

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: P592850

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

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592850  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC445D010-HM44560850-41RWWH  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5205.0 lumens  
Efficiency: N/A  
Efficacy: 118.3 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.08 / 1.16  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

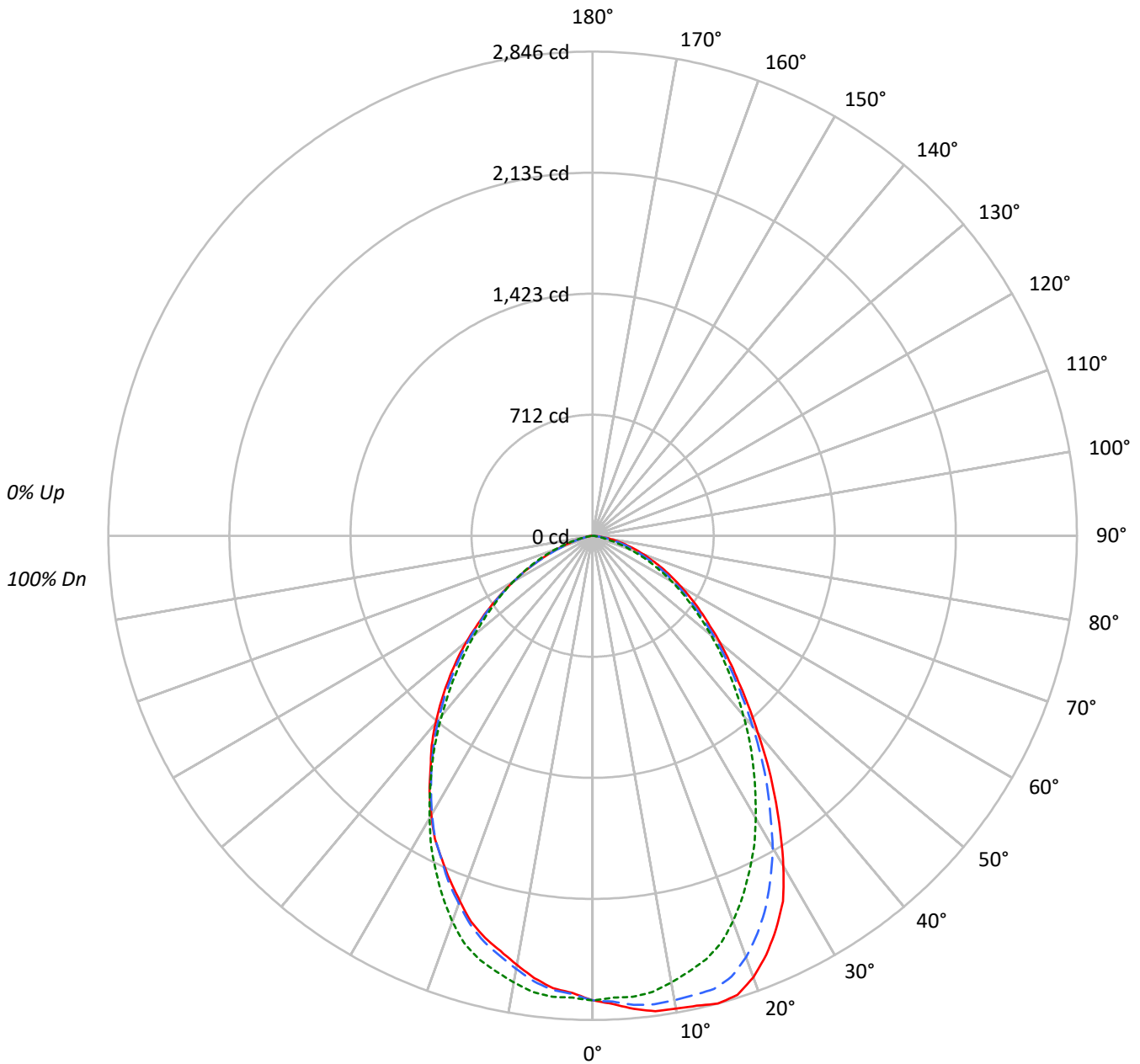
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P592850

CATALOG NUMBER: HC445D010-HM44560850-41RWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P592850

CATALOG NUMBER: HC445D010-HM44560850-41RWWH

**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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88																			
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77																			
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67																			
4	88	77	70	64	86	76	69	63	74	67	62	71	66	62	69	65	61	59																			
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52																			
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47																			
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42																			
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38																			
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35																			
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	336832	336832	336832
5°	345684	336856	330566
10°	353501	333950	320786
15°	363451	329215	312321
20°	362466	316603	299670
25°	347183	296405	285327
30°	319365	272976	270085
35°	280947	247745	249793
40°	243054	221768	231042
45°	211261	197044	208888
50°	187478	173816	185521
55°	166317	152468	159027
60°	148138	132227	132227
65°	131688	109886	102968
70°	113781	83199	73390
75°	95409	54949	45274
80°	72310	26566	24080
85°	38494	9482	9482



