

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: P581442

Luminaire Tested: **HC407D010-HM40525830-41WWWB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581442
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-HM40525830-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 864.0 lumens
Efficiency: N/A
Efficacy: 108.0 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

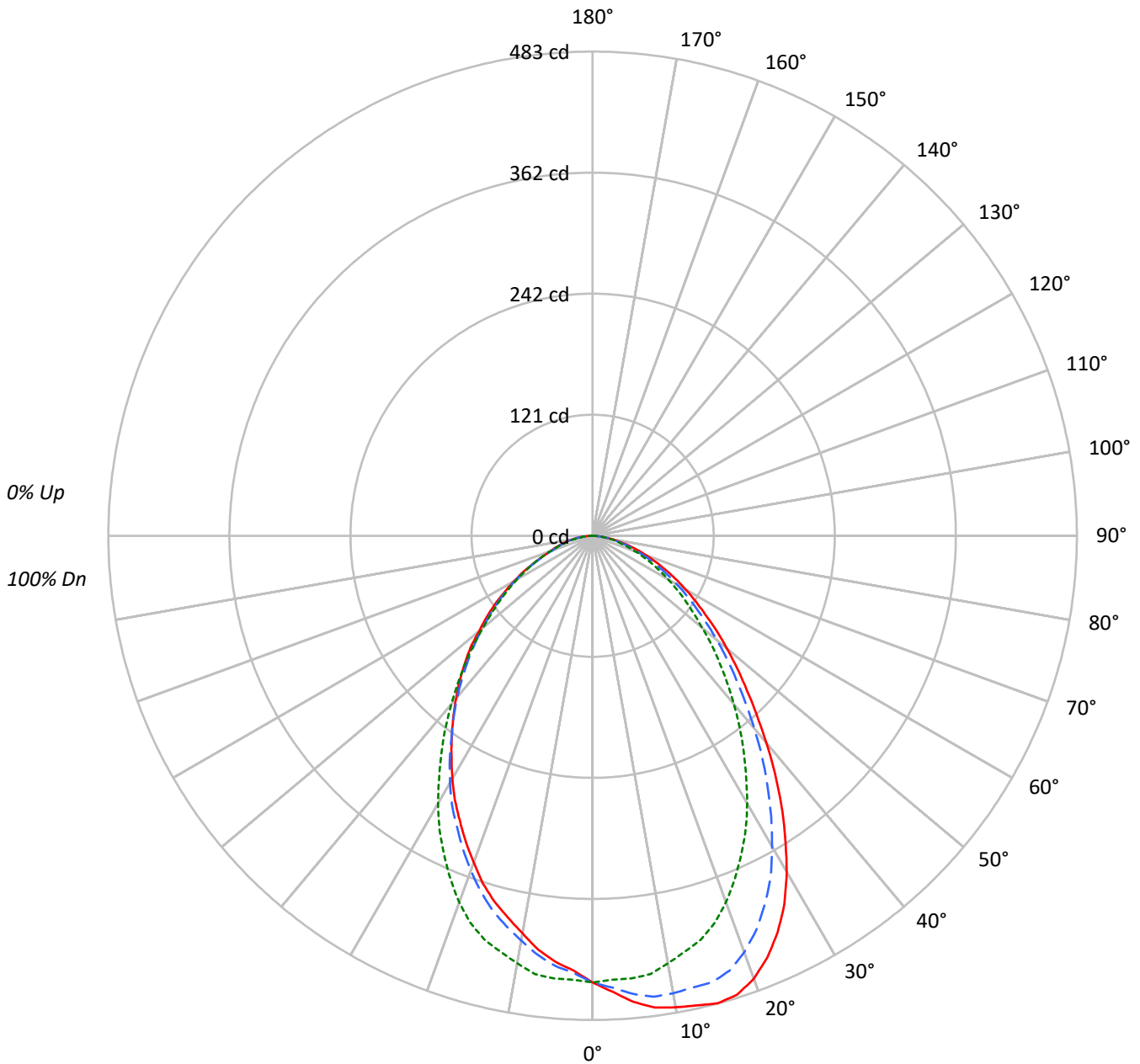
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	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°	54950	54950	54950
5°	57785	54888	52820
10°	59819	54233	50425
15°	61639	53250	48269
20°	61706	51061	45495
25°	59393	47716	42653
30°	55134	43910	39837
35°	49434	39527	36861
40°	43378	35279	34087
45°	37923	31224	31416
50°	33485	27325	28323
55°	29504	24236	25462
60°	26396	21437	22301
65°	23378	18854	18854
70°	20448	16084	16084
75°	17442	13630	15250
80°	13851	12217	13851
85°	8916	10473	12879



