

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: P581491

Luminaire Tested: **HC407D010-HM40525927-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581491
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: HC407D010-HM40525927-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 673.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

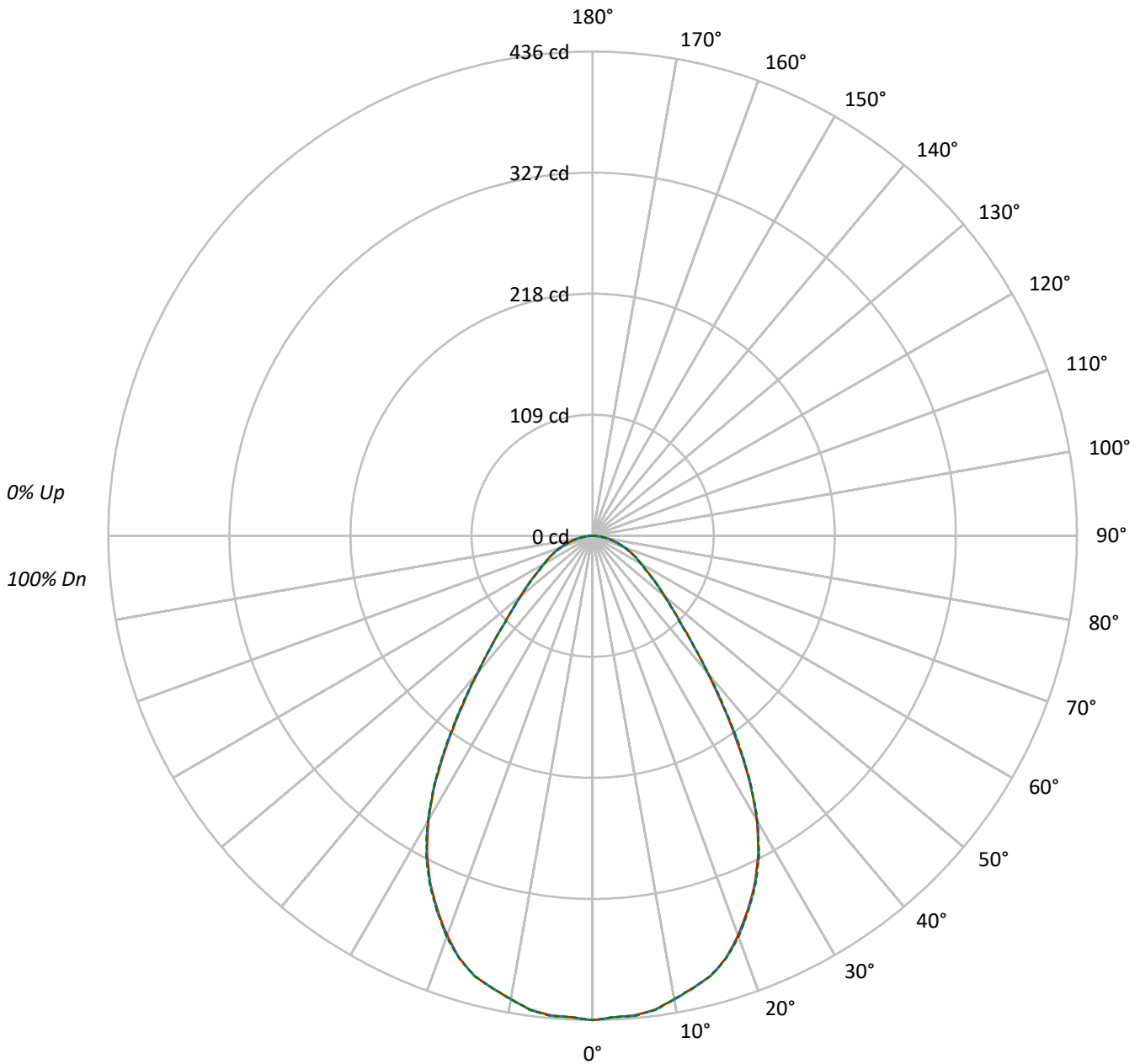
Input Watts (W): 8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	67	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°	53803	53803	53803
5°	53675	53724	53724
10°	53055	53105	53055
15°	52420	52420	52420
20°	50260	50378	50444
25°	47021	47090	47185
30°	42130	42258	42258
35°	34196	34482	34542
40°	25811	25972	26036
45°	19764	19694	19694
50°	16292	16196	16196
55°	13978	13871	13871
60°	12458	12359	12359
65°	11733	11733	11733
70°	10927	10927	10927
75°	9913	10103	9913
80°	9305	8950	9305
85°	7784	7784	7784



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	6.1
10°-20°	115.0	17.1
20°-30°	158.0	23.5
30°-40°	142.1	21.1
40°-50°	89.8	13.3
50°-60°	58.6	8.7
60°-70°	39.7	5.9
70°-80°	22.4	3.3
80°-90°	6.3	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°	314.2	46.7
0°-40°	456.3	67.8
0°-60°	604.6	89.8
0°-90°	673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	436	436	436	436	436	
5°	434	434	434	434	434	41
15°	410	410	410	410	410	115
25°	346	346	346	347	347	158
35°	227	228	229	230	229	141
45°	113	113	113	113	113	90
55°	65	65	64	65	64	59
65°	40	40	40	40	40	40
75°	21	21	21	21	21	22
85°	6	6	6	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	436.2	436.2	436.2	436.2	436.2
2.5°	433.9	433.9	433.9	433.9	433.9
5°	433.5	433.5	433.9	433.9	433.9
7.5°	430.4	430.7	430.7	430.7	430.7
10°	423.6	423.6	424.0	424.0	423.6
12.5°	417.2	417.2	417.2	417.6	417.2
15°	410.5	410.5	410.5	410.5	410.5
17.5°	398.8	399.2	399.2	399.2	399.2
20°	382.9	383.8	383.8	384.3	384.3
22.5°	364.8	365.3	365.8	366.2	365.8
25°	345.5	346.0	346.0	346.7	346.7
27.5°	322.9	323.3	324.2	324.2	324.2
30°	295.8	296.2	296.7	296.7	296.7
32.5°	263.7	263.7	264.6	265.0	264.6
35°	227.1	228.1	229.0	229.9	229.4
37.5°	192.3	193.2	193.7	193.7	194.1
40°	160.3	161.3	161.3	162.2	161.7
42.5°	135.0	134.5	134.5	135.4	135.0
45°	113.3	112.9	112.9	112.9	112.9
47.5°	97.5	97.1	97.1	97.1	97.1
50°	84.9	84.4	84.4	84.4	84.4
52.5°	74.5	74.1	74.1	74.1	73.6
55°	65.0	65.0	64.5	65.0	64.5
57.5°	56.4	56.4	56.4	56.4	56.4
60°	50.5	50.1	50.1	50.1	50.1
62.5°	45.2	45.2	45.2	45.2	45.2
65°	40.2	40.2	40.2	40.2	40.2
67.5°	35.3	34.8	35.3	35.3	34.8
70°	30.3	29.8	30.3	30.3	30.3
72.5°	25.3	25.3	25.3	25.7	25.3
75°	20.8	21.2	21.2	21.2	20.8
77.5°	16.7	17.2	16.7	16.7	16.7
80°	13.1	12.6	12.6	12.6	13.1
82.5°	9.0	9.0	9.0	9.0	9.0
85°	5.5	5.5	5.5	5.5	5.5
87.5°	2.3	2.3	2.3	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)