

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: P583016

Luminaire Tested: **HC655D010-HM64560830-61RWWC**

Issue Date: 9/16/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P583016  
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: HC655D010-HM64560830-61RWWC  
Description: HALO COMMERCIAL 6" ROUND, NEW CONSTRUCTION FRAME, WITH 6" 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: 5442.2 lumens  
Efficiency: N/A  
Efficacy: 104.7 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

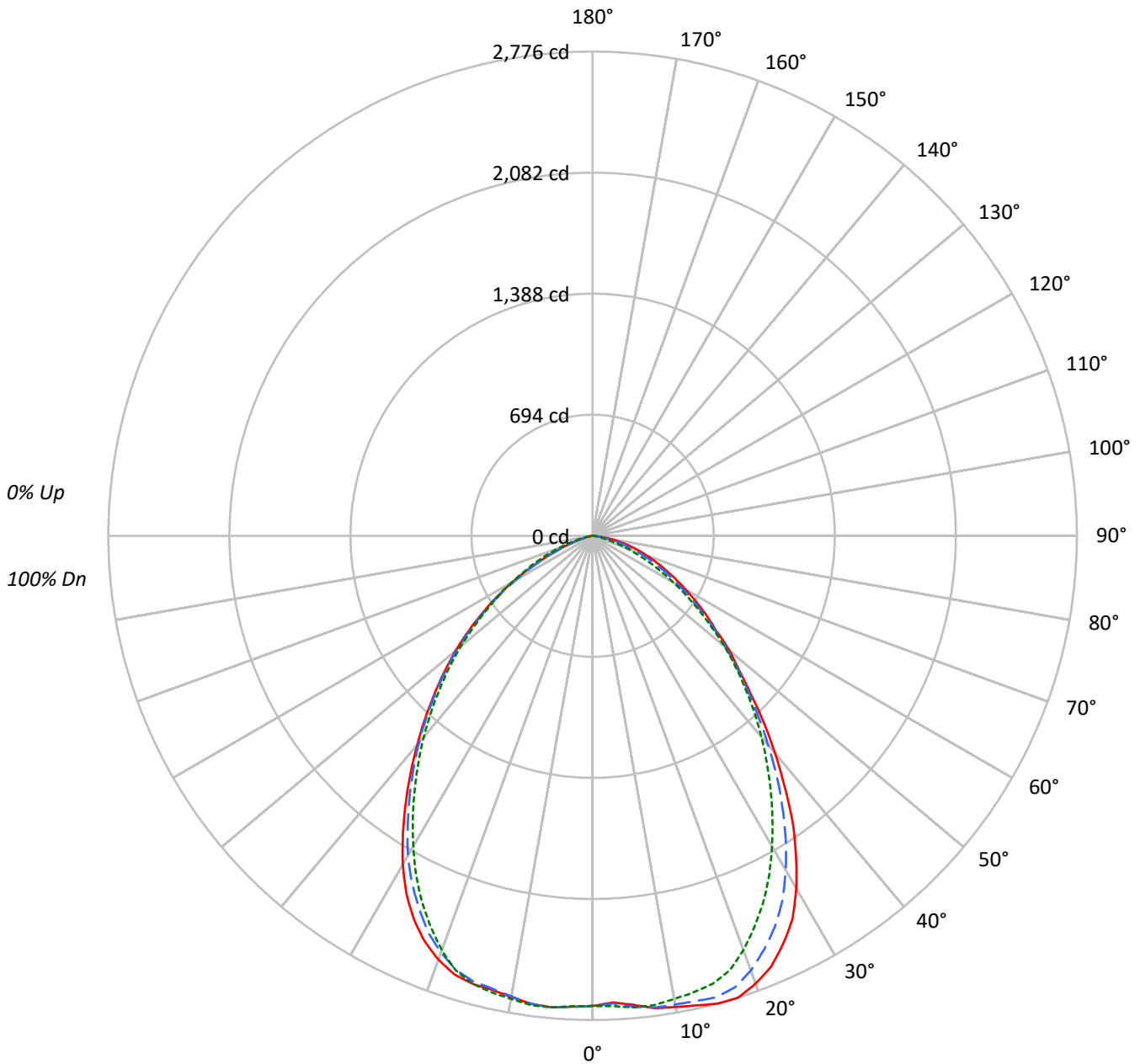
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	147779	147779	147779
5°	148547	149345	149345
10°	152697	150058	149446
15°	157549	150915	150915
20°	159386	147456	150863
25°	156209	140077	146706
30°	147751	130172	137806
35°	133712	119049	124912
40°	116318	107695	111874
45°	99398	95994	99398
50°	87221	84117	87537
55°	76107	70870	73660
60°	67275	58877	58066
65°	59695	46438	39810
70°	52701	32778	24010
75°	44882	18576	11607
80°	33432	5746	3473
85°	18367	2327	2327



