

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: P580573

Luminaire Tested: **HC440D010-HM43040830-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P580573  
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: HC440D010-HM43040830-41WDW  
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: 4050.2 lumens  
Efficiency: N/A  
Efficacy: 98.8 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

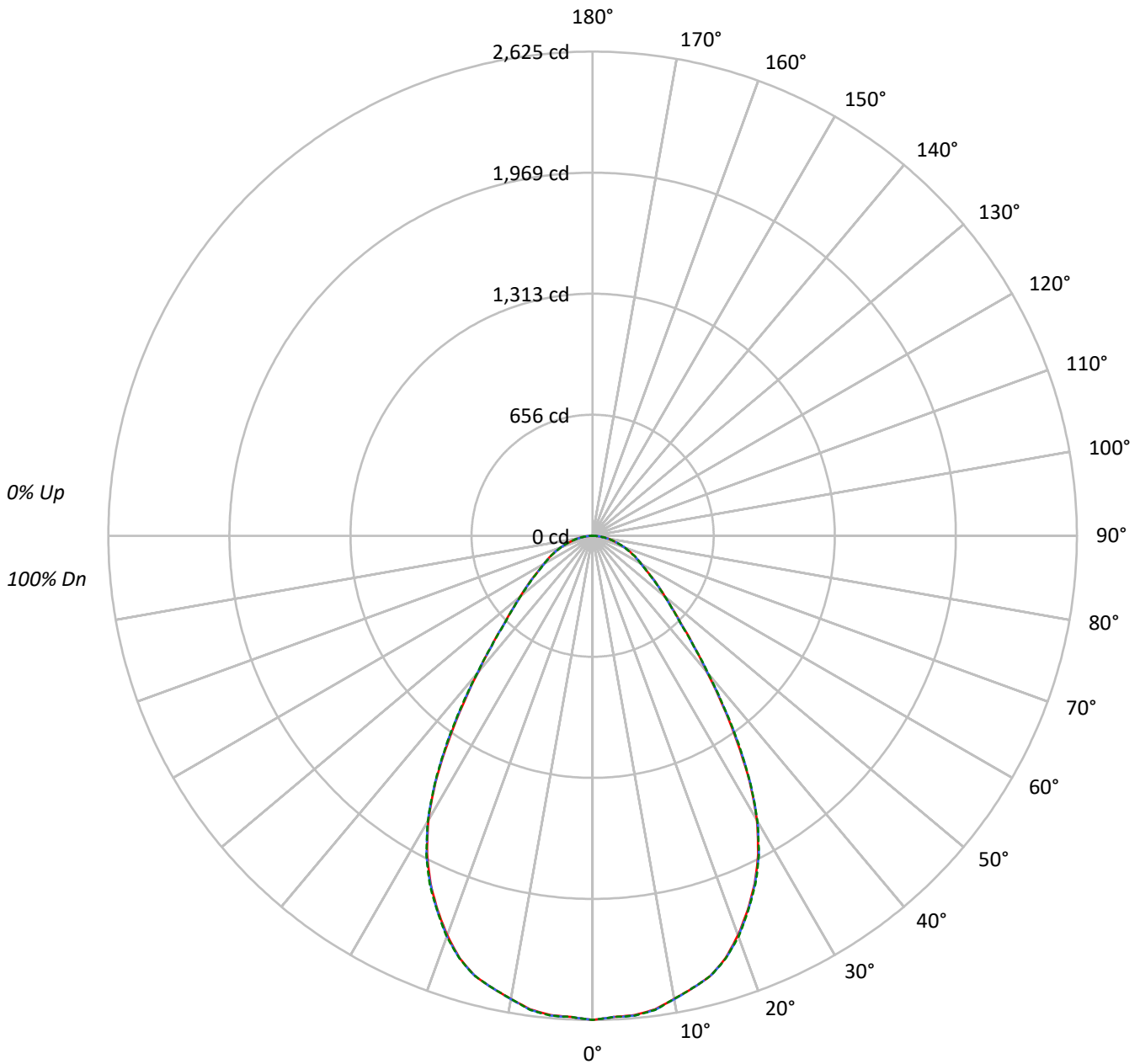
Input Watts (W): 41  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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			100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89			89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78			78
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69			69
4	90	80	72	67	87	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56			56
6	78	67	59	54	77	66	59	54	64	58	53	63	57	53	61	56	53	51			51
7	73	62	54	49	72	61	54	49	60	53	49	58	53	48	57	52	48	46			46
8	69	57	50	45	68	57	50	45	55	49	45	54	49	44	53	48	44	42			42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39			39
10	61	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36

