

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: P581172

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581172
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-18)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560835-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4980.4 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

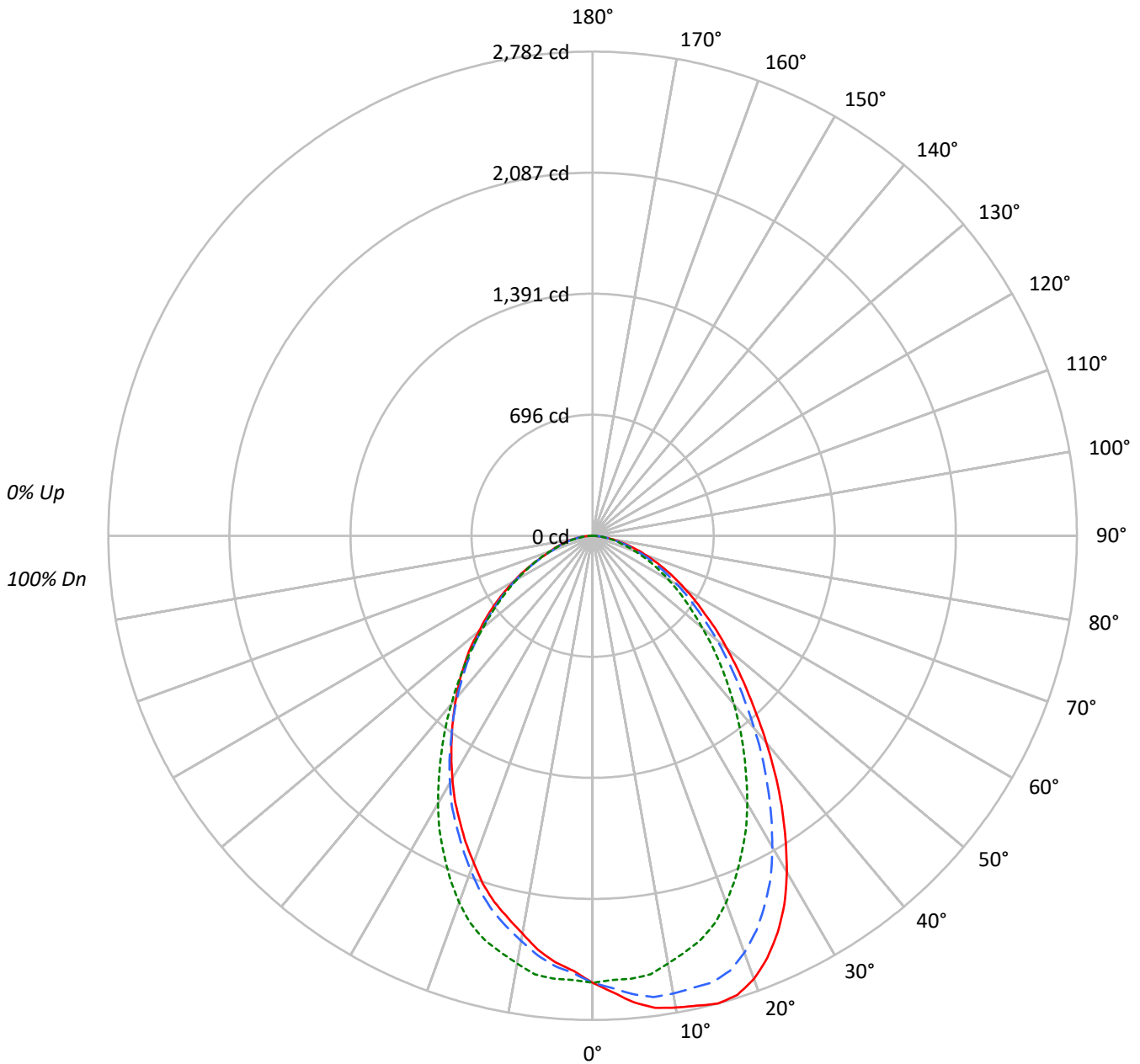
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89	87																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	60	58																			
5	81	69	61	55	79	68	60	55	66	59	54	64	58	53	62	57	53	51																			
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46																			
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41																			
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39	37																			
9	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34																			
10	58	45	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	316752	316752	316752
5°	333080	316340	304490
10°	344759	312570	290689
15°	355304	306881	278264
20°	355693	294249	262235
25°	342338	275024	245859
30°	317869	253079	229593
35°	284922	227838	212464
40°	250010	203299	196392
45°	218517	180002	181153
50°	192947	157524	163204
55°	170145	139673	146748
60°	152085	123617	128501
65°	134694	108718	108718
70°	117712	92756	92756
75°	100509	78539	87975
80°	79556	70251	79556
85°	51231	60713	74724



