

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: P581150

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

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581150
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-14)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 9/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO COMMERCIAL
Catalog Number: HC455D010-HM44560830-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5055.5 lumens
Efficiency: N/A
Efficacy: 97.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.15 / 1.21
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

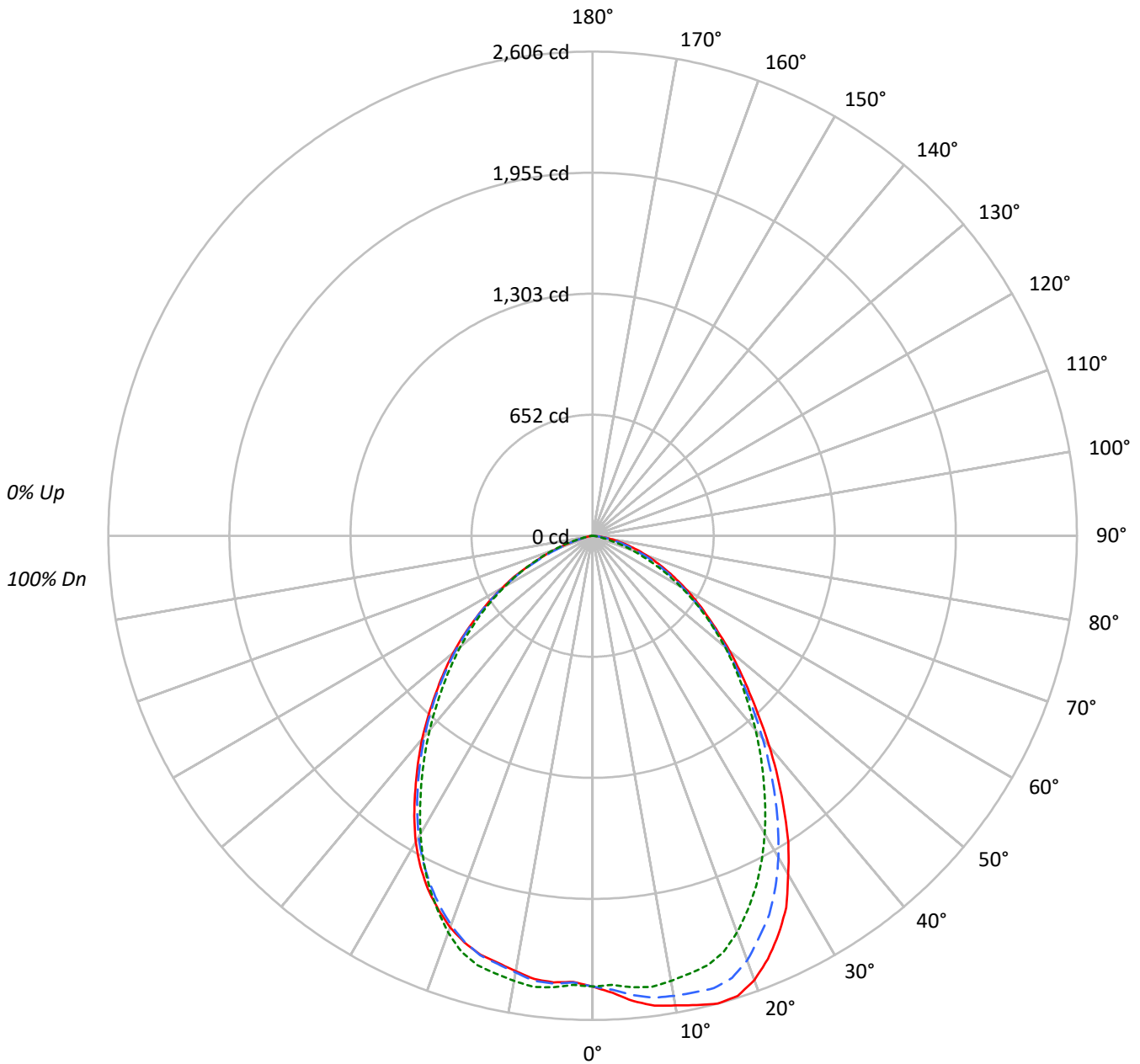
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76								
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67								
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58								
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41								
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37								
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34								
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	299249	299249	299249
5°	311350	302002	298758
10°	321513	304679	298116
15°	332829	305604	298083
20°	333943	298213	294354
25°	322141	283326	285558
30°	299781	263818	271281
35°	270015	241390	250289
40°	238079	219594	229641
45°	208173	197864	207580
50°	184312	178037	187478
55°	162167	157221	163564
60°	144758	134249	138295
65°	127251	109068	107171
70°	111113	80422	73318
75°	92169	48420	39079
80°	69824	18610	11649
85°	32550	4670	4670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.0	4.6
10°-20°	682.9	13.5
20°-30°	989.0	19.6
30°-40°	1043.4	20.6
40°-50°	903.0	17.9
50°-60°	668.9	13.2
60°-70°	385.6	7.6
70°-80°	134.7	2.7
80°-90°	14.2	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°	1905.8	37.7
0°-40°	2949.2	58.3
0°-60°	4521.1	89.4
0°-90°	5055.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5055.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2426	2426	2426	2426	2426	
5°	2515	2482	2439	2419	2413	242
15°	2606	2521	2393	2338	2334	733
25°	2367	2249	2082	2069	2098	1083
35°	1793	1711	1603	1639	1662	1120
45°	1193	1161	1134	1177	1190	926
55°	754	738	731	757	761	680
65°	436	410	374	354	367	436
75°	193	164	102	82	82	208
85°	23	13	3	3	3	36
