

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: P581185

Luminaire Tested: **HC455D010-HM44560840-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581185  
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-HM44560840-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5598.7 lumens  
Efficiency: N/A  
Efficacy: 107.7 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

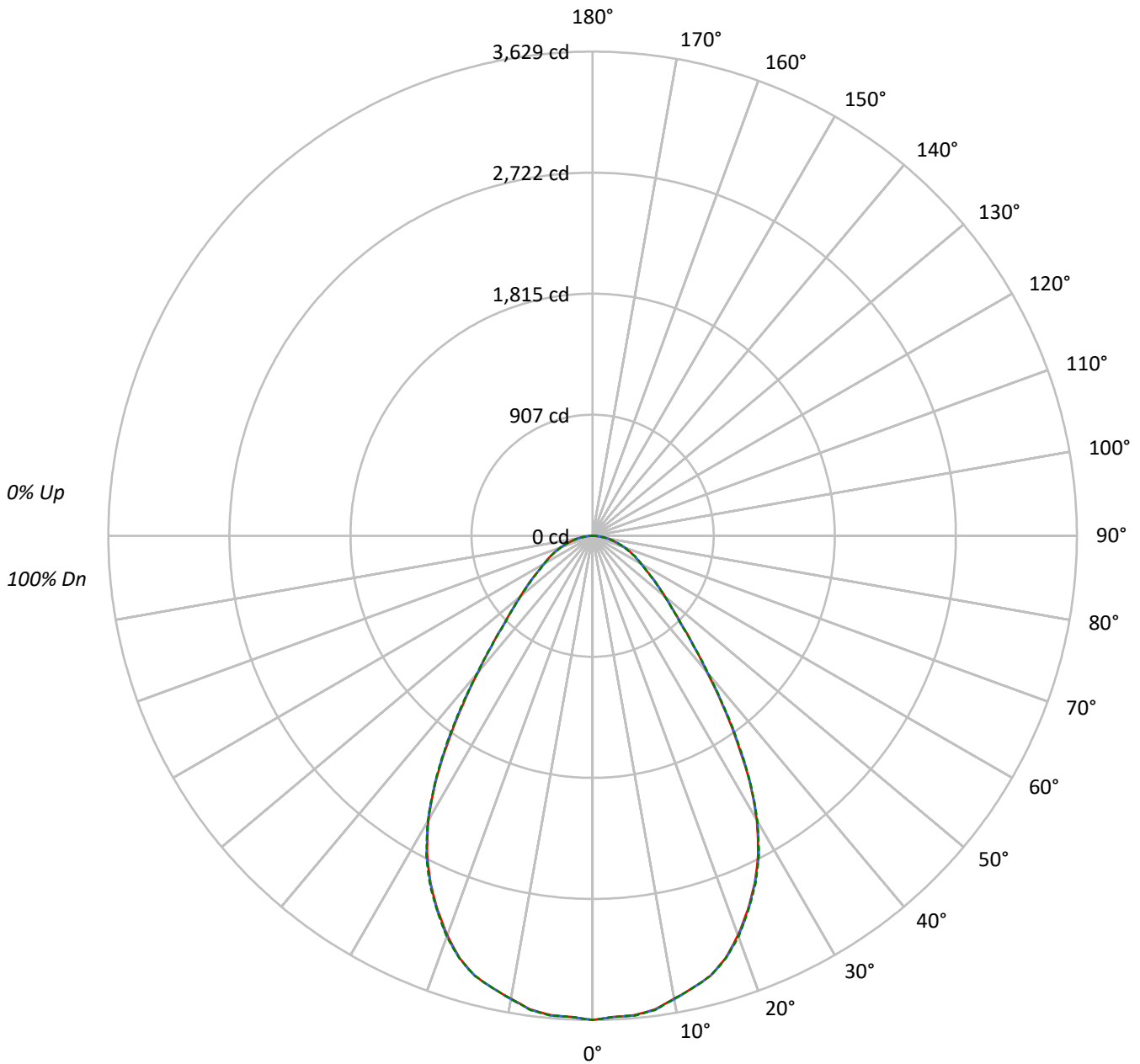
Input Watts (W): 52  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20					20					20					20					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	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°	447584	447584	447584
5°	446508	446966	446966
10°	441313	441789	441313
15°	436033	436033	436033
20°	418121	419119	419604
25°	391101	391605	392639
30°	350442	351510	351510
35°	284501	286774	287331
40°	214731	215923	216535
45°	164477	163831	163831
50°	135514	134785	134785
55°	116319	115523	115523
60°	103808	102846	102846
65°	97569	97569	97569
70°	90773	90773	90773
75°	82351	84115	82351
80°	77354	74726	77354
85°	63827	63827	63827



