

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: P581167

Luminaire Tested: **HC455D010-HM44560835-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581167
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-HM44560835-41WDW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4911.1 lumens
Efficiency: N/A
Efficacy: 94.4 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

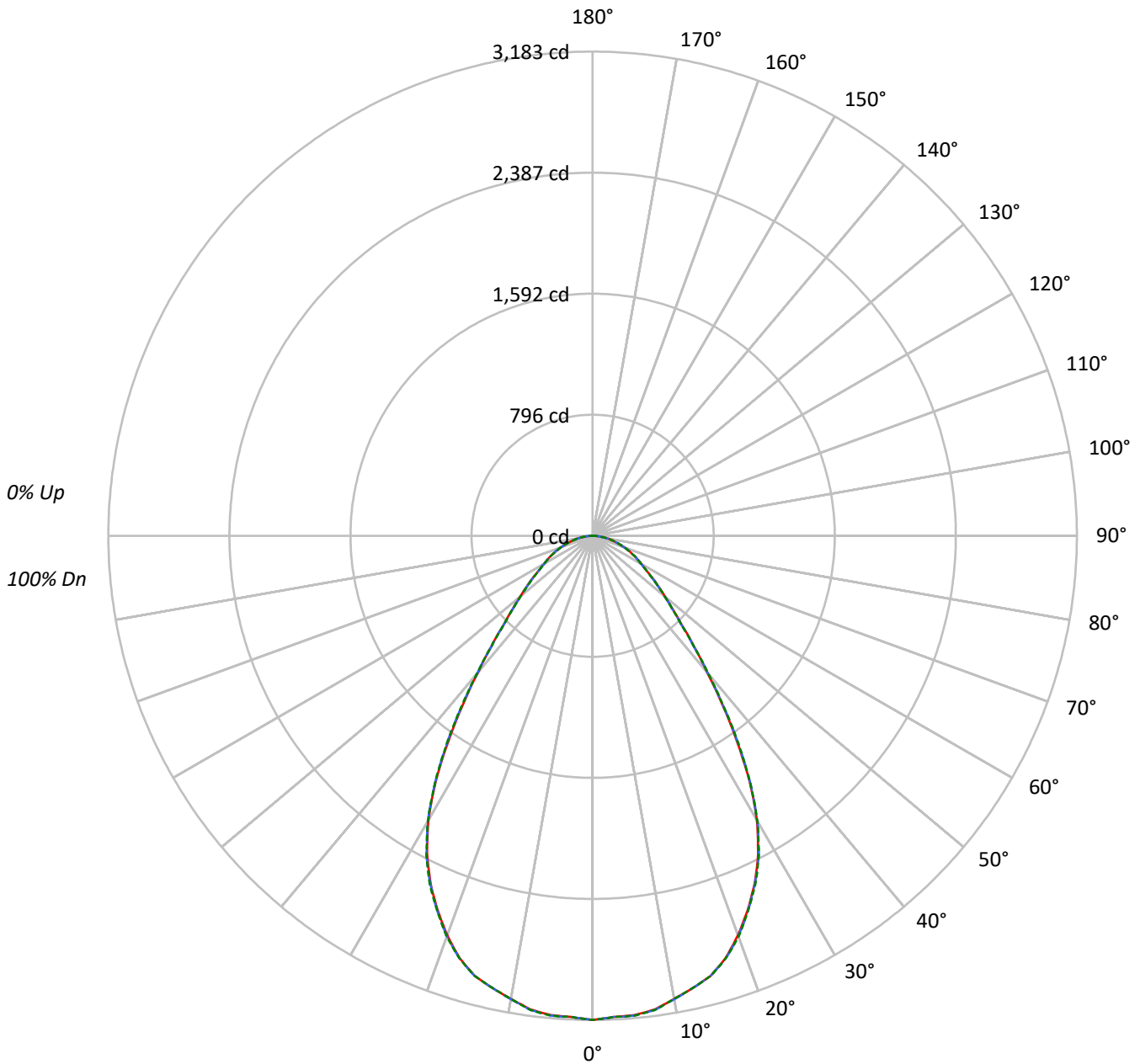
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69			69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51			51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42			42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	392621	392621	392621
5°	391670	392078	392078
10°	387118	387531	387118
15°	382490	382490	382490
20°	366784	367651	368084
25°	343073	343508	344420
30°	307401	308355	308355
35°	249582	251554	252051
40°	188357	189420	189951
45°	144277	143701	143701
50°	118877	118244	118244
55°	102040	101330	101330
60°	91029	90215	90215
65°	85603	85603	85603
70°	79593	79593	79593
75°	72200	73821	72200
80°	67835	65491	67835
85°	55902	55902	55902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	299.9	6.1
10°-20°	839.3	17.1
20°-30°	1153.3	23.5
30°-40°	1037.0	21.1
40°-50°	655.2	13.3
50°-60°	427.8	8.7
60°-70°	289.8	5.9
70°-80°	163.1	3.3
80°-90°	45.8	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°	2292.4	46.7
0°-40°	3329.4	67.8
0°-60°	4412.4	89.8
0°-90°	4911.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4911.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3183	3183	3183	3183	3183	
5°	3163	3163	3167	3167	3167	300
15°	2995	2995	2995	2995	2995	839
