

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: P579804

Luminaire Tested: **HC410D010-HM40525935-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579804  
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: HC410D010-HM40525935-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 977.0 lumens  
Efficiency: N/A  
Efficacy: 98.7 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

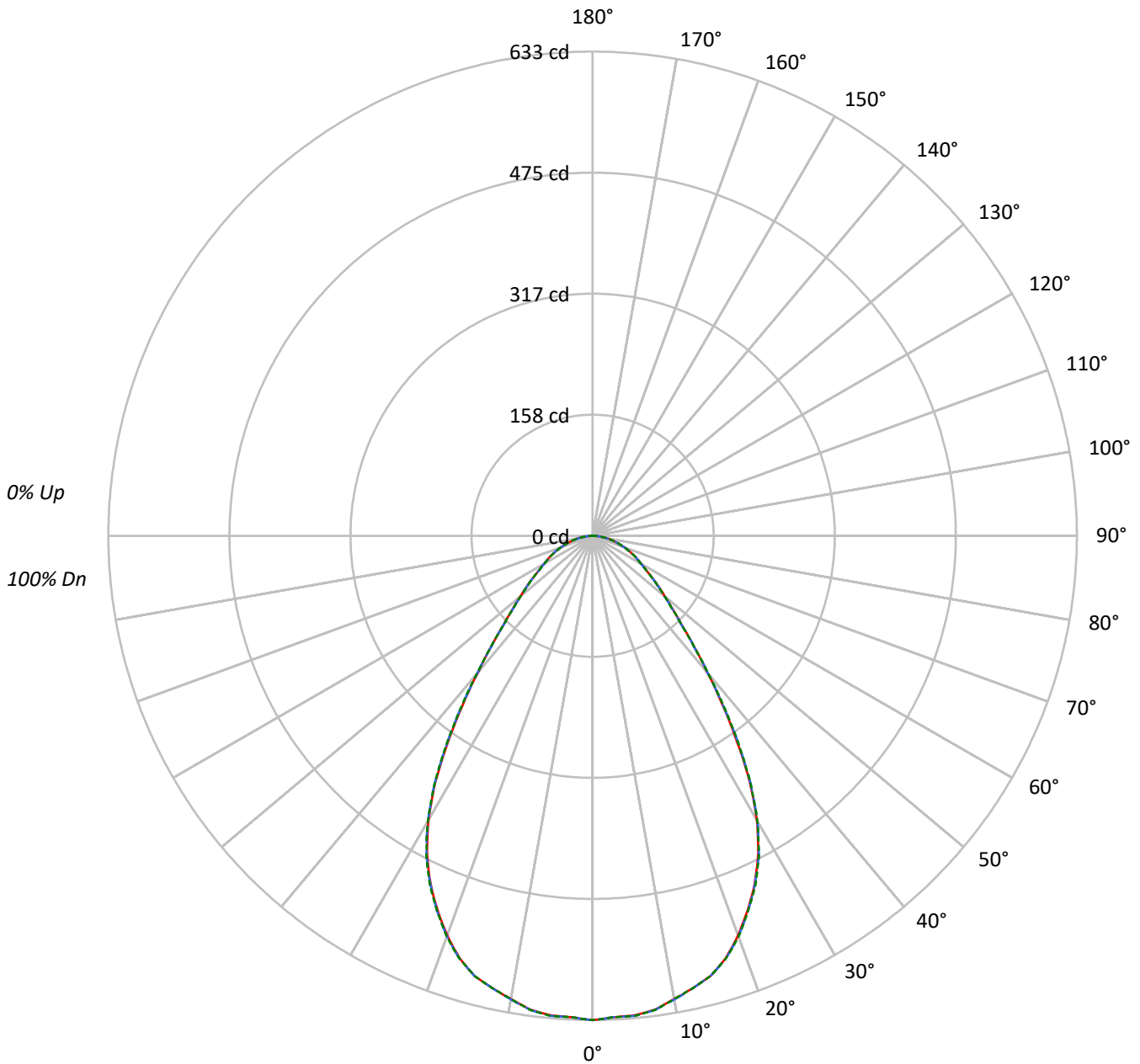
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	68	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°	78115	78115	78115
5°	77918	78005	78005
10°	77015	77090	77015
15°	76095	76095	76095
20°	72968	73139	73218
25°	68253	68334	68525
30°	61158	61343	61343
35°	49645	50052	50142
40°	37468	37678	37791
45°	28712	28590	28590
50°	23641	23526	23526
55°	20322	20171	20171
60°	18107	17934	17934
65°	17045	17045	17045
70°	15832	15832	15832
75°	14392	14678	14392
80°	13496	12999	13496
85°	11180	11180	11180



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.7	6.1
10°-20°	167.0	17.1
20°-30°	229.4	23.5
30°-40°	206.3	21.1
40°-50°	130.3	13.3
50°-60°	85.1	8.7
60°-70°	57.6	5.9
70°-80°	32.4	3.3
80°-90°	9.1	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°	456.1	46.7
0°-40°	662.4	67.8
0°-60°	877.8	89.8
0°-90°	977.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	977.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	629	629	630	630	630	60
15°	596	596	596	596	596	167
25°	502	502	502	504	504	229
35°	330	331	332	334	333	205
45°	165	164	164	164	164	131
55°	94	94	94	94	94	85
65°	58	58	58	58	58	58
75°	30	31	31	31	30	32
85°	8	8	8	8	8	9
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	633.3	633.3	633.3	633.3	633.3
2.5°	630.0	630.0	630.0	630.0	630.0
5°	629.3	629.3	630.0	630.0	630.0
7.5°	624.8	625.3	625.3	625.3	625.3
10°	614.9	614.9	615.5	615.5	614.9
12.5°	605.8	605.8	605.8	606.3	605.8
15°	595.9	595.9	595.9	595.9	595.9
17.5°	578.8	579.5	579.5	579.5	579.5
20°	555.9	557.2	557.2	557.8	557.8
22.5°	529.6	530.3	531.0	531.7	531.0
25°	501.5	502.1	502.1	503.5	503.5
27.5°	468.7	469.3	470.7	470.7	470.7
30°	429.4	430.1	430.7	430.7	430.7
32.5°	382.8	382.8	384.2	384.8	384.2
35°	329.7	331.0	332.4	333.7	333.0
37.5°	279.3	280.5	281.2	281.2	281.9
40°	232.7	234.0	234.0	235.3	234.7
42.5°	196.0	195.4	195.4	196.6	196.0
45°	164.6	163.9	163.9	163.9	163.9
47.5°	141.6	140.9	140.9	140.9	140.9
50°	123.2	122.6	122.6	122.6	122.6
52.5°	108.1	107.5	107.5	107.5	106.9
55°	94.5	94.5	93.8	94.5	93.8
57.5°	81.9	81.9	81.9	81.9	81.9
60°	73.4	72.7	72.7	72.7	72.7
62.5°	65.5	65.5	65.5	65.5	65.5
65°	58.4	58.4	58.4	58.4	58.4
67.5°	51.1	50.5	51.1	51.1	50.5
70°	43.9	43.2	43.9	43.9	43.9
72.5°	36.8	36.8	36.8	37.3	36.8
75°	30.2	30.8	30.8	30.8	30.2
77.5°	24.2	24.9	24.2	24.2	24.2
80°	19.0	18.3	18.3	18.3	19.0
82.5°	13.1	13.1	13.1	13.1	13.1
85°	7.9	7.9	7.9	7.9	7.9
87.5°	3.3	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)