

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: P581171

Luminaire Tested: **HC455D010-HM44560835-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581171
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-16)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560835-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5003.5 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.03 / 1.1
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

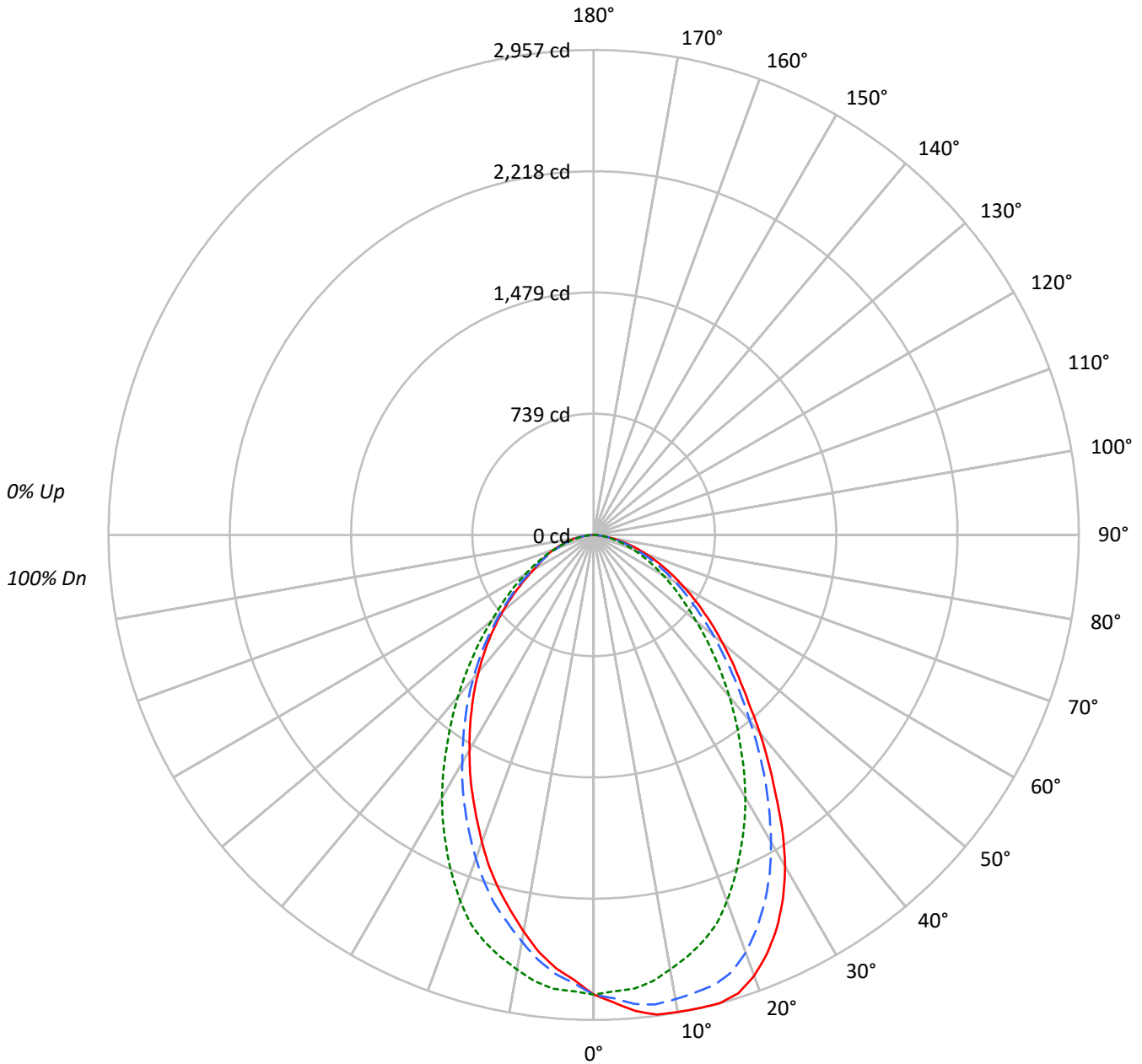
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				76				
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66				66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				42				
8	66	54	46	41	65	53	46	41	52	45	40	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°	345590	345590	345590
5°	360790	344062	328139
10°	369921	336893	307560
15°	377561	327900	285377
20°	375553	311956	261329
25°	359786	288457	237761
30°	332383	263376	215492
35°	291352	234283	195058
40°	253697	206986	175669
45°	220785	180542	156976
50°	196708	155605	138527
55°	175779	136813	119802
60°	156945	119522	103265
65°	139480	104866	98153
70°	122437	90340	91530
75°	103702	76966	84830
80°	79556	65491	77283
85°	46703	51231	65242



