

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: P592875

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592875  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560850-41NDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4975.3 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 0.89 / 0.89 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

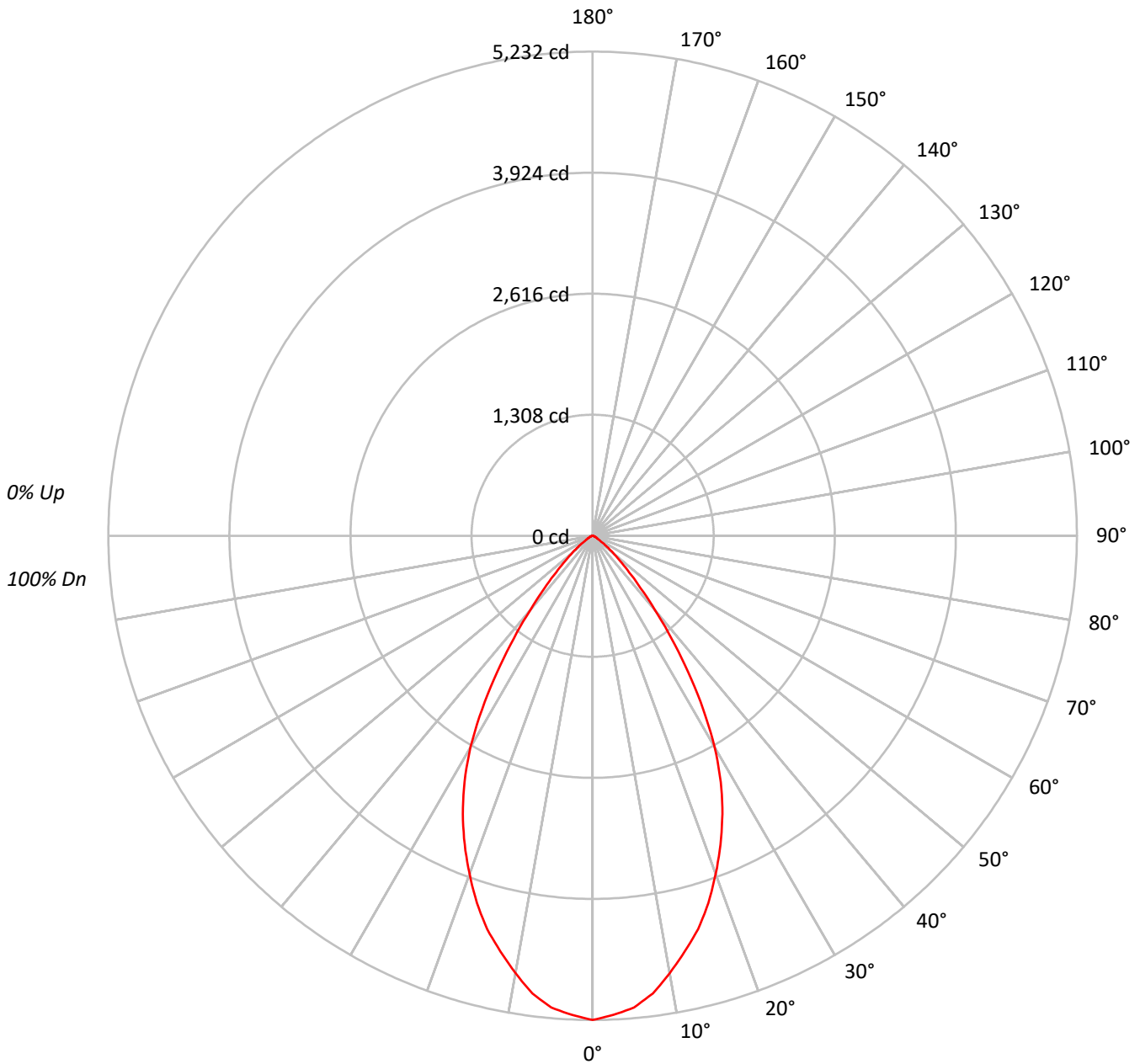
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	111	108	106	104	104	102	100	100	99	97	97	96	95	93	93	93	93
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	86	86	86	86
3	101	95	89	85	99	93	88	84	91	86	83	88	85	82	86	83	81	79	79	79	79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	74	73	73	73	73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67	67	67	67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	63	63	63	63
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58	58	58	58
8	77	67	61	57	76	67	61	56	65	60	56	64	59	56	63	59	56	54	54	54	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51	51	51	51
10	70	59	53	49	69	59	53	49	58	53	49	57	52	49	57	52	49	48	48	48	48

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

	0°
0°	645320
5°	633595
10°	600980
15°	561917
20°	510345
25°	451597
30°	375638
35°	270873
40°	169067
45°	97510
50°	55015
55°	26214
60°	15023
65°	11499
70°	7754
75°	5099
80°	5114
85°	4953



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	478.3	9.6
10°-20°	1227.6	24.7
20°-30°	1509.8	30.3
30°-40°	1121.3	22.5
40°-50°	455.9	9.2
50°-60°	126.2	2.5
60°-70°	39.3	0.8
70°-80°	13.2	0.3
80°-90°	3.8	0.1
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°	3215.6	64.6
0°-40°	4336.9	87.2
0°-60°	4919.0	98.9
0°-90°	4975.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4975.3	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	5232	
5°	5117	478
15°	4400	1228
25°	3318	1510
35°	1799	1121
45°	559	456
55°	122	126
65°	39	39
75°	11	13
85°	4	4
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	5231.8
2.5°	5181.6
5°	5117.2
7.5°	4988.1
10°	4798.3
12.5°	4601.1
15°	4400.4
17.5°	4160.4
20°	3888.0
22.5°	3612.1
25°	3318.2
27.5°	2999.3
30°	2637.4
32.5°	2225.3
35°	1798.9
37.5°	1397.6
40°	1050.0
42.5°	766.8
45°	559.0
47.5°	401.4
50°	286.7
52.5°	197.0
55°	121.9
57.5°	78.8
60°	60.9
62.5°	50.1
65°	39.4
67.5°	28.7
70°	21.5
72.5°	17.9
75°	10.7
77.5°	7.2
80°	7.2
82.5°	3.5
85°	3.5
87.5°	3.5
90°	0.0



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— 0°-180°







(END OF REPORT)