

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: P581149

Luminaire Tested: **HC455D010-HM44560830-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581149  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-266-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 9/9/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO COMMERCIAL  
Catalog Number: HC455D010-HM44560830-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4885.0 lumens  
Efficiency: N/A  
Efficacy: 93.9 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.07 / 1.04  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

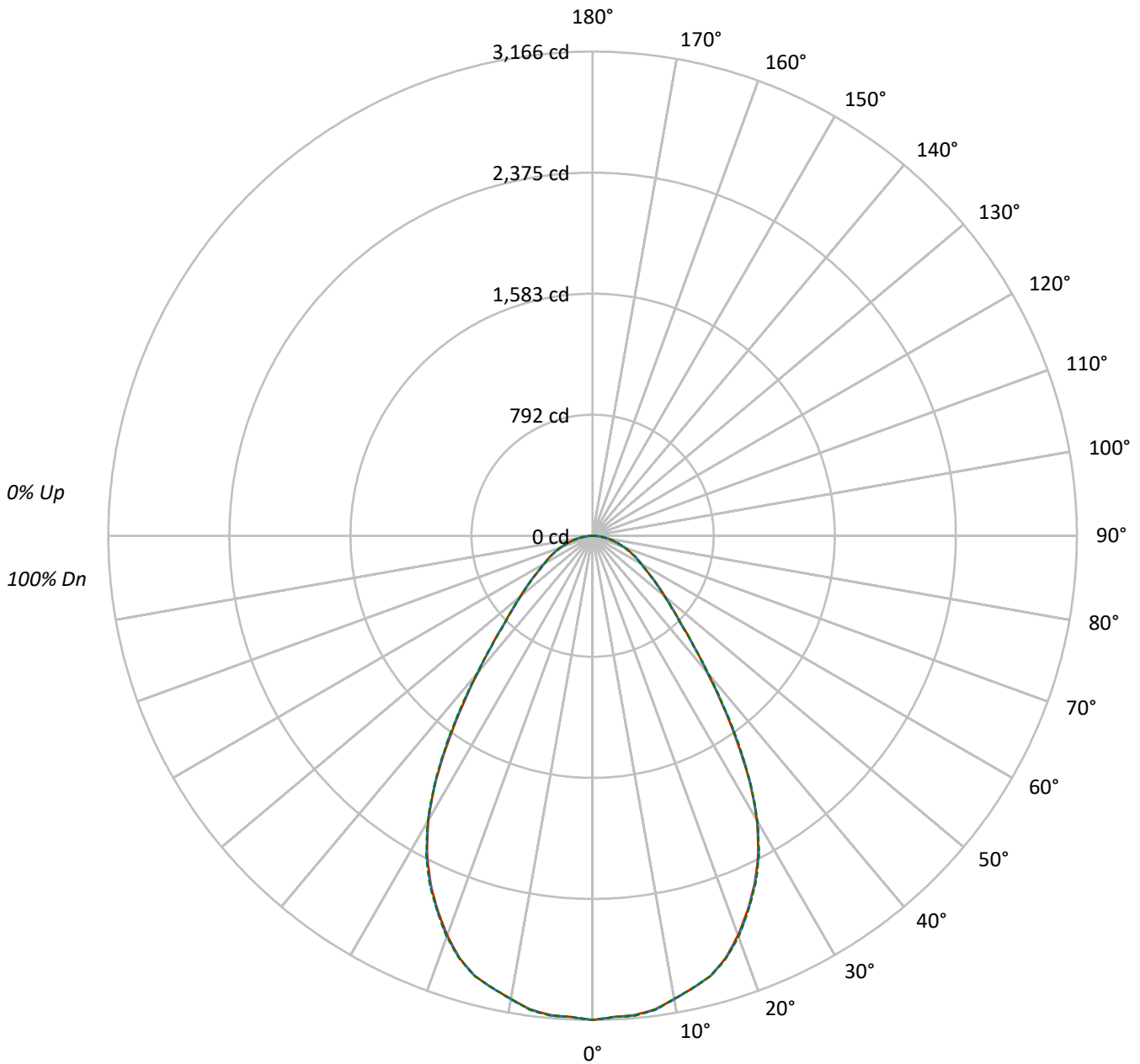
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	89																			
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78																			
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69																			
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51																			
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46																			
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42																			
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39																			
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36																			

