

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: P580897

Luminaire Tested: **HC450D010-HM44560840-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P580897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC450D010-HM44560840-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5341.0 lumens
Efficiency: N/A
Efficacy: 111.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

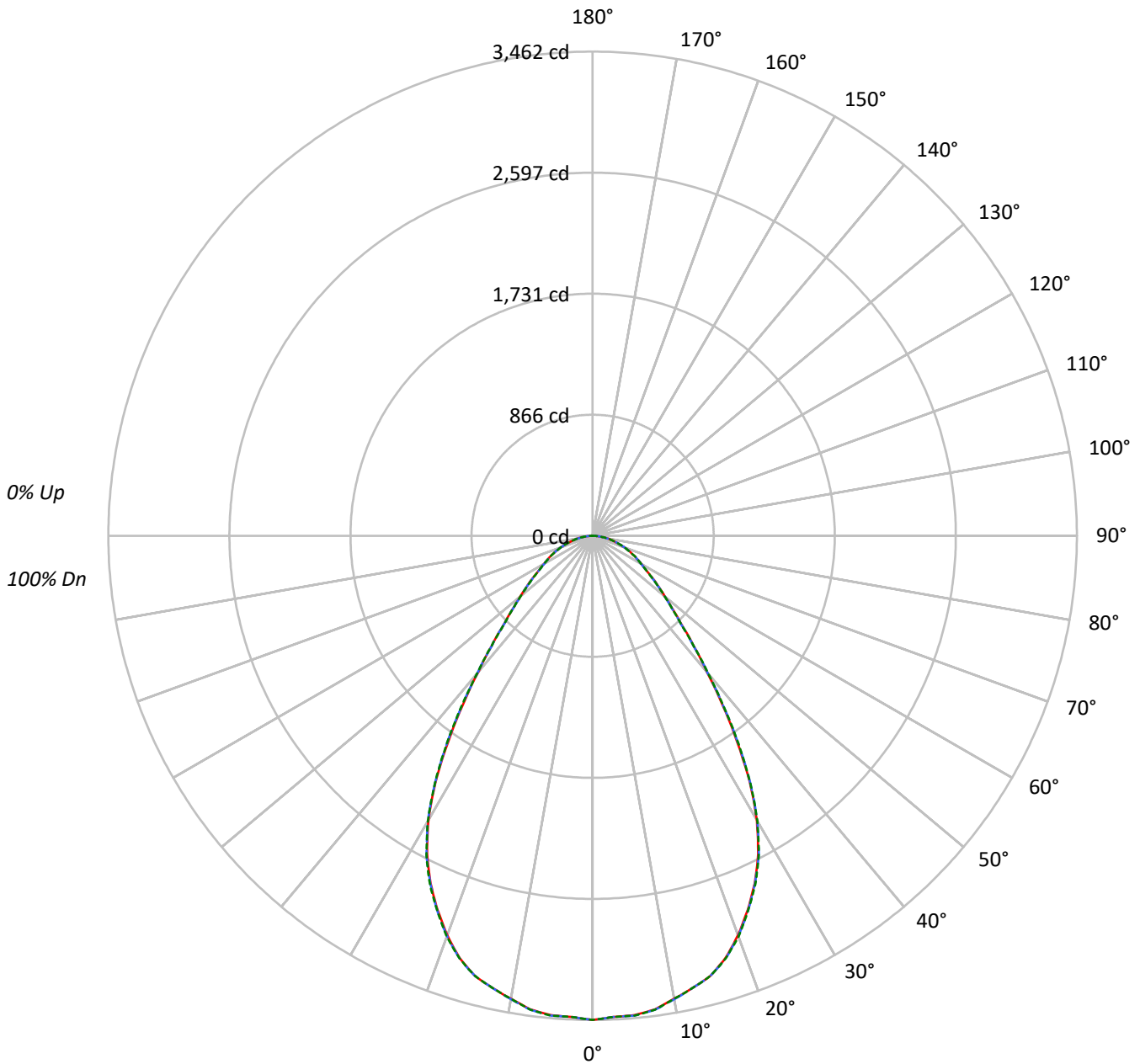
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69																			
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																			
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	426986	426986	426986
5°	425955	426400	426400
10°	421010	421448	421010
15°	415972	415972	415972
20°	398878	399823	400296
25°	373096	373586	374566
30°	334320	335331	335331
35°	271415	273584	274126
40°	204845	206004	206568
45°	156889	156278	156278
50°	129277	128606	128606
55°	110986	110190	110190
60°	99022	98109	98109
65°	93074	93074	93074
70°	86589	86589	86589
75°	78539	80255	78539
80°	73802	71245	73802
85°	60855	60855	60855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	326.2	6.1
10°-20°	912.7	17.1
20°-30°	1254.2	23.5
30°-40°	1127.7	21.1
40°-50°	712.6	13.3
50°-60°	465.2	8.7
60°-70°	315.2	5.9
70°-80°	177.4	3.3
80°-90°	49.8	0.9
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°	2493.1	46.7
0°-40°	3620.8	67.8
0°-60°	4798.6	89.8
0°-90°	5341.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5341.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3462	3462	3462	3462	3462	
5°	3440	3440	3444	3444	3444	326
15°	3258	3258	3258	3258	3258	912
25°	2741	2745	2745	2752	2752	1251
