

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: P581422

Luminaire Tested: **HC407D010-HM40525827-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581422  
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: HC407D010-HM40525827-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

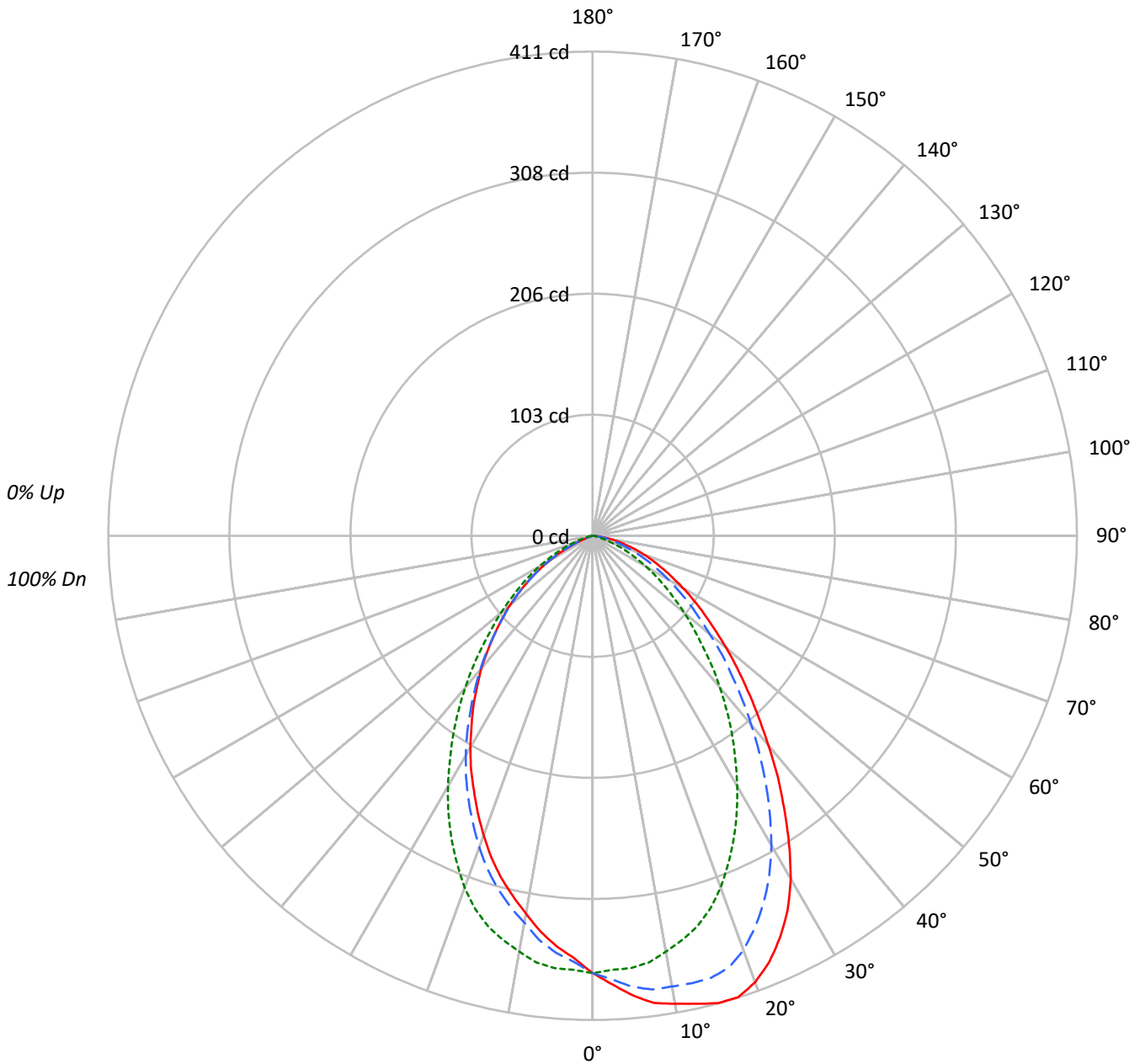
Lumens per Lamp: N/A  
Luminaire Lumens: 641.0 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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



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### Luminous Intensity Polar Plot





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**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°	45774	45774	45774
5°	48499	45614	43323
10°	50513	44889	40793
15°	52445	43813	38347
20°	52938	41702	35480
25°	51213	38583	32459
30°	47898	34966	29554
35°	42689	31079	26547
40°	37307	27035	23621
45°	32498	22921	20444
50°	28362	19458	17520
55°	24859	16128	14193
60°	21758	13025	10410
65°	18971	9690	5837
70°	16589	6275	1875
75°	13535	3241	477
80°	10087	1563	426
85°	5944	849	849



