

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: P581440

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581440
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-HM40525830-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 694.2 lumens
Efficiency: N/A
Efficacy: 86.8 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

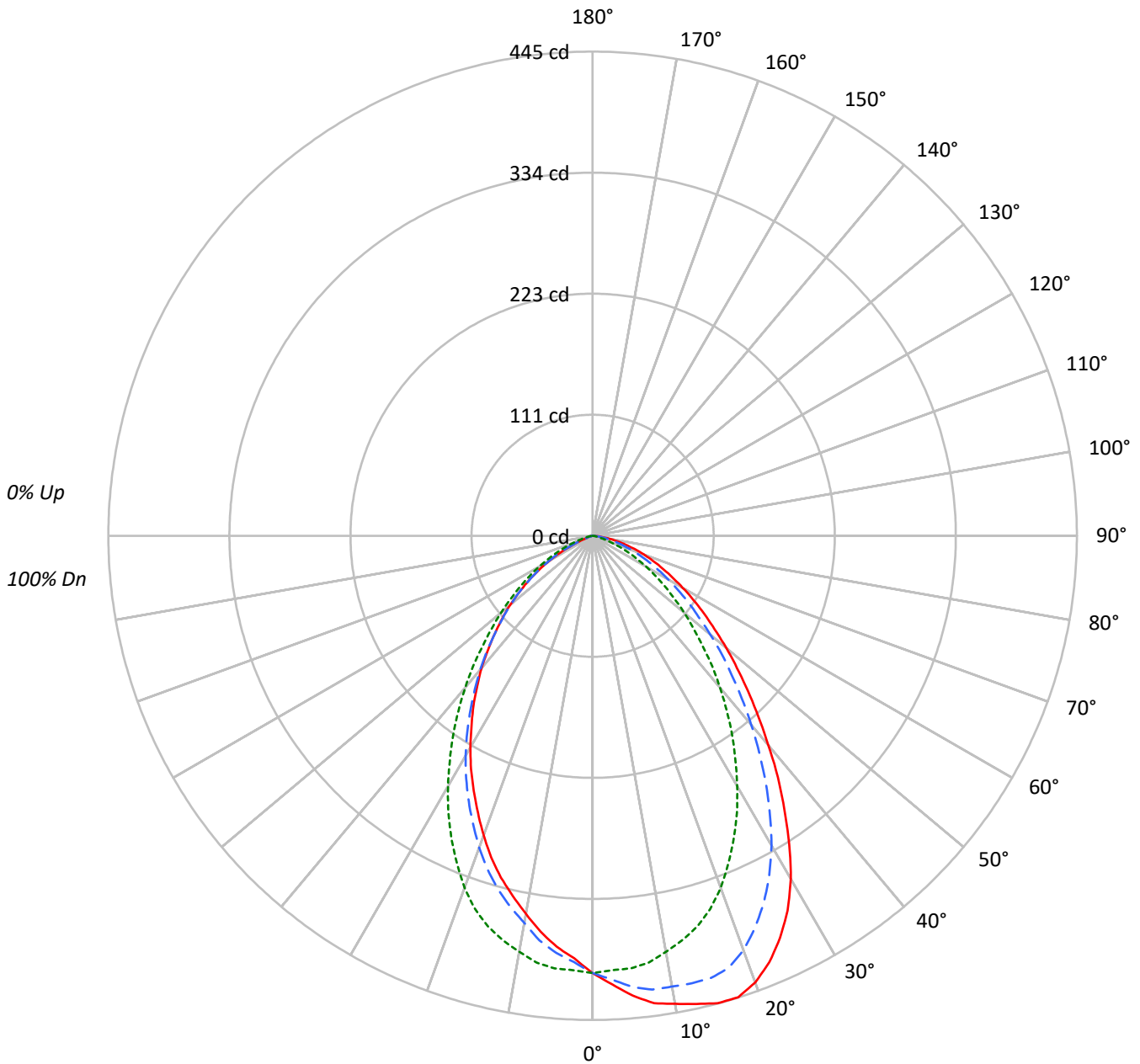
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	49573	49573	49573
5°	52523	49415	46939
10°	54709	48621	44188
15°	56787	47452	41527
20°	57335	45167	38420
25°	55473	41782	35167
30°	51872	37857	31989
35°	46227	33654	28760
40°	40399	29289	25602
45°	35201	24840	22136
50°	30722	21070	18978
55°	26924	17440	15376
60°	23559	14086	11274
65°	20518	10507	6333
70°	17924	6816	2056
75°	14678	3527	524
80°	11010	1634	426
85°	6510	849	849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.9	5.5
10°-20°	106.2	15.3
20°-30°	146.8	21.1
30°-40°	147.6	21.3
40°-50°	119.1	17.2
50°-60°	80.5	11.6
60°-70°	41.0	5.9
70°-80°	13.1	1.9
80°-90°	2.0	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°	290.9	41.9
0°-40°	438.5	63.2
0°-60°	638.1	91.9
0°-90°	694.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	694.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	402	402	402	402	402	
5°	424	416	399	385	379	41
15°	445	421	372	336	325	125
25°	408	372	307	269	258	187
35°	307	277	224	196	191	192
45°	202	181	142	127	127	156
55°	125	108	81	71	72	112
65°	70	57	36	23	22	70
75°	31	22	7	2	1	33
85°	5	2	1	1	1	6
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°	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9	401.9
2.5°	412.8	410.5	408.2	404.2	399.7	395.0	392.2	389.9	388.7
5°	424.2	421.3	416.2	407.6	399.1	391.0	384.8	380.8	379.1
7.5°	433.4	429.4	420.7	408.8	395.6	383.1	375.1	369.3	367.0
