

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: P580030

Luminaire Tested: **HC420D010-HM40525840-41MDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580030  
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-HM40525840-41MDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2014.8 lumens  
Efficiency: N/A  
Efficacy: 100.7 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

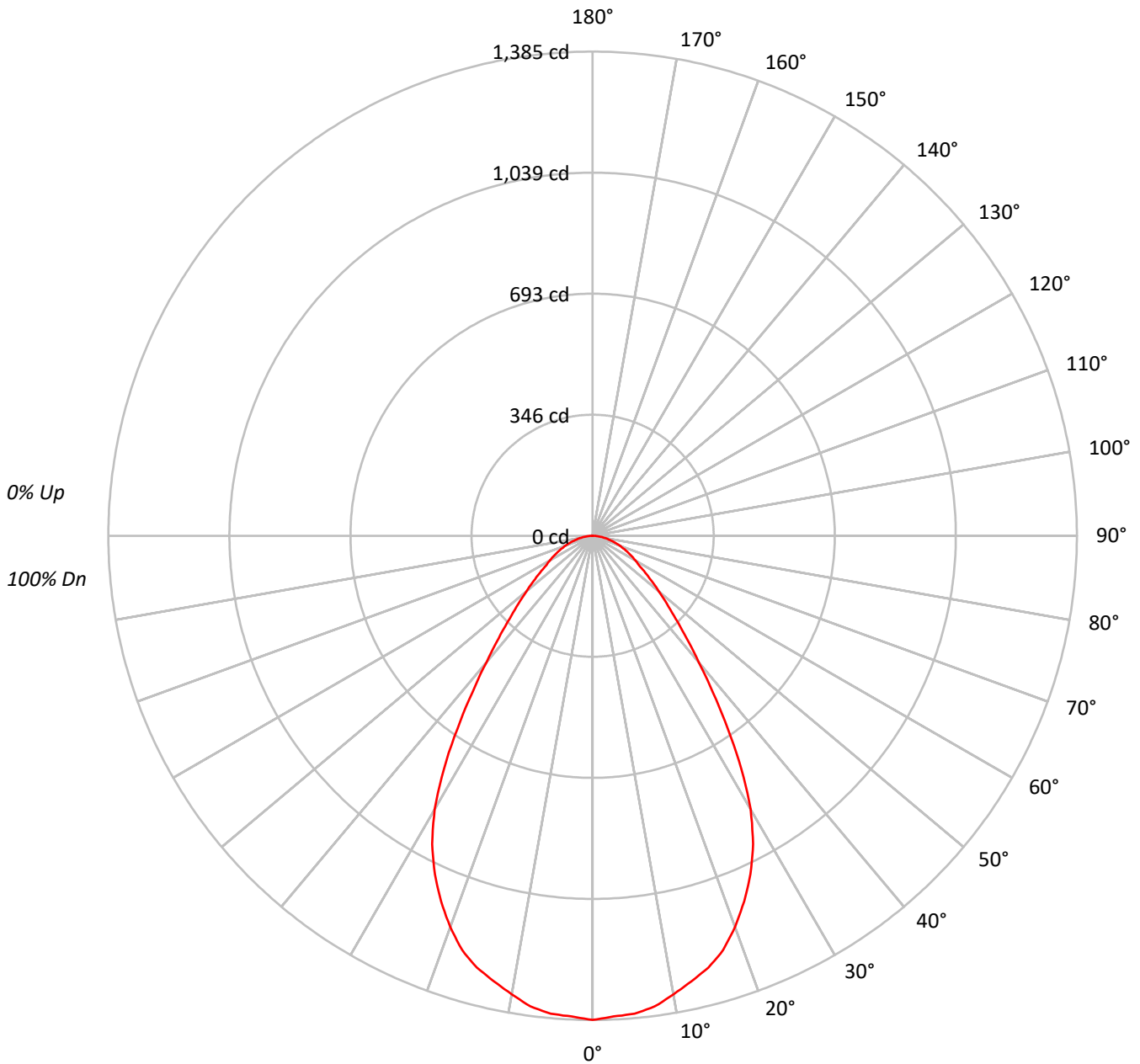
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	97	88	82	76	94	87	81	76	84	79	75	81	77	73	79	75	72	70	70	70	70
4	90	80	73	68	88	79	73	67	77	71	67	75	70	66	73	68	65	63	63	63	63
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57	57	57	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52	52	52	52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47	47	47	47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44	44	44	44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40	40	40	40
10	62	51	44	39	61	50	44	39	49	43	39	48	43	39	48	42	39	37	37	37	37

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

	0°
0°	170809
5°	169914
10°	166806
15°	163286
20°	156306
25°	145351
30°	128655
35°	101519
40°	75984
45°	58436
50°	47416
55°	39311
60°	34783
65°	32163
70°	29717
75°	27260
80°	24790
85°	19813



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.7	6.4
10°-20°	358.6	17.8
20°-30°	487.0	24.2
30°-40°	421.8	20.9
40°-50°	264.8	13.1
50°-60°	166.6	8.3
60°-70°	109.4	5.4
70°-80°	60.3	3.0
80°-90°	16.5	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°	975.3	48.4
0°-40°	1397.1	69.3
0°-60°	1828.5	90.8
0°-90°	2014.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2014.8	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1385	
5°	1372	130
15°	1279	359
25°	1068	487
35°	674	422
45°	335	265
55°	183	167
65°	110	109
75°	57	60
85°	14	17
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1384.8
2.5°	1376.4
5°	1372.3
7.5°	1358.3
10°	1331.8
12.5°	1305.3
15°	1278.7
17.5°	1242.4
20°	1190.8
22.5°	1132.2
25°	1068.0
27.5°	994.0
30°	903.3
32.5°	792.9
35°	674.2
37.5°	565.4
40°	471.9
42.5°	397.9
45°	335.0
47.5°	287.6
50°	247.1
52.5°	212.2
55°	182.8
57.5°	157.7
60°	141.0
62.5°	125.6
65°	110.2
67.5°	95.0
70°	82.4
72.5°	68.4
75°	57.2
77.5°	44.6
80°	34.9
82.5°	23.7
85°	14.0
87.5°	5.6
90°	0.0



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— 0°-180°







(END OF REPORT)