

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: P592852

Luminaire Tested: **HC445D010-HM44560850-41WWW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P592852
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: HC445D010-HM44560850-41WWW
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, WHITE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5150.7 lumens
Efficiency: N/A
Efficacy: 117.1 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

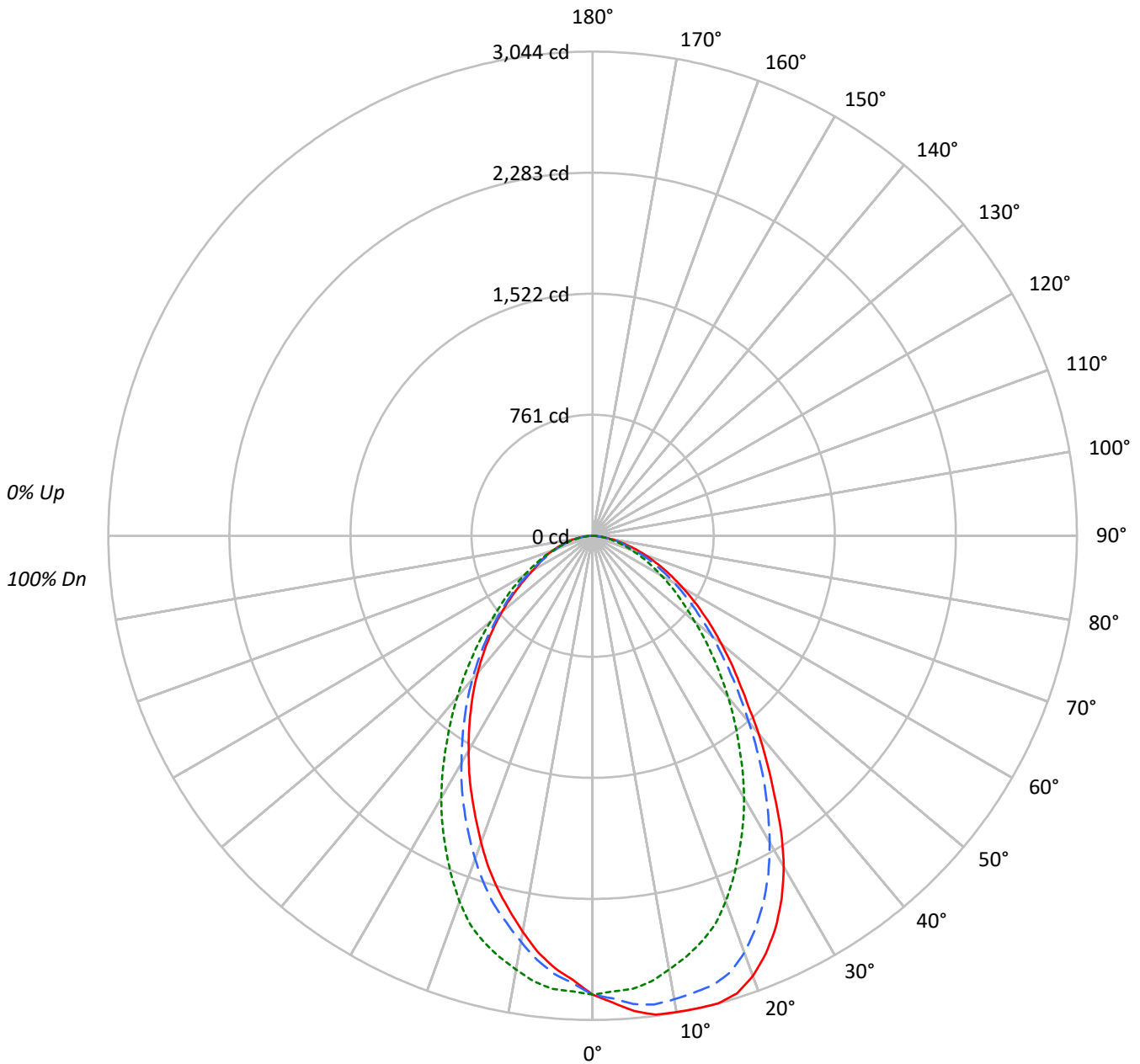
Input Watts (W): 44
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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								
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°	355753	355753	355753
5°	371413	354178	337785
10°	380805	346800	316628
15°	388683	337541	293792
20°	386618	321132	269034
25°	370374	296936	244770
30°	342167	271125	221816
35°	299935	241180	200795
40°	261168	213089	180837
45°	227291	185863	161581
50°	202523	160191	142595
55°	180962	140834	123329
60°	161558	123050	106324
65°	143595	107930	101013
70°	126043	92973	94235
75°	106752	79254	87308
80°	81900	67480	79556
85°	47976	52930	67224



