

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: P593353

Luminaire Tested: **HC650D010-HM64560850-61RWWC**

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593353
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-HM64560850-61RWWC
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5653.6 lumens
Efficiency: N/A
Efficacy: 117.8 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

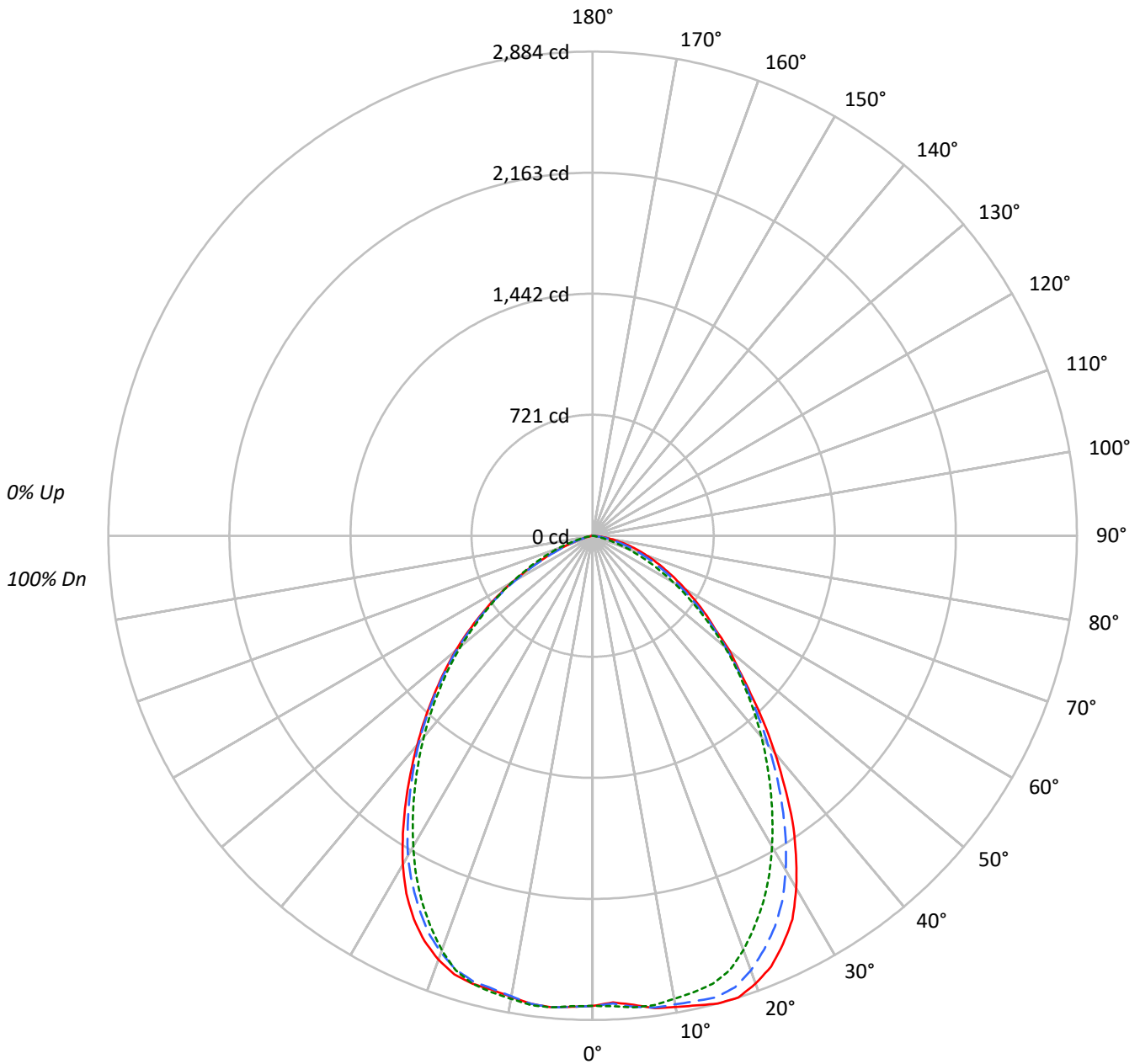
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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°	153518	153518	153518
5°	154314	155150	155150
10°	158637	155887	155252
15°	163673	156783	156783
20°	165582	153185	156726
25°	162276	145514	152398
30°	153486	135230	143161
35°	138906	123667	129764
40°	120841	111881	116225
45°	103259	99724	103259
50°	90607	87375	90939
55°	79061	73613	76518
60°	69896	61157	60324
65°	62017	48241	41353
70°	54737	34060	24924
75°	46619	19296	12052
80°	34758	5998	3567
85°	19121	2390	2390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.6	4.8
10°-20°	785.9	13.9
20°-30°	1147.9	20.3
30°-40°	1203.8	21.3
40°-50°	1014.2	17.9
50°-60°	710.6	12.6
60°-70°	381.0	6.7
70°-80°	127.8	2.3
80°-90°	13.9	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°	2202.4	39.0
0°-40°	3406.2	60.2
0°-60°	5131.0	90.8
0°-90°	5653.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5653.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2800	2800	2800	2800	2800	
5°	2804	2816	2819	2819	2819	270
15°	2884	2846	2762	2747	2762	813
25°	2683	2569	2406	2448	2520	1229
35°	2076	1969	1848	1901	1939	1288
45°	1332	1309	1286	1320	1332	1038
55°	827	801	770	786	801	745
65°	478	436	372	307	319	477
75°	220	171	91	57	57	233
85°	30	15	4	4	4	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2800.4	2800.4	2800.4	2800.4	2800.4	2800.4	2800.4	2800.4	2800.4
2.5°	2781.4	2781.4	2789.0	2796.6	2804.2	2804.2	2807.9	2811.7	2807.9
5°	2804.2	2804.2	2815.5	2819.4	2819.4	2815.5	2819.4	2819.4	2819.4
7.5°	2838.3	2830.7	2834.5	2827.0	2819.4	2815.5	2811.7	2811.7	2811.7
10°	2849.8	2842.1	2834.5	2819.4	2800.4	2789.0	2785.2	2789.0	2789.0
