

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: P592776

Luminaire Tested: **HC435D010-HM43040850-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P592776  
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: HC435D010-HM43040850-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3674.3 lumens  
Efficiency: N/A  
Efficacy: 109.0 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

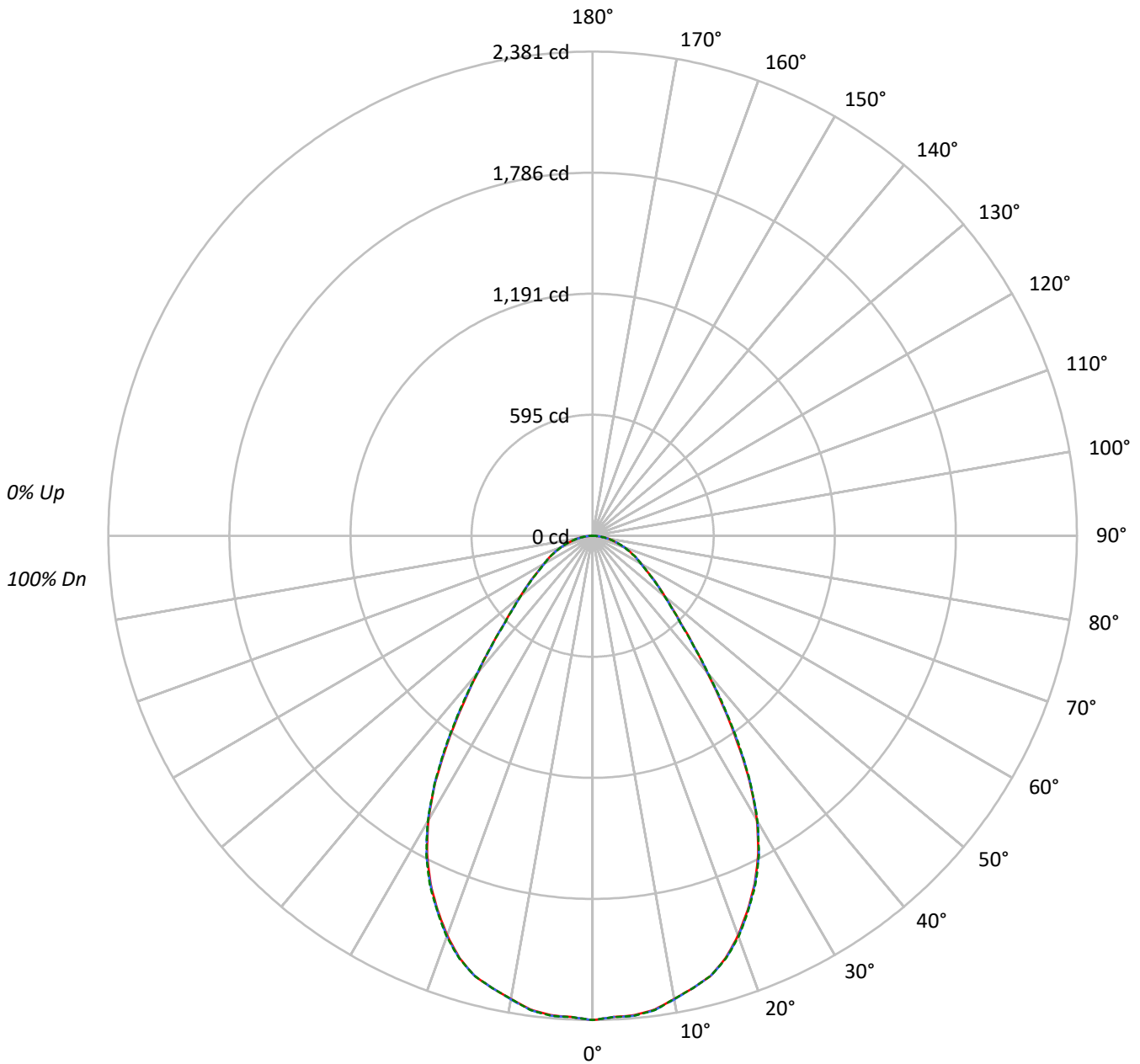
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	293735	293735	293735
5°	293025	293334	293334
10°	289624	289938	289624
15°	286156	286156	286156
20°	274403	275059	275374
25°	256651	256992	257672
30°	229977	230689	230689
35°	186716	188206	188583
40°	140905	141710	142113
45°	107942	107506	107506
50°	88923	88462	88462
55°	76342	75804	75804
60°	68111	67519	67519
65°	64034	64034	64034
70°	59541	59541	59541
75°	54043	55235	54043
80°	50788	49012	50788
85°	41891	41891	41891