25°	2521	2524	2524	2531	2531	1150
35°	1658	1664	1671	1677	1674	1032
45°	827	824	824	824	824	656
55°	474	474	471	474	471	429
65°	293	293	293	293	293	291
75°	152	155	155	155	152	162
85°	40	40	40	40	40	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3183.1	3183.1	3183.1	3183.1	3183.1
2.5°	3166.6	3166.6	3166.6	3166.6	3166.6
5°	3163.3	3163.3	3166.6	3166.6	3166.6
7.5°	3140.2	3143.6	3143.6	3143.6	3143.6
10°	3090.8	3090.8	3094.1	3094.1	3090.8
12.5°	3044.7	3044.7	3044.7	3048.0	3044.7
15°	2995.3	2995.3	2995.3	2995.3	2995.3
17.5°	2909.6	2912.8	2912.8	2912.8	2912.8
20°	2794.3	2800.9	2800.9	2804.2	2804.2
22.5°	2662.4	2665.8	2669.1	2672.3	2669.1
25°	2520.8	2524.0	2524.0	2530.7	2530.7
27.5°	2356.0	2359.4	2365.9	2365.9	2365.9
30°	2158.3	2161.6	2165.0	2165.0	2165.0
32.5°	1924.3	1924.3	1931.0	1934.2	1931.0
35°	1657.5	1664.0	1670.6	1677.3	1673.9
37.5°	1403.8	1410.3	1413.6	1413.6	1416.9
40°	1169.8	1176.4	1176.4	1182.9	1179.7
42.5°	985.3	981.9	981.9	988.5	985.3
45°	827.1	823.8	823.8	823.8	823.8
47.5°	711.8	708.4	708.4	708.4	708.4
50°	619.5	616.2	616.2	616.2	616.2
52.5°	543.7	540.4	540.4	540.4	537.1
55°	474.5	474.5	471.2	474.5	471.2
57.5°	411.9	411.9	411.9	411.9	411.9
60°	369.0	365.7	365.7	365.7	365.7
62.5°	329.5	329.5	329.5	329.5	329.5
65°	293.3	293.3	293.3	293.3	293.3
67.5°	257.1	253.7	257.1	257.1	253.7
70°	220.7	217.5	220.7	220.7	220.7
72.5°	184.5	184.5	184.5	187.9	184.5
75°	151.5	154.9	154.9	154.9	151.5
77.5°	122.0	125.2	122.0	122.0	122.0
80°	95.5	92.2	92.2	92.2	95.5
82.5°	65.9	65.9	65.9	65.9	65.9
85°	39.5	39.5	39.5	39.5	39.5
87.5°	16.4	16.4	16.4	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)