

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: P581188

Luminaire Tested: **HC455D010-HM44560840-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581188
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-17)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560840-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4561.6 lumens
Efficiency: N/A
Efficacy: 87.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.04 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

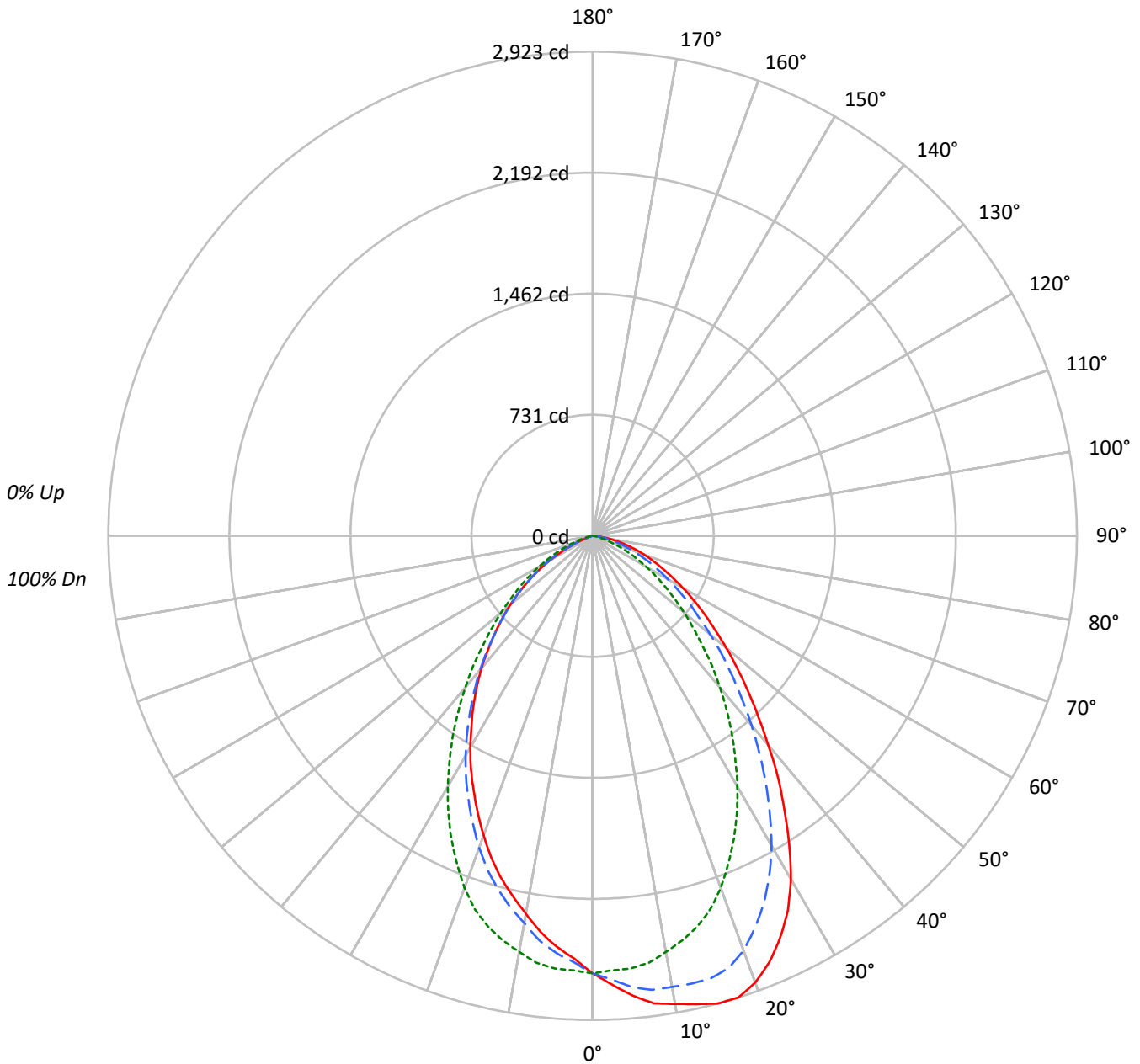
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	87	84	88	85	82	85	83	80	78																			
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69																			
4	89	79	72	66	87	78	71	65	75	69	65	73	68	64	71	67	63	61																			
5	83	72	64	58	81	71	64	58	69	62	58	67	61	57	65	60	56	55																			
6	77	66	58	52	75	65	57	52	63	57	52	61	56	51	60	55	51	49																			
7	72	60	53	47	71	59	52	47	58	51	47	57	51	46	55	50	46	44																			
8	68	56	48	43	66	55	48	43	54	47	42	53	47	42	51	46	42	40																			
9	64	52	44	39	62	51	44	39	50	43	39	49	43	39	48	43	39	37																			
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	36	34																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	325743	325743	325743
5°	345127	324672	308378
10°	359463	319471	290301
15°	373207	311810	272952
20°	376721	296848	252469
25°	364522	274535	231092
30°	340828	248792	210265
35°	303744	221168	188929
40°	265532	192350	168149
45°	231304	163168	145481
50°	201851	138392	124710
55°	176919	114727	100986
60°	154749	92657	74131
65°	134840	69083	41678
70°	117857	44719	13560
75°	96649	23257	3574
80°	72097	10726	2628
85°	42457	5236	5236



