

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: P592542

Luminaire Tested: **HC405D010-HM40525850-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592542  
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: HC405D010-HM40525850-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 686.3 lumens  
Efficiency: N/A  
Efficacy: 114.4 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

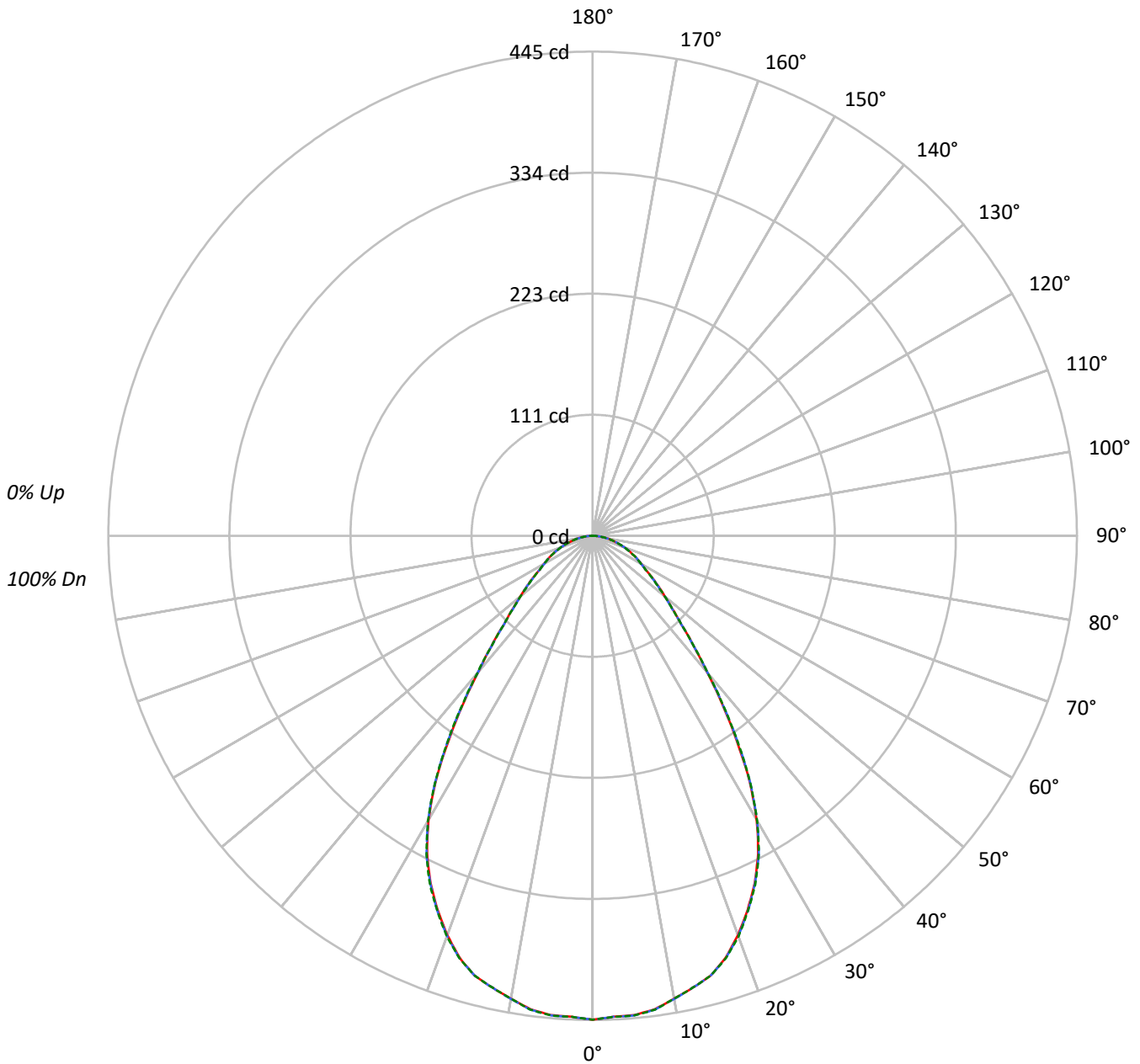
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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
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°	54864	54864	54864
5°	54739	54789	54789
10°	54095	54145	54095
15°	53454	53454	53454
20°	51245	51363	51428
25°	47933	48015	48137
30°	42956	43084	43084
35°	34889	35160	35220
40°	26310	26455	26535
45°	20147	20078	20078
50°	16618	16522	16522
55°	14258	14150	14150
60°	12705	12606	12606
65°	11966	11966	11966
70°	11144	11144	11144
75°	10103	10342	10103
80°	9518	9163	9518
85°	7925	7925	7925



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.9	6.1
10°-20°	117.3	17.1
20°-30°	161.2	23.5
30°-40°	144.9	21.1
40°-50°	91.5	13.3
50°-60°	59.8	8.7
60°-70°	40.5	5.9
70°-80°	22.8	3.3
80°-90°	6.4	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°	320.3	46.7
0°-40°	465.2	67.8
0°-60°	616.5	89.8
0°-90°	686.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	686.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	445	445	445	445	445	
5°	442	442	442	442	442	42
15°	419	419	419	419	419	117
25°	352	353	353	354	354	161
35°	232	233	234	234	234	144
45°	116	115	115	115	115	92
55°	66	66	66	66	66	60
65°	41	41	41	41	41	41
75°	21	22	22	22	21	23
85°	6	6	6	6	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	444.8	444.8	444.8	444.8	444.8
2.5°	442.5	442.5	442.5	442.5	442.5
5°	442.1	442.1	442.5	442.5	442.5
7.5°	438.8	439.2	439.2	439.2	439.2
10°	431.9	431.9	432.3	432.3	431.9
12.5°	425.4	425.4	425.4	426.0	425.4
15°	418.6	418.6	418.6	418.6	418.6
17.5°	406.6	407.0	407.0	407.0	407.0
20°	390.4	391.3	391.3	391.8	391.8
22.5°	372.1	372.5	373.0	373.4	373.0
25°	352.2	352.8	352.8	353.7	353.7
27.5°	329.3	329.7	330.6	330.6	330.6
30°	301.6	302.0	302.5	302.5	302.5
32.5°	268.9	268.9	269.8	270.2	269.8
35°	231.7	232.6	233.5	234.4	233.9
37.5°	196.1	197.0	197.5	197.5	197.9
40°	163.4	164.3	164.3	165.3	164.8
42.5°	137.7	137.2	137.2	138.1	137.7
45°	115.5	115.1	115.1	115.1	115.1
47.5°	99.4	99.0	99.0	99.0	99.0
50°	86.6	86.1	86.1	86.1	86.1
52.5°	75.9	75.5	75.5	75.5	75.0
55°	66.3	66.3	65.8	66.3	65.8
57.5°	57.5	57.5	57.5	57.5	57.5
60°	51.5	51.1	51.1	51.1	51.1
62.5°	46.1	46.1	46.1	46.1	46.1
65°	41.0	41.0	41.0	41.0	41.0
67.5°	35.9	35.4	35.9	35.9	35.4
70°	30.9	30.4	30.9	30.9	30.9
72.5°	25.8	25.8	25.8	26.2	25.8
75°	21.2	21.7	21.7	21.7	21.2
77.5°	17.0	17.5	17.0	17.0	17.0
80°	13.4	12.9	12.9	12.9	13.4
82.5°	9.2	9.2	9.2	9.2	9.2
85°	5.6	5.6	5.6	5.6	5.6
87.5°	2.3	2.3	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)