

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: P581153

Luminaire Tested: **HC455D010-HM44560830-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581153
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-HM44560830-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4976.8 lumens
Efficiency: N/A
Efficacy: 95.7 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

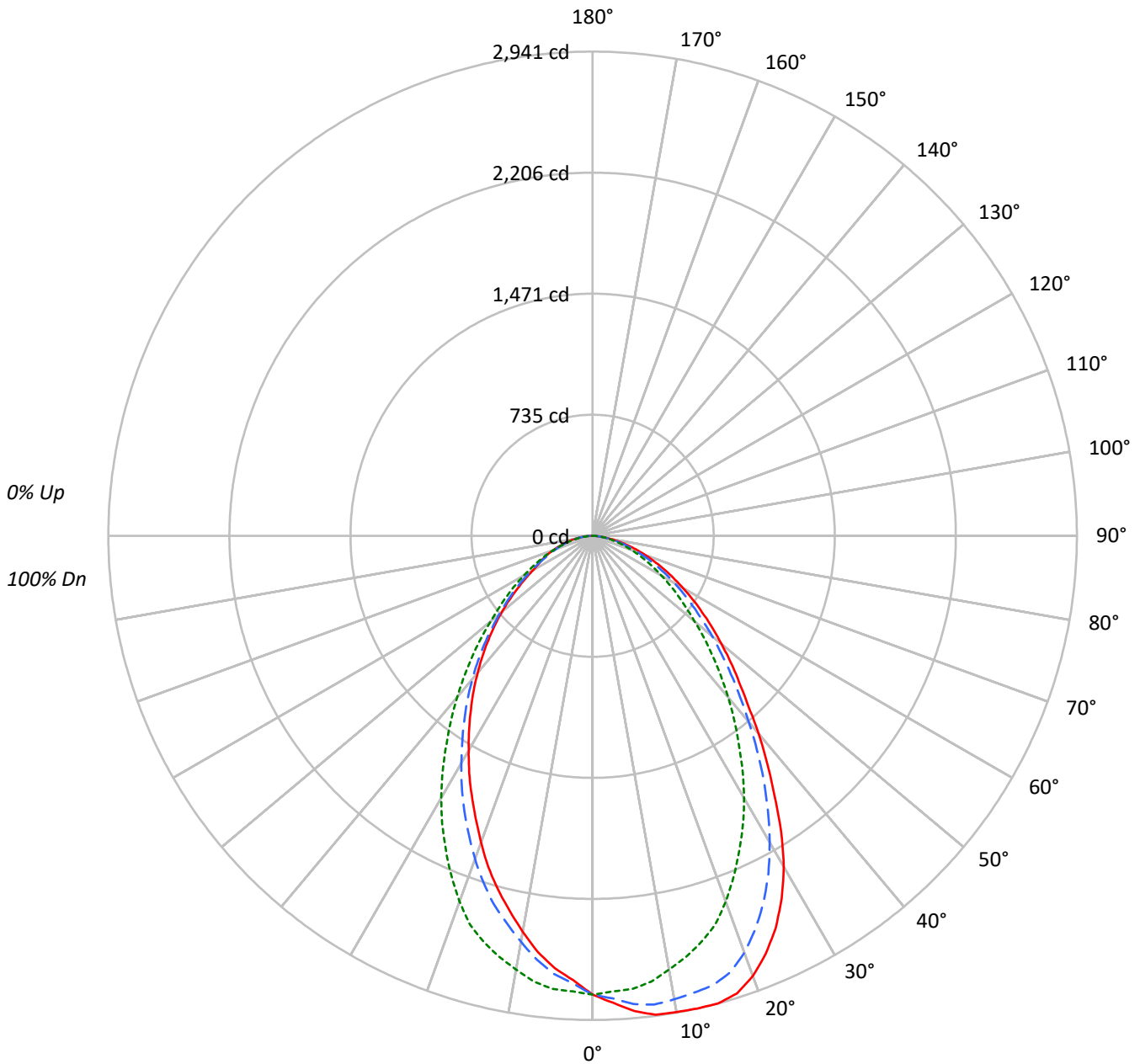
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P581153

CATALOG NUMBER: HC455D010-HM44560830-41WWW

Luminous Intensity Polar Plot





TEST NUMBER: P581153

CATALOG NUMBER: HC455D010-HM44560830-41WWW

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	72	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	343740	343740	343740
5°	358858	342217	326393
10°	367942	335090	305932
15°	375556	326150	283870
20°	373558	310303	259937
25°	357867	286919	236495
30°	330616	261981	214339
35°	289786	233033	194034
40°	252345	205892	174751
45°	219616	179583	156121
50°	195672	154761	137797
55°	174876	136081	119157
60°	156106	118905	102722
65°	138751	104311	97627
70°	121788	89871	91025
75°	103082	76537	84401
80°	79201	65207	76857
85°	46278	51090	64959



