

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: P579735

Luminaire Tested: **HC410D010-HM40525835-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579735
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: HC410D010-HM40525835-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 891.3 lumens
Efficiency: N/A
Efficacy: 90.0 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

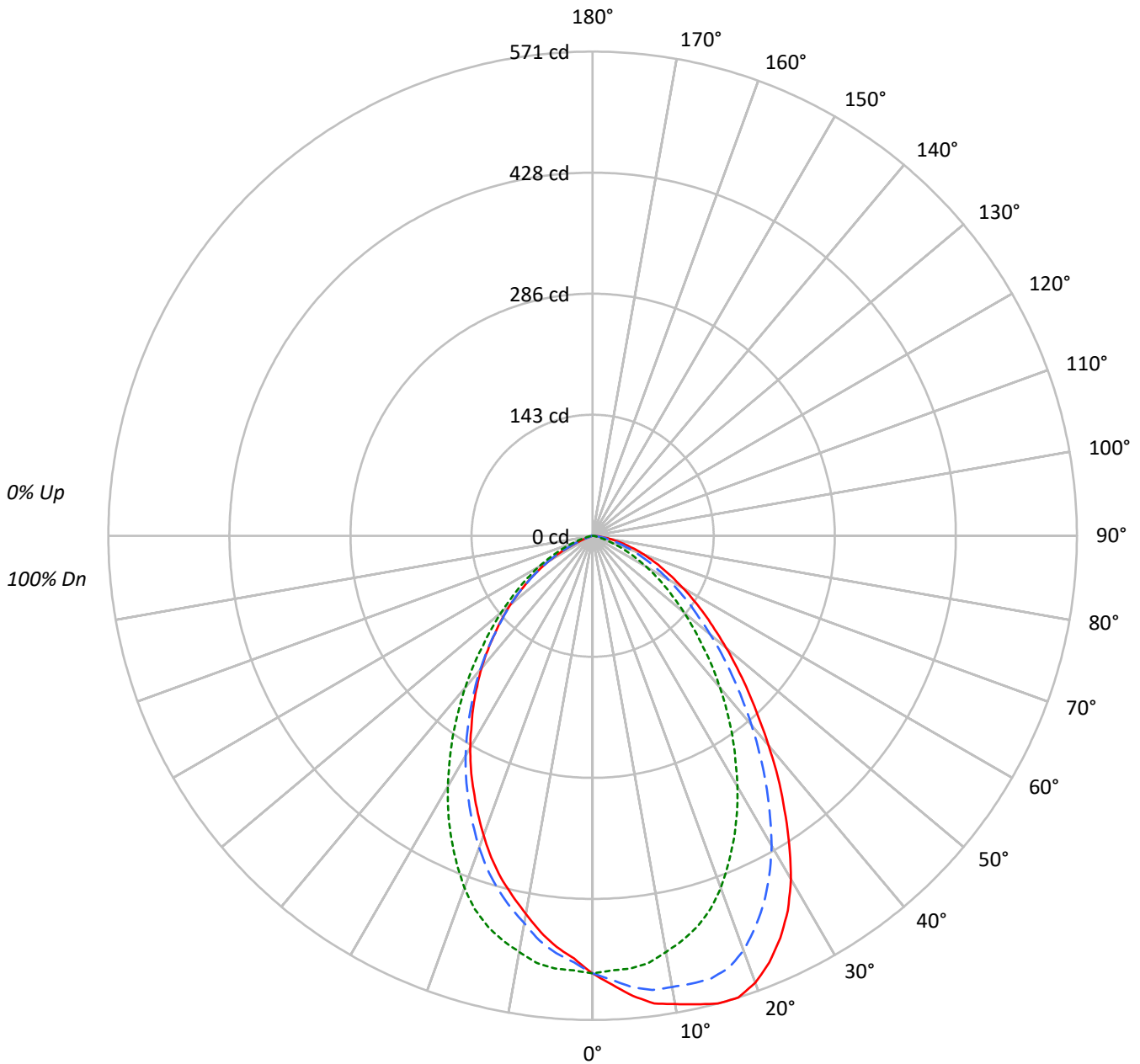
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				
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°	63659	63659	63659
5°	67431	63431	60262
10°	70239	62424	56725
15°	72915	60937	53326
20°	73612	58005	49341
25°	71233	53649	45157
30°	66599	48610	41090
35°	59358	43216	36906
40°	51896	37581	32847
45°	45197	31887	28433
50°	39434	27038	24370
55°	34579	22408	19720
60°	30244	18107	14481
65°	26326	13484	8143
70°	23009	8727	2669
75°	18872	4575	715
80°	14064	2131	497
85°	8350	991	991



