

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: P592848

Luminaire Tested: **HC445D010-HM44560850-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592848  
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-HM44560850-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5055.7 lumens  
Efficiency: N/A  
Efficacy: 114.9 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

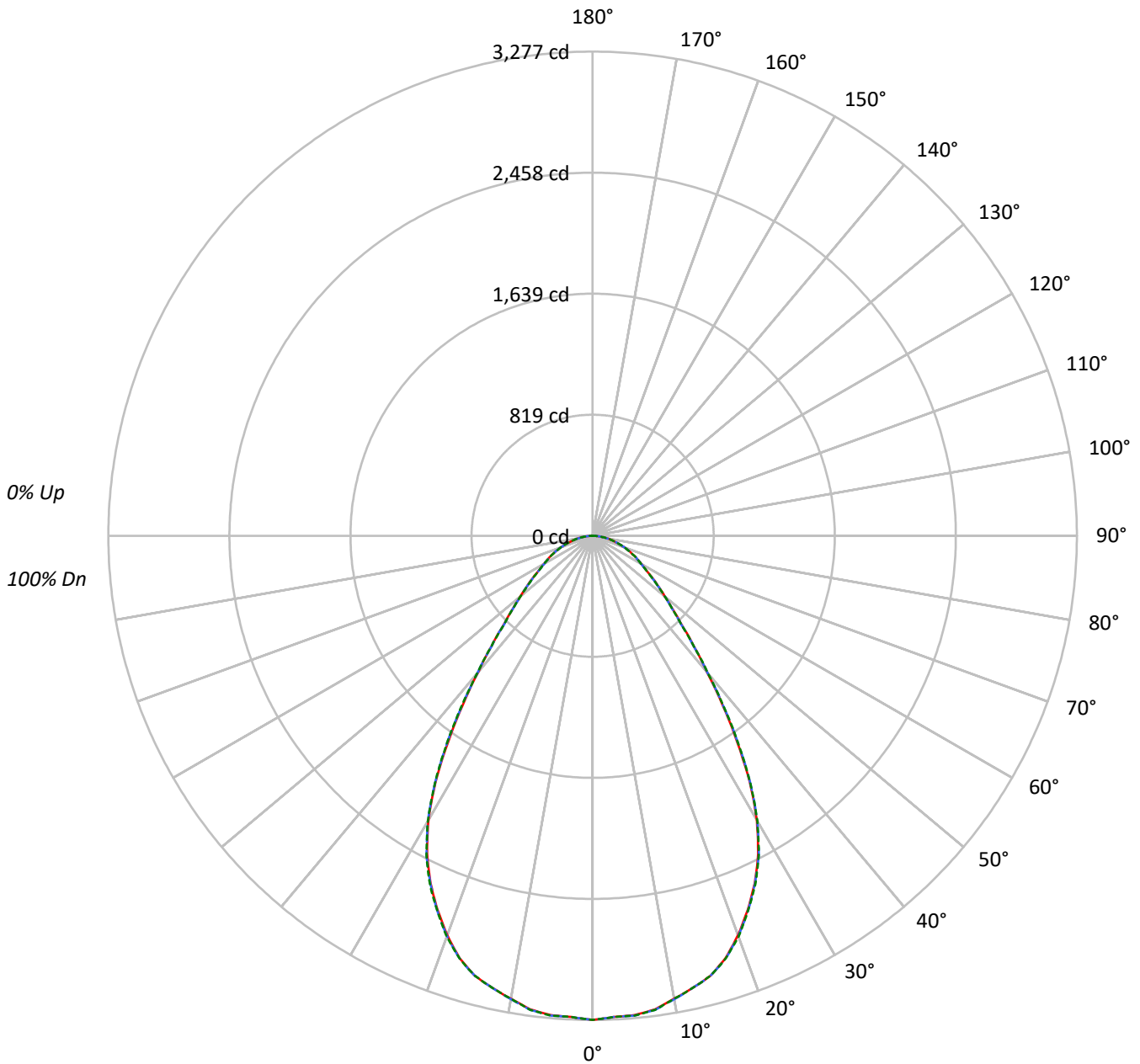
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	404179	404179	404179
5°	403197	403630	403630
10°	398515	398929	398515
15°	393740	393740	393740
20°	377574	378467	378913
25°	353171	353620	354559
30°	316445	317413	317413
35°	256915	258963	259475
40°	193896	194991	195522
45°	148516	147923	147923
50°	122369	121717	121717
55°	105029	104298	104298
60°	93718	92879	92879
65°	88113	88113	88113
70°	81973	81973	81973
75°	74393	75965	74393
80°	69895	67480	69895
85°	57600	57600	57600



