

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: P592959

Luminaire Tested: **HC460D010-HM44560850-41WWBB**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592959
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: HC460D010-HM44560850-41WWBB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" 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: 4745.9 lumens
Efficiency: N/A
Efficacy: 86.3 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

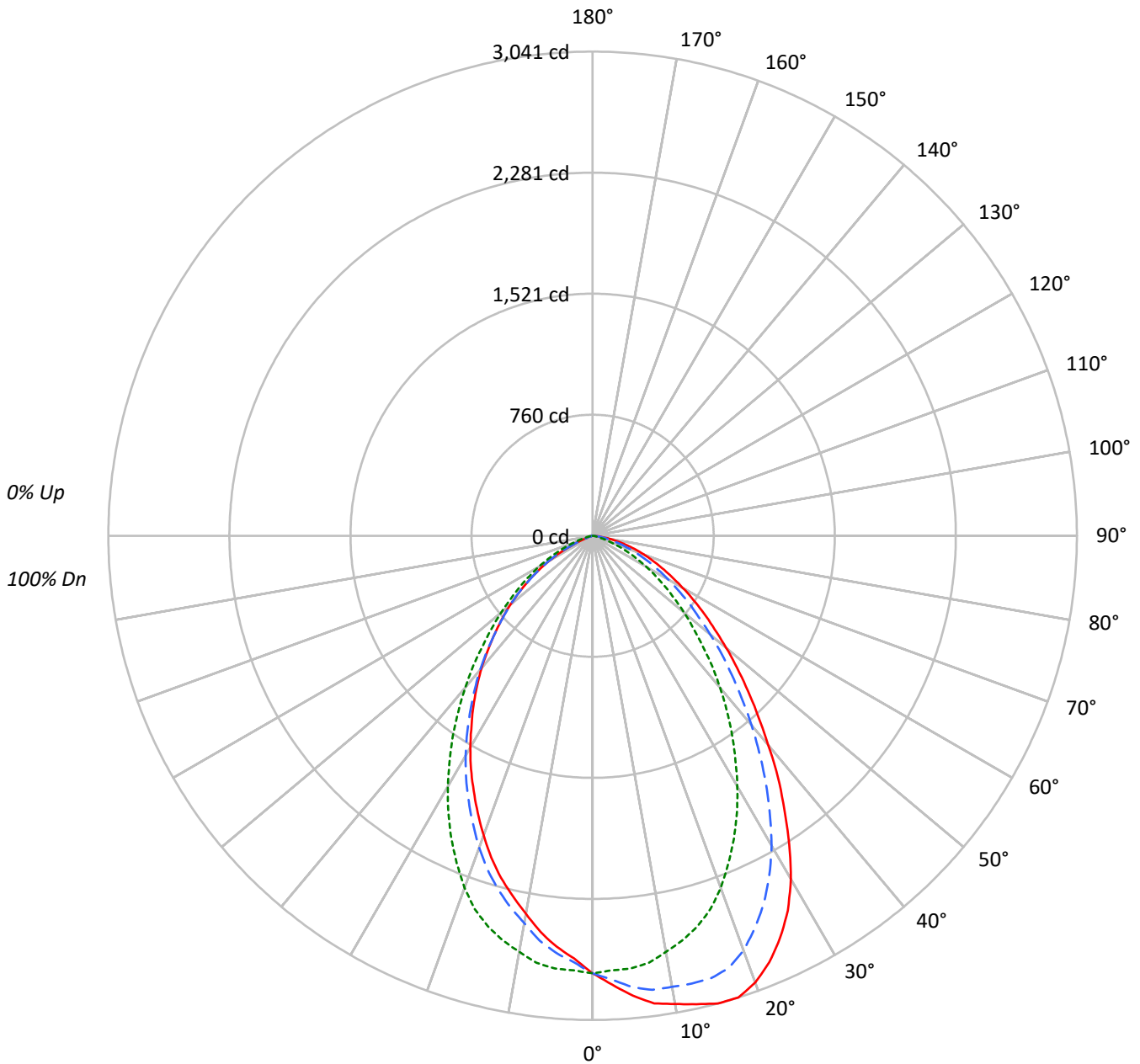
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	338904	338904	338904
5°	359069	337785	320834
10°	373979	332372	302024
15°	388275	324401	283985
20°	391934	308832	262668
25°	379247	285640	240429
30°	354587	258833	218768
35°	316031	230112	196563
40°	276272	200111	174944
45°	240671	169745	151359
50°	210006	143976	129738
55°	184058	119351	105050
60°	161015	96432	77140
65°	140327	71856	43370
70°	122617	46486	14065
75°	100556	24210	3717
80°	75010	11152	2770
85°	44155	5519	5519



