

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: P580925

Luminaire Tested: **HC450D010-HM44560930-41WDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580925  
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-HM44560930-41WDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4234.6 lumens  
Efficiency: N/A  
Efficacy: 88.2 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

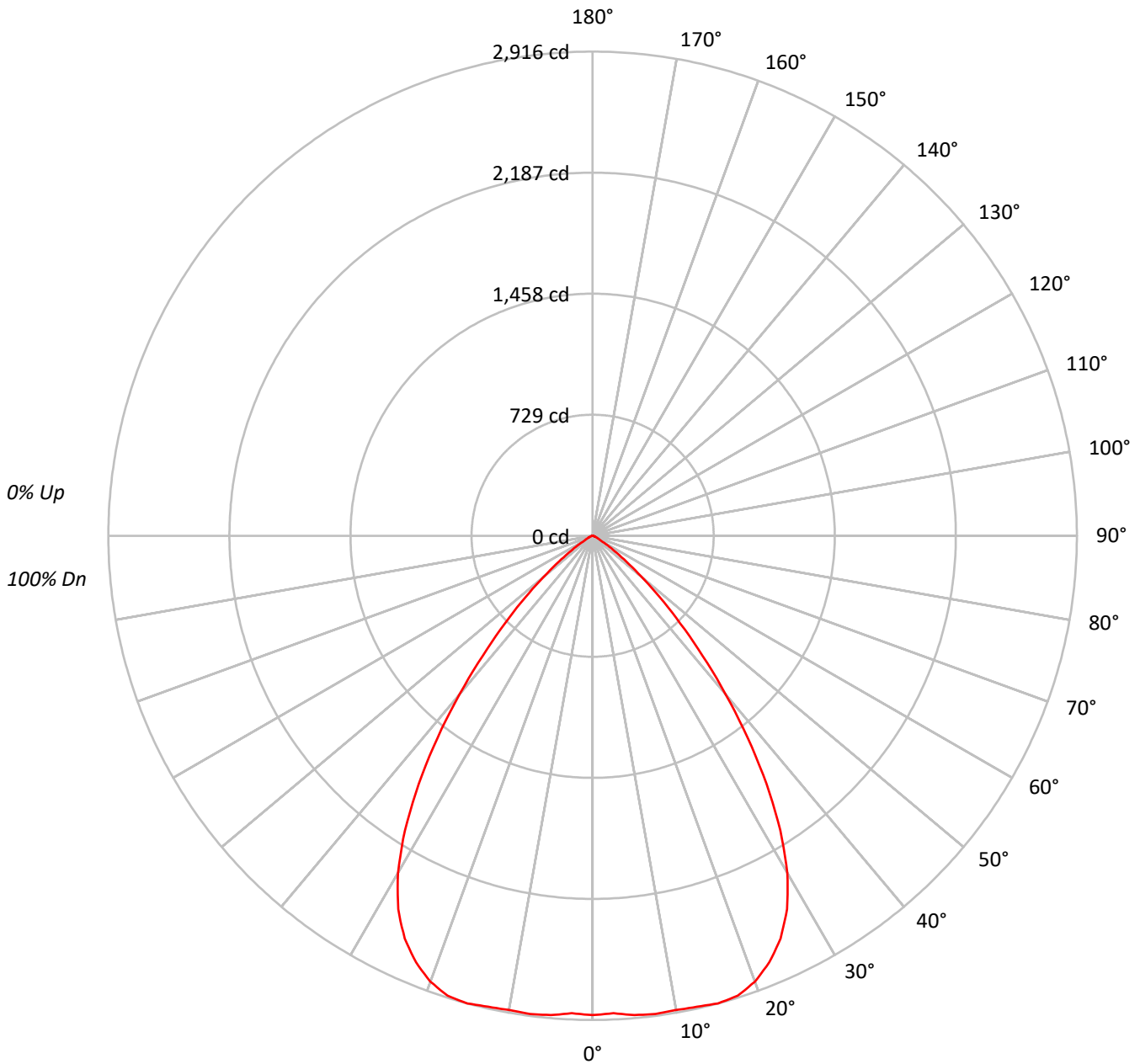
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	356025
5°	358697
10°	363183
15°	372313
20°	375054
25°	364304
30°	334020
35°	274834
40°	200353
45°	130043
50°	73303
55°	34795
60°	13741
65°	8522
70°	5734
75°	3813
80°	1918
85°	3821



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	276.6	6.5
10°-20°	822.0	19.4
20°-30°	1219.2	28.8
30°-40°	1126.1	26.6
40°-50°	588.0	13.9
50°-60°	161.1	3.8
60°-70°	31.0	0.7
70°-80°	8.7	0.2
80°-90°	1.8	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°	2317.8	54.7
0°-40°	3443.9	81.3
0°-60°	4193.0	99.0
0°-90°	4234.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4234.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	2886	
5°	2897	277
15°	2916	822
25°	2677	1219
35°	1825	1126
45°	746	588
55°	162	161
65°	29	31
75°	8	9
85°	3	2
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	2886.4
2.5°	2878.5
5°	2897.0
7.5°	2905.0
10°	2899.7
12.5°	2905.0
15°	2915.6
17.5°	2905.0
20°	2857.3
22.5°	2780.3
25°	2676.8
27.5°	2536.2
30°	2345.2
32.5°	2103.9
35°	1825.2
37.5°	1533.4
40°	1244.3
42.5°	978.9
45°	745.5
47.5°	546.5
50°	382.0
52.5°	254.7
55°	161.8
57.5°	95.5
60°	55.7
62.5°	39.7
65°	29.2
67.5°	21.3
70°	15.9
72.5°	10.6
75°	8.0
77.5°	5.3
80°	2.7
82.5°	2.7
85°	2.7
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)