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	224.4	6.1
10°-20°	627.9	17.1
20°-30°	862.8	23.5
30°-40°	775.8	21.1
40°-50°	490.2	13.3
50°-60°	320.1	8.7
60°-70°	216.8	5.9
70°-80°	122.0	3.3
80°-90°	34.3	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°	1715.1	46.7
0°-40°	2490.9	67.8
0°-60°	3301.1	89.8
0°-90°	3674.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3674.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2381	2381	2381	2381	2381	
5°	2367	2367	2369	2369	2369	224
15°	2241	2241	2241	2241	2241	627
25°	1886	1888	1888	1893	1893	861
35°	1240	1245	1250	1255	1252	772
45°	619	616	616	616	616	491
55°	355	355	352	355	352	321
65°	219	219	219	219	219	217
75°	113	116	116	116	113	122
85°	30	30	30	30	30	35
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2381.4	2381.4	2381.4	2381.4	2381.4
2.5°	2369.1	2369.1	2369.1	2369.1	2369.1
5°	2366.6	2366.6	2369.1	2369.1	2369.1
7.5°	2349.4	2351.9	2351.9	2351.9	2351.9
10°	2312.4	2312.4	2314.9	2314.9	2312.4
12.5°	2277.9	2277.9	2277.9	2280.4	2277.9
15°	2240.9	2240.9	2240.9	2240.9	2240.9
17.5°	2176.7	2179.2	2179.2	2179.2	2179.2
20°	2090.5	2095.5	2095.5	2097.9	2097.9
22.5°	1991.8	1994.3	1996.8	1999.3	1996.8
25°	1885.8	1888.3	1888.3	1893.3	1893.3
27.5°	1762.7	1765.1	1770.1	1770.1	1770.1
30°	1614.7	1617.2	1619.7	1619.7	1619.7
32.5°	1439.7	1439.7	1444.6	1447.0	1444.6
35°	1240.0	1244.9	1249.9	1254.8	1252.4
37.5°	1050.2	1055.1	1057.6	1057.6	1060.0
40°	875.1	880.1	880.1	885.0	882.6
42.5°	737.1	734.6	734.6	739.6	737.1
45°	618.8	616.3	616.3	616.3	616.3
47.5°	532.4	530.0	530.0	530.0	530.0
50°	463.4	461.0	461.0	461.0	461.0
52.5°	406.8	404.3	404.3	404.3	401.8
55°	355.0	355.0	352.5	355.0	352.5
57.5°	308.2	308.2	308.2	308.2	308.2
60°	276.1	273.7	273.7	273.7	273.7
62.5°	246.5	246.5	246.5	246.5	246.5
65°	219.4	219.4	219.4	219.4	219.4
67.5°	192.3	189.8	192.3	192.3	189.8
70°	165.1	162.8	165.1	165.1	165.1
72.5°	138.0	138.0	138.0	140.5	138.0
75°	113.4	115.9	115.9	115.9	113.4
77.5°	91.3	93.6	91.3	91.3	91.3
80°	71.5	69.0	69.0	69.0	71.5
82.5°	49.3	49.3	49.3	49.3	49.3
85°	29.6	29.6	29.6	29.6	29.6
87.5°	12.4	12.4	12.4	12.4	12.4
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)