

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: P581512

Luminaire Tested: **HC407D010-HM40525930-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581512
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-HM40525930-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 610.0 lumens
Efficiency: N/A
Efficacy: 76.3 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

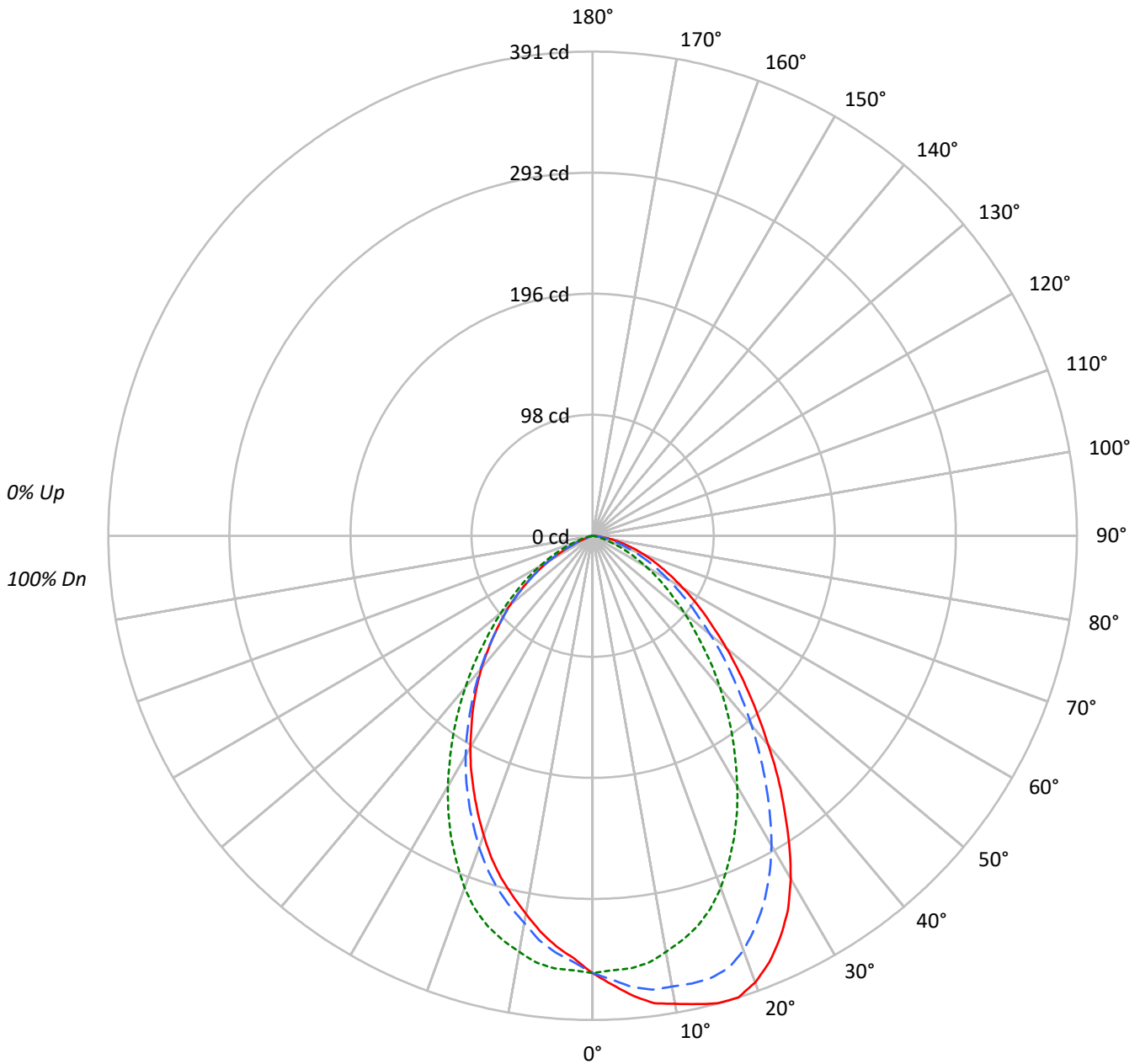
Input Watts (W): 8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	43566	43566	43566
5°	46159	43423	41243
10°	48070	42735	38827
15°	49917	41706	36509
20°	50378	39707	33761
25°	48750	36719	30908
30°	45577	33271	28115
35°	40626	29573	25282
40°	35504	25730	22478
45°	30928	21822	19450
50°	26999	18518	16675
55°	23655	15354	13505
60°	20697	12384	9917
65°	18037	9223	5575
70°	15760	5987	1803
75°	12915	3098	477
80°	9589	1421	355
85°	5661	708	708



