

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: P581532

Luminaire Tested: **HC407D010-HM40525935-41WWWB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581532  
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-HM40525935-41WWWB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 799.9 lumens  
Efficiency: N/A  
Efficacy: 100.0 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

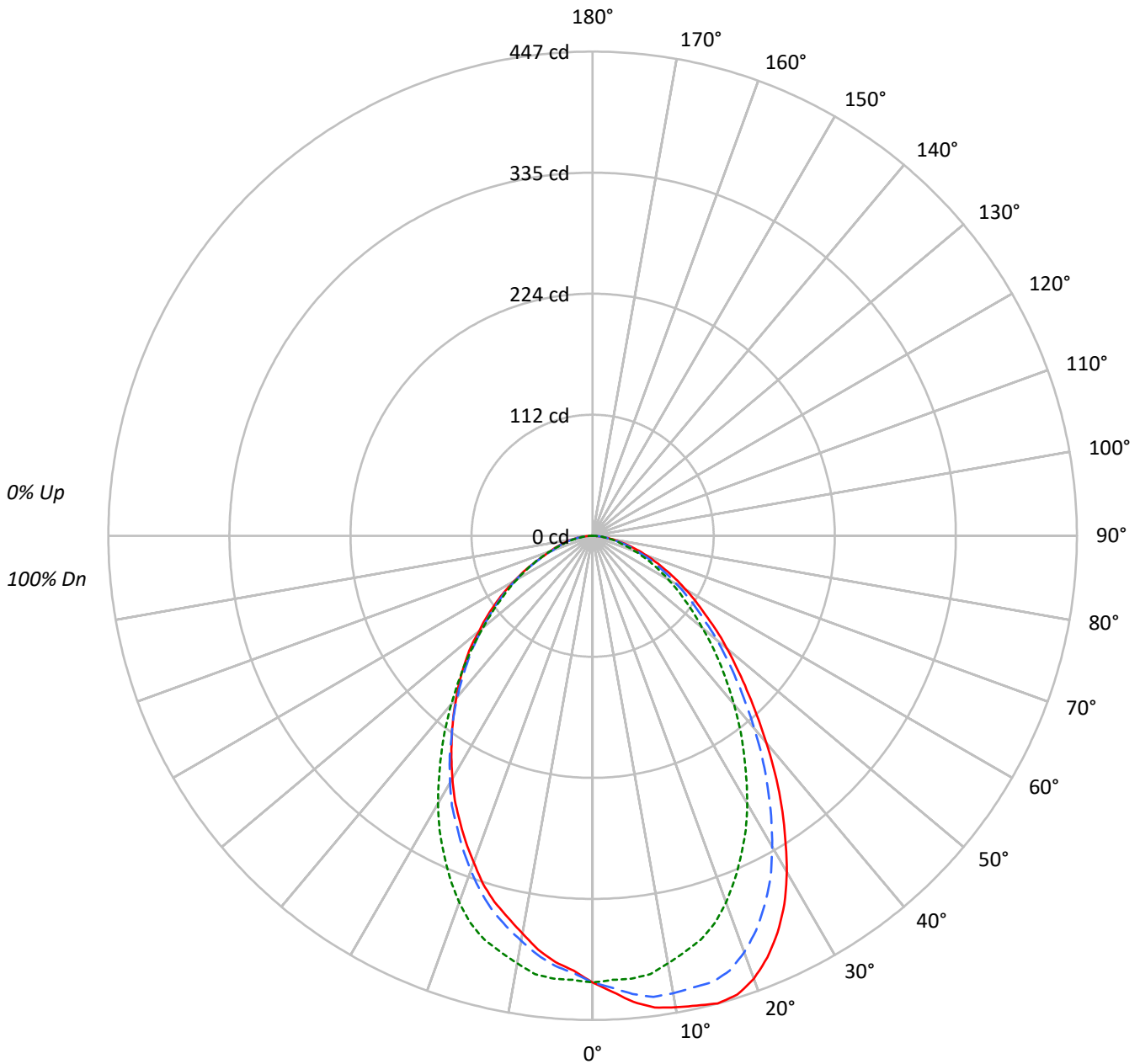
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31			

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

	0°	90°	180°
0°	50868	50868	50868
5°	53489	50814	48908
10°	55372	50200	46680
15°	57068	49291	44681
20°	57125	47267	42109
25°	54983	44177	39495
30°	51060	40649	36874
35°	45745	36590	34121
40°	40141	32654	31527
45°	35097	28904	29079
50°	30991	25291	26212
55°	27332	22451	23569
60°	24422	19859	20623
65°	21627	17482	17482
70°	18934	14894	14894
75°	16156	12629	14154
80°	12786	11294	12786
85°	8208	9624	11888