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°	2426.1	2426.1	2426.1	2426.1	2426.1	2426.1	2426.1	2426.1	2426.1
2.5°	2462.1	2455.5	2445.8	2432.6	2419.4	2409.6	2406.4	2403.1	2403.1
5°	2514.6	2501.4	2481.8	2455.5	2439.1	2429.3	2419.4	2412.9	2412.9
7.5°	2550.6	2537.5	2508.0	2472.0	2449.0	2429.3	2416.2	2406.4	2406.4
10°	2567.0	2550.6	2514.6	2468.7	2432.6	2406.4	2386.7	2380.2	2380.2
12.5°	2586.7	2567.0	2517.9	2458.8	2412.9	2380.2	2360.5	2354.0	2354.0
15°	2606.4	2583.5	2521.1	2452.3	2393.2	2354.0	2337.5	2334.3	2334.3
17.5°	2596.5	2567.0	2494.9	2412.9	2347.3	2308.0	2291.6	2291.6	2294.9
20°	2544.1	2514.6	2432.6	2340.8	2271.9	2242.5	2229.3	2235.9	2242.5
22.5°	2465.3	2429.3	2340.8	2252.2	2180.1	2153.9	2153.9	2163.7	2173.6
25°	2367.0	2334.3	2249.0	2150.7	2081.8	2062.1	2068.6	2085.1	2098.2
27.5°	2255.5	2219.5	2131.0	2039.2	1970.3	1960.5	1976.8	1999.8	2006.4
30°	2104.8	2075.3	1999.8	1911.4	1852.3	1849.0	1872.0	1888.4	1904.7
32.5°	1960.5	1927.7	1855.6	1770.3	1727.8	1731.0	1757.2	1776.9	1786.7
35°	1793.2	1763.8	1711.4	1642.5	1603.1	1609.6	1639.2	1658.9	1662.2
37.5°	1636.0	1616.3	1563.9	1511.3	1481.9	1495.0	1521.2	1544.2	1544.2
40°	1478.6	1462.2	1422.8	1380.3	1363.8	1380.3	1406.5	1426.2	1426.2
42.5°	1327.7	1317.9	1285.1	1255.6	1245.8	1268.8	1291.7	1308.0	1304.8
45°	1193.4	1183.5	1160.6	1137.6	1134.3	1157.3	1177.0	1186.8	1190.0
47.5°	1072.0	1065.5	1045.8	1029.4	1029.4	1052.3	1068.8	1078.6	1081.9
50°	960.5	954.0	937.6	924.5	927.8	950.7	963.9	973.7	977.0
52.5°	849.2	845.9	832.7	816.3	826.2	842.5	858.9	865.5	868.8
55°	754.1	754.1	737.7	724.5	731.1	747.4	757.4	760.6	760.6
57.5°	668.8	665.6	645.9	632.7	636.0	652.4	658.9	662.3	662.3
60°	586.8	583.5	563.8	544.2	544.2	554.1	557.3	560.6	560.6
62.5°	508.2	504.9	482.0	465.5	459.0	455.7	455.7	462.3	475.4
65°	436.0	432.8	409.8	383.6	373.7	363.9	354.0	360.7	367.2
67.5°	370.5	363.9	341.0	318.0	295.1	278.7	262.2	272.1	285.2
70°	308.1	301.6	275.4	249.2	223.0	196.6	183.6	196.6	203.3
72.5°	249.2	242.6	216.3	190.1	157.4	131.2	127.9	131.2	134.4
75°	193.4	190.1	163.9	134.4	101.6	82.0	82.0	82.0	82.0
77.5°	144.2	137.7	111.5	85.3	59.1	45.9	42.6	42.6	42.6
80°	98.3	91.8	68.9	49.2	26.2	19.7	19.7	16.4	16.4
82.5°	55.7	52.4	36.1	19.7	9.8	6.5	6.5	6.5	6.5
85°	23.0	19.7	13.2	6.5	3.3	3.3	3.3	3.3	3.3
87.5°	3.3	3.3	3.3	0.0	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)