

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: P585042

Luminaire Tested: **HC855D010-HM82555940-81RWWH**

Issue Date: 10/21/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P585042  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2109-368-15)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 10/21/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC855D010-HM82555940-81RWWH  
Description: HALO COMMERCIAL 8" ROUND, NEW CONSTRUCTION FRAME, WITH 8" WALLWASH DISTRIBUTION, HAZE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5362.1 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.07 / 1.16  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

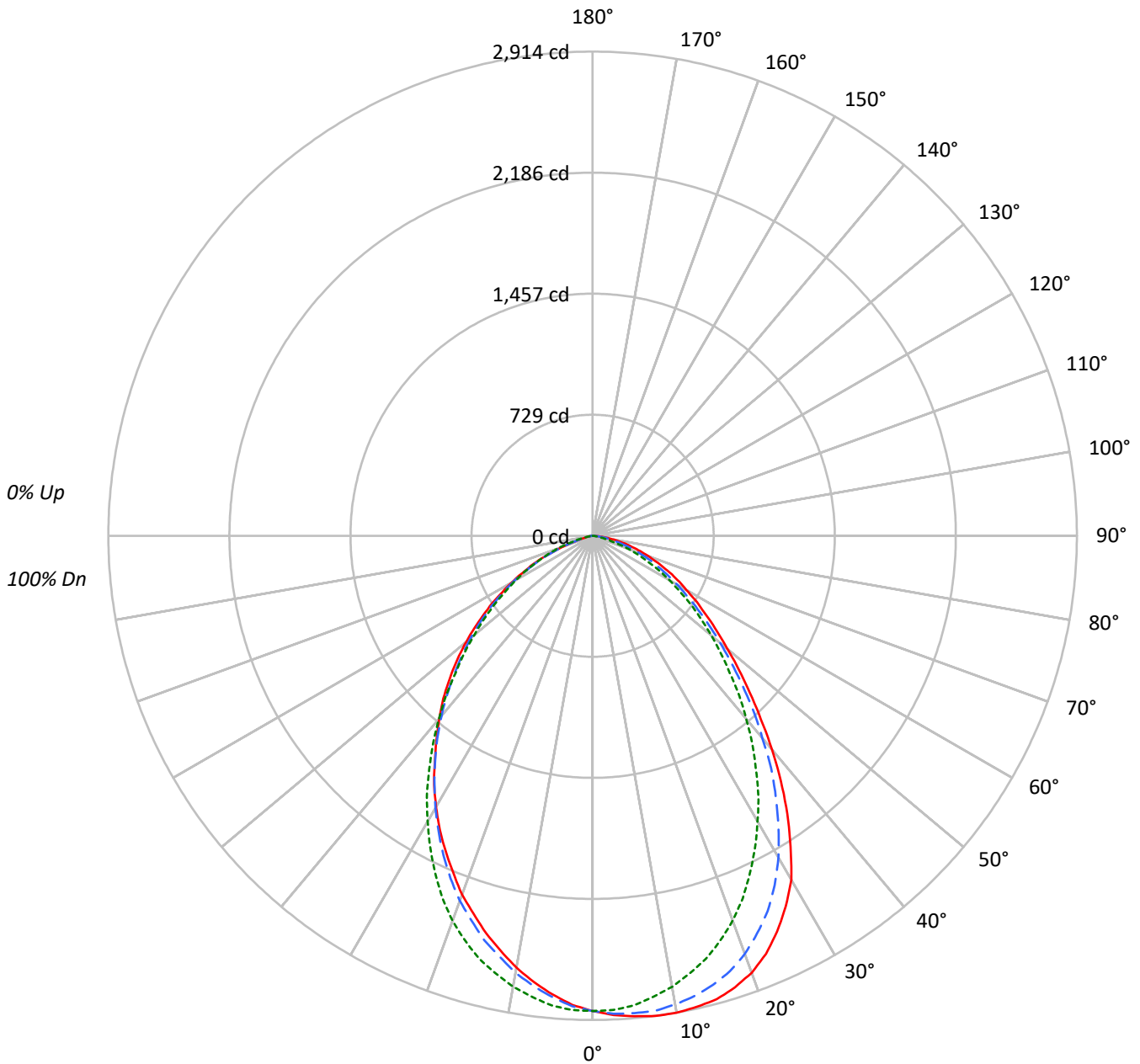
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88				
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77				77				
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67				67				
4	88	77	70	64	86	76	69	63	74	67	63	71	66	62	69	65	61	59				59				
5	81	70	62	56	79	69	62	56	67	60	55	65	59	55	63	58	54	52				52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49	47				47				
7	71	58	51	45	69	58	50	45	56	49	45	55	49	44	54	48	44	42				42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	36	35				35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				32				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	88201	88201	88201
5°	89857	87820	85777
10°	91259	86283	82642
15°	92174	84136	79063
20°	91827	80890	75419
25°	89405	76221	71206
30°	85146	70654	67069
35°	76884	64488	62301
40°	67554	57881	57728
45°	58310	50874	53072
50°	50760	44624	47599
55°	45009	38757	41466
60°	40161	32742	34419
65°	36198	26581	27150
70°	32142	19916	16075
75°	27701	11545	6922
80°	21327	4120	2060
85°	13728	1380	1380



