

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: P581473

Luminaire Tested: **HC407D010-HM40525840-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581473  
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-HM40525840-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 907.6 lumens  
Efficiency: N/A  
Efficacy: 113.5 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

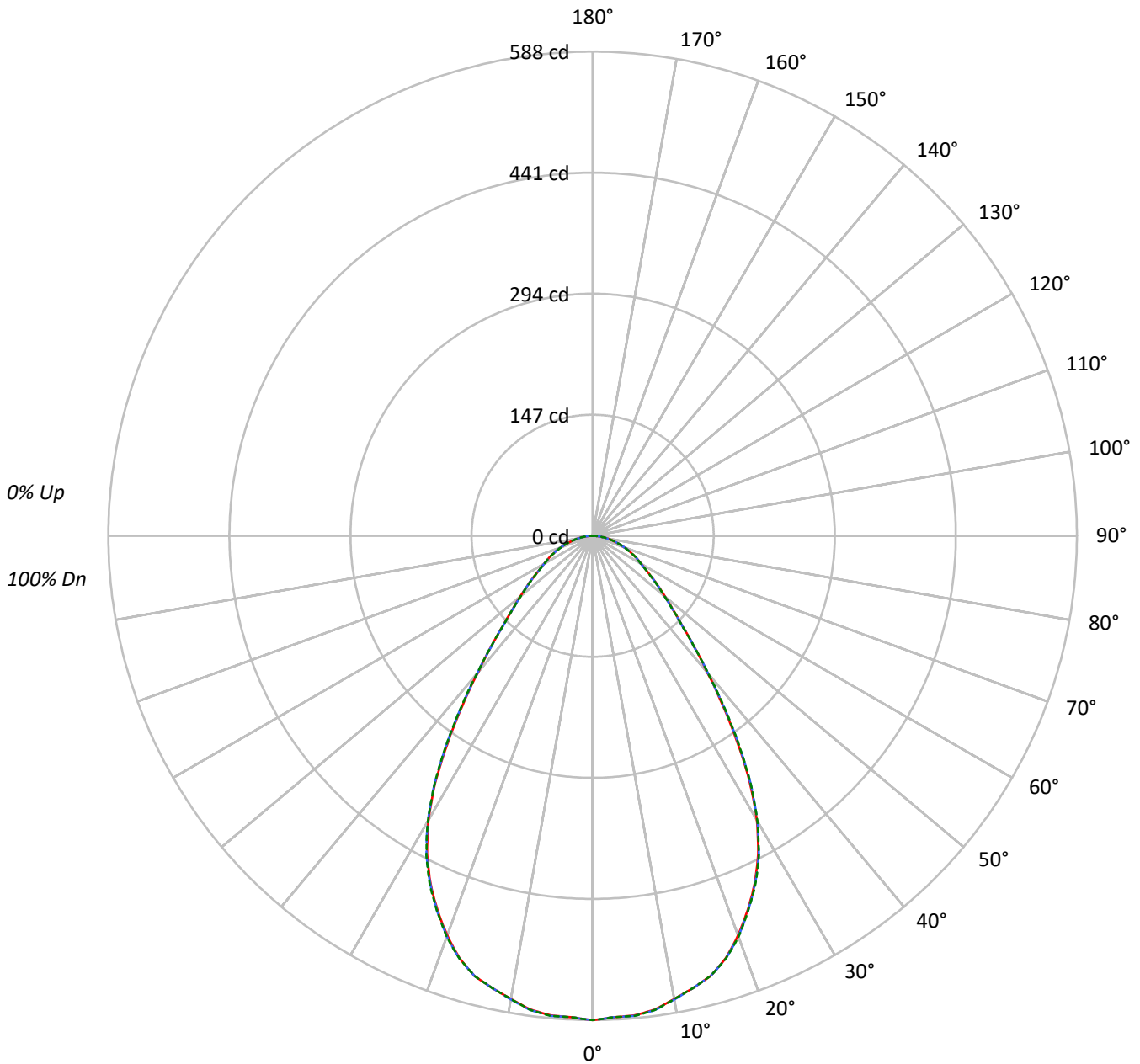
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

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

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

	0°	45°	90°
0°	72552	72552	72552
5°	72383	72458	72458
10°	71542	71605	71542
15°	70680	70680	70680
20°	67784	67941	68020
25°	63394	63489	63639
30°	56814	56985	56985
35°	46107	46483	46574
40°	34812	35005	35102
45°	26654	26567	26567
50°	21972	21856	21856
55°	18860	18731	18731
60°	16824	16676	16676
65°	15819	15819	15819
70°	14750	14750	14750
75°	13344	13630	13344
80°	12502	12146	12502
85°	10331	10331	10331



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.4	6.1
10°-20°	155.1	17.1
20°-30°	213.1	23.5
30°-40°	191.6	21.1
40°-50°	121.1	13.3
50°-60°	79.1	8.7
60°-70°	53.6	5.9
70°-80°	30.1	3.3
80°-90°	8.5	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°	423.6	46.7
0°-40°	615.3	67.8
0°-60°	815.4	89.8
0°-90°	907.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	907.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	585	585	585	585	585	55
15°	554	554	554	554	554	155
25°	466	466	466	468	468	213
35°	306	308	309	310	309	191
45°	153	152	152	152	152	121
55°	88	88	87	88	87	79
65°	54	54	54	54	54	54
75°	28	29	29	29	28	30
85°	7	7	7	7	7	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	588.2	588.2	588.2	588.2	588.2
2.5°	585.2	585.2	585.2	585.2	585.2
5°	584.6	584.6	585.2	585.2	585.2
7.5°	580.3	580.9	580.9	580.9	580.9
10°	571.2	571.2	571.7	571.7	571.2
12.5°	562.6	562.6	562.6	563.3	562.6
15°	553.5	553.5	553.5	553.5	553.5
17.5°	537.7	538.3	538.3	538.3	538.3
20°	516.4	517.6	517.6	518.2	518.2
22.5°	492.0	492.6	493.2	493.9	493.2
25°	465.8	466.5	466.5	467.6	467.6
27.5°	435.4	436.0	437.2	437.2	437.2
30°	398.9	399.4	400.1	400.1	400.1
32.5°	355.6	355.6	356.9	357.4	356.9
35°	306.2	307.5	308.7	310.0	309.3
37.5°	259.4	260.6	261.3	261.3	261.9
40°	216.2	217.4	217.4	218.6	218.0
42.5°	182.1	181.5	181.5	182.6	182.1
45°	152.8	152.3	152.3	152.3	152.3
47.5°	131.6	130.9	130.9	130.9	130.9
50°	114.5	113.9	113.9	113.9	113.9
52.5°	100.5	99.9	99.9	99.9	99.2
55°	87.7	87.7	87.1	87.7	87.1
57.5°	76.1	76.1	76.1	76.1	76.1
60°	68.2	67.6	67.6	67.6	67.6
62.5°	60.9	60.9	60.9	60.9	60.9
65°	54.2	54.2	54.2	54.2	54.2
67.5°	47.5	46.9	47.5	47.5	46.9
70°	40.9	40.2	40.9	40.9	40.9
72.5°	34.1	34.1	34.1	34.7	34.1
75°	28.0	28.6	28.6	28.6	28.0
77.5°	22.5	23.1	22.5	22.5	22.5
80°	17.6	17.1	17.1	17.1	17.6
82.5°	12.2	12.2	12.2	12.2	12.2
85°	7.3	7.3	7.3	7.3	7.3
87.5°	3.1	3.1	3.1	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)