

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: P592921

Luminaire Tested: **HC455D010-HM44560850-41RWWC**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592921  
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-HM44560850-41RWWC  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5794.0 lumens  
Efficiency: N/A  
Efficacy: 111.4 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

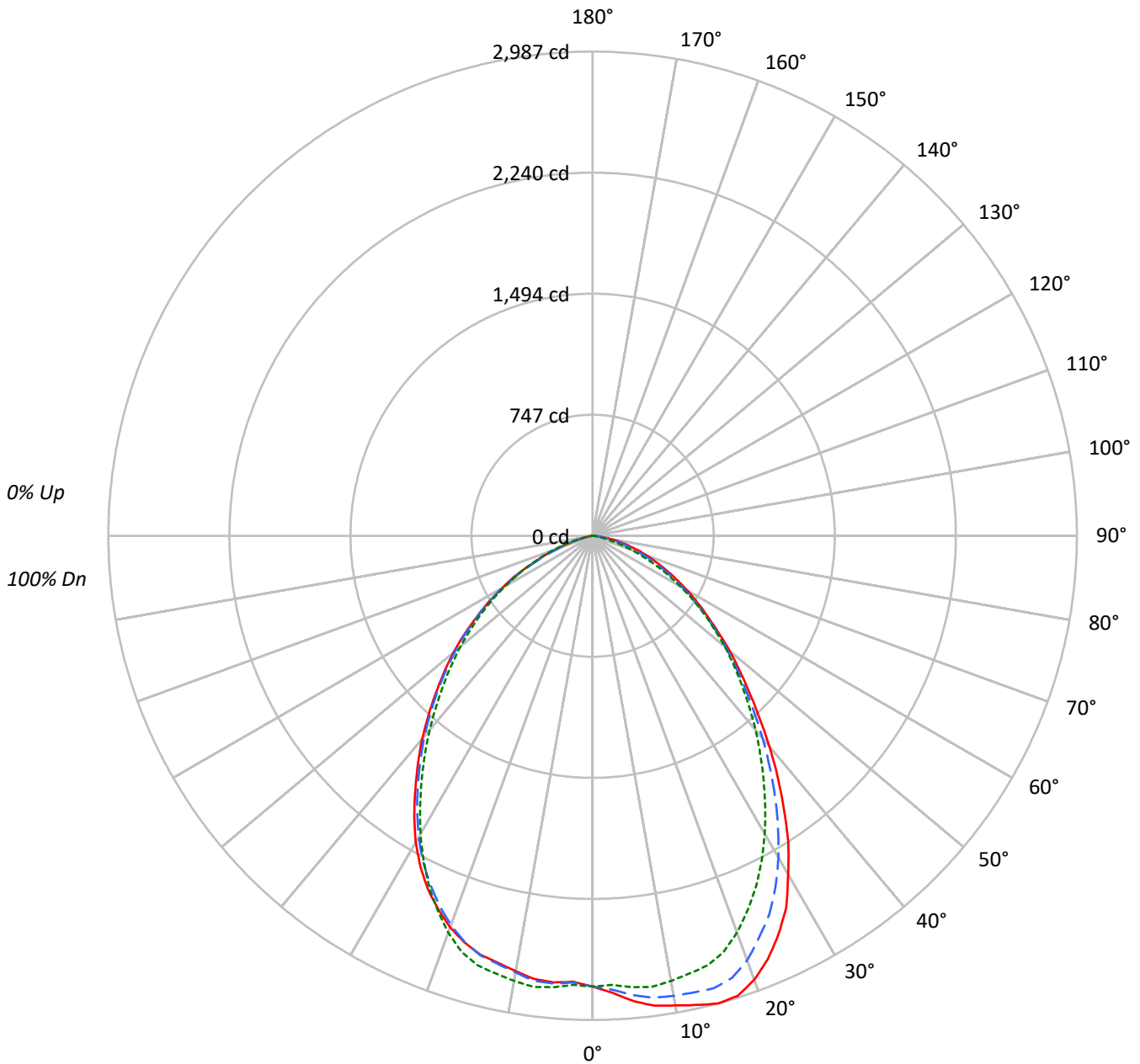
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	62	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°	342950	342950	342950
5°	356828	346130	342415
10°	368481	349193	341665
15°	381443	350260	341614
20°	382733	341792	337356
25°	369204	324713	327272
30°	343563	302359	310933
35°	309481	276671	286850
40°	272858	251685	263181
45°	238578	226768	237932
50°	211254	204058	214861
55°	185843	180187	187478
60°	165900	153861	158499
65°	145843	125004	122844
70°	127378	92143	84029
75°	105656	55473	44750
80°	80053	21310	13354
85°	37221	5236	5236