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	268.5	5.0
10°-20°	747.5	13.9
20°-30°	1057.2	19.7
30°-40°	1114.0	20.8
40°-50°	946.8	17.7
50°-60°	681.8	12.7
60°-70°	393.3	7.3
70°-80°	134.6	2.5
80°-90°	18.5	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°	2073.2	38.7
0°-40°	3187.2	59.4
0°-60°	4815.7	89.8
0°-90°	5362.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5362.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2860	2860	2860	2860	2860	
5°	2903	2884	2837	2787	2771	277
15°	2887	2798	2636	2519	2477	813
25°	2628	2492	2240	2124	2093	1205
35°	2042	1922	1713	1651	1655	1272
45°	1337	1275	1167	1174	1217	1039
55°	837	771	721	748	771	753
65°	496	426	364	356	372	493
75°	232	174	97	62	58	245
85°	39	23	4	4	4	52
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3
2.5°	2887.3	2891.3	2887.3	2887.3	2883.5	2879.6	2875.7	2871.9	2864.1	2856.4	2856.4
5°	2902.9	2910.7	2902.9	2902.9	2891.3	2883.5	2875.7	2864.1	2848.7	2837.1	2837.1
7.5°	2914.5	2914.5	2914.5	2902.9	2895.2	2883.5	2864.1	2844.8	2825.3	2806.0	2798.3
10°	2914.5	2914.5	2910.7	2895.2	2887.3	2864.1	2844.8	2817.6	2790.5	2763.3	2755.6
12.5°	2902.9	2906.8	2899.1	2883.5	2864.1	2837.1	2809.9	2774.9	2744.0	2712.9	2697.5
15°	2887.3	2883.5	2875.7	2856.4	2833.2	2798.3	2771.1	2732.4	2689.7	2650.9	2635.5
17.5°	2848.7	2848.7	2837.1	2817.6	2786.7	2747.9	2705.2	2662.5	2616.1	2573.5	2554.1
20°	2798.3	2798.3	2782.8	2759.5	2728.5	2678.1	2631.6	2581.2	2526.9	2484.3	2465.0
22.5°	2724.7	2728.5	2709.1	2682.0	2647.1	2588.9	2542.4	2480.4	2426.2	2375.8	2360.3
25°	2627.7	2635.5	2616.1	2588.9	2542.4	2492.0	2433.9	2375.8	2313.8	2263.4	2240.2
27.5°	2515.3	2519.2	2499.9	2472.7	2426.2	2371.9	2313.8	2251.8	2193.6	2139.4	2116.2
30°	2391.3	2375.8	2368.0	2333.2	2282.8	2236.3	2170.4	2120.0	2058.0	2011.5	1984.3
32.5°	2217.0	2224.7	2201.4	2174.3	2135.5	2081.2	2027.0	1968.8	1910.7	1875.8	1856.4
35°	2042.4	2050.3	2038.6	2011.5	1968.8	1922.3	1868.1	1825.5	1775.1	1732.5	1713.1
37.5°	1860.3	1860.3	1852.6	1837.1	1806.1	1763.4	1709.1	1666.6	1623.9	1589.0	1577.4
40°	1678.2	1670.5	1666.6	1655.0	1627.8	1589.0	1554.2	1519.3	1476.6	1453.4	1437.9
42.5°	1499.9	1499.9	1492.2	1480.5	1453.4	1434.1	1399.1	1360.3	1329.4	1306.1	1306.1
45°	1337.1	1341.0	1329.4	1321.7	1306.1	1275.1	1244.1	1217.0	1189.8	1174.3	1166.6
47.5°	1193.7	1193.7	1182.1	1174.3	1158.9	1131.7	1104.6	1081.3	1061.9	1050.3	1046.5
50°	1058.1	1058.1	1058.1	1038.7	1019.3	1000.0	980.5	953.4	941.8	934.1	930.2
52.5°	941.8	938.0	938.0	922.4	903.0	879.8	860.4	837.2	825.6	817.8	821.7
55°	837.2	837.2	833.3	814.0	794.5	771.3	751.8	732.5	724.8	717.0	720.9
56°	794.5	794.5	790.6	775.2	751.8	732.5	709.3	689.8	678.2	682.1	682.1
57°	763.6	755.7	755.7	736.4	717.0	689.8	670.5	651.2	643.3	639.4	639.4
