

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: P579717

Luminaire Tested: **HC410D010-HM40525830-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579717  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC410D010-HM40525830-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

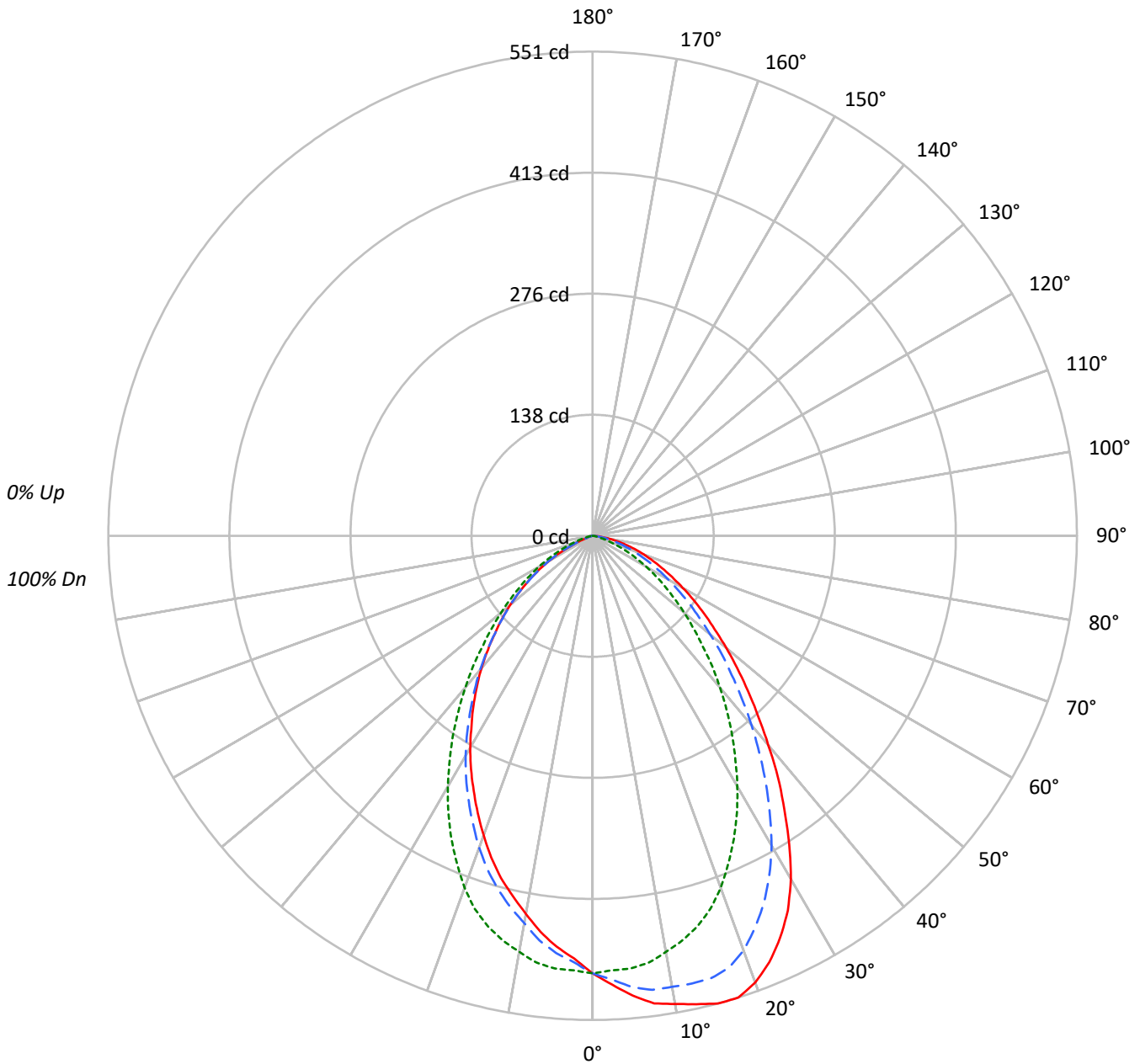
Lumens per Lamp: N/A  
Luminaire Lumens: 859.9 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 9.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P579717

CATALOG NUMBER: HC410D010-HM40525830-41WWBB

### Luminous Intensity Polar Plot





TEST NUMBER: P579717

CATALOG NUMBER: HC410D010-HM40525830-41WWBB

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

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

	0°	90°	180°
0°	61414	61414	61414
5°	65053	61203	58132
10°	67759	60219	54734
15°	70361	58779	51462
20°	71013	55957	47595
25°	68715	51758	43565
30°	64249	46901	39652
35°	57265	41695	35612
40°	50060	36261	31704
45°	43609	30771	27439
50°	38033	26097	23526
55°	33354	21634	19032
60°	29159	17466	13987
65°	25421	13017	7851
70°	22215	8403	2561
75°	18205	4384	667
80°	13567	1989	497
85°	8067	991	991