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.3	5.5
10°-20°	725.7	15.3
20°-30°	1003.5	21.1
30°-40°	1009.0	21.3
40°-50°	814.2	17.2
50°-60°	550.5	11.6
60°-70°	280.2	5.9
70°-80°	89.7	1.9
80°-90°	13.7	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°	1988.5	41.9
0°-40°	2997.5	63.2
0°-60°	4362.2	91.9
0°-90°	4745.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4745.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2748	2748	2748	2748	2748	
5°	2900	2845	2728	2630	2591	279
15°	3041	2876	2540	2298	2224	856
25°	2787	2544	2099	1841	1767	1275
35°	2099	1896	1528	1337	1305	1311
45°	1380	1235	973	868	868	1069
55°	856	739	555	485	488	769
65°	481	391	246	160	149	482
75°	211	149	51	12	8	227
85°	31	16	4	4	4	42
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°	2747.6	2747.6	2747.6	2747.6	2747.6	2747.6	2747.6	2747.6	2747.6
2.5°	2821.8	2806.2	2790.6	2763.1	2731.9	2700.7	2681.1	2665.5	2657.7
5°	2900.0	2880.5	2845.3	2786.6	2728.1	2673.2	2630.3	2603.0	2591.2
7.5°	2962.5	2935.2	2876.5	2794.5	2704.6	2618.5	2563.8	2524.8	2509.1
10°	2985.9	2954.7	2876.5	2767.1	2653.7	2548.3	2470.1	2431.0	2411.4
12.5°	3013.3	2978.1	2880.5	2743.6	2603.0	2477.9	2388.0	2337.2	2317.6
15°	3040.6	2993.8	2876.5	2708.4	2540.4	2395.8	2298.1	2247.3	2223.9
17.5°	3040.6	2985.9	2845.3	2649.9	2458.4	2306.0	2196.4	2137.9	2118.3
20°	2985.9	2923.4	2771.0	2556.0	2352.8	2188.7	2083.2	2024.5	2001.1
22.5°	2900.0	2829.6	2665.5	2442.7	2227.8	2067.5	1961.9	1907.2	1883.9
25°	2786.6	2716.3	2544.3	2313.8	2098.8	1938.6	1840.8	1790.0	1766.6
27.5°	2653.7	2575.6	2403.7	2173.0	1961.9	1809.5	1719.6	1672.8	1653.2
30°	2489.6	2415.4	2247.3	2020.6	1817.3	1676.7	1594.7	1551.6	1536.0
32.5°	2298.1	2235.6	2071.5	1860.4	1668.9	1539.8	1465.6	1430.4	1414.9
35°	2098.8	2040.1	1895.5	1700.1	1528.2	1407.0	1336.7	1313.2	1305.4
37.5°	1911.2	1860.4	1719.6	1539.8	1383.6	1278.0	1215.5	1199.9	1192.1
40°	1715.8	1680.6	1551.6	1387.4	1242.8	1149.1	1098.2	1086.5	1086.5
42.5°	1539.8	1500.8	1387.4	1239.0	1110.0	1016.2	981.0	969.3	973.1
45°	1379.7	1340.5	1235.0	1098.2	973.1	895.0	867.7	867.7	867.7
47.5°	1231.1	1195.9	1098.2	957.6	855.9	793.4	766.0	766.0	770.0
50°	1094.4	1070.9	961.5	840.2	750.3	691.8	672.3	668.3	676.1
52.5°	965.3	938.0	840.2	730.8	644.9	598.0	578.4	574.5	578.4
55°	855.9	824.7	738.7	633.1	555.0	508.1	484.6	480.8	488.5
57.5°	750.3	727.0	637.1	543.2	469.0	422.1	402.6	394.7	398.6
60°	652.7	629.2	547.2	457.3	390.9	343.9	316.6	308.7	312.7
62.5°	562.8	543.2	465.1	379.1	312.7	269.7	242.3	222.8	230.6
65°	480.8	461.2	390.9	304.9	246.2	199.3	160.3	144.6	148.6
67.5°	410.4	386.9	320.5	242.3	183.6	132.9	89.9	82.1	82.1
70°	340.0	316.6	258.0	187.6	128.9	70.4	39.0	39.0	39.0
72.5°	273.5	254.0	199.3	140.7	82.1	31.2	15.7	15.7	15.7
75°	211.0	195.4	148.6	97.7	50.8	15.7	11.7	7.8	7.8
77.5°	156.3	140.7	105.6	66.4	31.2	7.8	7.8	7.8	7.8
80°	105.6	93.8	70.4	39.0	15.7	3.9	3.9	3.9	3.9
82.5°	62.5	54.7	39.0	19.5	7.8	3.9	3.9	3.9	3.9
85°	31.2	23.5	15.7	7.8	3.9	3.9	3.9	3.9	3.9
87.5°	7.8	3.9	3.9	3.9	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)