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.9	6.1
10°-20°	956.8	17.1
20°-30°	1314.7	23.5
30°-40°	1182.1	21.1
40°-50°	746.9	13.3
50°-60°	487.7	8.7
60°-70°	330.4	5.9
70°-80°	186.0	3.3
80°-90°	52.2	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°	2613.4	46.7
0°-40°	3795.5	67.8
0°-60°	5030.1	89.8
0°-90°	5598.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5598.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3629	3629	3629	3629	3629	
5°	3606	3606	3610	3610	3610	342
15°	3415	3415	3415	3415	3415	956
25°	2874	2877	2877	2885	2885	1312
35°	1889	1897	1904	1912	1908	1176
45°	943	939	939	939	939	748
55°	541	541	537	541	537	490
65°	334	334	334	334	334	331
75°	173	176	176	176	173	185
85°	45	45	45	45	45	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3628.7	3628.7	3628.7	3628.7	3628.7
2.5°	3609.9	3609.9	3609.9	3609.9	3609.9
5°	3606.2	3606.2	3609.9	3609.9	3609.9
7.5°	3579.9	3583.7	3583.7	3583.7	3583.7
10°	3523.5	3523.5	3527.3	3527.3	3523.5
12.5°	3471.0	3471.0	3471.0	3474.7	3471.0
15°	3414.6	3414.6	3414.6	3414.6	3414.6
17.5°	3317.0	3320.7	3320.7	3320.7	3320.7
20°	3185.4	3193.0	3193.0	3196.7	3196.7
22.5°	3035.2	3039.0	3042.7	3046.5	3042.7
25°	2873.7	2877.4	2877.4	2885.0	2885.0
27.5°	2685.8	2689.6	2697.1	2697.1	2697.1
30°	2460.5	2464.2	2468.0	2468.0	2468.0
32.5°	2193.8	2193.8	2201.3	2205.0	2201.3
35°	1889.4	1897.0	1904.5	1912.0	1908.2
37.5°	1600.2	1607.7	1611.6	1611.6	1615.3
40°	1333.6	1341.0	1341.0	1348.5	1344.8
42.5°	1123.2	1119.4	1119.4	1126.9	1123.2
45°	942.9	939.2	939.2	939.2	939.2
47.5°	811.4	807.6	807.6	807.6	807.6
50°	706.2	702.4	702.4	702.4	702.4
52.5°	619.8	616.1	616.1	616.1	612.3
55°	540.9	540.9	537.2	540.9	537.2
57.5°	469.6	469.6	469.6	469.6	469.6
60°	420.8	416.9	416.9	416.9	416.9
62.5°	375.6	375.6	375.6	375.6	375.6
65°	334.3	334.3	334.3	334.3	334.3
67.5°	293.0	289.2	293.0	293.0	289.2
70°	251.7	248.0	251.7	251.7	251.7
72.5°	210.4	210.4	210.4	214.1	210.4
75°	172.8	176.5	176.5	176.5	172.8
77.5°	138.9	142.8	138.9	138.9	138.9
80°	108.9	105.2	105.2	105.2	108.9
82.5°	75.1	75.1	75.1	75.1	75.1
85°	45.1	45.1	45.1	45.1	45.1
87.5°	18.8	18.8	18.8	18.8	18.8
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By 670245859 / DESKTOP-HRDQ47P







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







(END OF REPORT)