

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: P583268

Luminaire Tested: **HC660D010-HM64560940-61RWWC**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583268  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2105-241-14)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/16/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC660D010-HM64560940-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" WALLWASH DISTRIBUTION, SPECULAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5447.5 lumens  
Efficiency: N/A  
Efficacy: 99.0 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.15 / 1.2  
Luminous Opening: Circular (Dia: 0.5' x H: 0')  
CIE Type: Direct

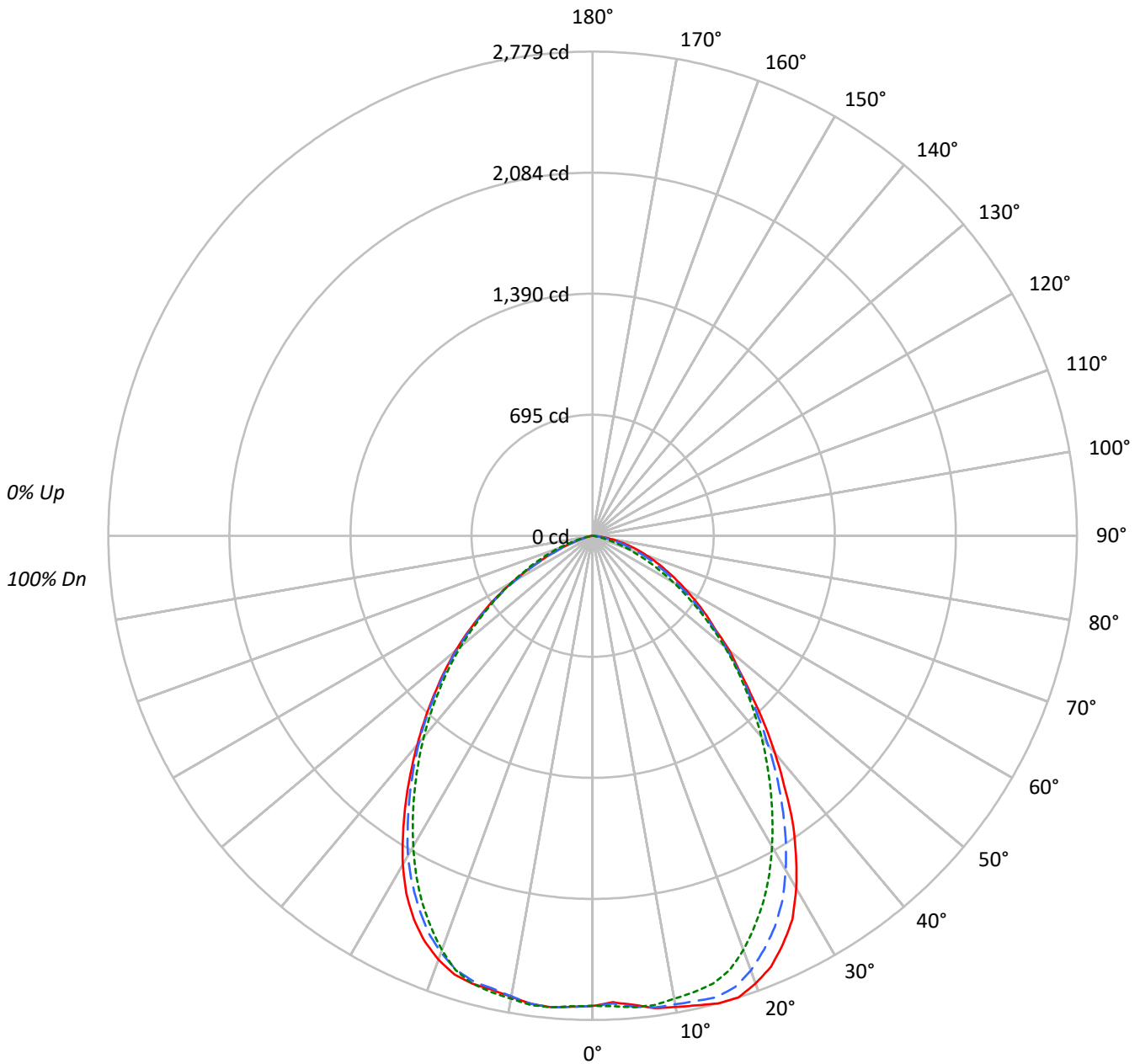
Input Watts (W): 55  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	69	68			
4	88	78	70	64	86	76	69	64	74	68	63	72	67	62	70	65	61	60			
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53			
6	76	64	56	50	74	63	56	50	62	55	50	60	54	49	58	53	49	47			
7	71	59	51	45	69	58	50	45	56	50	45	55	49	45	54	48	44	42			
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38			
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35			
10	59	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32			

