

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: P579769

Luminaire Tested: **HC410D010-HM40525927-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579769  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC410D010-HM40525927-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

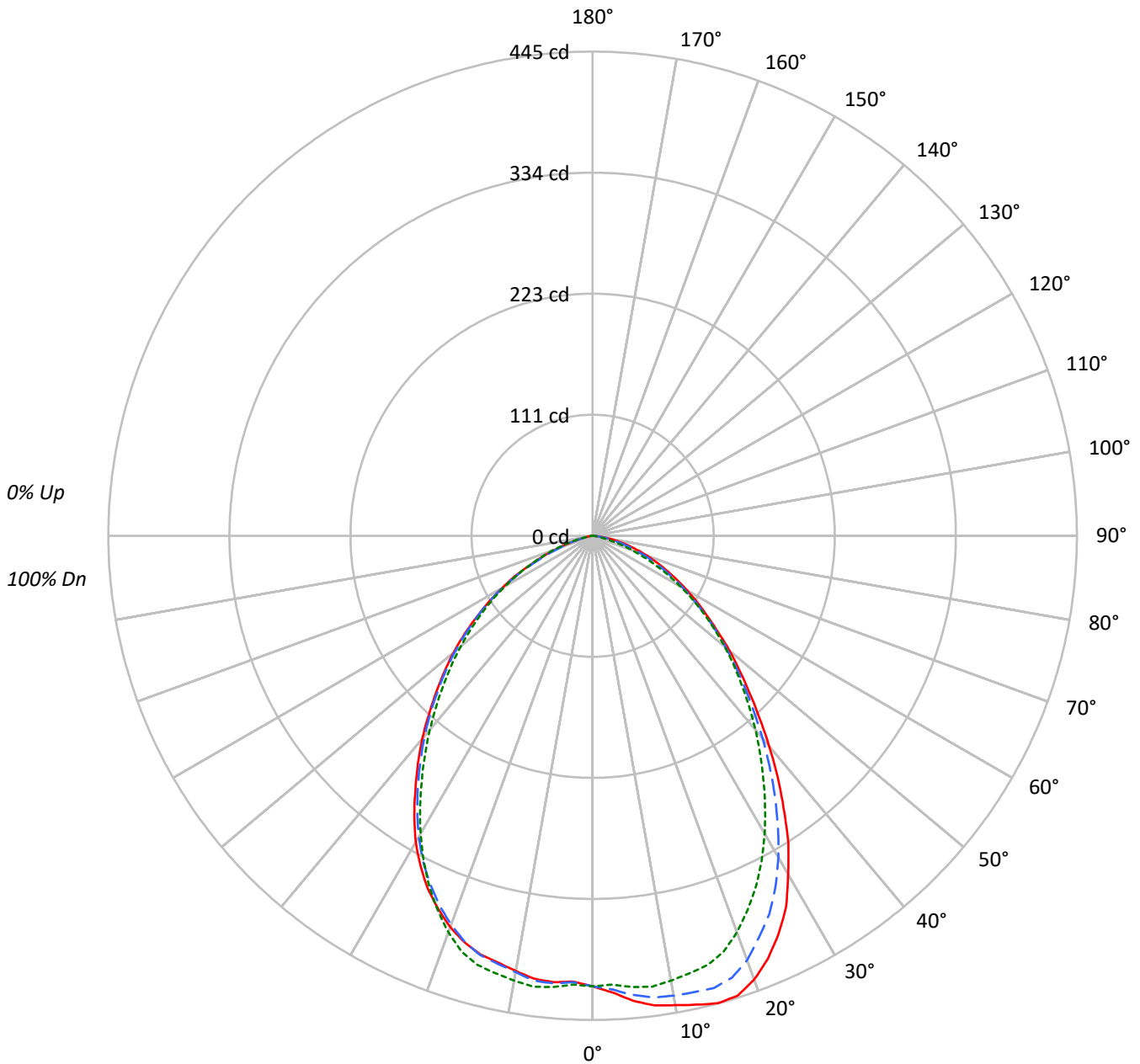
Lumens per Lamp: N/A  
Luminaire Lumens: 862.8 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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



TEST NUMBER: P579769

CATALOG NUMBER: HC410D010-HM40525927-41RWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P579769

CATALOG NUMBER: HC410D010-HM40525927-41RWWC

**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	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

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

	0°	90°	180°
0°	51065	51065	51065
5°	53130	51545	50988
10°	54871	51991	50876
15°	56800	52151	50874
20°	56981	50890	50234
25°	54983	48355	48736
30°	51160	45021	46303
35°	46077	41198	42719
40°	40624	37468	39191
45°	35533	33771	35428
50°	31470	30376	31988
55°	27676	26816	27913
60°	24694	22918	23608
65°	21714	18592	18300
70°	18970	13704	12514
75°	15727	8245	6672
80°	11862	3125	1989
85°	5519	849	849



