

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: P582602

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

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582602  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC645D010-HM64560835-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5129.9 lumens  
Efficiency: N/A  
Efficacy: 116.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

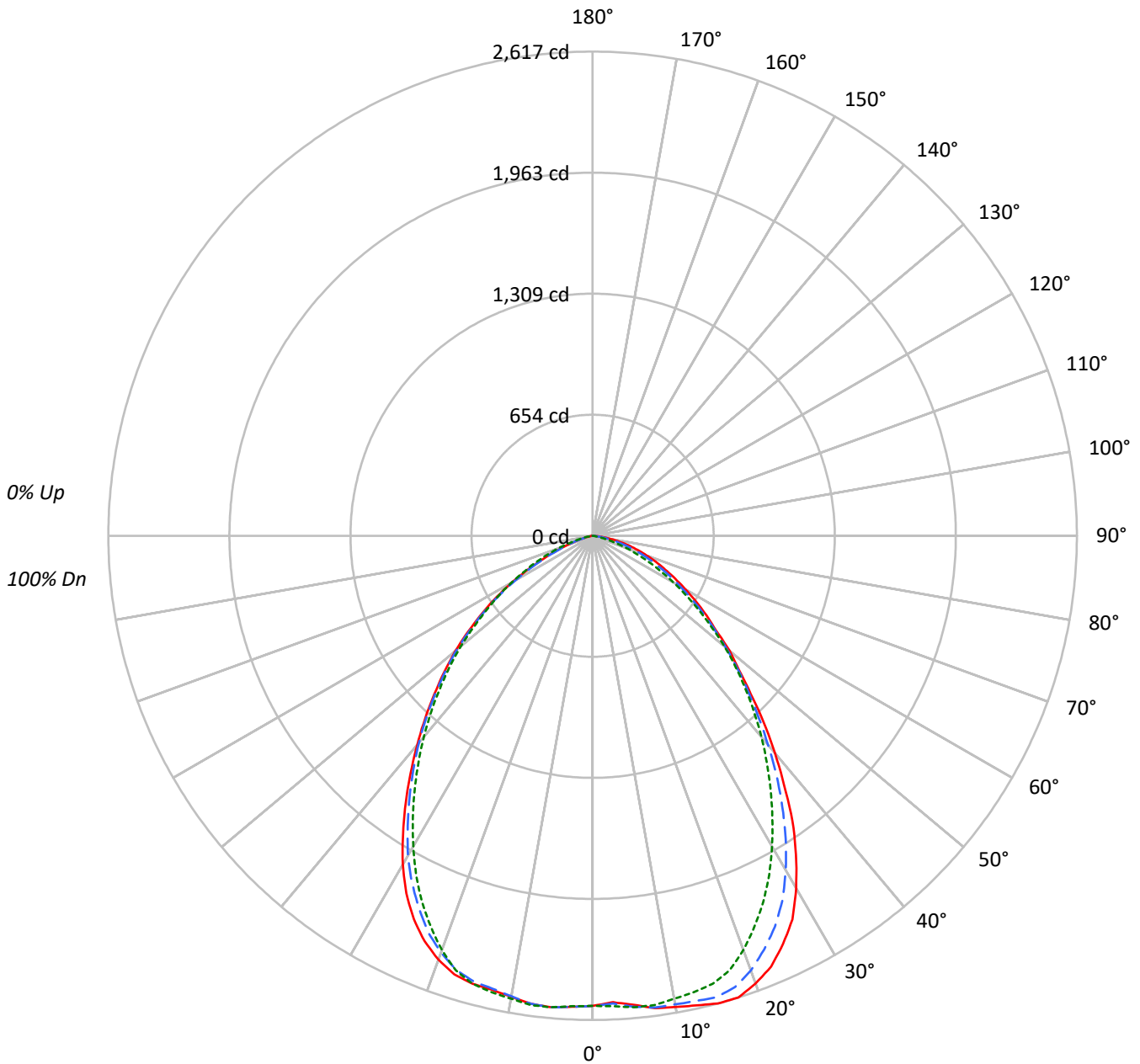
Input Watts (W): 44  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582602

CATALOG NUMBER: HC645D010-HM64560835-61RWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P582602

CATALOG NUMBER: HC645D010-HM64560835-61RWWC

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				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	88				88
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77				77
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68				68
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60				60
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53				53
6	76	64	56	50	74	63	56	50	62	55	50	60	54	49	58	53	49	47				47
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42				42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38				38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35				35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32

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

	0°	90°	180°
0°	139298	139298	139298
5°	140017	140777	140777
10°	143941	141447	140868
15°	148508	142260	142260
20°	150245	138997	142212
25°	147238	132032	138286
30°	139268	122702	129893
35°	126043	112217	117744
40°	109648	101512	105455
45°	93692	90482	93692
50°	82223	79281	82513
55°	71739	66808	69426
60°	63416	55489	54732
65°	56271	43779	37527
70°	49672	30903	22616
75°	42277	17495	10929
80°	31507	5430	3252
85°	17360	2139	2139