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.4	5.2
10°-20°	745.7	14.5
20°-30°	1018.9	19.8
30°-40°	1023.1	19.9
40°-50°	846.3	16.4
50°-60°	613.3	11.9
60°-70°	388.5	7.5
70°-80°	196.4	3.8
80°-90°	48.1	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°	2035.0	39.5
0°-40°	3058.0	59.4
0°-60°	4517.7	87.7
0°-90°	5150.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5150.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2884	2884	2884	2884	2884	
5°	3000	2956	2860	2766	2728	287
15°	3044	2925	2643	2399	2301	856
25°	2721	2542	2182	1907	1798	1244
35°	1992	1873	1602	1405	1334	1249
45°	1303	1228	1066	960	926	1013
55°	842	767	655	597	574	757
65°	492	438	370	333	346	490
75°	224	193	166	173	183	239
85°	34	34	37	44	48	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°	2884.2	2884.2	2884.2	2884.2	2884.2	2884.2	2884.2	2884.2	2884.2
2.5°	2938.5	2928.4	2911.4	2891.1	2867.3	2840.1	2816.4	2802.9	2796.0
5°	2999.7	2986.1	2955.5	2911.4	2860.5	2809.6	2765.5	2738.4	2728.1
7.5°	3036.9	3016.6	2972.5	2904.6	2826.5	2751.9	2687.4	2650.2	2640.0
10°	3040.4	3016.6	2958.9	2867.3	2768.9	2670.5	2592.4	2538.2	2528.0
12.5°	3043.8	3013.2	2941.9	2833.4	2711.2	2589.0	2494.0	2429.6	2412.6
15°	3043.8	3013.2	2924.9	2796.0	2643.3	2504.2	2399.1	2324.3	2300.7
17.5°	3016.6	2982.6	2877.5	2728.1	2561.9	2405.8	2283.6	2205.6	2181.8
20°	2945.4	2908.0	2789.3	2626.4	2446.5	2283.6	2161.5	2080.1	2049.6
22.5°	2843.5	2799.4	2673.8	2497.5	2317.6	2151.3	2032.5	1947.7	1920.5
25°	2721.4	2677.3	2541.6	2368.4	2181.8	2025.8	1907.0	1829.0	1798.5
27.5°	2572.1	2524.6	2392.2	2219.2	2046.1	1890.0	1781.4	1710.2	1679.6
30°	2402.4	2351.5	2225.9	2059.7	1903.6	1754.4	1649.1	1591.4	1557.4
32.5°	2205.6	2161.5	2049.6	1900.2	1754.4	1611.8	1523.6	1472.6	1445.5
35°	1991.9	1968.1	1873.1	1744.1	1601.7	1482.8	1404.9	1357.3	1333.5
37.5°	1801.8	1778.0	1696.6	1588.1	1462.5	1353.9	1289.4	1248.7	1228.4
40°	1622.0	1601.7	1523.6	1431.9	1323.4	1228.4	1174.1	1143.5	1123.1
42.5°	1445.5	1435.4	1370.9	1286.0	1191.0	1109.5	1065.5	1041.8	1024.7
45°	1303.0	1289.4	1228.4	1146.9	1065.5	997.6	960.3	943.3	926.3
47.5°	1177.4	1160.5	1096.0	1024.7	950.1	889.1	855.1	838.1	831.3
50°	1055.4	1038.3	980.6	909.4	834.8	790.7	763.5	746.5	743.1
52.5°	946.7	929.8	865.3	797.4	739.7	702.4	678.7	661.6	654.9
55°	841.5	821.2	766.9	702.4	654.9	620.9	597.2	580.3	573.5
57.5°	746.5	726.2	678.7	617.5	573.5	542.9	522.5	505.6	498.8
60°	654.9	638.0	593.8	536.1	498.8	471.7	451.3	437.7	431.0
62.5°	570.1	556.5	512.4	461.5	431.0	407.2	390.2	376.7	383.4
65°	492.0	478.4	437.7	393.6	369.8	346.1	332.6	332.6	346.1
67.5°	417.4	403.8	369.8	332.6	312.1	295.2	285.0	295.2	305.4
70°	349.5	335.9	305.4	274.9	257.8	244.3	244.3	254.5	261.3
72.5°	285.0	271.4	247.7	224.0	210.4	200.2	210.4	217.2	224.0
75°	224.0	213.7	193.4	176.5	166.3	162.9	173.0	179.9	183.2
77.5°	166.3	159.4	145.9	132.3	125.6	128.9	139.1	142.5	145.9
80°	115.3	112.0	101.8	95.0	95.0	98.4	105.2	108.6	112.0
82.5°	71.2	71.2	64.5	61.0	64.5	71.2	74.6	78.1	78.1
85°	33.9	37.4	33.9	33.9	37.4	44.1	44.1	47.5	47.5
87.5°	10.2	10.2	13.6	13.6	16.9	16.9	16.9	16.9	20.3
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)