TEST NUMBER: P592850

CATALOG NUMBER: HC445D010-HM44560850-41RWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.6	5.0
10°-20°	733.2	14.1
20°-30°	1034.0	19.9
30°-40°	1068.2	20.5
40°-50°	905.5	17.4
50°-60°	658.8	12.7
60°-70°	384.9	7.4
70°-80°	143.1	2.7
80°-90°	18.7	0.4
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°	2025.8	38.9
0°-40°	3093.9	59.4
0°-60°	4658.2	89.5
0°-90°	5205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5205.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2731	2731	2731	2731	2731	
5°	2792	2768	2721	2680	2670	267
15°	2846	2758	2578	2470	2446	800
25°	2551	2408	2178	2100	2096	1167
35°	1866	1784	1645	1649	1659	1165
45°	1211	1177	1130	1170	1198	942
55°	773	736	709	733	740	696
65°	451	414	376	353	353	448
75°	200	166	115	92	95	215
85°	27	17	7	7	7	38
90°	0	0	0	0	0	



TEST NUMBER: P592850

CATALOG NUMBER: HC445D010-HM44560850-41RWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2730.8	2730.8	2730.8	2730.8	2730.8	2730.8	2730.8	2730.8	2730.8
2.5°	2754.5	2747.8	2740.9	2730.8	2717.3	2707.0	2696.8	2690.1	2690.1
5°	2791.9	2781.7	2768.1	2744.4	2720.6	2700.3	2679.9	2669.8	2669.8
7.5°	2819.0	2805.4	2778.3	2744.4	2703.7	2673.2	2642.6	2629.1	2622.2
10°	2822.4	2808.8	2771.6	2720.6	2666.3	2618.9	2585.0	2564.6	2561.2
12.5°	2829.2	2812.2	2764.7	2693.5	2622.2	2564.6	2527.3	2506.9	2500.2
15°	2846.2	2822.4	2758.0	2666.3	2578.1	2510.4	2469.6	2452.7	2445.8
17.5°	2829.2	2795.2	2717.3	2608.6	2510.4	2435.6	2395.0	2378.0	2378.0
20°	2761.4	2727.5	2635.8	2517.1	2412.0	2340.7	2300.0	2289.8	2283.0
22.5°	2666.3	2629.1	2530.7	2405.1	2300.0	2235.6	2208.4	2194.9	2191.4
25°	2551.0	2513.7	2408.5	2279.7	2177.9	2123.6	2099.8	2099.8	2096.5
27.5°	2422.1	2374.6	2266.1	2154.1	2055.7	2015.0	2004.9	2004.9	2008.3
30°	2242.3	2208.4	2116.8	2008.3	1916.6	1889.6	1889.6	1896.3	1896.3
32.5°	2049.0	2025.2	1943.8	1848.8	1777.6	1760.6	1767.4	1781.0	1784.3
35°	1865.8	1838.6	1784.3	1699.5	1645.3	1638.5	1648.7	1658.9	1658.9
37.5°	1686.0	1658.9	1621.5	1553.6	1513.0	1516.4	1530.0	1543.5	1553.6
40°	1509.5	1489.2	1462.1	1407.8	1377.3	1390.8	1407.8	1421.3	1434.9
42.5°	1353.6	1333.2	1312.9	1272.1	1251.8	1268.8	1289.1	1302.6	1316.2
45°	1211.1	1197.5	1177.1	1143.2	1129.6	1146.6	1170.4	1183.9	1197.5
47.5°	1088.9	1082.2	1055.0	1024.5	1017.7	1034.7	1055.0	1072.0	1082.2
50°	977.0	966.8	943.0	912.5	905.8	932.8	946.4	956.6	966.8
52.5°	868.4	858.2	831.1	804.0	804.0	824.3	834.5	837.9	848.1
55°	773.4	763.3	736.1	715.7	709.0	725.9	732.8	732.8	739.5
57.5°	685.2	675.1	648.0	624.2	620.8	631.0	631.0	631.0	634.4
60°	600.5	590.3	563.1	542.8	536.0	539.3	536.0	532.6	536.0
62.5°	522.4	512.2	485.2	461.4	454.5	454.5	444.4	440.9	444.4
65°	451.2	434.2	413.9	390.1	376.5	366.3	352.8	352.8	352.8
67.5°	379.9	366.3	342.7	318.9	301.9	285.0	264.6	271.4	274.8
70°	315.5	305.3	278.1	254.5	230.7	210.4	193.3	200.2	203.5
72.5°	257.8	244.3	220.5	193.3	173.0	145.9	135.6	142.5	142.5
75°	200.2	186.6	166.2	139.1	115.3	91.6	91.6	95.0	95.0
77.5°	149.2	135.6	115.3	91.6	71.2	54.3	57.7	57.7	57.7
80°	101.8	91.6	74.6	54.3	37.4	30.5	30.5	30.5	33.9
82.5°	57.7	50.9	40.7	27.2	16.9	16.9	16.9	16.9	16.9
85°	27.2	20.3	16.9	10.2	6.7	6.7	6.7	6.7	6.7
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	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)