TEST NUMBER: P582602

CATALOG NUMBER: HC645D010-HM64560835-61RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	243.7	4.8
10°-20°	713.1	13.9
20°-30°	1041.5	20.3
30°-40°	1092.3	21.3
40°-50°	920.2	17.9
50°-60°	644.8	12.6
60°-70°	345.7	6.7
70°-80°	115.9	2.3
80°-90°	12.6	0.2
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°	1998.4	39.0
0°-40°	3090.7	60.2
0°-60°	4655.7	90.8
0°-90°	5129.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5129.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2541	2541	2541	2541	2541	
5°	2544	2555	2558	2558	2558	245
15°	2617	2582	2507	2493	2507	738
25°	2434	2331	2183	2221	2286	1115
35°	1883	1787	1677	1725	1759	1169
45°	1208	1188	1167	1198	1208	941
55°	751	726	699	713	726	676
65°	434	396	338	279	289	433
75°	200	155	83	52	52	212
85°	28	14	3	3	3	38
90°	0	0	0	0	0	



TEST NUMBER: P582602

CATALOG NUMBER: HC645D010-HM64560835-61RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2541.0	2541.0	2541.0	2541.0	2541.0	2541.0	2541.0	2541.0	2541.0
2.5°	2523.7	2523.7	2530.6	2537.6	2544.4	2544.4	2547.9	2551.3	2547.9
5°	2544.4	2544.4	2554.7	2558.2	2558.2	2554.7	2558.2	2558.2	2558.2
7.5°	2575.4	2568.5	2571.9	2565.1	2558.2	2554.7	2551.3	2551.3	2551.3
10°	2585.8	2578.8	2571.9	2558.2	2541.0	2530.6	2527.2	2530.6	2530.6
12.5°	2599.5	2592.6	2575.4	2547.9	2527.2	2510.0	2506.6	2513.4	2513.4
15°	2616.7	2609.8	2582.2	2537.6	2506.6	2489.3	2492.7	2499.7	2506.6
17.5°	2616.7	2602.9	2558.2	2499.7	2461.8	2444.5	2458.4	2475.5	2485.8
20°	2575.4	2561.6	2499.7	2427.3	2382.6	2372.3	2396.3	2427.3	2437.7
22.5°	2520.3	2492.7	2420.5	2334.4	2286.2	2286.2	2320.7	2358.4	2372.3
25°	2434.2	2413.6	2331.0	2231.0	2182.8	2179.4	2220.7	2272.5	2286.2
27.5°	2337.8	2310.2	2220.7	2117.5	2065.8	2069.3	2114.0	2165.7	2179.4
30°	2200.1	2165.7	2086.5	1986.6	1938.4	1952.2	1996.9	2034.8	2052.0
32.5°	2045.1	2014.2	1941.9	1848.9	1807.6	1821.3	1859.2	1893.7	1907.4
35°	1883.4	1848.9	1786.9	1704.3	1676.8	1690.5	1725.0	1752.5	1759.4
37.5°	1700.8	1676.8	1632.0	1566.5	1545.9	1563.1	1590.7	1607.9	1614.8
40°	1532.2	1511.5	1473.6	1425.4	1418.5	1432.4	1459.8	1470.1	1473.6
42.5°	1366.9	1349.7	1325.6	1291.1	1291.1	1305.0	1329.0	1335.9	1339.3
45°	1208.5	1198.2	1187.9	1160.3	1167.1	1184.4	1198.2	1208.5	1208.5
47.5°	1070.8	1074.2	1060.5	1039.7	1046.7	1063.9	1074.2	1084.6	1084.6
50°	964.1	953.8	939.9	919.3	929.6	943.4	957.2	964.1	967.5
52.5°	840.1	836.7	826.4	802.2	809.1	816.1	829.8	840.1	843.5
55°	750.6	740.3	726.4	699.0	699.0	705.8	712.7	719.6	726.4
57.5°	664.5	654.2	633.5	602.6	599.1	599.1	595.6	602.6	612.9
60°	578.4	575.0	544.0	516.5	506.1	495.8	482.0	485.5	499.2
62.5°	502.6	495.8	468.3	433.8	413.1	396.0	378.8	375.2	389.1
65°	433.8	427.0	396.0	361.5	337.5	306.4	278.9	278.9	289.3
67.5°	371.8	358.1	330.6	292.7	261.7	223.8	196.2	203.2	206.6
70°	309.9	299.6	268.5	230.7	192.8	155.0	137.7	141.1	141.1
72.5°	254.8	241.1	210.0	172.2	134.3	99.8	93.0	89.5	89.5
75°	199.6	185.9	155.0	117.1	82.6	58.5	51.6	51.6	51.6
77.5°	144.6	134.3	106.7	72.3	44.8	27.6	24.0	20.6	20.6
80°	99.8	89.5	65.5	37.9	17.2	10.3	10.3	10.3	10.3
82.5°	58.5	48.2	31.0	17.2	6.9	3.4	3.4	3.4	3.4
85°	27.6	20.6	13.7	6.9	3.4	3.4	3.4	3.4	3.4
87.5°	3.4	3.4	3.4	0.0	0.0	0.0	0.0	0.0	0.0
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)