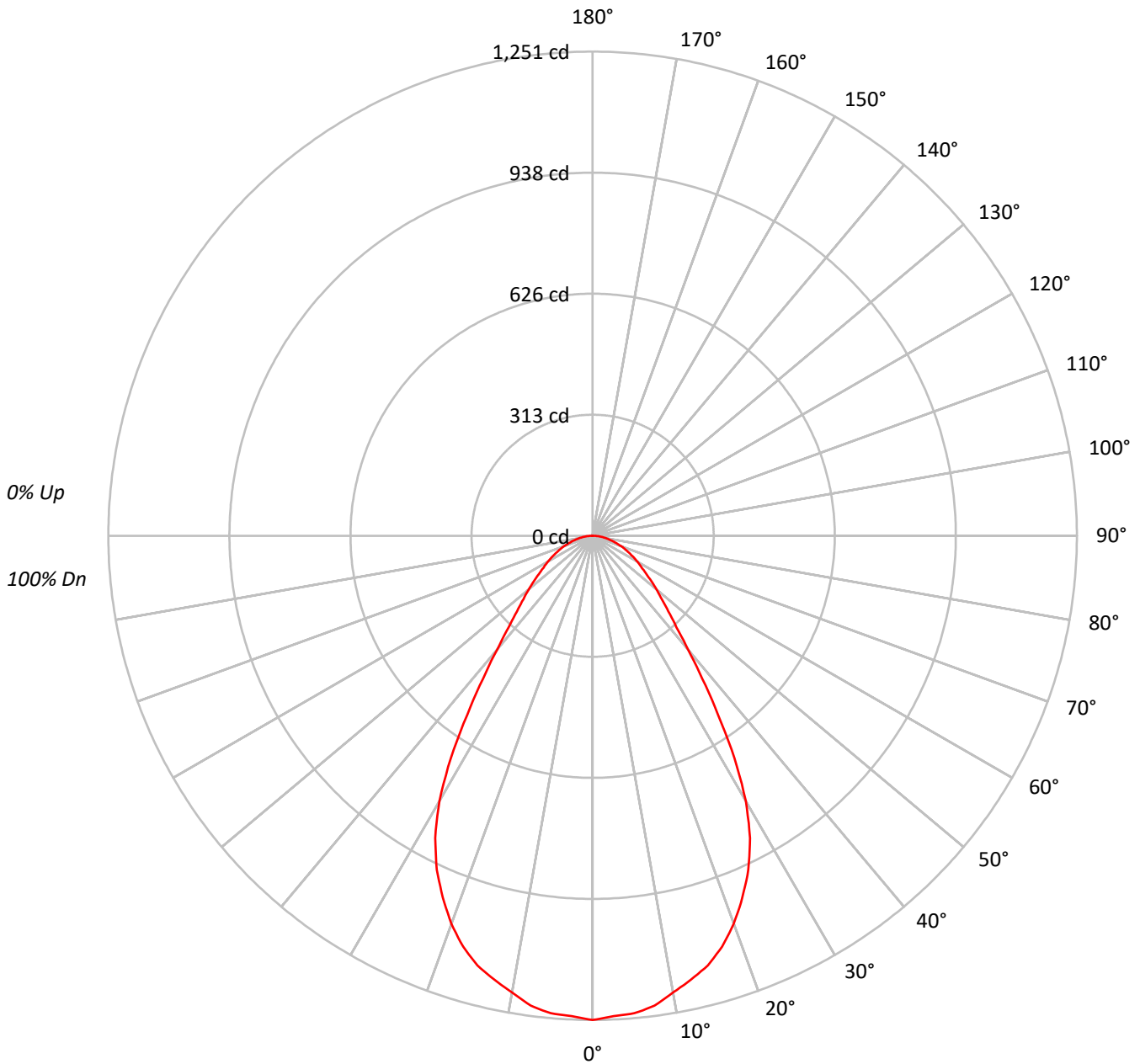
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				20				
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			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78			
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			
4	90	80	73	68	88	79	72	67	77	71	66	74	69	65	72	68	65	63			
5	84	74	66	61	82	72	66	60	71	64	60	69	63	59	67	62	59	57			
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52			
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47			
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44			
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			

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

	0°
0°	154318
5°	153347
10°	150098
15°	146775
20°	139991
25°	129578
30°	112703
35°	85106
40°	61685
45°	48197
50°	41218
55°	35676
60°	32859
65°	30062
70°	28094
75°	25735
80°	24151
85°	23068



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	117.0	6.6
10°-20°	322.0	18.1
20°-30°	432.9	24.4
30°-40°	356.0	20.0
40°-50°	218.6	12.3
50°-60°	151.3	8.5
60°-70°	103.1	5.8
70°-80°	57.5	3.2
80°-90°	18.3	1.0
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°	871.9	49.1
0°-40°	1227.8	69.1
0°-60°	1597.8	89.9
0°-90°	1776.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1776.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1251	
5°	1238	117
15°	1149	322
25°	952	433
35°	565	356
45°	276	219
55°	166	151
65°	103	103
75°	54	57
85°	16	18
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1251.1
2.5°	1242.3
5°	1238.5
7.5°	1224.8
10°	1198.4
12.5°	1174.5
15°	1149.4
17.5°	1112.9
20°	1066.5
22.5°	1011.2
25°	952.1
27.5°	880.6
30°	791.3
32.5°	682.1
35°	565.2
37.5°	464.8
40°	383.1
42.5°	320.4
45°	276.3
47.5°	242.5
50°	214.8
52.5°	189.7
55°	165.9
57.5°	148.2
60°	133.2
62.5°	118.0
65°	103.0
67.5°	90.5
70°	77.9
72.5°	65.3
75°	54.0
77.5°	42.7
80°	34.0
82.5°	25.1
85°	16.3
87.5°	8.8
90°	0.0



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— 0°-180°







(END OF REPORT)