12.5°	2864.9	2857.3	2838.3	2807.9	2785.2	2766.3	2762.5	2770.0	2770.0
15°	2883.9	2876.3	2846.0	2796.6	2762.5	2743.5	2747.2	2754.8	2762.5
17.5°	2883.9	2868.6	2819.4	2754.8	2713.1	2694.1	2709.3	2728.3	2739.7
20°	2838.3	2823.2	2754.8	2675.2	2625.8	2614.5	2641.1	2675.2	2686.5
22.5°	2777.6	2747.2	2667.5	2572.7	2519.5	2519.5	2557.6	2599.3	2614.5
25°	2682.8	2660.0	2568.9	2458.8	2405.7	2401.9	2447.5	2504.4	2519.5
27.5°	2576.5	2546.1	2447.5	2333.7	2276.7	2280.5	2329.9	2386.8	2401.9
30°	2424.7	2386.8	2299.5	2189.5	2136.3	2151.5	2200.8	2242.6	2261.6
32.5°	2253.9	2219.8	2140.1	2037.7	1992.1	2007.3	2049.0	2087.1	2102.2
35°	2075.6	2037.7	1969.3	1878.3	1847.9	1863.1	1901.1	1931.4	1939.0
37.5°	1874.5	1847.9	1798.7	1726.5	1703.7	1722.7	1753.1	1772.1	1779.6
40°	1688.6	1665.8	1624.1	1571.0	1563.4	1578.5	1608.9	1620.3	1624.1
42.5°	1506.5	1487.5	1460.9	1423.0	1423.0	1438.1	1464.7	1472.2	1476.1
45°	1331.9	1320.5	1309.1	1278.8	1286.3	1305.4	1320.5	1331.9	1331.9
47.5°	1180.1	1184.0	1168.7	1145.9	1153.6	1172.5	1184.0	1195.3	1195.3
50°	1062.4	1051.1	1036.0	1013.2	1024.5	1039.8	1054.9	1062.4	1066.3
52.5°	925.9	922.1	910.7	884.1	891.8	899.3	914.4	925.9	929.7
55°	827.2	815.8	800.6	770.2	770.2	777.9	785.5	793.0	800.6
57.5°	732.3	721.0	698.2	664.1	660.3	660.3	656.4	664.1	675.4
60°	637.5	633.7	599.6	569.2	557.8	546.4	531.2	535.0	550.2
62.5°	554.0	546.4	516.1	478.1	455.4	436.4	417.4	413.6	428.8
65°	478.1	470.5	436.4	398.5	371.9	337.8	307.4	307.4	318.8
67.5°	409.8	394.7	364.2	322.5	288.4	246.6	216.2	223.9	227.7
70°	341.5	330.1	296.0	254.3	212.5	170.8	151.8	155.5	155.5
72.5°	280.8	265.6	231.5	189.8	148.0	110.1	102.5	98.6	98.6
75°	220.1	204.9	170.8	129.0	91.1	64.5	56.9	56.9	56.9
77.5°	159.3	148.0	117.6	79.7	49.4	30.4	26.6	22.8	22.8
80°	110.1	98.6	72.0	41.7	19.0	11.3	11.3	11.3	11.3
82.5°	64.5	53.1	34.1	19.0	7.6	3.8	3.8	3.8	3.8
85°	30.4	22.8	15.2	7.6	3.8	3.8	3.8	3.8	3.8
87.5°	3.8	3.8	3.8	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



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— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)