

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: P581154

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581154
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-HM44560830-41WWWB
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, BLACK BAFFLE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4953.9 lumens
Efficiency: N/A
Efficacy: 95.3 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

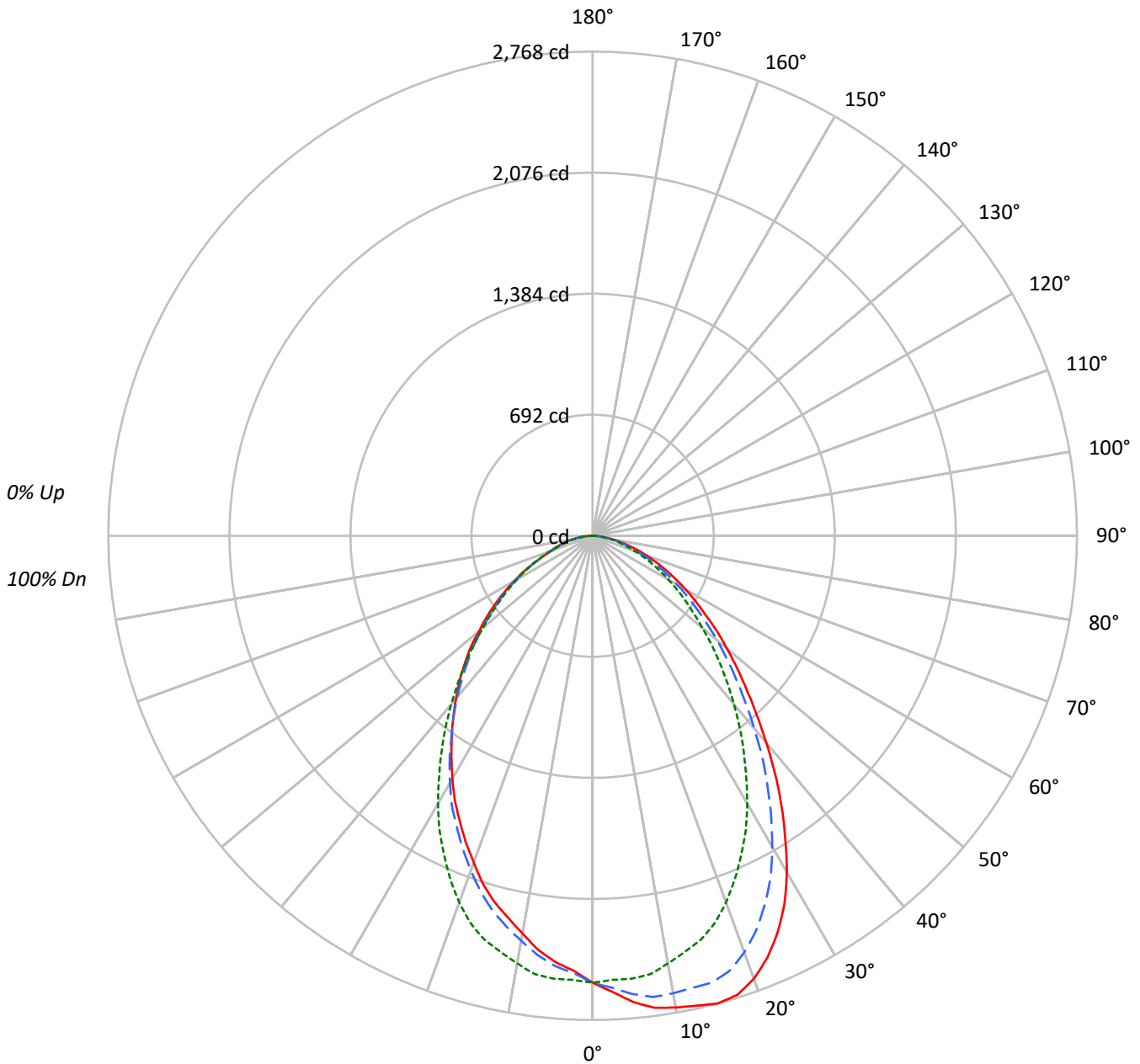
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	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°	315074	315074	315074
5°	331297	314656	302881
10°	342930	310904	289136
15°	353401	305246	276770
20°	353803	292687	260830
25°	340501	273555	244566
30°	316189	251726	228382
35°	283416	226634	211320
40°	248674	202204	195361
45°	217349	179025	180176
50°	191911	156680	162340
55°	169220	138920	145974
60°	151271	122951	127811
65°	133993	108164	108164
70°	117099	92215	92215
75°	99985	78110	87498
80°	79201	69824	79201
85°	51090	60289	74158



