

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: P579879

Luminaire Tested: **HC415D010-HM40525835-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P579879  
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: HC415D010-HM40525835-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

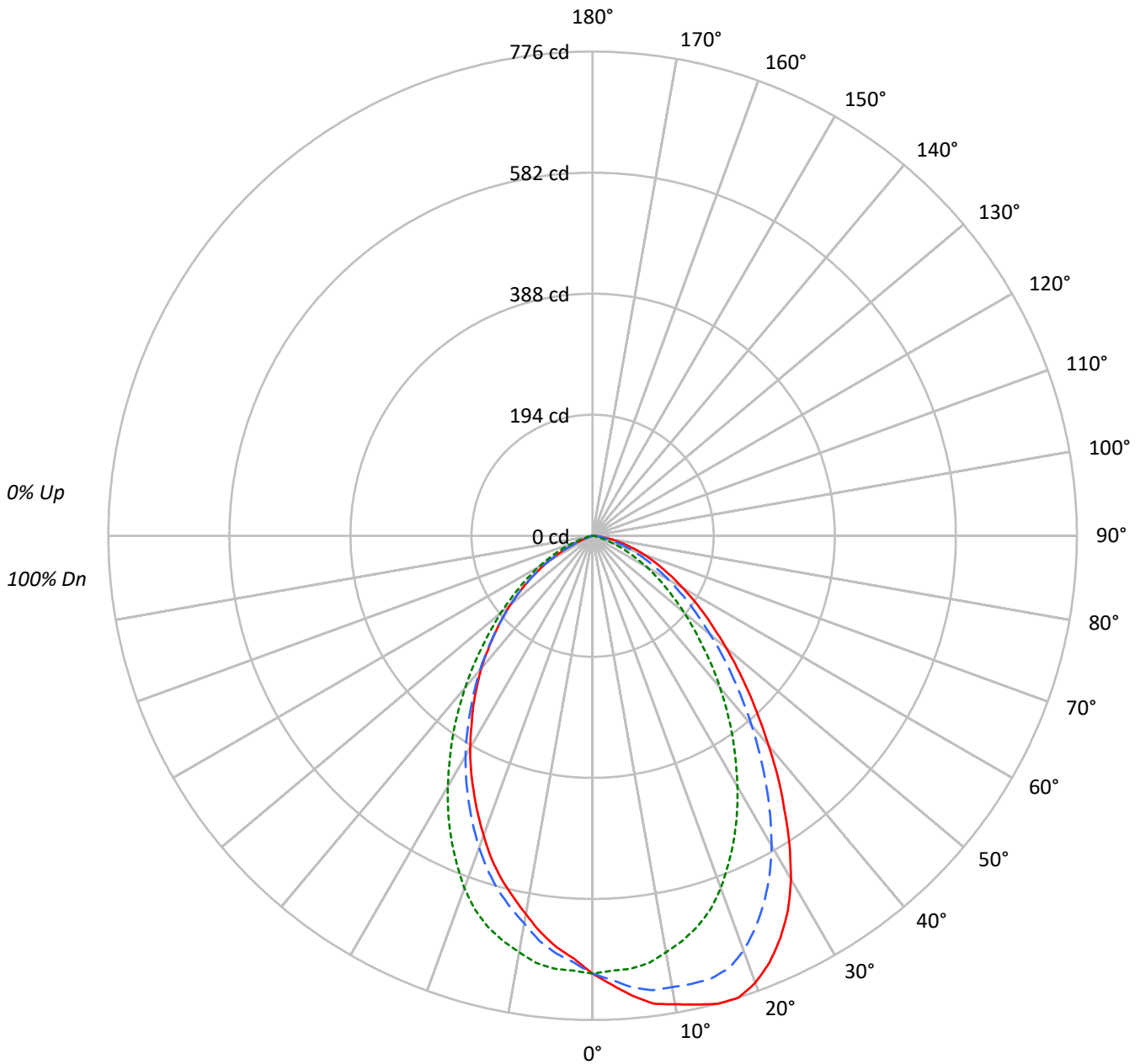
Lumens per Lamp: N/A  
Luminaire Lumens: 1211.9 lumens  
Efficiency: N/A  
Efficacy: 86.6 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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°	86539	86539	86539
5°	91686	86251	81930
10°	95502	84881	77128
15°	99157	82850	72519
20°	100087	78862	67075
25°	96847	72948	61407
30°	90555	66100	55874
35°	80709	58755	50202
40°	70557	51090	44666
45°	61472	43348	38655
50°	53634	36766	33140
55°	46988	30472	26816
60°	41123	24620	19686
65°	35840	18358	11091
70°	31339	11901	3606
75°	25687	6195	953
80°	19108	2841	710
85°	11322	1415	1415