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	308.7	6.1
10°-20°	864.0	17.1
20°-30°	1187.2	23.5
30°-40°	1067.5	21.1
40°-50°	674.5	13.3
50°-60°	440.3	8.7
60°-70°	298.3	5.9
70°-80°	168.0	3.3
80°-90°	47.2	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°	2359.9	46.7
0°-40°	3427.4	67.8
0°-60°	4542.2	89.8
0°-90°	5055.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5055.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3277	3277	3277	3277	3277	
5°	3256	3256	3260	3260	3260	309
15°	3083	3083	3083	3083	3083	863
25°	2595	2598	2598	2605	2605	1184
35°	1706	1713	1720	1726	1723	1062
45°	851	848	848	848	848	675
55°	488	488	485	488	485	442
65°	302	302	302	302	302	299
75°	156	159	159	159	156	167
85°	41	41	41	41	41	48
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3276.8	3276.8	3276.8	3276.8	3276.8
2.5°	3259.9	3259.9	3259.9	3259.9	3259.9
5°	3256.4	3256.4	3259.9	3259.9	3259.9
7.5°	3232.7	3236.1	3236.1	3236.1	3236.1
10°	3181.8	3181.8	3185.1	3185.1	3181.8
12.5°	3134.3	3134.3	3134.3	3137.7	3134.3
15°	3083.4	3083.4	3083.4	3083.4	3083.4
17.5°	2995.2	2998.7	2998.7	2998.7	2998.7
20°	2876.5	2883.3	2883.3	2886.7	2886.7
22.5°	2740.8	2744.2	2747.6	2751.0	2747.6
25°	2595.0	2598.3	2598.3	2605.2	2605.2
27.5°	2425.3	2428.8	2435.5	2435.5	2435.5
30°	2221.8	2225.3	2228.6	2228.6	2228.6
32.5°	1981.0	1981.0	1987.7	1991.2	1987.7
35°	1706.2	1713.0	1719.8	1726.5	1723.2
37.5°	1445.0	1451.9	1455.2	1455.2	1458.6
40°	1204.2	1211.0	1211.0	1217.8	1214.3
42.5°	1014.3	1010.8	1010.8	1017.7	1014.3
45°	851.4	848.0	848.0	848.0	848.0
47.5°	732.7	729.3	729.3	729.3	729.3
50°	637.7	634.3	634.3	634.3	634.3
52.5°	559.7	556.3	556.3	556.3	552.9
55°	488.4	488.4	485.0	488.4	485.0
57.5°	424.0	424.0	424.0	424.0	424.0
60°	379.9	376.5	376.5	376.5	376.5
62.5°	339.2	339.2	339.2	339.2	339.2
65°	301.9	301.9	301.9	301.9	301.9
67.5°	264.6	261.2	264.6	264.6	261.2
70°	227.3	223.8	227.3	227.3	227.3
72.5°	190.0	190.0	190.0	193.3	190.0
75°	156.1	159.4	159.4	159.4	156.1
77.5°	125.6	128.9	125.6	125.6	125.6
80°	98.4	95.0	95.0	95.0	98.4
82.5°	67.9	67.9	67.9	67.9	67.9
85°	40.7	40.7	40.7	40.7	40.7
87.5°	16.9	16.9	16.9	16.9	16.9
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)