58°	724.8	720.9	717.0	697.6	678.2	655.0	635.6	616.2	604.6	604.6	600.8
59°	686.0	686.0	678.2	662.8	643.3	620.1	600.8	581.3	569.7	565.8	565.8
60°	651.2	655.0	643.3	627.8	612.4	585.2	562.0	546.5	534.9	530.9	530.9
61°	620.1	620.1	612.4	593.0	573.6	554.2	530.9	511.6	503.8	496.1	496.1
62°	593.0	585.2	581.3	562.0	542.6	519.3	500.0	480.6	468.9	461.2	465.0
63°	558.1	554.2	546.5	530.9	511.6	488.4	465.0	449.6	438.0	426.4	430.2
64°	530.9	527.0	515.4	500.0	480.6	457.3	434.1	418.5	410.8	399.2	395.3
65°	496.1	492.2	488.4	468.9	449.6	426.4	406.9	391.4	379.8	372.1	364.3
66°	465.0	468.9	461.2	445.7	422.5	403.1	376.0	360.4	352.7	341.1	333.3
67°	438.0	438.0	430.2	414.7	391.4	372.1	352.7	333.3	321.7	310.1	306.1
67.5°	422.5	422.5	414.7	395.3	379.8	356.5	337.2	321.7	306.1	298.4	290.7
68°	406.9	406.9	403.1	387.6	368.2	344.9	325.6	306.1	290.7	279.1	275.2
69°	379.8	383.7	376.0	360.4	341.1	317.8	298.4	282.9	267.5	255.8	248.0
70°	356.5	352.7	344.9	329.4	310.1	294.5	275.2	255.8	240.3	224.8	220.9
71°	325.6	325.6	317.8	306.1	286.8	267.5	248.0	232.5	217.1	197.7	193.7
72°	302.3	302.3	294.5	279.1	263.6	244.1	224.8	205.5	193.7	174.4	166.7
72.5°	286.8	290.7	282.9	267.5	251.9	228.7	213.2	197.7	178.3	162.8	155.1
73°	279.1	275.2	271.3	255.8	236.4	220.9	201.6	186.0	166.7	151.2	143.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
77.5°	174.4	174.4	170.5	155.1	139.5	124.0	108.5	93.1	77.5	62.0	54.3
80°	120.1	124.0	116.3	108.5	96.9	81.3	65.9	54.3	38.8	31.1	23.2
82.5°	77.5	77.5	73.6	65.9	58.1	46.5	38.8	27.1	19.3	15.5	11.6
85°	38.8	42.7	38.8	34.9	27.1	23.2	19.3	11.6	7.7	3.9	3.9
87.5°	15.5	15.5	15.5	11.6	11.6	7.7	3.9	3.9	3.9	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3	2860.3
2.5°	2848.7	2848.7	2840.9	2837.1	2833.2	2829.2	2825.3	2821.5	2821.5	2825.3
5°	2825.3	2817.6	2802.1	2798.3	2786.7	2782.8	2774.9	2771.1	2774.9	2771.1
7.5°	2790.5	2774.9	2755.6	2747.9	2732.4	2724.7	2712.9	2712.9	2705.2	2709.1
10°	2744.0	2720.8	2697.5	2682.0	2670.4	2658.7	2650.9	2643.2	2639.3	2639.3
12.5°	2685.9	2658.7	2635.5	2612.3	2592.8	2585.1	2569.6	2569.6	2561.9	2558.0
15°	2620.0	2585.1	2558.0	2534.7	2519.2	2503.7	2492.0	2484.3	2476.6	2476.6
17.5°	2534.7	2503.7	2476.6	2449.5	2426.2	2414.6	2403.0	2391.3	2391.3	2383.5
20°	2441.7	2406.8	2383.5	2356.4	2337.1	2317.6	2302.2	2302.2	2294.4	2298.3
22.5°	2337.1	2294.4	2271.1	2251.8	2232.4	2217.0	2201.4	2201.4	2197.5	2193.6
25°	2220.8	2185.9	2158.7	2135.5	2123.9	2108.4	2104.6	2096.7	2092.8	2092.8
27.5°	2096.7	2069.6	2034.7	2023.1	2007.6	1999.9	1999.9	1996.0	1988.2	1992.2
30°	1965.0	1933.9	1914.6	1906.8	1891.4	1891.4	1887.5	1879.8	1879.8	1883.6
32.5°	1837.1	1806.1	1790.6	1786.7	1771.2	1771.2	1767.4	1771.2	1771.2	1775.1