10°	436.8	432.2	420.7	404.8	388.2	372.7	361.3	355.6	352.8
12.5°	440.7	435.6	421.3	401.4	380.8	362.5	349.3	341.9	339.0
15°	444.7	437.9	420.7	396.1	371.6	350.5	336.2	328.8	325.2
17.5°	444.7	436.8	416.2	387.6	359.6	337.3	321.3	312.7	309.9
20°	436.8	427.7	405.4	373.9	344.1	320.1	304.8	296.1	292.7
22.5°	424.2	413.9	389.9	357.3	325.9	302.5	287.0	279.0	275.5
25°	407.6	397.3	372.1	338.4	307.0	283.6	269.3	261.9	258.4
27.5°	388.2	376.8	351.6	317.8	287.0	264.7	251.5	244.7	241.8
30°	364.2	353.3	328.8	295.5	265.8	245.2	233.3	226.9	224.6
32.5°	336.2	327.1	303.0	272.1	244.1	225.2	214.4	209.3	207.0
35°	307.0	298.4	277.3	248.7	223.5	205.9	195.5	192.1	191.0
37.5°	279.6	272.1	251.5	225.2	202.3	187.0	177.8	175.5	174.3
40°	250.9	245.8	226.9	202.9	181.9	168.1	160.7	159.0	159.0
42.5°	225.2	219.5	202.9	181.3	162.4	148.6	143.5	141.8	142.4
45°	201.8	196.1	180.6	160.7	142.4	130.9	126.9	126.9	126.9
47.5°	180.0	174.9	160.7	140.1	125.2	116.1	112.1	112.1	112.7
50°	160.1	156.6	140.7	122.9	109.8	101.2	98.3	97.8	98.9
52.5°	141.2	137.2	122.9	106.9	94.3	87.5	84.7	84.0	84.7
55°	125.2	120.6	108.0	92.6	81.1	74.3	70.9	70.3	71.5
57.5°	109.8	106.3	93.2	79.4	68.6	61.8	58.8	57.7	58.3
60°	95.5	92.1	80.0	66.9	57.1	50.3	46.3	45.2	45.7
62.5°	82.3	79.4	68.1	55.4	45.7	39.5	35.4	32.5	33.7
65°	70.3	67.5	57.1	44.6	36.0	29.1	23.4	21.2	21.7
67.5°	60.0	56.6	46.9	35.4	26.9	19.5	13.2	11.9	11.9
70°	49.7	46.3	37.8	27.4	18.9	10.2	5.7	5.7	5.7
72.5°	40.1	37.2	29.1	20.6	11.9	4.6	2.3	2.3	2.3
75°	30.8	28.6	21.7	14.3	7.4	2.3	1.7	1.1	1.1
77.5°	22.9	20.6	15.5	9.7	4.6	1.1	1.1	1.1	1.1
80°	15.5	13.8	10.2	5.7	2.3	0.6	0.6	0.6	0.6
82.5°	9.1	8.0	5.7	2.8	1.1	0.6	0.6	0.6	0.6
85°	4.6	3.4	2.3	1.1	0.6	0.6	0.6	0.6	0.6
87.5°	1.1	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)