

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: P581168

Luminaire Tested: **HC455D010-HM44560835-41RWWC**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581168
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-HM44560835-41RWWC
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5082.5 lumens
Efficiency: N/A
Efficacy: 97.7 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

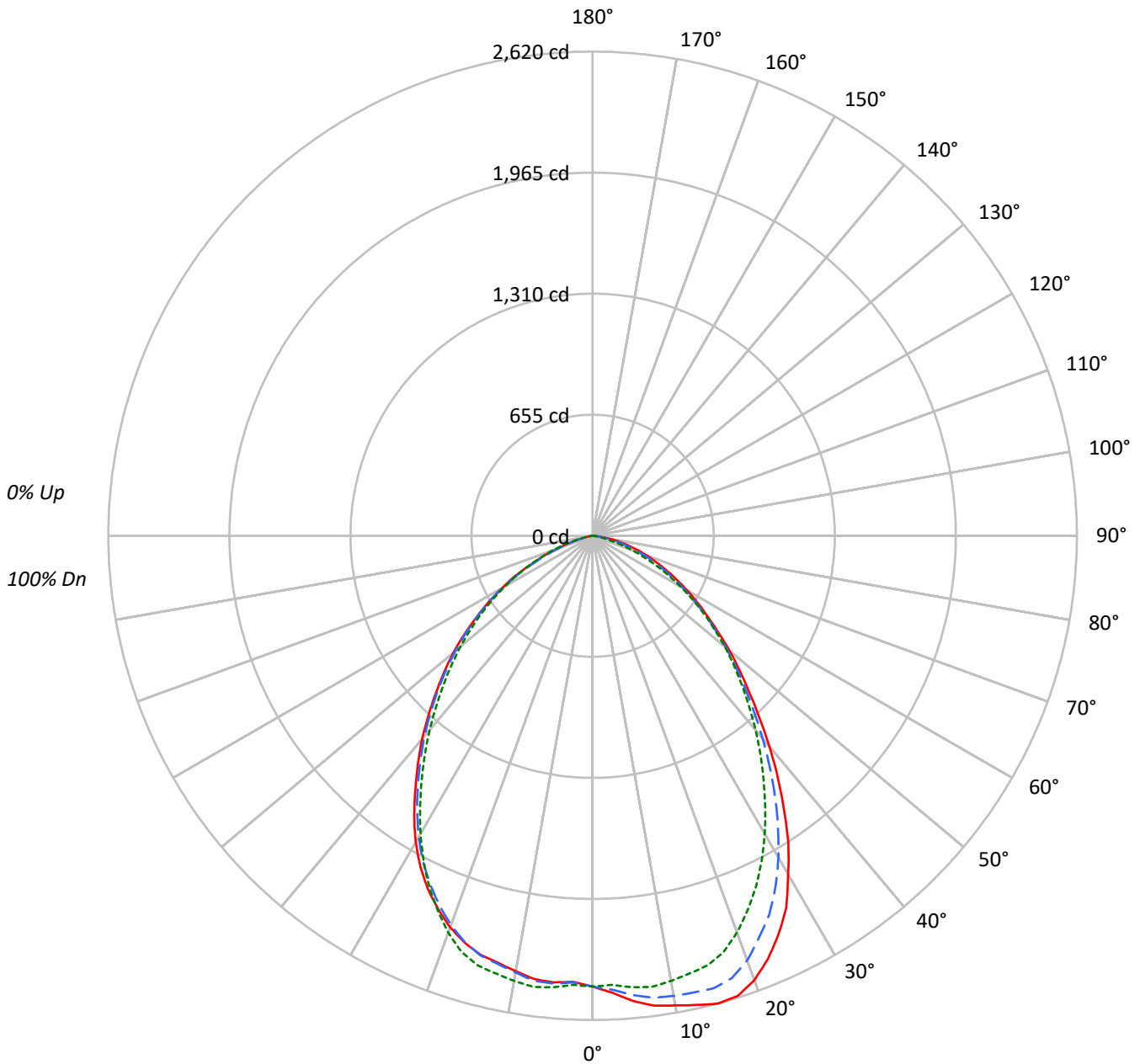
Input Watts (W): 52
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				100				
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76				76				
3	95	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	69	67				67				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				58				
5	81	70	61	56	79	68	61	55	66	60	55	65	59	54	63	58	54	52				52				
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46				46				
7	70	58	50	44	69	57	49	44	56	49	44	54	48	44	53	47	43	41				41				
8	66	53	45	40	64	53	45	40	51	44	40	50	44	39	49	43	39	37				37				
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34				34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31				31				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	300840	300840	300840
5°	313009	303624	300355
10°	323241	306308	299707
15°	334617	307238	299679
20°	335728	299815	295929
25°	323870	284851	287083
30°	301376	265228	272748
35°	271476	242700	251630
40°	239351	220769	230849
45°	209272	198928	208696
50°	185310	178977	188476
55°	163005	158059	164446
60°	145523	134965	139035
65°	127952	109681	107726
70°	111726	80819	73678
75°	92693	48658	39269
80°	70251	18681	11649
85°	32692	4670	4670



