

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: P579799

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579799  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC410D010-HM40525935-41NDC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" NARROW DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 970.6 lumens  
Efficiency: N/A  
Efficacy: 98.0 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 0.84 / 0.85  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

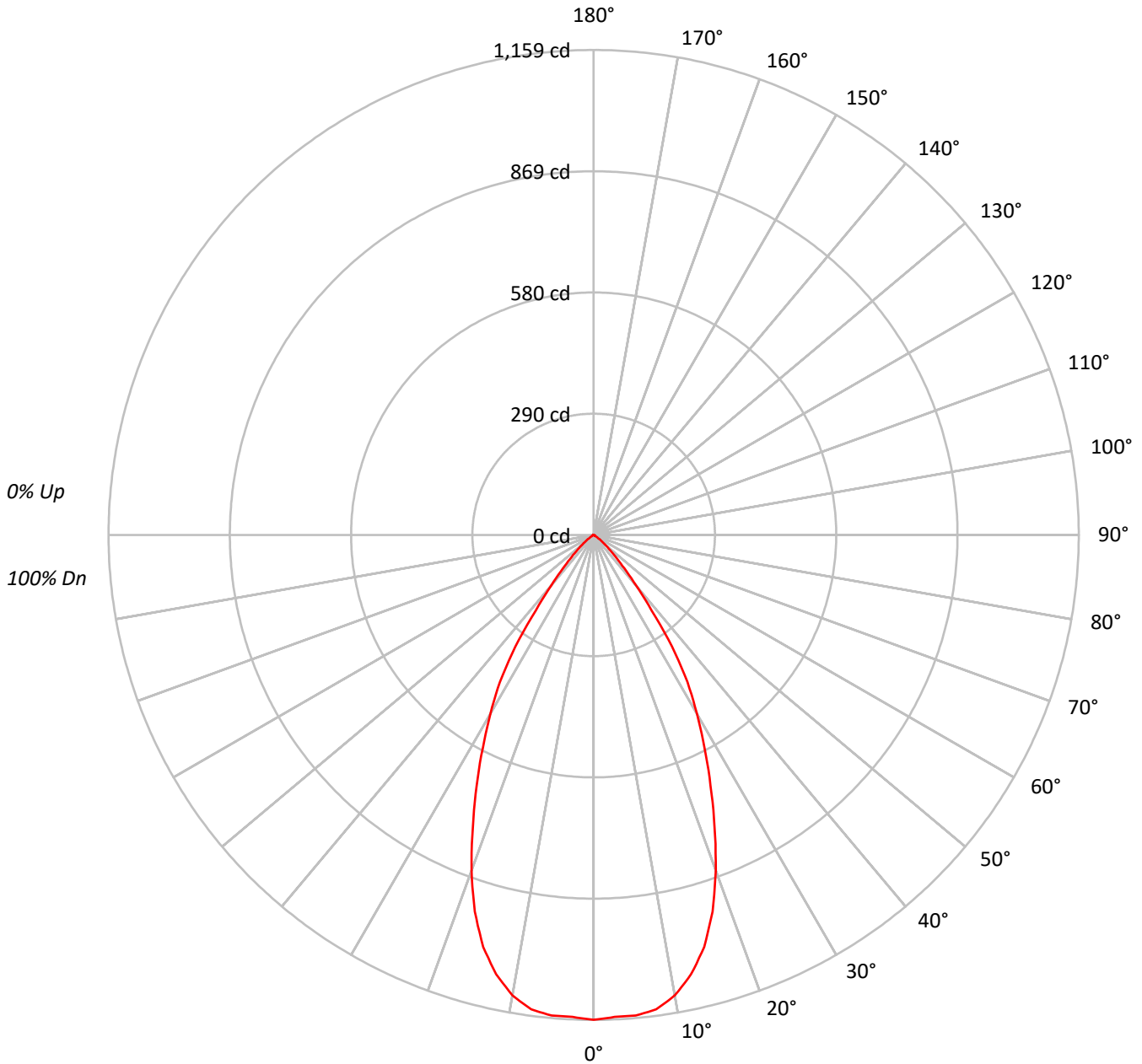
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94			
2	108	103	99	96	106	101	98	95	98	95	93	95	93	91	92	91	89	87			
3	103	96	91	87	101	95	90	87	92	88	85	90	87	84	88	85	83	81			
4	97	90	85	80	96	89	84	80	87	82	79	85	81	78	83	80	77	76			
5	93	84	79	74	91	83	78	74	82	77	73	80	76	73	78	75	72	71			
6	88	79	73	69	87	78	73	69	77	72	68	75	71	68	74	70	67	66			
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62			
8	80	70	64	60	78	70	64	60	69	64	60	68	63	60	67	62	59	58			
9	76	66	61	57	75	66	60	57	65	60	56	64	59	56	63	59	56	55			
10	72	63	57	53	71	62	57	53	62	57	53	61	56	53	60	56	53	51			

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

	0°
0°	142933
5°	142761
10°	139965
15°	130161
20°	111940
25°	89919
30°	70202
35°	49148
40°	25231
45°	12804
50°	6428
55°	2409
60°	987
65°	759
70°	505
75°	334
80°	497
85°	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.0	11.2
10°-20°	281.4	29.0
20°-30°	303.1	31.2
30°-40°	199.1	20.5
40°-50°	61.9	6.4
50°-60°	12.2	1.3
60°-70°	2.6	0.3
70°-80°	1.0	0.1
80°-90°	0.3	0.0
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°	693.5	71.4
0°-40°	892.6	92.0
0°-60°	966.7	99.6
0°-90°	970.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	970.6	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	1159	
5°	1153	109
15°	1019	281
25°	661	303
35°	326	199
45°	73	62
55°	11	12
65°	3	3
75°	1	1
85°	0	0
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	1158.8
2.5°	1153.0
5°	1153.0
7.5°	1143.8
10°	1117.5
12.5°	1075.6
15°	1019.3
17.5°	943.9
20°	852.8
22.5°	754.5
25°	660.7
27.5°	573.6
30°	492.9
32.5°	416.8
35°	326.4
37.5°	227.5
40°	156.7
42.5°	108.1
45°	73.4
47.5°	49.8
50°	33.5
52.5°	20.9
55°	11.2
57.5°	4.6
60°	4.0
62.5°	3.3
65°	2.6
67.5°	1.9
70°	1.4
72.5°	1.4
75°	0.7
77.5°	0.7
80°	0.7
82.5°	0.7
85°	0.0
87.5°	0.0
90°	0.0



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— 0°-180°







(END OF REPORT)