

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: P580086

Luminaire Tested: **HC420D010-HM40525935-41PSMDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580086  
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-HM40525935-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1714.6 lumens  
Efficiency: N/A  
Efficacy: 85.7 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

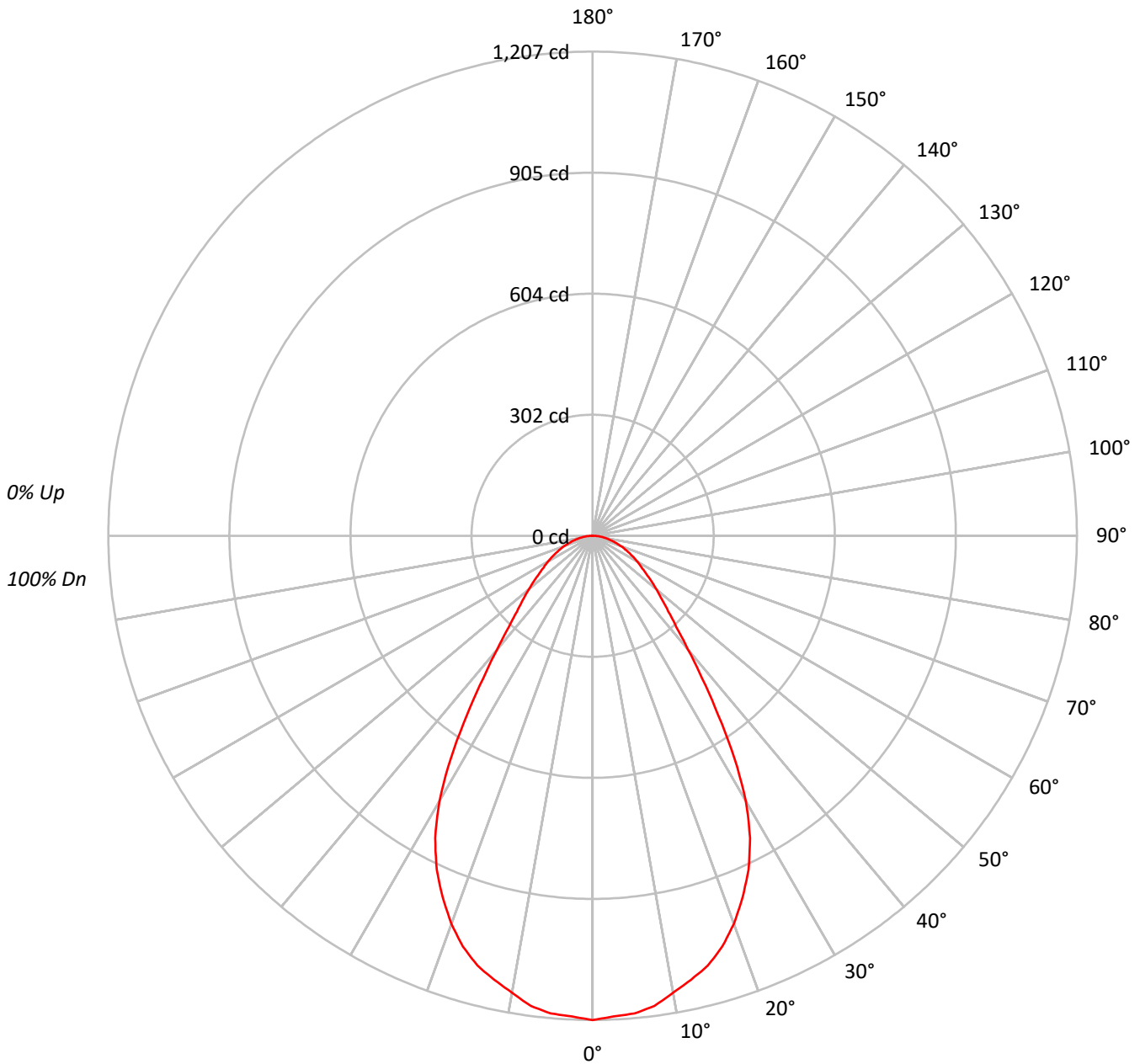
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			
2	103	97	92	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°	148928
5°	147998
10°	144850
15°	141654
20°	135095
25°	125059
30°	108786
35°	82140
40°	59544
45°	46522
50°	39779
55°	34407
60°	31700
65°	29011
70°	27084
75°	24829
80°	23227
85°	22219



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.9	6.6
10°-20°	310.7	18.1
20°-30°	417.8	24.4
30°-40°	343.6	20.0
40°-50°	211.0	12.3
50°-60°	146.0	8.5
60°-70°	99.5	5.8
70°-80°	55.5	3.2
80°-90°	17.6	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°	841.4	49.1
0°-40°	1185.0	69.1
0°-60°	1542.0	89.9
0°-90°	1714.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1714.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1207	
5°	1195	113
15°	1109	311
25°	919	418
35°	546	344
45°	267	211
55°	160	146
65°	99	100
75°	52	55
85°	16	18
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1207.4
2.5°	1199.0
5°	1195.3
7.5°	1182.0
10°	1156.5
12.5°	1133.5
15°	1109.3
17.5°	1074.1
20°	1029.2
22.5°	975.9
25°	918.9
27.5°	849.8
30°	763.8
32.5°	658.3
35°	545.5
37.5°	448.6
40°	369.8
42.5°	309.1
45°	266.7
47.5°	234.0
50°	207.3
52.5°	183.1
55°	160.0
57.5°	143.0
60°	128.5
62.5°	113.9
65°	99.4
67.5°	87.3
70°	75.1
72.5°	63.1
75°	52.1
77.5°	41.2
80°	32.7
82.5°	24.2
85°	15.7
87.5°	8.5
90°	0.0



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— 0°-180°







(END OF REPORT)