

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: P581131

Luminaire Tested: **HC455D010-HM44560827-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581131
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: HC455D010-HM44560827-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4399.2 lumens
Efficiency: N/A
Efficacy: 84.6 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

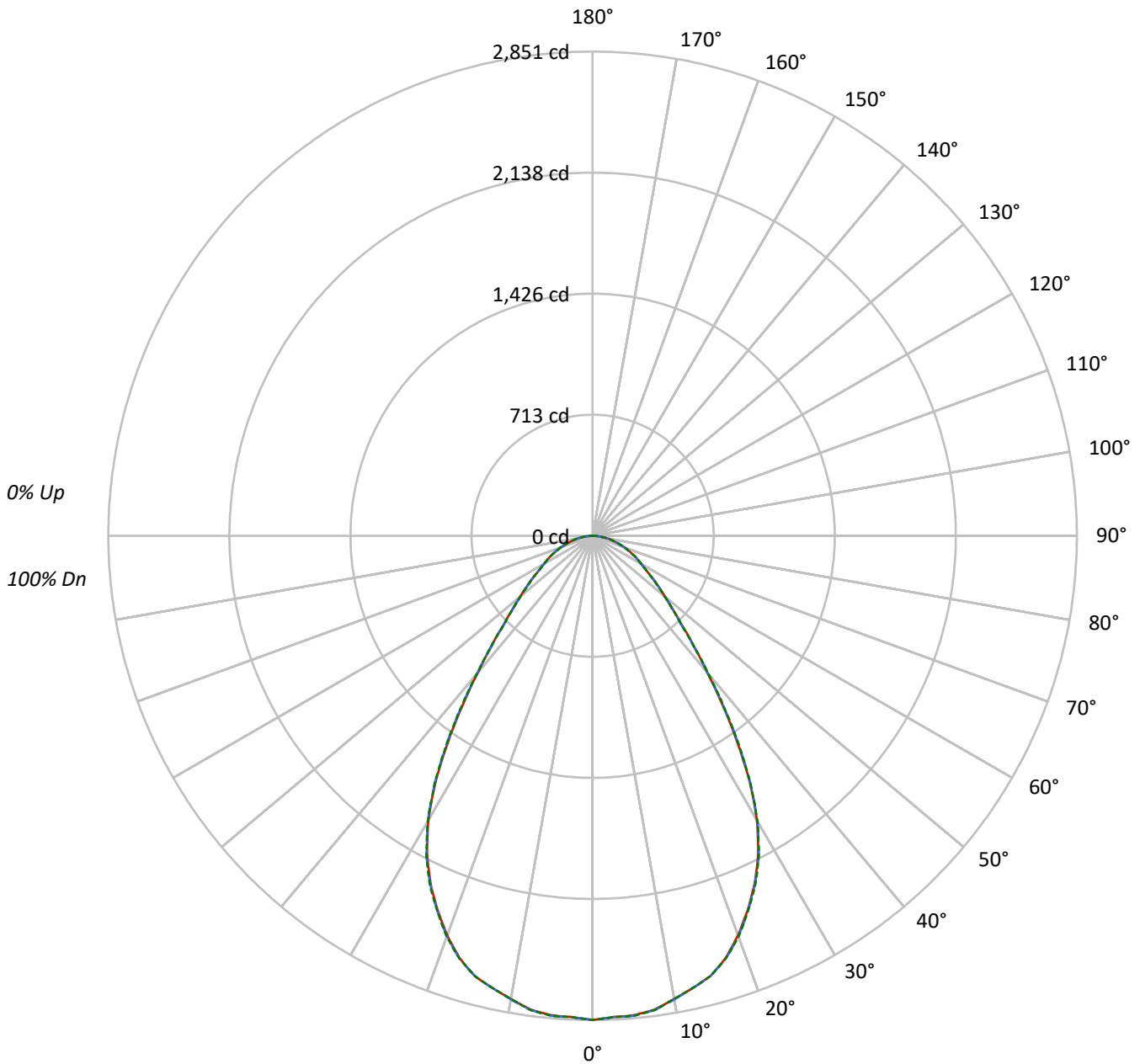
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	351695	351695	351695
5°	350847	351219	351219
10°	346763	347151	346763
15°	342610	342610	342610
20°	328548	329322	329716
25°	307307	307715	308518
30°	275355	276209	276209
35°	223562	225339	225775
40°	168713	169679	170146
45°	129223	128717	128717
50°	106500	105905	105905
55°	91395	90771	90771
60°	81556	80816	80816
65°	76672	76672	76672
70°	71334	71334	71334
75°	64718	66100	64718
80°	60803	58743	60803
85°	50099	50099	50099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.6	6.1
10°-20°	751.8	17.1
20°-30°	1033.1	23.5
30°-40°	928.9	21.1
40°-50°	586.9	13.3
50°-60°	383.2	8.7
60°-70°	259.6	5.9
70°-80°	146.1	3.3
80°-90°	41.1	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°	2053.5	46.7
0°-40°	2982.4	67.8
0°-60°	3952.5	89.8
0°-90°	4399.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4399.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2851	2851	2851	2851	2851	
5°	2834	2834	2837	2837	2837	268
15°	2683	2683	2683	2683	2683	751
25°	2258	2261	2261	2267	2267	1031
35°	1485	1491	1496	1502	1499	924
45°	741	738	738	738	738	588
