

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: P593355

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

Issue Date: 9/16/2021

Test Information

Test Method: LM-41-14
Report Number: P593355
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/16/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC650D010-HM64560850-61WWBB
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4807.5 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.06 / 1.14
Luminous Opening: Circular (Dia: 0.5' x H: 0')
CIE Type: Direct

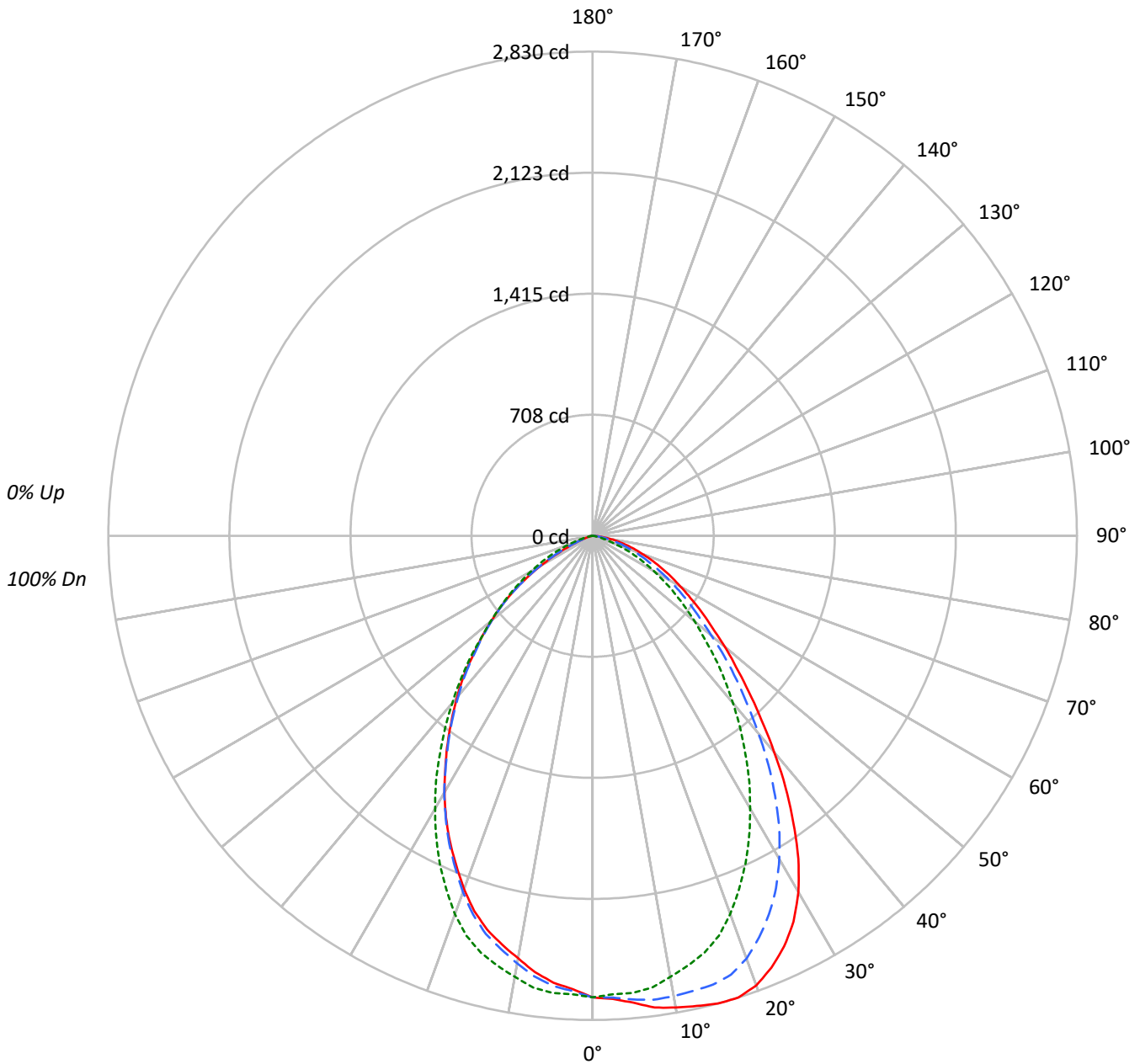
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	93	86	79	74	83	77	73	80	76	72	78	74	71	69																			
4	89	79	71	66	87	78	71	65	75	69	64	73	68	64	71	66	63	61																			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54																			
6	77	65	58	52	75	65	57	52	63	56	51	61	55	51	60	55	51	49																			
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44																			
8	67	55	48	43	66	55	47	42	53	47	42	52	46	42	51	46	42	40																			
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37																			
10	60	48	40	36	58	47	40	36	46	40	36	45	40	35	45	39	35	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	147894	147894	147894
5°	150748	147617	144277
10°	155876	145733	139616
15°	160642	143202	135233
20°	163138	137235	128164
25°	160195	127834	119348
30°	152277	116486	109523
35°	136864	104106	98778
40°	118121	91235	88251
45°	100010	78543	76481
50°	85754	66335	65687
55°	74339	55855	53676
60°	64896	45347	38275
65°	57101	34945	21170
70°	49255	23113	10338
75°	41790	11247	4024
80°	32327	4799	2399
85°	19121	2390	2390