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.0	5.5
10°-20°	98.0	15.3
20°-30°	135.5	21.1
30°-40°	136.3	21.3
40°-50°	110.0	17.2
50°-60°	74.4	11.6
60°-70°	37.8	5.9
70°-80°	12.1	1.9
80°-90°	1.9	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°	268.6	41.9
0°-40°	404.8	63.2
0°-60°	589.1	91.9
0°-90°	641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	371	371	371	371	371	
5°	392	384	368	355	350	38
15°	411	388	343	310	300	116
25°	376	344	284	249	238	172
35°	284	256	206	180	176	177
45°	186	167	131	117	117	144
55°	116	100	75	65	66	104
65°	65	53	33	22	20	65
75°	28	20	7	2	1	31
85°	4	2	1	1	1	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	371.1	371.1	371.1	371.1	371.1	371.1	371.1	371.1	371.1
2.5°	381.1	379.0	376.9	373.2	368.9	364.7	362.1	359.9	358.9
5°	391.7	389.0	384.3	376.3	368.4	361.1	355.3	351.5	349.9
7.5°	400.1	396.4	388.5	377.4	365.3	353.7	346.3	340.9	338.9
10°	403.3	399.0	388.5	373.7	358.4	344.1	333.5	328.3	325.7
12.5°	406.9	402.2	389.0	370.5	351.5	334.7	322.5	315.7	313.0
15°	410.7	404.3	388.5	365.8	343.1	323.5	310.3	303.5	300.3
17.5°	410.7	403.3	384.3	357.9	332.0	311.5	296.7	288.7	286.1
20°	403.3	394.8	374.2	345.2	317.7	295.5	281.3	273.5	270.3
22.5°	391.7	382.1	359.9	329.9	300.9	279.3	264.9	257.5	254.5
25°	376.3	366.9	343.6	312.5	283.5	261.9	248.7	241.7	238.5
27.5°	358.4	347.9	324.7	293.5	264.9	244.3	232.3	225.9	223.3
30°	336.3	326.2	303.5	272.9	245.5	226.5	215.3	209.5	207.5
32.5°	310.3	301.9	279.7	251.3	225.4	207.9	197.9	193.2	191.1
35°	283.5	275.5	256.0	229.6	206.4	190.0	180.5	177.3	176.3
37.5°	258.1	251.3	232.3	207.9	186.9	172.6	164.1	162.1	161.0
40°	231.7	226.9	209.5	187.4	167.9	155.2	148.3	146.7	146.7
42.5°	207.9	202.7	187.4	167.3	149.9	137.2	132.5	130.9	131.4
45°	186.3	181.1	166.8	148.3	131.4	120.9	117.2	117.2	117.2
47.5°	166.3	161.5	148.3	129.3	115.6	107.2	103.4	103.4	104.0
50°	147.8	144.6	129.8	113.5	101.4	93.4	90.8	90.2	91.3
52.5°	130.4	126.7	113.5	98.7	87.1	80.8	78.1	77.6	78.1
55°	115.6	111.4	99.8	85.5	75.0	68.6	65.4	65.0	66.0
57.5°	101.4	98.2	86.0	73.4	63.4	57.0	54.4	53.3	53.8
60°	88.2	85.0	73.9	61.8	52.8	46.4	42.8	41.7	42.2
62.5°	76.0	73.4	62.8	51.2	42.2	36.4	32.8	30.0	31.2
65°	65.0	62.2	52.8	41.2	33.2	27.0	21.6	19.6	20.0
67.5°	55.4	52.2	43.2	32.8	24.8	18.0	12.2	11.0	11.0
70°	46.0	42.8	34.8	25.4	17.4	9.4	5.2	5.2	5.2
72.5°	37.0	34.3	27.0	19.0	11.0	4.2	2.2	2.2	2.2
75°	28.4	26.4	20.0	13.2	6.8	2.2	1.6	1.0	1.0
77.5°	21.2	19.0	14.2	9.0	4.2	1.0	1.0	1.0	1.0
80°	14.2	12.6	9.4	5.2	2.2	0.6	0.6	0.6	0.6
82.5°	8.4	7.4	5.2	2.6	1.0	0.6	0.6	0.6	0.6
85°	4.2	3.2	2.2	1.0	0.6	0.6	0.6	0.6	0.6
87.5°	1.0	0.6	0.6	0.6	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)