

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: P580032

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580032  
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-HM40525840-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1972.9 lumens  
Efficiency: N/A  
Efficacy: 98.6 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

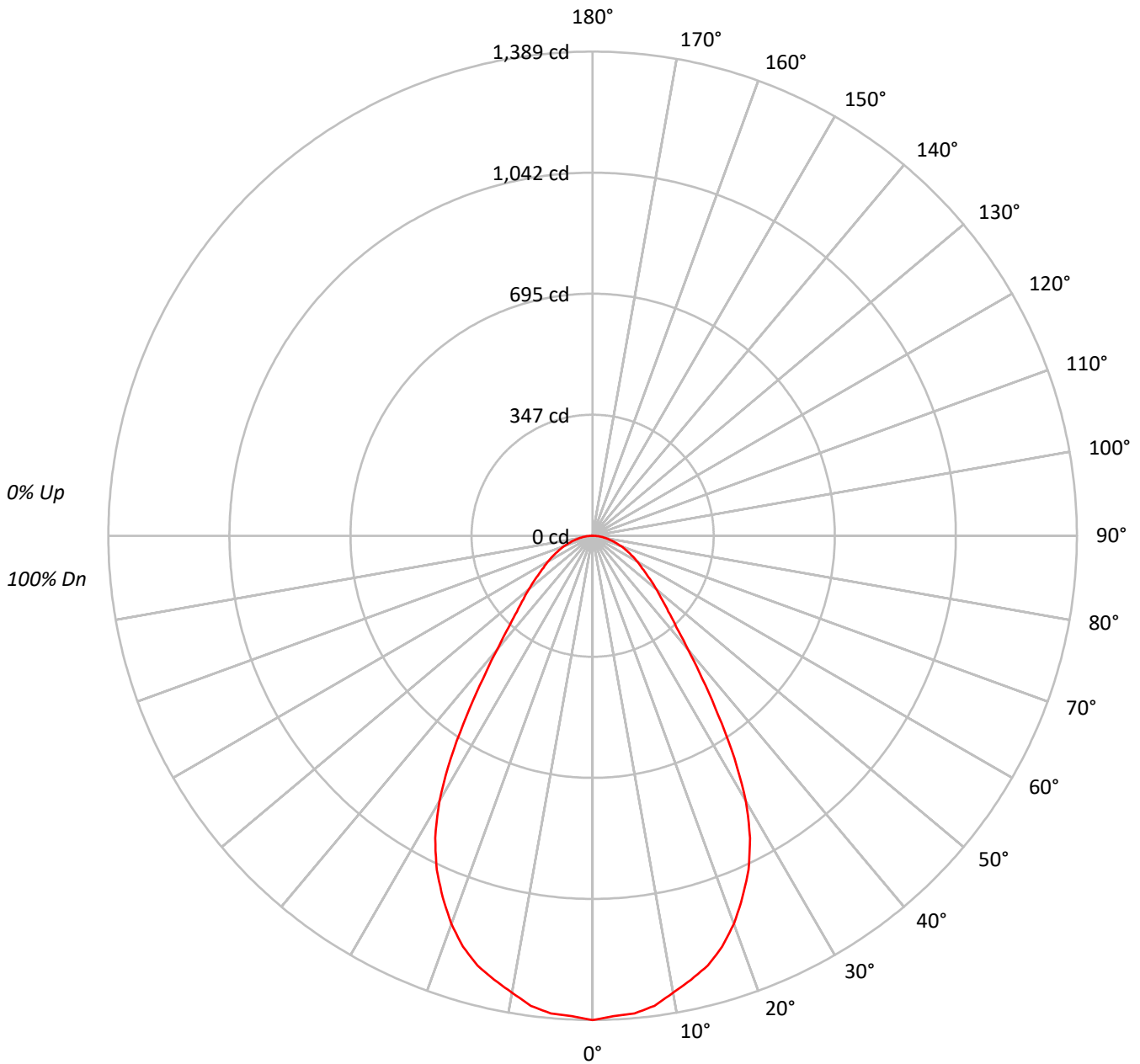
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	171376
5°	170298
10°	166668
15°	162992
20°	155453
25°	143895
30°	125165
35°	94532
40°	68496
45°	53535
50°	45785
55°	39590
60°	36461
65°	33389
70°	31195
75°	28594
80°	26708
85°	25616



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.9	6.6
10°-20°	357.5	18.1
20°-30°	480.7	24.4
30°-40°	395.3	20.0
40°-50°	242.8	12.3
50°-60°	168.0	8.5
60°-70°	114.5	5.8
70°-80°	63.8	3.2
80°-90°	20.3	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°	968.2	49.1
0°-40°	1363.5	69.1
0°-60°	1774.3	89.9
0°-90°	1972.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1972.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1389	
5°	1375	130
15°	1276	358
25°	1057	481
35°	628	395
45°	307	243
55°	184	168
65°	114	115
75°	60	64
85°	18	20
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	1389.4
2.5°	1379.6
5°	1375.4
7.5°	1360.0
10°	1330.7
12.5°	1304.3
15°	1276.4
17.5°	1235.9
20°	1184.3
22.5°	1122.9
25°	1057.3
27.5°	977.8
30°	878.8
32.5°	757.5
35°	627.8
37.5°	516.2
40°	425.4
42.5°	355.7
45°	306.9
47.5°	269.2
50°	238.6
52.5°	210.6
55°	184.1
57.5°	164.6
60°	147.8
62.5°	131.1
65°	114.4
67.5°	100.5
70°	86.5
72.5°	72.5
75°	60.0
77.5°	47.4
80°	37.6
82.5°	27.9
85°	18.1
87.5°	9.7
90°	0.0



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— 0°-180°







(END OF REPORT)