

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: P580835

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580835  
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-HM44560827-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4498.2 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.1  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

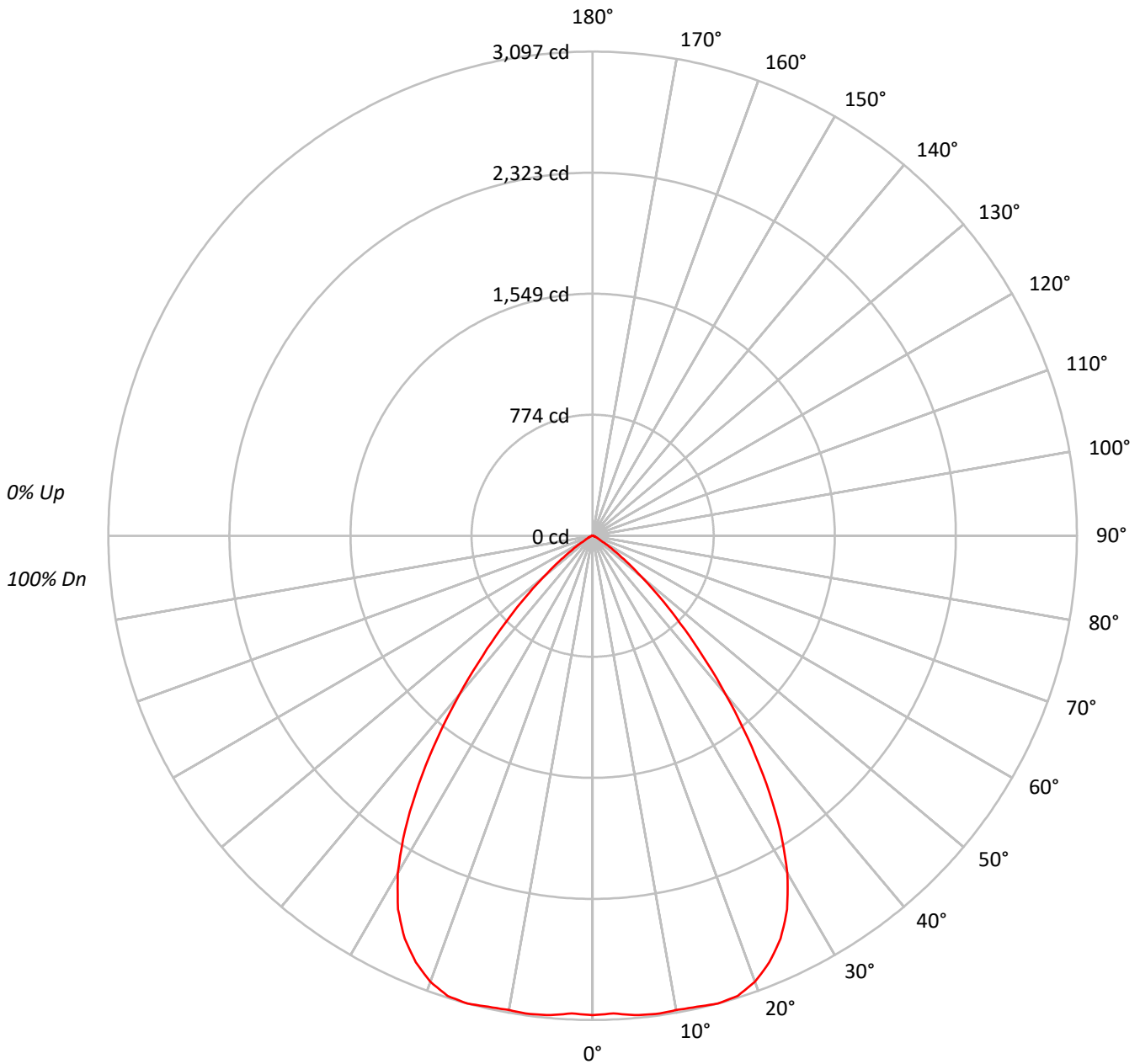
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	378202
5°	381046
10°	385790
15°	395502
20°	398405
25°	387005
30°	354815
35°	291954
40°	212831
45°	138137
50°	77870
55°	36967
60°	14604
65°	9048
70°	6095
75°	4003
80°	1989
85°	3963



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	293.9	6.5
10°-20°	873.2	19.4
20°-30°	1295.1	28.8
30°-40°	1196.2	26.6
40°-50°	624.6	13.9
50°-60°	171.2	3.8
60°-70°	33.0	0.7
70°-80°	9.2	0.2
80°-90°	1.9	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°	2462.1	54.7
0°-40°	3658.3	81.3
0°-60°	4454.0	99.0
0°-90°	4498.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4498.2	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3066	
5°	3078	294
15°	3097	873
25°	2844	1295
35°	1939	1196
45°	792	625
55°	172	171
65°	31	33
75°	8	9
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	3066.2
2.5°	3057.6
5°	3077.5
7.5°	3085.9
10°	3080.2
12.5°	3085.9
15°	3097.2
17.5°	3085.9
20°	3035.2
22.5°	2953.4
25°	2843.6
27.5°	2694.1
30°	2491.2
32.5°	2234.8
35°	1938.9
37.5°	1628.8
40°	1321.8
42.5°	1039.9
45°	791.9
47.5°	580.5
50°	405.8
52.5°	270.6
55°	171.9
57.5°	101.4
60°	59.2
62.5°	42.3
65°	31.0
67.5°	22.6
70°	16.9
72.5°	11.3
75°	8.4
77.5°	5.6
80°	2.8
82.5°	2.8
85°	2.8
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)