55°	425	425	422	425	422	385
65°	263	263	263	263	263	260
75°	136	139	139	139	136	146
85°	35	35	35	35	35	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2851.3	2851.3	2851.3	2851.3	2851.3
2.5°	2836.6	2836.6	2836.6	2836.6	2836.6
5°	2833.6	2833.6	2836.6	2836.6	2836.6
7.5°	2813.0	2815.9	2815.9	2815.9	2815.9
10°	2768.6	2768.6	2771.7	2771.7	2768.6
12.5°	2727.3	2727.3	2727.3	2730.3	2727.3
15°	2683.0	2683.0	2683.0	2683.0	2683.0
17.5°	2606.3	2609.3	2609.3	2609.3	2609.3
20°	2503.0	2508.9	2508.9	2511.9	2511.9
22.5°	2385.0	2387.9	2390.8	2393.8	2390.8
25°	2258.0	2261.0	2261.0	2266.9	2266.9
27.5°	2110.4	2113.4	2119.3	2119.3	2119.3
30°	1933.3	1936.2	1939.3	1939.3	1939.3
32.5°	1723.7	1723.7	1729.7	1732.6	1729.7
35°	1484.7	1490.6	1496.5	1502.4	1499.4
37.5°	1257.4	1263.3	1266.3	1266.3	1269.2
40°	1047.8	1053.8	1053.8	1059.6	1056.7
42.5°	882.6	879.6	879.6	885.5	882.6
45°	740.8	737.9	737.9	737.9	737.9
47.5°	637.5	634.6	634.6	634.6	634.6
50°	555.0	551.9	551.9	551.9	551.9
52.5°	487.0	484.1	484.1	484.1	481.2
55°	425.0	425.0	422.1	425.0	422.1
57.5°	369.0	369.0	369.0	369.0	369.0
60°	330.6	327.6	327.6	327.6	327.6
62.5°	295.2	295.2	295.2	295.2	295.2
65°	262.7	262.7	262.7	262.7	262.7
67.5°	230.2	227.2	230.2	230.2	227.2
70°	197.8	194.8	197.8	197.8	197.8
72.5°	165.3	165.3	165.3	168.3	165.3
75°	135.8	138.7	138.7	138.7	135.8
77.5°	109.2	112.2	109.2	109.2	109.2
80°	85.6	82.7	82.7	82.7	85.6
82.5°	59.1	59.1	59.1	59.1	59.1
85°	35.4	35.4	35.4	35.4	35.4
87.5°	14.7	14.7	14.7	14.7	14.7
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)