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	258.6	4.8
10°-20°	756.5	13.9
20°-30°	1104.9	20.3
30°-40°	1158.8	21.3
40°-50°	976.3	17.9
50°-60°	684.0	12.6
60°-70°	366.7	6.7
70°-80°	123.0	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°	2120.0	39.0
0°-40°	3278.9	60.2
0°-60°	4939.1	90.8
0°-90°	5442.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5442.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2696	2696	2696	2696	2696	
5°	2699	2710	2714	2714	2714	259
15°	2776	2740	2659	2644	2659	783
25°	2582	2473	2316	2356	2425	1183
35°	1998	1896	1779	1830	1866	1240
45°	1282	1260	1238	1271	1282	999
55°	796	771	742	756	771	717
65°	460	420	358	296	307	460
75°	212	164	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°	2695.7	2695.7	2695.7	2695.7	2695.7	2695.7	2695.7	2695.7	2695.7
2.5°	2677.4	2677.4	2684.7	2692.0	2699.4	2699.4	2702.9	2706.6	2702.9
5°	2699.4	2699.4	2710.3	2713.9	2713.9	2710.3	2713.9	2713.9	2713.9
7.5°	2732.1	2724.9	2728.6	2721.3	2713.9	2710.3	2706.6	2706.6	2706.6
10°	2743.1	2735.8	2728.6	2713.9	2695.7	2684.7	2681.0	2684.7	2684.7
12.5°	2757.8	2750.5	2732.1	2702.9	2681.0	2662.8	2659.1	2666.5	2666.5
15°	2776.0	2768.7	2739.5	2692.0	2659.1	2640.9	2644.5	2651.8	2659.1
17.5°	2776.0	2761.4	2713.9	2651.8	2611.7	2593.4	2608.0	2626.3	2637.3
20°	2732.1	2717.6	2651.8	2575.2	2527.6	2516.7	2542.3	2575.2	2586.0
22.5°	2673.7	2644.5	2567.8	2476.5	2425.4	2425.4	2461.9	2502.0	2516.7
25°	2582.5	2560.5	2472.8	2366.9	2315.8	2312.2	2355.9	2410.7	2425.4
27.5°	2480.2	2450.9	2355.9	2246.4	2191.6	2195.3	2242.7	2297.5	2312.2
30°	2334.1	2297.5	2213.5	2107.6	2056.4	2071.1	2118.5	2158.7	2177.0
32.5°	2169.7	2136.9	2060.1	1961.5	1917.6	1932.3	1972.4	2009.0	2023.5
35°	1998.0	1961.5	1895.8	1808.1	1778.9	1793.4	1830.0	1859.2	1866.5
37.5°	1804.4	1778.9	1731.3	1662.0	1640.0	1658.3	1687.5	1705.8	1713.1
40°	1625.4	1603.6	1563.3	1512.2	1504.9	1519.6	1548.8	1559.7	1563.3
42.5°	1450.1	1431.9	1406.2	1369.8	1369.8	1384.3	1409.9	1417.2	1420.9
45°	1282.1	1271.1	1260.1	1230.9	1238.2	1256.5	1271.1	1282.1	1282.1
47.5°	1136.0	1139.6	1125.0	1103.1	1110.4	1128.7	1139.6	1150.6	1150.6
50°	1022.7	1011.8	997.2	975.3	986.3	1000.8	1015.5	1022.7	1026.4
52.5°	891.3	887.6	876.6	851.1	858.4	865.7	880.3	891.3	894.9
55°	796.3	785.3	770.7	741.5	741.5	748.8	756.1	763.4	770.7
57.5°	704.9	693.9	672.1	639.2	635.5	635.5	632.0	639.2	650.2
60°	613.6	610.0	577.1	547.8	537.0	526.0	511.4	515.1	529.6
62.5°	533.3	526.0	496.7	460.2	438.3	420.1	401.7	398.2	412.7
65°	460.2	453.0	420.1	383.5	358.0	325.1	295.9	295.9	306.9
67.5°	394.5	379.9	350.6	310.4	277.7	237.4	208.2	215.5	219.2
70°	328.8	317.8	284.9	244.8	204.5	164.3	146.1	149.8	149.8
72.5°	270.3	255.6	222.8	182.7	142.4	105.9	98.7	95.0	95.0
75°	211.9	197.2	164.3	124.2	87.7	62.1	54.8	54.8	54.8
77.5°	153.4	142.4	113.2	76.7	47.4	29.2	25.6	21.9	21.9
80°	105.9	95.0	69.4	40.2	18.2	11.0	11.0	11.0	11.0
82.5°	62.1	51.1	32.9	18.2	7.3	3.7	3.7	3.7	3.7
85°	29.2	21.9	14.7	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)