

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: P581005

Luminaire Tested: **HC405D010-HM40525830-41WDW**

Issue Date: 9/9/2021

Test Information

Test Method: LM-41-14
Report Number: P581005
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-HM40525830-41WDW
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: 644.3 lumens
Efficiency: N/A
Efficacy: 107.4 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

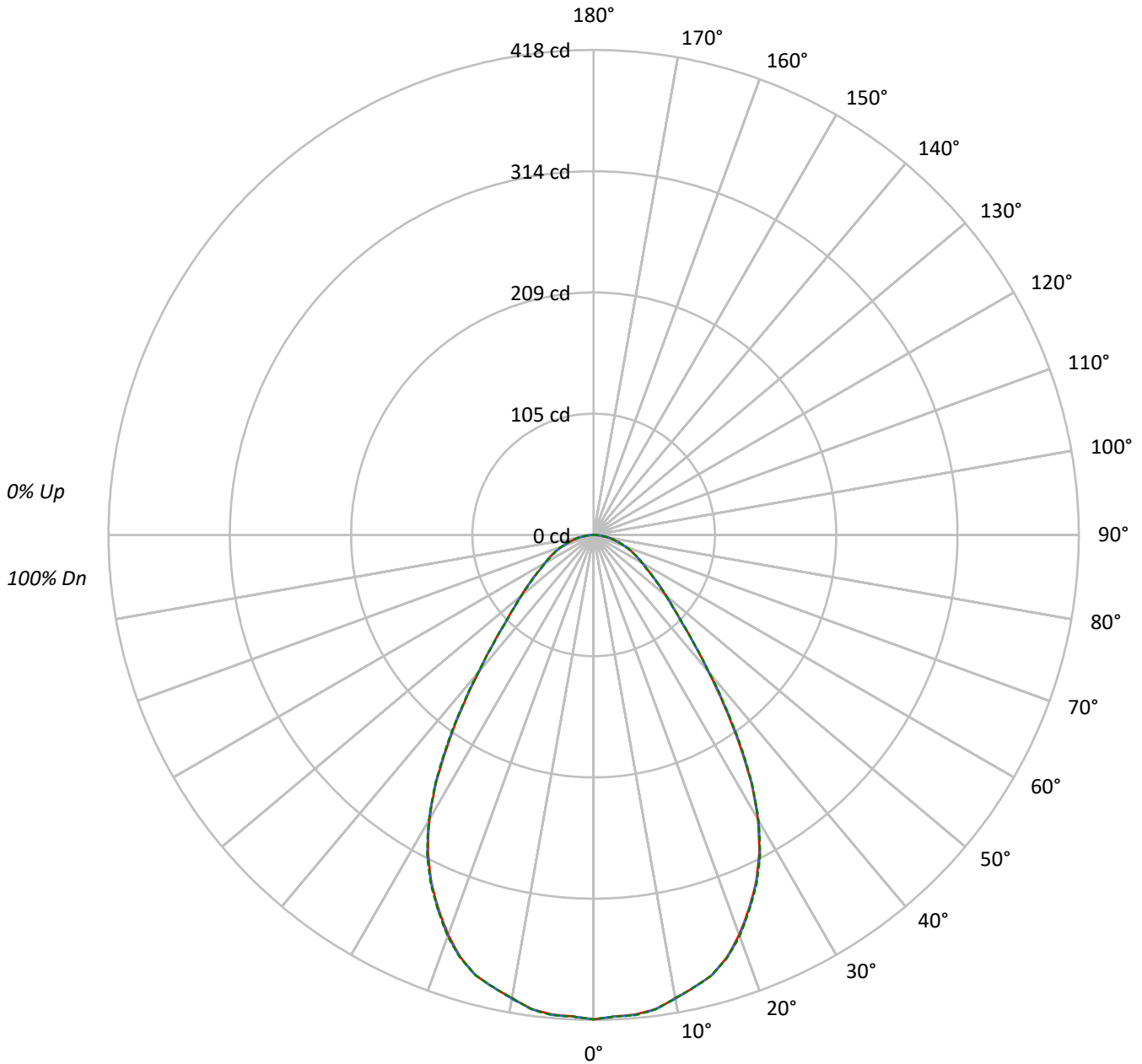
Input Watts (W): 6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	51509	51509	51509
5°	51384	51433	51433
10°	50776	50838	50776
15°	50172	50172	50172
20°	48121	48226	48291
25°	45007	45062	45184
30°	40335	40449	40449
35°	32751	33007	33067
40°	24716	24861	24909
45°	18926	18857	18857
50°	15601	15505	15505
55°	13376	13311	13311
60°	11965	11841	11841
65°	11237	11237	11237
70°	10422	10422	10422
75°	9484	9674	9484
80°	8879	8595	8879
85°	7359	7359	7359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.3	6.1
10°-20°	110.1	17.1
20°-30°	151.3	23.5
30°-40°	136.0	21.1
40°-50°	86.0	13.3
50°-60°	56.1	8.7
60°-70°	38.0	5.9
70°-80°	21.4	3.3
80°-90°	6.0	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°	300.7	46.7
0°-40°	436.8	67.8
0°-60°	578.9	89.8
0°-90°	644.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	644.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	415	415	415	415	415	39
15°	393	393	393	393	393	110
25°	331	331	331	332	332	151
35°	218	218	219	220	220	135
45°	108	108	108	108	108	86
55°	62	62	62	62	62	56
65°	38	38	38	38	38	38
75°	20	20	20	20	20	21
85°	5	5	5	5	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	417.6	417.6	417.6	417.6	417.6
2.5°	415.4	415.4	415.4	415.4	415.4
5°	415.0	415.0	415.4	415.4	415.4
7.5°	412.0	412.3	412.3	412.3	412.3
10°	405.4	405.4	405.9	405.9	405.4
12.5°	399.4	399.4	399.4	399.9	399.4
15°	392.9	392.9	392.9	392.9	392.9
17.5°	381.7	382.2	382.2	382.2	382.2
20°	366.6	367.4	367.4	367.9	367.9
22.5°	349.2	349.7	350.1	350.6	350.1
25°	330.7	331.1	331.1	332.0	332.0
27.5°	309.1	309.5	310.4	310.4	310.4
30°	283.2	283.5	284.0	284.0	284.0
32.5°	252.4	252.4	253.3	253.8	253.3
35°	217.5	218.3	219.2	220.1	219.6
37.5°	184.1	185.0	185.5	185.5	185.9
40°	153.5	154.4	154.4	155.2	154.7
42.5°	129.3	128.8	128.8	129.7	129.3
45°	108.5	108.1	108.1	108.1	108.1
47.5°	93.4	93.0	93.0	93.0	93.0
50°	81.3	80.8	80.8	80.8	80.8
52.5°	71.3	70.9	70.9	70.9	70.5
55°	62.2	62.2	61.9	62.2	61.9
57.5°	54.0	54.0	54.0	54.0	54.0
60°	48.5	48.0	48.0	48.0	48.0
62.5°	43.2	43.2	43.2	43.2	43.2
65°	38.5	38.5	38.5	38.5	38.5
67.5°	33.7	33.3	33.7	33.7	33.3
70°	28.9	28.5	28.9	28.9	28.9
72.5°	24.2	24.2	24.2	24.6	24.2
75°	19.9	20.3	20.3	20.3	19.9
77.5°	16.0	16.5	16.0	16.0	16.0
80°	12.5	12.1	12.1	12.1	12.5
82.5°	8.6	8.6	8.6	8.6	8.6
85°	5.2	5.2	5.2	5.2	5.2
87.5°	2.2	2.2	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0



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







(END OF REPORT)