

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: P581494

Luminaire Tested: **HC407D010-HM40525927-41WWBB**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581494  
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-HM40525927-41WWBB  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 548.4 lumens  
Efficiency: N/A  
Efficacy: 68.5 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

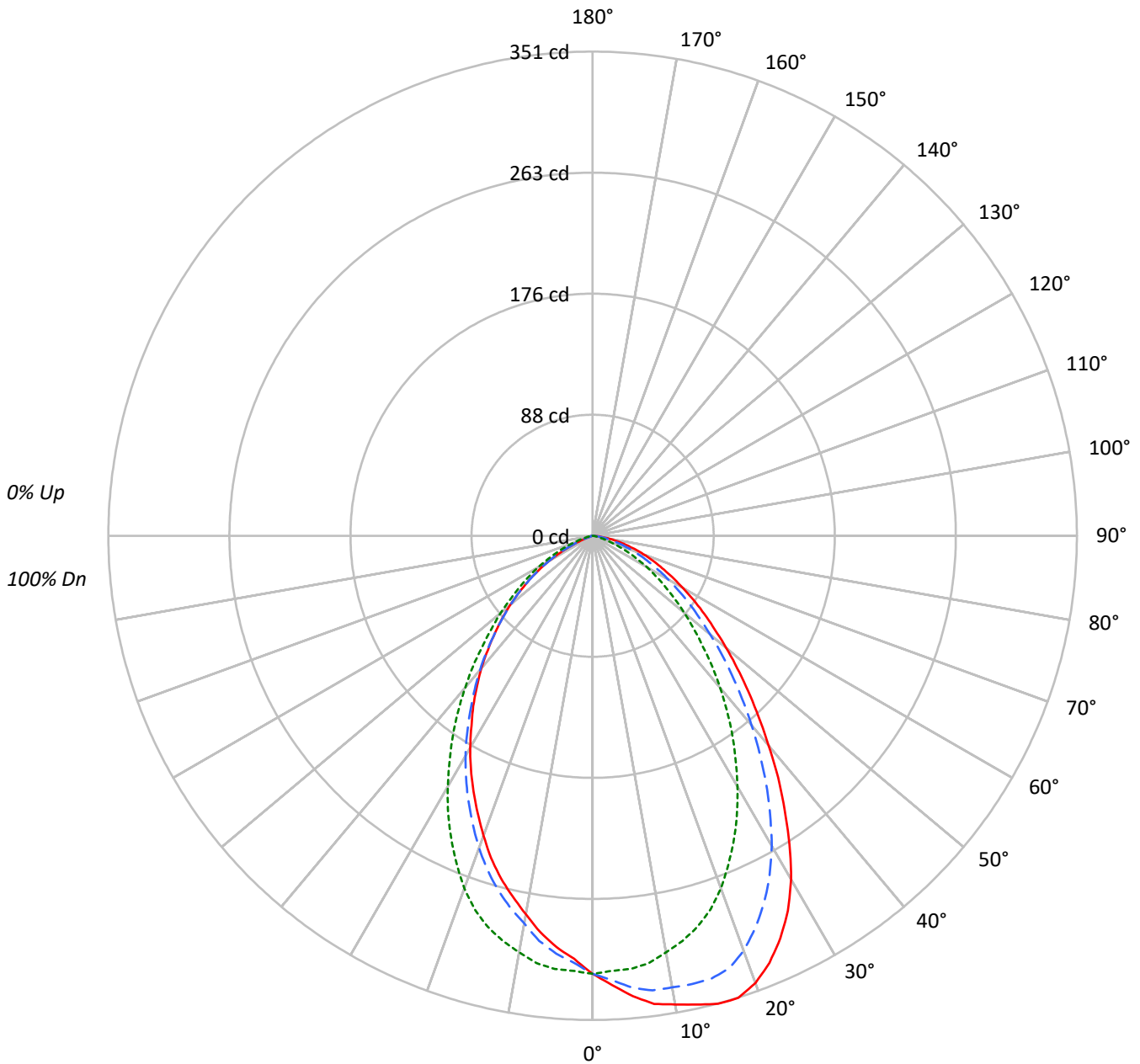
Input Watts (W): 8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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			100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89			89
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	85	83	80	78			78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69			69
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61			61
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55			55
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49			49
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44			44
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40			40
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37			37
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34			34