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.6	5.3
10°-20°	719.9	15.0
20°-30°	1013.8	21.1
30°-40°	1035.8	21.5
40°-50°	835.2	17.4
50°-60°	560.2	11.7
60°-70°	283.5	5.9
70°-80°	90.6	1.9
80°-90°	14.0	0.3
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°	1988.3	41.4
0°-40°	3024.1	62.9
0°-60°	4419.4	91.9
0°-90°	4807.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4807.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2698	2698	2698	2698	2698	
5°	2739	2721	2682	2641	2622	264
15°	2830	2717	2523	2409	2383	799
25°	2648	2440	2113	1984	1973	1213
35°	2045	1859	1556	1468	1476	1273
45°	1290	1188	1013	979	986	1003
55°	778	690	584	558	562	700
65°	440	364	269	178	163	439
75°	197	140	53	19	19	212
85°	30	15	4	4	4	41
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°	2697.8	2697.8	2697.8	2697.8	2697.8	2697.8	2697.8	2697.8	2697.8
2.5°	2709.1	2705.3	2701.5	2694.0	2682.5	2671.2	2663.6	2656.1	2652.2
5°	2739.4	2731.9	2720.6	2705.3	2682.5	2656.1	2640.8	2625.7	2621.8
7.5°	2781.3	2766.0	2735.7	2701.5	2663.6	2625.7	2599.1	2583.9	2572.6
10°	2800.2	2773.7	2731.9	2675.0	2618.0	2572.6	2538.4	2515.6	2508.1
12.5°	2815.4	2785.0	2724.3	2648.4	2572.6	2511.9	2473.8	2454.9	2447.4
15°	2830.5	2800.2	2716.8	2618.0	2523.2	2451.2	2409.4	2390.5	2382.8
17.5°	2830.5	2788.8	2690.2	2564.9	2451.2	2363.9	2322.1	2303.2	2299.4
20°	2796.4	2750.9	2629.5	2481.5	2352.4	2253.8	2215.9	2204.5	2196.9
22.5°	2731.9	2678.7	2542.2	2375.2	2234.8	2140.0	2098.3	2090.6	2083.0
25°	2648.4	2595.2	2439.7	2261.4	2113.4	2018.6	1984.4	1976.9	1973.1
27.5°	2542.2	2485.3	2322.1	2140.0	1980.7	1889.6	1859.2	1859.2	1855.5
30°	2405.6	2341.1	2181.8	1999.6	1840.2	1756.7	1733.9	1733.9	1730.2
32.5°	2238.6	2174.1	2029.9	1855.5	1703.6	1616.3	1597.4	1605.0	1601.2
35°	2045.1	1992.0	1859.2	1688.5	1555.6	1476.0	1468.5	1476.0	1476.0
37.5°	1851.6	1802.3	1688.5	1540.5	1415.3	1343.2	1343.2	1354.6	1350.8
40°	1650.6	1612.5	1506.4	1377.3	1274.9	1225.5	1218.0	1229.3	1233.2
42.5°	1460.8	1430.4	1339.4	1233.2	1142.1	1092.8	1104.1	1111.7	1115.6
45°	1290.0	1259.7	1187.6	1077.5	1013.1	978.9	978.9	990.3	986.5
47.5°	1138.2	1115.6	1043.4	937.2	880.3	865.1	872.6	880.3	880.3
50°	1005.5	971.4	903.0	819.6	777.8	758.9	766.5	770.2	770.2
52.5°	880.3	857.5	789.3	713.3	675.4	664.0	664.0	667.9	667.9
55°	777.8	751.2	690.5	614.7	584.4	569.1	557.8	554.0	561.6
57.5°	679.2	656.4	599.5	527.4	493.3	478.1	455.3	447.7	455.3
60°	591.9	572.9	516.0	447.7	413.6	383.2	356.7	341.5	349.1
62.5°	516.0	493.3	436.4	379.5	341.5	307.3	265.6	242.8	254.3
65°	440.2	421.1	364.2	307.3	269.4	227.7	178.3	163.2	163.2
67.5°	371.9	352.9	299.7	250.4	204.9	155.5	110.1	106.3	110.1
70°	307.3	288.4	242.8	193.6	144.2	94.8	64.5	64.5	64.5
72.5°	254.3	231.5	189.7	140.4	91.1	49.4	34.1	37.9	37.9
75°	197.3	178.3	140.4	94.8	53.1	22.8	19.0	19.0	19.0
77.5°	148.0	132.7	98.6	60.7	26.6	7.6	7.6	7.6	7.6
80°	102.4	87.3	64.5	37.9	15.2	7.6	7.6	7.6	7.6
82.5°	60.7	53.1	37.9	19.0	7.6	3.8	3.8	3.8	3.8
85°	30.4	26.6	15.2	7.6	3.8	3.8	3.8	3.8	3.8
87.5°	7.6	7.6	3.8	3.8	0.0	3.8	3.8	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)