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

	0°	90°	180°
0°	147921	147921	147921
5°	148684	149488	149488
10°	152847	150203	149591
15°	157702	151062	151062
20°	159544	147602	151009
25°	156360	140210	146845
30°	147890	130299	137939
35°	133846	119163	125032
40°	116432	107802	111981
45°	99491	96087	99491
50°	87306	84185	87622
55°	76174	70946	73727
60°	67352	58921	58120
65°	59760	46477	39836
70°	52733	32810	24026
75°	44903	18576	11628
80°	33464	5777	3473
85°	18429	2327	2327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.8	4.8
10°-20°	757.2	13.9
20°-30°	1106.0	20.3
30°-40°	1159.9	21.3
40°-50°	977.2	17.9
50°-60°	684.6	12.6
60°-70°	367.1	6.7
70°-80°	123.1	2.3
80°-90°	13.4	0.2
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°	2122.1	39.0
0°-40°	3282.0	60.2
0°-60°	4943.9	90.8
0°-90°	5447.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5447.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2698	2698	2698	2698	2698	
5°	2702	2713	2716	2716	2716	260
15°	2779	2742	2662	2647	2662	784
25°	2585	2475	2318	2358	2428	1184
35°	2000	1898	1781	1832	1868	1241
45°	1283	1261	1239	1272	1283	1000
55°	797	771	742	757	771	717
65°	461	420	358	296	307	460
75°	212	165	88	55	55	225
85°	29	15	4	4	4	40
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°	2698.3	2698.3	2698.3	2698.3	2698.3	2698.3	2698.3	2698.3	2698.3
2.5°	2680.0	2680.0	2687.3	2694.6	2701.9	2701.9	2705.5	2709.2	2705.5
5°	2701.9	2701.9	2712.8	2716.5	2716.5	2712.8	2716.5	2716.5	2716.5
7.5°	2734.8	2727.5	2731.1	2723.8	2716.5	2712.8	2709.2	2709.2	2709.2
10°	2745.8	2738.5	2731.1	2716.5	2698.3	2687.3	2683.7	2687.3	2687.3
12.5°	2760.4	2753.1	2734.8	2705.5	2683.7	2665.4	2661.7	2669.0	2669.0
15°	2778.7	2771.4	2742.1	2694.6	2661.7	2643.4	2647.1	2654.4	2661.7
17.5°	2778.7	2764.1	2716.5	2654.4	2614.1	2595.8	2610.5	2628.8	2639.8
20°	2734.8	2720.2	2654.4	2577.6	2530.1	2519.1	2544.7	2577.6	2588.5
22.5°	2676.3	2647.1	2570.3	2478.8	2427.7	2427.7	2464.3	2504.5	2519.1
25°	2585.0	2563.0	2475.2	2369.2	2318.0	2314.4	2358.2	2413.1	2427.7
27.5°	2482.5	2453.3	2358.2	2248.5	2193.7	2197.4	2244.8	2299.7	2314.4
30°	2336.3	2299.7	2215.7	2109.7	2058.4	2073.1	2120.6	2160.8	2179.1
32.5°	2171.8	2138.8	2062.1	1963.4	1919.5	1934.1	1974.4	2010.9	2025.5
35°	2000.0	1963.4	1897.5	1809.8	1780.6	1795.1	1831.7	1861.0	1868.3
37.5°	1806.1	1780.6	1733.0	1663.6	1641.7	1660.0	1689.1	1707.4	1714.7
40°	1627.0	1605.1	1564.8	1513.7	1506.4	1521.0	1550.3	1561.1	1564.8
42.5°	1451.5	1433.3	1407.7	1371.1	1371.1	1385.7	1411.3	1418.6	1422.3
45°	1283.3	1272.4	1261.4	1232.1	1239.4	1257.7	1272.4	1283.3	1283.3
47.5°	1137.1	1140.7	1126.1	1104.1	1111.4	1129.7	1140.7	1151.7	1151.7
50°	1023.7	1012.7	998.1	976.3	987.1	1001.8	1016.4	1023.7	1027.4
52.5°	892.1	888.4	877.4	851.9	859.3	866.5	881.1	892.1	895.7
55°	797.0	786.1	771.4	742.3	742.3	749.5	756.8	764.1	771.4
57.5°	705.7	694.7	672.7	639.8	636.1	636.1	632.5	639.8	650.8
60°	614.3	610.6	577.7	548.4	537.4	526.4	511.9	515.6	530.1
62.5°	533.8	526.4	497.3	460.7	438.7	420.4	402.2	398.6	413.1
65°	460.7	453.4	420.4	383.9	358.3	325.4	296.1	296.1	307.1
67.5°	394.9	380.3	351.0	310.7	277.9	237.7	208.4	215.7	219.4
70°	329.0	318.1	285.2	245.0	204.7	164.6	146.3	149.9	149.9
72.5°	270.6	256.0	223.0	182.8	142.6	106.0	98.7	95.0	95.0
75°	212.0	197.4	164.6	124.3	87.7	62.1	54.9	54.9	54.9
77.5°	153.6	142.6	113.3	76.7	47.6	29.3	25.6	22.0	22.0
80°	106.0	95.0	69.4	40.3	18.3	11.0	11.0	11.0	11.0
82.5°	62.1	51.2	32.9	18.3	7.3	3.7	3.7	3.7	3.7
85°	29.3	22.0	14.6	7.3	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)