

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: P579789

Luminaire Tested: **HC410D010-HM40525930-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P579789
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-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: 755.8 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

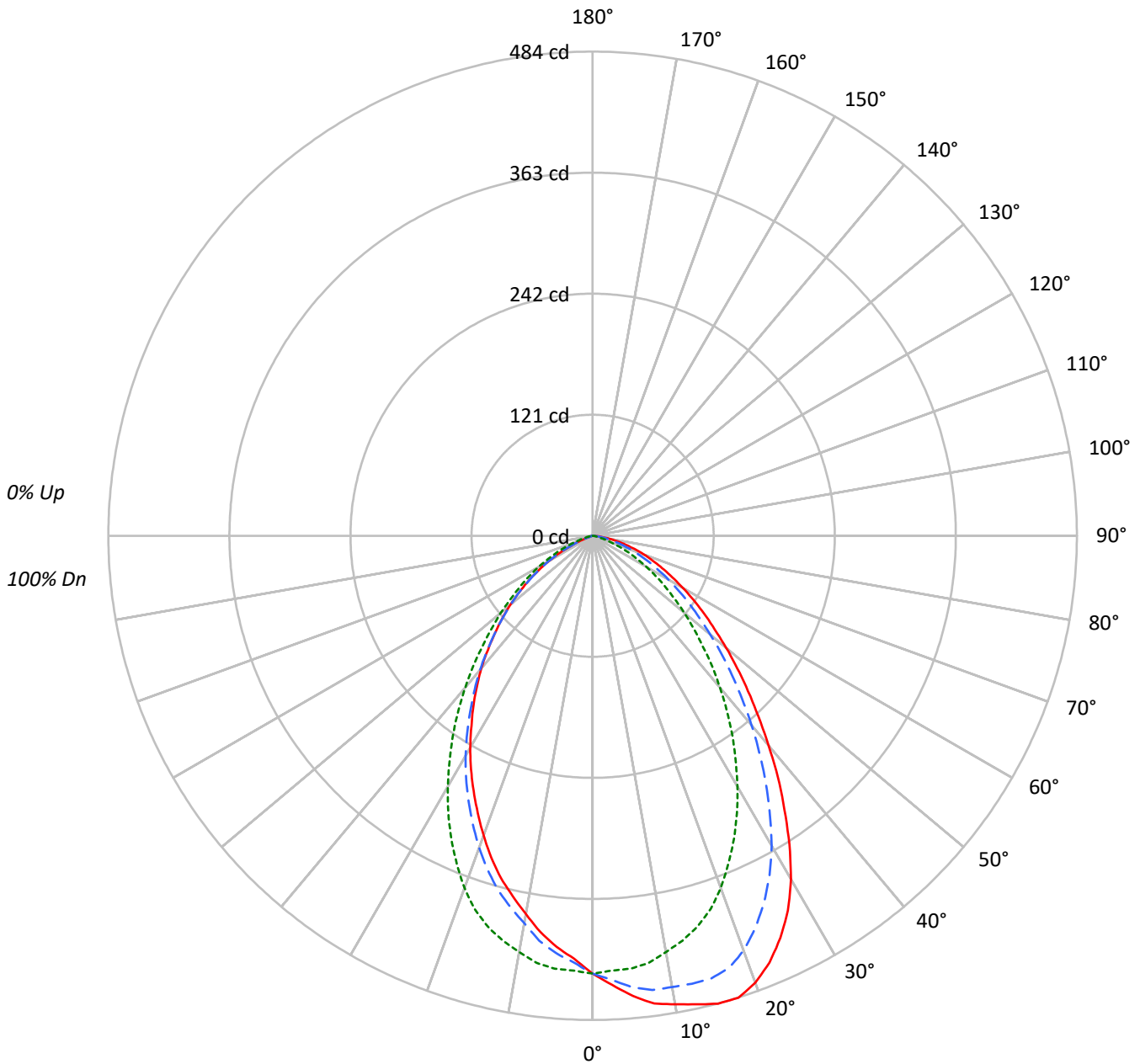
Input Watts (W): 9.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	53976	53976	53976
5°	57179	53786	51087
10°	59556	52917	48095
15°	61831	51666	45217
20°	62415	49171	41820
25°	60386	45484	38284
30°	56472	41218	34838
35°	50323	36635	31305
40°	43990	31865	27856
45°	38324	27038	24107
50°	33428	22931	20667
55°	29311	19010	16731
60°	25631	15344	12285
65°	22357	11470	6917
70°	19547	7393	2272
75°	16013	3860	620
80°	11933	1776	426
85°	7076	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	5.5
10°-20°	115.6	15.3
20°-30°	159.8	21.1
30°-40°	160.7	21.3
40°-50°	129.7	17.2
50°-60°	87.7	11.6
60°-70°	44.6	5.9
70°-80°	14.3	1.9
80°-90°	2.2	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°	316.6	41.9
0°-40°	477.3	63.2
0°-60°	694.6	91.9
0°-90°	755.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	755.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	438	438	438	438	438	
5°	462	453	434	419	413	45
15°	484	458	405	366	354	136
25°	444	405	334	293	281	203
35°	334	302	243	213	208	209
45°	220	197	155	138	138	170
55°	136	118	88	77	78	122
65°	77	62	39	26	24	77
75°	34	24	8	2	1	36
85°	5	2	1	1	1	7
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°	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6	437.6
2.5°	449.4	446.9	444.4	440.0	435.1	430.1	427.0	424.5	423.2
5°	461.8	458.7	453.0	443.7	434.4	425.7	418.9	414.5	412.6
7.5°	471.7	467.4	458.0	445.0	430.6	417.0	408.3	402.1	399.6
