

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: P581059

Luminaire Tested: **HC405D010-HM40525927-41WDW**

Issue Date: 9/9/2021

**Test Information**

Test Method: LM-41-14  
Report Number: P581059  
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: HC405D010-HM40525927-41WDW  
Description: HALO COMMERCIAL 4" ROUND, NEW CONSTRUCTION FRAME, WITH 4" WIDE DISTRIBUTION, WHITE TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 508.9 lumens  
Efficiency: N/A  
Efficacy: 84.8 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

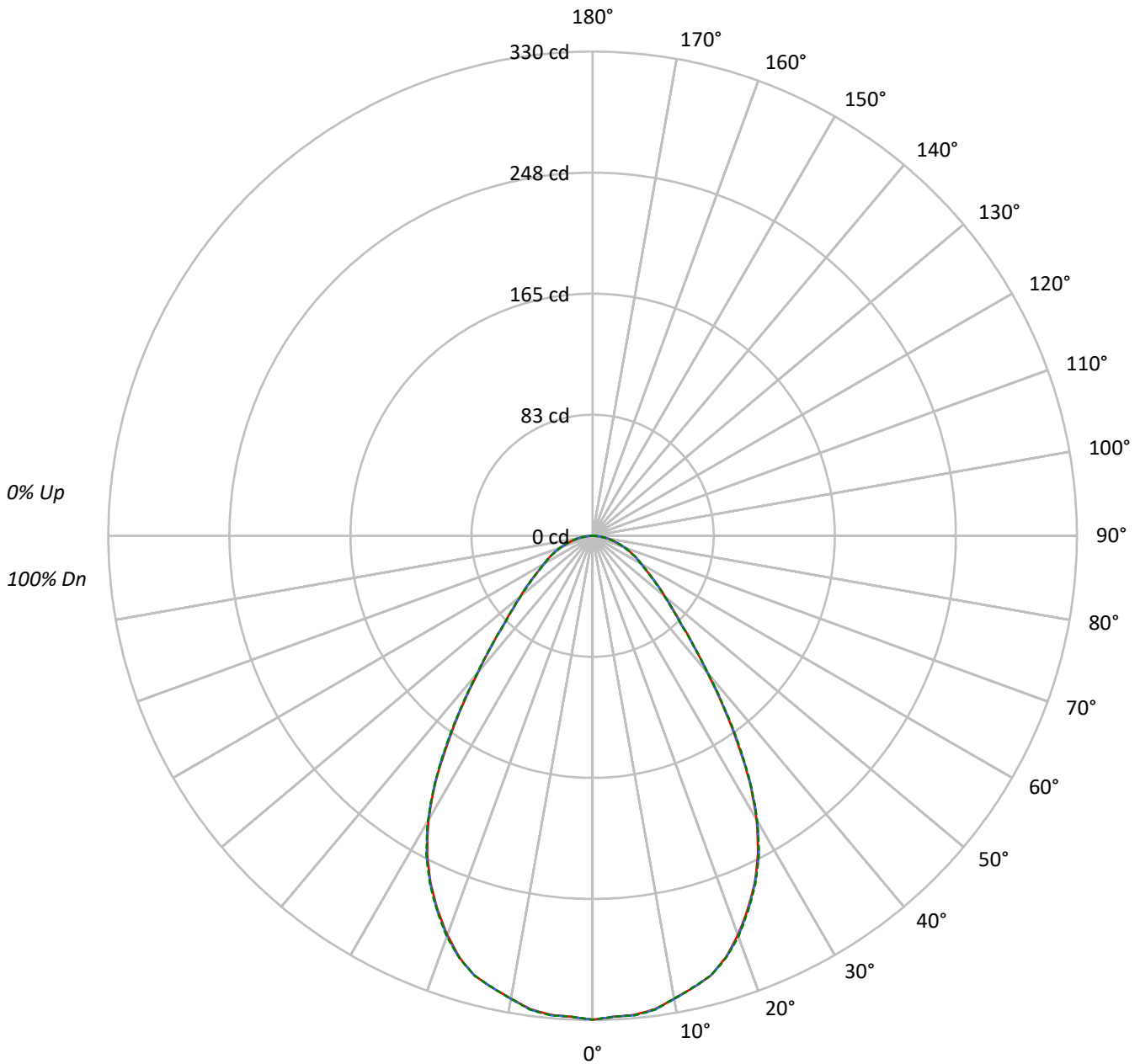
Input Watts (W): 6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	40679	40679	40679
5°	40587	40624	40624
10°	40117	40155	40117
15°	39637	39637	39637
20°	38000	38092	38145
25°	35548	35589	35685
30°	31847	31961	31961
35°	25854	26065	26110
40°	19515	19628	19676
45°	14949	14897	14897
50°	12319	12262	12262
55°	10559	10494	10494
60°	9424	9350	9350
65°	8873	8873	8873
70°	8259	8259	8259
75°	7482	7625	7482
80°	7032	6748	7032
85°	5802	5802	5802



