

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: P580699

Luminaire Tested: **HC445D010-HM44560827-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580699  
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: HC445D010-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: 3972.5 lumens  
Efficiency: N/A  
Efficacy: 90.3 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

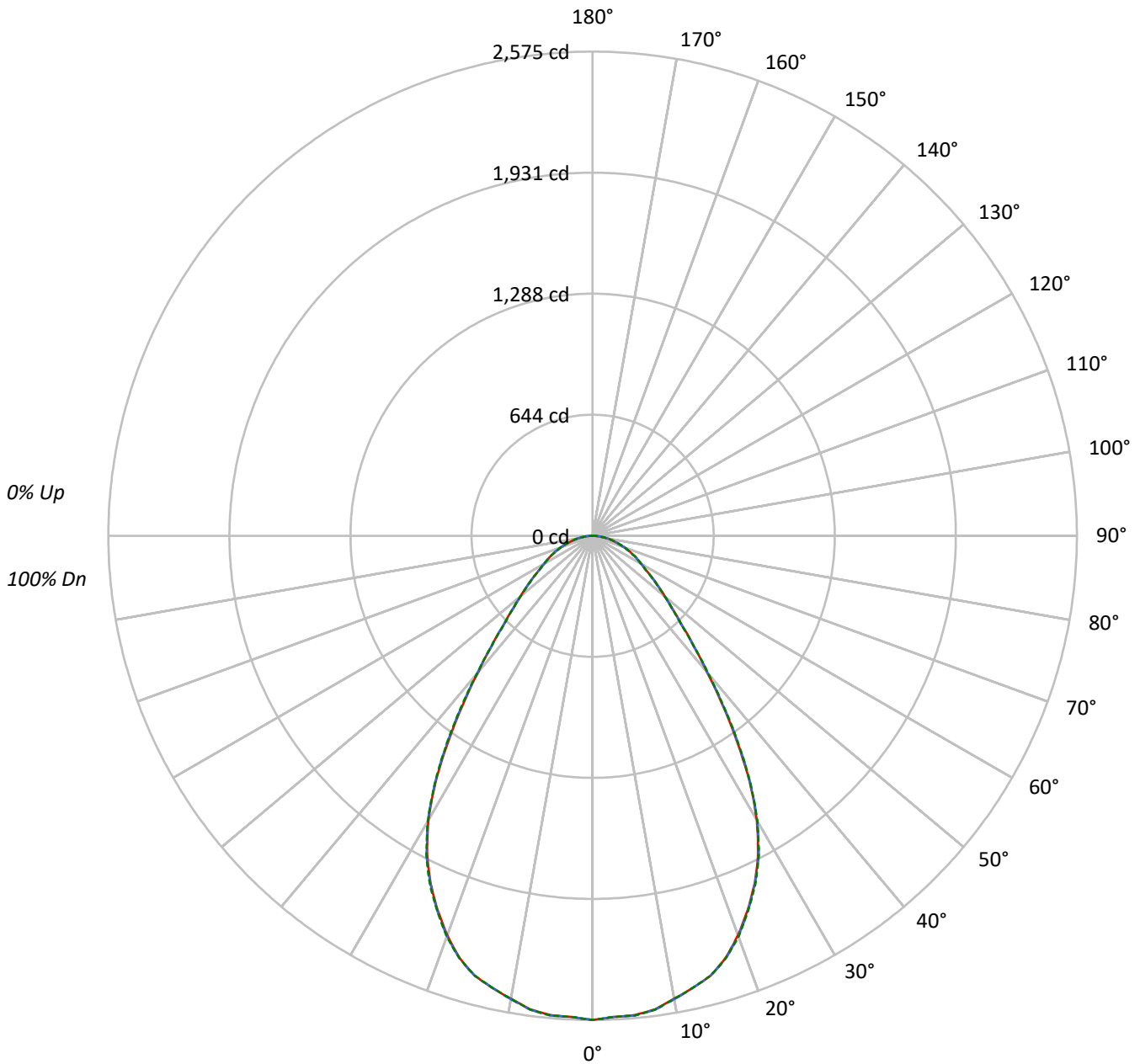
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	317590	317590	317590
5°	316810	317144	317144
10°	313146	313472	313146
15°	309384	309384	309384
20°	296691	297373	297728
25°	277501	277869	278590
30°	248650	249404	249404
35°	201879	203475	203882
40°	152354	153223	153658
45°	116698	116245	116245
50°	96157	95639	95639
55°	82535	81954	81954
60°	73662	72996	72996
65°	69229	69229	69229
70°	64410	64410	64410
75°	58428	59714	58428
80°	54908	52990	54908
85°	45287	45287	45287