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

	0°	45°	90°
0°	323782	323782	323782
5°	323013	323348	323348
10°	319246	319596	319246
15°	315424	315424	315424
20°	302479	303188	303543
25°	282932	283299	284034
30°	253506	254290	254290
35°	205809	207450	207872
40°	155332	156202	156637
45°	118984	118495	118495
50°	98018	97500	97500
55°	84148	83589	83589
60°	75093	74427	74427
65°	70572	70572	70572
70°	65672	65672	65672
75°	59571	60858	59571
80°	55973	54055	55973
85°	46137	46137	46137



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.3	6.1
10°-20°	692.1	17.1
20°-30°	951.1	23.5
30°-40°	855.2	21.1
40°-50°	540.3	13.3
50°-60°	352.8	8.7
60°-70°	239.0	5.9
70°-80°	134.5	3.3
80°-90°	37.8	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°	1890.5	46.7
0°-40°	2745.7	67.8
0°-60°	3638.8	89.8
0°-90°	4050.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4050.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2625	2625	2625	2625	2625	
5°	2609	2609	2612	2612	2612	247
15°	2470	2470	2470	2470	2470	692
25°	2079	2082	2082	2087	2087	949
35°	1367	1372	1378	1383	1380	851
45°	682	679	679	679	679	541
55°	391	391	389	391	389	354
65°	242	242	242	242	242	240
75°	125	128	128	128	125	134
85°	33	33	33	33	33	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2625.0	2625.0	2625.0	2625.0	2625.0
2.5°	2611.5	2611.5	2611.5	2611.5	2611.5
5°	2608.8	2608.8	2611.5	2611.5	2611.5
7.5°	2589.7	2592.4	2592.4	2592.4	2592.4
10°	2548.9	2548.9	2551.7	2551.7	2548.9
12.5°	2510.9	2510.9	2510.9	2513.6	2510.9
15°	2470.1	2470.1	2470.1	2470.1	2470.1
17.5°	2399.5	2402.2	2402.2	2402.2	2402.2
20°	2304.4	2309.8	2309.8	2312.5	2312.5
22.5°	2195.7	2198.4	2201.1	2203.9	2201.1
25°	2078.9	2081.6	2081.6	2087.0	2087.0
27.5°	1943.0	1945.7	1951.1	1951.1	1951.1
30°	1779.9	1782.6	1785.4	1785.4	1785.4
32.5°	1587.0	1587.0	1592.4	1595.2	1592.4
35°	1366.8	1372.3	1377.7	1383.2	1380.5
37.5°	1157.7	1163.0	1165.8	1165.8	1168.5
40°	964.7	970.1	970.1	975.6	972.8
42.5°	812.5	809.8	809.8	815.2	812.5
45°	682.1	679.3	679.3	679.3	679.3
47.5°	587.0	584.3	584.3	584.3	584.3
50°	510.8	508.1	508.1	508.1	508.1
52.5°	448.4	445.7	445.7	445.7	442.9
55°	391.3	391.3	388.7	391.3	388.7
57.5°	339.7	339.7	339.7	339.7	339.7
60°	304.4	301.7	301.7	301.7	301.7
62.5°	271.7	271.7	271.7	271.7	271.7
65°	241.8	241.8	241.8	241.8	241.8
67.5°	212.0	209.3	212.0	212.0	209.3
70°	182.1	179.4	182.1	182.1	182.1
72.5°	152.2	152.2	152.2	154.9	152.2
75°	125.0	127.7	127.7	127.7	125.0
77.5°	100.6	103.2	100.6	100.6	100.6
80°	78.8	76.1	76.1	76.1	78.8
82.5°	54.4	54.4	54.4	54.4	54.4
85°	32.6	32.6	32.6	32.6	32.6
87.5°	13.6	13.6	13.6	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)