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.3	5.5
10°-20°	93.3	15.3
20°-30°	129.0	21.1
30°-40°	129.7	21.3
40°-50°	104.7	17.2
50°-60°	70.8	11.6
60°-70°	36.0	5.9
70°-80°	11.5	1.9
80°-90°	1.8	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°	255.6	41.9
0°-40°	385.3	63.2
0°-60°	560.7	91.9
0°-90°	610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	610.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	353	353	353	353	353	
5°	373	366	351	338	333	36
15°	391	370	327	295	286	110
25°	358	327	270	237	227	164
35°	270	244	196	172	168	169
45°	177	159	125	112	112	137
55°	110	95	71	62	63	99
65°	62	50	32	21	19	62
75°	27	19	6	2	1	29
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°	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2	353.2
2.5°	362.8	360.7	358.7	355.2	351.2	347.2	344.7	342.7	341.6
5°	372.8	370.3	365.8	358.2	350.7	343.7	338.1	334.6	333.1
7.5°	380.8	377.4	369.7	359.3	347.7	336.6	329.6	324.6	322.5
10°	383.8	379.9	369.7	355.7	341.2	327.5	317.5	312.5	310.0
12.5°	387.4	382.8	370.3	352.7	334.6	318.5	306.9	300.4	297.9
15°	390.9	384.9	369.7	348.2	326.6	307.9	295.4	288.9	285.9
17.5°	390.9	383.8	365.8	340.6	316.0	296.4	282.3	274.8	272.3
20°	383.8	375.8	356.2	328.5	302.5	281.3	267.8	260.3	257.2
22.5°	372.8	363.7	342.7	314.0	286.3	265.7	252.2	245.1	242.2
25°	358.2	349.1	327.1	297.5	269.8	249.2	236.6	230.1	227.1
27.5°	341.2	331.0	309.0	279.4	252.2	232.6	221.1	215.1	212.5
30°	320.0	310.4	288.9	259.7	233.6	215.5	205.0	199.5	197.4
32.5°	295.4	287.3	266.3	239.1	214.5	197.9	188.5	183.9	181.9
35°	269.8	262.3	243.6	218.5	196.4	180.8	171.8	168.8	167.9
37.5°	245.7	239.1	221.1	197.9	177.9	164.3	156.2	154.2	153.3
40°	220.5	216.0	199.5	178.3	159.8	147.7	141.2	139.6	139.6
42.5°	197.9	192.9	178.3	159.3	142.7	130.6	126.1	124.6	125.1
45°	177.3	172.3	158.8	141.2	125.1	115.1	111.5	111.5	111.5
47.5°	158.3	153.7	141.2	123.1	110.0	102.0	98.4	98.4	99.0
50°	140.7	137.7	123.6	108.0	96.5	88.9	86.4	85.9	86.9
52.5°	124.0	120.6	108.0	94.0	82.8	76.8	74.3	73.9	74.3
55°	110.0	106.1	94.9	81.4	71.4	65.3	62.2	61.8	62.8
57.5°	96.5	93.4	81.9	69.9	60.3	54.3	51.8	50.8	51.2
60°	83.9	80.9	70.3	58.8	50.2	44.3	40.7	39.7	40.2
62.5°	72.4	69.9	59.7	48.7	40.2	34.7	31.2	28.7	29.6
65°	61.8	59.3	50.2	39.1	31.6	25.6	20.6	18.5	19.1
67.5°	52.8	49.7	41.2	31.2	23.6	17.1	11.6	10.6	10.6
70°	43.7	40.7	33.1	24.1	16.6	9.0	5.0	5.0	5.0
72.5°	35.2	32.7	25.6	18.1	10.6	4.0	2.0	2.0	2.0
75°	27.1	25.1	19.1	12.5	6.5	2.0	1.5	1.0	1.0
77.5°	20.1	18.1	13.5	8.5	4.0	1.0	1.0	1.0	1.0
80°	13.5	12.1	9.0	5.0	2.0	0.5	0.5	0.5	0.5
82.5°	8.1	7.1	5.0	2.5	1.0	0.5	0.5	0.5	0.5
85°	4.0	3.0	2.0	1.0	0.5	0.5	0.5	0.5	0.5
87.5°	1.0	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



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)