

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: P592899

Luminaire Tested: **HC450D010-HM44560950-41MDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592899  
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: HC450D010-HM44560950-41MDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" MEDIUM DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3954.5 lumens  
Efficiency: N/A  
Efficacy: 82.4 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

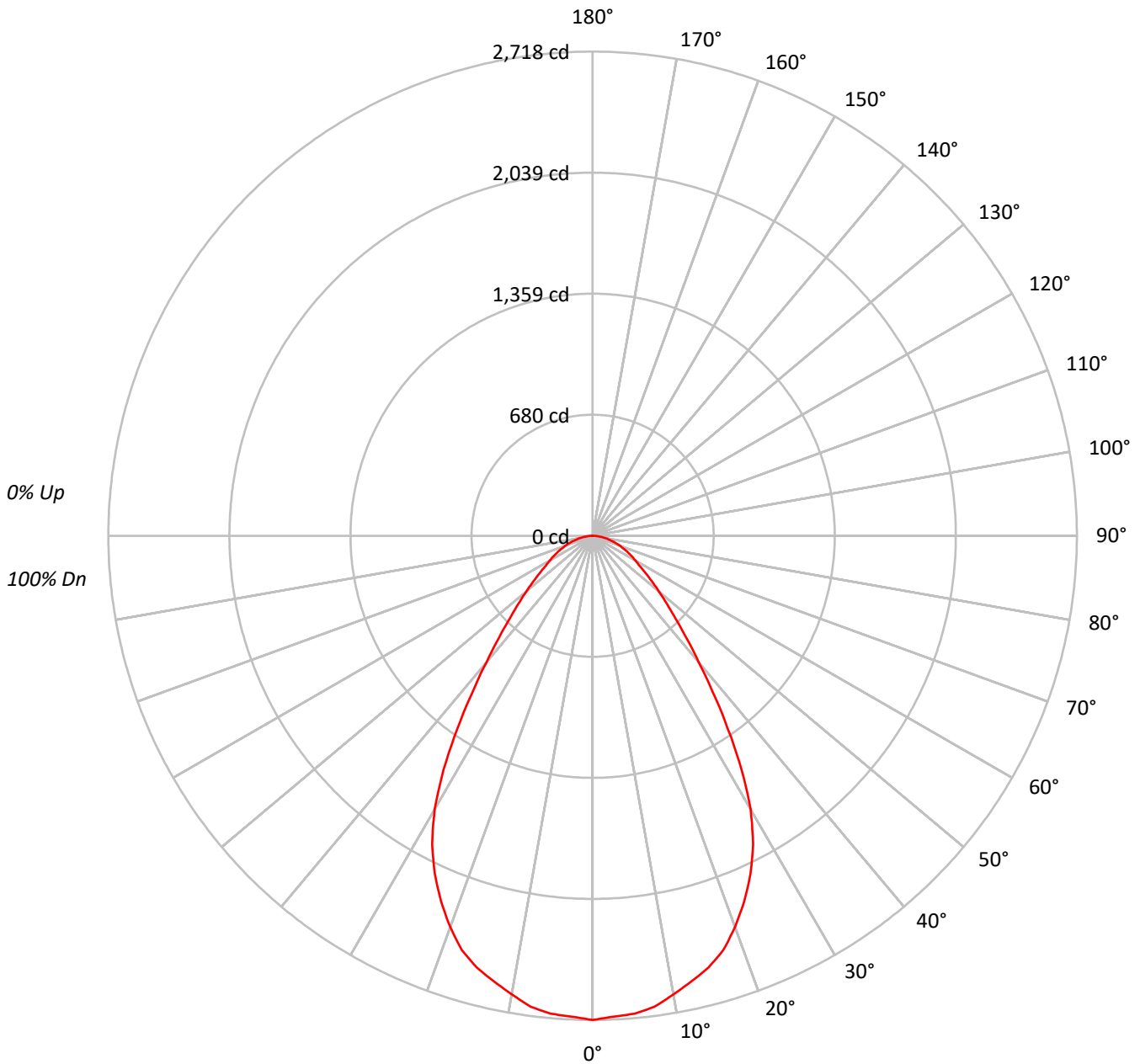
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	335253
5°	333476
10°	327374
15°	320493
20°	306772
25°	285259
30°	252481
35°	199274
40°	149117
45°	114710
50°	93067
55°	77180
60°	68284
65°	63159
70°	58279
75°	53567
80°	48657
85°	38919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.6	6.4
10°-20°	703.8	17.8
20°-30°	955.7	24.2
30°-40°	827.8	20.9
40°-50°	519.8	13.1
50°-60°	327.0	8.3
60°-70°	214.8	5.4
70°-80°	118.5	3.0
80°-90°	32.5	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°	1914.1	48.4
0°-40°	2742.0	69.3
0°-60°	3588.7	90.8
0°-90°	3954.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3954.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2718	
5°	2693	255
15°	2510	704
25°	2096	956
35°	1323	828
45°	658	520
55°	359	327
65°	216	215
75°	112	119
85°	28	32
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2718.0
2.5°	2701.5
5°	2693.3
7.5°	2665.9
10°	2613.8
12.5°	2561.8
15°	2509.8
17.5°	2438.5
20°	2337.1
22.5°	2222.1
25°	2096.0
27.5°	1950.8
30°	1772.7
32.5°	1556.2
35°	1323.4
37.5°	1109.7
40°	926.1
42.5°	780.9
45°	657.6
47.5°	564.5
50°	485.0
52.5°	416.5
55°	358.9
57.5°	309.6
60°	276.8
62.5°	246.6
65°	216.4
67.5°	186.3
70°	161.6
72.5°	134.3
75°	112.4
77.5°	87.7
80°	68.5
82.5°	46.6
85°	27.5
87.5°	11.0
90°	0.0



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— 0°-180°







(END OF REPORT)