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.0	4.9
10°-20°	681.5	13.8
20°-30°	954.8	19.3
30°-40°	983.7	19.9
40°-50°	837.5	16.9
50°-60°	620.5	12.5
60°-70°	389.4	7.9
70°-80°	193.5	3.9
80°-90°	50.8	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°	1878.4	37.9
0°-40°	2862.1	57.8
0°-60°	4320.1	87.2
0°-90°	4953.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4953.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2554	2554	2554	2554	2554	
5°	2676	2630	2541	2469	2446	257
15°	2768	2643	2390	2217	2167	778
25°	2502	2328	2010	1836	1797	1144
35°	1882	1741	1505	1407	1403	1174
45°	1246	1161	1026	1007	1033	967
55°	787	725	646	659	679	712
65°	459	413	371	364	371	458
75°	210	187	164	177	184	224
85°	36	36	43	49	52	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°	2554.4	2554.4	2554.4	2554.4	2554.4	2554.4	2554.4	2554.4	2554.4
2.5°	2610.1	2600.3	2587.2	2564.2	2541.3	2521.6	2501.9	2492.1	2488.8
5°	2675.7	2656.0	2629.8	2587.2	2541.3	2501.9	2469.2	2452.7	2446.2
7.5°	2721.6	2701.9	2659.4	2593.8	2528.2	2469.2	2416.7	2393.8	2387.1
10°	2738.0	2715.1	2656.0	2567.5	2482.3	2410.1	2351.1	2321.5	2308.5
12.5°	2751.2	2721.6	2646.2	2541.3	2436.3	2347.9	2285.5	2246.2	2236.3
15°	2767.5	2734.8	2643.0	2515.0	2390.4	2285.5	2216.7	2180.6	2167.4
17.5°	2751.2	2715.1	2606.8	2462.6	2321.5	2206.8	2131.4	2098.6	2085.5
20°	2695.4	2656.0	2534.7	2380.6	2229.8	2111.7	2036.4	2003.5	1987.1
22.5°	2610.1	2567.5	2442.9	2278.9	2124.8	2010.0	1937.9	1905.2	1895.3
25°	2501.9	2459.4	2328.2	2160.9	2010.0	1898.6	1836.3	1806.8	1797.0
27.5°	2374.1	2331.5	2203.5	2039.6	1895.3	1790.3	1741.2	1711.7	1705.2
30°	2220.0	2177.3	2052.7	1901.8	1767.4	1669.0	1629.7	1606.7	1603.5
32.5°	2049.4	2013.3	1898.6	1760.8	1632.9	1551.0	1521.4	1505.1	1501.8
35°	1882.2	1842.9	1741.2	1616.6	1505.1	1432.9	1406.7	1403.4	1403.4
37.5°	1711.7	1672.3	1590.3	1475.6	1380.5	1314.9	1305.1	1308.4	1308.4
40°	1544.4	1508.4	1436.3	1341.1	1255.8	1206.7	1203.4	1209.9	1213.3
42.5°	1387.0	1357.5	1292.0	1209.9	1137.8	1098.4	1101.8	1114.9	1124.8
45°	1246.0	1219.8	1160.8	1088.7	1026.3	996.9	1006.6	1023.1	1032.9
47.5°	1118.1	1095.2	1039.5	973.9	921.4	901.8	914.8	934.5	947.7
50°	1000.1	980.4	928.0	859.2	816.5	803.4	819.8	839.5	846.0
52.5°	895.2	875.5	819.8	760.7	728.0	721.4	737.8	754.2	764.0
55°	786.9	770.6	724.7	672.2	646.0	642.7	659.1	672.2	678.8
57.5°	698.4	682.1	639.4	593.6	570.6	567.2	583.6	593.6	596.8
60°	613.2	596.8	557.4	514.8	498.4	498.4	508.3	514.8	518.1
62.5°	534.5	518.1	482.1	446.0	432.8	432.8	432.8	436.2	446.0
65°	459.1	446.0	413.2	380.4	370.6	363.9	363.9	363.9	370.6
67.5°	390.3	377.1	350.9	321.3	311.5	301.7	298.3	305.0	305.0
70°	324.7	314.8	288.6	265.6	255.7	245.9	242.7	255.7	255.7
72.5°	265.6	255.7	239.4	216.4	206.6	203.3	209.8	216.4	219.7
75°	209.8	200.0	186.9	173.8	163.9	167.3	177.1	180.3	183.6
77.5°	157.4	154.1	141.0	131.2	131.2	134.4	141.0	147.6	150.9
80°	111.5	108.2	101.7	95.1	98.3	105.0	108.2	114.8	111.5
82.5°	68.9	68.9	65.6	65.6	68.9	75.4	78.8	82.0	85.3
85°	36.1	36.1	36.1	39.4	42.6	45.9	49.2	52.4	52.4
87.5°	9.8	13.2	13.2	16.4	19.7	19.7	23.0	23.0	23.0
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)