

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: P582610

Luminaire Tested: **HC645D010-HM64560835-61WWW**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582610  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-16)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC645D010-HM64560835-61WWW  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4764.9 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.06 / 1.14  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

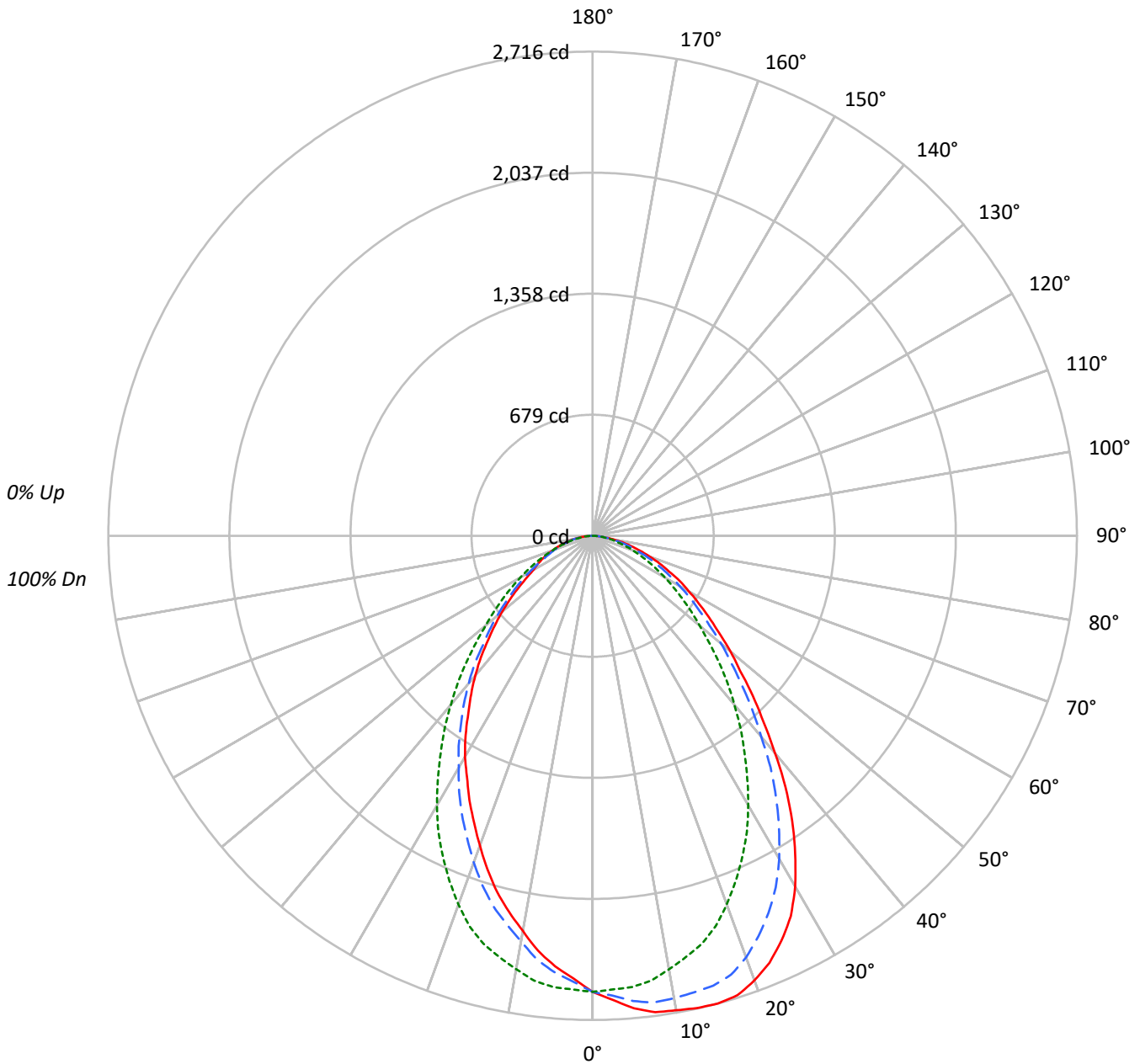
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582610

CATALOG NUMBER: HC645D010-HM64560835-61WWW

### Luminous Intensity Polar Plot





TEST NUMBER: P582610

CATALOG NUMBER: HC645D010-HM64560835-61WWW

**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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87																			
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76																			
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58																			
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51																			
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																			
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42																			
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																			
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																			
10	58	46	39	34	57	45	38	34	44	38	33	44	38	33	43	37	33	32																			

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

	0°	90°	180°
0°	140230	140230	140230
5°	146450	139814	133375
10°	150443	137411	125337
15°	154161	134428	117430
20°	154853	128344	107856
25°	151599	120158	98915
30°	143832	110492	90660
35°	130641	99300	81332
40°	113828	88451	73173
45°	98491	77411	64325
50°	86036	66650	56373
55°	76012	58569	48361
60°	68317	51345	41905
65°	61187	44661	40640
70°	54641	38067	38067
75°	47403	32068	35732
80°	38041	27181	32611
85°	25977	23839	28179



