

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: P592938

Luminaire Tested: **HC455D010-HM44560950-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592938  
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-HM44560950-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4277.2 lumens  
Efficiency: N/A  
Efficacy: 82.3 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

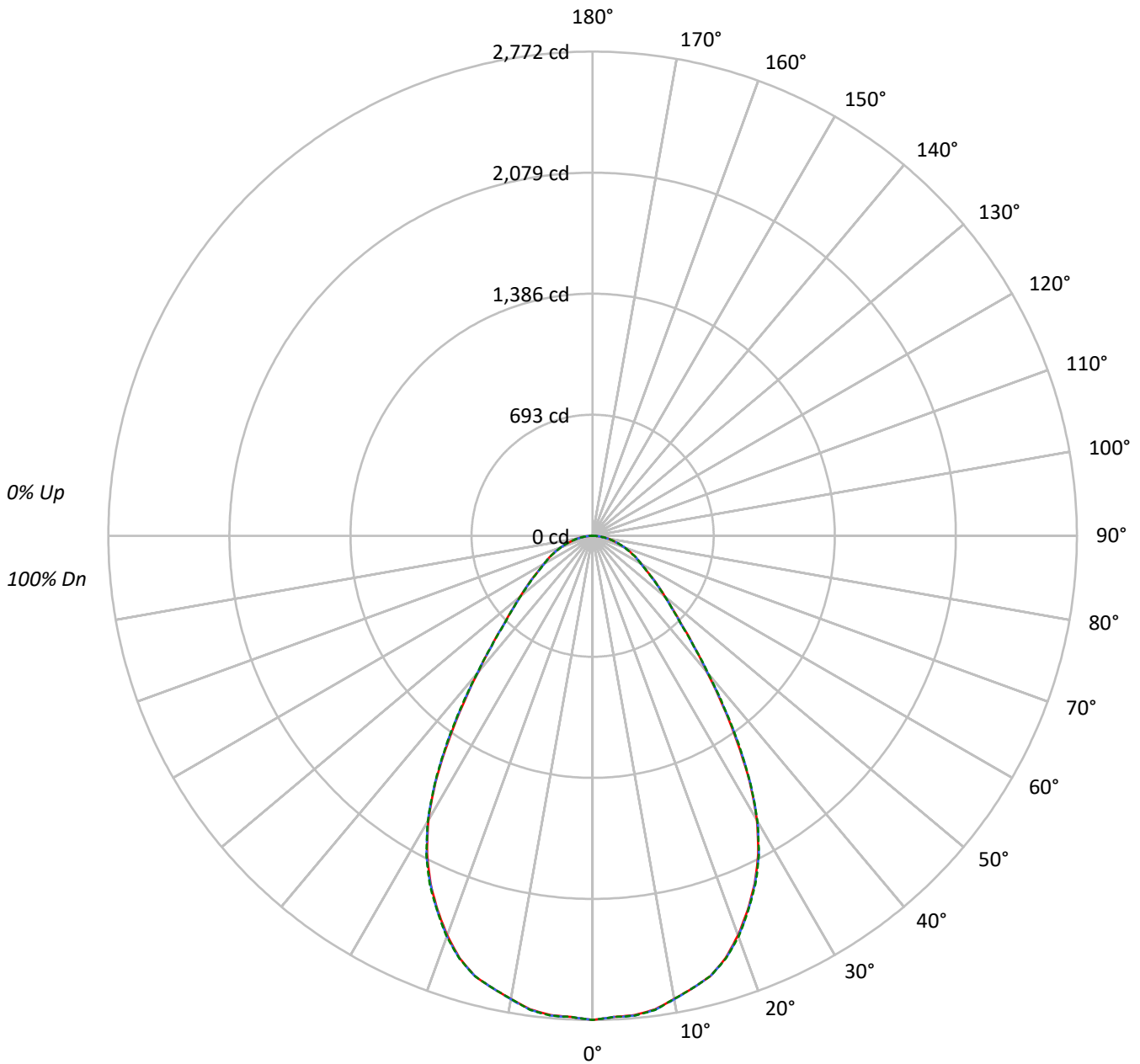
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	341939	341939	341939
5°	341115	341462	341462
10°	337144	337507	337144
15°	333110	333110	333110
20°	319438	320187	320567
25°	298773	299168	299957
30°	267706	268532	268532
35°	217358	219090	219527
40°	164043	164961	165428
45°	125647	125141	125141
50°	103545	102969	102969
55°	88857	88255	88255
60°	79287	78596	78596
65°	74541	74541	74541
70°	69351	69351	69351
75°	62907	64289	62907
80°	59099	57039	59099
85°	48684	48684	48684