35°	1697.5	1670.5	1666.6	1655.0	1651.0	1651.0	1651.0	1658.8	1666.6	1655.0
37.5°	1565.8	1546.5	1534.7	1530.9	1534.7	1534.7	1538.6	1550.3	1546.5	1542.6
40°	1430.1	1414.6	1406.9	1406.9	1414.6	1422.3	1422.3	1434.1	1437.9	1434.1
42.5°	1294.5	1282.9	1282.9	1286.7	1294.5	1298.3	1309.9	1321.7	1325.5	1329.4
45°	1166.6	1166.6	1166.6	1170.5	1174.3	1182.1	1197.5	1209.3	1213.1	1217.0
47.5°	1042.6	1038.7	1050.3	1054.2	1065.8	1069.7	1081.3	1096.9	1100.7	1104.6
50°	926.3	934.1	938.0	949.6	957.3	957.3	972.8	980.5	992.2	992.2
52.5°	817.8	829.4	833.3	844.9	848.8	852.6	860.4	872.1	879.8	879.8
55°	720.9	724.8	732.5	736.4	748.0	751.8	759.7	763.6	775.2	771.3
56°	678.2	686.0	689.8	697.6	705.4	709.3	717.0	720.9	728.6	732.5
57°	639.4	643.3	655.0	658.9	666.6	666.6	670.5	682.1	682.1	686.0
58°	600.8	608.5	612.4	616.2	624.0	627.8	635.6	639.4	643.3	639.4
59°	565.8	569.7	573.6	573.6	581.3	581.3	593.0	600.8	604.6	604.6
60°	530.9	530.9	534.9	538.8	546.5	550.4	550.4	558.1	558.1	558.1
61°	496.1	496.1	500.0	503.8	507.7	507.7	515.4	515.4	519.3	523.2
62°	465.0	461.2	461.2	465.0	465.0	472.8	476.7	480.6	484.5	480.6
63°	430.2	426.4	426.4	426.4	426.4	434.1	434.1	438.0	445.7	441.8
64°	391.4	391.4	391.4	391.4	395.3	395.3	403.1	406.9	410.8	414.7
65°	364.3	356.5	352.7	352.7	356.5	360.4	364.3	368.2	372.1	372.1
66°	333.3	325.6	321.7	321.7	321.7	321.7	329.4	329.4	337.2	337.2
67°	298.4	290.7	286.8	282.9	282.9	282.9	294.5	290.7	290.7	290.7
67.5°	286.8	275.2	271.3	267.5	263.6	271.3	267.5	271.3	271.3	267.5
68°	271.3	263.6	255.8	248.0	248.0	248.0	251.9	255.8	251.9	248.0
69°	240.3	236.4	224.8	217.1	213.2	217.1	213.2	217.1	213.2	217.1
70°	213.2	201.6	189.9	186.0	182.1	182.1	182.1	178.3	182.1	178.3
71°	186.0	174.4	162.8	155.1	151.2	151.2	147.3	151.2	147.3	151.2
72°	158.9	147.3	131.7	124.0	124.0	124.0	124.0	120.1	124.0	120.1
72.5°	147.3	131.7	120.1	112.4	108.5	108.5	108.5	108.5	104.7	108.5
73°	135.6	120.1	104.7	100.8	100.8	100.8	96.9	93.1	96.9	96.9





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
77.5°	46.5	34.9	31.1	31.1	31.1	31.1	31.1	31.1	27.1	27.1
80°	19.3	15.5	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
82.5°	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7	7.7
85°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
87.5°	0.0	0.0	0.0	0.0	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	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180°    - - 45°-225°    - - - - 90°-270°







74°	251.9	251.9	244.1	232.5	213.2	193.7	178.3	162.8	143.5	124.0	116.3
75°	232.5	228.7	220.9	209.3	193.7	174.4	158.9	139.5	124.0	104.7	96.9







74°	112.4	93.1	85.3	77.5	77.5	77.5	73.6	73.6	73.6	77.5
75°	89.2	73.6	65.9	58.1	62.0	58.1	62.0	58.1	58.1	58.1



(END OF REPORT)