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.6	5.2
10°-20°	724.4	14.5
20°-30°	989.7	19.8
30°-40°	993.8	19.9
40°-50°	822.2	16.4
50°-60°	595.8	11.9
60°-70°	377.4	7.5
70°-80°	190.8	3.8
80°-90°	46.7	0.9
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°	1976.8	39.5
0°-40°	2970.6	59.4
0°-60°	4388.6	87.7
0°-90°	5003.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5003.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2802	2802	2802	2802	2802	
5°	2914	2871	2779	2686	2650	279
15°	2957	2841	2568	2330	2235	832
25°	2644	2469	2120	1852	1747	1208
35°	1935	1820	1556	1365	1295	1213
45°	1266	1193	1035	933	900	984
55°	817	745	636	580	557	735
65°	478	425	359	323	336	476
75°	218	188	162	168	178	232
85°	33	33	36	43	46	46
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°	2801.8	2801.8	2801.8	2801.8	2801.8	2801.8	2801.8	2801.8	2801.8
2.5°	2854.6	2844.7	2828.1	2808.5	2785.3	2759.0	2735.9	2722.7	2716.1
5°	2913.9	2900.7	2871.0	2828.1	2778.8	2729.2	2686.4	2660.1	2650.2
7.5°	2950.1	2930.4	2887.5	2821.6	2745.8	2673.2	2610.7	2574.3	2564.4
10°	2953.5	2930.4	2874.4	2785.3	2689.8	2594.1	2518.3	2465.5	2455.6
12.5°	2956.7	2927.0	2857.8	2752.3	2633.7	2515.0	2422.7	2360.1	2343.6
15°	2956.7	2927.0	2841.4	2716.1	2567.8	2432.6	2330.4	2257.9	2234.8
17.5°	2930.4	2897.4	2795.2	2650.2	2488.6	2337.1	2218.4	2142.6	2119.5
20°	2861.1	2824.9	2709.6	2551.3	2376.6	2218.4	2099.7	2020.6	1990.9
22.5°	2762.2	2719.4	2597.4	2426.1	2251.4	2089.8	1974.5	1892.0	1865.7
25°	2643.6	2600.8	2468.9	2300.7	2119.5	1967.8	1852.5	1776.7	1747.0
27.5°	2498.5	2452.4	2323.8	2155.7	1987.6	1836.0	1730.5	1661.3	1631.6
30°	2333.7	2284.3	2162.4	2000.8	1849.2	1704.2	1602.0	1546.0	1513.0
32.5°	2142.6	2099.7	1990.9	1845.9	1704.2	1565.7	1480.0	1430.6	1404.2
35°	1934.9	1911.8	1819.6	1694.2	1555.9	1440.4	1364.6	1318.5	1295.4
37.5°	1750.3	1727.2	1648.1	1542.6	1420.6	1315.2	1252.6	1213.0	1193.3
40°	1575.6	1555.9	1480.0	1391.1	1285.5	1193.3	1140.5	1110.8	1091.0
42.5°	1404.2	1394.3	1331.7	1249.3	1157.0	1077.9	1035.0	1011.9	995.5
45°	1265.7	1252.6	1193.3	1114.1	1035.0	969.1	932.8	916.3	899.9
47.5°	1143.8	1127.4	1064.7	995.5	923.0	863.7	830.7	814.2	807.5
50°	1025.1	1008.7	952.6	883.4	810.9	768.0	741.6	725.2	721.9
52.5°	919.7	903.2	840.5	774.6	718.5	682.3	659.2	642.7	636.2
55°	817.4	797.7	745.0	682.3	636.2	603.2	580.2	563.6	557.1
57.5°	725.2	705.4	659.2	600.0	557.1	527.4	507.6	491.2	484.5
60°	636.2	619.6	576.8	520.8	484.5	458.2	438.4	425.2	418.6
62.5°	553.7	540.6	497.7	448.3	418.6	395.6	379.0	365.8	372.5
65°	477.9	464.7	425.2	382.4	359.3	336.3	323.0	323.0	336.3
67.5°	405.4	392.3	359.3	323.0	303.3	286.8	276.9	286.8	296.7
70°	339.5	326.4	296.7	267.0	250.5	237.4	237.4	247.2	253.8
72.5°	276.9	263.7	240.6	217.6	204.4	194.5	204.4	210.9	217.6
75°	217.6	207.7	187.9	171.5	161.5	158.2	168.1	174.7	178.0
77.5°	161.5	154.9	141.8	128.6	122.0	125.2	135.1	138.5	141.8
80°	112.0	108.8	98.9	92.2	92.2	95.6	102.1	105.5	108.8
82.5°	69.2	69.2	62.7	59.3	62.7	69.2	72.6	75.8	75.8
85°	33.0	36.2	33.0	33.0	36.2	42.9	42.9	46.1	46.1
87.5°	9.9	9.9	13.2	13.2	16.4	16.4	16.4	16.4	19.8
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)