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.2	4.6
10°-20°	686.5	13.5
20°-30°	994.2	19.6
30°-40°	1049.0	20.6
40°-50°	907.8	17.9
50°-60°	672.5	13.2
60°-70°	387.7	7.6
70°-80°	135.4	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°	1916.0	37.7
0°-40°	2965.0	58.3
0°-60°	4545.3	89.4
0°-90°	5082.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5082.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2439	2439	2439	2439	2439	
5°	2528	2495	2452	2432	2426	243
15°	2620	2535	2406	2350	2347	737
25°	2380	2261	2093	2080	2109	1089
35°	1803	1720	1612	1648	1671	1126
45°	1200	1167	1140	1183	1196	931
55°	758	742	735	761	765	684
65°	438	412	376	356	369	438
75°	194	165	102	82	82	209
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°	2439.0	2439.0	2439.0	2439.0	2439.0	2439.0	2439.0	2439.0	2439.0
2.5°	2475.2	2468.7	2458.8	2445.6	2432.5	2422.6	2419.2	2415.9	2415.9
5°	2528.0	2514.8	2495.0	2468.7	2452.2	2442.3	2432.5	2425.8	2425.8
7.5°	2564.2	2551.0	2521.5	2485.1	2462.1	2442.3	2429.1	2419.2	2419.2
10°	2580.8	2564.2	2528.0	2481.9	2445.6	2419.2	2399.5	2392.9	2392.9
12.5°	2600.5	2580.8	2531.4	2472.0	2425.8	2392.9	2373.1	2366.5	2366.5
15°	2620.4	2597.2	2534.6	2465.4	2406.0	2366.5	2350.0	2346.8	2346.8
17.5°	2610.5	2580.8	2508.2	2425.8	2359.9	2320.3	2303.9	2303.9	2307.2
20°	2557.7	2528.0	2445.6	2353.3	2284.1	2254.5	2241.2	2247.9	2254.5
22.5°	2478.6	2442.3	2353.3	2264.3	2191.8	2165.4	2165.4	2175.3	2185.2
25°	2379.7	2346.8	2261.0	2162.1	2093.0	2073.2	2079.8	2096.2	2109.4
27.5°	2267.7	2231.3	2142.3	2050.1	1980.9	1971.0	1987.4	2010.6	2017.1
30°	2116.0	2086.3	2010.6	1921.5	1862.2	1859.0	1882.0	1898.4	1915.0
32.5°	1971.0	1938.0	1865.5	1779.9	1737.0	1740.3	1766.6	1786.4	1796.3
35°	1802.9	1773.2	1720.5	1651.3	1611.8	1618.3	1648.0	1667.8	1671.1
37.5°	1644.6	1625.0	1572.2	1519.4	1489.7	1503.0	1529.3	1552.4	1552.4
40°	1486.5	1470.0	1430.4	1387.6	1371.1	1387.6	1414.0	1433.7	1433.7
42.5°	1334.9	1325.0	1292.1	1262.4	1252.5	1275.5	1298.6	1315.1	1311.8
45°	1199.7	1189.8	1166.7	1143.7	1140.4	1163.5	1183.3	1193.2	1196.4
47.5°	1077.8	1071.2	1051.4	1034.9	1034.9	1058.1	1074.5	1084.4	1087.6
50°	965.7	959.2	942.6	929.5	932.7	955.8	969.0	978.9	982.2
52.5°	853.6	850.4	837.2	820.7	830.6	847.0	863.6	870.2	873.4
55°	758.0	758.0	741.6	728.4	735.0	751.5	761.4	764.7	764.7
57.5°	672.4	669.0	649.4	636.1	639.4	655.9	662.5	665.8	665.8
60°	589.9	586.7	566.9	547.1	547.1	557.0	560.4	563.6	563.6
62.5°	510.9	507.6	484.5	468.0	461.5	458.1	458.1	464.7	477.9
65°	438.4	435.0	412.0	385.7	375.8	365.8	356.0	362.6	369.1
67.5°	372.5	365.8	342.8	319.7	296.7	280.1	263.7	273.6	286.8
70°	309.8	303.2	276.9	250.5	224.1	197.8	184.6	197.8	204.3
72.5°	250.5	243.9	217.6	191.1	158.2	131.8	128.6	131.8	135.1
75°	194.5	191.1	164.8	135.1	102.1	82.4	82.4	82.4	82.4
77.5°	145.0	138.4	112.0	85.7	59.3	46.1	42.9	42.9	42.9
80°	98.9	92.2	69.2	49.4	26.3	19.8	19.8	16.4	16.4
82.5°	56.0	52.8	36.2	19.8	9.9	6.6	6.6	6.6	6.6
85°	23.1	19.8	13.2	6.6	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)