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	4.9
10°-20°	110.0	13.8
20°-30°	154.2	19.3
30°-40°	158.8	19.9
40°-50°	135.2	16.9
50°-60°	100.2	12.5
60°-70°	62.9	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°	303.3	37.9
0°-40°	462.1	57.8
0°-60°	697.5	87.2
0°-90°	799.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	799.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	412	412	412	412	412	
5°	432	425	410	399	395	42
15°	447	427	386	358	350	126
25°	404	376	325	296	290	185
35°	304	281	243	227	227	189
45°	201	187	166	162	167	156
55°	127	117	104	106	110	115
65°	74	67	60	59	60	74
75°	34	30	26	29	30	36
85°	6	6	7	8	8	8
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°	412.4	412.4	412.4	412.4	412.4	412.4	412.4	412.4	412.4
2.5°	421.4	419.8	417.8	414.0	410.4	407.2	404.0	402.4	401.8
5°	432.0	428.8	424.6	417.8	410.4	404.0	398.6	396.0	395.0
7.5°	439.4	436.3	429.4	418.8	408.2	398.6	390.2	386.5	385.4
10°	442.1	438.4	428.8	414.6	400.8	389.1	379.6	374.9	372.7
12.5°	444.2	439.4	427.2	410.4	393.4	379.1	369.1	362.7	361.1
15°	446.9	441.5	426.7	406.0	386.0	369.1	357.9	352.1	349.9
17.5°	444.2	438.4	420.9	397.6	374.9	356.3	344.1	338.9	336.7
20°	435.2	428.8	409.2	384.4	360.1	340.9	328.8	323.5	320.8
22.5°	421.4	414.6	394.4	367.9	343.1	324.6	313.0	307.6	306.0
25°	404.0	397.0	375.9	348.9	324.6	306.6	296.4	291.7	290.2
27.5°	383.3	376.5	355.7	329.3	306.0	289.1	281.1	276.4	275.3
30°	358.5	351.5	331.4	307.0	285.4	269.5	263.1	259.5	258.9
32.5°	330.9	325.1	306.6	284.3	263.7	250.5	245.7	243.0	242.5
35°	303.8	297.6	281.1	261.1	243.0	231.4	227.1	226.6	226.6
37.5°	276.4	270.0	256.7	238.3	222.9	212.4	210.8	211.2	211.2
40°	249.3	243.5	231.9	216.6	202.8	194.8	194.3	195.4	195.8
42.5°	224.0	219.2	208.6	195.4	183.7	177.4	177.9	180.0	181.6
45°	201.2	197.0	187.4	175.8	165.7	160.9	162.5	165.2	166.7
47.5°	180.5	176.8	167.9	157.3	148.7	145.6	147.7	150.9	153.1
50°	161.5	158.3	149.9	138.7	131.8	129.7	132.3	135.5	136.6
52.5°	144.5	141.3	132.3	122.8	117.6	116.5	119.1	121.8	123.4
55°	127.1	124.4	117.0	108.6	104.4	103.8	106.4	108.6	109.6
57.5°	112.8	110.2	103.2	95.8	92.2	91.6	94.2	95.8	96.4
60°	99.0	96.4	90.0	83.1	80.5	80.5	82.0	83.1	83.6
62.5°	86.3	83.6	77.8	72.0	69.9	69.9	69.9	70.4	72.0
65°	74.1	72.0	66.7	61.5	59.9	58.7	58.7	58.7	59.9
67.5°	63.0	60.9	56.7	51.9	50.3	48.7	48.1	49.3	49.3
70°	52.5	50.9	46.5	42.9	41.3	39.7	39.1	41.3	41.3
72.5°	42.9	41.3	38.7	34.9	33.3	32.8	33.9	34.9	35.5
75°	33.9	32.3	30.2	28.1	26.5	27.0	28.6	29.1	29.7
77.5°	25.4	24.9	22.8	21.2	21.2	21.7	22.8	23.8	24.4
80°	18.0	17.5	16.4	15.4	15.9	17.0	17.5	18.5	18.0
82.5°	11.2	11.2	10.6	10.6	11.2	12.2	12.7	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	3.8	3.8	3.8
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)