35°	1802	1810	1817	1824	1820	1122
45°	899	896	896	896	896	713
55°	516	516	512	516	512	467
65°	319	319	319	319	319	316
75°	165	168	168	168	165	177
85°	43	43	43	43	43	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3461.7	3461.7	3461.7	3461.7	3461.7
2.5°	3443.8	3443.8	3443.8	3443.8	3443.8
5°	3440.2	3440.2	3443.8	3443.8	3443.8
7.5°	3415.1	3418.7	3418.7	3418.7	3418.7
10°	3361.4	3361.4	3364.9	3364.9	3361.4
12.5°	3311.3	3311.3	3311.3	3314.8	3311.3
15°	3257.5	3257.5	3257.5	3257.5	3257.5
17.5°	3164.2	3167.9	3167.9	3167.9	3167.9
20°	3038.8	3046.0	3046.0	3049.6	3049.6
22.5°	2895.5	2899.1	2902.7	2906.3	2902.7
25°	2741.4	2745.0	2745.0	2752.2	2752.2
27.5°	2562.3	2565.8	2573.0	2573.0	2573.0
30°	2347.3	2350.8	2354.4	2354.4	2354.4
32.5°	2092.8	2092.8	2100.0	2103.5	2100.0
35°	1802.5	1809.7	1816.9	1824.0	1820.5
37.5°	1526.6	1533.7	1537.4	1537.4	1540.9
40°	1272.2	1279.4	1279.4	1286.4	1282.9
42.5°	1071.5	1067.9	1067.9	1075.1	1071.5
45°	899.4	895.9	895.9	895.9	895.9
47.5°	774.0	770.5	770.5	770.5	770.5
50°	673.7	670.2	670.2	670.2	670.2
52.5°	591.2	587.7	587.7	587.7	584.2
55°	516.1	516.1	512.4	516.1	512.4
57.5°	447.9	447.9	447.9	447.9	447.9
60°	401.4	397.7	397.7	397.7	397.7
62.5°	358.3	358.3	358.3	358.3	358.3
65°	318.9	318.9	318.9	318.9	318.9
67.5°	279.5	276.0	279.5	279.5	276.0
70°	240.1	236.6	240.1	240.1	240.1
72.5°	200.7	200.7	200.7	204.2	200.7
75°	164.8	168.4	168.4	168.4	164.8
77.5°	132.6	136.2	132.6	132.6	132.6
80°	103.9	100.3	100.3	100.3	103.9
82.5°	71.6	71.6	71.6	71.6	71.6
85°	43.0	43.0	43.0	43.0	43.0
87.5°	17.9	17.9	17.9	17.9	17.9
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)