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.2	4.6
10°-20°	782.6	13.5
20°-30°	1133.4	19.6
30°-40°	1195.8	20.6
40°-50°	1034.9	17.9
50°-60°	766.7	13.2
60°-70°	441.9	7.6
70°-80°	154.3	2.7
80°-90°	16.2	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°	2184.2	37.7
0°-40°	3380.0	58.3
0°-60°	5181.6	89.4
0°-90°	5794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5794.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2780	2780	2780	2780	2780	
5°	2882	2844	2796	2773	2766	277
15°	2987	2890	2743	2679	2675	840
25°	2713	2578	2386	2371	2405	1242
35°	2055	1961	1837	1879	1905	1284
45°	1368	1330	1300	1349	1364	1062
55°	864	845	838	868	872	779
65°	500	470	428	406	421	499
75°	222	188	116	94	94	239
85°	26	15	4	4	4	41
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°	2780.4	2780.4	2780.4	2780.4	2780.4	2780.4	2780.4	2780.4	2780.4
2.5°	2821.8	2814.3	2803.0	2788.0	2773.0	2761.6	2757.9	2754.2	2754.2
5°	2881.9	2866.8	2844.3	2814.3	2795.5	2784.3	2773.0	2765.5	2765.5
7.5°	2923.2	2908.2	2874.4	2833.1	2806.8	2784.3	2769.2	2757.9	2757.9
10°	2942.0	2923.2	2881.9	2829.3	2788.0	2757.9	2735.4	2727.9	2727.9
12.5°	2964.6	2942.0	2885.6	2818.0	2765.5	2727.9	2705.3	2697.9	2697.9
15°	2987.1	2960.8	2889.5	2810.5	2742.9	2697.9	2679.1	2675.2	2675.2
17.5°	2975.8	2942.0	2859.4	2765.5	2690.3	2645.2	2626.4	2626.4	2630.1
20°	2915.8	2881.9	2788.0	2682.8	2603.9	2570.1	2555.0	2562.5	2570.1
22.5°	2825.5	2784.3	2682.8	2581.3	2498.6	2468.6	2468.6	2479.8	2491.2
25°	2712.8	2675.2	2577.6	2464.9	2385.9	2363.4	2370.9	2389.7	2404.7
27.5°	2585.1	2543.7	2442.3	2337.1	2258.2	2247.0	2265.8	2292.0	2299.5
30°	2412.2	2378.5	2292.0	2190.6	2122.9	2119.2	2145.5	2164.3	2183.1
32.5°	2247.0	2209.4	2126.7	2028.9	1980.1	1983.9	2014.0	2036.5	2047.7
35°	2055.3	2021.5	1961.3	1882.5	1837.4	1844.9	1878.8	1901.2	1905.0
37.5°	1874.9	1852.4	1792.2	1732.2	1698.3	1713.4	1743.4	1769.7	1769.7
40°	1694.6	1675.8	1630.7	1581.9	1563.1	1581.9	1611.9	1634.5	1634.5
42.5°	1521.8	1510.4	1472.9	1439.1	1427.9	1454.1	1480.4	1499.2	1495.5
45°	1367.7	1356.4	1330.1	1303.8	1300.0	1326.4	1348.9	1360.1	1364.0
47.5°	1228.6	1221.2	1198.6	1179.8	1179.8	1206.1	1224.9	1236.1	1240.0
50°	1100.9	1093.4	1074.6	1059.6	1063.4	1089.7	1104.6	1116.0	1119.7
52.5°	973.1	969.4	954.3	935.6	946.9	965.7	984.5	991.9	995.7
55°	864.2	864.2	845.4	830.4	837.9	856.7	867.9	871.8	871.8
57.5°	766.5	762.8	740.2	725.2	728.9	747.7	755.2	759.0	759.0
60°	672.5	668.8	646.3	623.7	623.7	634.9	638.8	642.5	642.5
62.5°	582.4	578.6	552.4	533.6	526.1	522.2	522.2	529.8	544.8
65°	499.7	496.0	469.7	439.6	428.3	417.0	405.8	413.3	420.9
67.5°	424.6	417.0	390.8	364.5	338.2	319.4	300.6	311.8	326.9
70°	353.2	345.7	315.7	285.5	255.5	225.4	210.4	225.4	233.0
72.5°	285.5	278.1	248.0	217.9	180.3	150.3	146.6	150.3	154.0
75°	221.7	217.9	187.9	154.0	116.4	93.9	93.9	93.9	93.9
77.5°	165.4	157.8	127.8	97.6	67.6	52.6	48.8	48.8	48.8
80°	112.7	105.2	78.9	56.4	30.0	22.5	22.5	18.8	18.8
82.5°	63.9	60.1	41.3	22.5	11.2	7.5	7.5	7.5	7.5
85°	26.3	22.5	15.1	7.5	3.7	3.7	3.7	3.7	3.7
87.5°	3.7	3.7	3.7	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)