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

	0°	90°	180°
0°	39162	39162	39162
5°	41479	39027	37071
10°	43211	38401	34894
15°	44860	37479	32818
20°	45285	35690	30348
25°	43810	33003	27791
30°	40976	29910	25267
35°	36515	26592	22707
40°	31913	23122	20208
45°	27805	19607	17496
50°	24255	16637	14987
55°	21268	13784	12129
60°	18601	11150	8906
65°	16198	8289	5020
70°	14173	5374	1659
75°	11628	2812	429
80°	8666	1279	355
85°	5095	708	708



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	30.0	5.5
10°-20°	83.9	15.3
20°-30°	115.9	21.1
30°-40°	116.6	21.3
40°-50°	94.1	17.2
50°-60°	63.6	11.6
60°-70°	32.4	5.9
70°-80°	10.4	1.9
80°-90°	1.6	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°	229.8	41.9
0°-40°	346.3	63.2
0°-60°	504.0	91.9
0°-90°	548.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	548.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	318	318	318	318	318	
5°	335	329	315	304	299	32
15°	351	332	294	266	257	99
25°	322	294	242	213	204	147
35°	242	219	177	154	151	152
45°	159	143	112	100	100	124
55°	99	85	64	56	56	89
65°	56	45	28	18	17	56
75°	24	17	6	1	1	26
85°	4	2	0	0	0	5
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°	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5	317.5
2.5°	326.0	324.2	322.4	319.3	315.7	312.0	309.8	307.9	307.0
5°	335.0	332.9	328.8	321.9	315.2	308.9	304.0	300.8	299.4
7.5°	342.3	339.1	332.4	322.9	312.5	302.6	296.2	291.7	290.0
10°	345.0	341.4	332.4	319.7	306.6	294.4	285.4	280.9	278.6
12.5°	348.1	344.1	332.9	317.0	300.8	286.3	276.0	270.0	267.8
15°	351.3	346.0	332.4	313.0	293.5	276.8	265.5	259.7	257.0
17.5°	351.3	345.0	328.8	306.1	284.0	266.4	253.8	247.1	244.8
20°	345.0	337.8	320.1	295.3	271.9	252.9	240.7	234.0	231.2
22.5°	335.0	326.9	307.9	282.2	257.4	238.9	226.7	220.3	217.7
25°	321.9	313.9	293.9	267.3	242.5	224.0	212.7	206.8	204.2
27.5°	306.6	297.6	277.7	251.0	226.7	209.1	198.7	193.2	191.1
30°	287.7	279.0	259.7	233.5	210.0	193.7	184.2	179.2	177.4
32.5°	265.5	258.3	239.3	215.0	192.8	177.9	169.3	165.2	163.4
35°	242.5	235.7	219.1	196.4	176.6	162.6	154.4	151.7	150.8
37.5°	220.8	215.0	198.7	177.9	159.9	147.7	140.4	138.6	137.7
40°	198.2	194.1	179.2	160.3	143.6	132.8	126.9	125.5	125.5
42.5°	177.9	173.4	160.3	143.2	128.3	117.4	113.3	112.0	112.4
45°	159.4	154.9	142.7	126.9	112.4	103.4	100.3	100.3	100.3
47.5°	142.2	138.2	126.9	110.6	98.9	91.7	88.5	88.5	89.0
50°	126.4	123.7	111.1	97.1	86.7	79.9	77.7	77.3	78.1
52.5°	111.5	108.3	97.1	84.4	74.5	69.1	66.8	66.3	66.8
55°	98.9	95.3	85.4	73.2	64.1	58.7	56.0	55.5	56.4
57.5°	86.7	84.0	73.6	62.8	54.2	48.8	46.5	45.6	46.1
60°	75.4	72.7	63.3	52.8	45.2	39.7	36.5	35.6	36.1
62.5°	65.0	62.8	53.7	43.8	36.1	31.2	28.0	25.7	26.6
65°	55.5	53.3	45.2	35.3	28.4	23.0	18.5	16.7	17.2
67.5°	47.5	44.7	37.0	28.0	21.3	15.4	10.4	9.4	9.4
70°	39.3	36.5	29.8	21.6	14.9	8.1	4.6	4.6	4.6
72.5°	31.6	29.4	23.0	16.3	9.4	3.6	1.8	1.8	1.8
75°	24.4	22.5	17.2	11.3	5.9	1.8	1.4	0.9	0.9
77.5°	18.1	16.3	12.2	7.6	3.6	0.9	0.9	0.9	0.9
80°	12.2	10.8	8.1	4.6	1.8	0.5	0.5	0.5	0.5
82.5°	7.2	6.4	4.6	2.3	0.9	0.5	0.5	0.5	0.5
85°	3.6	2.7	1.8	0.9	0.5	0.5	0.5	0.5	0.5
87.5°	0.9	0.5	0.5	0.5	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)