TEST NUMBER: P582610

CATALOG NUMBER: HC645D010-HM64560835-61WWW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	240.4	5.0
10°-20°	668.3	14.0
20°-30°	931.3	19.5
30°-40°	959.6	20.1
40°-50°	795.3	16.7
50°-60°	571.5	12.0
60°-70°	364.0	7.6
70°-80°	186.9	3.9
80°-90°	47.5	1.0
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°	1840.0	38.6
0°-40°	2799.7	58.8
0°-60°	4166.5	87.4
0°-90°	4764.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4764.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2558	2558	2558	2558	2558	
5°	2661	2620	2541	2458	2424	255
15°	2716	2613	2369	2152	2069	766
25°	2506	2334	1986	1732	1635	1148
35°	1952	1794	1484	1288	1215	1213
45°	1270	1181	998	871	830	983
55°	795	730	613	544	506	716
65°	472	420	344	300	313	472
75°	224	193	151	158	169	239
85°	41	38	38	41	45	53
90°	0	0	0	0	0	



TEST NUMBER: P582610

CATALOG NUMBER: HC645D010-HM64560835-61WWW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2558.0	2558.0	2558.0	2558.0	2558.0	2558.0	2558.0	2558.0	2558.0
2.5°	2606.2	2595.8	2582.1	2568.3	2547.6	2523.6	2502.9	2496.0	2485.7
5°	2661.3	2647.5	2619.9	2585.5	2540.7	2496.0	2458.1	2434.1	2423.7
7.5°	2695.7	2678.4	2640.7	2582.1	2516.7	2451.2	2396.2	2361.7	2348.0
10°	2702.6	2685.3	2633.7	2554.6	2468.5	2379.0	2310.1	2268.8	2251.6
12.5°	2712.9	2688.8	2623.4	2530.4	2420.3	2317.0	2230.9	2179.3	2162.1
15°	2716.3	2688.8	2613.1	2499.4	2368.6	2244.7	2151.8	2089.8	2069.1
17.5°	2702.6	2671.6	2582.1	2444.4	2296.4	2165.5	2055.3	1989.9	1962.4
20°	2654.4	2619.9	2516.7	2361.7	2200.0	2062.3	1948.6	1879.7	1848.8
22.5°	2592.4	2547.6	2430.6	2265.3	2096.6	1952.1	1838.4	1769.6	1738.6
25°	2506.3	2465.1	2334.2	2158.7	1986.5	1835.0	1731.7	1659.4	1635.3
27.5°	2406.5	2358.3	2224.0	2048.4	1872.8	1721.4	1621.6	1556.1	1525.1
30°	2272.2	2227.5	2093.2	1917.6	1745.5	1604.3	1501.1	1446.0	1432.2
32.5°	2113.9	2076.0	1945.2	1779.9	1614.6	1483.8	1397.7	1339.2	1325.5
35°	1952.1	1907.3	1793.6	1638.8	1483.8	1366.8	1287.6	1236.0	1215.3
37.5°	1776.5	1735.1	1638.8	1501.1	1363.4	1253.1	1184.3	1139.6	1118.9
40°	1590.6	1559.6	1470.1	1359.9	1236.0	1139.6	1081.0	1043.1	1022.5
42.5°	1418.4	1387.4	1325.5	1222.1	1118.9	1032.8	981.2	946.7	929.6
45°	1270.4	1242.8	1180.9	1091.4	998.5	926.1	871.1	846.9	829.7
47.5°	1122.3	1108.6	1053.5	970.9	884.8	822.9	785.0	757.4	743.7
50°	1008.8	991.5	939.9	853.8	781.5	733.4	698.9	674.8	661.0
52.5°	891.7	874.5	826.3	754.0	695.5	650.7	616.3	595.6	581.8
55°	795.3	781.5	729.8	664.5	612.8	574.9	543.9	519.9	506.0
57.5°	705.8	692.0	643.7	581.8	537.1	502.6	475.1	454.4	437.2
60°	623.1	612.8	564.6	506.0	468.3	433.8	409.7	392.5	382.2
62.5°	550.8	530.2	488.9	437.2	402.8	375.2	351.2	340.9	347.7
65°	471.7	461.3	420.1	375.2	344.3	316.7	299.5	306.4	313.3
67.5°	406.2	392.5	358.0	316.7	289.1	268.5	258.2	272.0	275.4
70°	340.9	327.0	296.1	261.7	237.5	223.8	223.8	234.1	237.5
72.5°	278.8	268.5	241.1	213.5	196.2	185.9	192.8	199.6	203.2
75°	223.8	213.5	192.8	168.7	151.4	151.4	158.4	165.3	168.7
77.5°	172.2	165.3	144.6	127.4	120.5	120.5	127.4	130.8	134.3
80°	120.5	113.7	103.3	92.9	86.1	92.9	99.8	99.8	103.3
82.5°	79.2	75.8	68.9	61.9	61.9	65.5	68.9	72.3	72.3
85°	41.3	41.3	37.9	34.5	37.9	41.3	41.3	44.8	44.8
87.5°	13.7	13.7	13.7	13.7	17.2	17.2	17.2	17.2	17.2
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)