10°	475.5	470.4	458.0	440.6	422.5	405.8	393.3	387.1	384.0
12.5°	479.8	474.2	458.7	436.9	414.5	394.5	380.2	372.1	369.1
15°	484.2	476.7	458.0	431.3	404.6	381.5	366.0	357.9	354.1
17.5°	484.2	475.5	453.0	422.0	391.5	367.2	349.7	340.4	337.3
20°	475.5	465.6	441.2	407.1	374.6	348.6	331.7	322.4	318.6
22.5°	461.8	450.5	424.5	389.0	354.7	329.2	312.4	303.7	300.0
25°	443.7	432.6	405.1	368.5	334.2	308.7	293.1	285.1	281.3
27.5°	422.5	410.1	382.7	346.1	312.4	288.1	273.8	266.4	263.2
30°	396.5	384.6	357.9	321.7	289.4	267.0	253.9	247.1	244.6
32.5°	366.0	356.0	329.8	296.2	265.7	245.2	233.4	227.8	225.3
35°	334.2	324.9	301.8	270.7	243.3	224.1	212.8	209.2	207.9
37.5°	304.3	296.2	273.8	245.2	220.3	203.5	193.6	191.1	189.8
40°	273.2	267.7	247.1	220.9	197.9	183.0	174.9	173.0	173.0
42.5°	245.2	239.0	220.9	197.3	176.7	161.8	156.2	154.3	155.0
45°	219.7	213.5	196.6	174.9	155.0	142.5	138.2	138.2	138.2
47.5°	196.1	190.4	174.9	152.5	136.3	126.3	122.0	122.0	122.6
50°	174.2	170.5	153.1	133.8	119.5	110.2	107.1	106.4	107.7
52.5°	153.7	149.4	133.8	116.4	102.6	95.3	92.1	91.5	92.1
55°	136.3	131.3	117.7	100.8	88.4	80.9	77.2	76.6	77.8
57.5°	119.5	115.7	101.4	86.5	74.7	67.3	64.1	62.8	63.5
60°	103.9	100.1	87.2	72.8	62.2	54.7	50.4	49.2	49.8
62.5°	89.7	86.5	74.1	60.3	49.8	42.9	38.6	35.5	36.8
65°	76.6	73.4	62.2	48.6	39.3	31.8	25.5	23.0	23.7
67.5°	65.3	61.6	51.0	38.6	29.2	21.2	14.3	13.1	13.1
70°	54.2	50.4	41.1	29.9	20.5	11.2	6.3	6.3	6.3
72.5°	43.6	40.4	31.8	22.4	13.1	5.0	2.5	2.5	2.5
75°	33.6	31.1	23.7	15.6	8.1	2.5	1.8	1.3	1.3
77.5°	24.9	22.4	16.8	10.6	5.0	1.3	1.3	1.3	1.3
80°	16.8	14.9	11.2	6.3	2.5	0.6	0.6	0.6	0.6
82.5°	10.0	8.8	6.3	3.1	1.3	0.6	0.6	0.6	0.6
85°	5.0	3.8	2.5	1.3	0.6	0.6	0.6	0.6	0.6
87.5°	1.3	0.6	0.6	0.6	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)