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

	0°	45°	90°
0°	390537	390537	390537
5°	389590	389998	389998
10°	385064	385477	385064
15°	380447	380447	380447
20°	364829	365695	366115
25°	341249	341698	342583
30°	305763	306703	306703
35°	248242	250214	250711
40°	187359	188405	188937
45°	143509	142934	142934
50°	118244	117610	117610
55°	101480	100792	100792
60°	90560	89746	89746
65°	85136	85136	85136
70°	79196	79196	79196
75°	71867	73392	71867
80°	67551	65207	67551
85°	55760	55760	55760



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.3	6.1
10°-20°	834.8	17.1
20°-30°	1147.1	23.5
30°-40°	1031.4	21.1
40°-50°	651.7	13.3
50°-60°	425.5	8.7
60°-70°	288.2	5.9
70°-80°	162.3	3.3
80°-90°	45.6	0.9
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°	2280.2	46.7
0°-40°	3311.7	67.8
0°-60°	4388.9	89.8
0°-90°	4885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4885.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3166	3166	3166	3166	3166	
5°	3146	3146	3150	3150	3150	298
15°	2979	2979	2979	2979	2979	834
25°	2507	2511	2511	2517	2517	1144
35°	1649	1655	1662	1668	1665	1026
45°	823	819	819	819	819	653
55°	472	472	469	472	469	427
65°	292	292	292	292	292	289
75°	151	154	154	154	151	162
85°	39	39	39	39	39	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3166.2	3166.2	3166.2	3166.2	3166.2
2.5°	3149.8	3149.8	3149.8	3149.8	3149.8
5°	3146.5	3146.5	3149.8	3149.8	3149.8
7.5°	3123.6	3126.8	3126.8	3126.8	3126.8
10°	3074.4	3074.4	3077.7	3077.7	3074.4
12.5°	3028.5	3028.5	3028.5	3031.8	3028.5
15°	2979.3	2979.3	2979.3	2979.3	2979.3
17.5°	2894.1	2897.4	2897.4	2897.4	2897.4
20°	2779.4	2786.0	2786.0	2789.2	2789.2
22.5°	2648.2	2651.5	2654.9	2658.2	2654.9
25°	2507.4	2510.7	2510.7	2517.2	2517.2
27.5°	2343.5	2346.8	2353.3	2353.3	2353.3
30°	2146.8	2150.1	2153.4	2153.4	2153.4
32.5°	1914.1	1914.1	1920.7	1924.0	1920.7
35°	1648.6	1655.2	1661.7	1668.3	1665.0
37.5°	1396.2	1402.8	1406.1	1406.1	1409.4
40°	1163.6	1170.1	1170.1	1176.6	1173.4
42.5°	980.0	976.7	976.7	983.2	980.0
45°	822.7	819.4	819.4	819.4	819.4
47.5°	708.0	704.7	704.7	704.7	704.7
50°	616.2	612.9	612.9	612.9	612.9
52.5°	540.8	537.5	537.5	537.5	534.3
55°	471.9	471.9	468.7	471.9	468.7
57.5°	409.7	409.7	409.7	409.7	409.7
60°	367.1	363.8	363.8	363.8	363.8
62.5°	327.7	327.7	327.7	327.7	327.7
65°	291.7	291.7	291.7	291.7	291.7
67.5°	255.6	252.3	255.6	255.6	252.3
70°	219.6	216.3	219.6	219.6	219.6
72.5°	183.6	183.6	183.6	186.9	183.6
75°	150.8	154.0	154.0	154.0	150.8
77.5°	121.3	124.5	121.3	121.3	121.3
80°	95.1	91.8	91.8	91.8	95.1
82.5°	65.6	65.6	65.6	65.6	65.6
85°	39.4	39.4	39.4	39.4	39.4
87.5°	16.4	16.4	16.4	16.4	16.4
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)