TEST NUMBER: P581153

CATALOG NUMBER: HC455D010-HM44560830-41WWW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.2	5.2
10°-20°	720.6	14.5
20°-30°	984.5	19.8
30°-40°	988.5	19.9
40°-50°	817.8	16.4
50°-60°	592.6	11.9
60°-70°	375.4	7.5
70°-80°	189.8	3.8
80°-90°	46.5	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°	1966.3	39.5
0°-40°	2954.8	59.4
0°-60°	4365.2	87.7
0°-90°	4976.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4976.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2787	2787	2787	2787	2787	
5°	2898	2856	2764	2672	2636	278
15°	2941	2826	2554	2318	2223	827
25°	2630	2456	2108	1843	1738	1202
35°	1924	1810	1548	1357	1289	1206
45°	1259	1187	1030	928	895	979
55°	813	741	633	577	554	731
65°	475	423	357	321	334	473
75°	216	187	161	167	177	231
85°	33	33	36	43	46	45
90°	0	0	0	0	0	



TEST NUMBER: P581153

CATALOG NUMBER: HC455D010-HM44560830-41WWW

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	2786.8	2786.8	2786.8	2786.8	2786.8	2786.8	2786.8	2786.8	2786.8
2.5°	2839.4	2829.5	2813.1	2793.5	2770.5	2744.2	2721.3	2708.2	2701.7
5°	2898.3	2885.3	2855.7	2813.1	2763.9	2714.7	2672.1	2645.9	2636.1
7.5°	2934.5	2914.8	2872.1	2806.5	2731.2	2659.0	2596.7	2560.6	2550.8
10°	2937.7	2914.8	2859.0	2770.5	2675.4	2580.3	2504.9	2452.5	2442.6
12.5°	2941.0	2911.5	2842.6	2737.7	2619.7	2501.7	2409.9	2347.5	2331.1
15°	2941.0	2911.5	2826.2	2701.7	2554.1	2419.6	2318.1	2246.0	2223.0
17.5°	2914.8	2881.9	2780.3	2636.1	2475.5	2324.6	2206.6	2131.2	2108.2
20°	2845.9	2809.8	2695.0	2537.7	2364.0	2206.6	2088.6	2009.8	1980.3
22.5°	2747.6	2705.0	2583.6	2413.1	2239.3	2078.7	1963.9	1882.0	1855.7
25°	2629.5	2586.9	2455.8	2288.5	2108.2	1957.4	1842.6	1767.3	1737.7
27.5°	2485.2	2439.3	2311.4	2144.2	1977.1	1826.2	1721.4	1652.5	1622.9
30°	2321.3	2272.2	2150.8	1990.1	1839.4	1695.0	1593.4	1537.6	1504.9
32.5°	2131.2	2088.6	1980.3	1836.1	1695.0	1557.3	1472.2	1422.9	1396.7
35°	1924.5	1901.6	1809.8	1685.2	1547.6	1432.8	1357.4	1311.5	1288.6
37.5°	1740.9	1718.0	1639.4	1534.4	1413.1	1308.1	1245.9	1206.6	1186.9
40°	1567.2	1547.6	1472.2	1383.6	1278.7	1186.9	1134.4	1104.9	1085.3
42.5°	1396.7	1386.9	1324.6	1242.7	1150.9	1072.1	1029.5	1006.5	990.1
45°	1259.0	1245.9	1186.9	1108.2	1029.5	963.9	927.9	911.5	895.0
47.5°	1137.7	1121.3	1059.0	990.1	918.0	859.0	826.2	809.9	803.2
50°	1019.7	1003.3	947.6	878.7	806.5	764.0	737.7	721.4	718.1
52.5°	914.7	898.3	836.1	770.5	714.7	678.7	655.8	639.3	632.8
55°	813.2	793.5	741.0	678.7	632.8	600.0	577.0	560.7	554.1
57.5°	721.4	701.7	655.8	596.7	554.1	524.6	504.9	488.5	482.0
60°	632.8	616.4	573.8	518.1	482.0	455.7	436.0	423.0	416.4
62.5°	550.8	537.8	495.1	446.0	416.4	393.4	377.1	363.9	370.5
65°	475.4	462.3	423.0	380.4	357.4	334.5	321.3	321.3	334.5
67.5°	403.3	390.2	357.4	321.3	301.6	285.3	275.4	285.3	295.1
70°	337.7	324.6	295.1	265.6	249.2	236.0	236.0	245.9	252.4
72.5°	275.4	262.3	239.4	216.3	203.3	193.4	203.3	209.8	216.3
75°	216.3	206.6	186.9	170.4	160.6	157.4	167.2	173.8	177.1
77.5°	160.6	154.1	141.0	127.9	121.3	124.5	134.4	137.7	141.0
80°	111.5	108.2	98.3	91.8	91.8	95.1	101.6	105.0	108.2
82.5°	68.9	68.9	62.3	59.1	62.3	68.9	72.1	75.4	75.4
85°	32.7	36.1	32.7	32.7	36.1	42.6	42.6	45.9	45.9
87.5°	9.8	9.8	13.2	13.2	16.4	16.4	16.4	16.4	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





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







(END OF REPORT)