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.3	5.5
10°-20°	697.6	15.3
20°-30°	964.5	21.1
30°-40°	969.8	21.3
40°-50°	782.6	17.2
50°-60°	529.2	11.6
60°-70°	269.3	5.9
70°-80°	86.2	1.9
80°-90°	13.2	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°	1911.3	41.9
0°-40°	2881.1	63.2
0°-60°	4192.9	91.9
0°-90°	4561.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4561.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2641	2641	2641	2641	2641	
5°	2787	2735	2622	2528	2491	269
15°	2923	2765	2442	2209	2138	823
25°	2678	2446	2017	1769	1698	1226
35°	2017	1822	1469	1285	1255	1260
45°	1326	1187	935	834	834	1028
55°	823	710	534	466	470	739
65°	462	376	237	154	143	463
75°	203	143	49	11	8	219
85°	30	15	4	4	4	40
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°	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9	2640.9
2.5°	2712.3	2697.2	2682.2	2655.9	2625.9	2595.8	2577.0	2562.0	2554.5
5°	2787.4	2768.6	2734.8	2678.4	2622.2	2569.5	2528.2	2501.9	2490.6
7.5°	2847.5	2821.2	2764.8	2685.9	2599.5	2517.0	2464.3	2426.7	2411.8
10°	2870.0	2840.0	2764.8	2659.6	2550.7	2449.4	2374.2	2336.6	2317.8
12.5°	2896.3	2862.6	2768.6	2637.1	2501.9	2381.6	2295.2	2246.4	2227.6
15°	2922.6	2877.5	2764.8	2603.4	2441.8	2302.8	2208.8	2160.0	2137.5
17.5°	2922.6	2870.0	2734.8	2547.0	2363.0	2216.4	2111.2	2054.8	2036.0
20°	2870.0	2809.9	2663.4	2456.8	2261.5	2103.6	2002.3	1945.9	1923.4
22.5°	2787.4	2719.8	2562.0	2347.9	2141.2	1987.2	1885.8	1833.2	1810.7
25°	2678.4	2610.8	2445.5	2223.9	2017.2	1863.2	1769.4	1720.6	1698.0
27.5°	2550.7	2475.6	2310.3	2088.7	1885.8	1739.2	1652.8	1607.9	1589.1
30°	2393.0	2321.5	2160.0	1942.2	1746.8	1611.6	1532.7	1491.4	1476.3
32.5°	2208.8	2148.8	1991.0	1788.2	1604.0	1480.0	1408.7	1374.9	1359.9
35°	2017.2	1961.0	1821.9	1634.1	1468.8	1352.4	1284.8	1262.2	1254.7
37.5°	1837.0	1788.2	1652.8	1480.0	1329.9	1228.4	1168.3	1153.2	1145.8
40°	1649.1	1615.4	1491.4	1333.6	1194.6	1104.4	1055.6	1044.3	1044.3
42.5°	1480.0	1442.6	1333.6	1190.8	1066.8	976.7	942.9	931.6	935.4
45°	1326.0	1288.5	1187.1	1055.6	935.4	860.3	834.0	834.0	834.0
47.5°	1183.3	1149.5	1055.6	920.4	822.7	762.6	736.3	736.3	740.0
50°	1051.9	1029.3	924.1	807.6	721.2	664.9	646.1	642.4	649.9
52.5°	927.9	901.6	807.6	702.4	619.9	574.8	556.0	552.3	556.0
55°	822.7	792.7	710.0	608.5	533.5	488.4	465.9	462.0	469.6
57.5°	721.2	698.7	612.3	522.1	450.8	405.7	386.9	379.5	383.2
60°	627.3	604.8	525.9	439.5	375.6	330.5	304.3	296.8	300.5
62.5°	540.9	522.1	447.1	364.4	300.5	259.2	232.9	214.1	221.6
65°	462.0	443.2	375.6	293.1	236.7	191.6	154.0	139.0	142.8
67.5°	394.4	371.9	308.0	232.9	176.5	127.7	86.4	78.9	78.9
70°	326.8	304.3	248.0	180.3	124.0	67.6	37.6	37.6	37.6
72.5°	262.9	244.1	191.6	135.2	78.9	30.0	15.1	15.1	15.1
75°	202.8	187.9	142.8	93.9	48.8	15.1	11.2	7.5	7.5
77.5°	150.3	135.2	101.5	63.9	30.0	7.5	7.5	7.5	7.5
80°	101.5	90.1	67.6	37.6	15.1	3.7	3.7	3.7	3.7
82.5°	60.1	52.5	37.6	18.8	7.5	3.7	3.7	3.7	3.7
85°	30.0	22.5	15.1	7.5	3.7	3.7	3.7	3.7	3.7
87.5°	7.5	3.7	3.7	3.7	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)