

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: P580832

Luminaire Tested: **HC450D010-HM44560827-41WDWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580832  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-10)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC450D010-HM44560827-41WDWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4546.2 lumens  
Efficiency: N/A  
Efficacy: 94.7 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.14 / 1.07  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

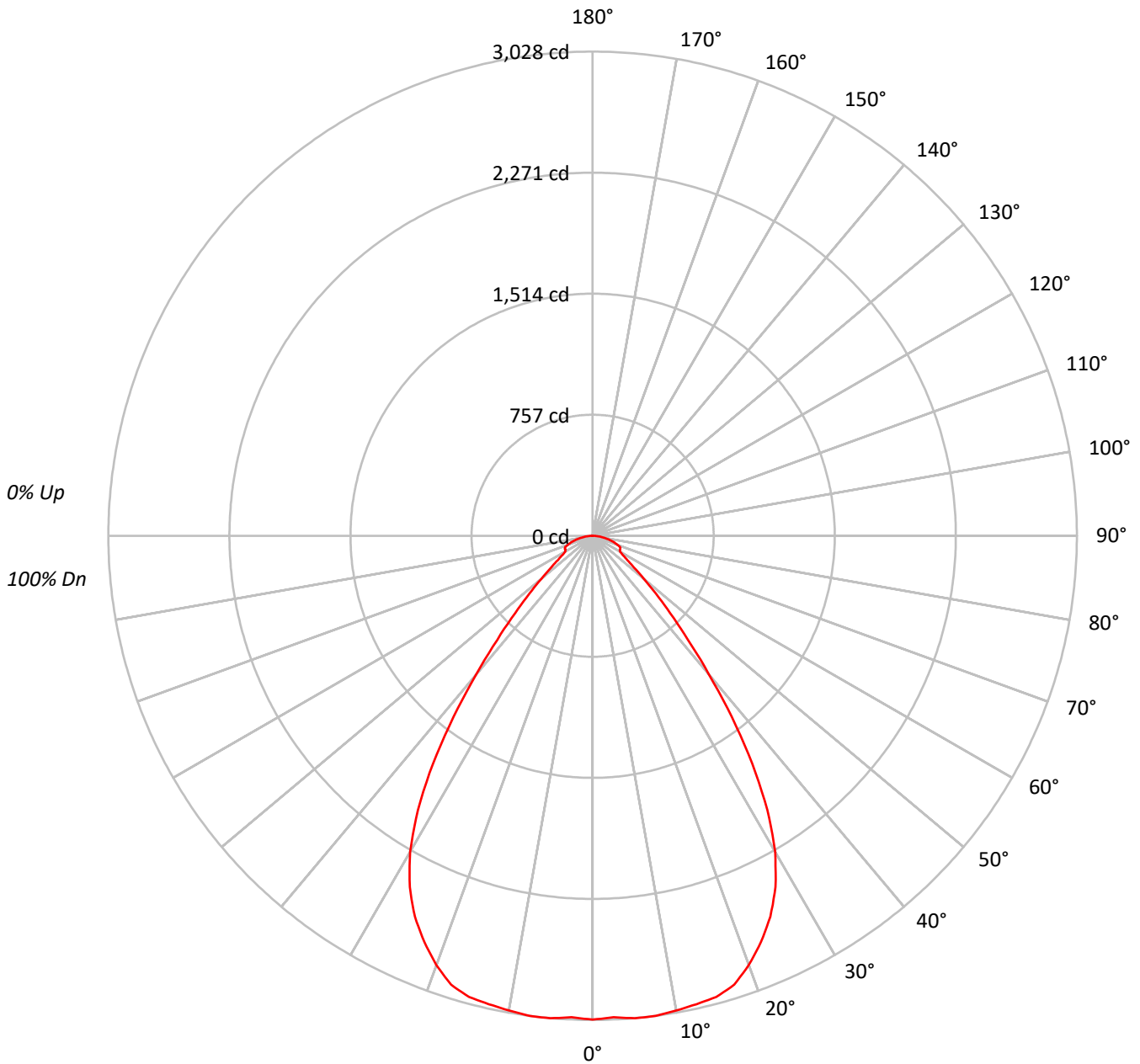
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90			90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80			80
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72			72
4	91	82	75	70	89	81	74	69	78	73	69	76	72	68	74	70	67	65			65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59			59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54			54
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49			49
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46			46
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42			42
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39			39

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

	0°
0°	373219
5°	374979
10°	377561
15°	381328
20°	374975
25°	357731
30°	325019
35°	262170
40°	181900
45°	119420
50°	80019
55°	56944
60°	48648
65°	55920
70°	59974
75°	57713
80°	52066
85°	47835



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	288.6	6.3
10°-20°	838.9	18.5
20°-30°	1198.6	26.4
30°-40°	1070.7	23.6
40°-50°	549.2	12.1
50°-60°	249.6	5.5
60°-70°	186.2	4.1
70°-80°	126.7	2.8
80°-90°	37.6	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°	2326.1	51.2
0°-40°	3396.9	74.7
0°-60°	4195.7	92.3
0°-90°	4546.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4546.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3026	
5°	3028	289
15°	2986	839
25°	2628	1199
35°	1741	1071
45°	685	549
55°	265	250
65°	192	186
75°	121	127
85°	34	38
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3025.8
2.5°	3014.5
5°	3028.5
7.5°	3028.5
10°	3014.5
12.5°	3000.4
15°	2986.2
17.5°	2944.1
20°	2856.7
22.5°	2749.7
25°	2628.5
27.5°	2476.4
30°	2282.0
32.5°	2034.1
35°	1741.1
37.5°	1428.4
40°	1129.7
42.5°	881.8
45°	684.6
47.5°	535.2
50°	417.0
52.5°	326.8
55°	264.8
57.5°	222.6
60°	197.2
62.5°	191.6
65°	191.6
67.5°	186.0
70°	166.3
72.5°	143.7
75°	121.1
77.5°	95.8
80°	73.3
82.5°	53.6
85°	33.8
87.5°	14.1
90°	0.0



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— 0°-180°







(END OF REPORT)