

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: P580013

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580013  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC420D010-HM40525835-41MDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1960.6 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 1.04 / 1.04 / 1.01  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

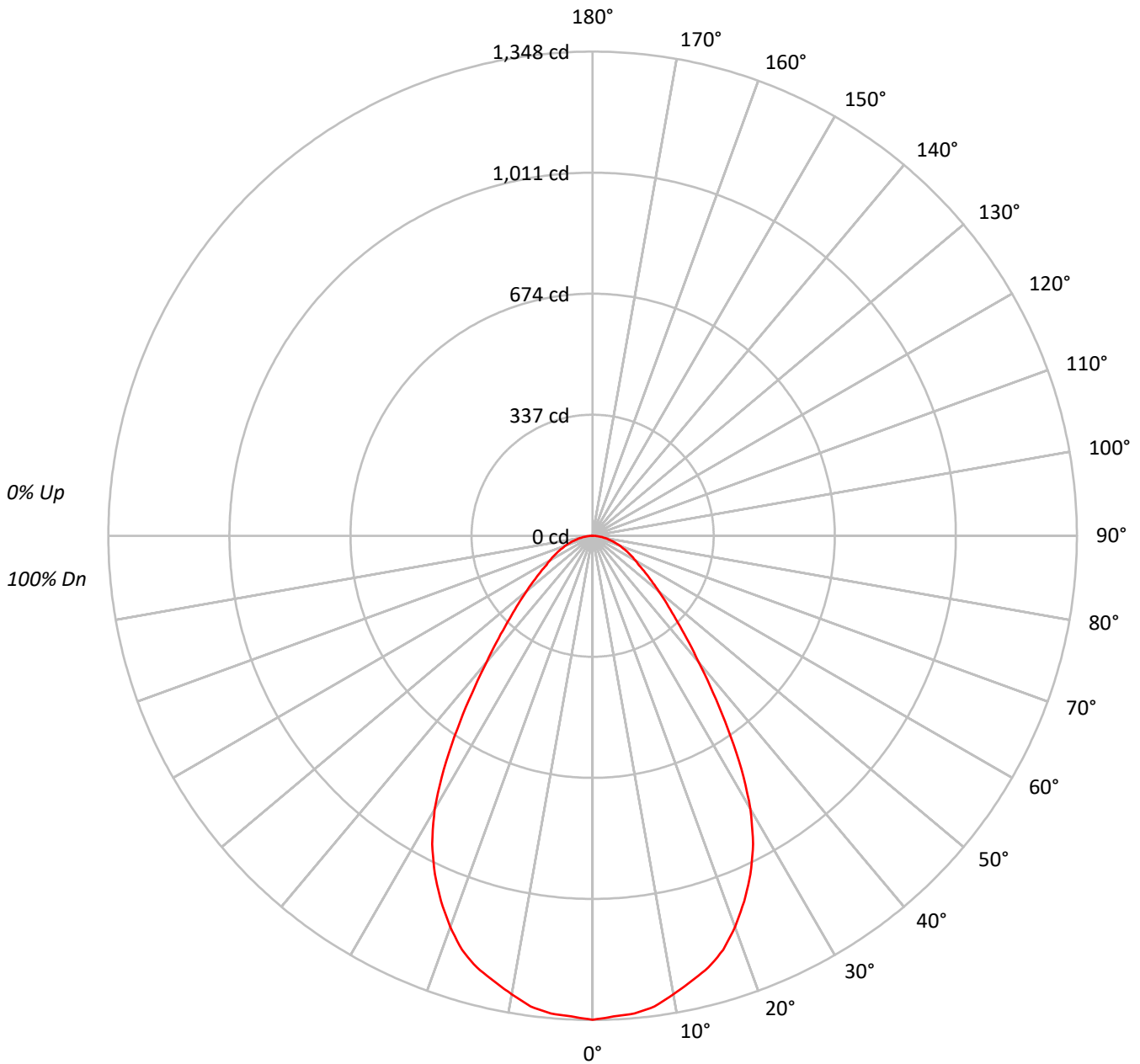
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°
0°	166221
5°	165333
10°	162322
15°	158906
20°	152106
25°	141432
30°	125179
35°	98809
40°	73923
45°	56866
50°	46131
55°	38278
60°	33846
65°	31346
70°	28923
75°	26545
80°	24151
85°	19106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.2	6.4
10°-20°	349.0	17.8
20°-30°	473.8	24.2
30°-40°	410.5	20.9
40°-50°	257.7	13.1
50°-60°	162.1	8.3
60°-70°	106.5	5.4
70°-80°	58.7	3.0
80°-90°	16.0	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°	949.1	48.4
0°-40°	1359.5	69.3
0°-60°	1779.3	90.8
0°-90°	1960.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1960.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1348	
5°	1335	126
15°	1244	349
25°	1039	474
35°	656	410
45°	326	258
55°	178	162
65°	107	107
75°	56	59
85°	14	16
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1347.6
2.5°	1339.5
5°	1335.3
7.5°	1321.8
10°	1296.0
12.5°	1270.2
15°	1244.4
17.5°	1209.1
20°	1158.8
22.5°	1101.7
25°	1039.2
27.5°	967.3
30°	878.9
32.5°	771.6
35°	656.2
37.5°	550.2
40°	459.1
42.5°	387.1
45°	326.0
47.5°	279.9
50°	240.4
52.5°	206.5
55°	178.0
57.5°	153.5
60°	137.2
62.5°	122.3
65°	107.4
67.5°	92.3
70°	80.2
72.5°	66.5
75°	55.7
77.5°	43.5
80°	34.0
82.5°	23.1
85°	13.5
87.5°	5.4
90°	0.0



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— 0°-180°







(END OF REPORT)