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.1	6.1
10°-20°	87.0	17.1
20°-30°	119.5	23.5
30°-40°	107.5	21.1
40°-50°	67.9	13.3
50°-60°	44.3	8.7
60°-70°	30.1	5.9
70°-80°	16.9	3.3
80°-90°	4.7	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°	237.5	46.7
0°-40°	345.0	67.8
0°-60°	457.2	89.8
0°-90°	508.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	508.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	330	330	330	330	330	
5°	328	328	328	328	328	31
15°	310	310	310	310	310	87
25°	261	262	262	262	262	119
35°	172	172	173	174	173	107
45°	86	85	85	85	85	68
55°	49	49	49	49	49	44
65°	30	30	30	30	30	30
75°	16	16	16	16	16	17
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	329.8	329.8	329.8	329.8	329.8
2.5°	328.1	328.1	328.1	328.1	328.1
5°	327.8	327.8	328.1	328.1	328.1
7.5°	325.4	325.7	325.7	325.7	325.7
10°	320.3	320.3	320.6	320.6	320.3
12.5°	315.5	315.5	315.5	315.9	315.5
15°	310.4	310.4	310.4	310.4	310.4
17.5°	301.5	301.8	301.8	301.8	301.8
20°	289.5	290.2	290.2	290.6	290.6
22.5°	275.9	276.3	276.6	276.9	276.6
25°	261.2	261.5	261.5	262.2	262.2
27.5°	244.1	244.5	245.2	245.2	245.2
30°	223.6	224.0	224.4	224.4	224.4
32.5°	199.4	199.4	200.1	200.4	200.1
35°	171.7	172.4	173.1	173.8	173.4
37.5°	145.5	146.2	146.5	146.5	146.9
40°	121.2	121.9	121.9	122.6	122.2
42.5°	102.2	101.7	101.7	102.5	102.2
45°	85.7	85.4	85.4	85.4	85.4
47.5°	73.8	73.4	73.4	73.4	73.4
50°	64.2	63.9	63.9	63.9	63.9
52.5°	56.3	56.0	56.0	56.0	55.6
55°	49.1	49.1	48.8	49.1	48.8
57.5°	42.7	42.7	42.7	42.7	42.7
60°	38.2	37.9	37.9	37.9	37.9
62.5°	34.2	34.2	34.2	34.2	34.2
65°	30.4	30.4	30.4	30.4	30.4
67.5°	26.7	26.3	26.7	26.7	26.3
70°	22.9	22.6	22.9	22.9	22.9
72.5°	19.1	19.1	19.1	19.4	19.1
75°	15.7	16.0	16.0	16.0	15.7
77.5°	12.6	12.9	12.6	12.6	12.6
80°	9.9	9.5	9.5	9.5	9.9
82.5°	6.8	6.8	6.8	6.8	6.8
85°	4.1	4.1	4.1	4.1	4.1
87.5°	1.7	1.7	1.7	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)