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.2	6.1
10°-20°	730.9	17.1
20°-30°	1004.4	23.5
30°-40°	903.1	21.1
40°-50°	570.6	13.3
50°-60°	372.6	8.7
60°-70°	252.4	5.9
70°-80°	142.1	3.3
80°-90°	39.9	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°	1996.5	46.7
0°-40°	2899.6	67.8
0°-60°	3842.8	89.8
0°-90°	4277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4277.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2772	2772	2772	2772	2772	
5°	2755	2755	2758	2758	2758	261
15°	2609	2609	2609	2609	2609	730
25°	2195	2198	2198	2204	2204	1002
35°	1444	1449	1455	1461	1458	899
45°	720	717	717	717	717	571
55°	413	413	410	413	410	374
65°	255	255	255	255	255	253
75°	132	135	135	135	132	142
85°	34	34	34	34	34	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2772.2	2772.2	2772.2	2772.2	2772.2
2.5°	2757.8	2757.8	2757.8	2757.8	2757.8
5°	2755.0	2755.0	2757.8	2757.8	2757.8
7.5°	2734.9	2737.8	2737.8	2737.8	2737.8
10°	2691.8	2691.8	2694.7	2694.7	2691.8
12.5°	2651.6	2651.6	2651.6	2654.5	2651.6
15°	2608.6	2608.6	2608.6	2608.6	2608.6
17.5°	2534.0	2536.9	2536.9	2536.9	2536.9
20°	2433.6	2439.3	2439.3	2442.2	2442.2
22.5°	2318.7	2321.7	2324.5	2327.4	2324.5
25°	2195.3	2198.2	2198.2	2204.0	2204.0
27.5°	2051.9	2054.7	2060.4	2060.4	2060.4
30°	1879.6	1882.6	1885.4	1885.4	1885.4
32.5°	1675.9	1675.9	1681.6	1684.6	1681.6
35°	1443.5	1449.2	1455.0	1460.7	1457.9
37.5°	1222.5	1228.3	1231.1	1231.1	1234.0
40°	1018.8	1024.5	1024.5	1030.3	1027.4
42.5°	858.0	855.2	855.2	861.0	858.0
45°	720.3	717.4	717.4	717.4	717.4
47.5°	619.9	616.9	616.9	616.9	616.9
50°	539.6	536.6	536.6	536.6	536.6
52.5°	473.5	470.6	470.6	470.6	467.8
55°	413.2	413.2	410.4	413.2	410.4
57.5°	358.8	358.8	358.8	358.8	358.8
60°	321.4	318.6	318.6	318.6	318.6
62.5°	287.0	287.0	287.0	287.0	287.0
65°	255.4	255.4	255.4	255.4	255.4
67.5°	223.9	221.0	223.9	223.9	221.0
70°	192.3	189.5	192.3	192.3	192.3
72.5°	160.8	160.8	160.8	163.6	160.8
75°	132.0	134.9	134.9	134.9	132.0
77.5°	106.2	109.0	106.2	106.2	106.2
80°	83.2	80.3	80.3	80.3	83.2
82.5°	57.4	57.4	57.4	57.4	57.4
85°	34.4	34.4	34.4	34.4	34.4
87.5°	14.4	14.4	14.4	14.4	14.4
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)