

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: P581424

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581424  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC407D010-HM40525827-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 797.7 lumens  
Efficiency: N/A  
Efficacy: 99.7 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

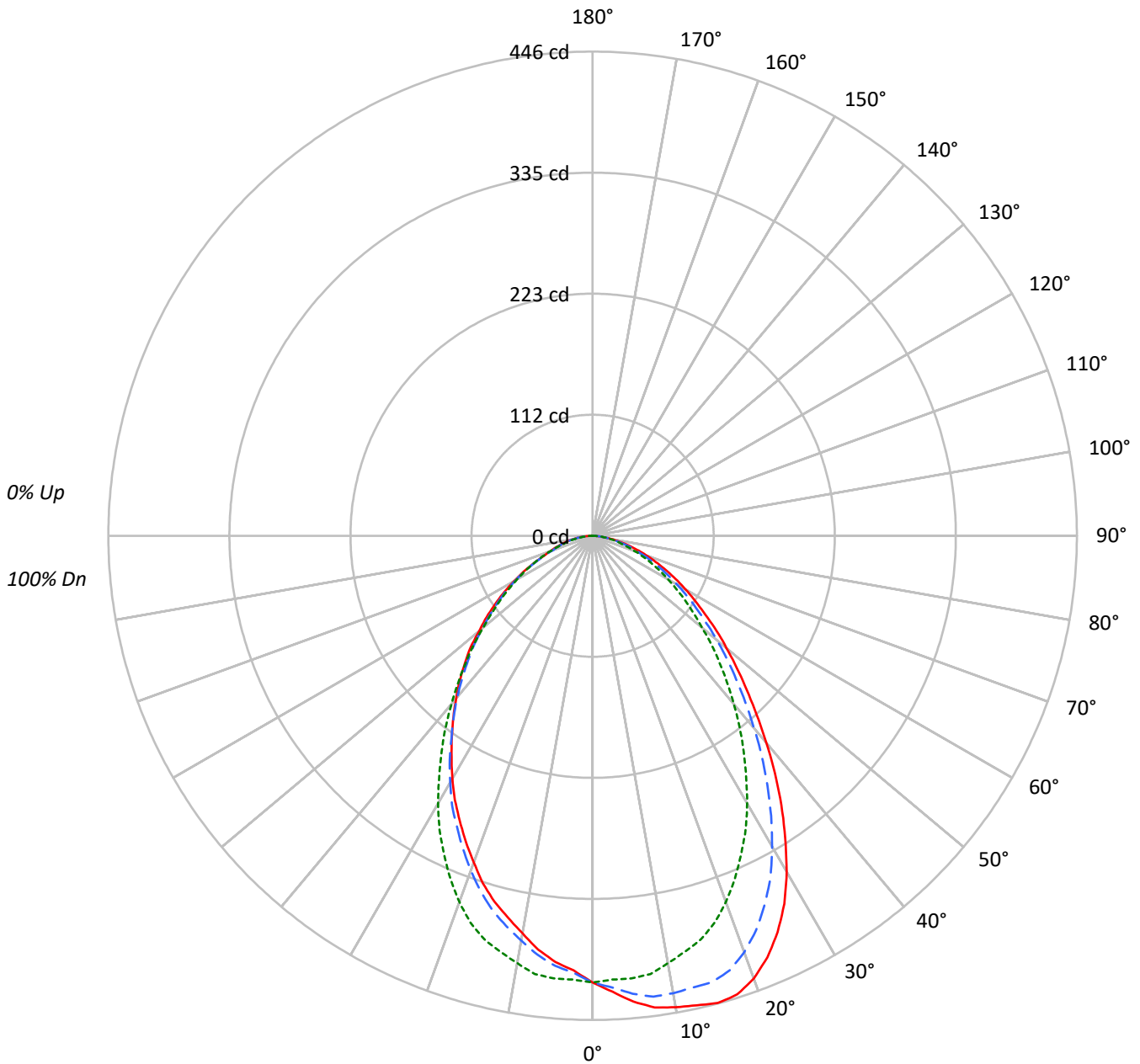
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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								
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58								
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51								
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46								
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41								
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37								
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