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	242.6	6.1
10°-20°	678.9	17.1
20°-30°	932.9	23.5
30°-40°	838.8	21.1
40°-50°	530.0	13.3
50°-60°	346.0	8.7
60°-70°	234.4	5.9
70°-80°	131.9	3.3
80°-90°	37.1	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°	1854.3	46.7
0°-40°	2693.1	67.8
0°-60°	3569.1	89.8
0°-90°	3972.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3972.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2575	2575	2575	2575	2575	
5°	2559	2559	2561	2561	2561	242
15°	2423	2423	2423	2423	2423	678
25°	2039	2042	2042	2047	2047	931
35°	1341	1346	1351	1357	1354	835
45°	669	666	666	666	666	531
55°	384	384	381	384	381	347
65°	237	237	237	237	237	235
75°	123	125	125	125	123	131
85°	32	32	32	32	32	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2574.8	2574.8	2574.8	2574.8	2574.8
2.5°	2561.4	2561.4	2561.4	2561.4	2561.4
5°	2558.7	2558.7	2561.4	2561.4	2561.4
7.5°	2540.1	2542.8	2542.8	2542.8	2542.8
10°	2500.2	2500.2	2502.8	2502.8	2500.2
12.5°	2462.8	2462.8	2462.8	2465.5	2462.8
15°	2422.8	2422.8	2422.8	2422.8	2422.8
17.5°	2353.5	2356.2	2356.2	2356.2	2356.2
20°	2260.3	2265.5	2265.5	2268.2	2268.2
22.5°	2153.7	2156.3	2159.0	2161.6	2159.0
25°	2039.0	2041.7	2041.7	2047.0	2047.0
27.5°	1905.7	1908.4	1913.8	1913.8	1913.8
30°	1745.8	1748.5	1751.1	1751.1	1751.1
32.5°	1556.6	1556.6	1561.9	1564.6	1561.9
35°	1340.7	1346.1	1351.3	1356.7	1354.0
37.5°	1135.5	1140.7	1143.4	1143.4	1146.1
40°	946.2	951.6	951.6	956.8	954.3
42.5°	797.0	794.3	794.3	799.6	797.0
45°	669.0	666.4	666.4	666.4	666.4
47.5°	575.7	573.0	573.0	573.0	573.0
50°	501.1	498.4	498.4	498.4	498.4
52.5°	439.8	437.1	437.1	437.1	434.4
55°	383.8	383.8	381.1	383.8	381.1
57.5°	333.1	333.1	333.1	333.1	333.1
60°	298.6	295.9	295.9	295.9	295.9
62.5°	266.6	266.6	266.6	266.6	266.6
65°	237.2	237.2	237.2	237.2	237.2
67.5°	207.9	205.2	207.9	207.9	205.2
70°	178.6	175.9	178.6	178.6	178.6
72.5°	149.2	149.2	149.2	151.9	149.2
75°	122.6	125.3	125.3	125.3	122.6
77.5°	98.6	101.3	98.6	98.6	98.6
80°	77.3	74.6	74.6	74.6	77.3
82.5°	53.3	53.3	53.3	53.3	53.3
85°	32.0	32.0	32.0	32.0	32.0
87.5°	13.4	13.4	13.4	13.4	13.4
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)