

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: P582728

Luminaire Tested: **HC650D010-HM64560830-61RWWC**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P582728  
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: HC650D010-HM64560830-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5195.8 lumens  
Efficiency: N/A  
Efficacy: 108.2 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

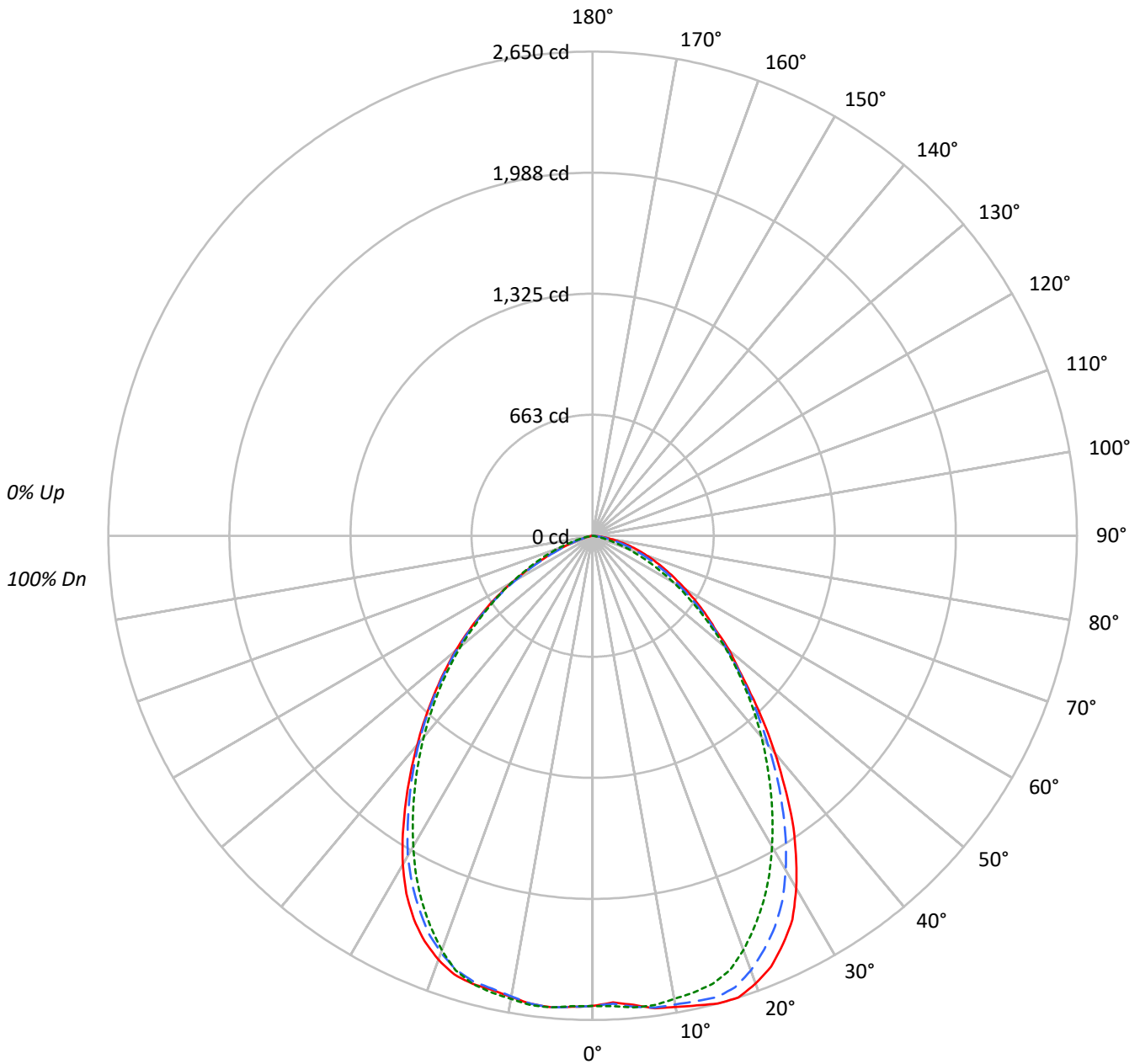
Input Watts (W): 48  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P582728

CATALOG NUMBER: HC650D010-HM64560830-61RWWC

### Luminous Intensity Polar Plot





TEST NUMBER: P582728

CATALOG NUMBER: HC650D010-HM64560830-61RWWC

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

RF	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								
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88								
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77								
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68								
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60								
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53								
6	76	64	56	50	74	63	56	50	62	55	50	60	54	49	58	53	49	47								
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42								
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	59	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°	141085	141085	141085
5°	141817	142587	142587
10°	145789	143262	142677
15°	150415	144087	144087
20°	152176	140788	144038
25°	149138	133738	140065
30°	141060	124279	131565
35°	127662	113655	119257
40°	111051	102821	106807
45°	94894	91653	94894
50°	83281	80304	83571
55°	72657	67658	70325
60°	64238	56213	55445
65°	57010	44337	37994
70°	50313	31303	22921
75°	42849	17728	11078
80°	31917	5525	3315
85°	17549	2201	2201