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.3	4.9
10°-20°	685.2	13.8
20°-30°	959.9	19.3
30°-40°	989.0	19.9
40°-50°	842.0	16.9
50°-60°	623.9	12.5
60°-70°	391.5	7.9
70°-80°	194.5	3.9
80°-90°	51.1	1.0
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°	1888.4	37.9
0°-40°	2877.4	57.8
0°-60°	4343.3	87.2
0°-90°	4980.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4980.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2568	2568	2568	2568	2568	
5°	2690	2644	2555	2482	2459	259
15°	2782	2657	2403	2228	2179	782
25°	2515	2341	2021	1846	1806	1150
35°	1892	1750	1513	1414	1411	1180
45°	1253	1167	1032	1012	1038	972
55°	791	729	650	663	682	715
65°	462	415	372	366	372	460
75°	211	188	165	178	185	225
85°	36	36	43	50	53	47
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°	2568.0	2568.0	2568.0	2568.0	2568.0	2568.0	2568.0	2568.0	2568.0
2.5°	2624.2	2614.3	2601.0	2577.9	2554.9	2535.1	2515.4	2505.5	2502.1
5°	2690.1	2670.3	2643.9	2601.0	2554.9	2515.4	2482.3	2465.9	2459.2
7.5°	2736.2	2716.4	2673.6	2607.6	2541.7	2482.3	2429.7	2406.5	2400.0
10°	2752.6	2729.6	2670.3	2581.3	2495.6	2423.0	2363.7	2334.0	2320.9
12.5°	2765.9	2736.2	2660.4	2554.9	2449.4	2360.4	2297.7	2258.2	2248.3
15°	2782.4	2749.4	2657.1	2528.5	2403.2	2297.7	2228.5	2192.3	2179.1
17.5°	2765.9	2729.6	2620.8	2475.8	2334.0	2218.6	2142.8	2109.8	2096.7
20°	2709.8	2670.3	2548.4	2393.3	2241.7	2123.0	2047.2	2014.2	1997.8
22.5°	2624.2	2581.3	2456.0	2291.2	2136.3	2020.8	1948.3	1915.3	1905.4
25°	2515.4	2472.5	2340.6	2172.5	2020.8	1908.8	1846.1	1816.4	1806.5
27.5°	2386.8	2343.9	2215.4	2050.5	1905.4	1800.0	1750.5	1720.8	1714.3
30°	2231.8	2188.9	2063.7	1912.0	1776.9	1677.9	1638.4	1615.4	1612.0
32.5°	2060.4	2024.1	1908.8	1770.3	1641.7	1559.4	1529.7	1513.1	1509.9
35°	1892.2	1852.8	1750.5	1625.3	1513.1	1440.7	1414.2	1411.0	1411.0
37.5°	1720.8	1681.3	1598.9	1483.5	1387.9	1322.0	1312.1	1315.4	1315.4
40°	1552.7	1516.5	1443.9	1348.3	1262.6	1213.2	1209.8	1216.5	1219.7
42.5°	1394.4	1364.9	1298.9	1216.5	1143.9	1104.4	1107.7	1120.8	1130.7
45°	1252.7	1226.4	1167.0	1094.5	1031.9	1002.2	1012.0	1028.6	1038.5
47.5°	1124.1	1101.0	1045.0	979.1	926.3	906.5	919.8	939.5	952.8
50°	1005.5	985.7	933.0	863.7	820.9	807.6	824.2	844.0	850.5
52.5°	900.0	880.2	824.2	764.8	731.8	725.3	741.7	758.2	768.2
55°	791.2	774.7	728.6	675.8	649.5	646.1	662.6	675.8	682.4
57.5°	702.2	685.7	642.8	596.7	573.6	570.3	586.8	596.7	600.0
60°	616.5	600.0	560.5	517.6	501.1	501.1	511.0	517.6	520.9
62.5°	537.3	520.9	484.6	448.3	435.2	435.2	435.2	438.4	448.3
65°	461.5	448.3	415.4	382.4	372.5	366.0	366.0	366.0	372.5
67.5°	392.3	379.1	352.7	323.1	313.2	303.3	300.0	306.6	306.6
70°	326.4	316.5	290.1	267.1	257.2	247.3	243.9	257.2	257.2
72.5°	267.1	257.2	240.6	217.6	207.7	204.4	210.9	217.6	220.8
75°	210.9	201.2	187.9	174.7	164.8	168.1	178.0	181.4	184.6
77.5°	158.3	154.9	141.8	131.8	131.8	135.1	141.8	148.4	151.6
80°	112.0	108.8	102.1	95.6	98.9	105.5	108.8	115.4	112.0
82.5°	69.2	69.2	65.9	65.9	69.2	75.8	79.1	82.5	85.7
85°	36.2	36.2	36.2	39.6	42.9	46.1	49.5	52.8	52.8
87.5°	9.9	13.2	13.2	16.5	19.8	19.8	23.1	23.1	23.1
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)