

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: P581509

Luminaire Tested: **HC407D010-HM40525930-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581509  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC407D010-HM40525930-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 748.7 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

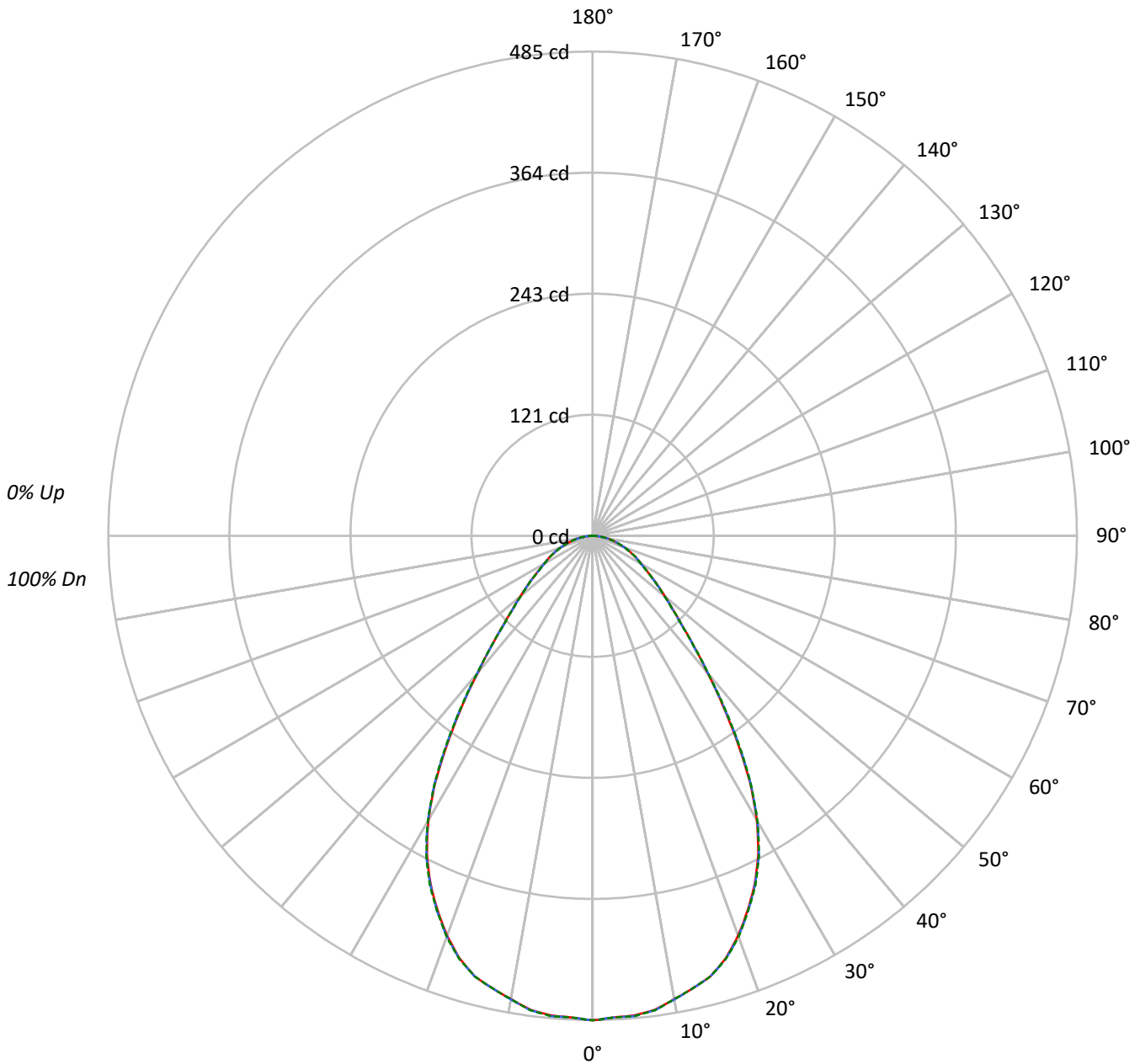
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69																			
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																			
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																			

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

	0°	45°	90°
0°	59872	59872	59872
5°	59717	59791	59791
10°	59017	59080	59017
15°	58319	58319	58319
20°	55931	56049	56114
25°	52302	52384	52506
30°	46873	47001	47001
35°	38051	38352	38442
40°	28709	28870	28951
45°	21997	21909	21909
50°	18134	18038	18038
55°	15569	15440	15440
60°	13864	13765	13765
65°	13046	13046	13046
70°	12154	12154	12154
75°	11009	11247	11009
80°	10371	10016	10371
85°	8491	8491	8491



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	45.7	6.1
10°-20°	128.0	17.1
20°-30°	175.8	23.5
30°-40°	158.1	21.1
40°-50°	99.9	13.3
50°-60°	65.2	8.7
60°-70°	44.2	5.9
70°-80°	24.9	3.3
80°-90°	7.0	0.9
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°	349.5	46.7
0°-40°	507.6	67.8
0°-60°	672.8	89.9
0°-90°	748.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	482	482	483	483	483	46
15°	457	457	457	457	457	128
25°	384	385	385	386	386	175
35°	253	254	255	256	255	157
45°	126	126	126	126	126	100
55°	72	72	72	72	72	65
65°	45	45	45	45	45	44
75°	23	24	24	24	23	25
85°	6	6	6	6	6	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	485.4	485.4	485.4	485.4	485.4
2.5°	482.9	482.9	482.9	482.9	482.9
5°	482.3	482.3	482.9	482.9	482.9
7.5°	478.8	479.3	479.3	479.3	479.3
10°	471.2	471.2	471.7	471.7	471.2
12.5°	464.2	464.2	464.2	464.8	464.2
15°	456.7	456.7	456.7	456.7	456.7
17.5°	443.6	444.2	444.2	444.2	444.2
20°	426.1	427.0	427.0	427.5	427.5
22.5°	405.9	406.4	406.9	407.4	406.9
25°	384.3	384.9	384.9	385.8	385.8
27.5°	359.3	359.7	360.7	360.7	360.7
30°	329.1	329.6	330.0	330.0	330.0
32.5°	293.4	293.4	294.4	294.9	294.4
35°	252.7	253.7	254.7	255.7	255.3
37.5°	214.1	215.0	215.5	215.5	216.0
40°	178.3	179.3	179.3	180.4	179.8
42.5°	150.2	149.8	149.8	150.7	150.2
45°	126.1	125.6	125.6	125.6	125.6
47.5°	108.6	108.0	108.0	108.0	108.0
50°	94.5	94.0	94.0	94.0	94.0
52.5°	82.8	82.4	82.4	82.4	81.9
55°	72.4	72.4	71.8	72.4	71.8
57.5°	62.8	62.8	62.8	62.8	62.8
60°	56.2	55.8	55.8	55.8	55.8
62.5°	50.2	50.2	50.2	50.2	50.2
65°	44.7	44.7	44.7	44.7	44.7
67.5°	39.1	38.7	39.1	39.1	38.7
70°	33.7	33.1	33.7	33.7	33.7
72.5°	28.1	28.1	28.1	28.7	28.1
75°	23.1	23.6	23.6	23.6	23.1
77.5°	18.5	19.1	18.5	18.5	18.5
80°	14.6	14.1	14.1	14.1	14.6
82.5°	10.0	10.0	10.0	10.0	10.0
85°	6.0	6.0	6.0	6.0	6.0
87.5°	2.5	2.5	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)