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

	0°	90°	180°
0°	50744	50744	50744
5°	53340	50666	48784
10°	55235	50074	46567
15°	56902	49163	44566
20°	56968	47123	42004
25°	54833	44041	39386
30°	50904	40535	36775
35°	45625	36500	34030
40°	40061	32557	31463
45°	34992	28817	29026
50°	30895	25215	26136
55°	27268	22365	23526
60°	24373	19785	20574
65°	21598	17395	17395
70°	18825	14858	14858
75°	16108	12581	14106
80°	12786	11223	12786
85°	8208	9624	11888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.0	4.9
10°-20°	109.8	13.8
20°-30°	153.8	19.3
30°-40°	158.4	19.9
40°-50°	134.9	16.9
50°-60°	99.9	12.5
60°-70°	62.7	7.9
70°-80°	31.2	3.9
80°-90°	8.2	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°	302.5	37.9
0°-40°	460.9	57.8
0°-60°	695.7	87.2
0°-90°	797.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	797.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	411	411	411	411	411	
5°	431	423	409	398	394	41
15°	446	426	385	357	349	125
25°	403	375	324	296	289	184
35°	303	280	242	227	226	189
45°	201	187	165	162	166	156
55°	127	117	104	106	109	115
65°	74	67	60	59	60	74
75°	34	30	26	29	30	36
85°	6	6	7	8	8	7
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°	411.4	411.4	411.4	411.4	411.4	411.4	411.4	411.4	411.4
2.5°	420.4	418.8	416.6	413.0	409.2	406.0	402.9	401.4	400.8
5°	430.8	427.8	423.4	416.6	409.2	402.9	397.6	395.0	394.0
7.5°	438.2	435.1	428.2	417.6	407.2	397.6	389.2	385.4	384.4
10°	441.0	437.2	427.8	413.4	399.8	388.1	378.6	373.8	371.8
12.5°	443.0	438.2	426.2	409.2	392.4	378.0	368.0	361.7	360.2
15°	445.6	440.4	425.6	405.0	385.0	368.0	357.0	351.2	349.0
17.5°	443.0	437.2	419.8	396.6	373.8	355.4	343.2	338.0	335.8
20°	434.0	427.8	408.2	383.4	359.0	340.0	328.0	322.6	320.0
22.5°	420.4	413.4	393.4	367.0	342.2	323.6	312.0	306.8	305.2
25°	402.9	396.0	374.9	348.0	323.6	305.8	295.7	291.0	289.4
27.5°	382.3	375.4	354.8	328.4	305.2	288.4	280.4	275.6	274.6
30°	357.4	350.6	330.6	306.2	284.6	268.8	262.4	258.8	258.2
32.5°	330.0	324.2	305.8	283.6	263.0	249.8	245.0	242.4	241.8
35°	303.0	296.8	280.4	260.4	242.4	230.8	226.6	226.0	226.0
37.5°	275.6	269.3	256.0	237.6	222.3	211.8	210.2	210.6	210.6
40°	248.8	242.8	231.2	216.0	202.2	194.4	193.8	194.8	195.4
42.5°	223.4	218.6	208.0	194.8	183.2	176.8	177.4	179.6	181.2
45°	200.6	196.4	187.0	175.4	165.2	160.6	162.2	164.8	166.4
47.5°	180.0	176.4	167.4	156.8	148.4	145.2	147.4	150.4	152.6
50°	161.0	157.8	149.4	138.4	131.4	129.4	132.0	135.2	136.2
52.5°	144.2	141.0	132.0	122.6	117.2	116.2	118.8	121.4	123.0
55°	126.8	124.0	116.6	108.2	104.0	103.4	106.2	108.2	109.4
57.5°	112.4	109.8	103.0	95.6	91.8	91.4	94.0	95.6	96.2
60°	98.8	96.2	89.8	83.0	80.2	80.2	81.8	83.0	83.4
62.5°	86.0	83.4	77.6	71.8	69.6	69.6	69.6	70.2	71.8
65°	74.0	71.8	66.6	61.2	59.6	58.6	58.6	58.6	59.6
67.5°	62.8	60.8	56.4	51.8	50.2	48.6	48.0	49.2	49.2
70°	52.2	50.6	46.4	42.8	41.2	39.6	39.0	41.2	41.2
72.5°	42.8	41.2	38.6	34.8	33.2	32.8	33.8	34.8	35.4
75°	33.8	32.2	30.0	28.0	26.4	27.0	28.6	29.0	29.6
77.5°	25.4	24.8	22.8	21.2	21.2	21.6	22.8	23.8	24.2
80°	18.0	17.4	16.4	15.4	15.8	16.8	17.4	18.4	18.0
82.5°	11.0	11.0	10.6	10.6	11.0	12.2	12.6	13.2	13.8
85°	5.8	5.8	5.8	6.4	6.8	7.4	8.0	8.4	8.4
87.5°	1.6	2.2	2.2	2.6	3.2	3.2	3.6	3.6	3.6
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)