

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: P592876

Luminaire Tested: **HC450D010-HM44560850-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592876  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-8)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560850-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5724.5 lumens  
Efficiency: N/A  
Efficacy: 119.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.11  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

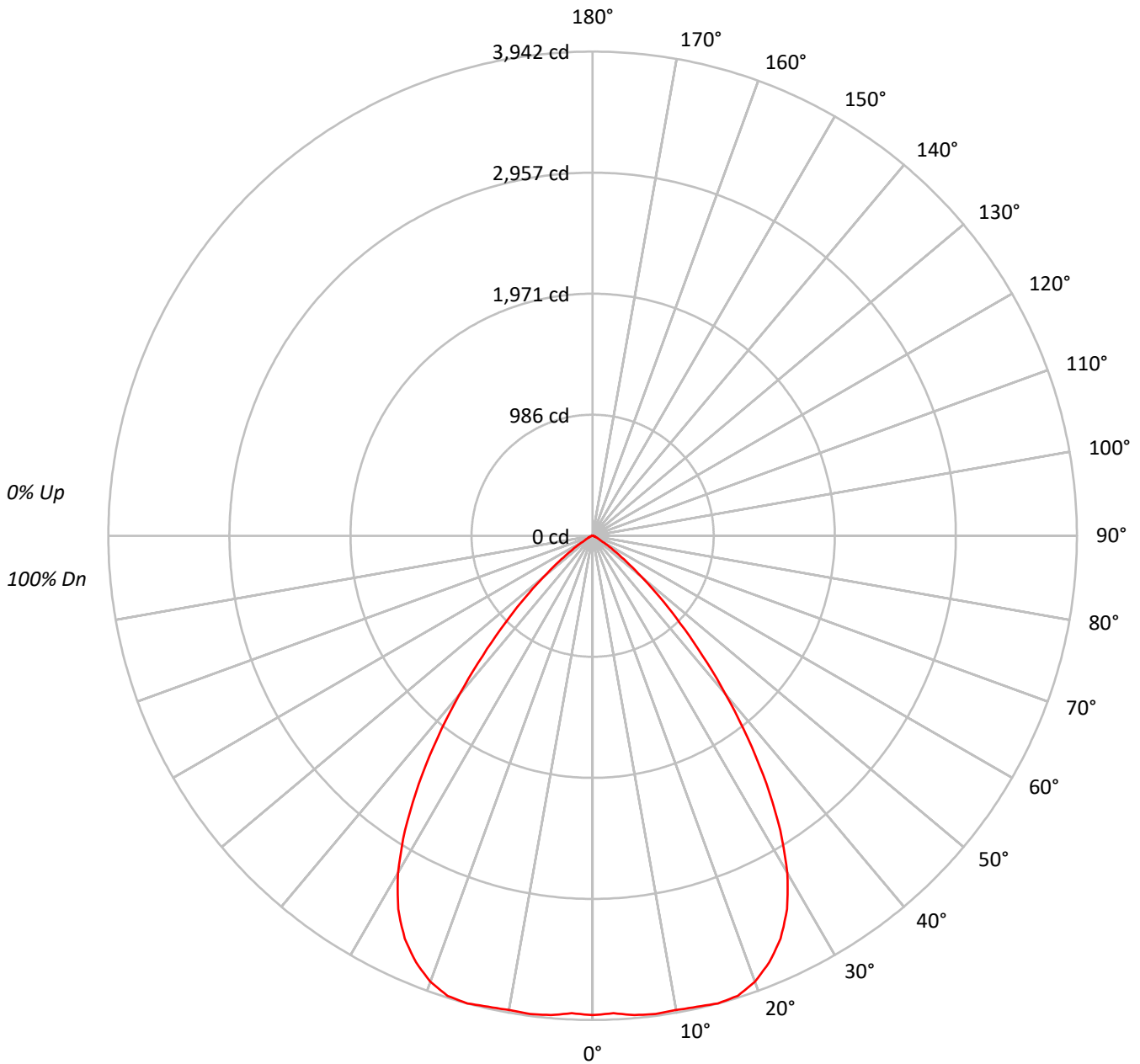
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	100	100
1	113	110	107	104	110	108	105	103	103	101	100	100	98	97	96	95	94	92	92	92	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84	84	84	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76	76	76	76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69	69	69	69
5	88	79	72	67	86	78	72	67	76	70	66	74	69	66	72	68	65	63	63	63	63
6	83	73	66	61	81	72	66	61	70	65	61	69	64	60	68	63	60	58	58	58	58
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55	53	53	53	53
8	74	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	51	49	49	49	49
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47	45	45	45	45
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43	42	42	42	42

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

	0°
0°	481307
5°	484928
10°	490974
15°	503330
20°	507024
25°	492507
30°	451551
35°	371549
40°	270845
45°	175798
50°	99093
55°	47031
60°	18576
65°	11499
70°	7754
75°	5099
80°	2486
85°	4953



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	374.0	6.5
10°-20°	1111.2	19.4
20°-30°	1648.2	28.8
30°-40°	1522.3	26.6
40°-50°	794.9	13.9
50°-60°	217.8	3.8
60°-70°	41.9	0.7
70°-80°	11.8	0.2
80°-90°	2.4	0.0
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°	3133.4	54.7
0°-40°	4655.7	81.3
0°-60°	5668.4	99.0
0°-90°	5724.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5724.5	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3902	
5°	3916	374
15°	3942	1111
25°	3619	1648
35°	2468	1522
45°	1008	795
55°	219	218
65°	39	42
75°	11	12
85°	4	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3902.1
2.5°	3891.3
5°	3916.5
7.5°	3927.2
10°	3920.0
12.5°	3927.2
15°	3941.6
17.5°	3927.2
20°	3862.7
22.5°	3758.7
25°	3618.8
27.5°	3428.7
30°	3170.4
32.5°	2844.1
35°	2467.5
37.5°	2073.0
40°	1682.1
42.5°	1323.4
45°	1007.8
47.5°	738.8
50°	516.4
52.5°	344.3
55°	218.7
57.5°	129.1
60°	75.3
62.5°	53.8
65°	39.4
67.5°	28.7
70°	21.5
72.5°	14.4
75°	10.7
77.5°	7.2
80°	3.5
82.5°	3.5
85°	3.5
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)