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.2	5.5
10°-20°	185.3	15.3
20°-30°	256.3	21.1
30°-40°	257.7	21.3
40°-50°	207.9	17.2
50°-60°	140.6	11.6
60°-70°	71.6	5.9
70°-80°	22.9	1.9
80°-90°	3.5	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°	507.8	41.9
0°-40°	765.5	63.2
0°-60°	1114.0	91.9
0°-90°	1211.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1211.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	702	702	702	702	702	
5°	740	726	697	672	662	71
15°	776	735	649	587	568	219
25°	712	650	536	470	451	326
35°	536	484	390	341	333	335
45°	352	315	248	222	222	273
55°	218	189	142	124	125	196
65°	123	100	63	41	38	123
75°	54	38	13	3	2	58
85°	8	4	1	1	1	11
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°	701.6	701.6	701.6	701.6	701.6	701.6	701.6	701.6	701.6
2.5°	720.6	716.7	712.6	705.6	697.7	689.7	684.7	680.7	678.7
5°	740.5	735.5	726.5	711.6	696.6	682.7	671.7	664.7	661.7
7.5°	756.6	749.5	734.6	713.6	690.6	668.7	654.7	644.8	640.7
10°	762.5	754.5	734.6	706.6	677.7	650.7	630.8	620.8	615.8
12.5°	769.5	760.5	735.5	700.6	664.7	632.7	609.8	596.8	591.8
15°	776.5	764.5	734.6	691.6	648.8	611.8	586.8	573.8	567.9
17.5°	776.5	762.5	726.5	676.6	627.7	588.9	560.9	546.0	541.0
20°	762.5	746.6	707.7	652.8	600.8	558.9	532.0	517.0	511.0
22.5°	740.5	722.6	680.7	623.8	568.8	528.0	501.1	487.1	481.1
25°	711.6	693.7	649.7	590.9	536.0	495.0	470.0	457.1	451.2
27.5°	677.7	657.8	613.8	555.0	501.1	462.1	439.1	427.2	422.2
30°	635.8	616.8	573.8	516.0	464.1	428.2	407.2	396.2	392.3
32.5°	586.8	570.9	528.9	475.0	426.1	393.3	374.3	365.3	361.3
35°	536.0	521.0	484.0	434.1	390.2	359.3	341.3	335.3	333.4
37.5°	488.0	475.0	439.1	393.3	353.3	326.3	310.4	306.4	304.4
40°	438.2	429.2	396.2	354.3	317.3	293.5	280.5	277.4	277.4
42.5°	393.3	383.3	354.3	316.4	283.5	259.5	250.5	247.5	248.5
45°	352.4	342.4	315.4	280.5	248.5	228.5	221.6	221.6	221.6
47.5°	314.4	305.4	280.5	244.6	218.5	202.6	195.6	195.6	196.6
50°	279.5	273.4	245.5	214.6	191.6	176.7	171.7	170.7	172.7
52.5°	246.5	239.6	214.6	186.6	164.6	152.7	147.7	146.7	147.7
55°	218.5	210.6	188.6	161.7	141.7	129.7	123.7	122.8	124.7
57.5°	191.6	185.7	162.7	138.7	119.7	107.8	102.8	100.9	101.8
60°	166.7	160.7	139.7	116.8	99.8	87.8	80.8	78.8	79.8
62.5°	143.7	138.7	118.8	96.8	79.8	68.9	61.9	56.8	58.9
65°	122.8	117.8	99.8	77.9	62.9	50.9	40.9	37.0	38.0
67.5°	104.8	98.8	81.9	61.9	47.0	33.9	23.0	20.9	20.9
70°	86.9	80.8	65.8	47.9	33.0	18.0	10.0	10.0	10.0
72.5°	69.8	64.9	50.9	35.9	20.9	8.0	4.0	4.0	4.0
75°	53.9	49.9	38.0	24.9	13.0	4.0	3.0	2.0	2.0
77.5°	39.9	35.9	26.9	16.9	8.0	2.0	2.0	2.0	2.0
80°	26.9	24.0	18.0	10.0	4.0	1.0	1.0	1.0	1.0
82.5°	15.9	14.0	10.0	5.0	2.0	1.0	1.0	1.0	1.0
85°	8.0	6.0	4.0	2.0	1.0	1.0	1.0	1.0	1.0
87.5°	2.0	1.0	1.0	1.0	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)