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.2	4.9
10°-20°	118.9	13.8
20°-30°	166.5	19.3
30°-40°	171.6	19.9
40°-50°	146.1	16.9
50°-60°	108.2	12.5
60°-70°	67.9	7.9
70°-80°	33.7	3.9
80°-90°	8.9	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°	327.6	37.9
0°-40°	499.2	57.8
0°-60°	753.5	87.2
0°-90°	864.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	864.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	446	446	446	446	446	
5°	467	459	443	431	427	45
15°	483	461	417	387	378	136
25°	436	406	351	320	313	200
35°	328	304	262	245	245	205
45°	217	202	179	176	180	169
55°	137	126	113	115	118	124
65°	80	72	65	64	65	80
75°	37	32	29	31	32	39
85°	6	6	7	8	9	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°	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5	445.5
2.5°	455.3	453.5	451.2	447.2	443.3	439.8	436.4	434.7	434.1
5°	466.7	463.3	458.7	451.2	443.3	436.4	430.6	427.8	426.6
7.5°	474.7	471.2	463.8	452.4	441.0	430.6	421.5	417.5	416.4
10°	477.6	473.5	463.3	447.8	433.0	420.4	410.0	404.9	402.6
12.5°	479.9	474.7	461.6	443.3	424.9	409.5	398.6	391.8	390.1
15°	482.7	477.0	461.0	438.7	417.0	398.6	386.6	380.3	378.0
17.5°	479.9	473.5	454.7	429.5	404.9	384.9	371.8	366.1	363.7
20°	470.1	463.3	442.1	415.3	389.0	368.4	355.2	349.5	346.6
22.5°	455.3	447.8	426.1	397.5	370.6	350.6	338.0	332.3	330.6
25°	436.4	428.9	406.0	376.9	350.6	331.2	320.2	315.1	313.4
27.5°	414.1	406.6	384.3	355.7	330.6	312.3	303.7	298.5	297.4
30°	387.1	379.8	358.0	331.7	308.3	291.1	284.3	280.3	279.7
32.5°	357.4	351.2	331.2	307.1	284.8	270.5	265.4	262.5	262.0
35°	328.3	321.4	303.7	282.0	262.5	249.9	245.4	244.8	244.8
37.5°	298.5	291.7	277.4	257.4	240.8	229.3	227.6	228.2	228.2
40°	269.4	263.1	250.5	234.0	219.1	210.4	209.8	211.1	211.7
42.5°	241.9	236.8	225.3	211.1	198.5	191.6	192.2	194.5	196.2
45°	217.4	212.8	202.5	189.9	179.0	173.9	175.6	178.4	180.1
47.5°	195.1	191.1	181.3	169.9	160.7	157.3	159.5	163.0	165.2
50°	174.5	171.0	161.8	149.9	142.4	140.1	142.9	146.5	147.6
52.5°	156.1	152.7	142.9	132.7	127.0	125.9	128.7	131.6	133.3
55°	137.2	134.4	126.4	117.2	112.7	112.1	114.9	117.2	118.4
57.5°	121.8	118.9	111.5	103.6	99.5	98.9	101.9	103.6	104.1
60°	107.0	104.1	97.2	89.8	86.9	86.9	88.7	89.8	90.4
62.5°	93.2	90.4	84.1	77.8	75.4	75.4	75.4	76.0	77.8
65°	80.1	77.8	72.0	66.3	64.6	63.5	63.5	63.5	64.6
67.5°	68.1	65.8	61.2	56.1	54.3	52.6	52.0	53.1	53.1
70°	56.7	54.9	50.3	46.3	44.6	42.9	42.3	44.6	44.6
72.5°	46.3	44.6	41.8	37.8	36.1	35.5	36.6	37.8	38.4
75°	36.6	34.9	32.5	30.3	28.6	29.1	30.8	31.4	32.0
77.5°	27.4	26.9	24.6	22.9	22.9	23.4	24.6	25.7	26.3
80°	19.5	18.9	17.8	16.6	17.2	18.3	18.9	20.0	19.5
82.5°	12.1	12.1	11.5	11.5	12.1	13.2	13.8	14.3	14.9
85°	6.3	6.3	6.3	6.8	7.4	8.0	8.5	9.1	9.1
87.5°	1.7	2.3	2.3	2.8	3.4	3.4	4.0	4.0	4.0
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)