TEST NUMBER: P579769

CATALOG NUMBER: HC410D010-HM40525927-41RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.9	4.6
10°-20°	116.5	13.5
20°-30°	168.8	19.6
30°-40°	178.1	20.6
40°-50°	154.1	17.9
50°-60°	114.2	13.2
60°-70°	65.8	7.6
70°-80°	23.0	2.7
80°-90°	2.4	0.3
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°	325.3	37.7
0°-40°	503.3	58.3
0°-60°	771.6	89.4
0°-90°	862.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	862.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	414	414	414	414	414	
5°	429	424	416	413	412	41
15°	445	430	408	399	398	125
25°	404	384	355	353	358	185
35°	306	292	274	280	284	191
45°	204	198	194	201	203	158
55°	129	126	125	129	130	116
65°	74	70	64	60	63	74
75°	33	28	17	14	14	36
85°	4	2	1	1	1	6
90°	0	0	0	0	0	



TEST NUMBER: P579769

CATALOG NUMBER: HC410D010-HM40525927-41RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0	414.0
2.5°	420.1	419.1	417.4	415.1	412.9	411.3	410.7	410.1	410.1
5°	429.1	426.9	423.6	419.1	416.3	414.6	412.9	411.8	411.8
7.5°	435.3	433.0	428.0	421.9	418.0	414.6	412.4	410.7	410.7
10°	438.1	435.3	429.1	421.3	415.1	410.7	407.3	406.2	406.2
12.5°	441.4	438.1	429.7	419.6	411.8	406.2	402.9	401.7	401.7
15°	444.8	440.9	430.3	418.6	408.4	401.7	399.0	398.4	398.4
17.5°	443.1	438.1	425.8	411.8	400.6	393.9	391.1	391.1	391.7
20°	434.1	429.1	415.1	399.4	387.7	382.7	380.4	381.6	382.7
22.5°	420.7	414.6	399.4	384.4	372.1	367.6	367.6	369.3	371.0
25°	404.0	398.4	383.8	367.0	355.3	352.0	353.0	355.9	358.1
27.5°	385.0	378.8	363.7	348.0	336.3	334.6	337.4	341.3	342.4
30°	359.2	354.1	341.3	326.2	316.1	315.6	319.4	322.3	325.1
32.5°	334.6	329.0	316.7	302.1	294.9	295.4	299.9	303.3	305.0
35°	306.0	301.0	292.0	280.3	273.6	274.7	279.7	283.1	283.7
37.5°	279.2	275.9	266.9	258.0	252.9	255.1	259.6	263.6	263.6
40°	252.3	249.6	242.8	235.6	232.7	235.6	240.0	243.4	243.4
42.5°	226.6	224.9	219.3	214.3	212.6	216.6	220.4	223.3	222.7
45°	203.7	202.0	198.0	194.1	193.6	197.6	200.9	202.6	203.1
47.5°	183.0	181.9	178.4	175.7	175.7	179.6	182.4	184.1	184.6
50°	164.0	162.8	160.0	157.7	158.3	162.3	164.4	166.1	166.7
52.5°	144.9	144.3	142.1	139.3	141.0	143.8	146.6	147.7	148.3
55°	128.7	128.7	125.9	123.7	124.7	127.6	129.3	129.8	129.8
57.5°	114.1	113.6	110.3	108.0	108.6	111.3	112.4	113.0	113.0
60°	100.1	99.6	96.3	92.9	92.9	94.6	95.1	95.7	95.7
62.5°	86.7	86.1	82.3	79.4	78.3	77.7	77.7	78.9	81.1
65°	74.4	73.9	70.0	65.4	63.7	62.1	60.4	61.6	62.7
67.5°	63.3	62.1	58.2	54.3	50.3	47.6	44.7	46.4	48.7
70°	52.6	51.4	47.0	42.6	38.0	33.6	31.3	33.6	34.7
72.5°	42.6	41.4	36.9	32.4	26.9	22.4	21.8	22.4	23.0
75°	33.0	32.4	28.0	23.0	17.3	14.0	14.0	14.0	14.0
77.5°	24.6	23.4	19.0	14.6	10.0	7.9	7.3	7.3	7.3
80°	16.7	15.7	11.7	8.4	4.4	3.3	3.3	2.8	2.8
82.5°	9.6	9.0	6.1	3.3	1.7	1.1	1.1	1.1	1.1
85°	3.9	3.3	2.3	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	0.6	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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)