TEST NUMBER: P579717

CATALOG NUMBER: HC410D010-HM40525830-41WWBB

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	47.0	5.5
10°-20°	131.5	15.3
20°-30°	181.8	21.1
30°-40°	182.8	21.3
40°-50°	147.5	17.2
50°-60°	99.8	11.6
60°-70°	50.8	5.9
70°-80°	16.3	1.9
80°-90°	2.5	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°	360.3	41.9
0°-40°	543.1	63.2
0°-60°	790.4	91.9
0°-90°	859.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	859.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	498	498	498	498	498	
5°	525	516	494	477	470	51
15°	551	521	460	416	403	155
25°	505	461	380	334	320	231
35°	380	343	277	242	236	238
45°	250	224	176	157	157	194
55°	155	134	101	88	88	139
65°	87	71	45	29	27	87
75°	38	27	9	2	1	41
85°	6	3	1	1	1	8
90°	0	0	0	0	0	



TEST NUMBER: P579717

CATALOG NUMBER: HC410D010-HM40525830-41WWBB

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	497.9	497.9	497.9	497.9	497.9	497.9	497.9	497.9	497.9
2.5°	511.3	508.5	505.6	500.7	495.0	489.3	485.8	483.0	481.6
5°	525.4	521.9	515.5	504.9	494.3	484.4	476.6	471.7	469.5
7.5°	536.8	531.9	521.2	506.3	490.0	474.4	464.5	457.5	454.6
10°	541.0	535.4	521.2	501.4	480.8	461.7	447.6	440.5	437.0
12.5°	546.0	539.6	521.9	497.2	471.7	448.9	432.7	423.4	419.9
15°	551.0	542.5	521.2	490.8	460.3	434.1	416.4	407.2	403.0
17.5°	551.0	541.0	515.5	480.1	445.4	417.9	398.0	387.4	383.8
20°	541.0	529.7	502.1	463.2	426.3	396.6	377.5	366.9	362.6
22.5°	525.4	512.7	483.0	442.6	403.6	374.6	355.5	345.6	341.4
25°	504.9	492.2	461.0	419.2	380.3	351.3	333.5	324.3	320.1
27.5°	480.8	466.7	435.5	393.7	355.5	327.9	311.6	303.0	299.5
30°	451.1	437.7	407.2	366.1	329.3	303.8	288.9	281.2	278.4
32.5°	416.4	405.1	375.3	337.1	302.4	279.0	265.6	259.2	256.4
35°	380.3	369.6	343.4	308.1	276.9	254.9	242.2	238.0	236.5
37.5°	346.3	337.1	311.6	279.0	250.7	231.6	220.2	217.4	216.0
40°	310.9	304.5	281.2	251.4	225.2	208.3	199.0	196.9	196.9
42.5°	279.0	272.0	251.4	224.5	201.1	184.1	177.8	175.6	176.4
45°	250.0	243.0	223.7	199.0	176.4	162.2	157.3	157.3	157.3
47.5°	223.0	216.7	199.0	173.5	155.1	143.7	138.8	138.8	139.5
50°	198.2	194.0	174.2	152.3	136.0	125.3	121.8	121.1	122.6
52.5°	174.9	170.0	152.3	132.5	116.9	108.3	104.8	104.1	104.8
55°	155.1	149.4	133.8	114.7	100.6	92.1	87.9	87.1	88.5
57.5°	136.0	131.7	115.4	98.4	85.0	76.5	72.9	71.6	72.3
60°	118.2	114.0	99.1	82.8	70.8	62.4	57.4	56.0	56.7
62.5°	102.0	98.4	84.3	68.7	56.7	48.8	43.9	40.4	41.8
65°	87.1	83.5	70.8	55.2	44.6	36.1	29.0	26.2	26.9
67.5°	74.3	70.1	58.0	43.9	33.2	24.1	16.3	14.9	14.9
70°	61.6	57.4	46.8	34.0	23.3	12.7	7.1	7.1	7.1
72.5°	49.6	46.0	36.1	25.5	14.9	5.7	2.8	2.8	2.8
75°	38.2	35.4	26.9	17.8	9.2	2.8	2.2	1.4	1.4
77.5°	28.3	25.5	19.1	12.1	5.7	1.4	1.4	1.4	1.4
80°	19.1	17.0	12.7	7.1	2.8	0.7	0.7	0.7	0.7
82.5°	11.4	9.9	7.1	3.5	1.4	0.7	0.7	0.7	0.7
85°	5.7	4.2	2.8	1.4	0.7	0.7	0.7	0.7	0.7
87.5°	1.4	0.7	0.7	0.7	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)