

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: P579821

Luminaire Tested: **HC410D010-HM40525940-41PSMDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC410D010-HM40525940-41PSMDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" PLASTIC TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 960.7 lumens  
Efficiency: N/A  
Efficacy: 97.0 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.03 / 0.99  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

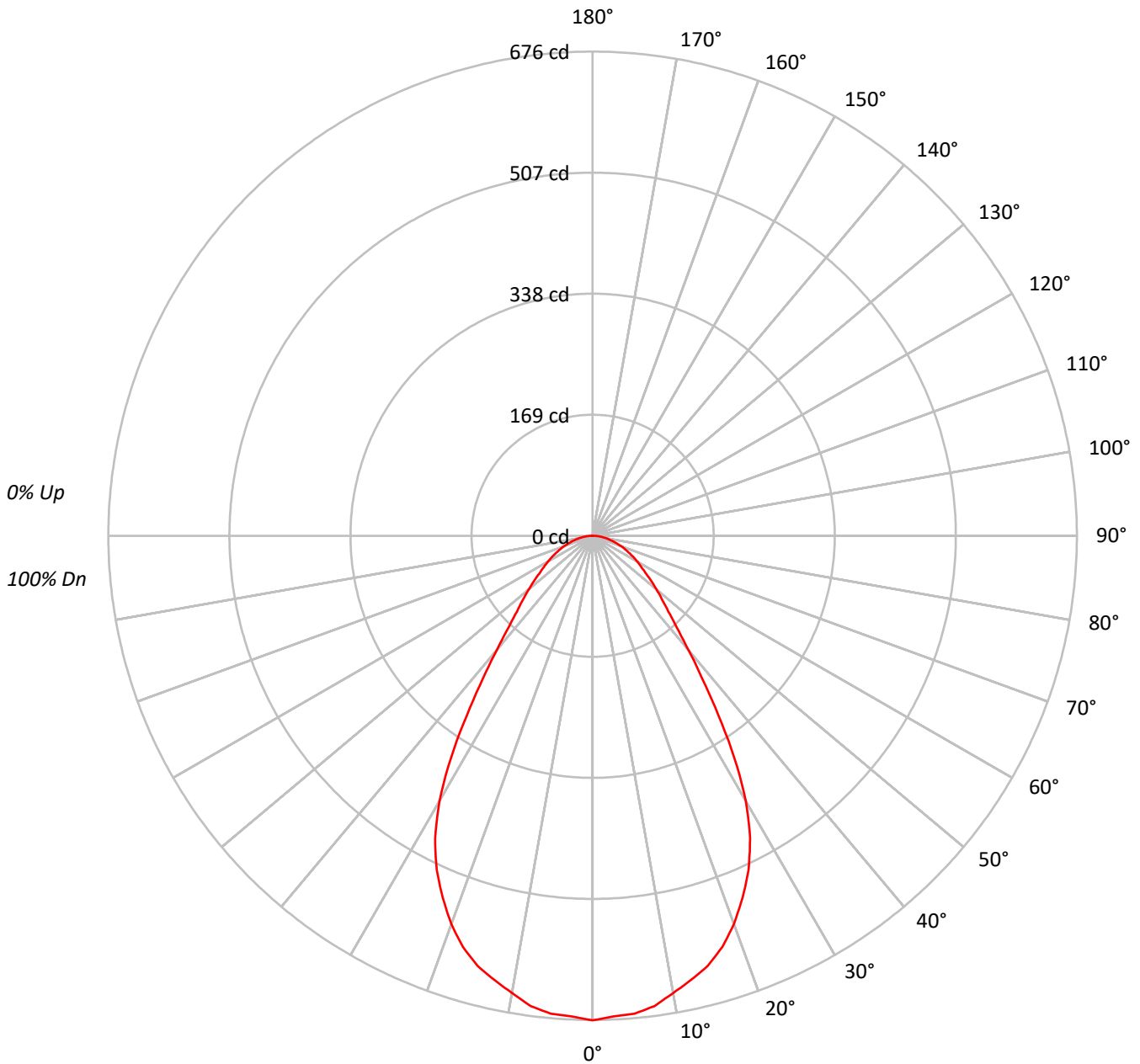
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	102	99	101	99	96	97	95	93	94	92	91	89			89
2	103	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78			78
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			70
4	90	80	73	68	88	79	72	67	77	71	66	74	69	65	72	68	65	63			63
5	84	74	66	61	82	72	66	60	71	64	60	69	63	59	67	62	59	57			57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	53	52			52
7	74	63	55	50	73	62	55	50	61	54	50	59	54	49	58	53	49	47			47
8	70	58	51	46	68	58	51	46	56	50	46	55	50	45	54	49	45	44			44
9	66	54	47	42	65	54	47	42	53	47	42	52	46	42	51	46	42	40			40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37			37

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

	0°
0°	83443
5°	82920
10°	81161
15°	79376
20°	75699
25°	70076
30°	60945
35°	46031
40°	33363
45°	26061
50°	22298
55°	19290
60°	17762
65°	16227
70°	15183
75°	13916
80°	12999
85°	12596



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.3	6.6
10°-20°	174.1	18.1
20°-30°	234.1	24.4
30°-40°	192.5	20.0
40°-50°	118.2	12.3
50°-60°	81.8	8.5
60°-70°	55.7	5.8
70°-80°	31.1	3.2
80°-90°	9.9	1.0
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°	471.5	49.1
0°-40°	664.0	69.1
0°-60°	864.0	89.9
0°-90°	960.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	960.7	100.0

**CANDELA DISTRIBUTION:**

	0°	Flux
0°	676	
5°	670	63
15°	622	174
25°	515	234
35°	306	193
45°	149	118
55°	90	82
65°	56	56
75°	29	31
85°	9	10
90°	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°
0°	676.5
2.5°	671.8
5°	669.7
7.5°	662.3
10°	648.0
12.5°	635.1
15°	621.6
17.5°	601.9
20°	576.7
22.5°	546.8
25°	514.9
27.5°	476.1
30°	427.9
32.5°	368.8
35°	305.7
37.5°	251.4
40°	207.2
42.5°	173.2
45°	149.4
47.5°	131.1
50°	116.2
52.5°	102.5
55°	89.7
57.5°	80.1
60°	72.0
62.5°	63.8
65°	55.6
67.5°	48.9
70°	42.1
72.5°	35.3
75°	29.2
77.5°	23.1
80°	18.3
82.5°	13.5
85°	8.9
87.5°	4.8
90°	0.0



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— 0°-180°







(END OF REPORT)