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	5.5
10°-20°	136.3	15.3
20°-30°	188.5	21.1
30°-40°	189.5	21.3
40°-50°	152.9	17.2
50°-60°	103.4	11.6
60°-70°	52.6	5.9
70°-80°	16.9	1.9
80°-90°	2.6	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°	373.5	41.9
0°-40°	563.0	63.2
0°-60°	819.3	91.9
0°-90°	891.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	891.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	516	516	516	516	516	
5°	545	534	512	494	487	52
15°	571	540	477	432	418	161
25°	523	478	394	346	332	240
35°	394	356	287	251	245	246
45°	259	232	183	163	163	201
55°	161	139	104	91	92	144
65°	90	73	46	30	28	90
75°	40	28	10	2	2	43
85°	6	3	1	1	1	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°	516.1	516.1	516.1	516.1	516.1	516.1	516.1	516.1	516.1
2.5°	530.0	527.0	524.2	518.9	513.1	507.2	503.6	500.6	499.1
5°	544.6	541.0	534.4	523.4	512.3	502.1	494.0	488.9	486.7
7.5°	556.4	551.2	540.3	524.8	508.0	491.8	481.5	474.2	471.2
10°	560.8	555.0	540.3	519.7	498.4	478.6	464.0	456.6	452.9
12.5°	565.9	559.3	541.0	515.3	488.9	465.4	448.5	438.9	435.3
15°	571.0	562.3	540.3	508.7	477.2	450.0	431.6	422.1	417.6
17.5°	571.0	560.8	534.4	497.6	461.7	433.1	412.5	401.5	397.8
20°	560.8	549.1	520.4	480.1	441.9	411.0	391.2	380.2	375.9
22.5°	544.6	531.4	500.6	458.8	418.4	388.3	368.5	358.2	353.8
25°	523.4	510.2	477.8	434.6	394.2	364.0	345.7	336.2	331.8
27.5°	498.4	483.8	451.4	408.1	368.5	339.9	323.0	314.2	310.6
30°	467.6	453.6	422.1	379.5	341.3	314.9	299.5	291.4	288.5
32.5°	431.6	419.9	389.1	349.4	313.4	289.2	275.3	268.7	265.7
35°	394.2	383.2	356.0	319.3	287.0	264.2	251.0	246.6	245.1
37.5°	358.9	349.4	323.0	289.2	259.8	240.0	228.3	225.3	223.8
40°	322.3	315.7	291.4	260.6	233.4	215.8	206.3	204.0	204.0
42.5°	289.2	281.9	260.6	232.7	208.5	190.8	184.2	182.1	182.8
45°	259.1	251.8	231.9	206.3	182.8	168.1	163.0	163.0	163.0
47.5°	231.2	224.6	206.3	179.8	160.8	149.0	143.8	143.8	144.6
50°	205.5	201.1	180.6	157.8	140.9	130.0	126.2	125.5	127.0
52.5°	181.3	176.2	157.8	137.2	121.1	112.3	108.7	107.9	108.7
55°	160.8	154.9	138.7	118.9	104.2	95.5	91.0	90.2	91.7
57.5°	140.9	136.6	119.6	102.1	88.1	79.3	75.6	74.1	74.9
60°	122.6	118.2	102.8	85.9	73.4	64.6	59.4	58.0	58.7
62.5°	105.7	102.1	87.4	71.2	58.7	50.6	45.5	41.9	43.4
65°	90.2	86.6	73.4	57.2	46.2	37.4	30.0	27.2	27.9
67.5°	77.0	72.7	60.2	45.5	34.5	24.9	16.8	15.4	15.4
70°	63.8	59.4	48.5	35.3	24.2	13.2	7.4	7.4	7.4
72.5°	51.4	47.7	37.4	26.4	15.4	5.9	3.0	3.0	3.0
75°	39.6	36.8	27.9	18.3	9.6	3.0	2.2	1.5	1.5
77.5°	29.4	26.4	19.8	12.5	5.9	1.5	1.5	1.5	1.5
80°	19.8	17.6	13.2	7.4	3.0	0.7	0.7	0.7	0.7
82.5°	11.7	10.2	7.4	3.6	1.5	0.7	0.7	0.7	0.7
85°	5.9	4.4	3.0	1.5	0.7	0.7	0.7	0.7	0.7
87.5°	1.5	0.7	0.7	0.7	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)