TEST NUMBER: P582728

CATALOG NUMBER: HC650D010-HM64560830-61RWWC

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	246.9	4.8
10°-20°	722.3	13.9
20°-30°	1054.9	20.3
30°-40°	1106.3	21.3
40°-50°	932.1	17.9
50°-60°	653.0	12.6
60°-70°	350.1	6.7
70°-80°	117.4	2.3
80°-90°	12.8	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°	2024.1	39.0
0°-40°	3130.4	60.2
0°-60°	4715.5	90.8
0°-90°	5195.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5195.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2574	2574	2574	2574	2574	
5°	2577	2588	2591	2591	2591	248
15°	2650	2615	2539	2525	2539	748
25°	2466	2361	2211	2249	2316	1129
35°	1908	1810	1698	1747	1782	1184
45°	1224	1203	1182	1214	1224	954
55°	760	736	708	722	736	684
65°	440	401	342	282	293	439
75°	202	157	84	52	52	214
85°	28	14	4	4	4	38
90°	0	0	0	0	0	



TEST NUMBER: P582728

CATALOG NUMBER: HC650D010-HM64560830-61RWWC

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2573.6	2573.6	2573.6	2573.6	2573.6	2573.6	2573.6	2573.6	2573.6
2.5°	2556.2	2556.2	2563.1	2570.1	2577.1	2577.1	2580.6	2584.0	2580.6
5°	2577.1	2577.1	2587.6	2591.1	2591.1	2587.6	2591.1	2591.1	2591.1
7.5°	2608.5	2601.5	2605.0	2598.1	2591.1	2587.6	2584.0	2584.0	2584.0
10°	2619.0	2612.0	2605.0	2591.1	2573.6	2563.1	2559.7	2563.1	2563.1
12.5°	2632.9	2626.0	2608.5	2580.6	2559.7	2542.2	2538.8	2545.8	2545.8
15°	2650.3	2643.3	2615.4	2570.1	2538.8	2521.3	2524.7	2531.8	2538.8
17.5°	2650.3	2636.3	2591.1	2531.8	2493.4	2476.0	2489.9	2507.4	2517.8
20°	2608.5	2594.5	2531.8	2458.5	2413.3	2402.7	2427.2	2458.5	2469.0
22.5°	2552.7	2524.7	2451.5	2364.4	2315.6	2315.6	2350.4	2388.8	2402.7
25°	2465.6	2444.6	2360.9	2259.7	2211.0	2207.4	2249.3	2301.7	2315.6
27.5°	2367.9	2339.9	2249.3	2144.7	2092.4	2095.9	2141.2	2193.5	2207.4
30°	2228.4	2193.5	2113.3	2012.2	1963.3	1977.3	2022.6	2061.0	2078.4
32.5°	2071.5	2040.1	1966.8	1872.7	1830.8	1844.7	1883.1	1918.1	1932.0
35°	1907.6	1872.7	1809.9	1726.3	1698.3	1712.2	1747.2	1775.0	1782.0
37.5°	1722.7	1698.3	1652.9	1586.7	1565.8	1583.2	1611.1	1628.6	1635.6
40°	1551.8	1530.9	1492.5	1443.8	1436.8	1450.7	1478.6	1489.1	1492.5
42.5°	1384.5	1367.0	1342.6	1307.7	1307.7	1321.7	1346.1	1353.1	1356.6
45°	1224.0	1213.6	1203.1	1175.2	1182.2	1199.7	1213.6	1224.0	1224.0
47.5°	1084.5	1088.1	1074.1	1053.2	1060.2	1077.5	1088.1	1098.4	1098.4
50°	976.5	965.9	952.0	931.1	941.6	955.5	969.5	976.5	979.9
52.5°	850.9	847.4	837.0	812.5	819.5	826.5	840.4	850.9	854.3
55°	760.2	749.8	735.8	707.9	707.9	714.9	721.8	728.8	735.8
57.5°	673.1	662.5	641.6	610.2	606.8	606.8	603.3	610.2	620.7
60°	585.9	582.4	550.9	523.1	512.7	502.2	488.2	491.7	505.7
62.5°	509.1	502.2	474.3	439.5	418.4	401.1	383.6	380.2	394.1
65°	439.5	432.5	401.1	366.1	341.8	310.4	282.5	282.5	292.9
67.5°	376.6	362.7	334.8	296.4	265.0	226.6	198.8	205.7	209.3
70°	313.9	303.4	272.0	233.6	195.3	157.0	139.5	143.0	143.0
72.5°	258.0	244.1	212.7	174.3	136.1	101.1	94.1	90.7	90.7
75°	202.3	188.4	157.0	118.6	83.7	59.3	52.3	52.3	52.3
77.5°	146.4	136.1	108.1	73.2	45.4	27.9	24.4	20.9	20.9
80°	101.1	90.7	66.3	38.4	17.5	10.5	10.5	10.5	10.5
82.5°	59.3	48.8	31.4	17.5	7.0	3.5	3.5	3.5	3.5
85°	27.9	20.9	13.9	7.0	3.5	3.5	3.5	3.5	3.5
87.5°	3.5	3.5	3.5	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)