

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: P580014

Luminaire Tested: **HC420D010-HM40525835-41NDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580014  
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-HM40525835-41NDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1868.2 lumens  
Efficiency: N/A  
Efficacy: 93.4 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

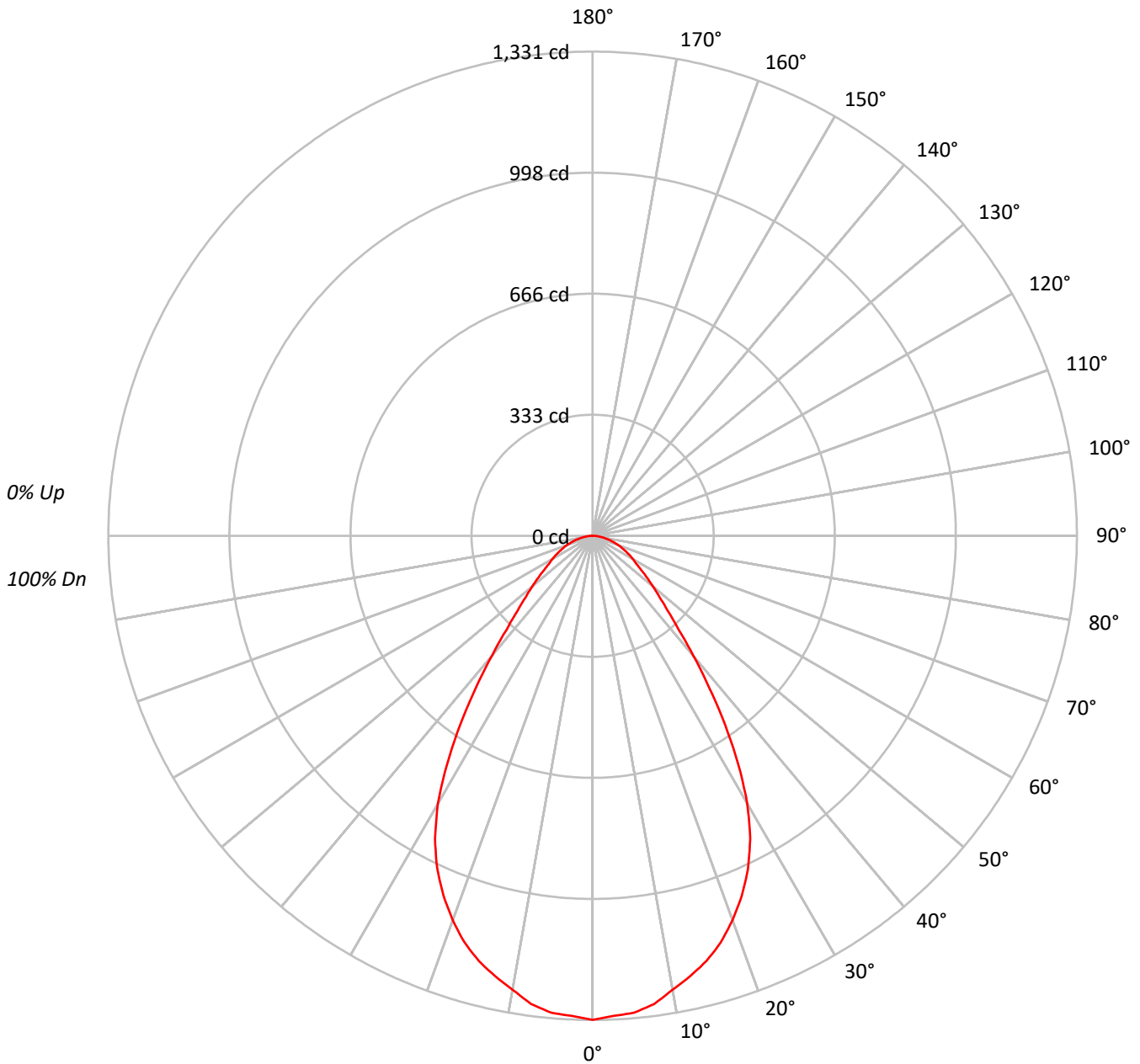
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	104	101	109	105	102	100	101	99	97	98	96	94	94	92	91	89			
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	73	71			
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58			
6	79	68	61	56	78	67	60	55	66	60	55	64	59	55	63	58	54	52			
7	75	63	56	51	73	62	56	51	61	55	50	60	54	50	59	53	50	48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44			
9	66	55	48	43	65	54	47	43	53	47	43	52	47	43	51	46	42	41			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38			

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

	0°
0°	164136
5°	162918
10°	158677
15°	154500
20°	147578
25°	137499
30°	121063
35°	95496
40°	69318
45°	50918
50°	41429
55°	34752
60°	31502
65°	28923
70°	26940
75°	24591
80°	22162
85°	19106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.1	6.6
10°-20°	339.4	18.2
20°-30°	460.0	24.6
30°-40°	394.7	21.1
40°-50°	233.1	12.5
50°-60°	147.7	7.9
60°-70°	99.2	5.3
70°-80°	54.8	2.9
80°-90°	15.3	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°	923.4	49.4
0°-40°	1318.2	70.6
0°-60°	1698.9	90.9
0°-90°	1868.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1868.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1331	
5°	1316	124
15°	1210	339
25°	1010	460
35°	634	395
45°	292	233
55°	162	148
65°	99	99
75°	52	55
85°	14	15
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1330.7
2.5°	1321.2
5°	1315.8
7.5°	1298.2
10°	1266.9
12.5°	1239.8
15°	1209.9
17.5°	1171.9
20°	1124.3
22.5°	1071.4
25°	1010.3
27.5°	938.2
30°	850.0
32.5°	745.4
35°	634.2
37.5°	526.8
40°	430.5
42.5°	350.3
45°	291.9
47.5°	249.8
50°	215.9
52.5°	187.4
55°	161.6
57.5°	141.2
60°	127.7
62.5°	114.0
65°	99.1
67.5°	86.9
70°	74.7
72.5°	62.5
75°	51.6
77.5°	40.7
80°	31.2
82.5°	21.7
85°	13.5
87.5°	5.4
90°	0.0



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— 0°-180°







(END OF REPORT)