

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: P580816

Luminaire Tested: **HC445D010-HM44560940-41NDH**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580816  
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: HC445D010-HM44560940-41NDH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3597.9 lumens  
Efficiency: N/A  
Efficacy: 81.8 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

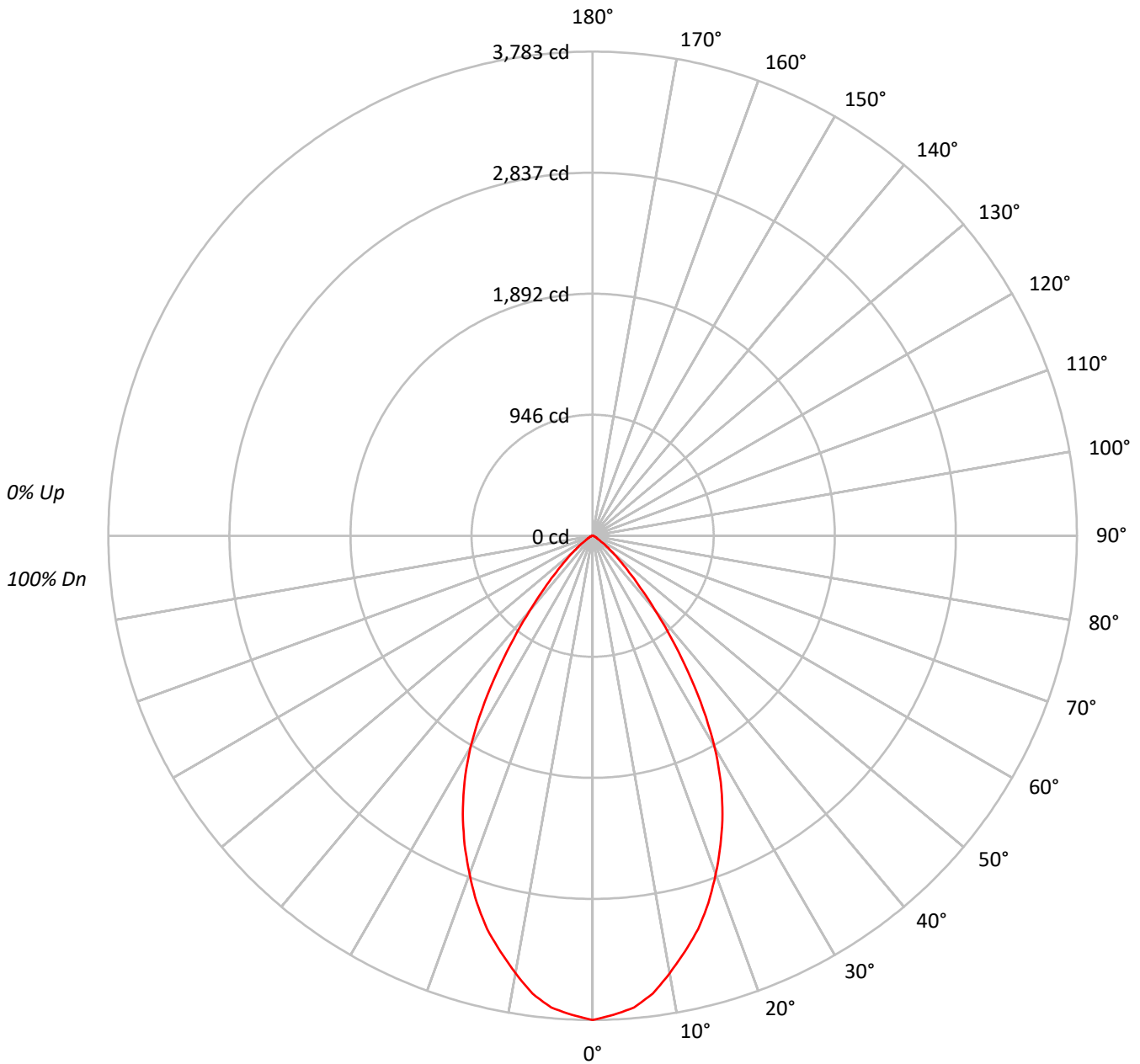
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	82	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°	466666
5°	458184
10°	434587
15°	406357
20°	369055
25°	326578
30°	271637
35°	195871
40°	122260
45°	70525
50°	39779
55°	18946
60°	10879
65°	8318
70°	5626
75°	3670
80°	3694
85°	3680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	345.9	9.6
10°-20°	887.7	24.7
20°-30°	1091.8	30.3
30°-40°	810.8	22.5
40°-50°	329.7	9.2
50°-60°	91.3	2.5
60°-70°	28.4	0.8
70°-80°	9.5	0.3
80°-90°	2.8	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°	2325.4	64.6
0°-40°	3136.2	87.2
0°-60°	3557.1	98.9
0°-90°	3597.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3597.9	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	3783	
5°	3700	346
15°	3182	888
25°	2400	1092
35°	1301	811
45°	404	330
55°	88	91
65°	28	28
75°	8	10
85°	3	3
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

0°	
0°	3783.4
2.5°	3747.0
5°	3700.5
7.5°	3607.1
10°	3469.8
12.5°	3327.3
15°	3182.2
17.5°	3008.5
20°	2811.6
22.5°	2612.1
25°	2399.6
27.5°	2168.9
30°	1907.2
32.5°	1609.2
35°	1300.8
37.5°	1010.6
40°	759.3
42.5°	554.5
45°	404.3
47.5°	290.3
50°	207.3
52.5°	142.5
55°	88.1
57.5°	57.0
60°	44.1
62.5°	36.2
65°	28.5
67.5°	20.8
70°	15.6
72.5°	12.9
75°	7.7
77.5°	5.2
80°	5.2
82.5°	2.6
85°	2.6
87.5°	2.6
90°	0.0



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— 0°-180°







(END OF REPORT)